

2022 Annual Groundwater Monitoring and Corrective Action Report

PLANT McMANUS Inactive Ash Pond 1 (AP-1)

Prepared for:

GEORGIA POWER COMPANY

Atlanta, Georgia



Georgia
Power

Prepared by:



Resolute Environmental & Water Resources Consulting, LLC

1003 Weatherstone Parkway, Suite 320

Woodstock, Georgia

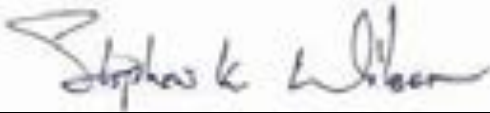
July 29, 2022

Georgia Power Company

2022 Annual Groundwater Monitoring and Corrective Action Report

Plant McManus
Inactive Ash Pond 1 (AP-1)

July 29, 2022



Stephen K. Wilson, P.G.
Principal



Trenton M. Godwin, P.G.
Senior Project Manager

CERTIFICATION STATEMENT

This 2022 Annual Groundwater Monitoring and Corrective Action Report (Georgia Power Company - Plant Hoffman - Hunter Ash Ponds) (GAR) has been prepared in compliance with the United States Environmental Protection Agency (EPA) (40 Code of Federal Regulations (CFR) 261 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management (39 CFR 34-16) by a qualified groundwater scientist or engineer with Resolute Environmental & Water Resources Consulting LLC (Resolute) hereby certifying that I am a qualified groundwater scientist in accordance with the Georgia Rules of Solid Waste Management (see 40 CFR Part 268.44(g)).

RESOLUTE ENVIRONMENTAL & WATER RESOURCES CONSULTING, LLC

Signature:


Morris L. Maslin, P.E.


Date:

Mar 20, 2022

SUMMARY

This summary of the 2022 Annual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program from August 2021 through July 2022 (the annual reporting period) at Georgia Power Company's (Georgia Power's) Former Ash Pond (AP) AP-1 at Plant McManus (the Site). This summary was prepared by Resolute Environmental and Water Resources Consulting, LLC. (Resolute) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste 391-3-4-.10, and by reference, Part A, Section 6¹ of the U.S. Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D)

Plant McManus is located at 1 Crispin Island Dr. in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property. The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite, permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to the Georgia Environmental Protection Division (GA EPD) on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit for the Plant McManus Ash Pond was issued by GA EPD Friday June 18th, 2021 (063-030D (CCR)).



Former Ash Pond (AP-1) and the Site.

Groundwater at the Site is monitored using a comprehensive monitoring network that meets federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between August 2016 and May 2018. Based on groundwater conditions at the Site, an assessment monitoring program and assessment of corrective measures were established in August 2019 and July 2020, respectively. An *Assessment of Corrective Measures Report* was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020. During the annual reporting period, the Site remained in assessment monitoring as corrective measures were evaluated.

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

During the annual reporting period, Resolute conducted the semiannual groundwater and surface water sampling events in September 2021 and March 2022. A supplementary surface water sampling event was conducted in December 2021. Samples were submitted to Pace Analytical Services, LLC (Pace), for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III² and Appendix IV³ parameters in wells provided in the table below.

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

Appendix III Parameter	September 2021	March 2022
Boron	MCM-07, MCM-12, and MCM-17	MCM-06 and MCM-17
Calcium	MCM-06, MCM-07, and MCM-17	MCM-07 and MCM-14
pH	MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17	MCM-05, MCM-06, MCM-07, MCM-12, and MCM-14
Appendix IV Parameter ⁴	September 2021	March 2022
Arsenic	<i>Federal and State:</i> MCM-06	MCM-06
Lithium	<i>Federal and State:</i> DPZ-02 and MCM-06 <i>State Only:</i> MCM-14	MCM-06 and DPZ-02

Based on review of the Appendix III and Appendix IV statistical results, the Site will continue in assessment monitoring. Alternate source demonstrations (ASD) were submitted for wells MCM-06, MCM-14, and DPZ-02 on November 17, 2020, October 25, 2021, and April 29, 2022, respectively. Conditional concurrence was provided by GA EPD for MCM-06 and DPZ-02 on April

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

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

⁴ A state statistically significant level (SSL)-related constituent was determined for the September 2021 data by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, or the calculated background interwell tolerance limit. A federal SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the CCR rule specified level (RSL), if no MCL is available, or the calculated background interwell tolerance limit. On February 22, 2022, the GA EPD adopted the federal GWPS for App IV constituents that do not have an MCL and the March 2022 event was updated to reflect these changes.

22, 2021, and June 17, 2022, respectively. Georgia Power will continue routine groundwater monitoring, reporting, and groundwater remedy evaluation at the Site. Reports will be posted to the website and provided to GA EPD semiannually.

TABLE OF CONTENTS

1.0	INTRODUCTION	6
1.1	SITE LOCATION AND DESCRIPTION	6
1.1.1	Regional Geology	7
1.1.2	Site Geology and Hydrogeology.....	7
1.2	GROUNDWATER MONITORING SYSTEM.....	9
2.0	GROUNDWATER AND SURFACE WATER MONITORING ACTIVITIES	9
2.1	MONITORING WELL INSTALLATION, MAINTENANCE, AND ABANDONMENTS.....	9
2.2	ASSESSMENT MONITORING	10
2.3	ADDITIONAL SAMPLING EVENTS.....	10
2.3.1	Surface Water Sampling	10
3.0	SAMPLE METHODOLOGY & ANALYSES	11
3.1	GROUNDWATER ELEVATION MEASUREMENT	11
3.2	GROUNDWATER GRADIENT AND HORIZONTAL FLOW VELOCITY	11
3.3	GROUNDWATER SAMPLING.....	12
3.4	LABORATORY ANALYSES	13
3.5	QUALITY ASSURANCE AND QUALITY CONTROL	13
4.0	STATISTICAL ANALYSIS	14
4.1	METHODS.....	14
4.1.1	Appendix III Constituents.....	14
4.1.2	Appendix IV Constituents.....	15
4.2	STATISTICAL ANALYSES RESULTS.....	15
5.0	NATURE AND EXTENT	16
5.1	ALTERNATE SOURCE DEMONSTRATION.....	16
6.0	MONITORING PROGRAM STATUS	17
6.1	ASSESSMENT MONITORING STATUS	17
6.2	ASSESSMENT OF CORRECTIVE MEASURES.....	17
7.0	CONCLUSIONS & FUTURE ACTIONS	17
8.0	REFERENCES	19

TABLES

Table 1	Summary of Groundwater Elevations
Table 2	Monitoring Well Network Summary
Table 3	Piezometer Network Summary
Table 4	Groundwater Sampling Event Summary
Table 5	2022 Horizontal Groundwater Flow Velocity Calculations
Table 6	Groundwater Data Summary
Table 7	Surface Water Analytical Results
Table 8	Federal Groundwater Protection Standards September 2021
Table 9	Georgia EPD Groundwater Protection Standards September 2021
Table 10	Federal and Georgia EPD Groundwater Protection Standards July 2022

FIGURES

Figure 1	Site Location Map
Figure 2	Potentiometric Surface Map – Low Tide September 13, 2021
Figure 3	Potentiometric Surface Map – High Tide September 13, 2021
Figure 4	Potentiometric Surface Map – Low Tide February 28, 2022
Figure 5	Potentiometric Surface Map – High Tide March 1, 2022
Figure 6	Monitoring Well Location Map
Figure 7	Piezometer Location Map
Figure 8	Surface Water Sample Locations Transects 1-3
Figure 9	Surface Water Sample Locations Transects 4

APPENDICES

Appendix A	Monitoring Well Maintenance and Repair Documentation
Appendix B	Laboratory Analytical, Data Validation and Field Sampling Reports
Appendix C	Surface Water Laboratory Analytical Results and Field Sampling Reports
Appendix D	Statistical Analyses
Appendix E	Lithium Alternate Source Demonstration Reports
Appendix F	Semiannual Remedy Selection and Design Progress Report

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, this *2022 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power's) Plant McManus Inactive Ash Pond AP-1 (the Site) and satisfy the requirements of § 257.90(e). To specify groundwater monitoring requirements, Georgia EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015). For ease of reference, the USEPA CCR rules are cited within this report.

Groundwater monitoring and reporting for the former AP-1 is performed in accordance with the monitoring requirements of 40 CFR 257.90 through 257.95 of the USEPA CCR rule, and Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6).

The former AP-1 ceased receiving waste prior to the effective date of the USEPA CCR rule promulgated in April 2015. A notification of intent to initiate closure of the inactive CCR ash pond was certified on December 7, 2015 and posted to Georgia Power's website. Therefore, groundwater monitoring and reporting for the former AP-1 are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016).

This report documents annual monitoring activities completed from July 2021 through June 2022 (the reporting period) and includes the required report components in accordance with 40 CFR 257.90(e).

1.1 SITE LOCATION AND DESCRIPTION

The Site is located at 1 Crispin Island Dr. in Glynn County, Georgia, approximately 5.37 miles northwest of the city of Brunswick. The plant property is bordered by the Turtle River to the west and by Burnett Creek to the north. The former AP-1 is located on the northeastern portion of the plant property (Figure 1).

The former AP-1 was an approximately 80-acre ash pond that was built in the late 1950's. Ash sluicing operations at AP-1 commenced in 1959 and ceased in 1972. Closure of AP-1 commenced in 2016. As part of closure, AP-1 was dewatered sufficiently to remove the free liquids, and ash was removed and disposed of in an offsite, permitted landfill. A certification of removal report demonstrating completion of removal activities was submitted to GA EPD on November 27, 2019. Based on review of the report and an inspection of AP-1 on December 13, 2019, GA EPD acknowledged the completion of CCR removal on January 10, 2020. The final CCR Permit (No. 063-030D(CCR)) for the Plant McManus Ash Pond was issued by GA EPD on June 18, 2021.

1.1.1 Regional Geology

The aquifer systems in Brunswick, Glynn County, GA are: (1) the surficial aquifer, (2) the Brunswick aquifer (Upper and Lower) and (3) the Floridan aquifer system (Upper and Lower). The Floridan aquifer system can extend to depths beyond 2,000 feet or more (Clark et al. 1990, Maslia and Prowell, 1990; Jones et al. 2002). The uppermost regional aquifer is the surficial aquifer. In the Brunswick area, this aquifer extends to a depth of approximately 180 feet. Although the surficial aquifer is defined on a regional scale as extending to approximately 180 feet below ground surface, Clarke et al. (1990) acknowledge that localized lower permeability units can create confined or semi-confined conditions within limited areas of the surficial aquifer (ATC Associates Inc., 1997).

Regionally, the surficial aquifer is composed of geologic formations overlying the Hawthorn Formation. These formations include the Satilla, Charlton, and Raysor Formations, as well as undifferentiated Holocene, Pleistocene, Pliocene and late-Miocene deposits. In the Brunswick area, the Satilla is described as extending to approximately 28 feet below ground surface and the Cypresshead to approximately 50 feet below ground surface. Underlying the Satilla and Cypresshead Formations are sands, gravels, and clays which have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation. These alternating units of the Ebenezer Formation are described as an uppermost confining unit extending from approximately 50 to 75 feet below ground surface, followed by a water-bearing zone from approximately 75 to 110 feet below ground surface, another confining unit from approximately 110 to 150 feet below ground surface, and then another water-bearing zone from approximately 150 to 185 feet below ground surface. Depositionally, these sediments represent marginal to shallow marine beds, that are overlain by marine terrace deposits. Fluvial or residual deposits overlay the terrace deposits (Miller, 1986; Clarke et al, 1990).

The regional surficial aquifer is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system. The Brunswick aquifer system is composed of two confined aquifers (the Upper Brunswick aquifer and the Lower Brunswick aquifer) which are separated and confined above and below by less permeable units of the Hawthorn Formation. The Upper Brunswick aquifer extends from approximately 270 feet to 350 feet below ground surface, and the Lower Brunswick aquifer extends from approximately 400 feet to 470 feet below ground surface (Clarke et al, 1990).

1.1.2 Site Geology and Hydrogeology

Based on information collected during subsurface investigations, Plant McManus is underlain by very fine sands and clays from land surface (or beneath a shallow fill layer) to depths ranging from 33 to 43 feet below land surface. Very fine sands are predominant, but discontinuous clay layers of varying thickness were encountered during drilling activities. The clay layers varied from less than one inch to approximately ten feet in thickness. These very fine sands and discontinuous clay layers are interpreted to be the Upper Satilla Formation (ATC Associates, Inc., 1997).

Underlying the Upper Satilla Formation are fine to medium sands with greater silt content, and apparently lower permeability, than the sands of the Upper Satilla. These siltier sands, which were interpreted to be the Lower Satilla Formation, were encountered at depths greater than 35 feet below ground surface during the Site investigation performed in the 1990s (ATC Associates Inc., 1997). These sands may also correspond to the Cypresshead Formation of Huddleston (1988). Sands and clays below the Cypresshead and above the confining unit of the Brunswick aquifer system have been described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones of the Ebenezer Formation, extending from approximately 50 to 185 feet below ground surface in the Brunswick area.

The regional surficial aquifer that contains the Upper and Lower Satilla Formations is underlain by approximately 90 feet of lower-permeability portions (Miocene Unit A) of the Hawthorn Formation. This stratum forms the upper confining bed for the Brunswick aquifer system.

The surficial aquifer underlying the mainland, marsh, and island is composed of the very fine to fine grain sand with discontinuous clay layers of the Upper and Lower Satilla Formation. In the marsh, the groundwater elevation at low tide is below the top of the marsh surface. The upper portion of the aquifer in the marsh has been cut by tidal creeks, which meander through the marsh. In addition to current and historically recent (pre-ash pond construction) tidal channels, the marsh is also likely to have paleo (pre-historic) tidal channels present throughout the upper portion of the aquifer in the marsh area, which may provide zones of higher hydraulic conductivity or isolated pockets of groundwater. Vertically, the Satilla formation fines downward to a silty fine sand of the Lower Satilla Formation. The aquifer is generally unconfined, with localized clay layers. Groundwater flowing within the surficial aquifer is separated from deeper aquifers by approximately 90 feet of lower-permeability portions of the Hawthorn Formation (Miocene Unit A) that form the upper confining bed for the Brunswick aquifer system (Clarke et al, 1990).

Groundwater flows from two directions toward the former AP-1. One groundwater flow component originates on the mainland, northeast of the facility, and flows southwest, while the other flow component originates on Crispen Island and flows north and northeast (Figures 2, 3, 4 and 5). Groundwater elevations in the monitoring wells on the mainland (MCM-02, -15, and -16) and on the island (MCM-08, and -11) have consistently exhibited higher groundwater elevations than the monitoring wells and piezometers installed along the dikes (Table 1), with MCM-01 and -04 exhibiting intermediate elevations between the mainland and dike wells. The potentiometric surface of the surficial aquifer and the resultant groundwater flow direction in the vicinity of the former AP-1 is a reflection of the topography of the mainland, Crispen Island, and the tidal marsh surrounding the area.

1.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91, Georgia Power installed a groundwater monitoring system within the uppermost aquifer around former AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the former AP-1 within the uppermost aquifer. Wells were located to serve as piezometers, upgradient monitoring points, side-gradient monitoring points, or downgradient monitoring points based on groundwater flow direction (Tables 2 and 3, Figures 6 and 7). As part of the assessment monitoring program, deep piezometer DPZ-02 was reclassified as a delineation well during the 2020 semiannual monitoring period. Pursuant to § 257.195(g)(1)(iv), the well, classified as “delineation well”, is sampled in addition to the compliance monitoring wells as part of the ongoing assessment groundwater monitoring program.

2.0 GROUNDWATER AND SURFACE WATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the reporting period and discusses any change in status of the monitoring program.

2.1 MONITORING WELL INSTALLATION, MAINTENANCE, AND ABANDONMENTS

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In September 2021, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Appendix A. This documentation will serve as the required five year well inspection and was performed under the direction of a professional geologist or engineer registered in the State of Georgia. In summary, monitoring activities for this reporting period included:

- Visual inspection of well conditions prior to sampling, recording Site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions; and,
- New signs were added to the following groundwater wells and piezometers in September 2021: MCM-18, MCM-19, MCM-20, DPZ-01, DPZ-02, DPZ-03, DPZ-04, DPZ-05, DPZ-06, PZ-09, and PZ-10.
- Groundwater wells MCM-06 and DPZ-02 were redeveloped on June 14, 2022.
- On June 27, 2022 an AquaTROLL 200 transducer was removed from MCM-13 and installed in DPZ-02 and,
- A Level TROLL 500 transducer was removed from DPZ-02 and installed in MCM-13.
- On June 28, 2022 a new pad was installed around the existing pad of MW-4 to ensure ground contact and reduce future erosion.

The well maintenance and repair documentation from September 2021 through July 2022 are presented in Appendix A.

2.2 ASSESSMENT MONITORING

Based on results of the August 2019 *Annual Groundwater and Corrective Action Monitoring Report*, assessment monitoring was initiated at the Site. Statistical analyses of the 2019 groundwater data identified SSLs of arsenic and lithium in well MCM-06 in excess of the federal and state groundwater protection standard (GWPS).

Pursuant to § 257.96, an Assessment of Corrective Measures Report (ACM) was initiated for the former AP-1 in July 9, 2020 for isolated arsenic and lithium concentrations observed in groundwater. An *Assessment of Corrective Measures Report (ACM Report)* was subsequently prepared for the former AP-1 (Arcadis, 2020b) and submitted to GA EPD in December 2020 and posted to the CCR compliance website in January 2021. In accordance with § 257.96(b), groundwater continues to be monitored at the former AP-1 under the assessment monitoring program while the ACM phase is implemented.

Pursuant to § 257.95(b), the monitoring wells of the certified compliance monitoring network were sampled for the complete list of Appendix III and Appendix IV parameters (Table 4) in the monitoring event conducted in September 2021 and March 2022. Details of these events and analytical results are discussed in Section 3, with the field sampling and calibration reports and laboratory analytical reports presented in Appendix B. The statistical results are discussed in Section 4.

2.3 ADDITIONAL SAMPLING EVENTS

No additional groundwater sampling events occurred from July 2021 through June 2022. Four surface water sampling events occurred during the annual reporting period. Two of the surface water events coincided with the September 2021 and March 2022 groundwater sampling events with two surface water events occurring separately in December 2021 and June 2022. Surface water sampling is planned to continue on a minimum of a semiannual basis through the 2023 annual reporting period.

2.3.1 Surface Water Sampling

To assess horizontal delineation of arsenic, Georgia Power has proactively completed additional sampling to assess concentrations of arsenic in surface water in the tidal salt marsh since February 2020. In September 2021, Georgia Power collected surface water samples along four transects (T1 through T4) in the tidal marsh adjacent to wells MCM-07, MCM-06, MCM-05, and MCM-14, respectively. In September 2021, samples were collected during both high (HT, HTS, HS, HB) and low tides (L, LT) at all transects (T1 through T4)(Figures 8, 9, and 10). Additional surface water sampling was conducted in December 2021 and June 2022 to supplement existing surface water data collected through previous assessment events. In December 2021, samples were collected at high tide from transect T2 (adjacent to well MCM-06), high tide from transect T4 (adjacent to well MCM-14), and high and low tides from the 4th location in each of the transects (i.e., T1-4, T2-4, T3-4, and T4-4)(Figures 11 and 12). After discussion with GA EPD in February

2022, the March 2022 surface water samples were collected at high tide transects T1 through T4 and at low tide from the fourth location in each of the transects (i.e., T1-4, T2-4, T3-4, T4-4) due to the inaccessibility of low-tide sample locations and general correlation of sample results during high and low tide (Figures 13 and 14). In June 2022, samples were collected at high tide from transect T2, and high tide from transect T4. In the September 2021, December 2021, March 2022, and June 2022 events, samples were also collected from two background locations. One background surface water location sampled was the low tide background location, BG-1LT, in Cowpen Creek, north of its confluence with Burnett Creek. The other surface water sample was collected at high tide from background location 2, or BG-2HT, located in the Turtle River, north of its confluence with Gibson Creek. During the June 2022 event, an additional high tide background sample was collected at background location 1 (BG-1HT). Surface water samples are collected in accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD), Operating Procedure, Surface Water Sampling SESDPROC-201-R4 (December 16, 2016).

The laboratory reports associated with the surface water sampling events with the exception of June 2022 are provided in Appendix C. The results for the June 2022 sampling event will be reported in the *2023 Semiannual Groundwater Monitoring and Corrective Action Report for Georgia Power's Plant McManus Inactive Ash Pond AP-1*. Georgia Power will continue collecting the surface water samples semiannually to support assessment of corrective measures.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater and surface water monitoring, as well as the sampling results that were obtained from sampling events at the former AP-1 during the reporting period.

3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater levels were recorded from piezometers and wells in the network at the former AP-1. Groundwater measurements were taken from transducers installed in 16 wells (MCM-01, -02, -04 through -07, -11, -12, -14 through -20, and DPZ-02) and 8 piezometers (MCM-03, -08, -13, DPZ-01, and DPZ-03 through -06). When other piezometers in the network are utilized for potentiometric surface maps, they are gauged by hand using a Heron water level indicator. Groundwater elevations calculated during the September 2021 and March 2022 monitoring events are summarized in Table 1. Groundwater elevation data was used to develop a high tide and low tide potentiometric surface elevation contour map for each event (Figures 2, 3, 4 and 5). Groundwater flow at the Site is discussed in Section 1.1.

3.2 GROUNDWATER GRADIENT AND HORIZONTAL FLOW VELOCITY

The horizontal groundwater flow velocity at the former AP-1 was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

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

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

η_e = Effective porosity

Horizontal groundwater flow velocities were calculated for two well pairs at high and low tide using groundwater elevations collected from transducer measurements on September 13, 2021. During the March 2022 event, groundwater elevations were calculated from manual water-level measurements collected on February 28, 2022, and March 1, 2022, for low tide and high tide, respectively. Manual water level measurements were used during the March 2022 event because water levels were measured in additional wells that do not contain transducers. Groundwater flow velocities representing groundwater flowing from the mainland to former AP-1 (between MCM-16 and MCM-02) and from the island to former AP-1 (between MCM-11 and MCM-12) are presented in (Table 5).

Groundwater flow between MCM-16 and MCM-02 was 0.0398 feet per day (ft/day) at low tide and 0.0424 ft/ day at high tide in September 2021, while groundwater flow for MCM-11 and MCM-12 was 0.0396 ft/ day at low tide and 0.0400 ft/day at high tide. In the March 2022 event, groundwater flow between MCM-16 and MCM-02 was 0.0051 ft/day for low tide and 0.0039 ft/day during high tide. Groundwater flow between MCM-11 and MCM-12 was 0.0239 ft/day during low tide and 0.0229 ft/day during high tide in March 2021. The groundwater direction during high tide was from the marsh to former AP-1 and at low tide from former AP-1 to the marsh. Average groundwater flow velocities were 0.041 ft/day or 15.05 feet per year (ft/year) at high tide and 0.040 ft/day or 14.50 ft/yr at low tide in September 2021. In March 2022, average groundwater velocities were 0.015 ft/day or 5.31 ft/yr during low tide and 0.013 ft/day or 4.88 ft/yr during high tide.

3.3 GROUNDWATER SAMPLING

Groundwater samples were collected from the compliance well network and select piezometers using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using a peristaltic pump with the intake tubing lowered to the midpoint of the well screen (or as appropriate determined by the water level). QED dedicated pumps are utilized in monitoring wells MCM-01, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-15, MCM-16, and MCM-17. Non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (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 (or similar) 1970-USEPA and ISO Compliant Model turbidity meter.

Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- $\pm 5\%$ for specific conductance
- ± 0.2 milligrams per liter (mg/L) or $\pm 10\%$, whichever is greater for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only
- Turbidity measurements less than or equal to 5 nephelometric turbidity units (NTU) or measurements between 5 to 10 NTUs following three hours of purging.

Once stabilization was achieved, unfiltered samples were collected in appropriately preserved laboratory-supplied containers, placed in ice-packed coolers. No filtered samples were collected during this reporting period.

Upon completion of the sampling events, samples were submitted to Pace following chain-of-custody protocol. The field sampling forms generated during the assessment monitoring events conducted during this reporting period are included in Appendix B.

3.4 LABORATORY ANALYSES

Laboratory analyses were performed by Pace, which is accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all Appendix III and Appendix IV constituents analyzed for this project.

The groundwater analytical results from the semiannual assessment monitoring events conducted in September 2021 and March 2022 are summarized in Table 6, and the laboratory analytical reports are provided in Appendix B. The surface water results for the September 2021, December 2021, and March 2022 events are summarized in Table 7, and the laboratory analytical reports are provided in Appendix C. The pH field measurements recorded during the sampling events are also provided in Table 6.

3.5 QUALITY ASSURANCE AND QUALITY CONTROL

During each sampling event, quality assurance/quality control samples (QA/QC) were collected. QA/QC samples included field blanks (FBL) taken daily, field equipment rinsate blanks (EQBL) taken when nondedicated sampling equipment was utilized, and one duplicate (DUP) sample taken per every 10 groundwater samples. QA/QC sample data were evaluated during data validation (as described below) and are included in Appendix B.

Groundwater quality data for the assessment events were independently validated by Environmental Standards in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Based on the data validation, the data collected during September 2021 and March 2022 are acceptable for use in determining the compliance status of the Site. The associated data validation results are provided in Appendix B with the laboratory reports.

4.0 STATISTICAL ANALYSIS

Statistical analysis of the reporting period groundwater monitoring data was performed by Groundwater Stats Consulting, LLC (GSC), following the appropriate certified statistical methodology for the Site. The reports generated from the statistical analyses are provided in Appendix D (GSC, 2022a and GSC, 2022b). A summary of methods and results are provided in the following sections.

4.1 METHODS

The statistical method used at the Site was developed by GSC using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, US EPA 530/ R-09-007 (US EPA, 2009). To develop the statistical methods, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III parameter and metals required by the existing GA EPD permit. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

Appendix III statistical analysis was performed to determine if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established state and federal GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in statistical analysis package provided in Appendix D and summarized in Sections 4.1.1 and 4.1.2.

4.1.1 Appendix III Constituents

The statistical test used to evaluate the groundwater monitoring data was the interwell prediction limit (PL) method for Appendix III constituents (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids [TDS]) combined with the option of a 1-of-2 verification resampling strategy. Interwell prediction limits, constructed from all available pooled upgradient well data were used to

evaluate the most recent compliance sample from each downgradient well reported during the September 2021 and March 2022 sample events.

If data from a sampling event initially exceed the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSL is determined. When the resample result does not verify the initial result, there is no SSL. If resampling is not performed, the initial exceedance is a confirmed exceedance.

4.1.2 Appendix IV Constituents

Background limits were used when determining the Appendix IV GWPS under USEPA rule 40 CFR § 257.95(h) and GA EPD CCR Rule 391-3-4-.10(6)(a). Parametric tolerance limits were used to calculate background limits from pooled upgradient well data when data followed a normal or transformed-normal distribution for Appendix IV parameters with a target of 95% confidence and 95% coverage. When data contained greater than 50% non-detects or when the data distribution did not follow a normal or transformed-normal distribution, a nonparametric tolerance limit was used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in 40 CFR § 257.95(h)(1-3), the GWPS is 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 40 CFR §141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Therefore, the statistical analysis of the March 2022 data used the updated GWPS, while the statistical analysis of the September 2021 data used the prior GA EPD CCR Rule GWPS:

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

Following the above federal and state rule requirements, GWPS were established for statistical comparison of Appendix IV constituents and are presented in Tables 8, 9, and 10.

4.2 STATISTICAL ANALYSES RESULTS

Based on review of the full Appendix III statistical analysis discussion presented in Appendix D, groundwater conditions have not returned to background and assessment monitoring should continue. Review of the Sanitas results indicates that using the GWPS established according to both 40 CFR §257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified during the current reporting period:

September 2021 Assessment Monitoring Event

AP-1 (Federal CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06 and DPZ-02

AP-1 (GA EPD CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06, DPZ-02, and MCM-14

March 2022 Assessment Monitoring Event

AP-1 (Federal and GA EPD CCR Rule):

- Arsenic: MCM-06
- Lithium: MCM-06 and DPZ-02

A groundwater exceedance notification has been placed in the operating record pursuant to 40 CFR § 257.95(g). The lithium SSL in MCM-06 in excess of the state and federal GWPS was previously addressed with an ASD which was submitted to GA EPD on November 17, 2020, and approved on April 22, 2021. The lithium SSL in MCM-14 in excess of the former state GWPS was previously addressed in a separate 2021 ASD, submitted to GA EPD on October 25, 2021. The lithium SSL in DPZ-02 in excess of the federal GWPS was addressed in an ASD addendum submitted on April 29, 2022 (Appendix E).

5.0 NATURE AND EXTENT

The SSL identified for arsenic at MCM-06 is vertically delineated to below the state and federal GWPS by delineation well DPZ-02.

As described in Section 2.3.1, to assess horizontal delineation of arsenic, Georgia Power proactively collected surface water samples from along four transects in the tidal marsh adjacent to wells MCM-05, MCM-06, MCM-07, and MCM-14 of former AP-1. Arsenic was not detected above the Georgia instream water quality standard for dissolved arsenic for marine estuary environments (0.036 mg/L) and laboratory reporting limits of 0.015 to 0.050 mg/L (depending on sample date and location, with the higher detection limits due to high ionic strength surface water) in surface water samples collected to date (Table 7); therefore, no impacts to surface water have been detected and horizontal delineation is complete.

5.1 ALTERNATE SOURCE DEMONSTRATION

Pursuant to regulations in § 257.95(g)(3)(ii), Arcadis U.S., Inc. (Arcadis) prepared an ASD for the SSLs of lithium reported for wells MCM-06 (Arcadis, 2020a), MCM-14 (Arcadis, 2021) and DPZ-02 (Arcadis, 2022). The ASDs present multiple lines of evidence that indicate that the lithium

observed at former AP-1 is due to a natural source – i.e., the influx of brackish surface water. Lithium is a naturally occurring element in seawater and is present in the brackish water that is a mix of seawater and freshwater surrounding the site. GA EPD approved the ASD for lithium at monitoring well MCM-06 on April 22, 2021 and DPZ-02 on June 17, 2022. The approval was conditional on the ASD for MCM-06 being updated after 2-years with additional monitoring data and for DPZ-02 being continually supported with future monitoring data. The ASDs and conditional approval from this reporting period are provided in Appendix E of this report for reference.

6.0 MONITORING PROGRAM STATUS

6.1 ASSESSMENT MONITORING STATUS

Pursuant to 40 CFR 257.96(b), Georgia Power will continue to monitor the groundwater at the former AP-1 in accordance with the assessment monitoring program regulations of 40 CFR 257.95 as corrective measures to address arsenic in MCM-06 are evaluated. Pursuant to § 257.95(g)(1)(iv), the delineation wells will continue to be sampled as part of the ongoing semiannual assessment groundwater monitoring program.

6.2 ASSESSMENT OF CORRECTIVE MEASURES

An ACM report was submitted to GA EPD on December 4, 2020. The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in the *Semiannual Remedy Selection and Design Progress Report* provided in Appendix F. The Semiannual Progress Report summarizes:

- (i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Arcadis, 2020b);
- (ii) the analytical data obtained during the supplemental ACM-specific field investigations;
- (iii) the status of evaluating applicable corrective measures; and
- (iv) the planned activities and anticipated schedule for the following semiannual reporting period.

Georgia Power will include future Semiannual Progress Reports with each groundwater monitoring and corrective action report.

7.0 CONCLUSIONS & FUTURE ACTIONS

This 2022 Annual Groundwater Monitoring and Corrective Action Report for Georgia Power's Plant McManus Inactive Ash Pond AP-1 was prepared to fulfill the requirements of USEPA's CCR Rule and GA EPD rule 391-3-4-.10(6)(c). Statistical evaluations of the groundwater monitoring

data from the September 2021 and March 2022 events at the former AP-1 identified the continued presence of an SSLs of arsenic and lithium in monitoring well MCM-06. Lithium in monitoring well MCM-14 was identified as a state SSL in September 2021, but not March 2022 due to GA EPD's adoption of USEPA's updated GWPS. In addition, the lithium SSLs in MCM-06 and MCM-14 have been addressed with separate ASDs. An ASD for the new SSL of lithium above the state and federal GWPS identified at DPZ-02 was submitted and approved on June 17, 2022. The arsenic SSL in MCM-06 is vertically delineated below the state and federal GWPS by DPZ-02. Based on the surface water data collected to date, the arsenic SSL in MCM-06 does not appear in adjacent surface water. Surface water data will be collected quarterly and reported in semiannual and annual groundwater monitoring reports.

Georgia Power will continue to monitor groundwater in the vicinity of former AP-1 under the current assessment monitoring program and adaptively manage the Site as new data become available. Georgia Power will continue efforts to assess corrective measures as presented in the *Semiannual Remedy Selection and Design Progress Report* provided in Appendix F.

The next semiannual assessment sampling event is planned for September 2022. The September 2022 assessment monitoring event will include sampling and analysis of Appendix III and IV constituents.

8.0 REFERENCES

- Arcadis U.S., Inc. 2020a. *Lithium Alternative Source Demonstration, Plant McManus Former Ash Pond 1, Brunswick, Georgia*, dated November 17, 2020.
- Arcadis U.S., Inc. 2020b. *Assessment of Corrective Measures Report, Plant McManus Former Ash Pond 1, Brunswick, Georgia*, dated December 4, 2020.
- Arcadis U.S., Inc. 2021. *2021 Lithium Alternative Source Demonstration, Plant McManus Former Ash Pond 1, Brunswick, Georgia*, dated October 25, 2021.
- Arcadis U.S., Inc. 2022. *2022 Lithium Alternative Source Demonstration For DPZ-02, Plant McManus Former Ash Pond 1, Brunswick, Georgia*, dated April 29, 2022.
- ATC Associates Inc. 1997. *Compliance Status Report, McManus Steam Electric Generating Plant, Brunswick, Georgia*, dated March 24, 1997.
- Clarke, J.S., Hacke, C.M., and Peck, M.F., 1990, *Geology and Ground-Water Resources of the Coastal Area of Georgia*, Georgia Geologic Survey Bulletin 113.
- Groundwater Stats Consulting, LLC. 2022a. *Plant McManus Ash Pond (AP), Statistical Analysis-September 2021 Sampling Event*, Dated February 28, 2022.
- Groundwater Stats Consulting, LLC. 2022b. *Plant McManus Ash Pond (AP), Statistical Analysis-March 2022 Sampling Event*, Dated July 29, 2022.
- Huddleston, Paul F., 1988. *A Revision of the Lithostratigraphic Units of the Coastal Plain of Georgia, The Miocene Through Holocene*, Georgia Geologic Survey Bulletin 105.
- Jones, L.E., Prowell, D.C., and Maslia, M.L., 2002, *Hydrogeology and water quality (1978) of the Floridan aquifer system at U.S. Geological Survey Test Well 26, on Colonels Island, near Brunswick, Georgia*: U.S. Geological Survey Water-Resources Investigations Report 02–4020, 44 p. [Also available at <http://pubs.usgs.gov/wri/2002/wri02-4020/>.]
- Maslia, M.L., and Prowell, D.C., 1990, *Effects of faults on fluid flow and chloride contamination in a carbonate aquifer system*: *Journal of Hydrology*, v. 115, nos. 1–4, p. 1–49. [Also available at <http://pubs.er.usgs.gov/publication/70016336>.]
- Miller, J.A., 1986, *Framework of the Floridan Aquifer System in Florida and in Parts of Georgia, South Carolina, and Alabama*, USGS Professional Paper 1403-B.
- Resolute Environmental & Water Resources Consulting, LLC. 2019. *2019 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Surface Impoundment AP-1*, dated August 1, 2019.

Resolute Environmental & Water Resources Consulting, LLC. 2020. *2020 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1*, dated July 31, 2020.

Resolute Environmental & Water Resources Consulting, LLC. 2021. *2021 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond 1 (AP-1)*, dated July 30, 2020.

Resolute Environmental & Water Resources Consulting, LLC. 2021. *Hydrogeologic Assessment Report – Plant McManus Former Ash Pond 1*, dated February 19, 2021.

Sanitas: Groundwater Statistical Software, version 9.6, Sanitas Technologies®, Boulder, CO.

USEPA. 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

USEPA. 2011. *Data Validation Standard Operating Procedures. Science and Ecosystem Support Division (SESD)*. Region IV. Athens, GA. September.

USEPA. 2015. *Operating Procedure for Field Equipment Cleaning and Decontamination Standard Operating Procedures. Science and Ecosystem Support Division (SESD)*. Region IV. Athens, GA. December.

USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPAHQRCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81.

USEPA. 2016. Federal Register. Volume 81. No. 151. Friday, August 5, 2016. Environmental Protection Agency. *40 CFR Part 257. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Extension of Compliance Deadlines for Certain Inactive Surface Impoundments; Response to Partial Vacatur*. [EPAHQOLEM–2016–0274; FRL–9949–44–OLEM]. RIN–2050–AE81.

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

Weems, Robert E., and Edwards, Lucy E., 2001, *Geology of Oligocene, Miocene, and Younger Deposits in the Coastal Area of Georgia*, Georgia Geologic Survey Bulletin 131

TABLES

Table 1
Summary of Groundwater Elevations
Plant McManus
Inactive AP-1
Brunswick, Georgia

Collection Date					September 13, 2021	September 13, 2021	February 28, 2022	March 1, 2022
High Tide						15:13		8:07
Low Tide					8:34		13:00	
Start Collection					10:00	15:00	13:08	8:17
Stop Collection					N/A	N/A	14:18	9:21
Well ID	Top of Casing Elevation (ft NAVD 88)	Top of Casing Elevation (April 16, 2020) [ft NAVD 88]	Difference Between Elevations (ft NAVD 88)	Well Bottom Elevation (ft NAVD 88)	Low Tide GW Elevation (ft NAVD 88) ¹	High Tide GW Elevation (ft NAVD 88) ¹	Low Tide GW Elevation (ft NAVD 88) ¹	High Tide GW Elevation (ft NAVD 88) ¹
MCM-01	8.76	8.63	-0.13	-18.56	4.33	4.52	4.60	4.87
MCM-02	10.58	11.25	0.67	-16.77	6.85	6.77	6.74	6.74
MCM-03	10.00	9.97	-0.03	-17.70	3.29	3.31	3.98	3.98
MCM-04	12.47	12.39	-0.08	-16.10	2.89	3.51	3.24	4.19
MCM-05	10.09	10.04	-0.05	-17.96	1.72	3.12	2.30	4.18
MCM-06	10.17	10.15	-0.02	-17.03	1.06	2.96	1.71	4.17
MCM-07	10.22	10.20	-0.02	-13.53	2.24	2.91	2.75	3.83
MCM-08	9.41	9.42	0.01	-18.88	2.95	2.97	2.85	3.00
MCM-10	11.77	11.75	-0.02	-12.19	NM	NM	5.43	5.36
MCM-11	10.37	10.23	-0.14	-13.63	4.86	4.82	4.55	4.47
MCM-12	12.03	11.87	-0.16	-16.97	2.99	2.93	3.42	3.39
MCM-13	12.67	12.56	-0.11	-14.79	2.33	2.52	2.93	3.38
MCM-14	11.66	11.50	-0.16	-16.45	1.11	3.19	1.54	4.23
MCM-15	12.87	12.84	-0.03	-13.73	3.77	4.02	4.05	4.37
MCM-16	15.81	16.02	0.21	-12.58	7.16	7.10	6.78	6.77
MCM-17	11.67	11.49	-0.18	-15.77	2.09	2.75	2.52	3.78
MCM-18	9.00	9.00	0.00	-18.86	2.84	2.85	3.12	3.37
MCM-19	8.71	8.71	0.00	-19.61	1.50	3.08	1.81	4.08
MCM-20	10.07	10.07	0.00	-12.98	1.32	3.02	1.10	3.30
MW-01R	12.61	NS	NS	-14.83	NM	NM	4.32	5.03
MW-02	11.10	NS	NS	-15.28	NM	NM	3.78	4.18
MW-03	11.26	NS	NS	-15.34	NM	NM	3.24	3.82
MW-04	9.20	NS	NS	-17.85	NM	NM	3.33	3.64
MW-05	13.24	NS	NS	-14.21	NM	NM	6.18	6.09
MW-06R	13.31	NS	NS	-10.29	NM	NM	6.09	6.00
MW-07	9.94	NS	NS	-11.62	NM	NM	5.41	5.33
MW-09	10.10	NS	NS	-14.05	NM	NM	3.84	3.43
MW-10	10.24	NS	NS	-17.06	NM	NM	2.74	3.83
MW-11	10.35	NS	NS	-23.05	NM	NM	1.03	4.24
MW-12	10.08	NS	NS	-23.47	NM	NM	2.26	4.43
PZ-9	9.41	9.41	0.00	-14.64	2.82	2.77	2.39	2.32
PZ-10	12.17	12.17	0.00	-10.74	2.92	2.92	2.69	3.77
PZ-11	9.37	9.37	0.00	-9.71	3.41	3.34	3.06	3.10
PZ-12	7.90	7.90	0.00	-10.80	2.86	3.22	2.40	NM
DPZ-01	9.71	9.71	0.00	-8.99	1.45	3.20	2.04	4.31
DPZ-02	9.54	9.54	0.00	-9.16	1.12	3.08	1.73	4.18
DPZ-03	9.46	9.46	0.00	-9.24	1.63	3.06	2.08	4.02
DPZ-04	11.45	11.45	0.00	-7.25	1.92	3.05	2.48	4.04
DPZ-05	11.00	11.00	0.00	-7.70	2.19	3.71	2.67	4.57
DPZ-06	12.04	12.04	0.00	-6.66	3.40	3.56	3.91	4.15
RW-1	9.39	NS	NS	-17.03	NM	NM	2.36	2.85
RW-2	9.96	NS	NS	-17.31	NM	NM	2.80	2.79
RW-3	9.89	NS	NS	-22.40	NM	NM	2.96	4.05
RW-4	9.49	NS	NS	-17.39	NM	NM	2.65	3.98
RW-5	10.11	NS	NS	-27.11	NM	NM	1.72	4.22
RW-6	10.25	NS	NS	-26.34	NM	NM	2.98	4.16
RW-7	10.19	NS	NS	-27.99	NM	NM	1.97	4.32
RW-8	10.22	NS	NS	-21.40	NM	NM	2.76	4.13
RW-9	10.26	NS	NS	-27.45	NM	NM	2.20	4.32
RW-10	10.56	NS	NS	-27.24	NM	NM	2.26	4.22
TPZ-1	Transducer	NM	NM	NM	NM	NM	NM	NM
TPZ-2	Transducer	NM	NM	NM	NM	NM	NM	NM
Staff Gauge	Direct Read	NM	NM	NM	NM	NM	NM	NM
Tide Gauge	NOAA Report	NM	NM	NM	NM	NM	NM	NM
AP Monitor	Transducer	NM	NM	NM	3.00	3.01	3.92	3.92
Oil Dock Monitor	Transducer	NM	NM	NM	-2.67	3.87	-4.27	5.21

Notes:

¹Values calculated using April 16, 2020 survey data;

NS = Not Surveyed

NM = Not Measured

NA = Not Applicable

Updated by KMS 4/25/22; Checked by WL 4/29/22

Table 2
Monitoring Well Network Summary
Plant McManus
Inactive AP-1
Brunswick, GA

Well ID	Well Function	Northing ¹ (ft)	Easting ¹ (ft)	Top of Casing Elevation ² (ft NAVD 88)	Ground Surface Elevation ^{2,3} (ft NAVD 88)	Total Depth ⁴ (ft BTOC)	Top of Screen Elevation ² (ft NAVD 88)	Bottom of Screen Elevation ² (ft NAVD 88)
MCM-01	Upgradient Monitoring	443727.31	852732.08	8.63	5.70	27.32	-7.93	-17.93
MCM-02	Upgradient Monitoring	444496.53	852663.64	11.25	8.25	27.35	-5.22	-15.22
MCM-04	Downgradient Monitoring	444804.73	851695.27	12.39	9.50	28.57	-5.18	-15.18
MCM-05	Downgradient Monitoring	444716.63	851309.91	10.04	7.80	28.05	-7.25	-17.25
MCM-06	Downgradient Monitoring	444407.22	850782.11	10.15	7.87	27.20	-6.27	-16.27
MCM-07	Downgradient Monitoring	444059.38	850195.96	10.20	7.52	23.75	-2.76	-12.76
MCM-11	Upgradient Monitoring	442429.80	851072.91	10.23	7.52	24.00	-3.34	-13.34
MCM-12	Sidegradient Monitoring	442821.17	851312.45	11.87	8.99	29.00	-6.12	-16.12
MCM-14	Sidegradient Monitoring	443358.82	852317.59	11.50	8.66	28.11	-6.23	-16.23
MCM-15	Upgradient Monitoring	444825.53	851949.02	12.84	10.18	26.60	-4.53	-14.53
MCM-16	Upgradient Monitoring	444551.32	852716.60	16.02	13.04	28.39	-1.72	-11.72
MCM-17	Sidegradient Monitoring	443074.41	851899.68	11.49	9.09	27.44	-4.81	-14.81
MCM-18	Upgradient Monitoring	442067.07	851698.41	9.00	6.01	27.86	-8.76	-18.76
MCM-19	Upgradient Monitoring	441157.82	852338.86	8.71	5.77	28.32	-9.53	-19.53
MCM-20	Upgradient Monitoring	440944.40	852185.15	10.07	7.07	23.05	-2.98	-12.98
DPZ-02	Vertical Delineation Well	444391.02	850757.94	9.54	7.34	43.46	-28.84	-33.84

Notes:

1. Georgia State Plane - NAD 83 East Zone.
 2. NAVD 88 - North American Vertical Datum of 1988
 3. Ground Surface measured at the mag nail in the concrete pad
 4. ft BTOC - feet below top of casing
- Updated by: KMS 4/25/22
Checked by: WL 4/29/22

Table 3
Piezometer Network Summary
Plant McManus
Inactive AP-1
Brunswick, GA

Well ID	Well Function	Northing ¹ (ft)	Easting ¹ (ft)	Top of Casing Elevation ² (ft NAVD 88)	Ground Surface Elevation ^{2,3} (ft NAVD 88)	Total Depth ⁴ (ft BTOC)	Top of Screen Elevation ² (ft NAVD 88)	Bottom of Screen Elevation ² (ft NAVD 88)
MW-01R	Piezometer	443632.5586	852715.1308	12.61	NA	27.44	0.17	-14.83
MW-02	Piezometer	443354.3859	852304.1959	11.10	NA	26.80	-0.70	-15.70
MW-03	Piezometer	443081.3356	851904.8549	11.26	NA	27.00	-0.60	-15.60
MW-04	Piezometer	442854.6307	851408.1446	9.20	NA	27.40	-3.00	-18.00
MW-05	Piezometer	442578.1982	850752.3477	13.24	NA	27.60	0.90	-14.10
MW-06R	Piezometer	442378.5335	850499.0375	13.25	NA	20.00	3.25	-6.75
MW-07	Piezometer	442792.9894	850224.3520	9.94	NA	21.50	3.40	-11.60
MW-08	Piezometer	443310.0596	849977.9965	8.95	NA	27.70	-3.70	-18.70
MW-09	Piezometer	443736.7716	849920.8976	10.10	NA	24.20	0.80	-14.20
MW-10	Piezometer	444045.1224	850181.4059	10.24	NA	27.10	-2.80	-17.80
MW-11	Piezometer	444359.5263	850709.3205	10.42	NA	32.20	-8.20	-23.20
MW-12	Piezometer	444667.3620	851186.9003	10.08	NA	32.30	-8.60	-23.60
MCM-03	Piezometer	444414.8800	851984.6700	9.97	7.10	27.70	-7.73	-17.73
MCM-08	Piezometer	443758.8000	849716.9600	9.42	6.55	28.29	-8.39	-18.39
MCM-10	Piezometer	442791.8800	850453.0500	11.75	8.61	23.96	-1.25	-11.25
MCM-13	Piezometer	443030.2300	851826.1900	12.56	9.79	27.46	-4.90	-14.90
PZ-09	Piezometer	444082.13	849471.64	9.41	6.57	24.05	-4.56	-14.56
PZ-10	Piezometer	444949.09	851673.98	12.17	9.74	22.91	-0.66	-10.66
PZ-11	Piezometer	443222.86	849280.51	9.37	6.57	19.08	-4.63	-9.63
PZ-12	Piezometer	443593.34	849396.87	7.90	5.02	18.70	-5.72	-10.72
DPZ-01	Piezometer	444695.71	851277.40	9.71	7.36	40.78	-25.99	-30.99
DPZ-03	Piezometer	444073.16	850218.83	9.46	7.04	47.57	-33.03	-38.03
DPZ-04	Piezometer	443062.60	851881.94	11.45	8.96	51.23	-34.70	-39.70
DPZ-05	Piezometer	443376.32	852342.11	11.00	8.60	51.20	-35.12	-40.12
DPZ-06	Piezometer	444614.79	851846.27	12.04	9.59	40.50	-23.38	-28.38
RW-1	Dewatering for Construction	444094.0012	850251.1636	9.39	NA	26.42	-2.61	-12.61
RW-2	Dewatering for Construction	444161.8377	850367.2034	9.96	NA	27.27	-2.83	-12.83
RW-3	Dewatering for Construction	444228.4307	850479.7659	9.89	NA	32.29	-3.07	-13.07
RW-4	Dewatering for Construction	444299.3305	850599.2604	9.49	NA	26.88	-2.97	-12.97
RW-5	Dewatering for Construction	444369.6765	850714.2378	10.11	NA	37.22	-2.92	-22.92
RW-6	Dewatering for Construction	444436.3732	850831.7225	10.25	NA	36.58	-2.67	-22.67
RW-7	Dewatering for Construction	444504.5857	850949.3512	10.19	NA	38.17	-7.69	-22.69
RW-8	Dewatering for Construction	444572.9068	851064.4671	10.22	NA	31.62	-2.80	-17.80
RW-9	Dewatering for Construction	444641.6045	851181.2956	10.26	NA	37.71	-7.66	-22.66
RW-10	Dewatering for Construction	444706.8701	851295.5011	10.56	NA	37.80	-7.54	-22.54

Notes:

1. Georgia State Plane - NAD 83 East Zone.
 2. NAVD 88 - North American Vertical Datum of 1988
 3. Ground Surface measured at the mag nail in the concrete pad
 4. ft BTOC - feet below top of casing
 5. PZ- 1 through PZ-8 were abandoned in 2019
 6. MCM-09 was abandoned in 2020
- NA - Not Available
Updated by : KMS 4/25/22
Checked by: WL 4/29/22

Table 4
Groundwater Sampling Event Summary
Plant McManus
Inactive AP-1
Brunswick, GA

Well ID	Hydraulic Location	September 2021	March 2022	Status of Monitoring Well
Purpose of Sampling Event		Semi-Annual GW Sampling	Semi-Annual GW Sampling	
MCM-01	Upgradient	X	X	Assessment
MCM-02	Upgradient	X	X	Assessment
MCM-04	Downgradient	X	X	Assessment
MCM-05	Downgradient	X	X	Assessment
MCM-06	Downgradient	X	X	Assessment
MCM-07	Downgradient	X	X	Assessment
MCM-11	Upgradient	X	X	Assessment
MCM-12	Sidegradient	X	X	Assessment
MCM-14	Sidegradient	X	X	Assessment
MCM-15	Upgradient	X	X	Assessment
MCM-16	Upgradient	X	X	Assessment
MCM-17	Sidegradient	X	X	Assessment
MCM-18	Upgradient	X	X	Assessment
MCM-19	Upgradient	X	X	Assessment
MCM-20	Upgradient	X	X	Assessment
DPZ-02	Vertical Delineation Well	X	X	Assessment

Notes:

X - Sampled

- - Not Sampled

Updated By: KMS 4/25/22

Checked By: WL 4/29/22

Table 5
 2022 Horizontal Groundwater Flow Velocity Calculations
 Plant McManus
 Inactive Ash Pond 1 (AP-1)
 Brunswick, GA

	9/13/2021		9/13/2021		2/28/2022		3/1/2022	
	Low	Low	High	High	Low	Low	High	High
Tide Level								
Well 1	MCM-16	MCM-11	MCM-16	MCM-11	MCM-16	MCM-11	MCM-16	MCM-11
Well 2	MCM-02	MCM-12	MCM-02	MCM-12	MCM-02	MCM-12	MCM-02	MCM-12
Distance between	75.63	458.82	75.63	458.82	75.63	458.82	75.63	458.82
Head Well 1	7.16	4.86	7.10	4.82	6.78	4.55	6.77	4.47
Head Well 2	6.85	2.99	6.77	2.93	6.74	3.42	6.74	3.39
Hydraulic gradient i	0.00410	0.00408	0.00436	0.00412	0.00053	0.00246	0.00040	0.00235
K (cm/s site avg. from slug tests)	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012
Effectivity Porosity Ne (0.35 from HAR)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Velocity in cm/s	1.41E-05	1.40E-05	1.50E-05	1.41E-05	1.81E-06	8.44E-06	1.36E-06	8.07E-06
Velocity in ft/day	0.0398	0.0396	0.0424	0.0400	0.0051	0.0239	0.0039	0.0229
Velocity in ft/year	14.54	14.46	15.48	14.61	1.88	8.74	1.41	8.35
Average Velocity ft/day	0.040		0.041		0.015		0.013	
Average Velocity ft/year	14.50		15.05		5.31		4.88	

K - Hydraulic Conductivity

HAR - Hydraulic Assessment Report (Resolute, 2021)

cm/s - Centimeters per second

ft/ day - feet per day

ft/year - feet per year

Created By: RM 5/02/22

Checked By: WL 5/5/22

Table 6
Groundwater Data Summary
Plant McManus
Inactive Ash Pond (AP-1)
Brunswick, GA

WELL ID Sample Date	Appendix III							Appendix IV													
	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
DPZ-02																					
9/14/2021	2.0	273	7610	<0.050	971	16400	7.11	<0.0040	0.022	0.082	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.092	<0.12	<0.0025	6.97	<0.0014	<0.0010
3/1/2022	1.6 J	303	6750	<0.050	755	15600	7.08	<0.010	0.015 J	0.074	<0.0025	<0.0030	<0.025	<0.0025	<0.0038	0.088 J	<0.12	<0.0063	9.03	<0.0036	<0.0025
MCM-01																					
9/14/2021	0.079 J	9.6	16.7	<0.050	34.2	66.0	5.13	<0.0010	0.0055	0.065	<0.00025	<0.00030	<0.0025	<0.00025	<0.00038	<0.0025	<0.12	<0.00063	1.06 U	<0.00036	<0.00025
3/2/2022	0.048 J	8.2	13.4	<0.050	30.8	97.0	5.32	<0.00020	0.0043	0.064	0.000096 J	<0.000060	<0.00050	<0.000050	<0.000077	0.00064 J	<0.12	<0.00013	0.379 U	<0.000072	<0.000050
MCM-02																					
9/14/2021	0.093 J	4.2	21.8	<0.050	30.4	76.0	5.04	<0.0010	0.00067 J	0.082	<0.00025	<0.00030	0.0056	<0.00025	<0.00038	<0.0025	<0.12	0.0008 J	0.878 U	<0.00036	<0.00025
3/2/2022	0.086	4.1	20.6	<0.050	25.7	94.0	5.16	<0.00020	0.00077 J	0.080	0.00015	<0.000060	<0.00050	0.00035 J	<0.000077	<0.00050	<0.12	<0.00013	0.476 U	<0.000072	<0.000050
MCM-04																					
9/14/2021	0.070 J	12.5	28.5	<0.050	96.2	193	5.09	<0.0010	0.0047 J	0.043	<0.00025	<0.00030	<0.0025	0.0054	<0.00038	<0.0025	<0.12	<0.00063	2.69	<0.00036	<0.00025
3/3/2022	0.053	8.0	12.2	<0.050	50.6	146	4.98	<0.00020	0.0041	0.031	0.00025	0.00043	0.00085 J	0.0049	<0.000077	0.0017 J	<0.12	0.00015 J	2.51 U	0.00012 J	<0.000050
MCM-05																					
9/14/2021	0.95 J	13.9	3940	<0.050	459	8020	6.67	<0.0040	0.020 J	0.080	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.042 J	<0.12	0.0099 J	7.15	<0.0014	<0.0010
3/1/2022	0.75 J	48.4	1680	<1.2	143	3780	6.87	<0.0040	0.011 J	0.035	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.028 J	<0.12	<0.0025	8.16 U	<0.0014	<0.0010
MCM-06																					
9/14/2021	1.1	299	5360	<0.050	490	11800	6.94	<0.0040	0.51	0.22	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.084	0.16 J	<0.0025	8.11	<0.0014	<0.0010
3/1/2022	1.7	131	4150	<5.0	440	9040	7.24	<0.0040	0.24	0.084	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.074	<0.12	<0.0025	5.83 U	<0.0014	<0.0010
MCM-07																					
9/14/2021	1.5	225	6300	<0.050	819	13400	6.28	<0.0040	0.013 J	0.20	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.035 J	<0.12	<0.0025	10.3	<0.0014	<0.0010
3/2/2022	1.3	198	5630	<5.0	702	12600	6.41	<0.0040	0.0090 J	0.12	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.022 J	<0.12	<0.0025	5.66 U	<0.0014	<0.0010
MCM-11																					
9/14/2021	0.060 J	14.0	62.8	0.18	33.1	191	5.50	<0.0010	0.011	0.070	<0.00025	<0.00030	<0.0025	<0.00025	<0.00038	0.0033 J	<0.12	<0.00063	1.37 U	<0.00036	<0.00025
3/2/2022	0.038 J	6.8	28.4	0.097 J	19.5	124	5.11	<0.00020	0.0071	0.050	0.00011	<0.000060	0.00094 J	0.00029 J	<0.000077	0.0026	<0.12	<0.00013	0.313 U	0.00022 J	<0.000050
MCM-12																					
9/13/2021	1.4	6.0	433	1.4	<0.50	1450	6.24	<0.0020	<0.00087	0.086	0.0011	<0.00060	<0.0050	<0.00050	<0.00077	0.010 J	<0.12	<0.0013	2.54	<0.00072	<0.00050
3/3/2022	1.2	4.6	394	0.95	<2.5	1400	6.51	<0.0040	<0.0017	0.069	0.0012 J	<0.0012	<0.0099	<0.0010	<0.0015	<0.010	<0.12	<0.0025	3.56 U	<0.0014	<0.0010
MCM-14																					
9/13/2021	1.2	165	5010	<0.050	680	11400	6.3	<0.0020	<0.00087	0.16	<0.00050	<0.00060	<0.0050	<0.00050	<0.00077	0.047	<0.12	<0.0013	8.38	<0.00072	<0.00050
3/3/2022	0.89 J	224	5040	<5.0	754	11500	6.49	<0.0040	<0.0017	0.15	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.037 J	<0.12	<0.0025	8.00	<0.0014	<0.0010

Table 6
Groundwater Data Summary
Plant McManus
Inactive Ash Pond (AP-1)
Brunswick, GA

WELL ID Sample Date	Appendix III							Appendix IV													
	Boron	Calcium	Chloride	Fluoride	Sulfate	TDS	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
MCM-15																					
9/14/2021	0.068 J	6.7	13.6	<0.050	16.7	96.0	5.39	<0.0010	0.0035 J	0.050	0.00034 J	<0.00030	0.0027 J	<0.00025	<0.00038	<0.0025	<0.12	0.00090 J	1.15 U	<0.00036	<0.00025
3/2/2022	0.054	7.2	14.3	<0.050	16.0	103	5.37	<0.00020	0.0032	0.040	0.00032	<0.000060	0.0029	0.000077 J	<0.000077	0.0017 J	<0.12	0.00078 J	1.48 U	0.00028 J	<0.000050
MCM-16																					
9/14/2021	0.071 J	6.5	30.0	<0.050	24.4	<25.0	4.69	<0.0010	<0.00043	0.16	0.00062	<0.00030	<0.0025	<0.00025	<0.00038	<0.0025	<0.12	<0.00063	2.02	<0.00036	<0.00025
3/3/2022	0.057	5.4	26.5	<0.050	20.4	104	4.88	<0.00020	0.00024 J	0.13	0.00023	<0.000060	<0.00050	0.00035 J	<0.000077	0.00061 J	<0.12	0.00021 J	1.10 U	<0.000072	0.000066 J
MCM-17																					
9/14/2021	2.1	190	4090	<0.050	460	8820	6.77	<0.0060	<0.0026	0.20	<0.0015	<0.0018	<0.015	<0.0015	<0.0023	0.035 J	<0.12	<0.0038	8.82	<0.0021	<0.0015
3/3/2022	1.4	84.0	3540	<5.0	324	8120	4.27	<0.0040	<0.0017	0.10	<0.0010	<0.0012	<0.0099	<0.0010	<0.0015	0.020 J	<0.12	<0.0025	9.10	<0.0014	<0.0010
MCM-18																					
9/14/2021	0.20 J	18.8	1020	<0.050	134	2190	4.28	<0.0020	0.0029 J	0.098	0.0031	<0.00060	<0.0050	<0.00050	<0.00077	<0.0050	<0.12	<0.0013	8.31	<0.00072	<0.00050
3/2/2022	0.23 J	22.3	1420	<1.0	186	3100	4.33	<0.0040	0.0064 J	0.091	0.0037	<0.0012	<0.0099	<0.0010	<0.0015	<0.010	<0.12	<0.0025	9.23	<0.0014	<0.0010
MCM-19																					
9/14/2021	1.2	93.6	7250	<0.050	995	14600	5.31	<0.0040	0.018 J	0.13	0.0062	<0.0012	<0.0099	<0.0010	<0.0015	0.011 J	<0.12	<0.0025	26.2	0.0022 J	<0.0010
3/1/2022	0.41 J	35.5	1870	<5.0	158	4050	5.38	<0.0040	0.0061 J	0.14	0.0057	<0.0012	<0.0099	<0.0010	<0.0015	<0.010	<0.12	<0.0025	9.65	<0.0014	<0.0010
MCM-20																					
9/14/2021	0.91 J	61.1	5100	<0.050	659	10300	3.72	<0.0040	0.028	0.11	0.016	<0.0012	<0.0099	0.030	<0.0015	0.020 J	<0.12	<0.0025	34.9	0.0018 J	<0.0010
3/1/2022	0.87 J	99.8	4900	<5.0	543	10500	3.69	<0.0040	0.032	0.11	0.016	<0.0012	<0.0099	0.031	<0.0015	0.020 J	<0.12	<0.0025	27.5	0.0058 J	<0.0010

- Notes:
1. Results for substances (except radium and pH) are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L) and pH is reported in standard units (SU).
 2. Radium reported in Combined Radium 226 + 228
 3. < indicates the substance was not detected above the analytical Method Detection Limit (MDL)
 4. J - Estimated value. Substance was detected above the MDL and below the laboratory's Reporting Limit (RL)
 5. U - Estimated value for radium. Substance was detected below the Minimum Detection Concentration (MDC) or a product of inaccurate or imprecise Method Detection Limits.
 6. TDS - Total Dissolved Solids
 7. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring
 8. Blank values indicate the parameter was not analyzed
 9. pH - Parameter measured in the field

Updated by: KMS 5/10/22
Checked by: WL 5/26/22

Table 7
Plant McManus
Inactive AP-1
Surface Water Analytical Results
Historical Data Summary

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
BG-1LT	9/30/2021	6.90	147	434	138	3720	0.0027 J	1.3	0.060	78.2	<5.0	78.2	13400	5520	<5.0	725
BG-1LT	12/15/2021	7.50	235	706	238	5730	<0.0017	0.25 J	0.010 J	103	<5.0	103	19800	9830	<5.0	1330
BG-1LT	3/1/2022	7.32	245	732	286	5680	<0.0026	2.8	0.10	106	<1.8	106	20800	9150	<5.0	1180
BG-2HT	9/22/2021	7.13	178	524	171	6380	0.0040 J	2.8	0.14	108	<5.0	108	21100	9780	<4.5	1710
BG-2HT	12/15/2021	7.62	259	796	268	7240	<0.0017	0.28 J	0.011 J	109	<5.0	109	22600	10600	<5.0	1540
BG-2HT	3/3/2022	7.34	274	821	325	6530	<0.0026	3.1	0.11	109	<1.8	109	29000	10400	<5.0	1310
T1-1HT	9/23/2021	7.05	126	366	122	3230	0.0027 J	1.7 J	0.060	66.7	<5.0	66.7	11800	4790	<1.0	668
T1-1HT	3/2/2022	7.02	253	765	302	5950	<0.0026	3.1	0.11	107	<1.8	107	18300	9300	8.6 J	1230
T1-1LT	9/30/2021	6.99	141	411	130	3530	0.0014 J	1.1	0.042	76.2	<5.0	76.2	11600	5160	<5.0	689
T1-2HT	9/23/2021	6.97	185	538	177	4650	0.0025 J	2.1 J	0.076	87.9	<5.0	87.9	18300	7100	<1.0	982
T1-2HT	3/2/2022	7.45	250	746	295	5840	<0.0026	3.0	0.10	107	<1.8	107	19700	9270	<5.0	1200
T1-2HTS	9/23/2021	7.15	124	351	118	3060	0.0025 J	1.5 J	0.057	64.6	<5.0	64.6	12000	4750	<2.5	1670
T1-2HTS	3/2/2022	7.35	246	736	292	5940	<0.0026	3.0	0.10	107	<1.8	107	20500	9090	<5.0	1190
T1-2LT	9/30/2021	7.00	132	388	124	3320	0.0014 J	1.1	0.041	67.5	<5.0	67.5	11200	5110	<5.0	679
T1-3HT	9/23/2021	6.99	173	499	166	4400	0.0021 J	2.0 J	0.073	90.2	<5.0	90.2	15700	6880	<2.5	953
T1-3HT	3/2/2022	7.04	235	702	276	5820	<0.0026	3.0	0.098	106	<1.8	106	23300	9050	<5.0	1180
T1-3HTS	9/23/2021	7.08	131	375	124	3300	0.0023 J	1.7 J	0.060	73.0	<5.0	73.0	12900	5000	<2.5	698
T1-3HTS	3/2/2022	7.17	252	763	303	5900	<0.0026	2.9	0.11	107	<1.8	107	21900	18300	<5.0	1330
T1-3LT	9/30/2021	7.14	125	360	116	3110	0.0016 J	1.0	0.038	66.6	<5.0	66.6	11900	4680	<5.0	614
T1-4HT	9/23/2021	6.98	152	439	144	3900	0.0022 J	1.9 J	0.069	81.1	<5.0	81.1	15400	7960	<4.5	1110
T1-4HT	12/15/2021	7.47	254	748	245	6160	<0.0043	2.2 J	0.091 J	103	<5.0	103	21000	9760	<5.0	1350
T1-4HT	3/2/2022	7.14	248	751	297	5890	<0.0026	3.0	0.11	107	<1.8	107	21100	9220	<5.0	1200
T1-4HTS	9/23/2021	7.14	136	402	130	3450	0.0021 J	1.7 J	0.066	74.9	<5.0	74.9	13000	5270	<4.5	717

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T1-4HTS	12/15/2021	7.44	241	712	234	5800	<0.0043	2.2 J	0.091 J	99.3	<5.0	99.3	21300	9680	<5.0	1340
T1-4HTS	3/2/2022	7.17	250	750	298	5830	<0.0026	3.1	0.11	108	<1.8	108	20100	9180	<5.0	1200
T1-4LT	9/30/2021	7.09	101	288	90.7 J	2410	0.0019 J	1.2	0.046	60.8	<5.0	60.8	8100	3850	<5.0	496
T1-4LT	12/15/2021	7.67	245	725	240	6000	<0.0043	2.6	0.099 J	99.0	<5.0	99.0	20400	9790	<5.0	1330
T1-4LT	3/1/2022	7.27	247	721	283	5700	<0.0026	2.8	0.10	106	<1.8	106	23000	8910	<5.0	1140
T2-1HT	9/23/2021	6.89	124	363	118	3100	0.0020 J	1.4 J	0.054	68.7	<5.0	68.7	11700	4750	<4.5	638
T2-1HT	12/15/2021	7.58	252	739	242	5900	<0.0043	2.2 J	0.092 J	97.7	<5.0	97.7	18800	9670	<5.0	1340
T2-1HT	3/2/2022	7.54	243	722	290	5780	<0.0026	2.8	0.10	108	<1.8	108	21900	9210	<5.0	1190
T2-2HT	9/23/2021	6.87	165	496	160	4250	0.0032 J	1.9 J	0.071	83.1	<5.0	83.1	16400	6450	<4.5	884
T2-2HT	12/15/2021	7.48	258	755	248	6050	<0.0043	2.4 J	0.094 J	101	<5.0	101	17200	9630	<5.0	1330
T2-2HT	3/2/2022	7.49	251	761	300	5850	<0.0026	2.9	0.10	108	<1.8	108	21300	9190	<5.0	1200
T2-2HTS	9/23/2021	7.05	113	330	106	2810	0.0024 J	1.5 J	0.048 J	65.2	<5.0	65.2	10400	4400	<4.5	585
T2-2HTS	12/15/2021	7.46	260	760	248	5840	<0.0043	2.4 J	0.096 J	99.4	<5.0	99.4	18600	9700	<5.0	1340
T2-2HTS	3/2/2022	7.50	262	783	302	5830	<0.0026	3.0	0.11	107	<1.8	107	20500	9140	<5.0	1200
T2-2LT	9/30/2021	7.16	124	358	115	3080	0.0016 J	0.91	0.036 J	69.9	<5.0	69.9	10000	4530	<5.0	586
T2-3HT	9/23/2021	6.96	172	516	166	4370	0.0026 J	2.2 J	0.078	84.0	<5.0	84.0	16200	6700	<4.5	918
T2-3HT	12/15/2021	7.45	239	699	231	5920	<0.0043	2.4 J	0.095 J	96.6	<5.0	96.6	19400	9700	<5.0	1330
T2-3HT	3/2/2022	7.03	248	730	290	5940	<0.0026	2.9	0.11	106	<1.8	106	19800	9450	<5.0	1220
T2-3HTS	9/23/2021	7.18	104	303	97.6 J	2570	0.0023 J	1.4	0.048 J	61.5	<5.0	61.5	10000	4090	<4.5	540
T2-3HTS	12/15/2021	7.45	248	733	242	6260	<0.0043	2.4 J	0.093 J	102	<5.0	102	19200	9750	<5.0	1330
T2-3HTS	3/2/2022	7.05	242	710	281	5920	<0.0026	3.0	0.11	107	<1.8	107	20500	9080	<5.0	1180
T2-3LT	9/30/2021	7.15	129	372	119	3200	0.0016 J	1.1	0.041	69.0	<5.0	69.0	11400	5020	<5.0	664
T2-4HT	9/23/2021	6.96	154	460	148	3930	0.0019 J	1.9 J	0.064	77.1	<5.0	77.1	13600	5670	<4.5	768
T2-4HT	12/15/2021	7.49	251	734	240	5840	<0.0043	2.4 J	0.092 J	100	<5.0	100	19100	9480	<5.0	1290
T2-4HT	3/2/2022	7.09	239	701	277	5760	<0.0026	2.9	0.11	106	<1.8	106	20900	9150	<5.0	1180
T2-4HTS	9/23/2021	7.09	130	381	123	3230	0.0019 J	1.4 J	0.053	54.5	<5.0	54.5	12000	5130	<4.5	694
T2-4HTS	12/15/2021	7.50	243	711	235	6000	<0.0043	2.3 J	0.089 J	101	<5.0	101	20000	9540	<5.0	1300

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T2-4HTS	3/2/2022	7.05	240	701	278	5840	<0.0026	2.9	0.10	107	<1.8	107	22200	9030	<5.0	1170
T2-4LT	9/30/2021	6.97	80.1	222	70.6 J	1880	<0.0013	0.58 J	0.022 J	54.1	<5.0	54.1	6770	2870	<5.0	361
T2-4LT	12/15/2021	7.68	224	675	221	5760	<0.0043	2.4 J	0.085 J	102	<5.0	102	19200	9780	<5.0	1330
T2-4LT	3/1/2022	7.27	246	718	279	5710	<0.0026	2.7	0.089	106	<1.8	106	21900	8640	<5.0	1100
T3-1HT	9/23/2021	7.12	88.6	252	81.1 J	2150	0.0022 J	1.2	0.040 J	71.2	<5.0	71.2	8300	3230	<4.5	419
T3-1HT	3/2/2022	7.55	237	694	280	5790	<0.0026	3.1	0.11	107	<1.8	107	22100	8970	<5.0	1160
T3-2HT	9/23/2021	6.79	138	402	130	3430	0.0034 J	1.8 J	0.071	75.0	<5.0	75.0	13400	5520	<4.5	744
T3-2HT	3/2/2022	7.10	247	722	287	5880	<0.0026	3.0	0.11	107	<1.8	107	23600	9040	<5.0	1170
T3-2HTS	9/23/2021	7.04	83.7	234	77.2 J	2050	0.0021 J	1.1	0.034 J	55.6	<5.0	55.6	7450	3180	<4.5	410
T3-2HTS	3/2/2022	7.52	246	717	287	5910	<0.0026	3.3	0.10	107	<1.8	107	21400	9130	<5.0	1180
T3-2LT	9/30/2021	7.13	107	301	96.8 J	2600	0.0015 J	0.75 J	0.029 J	64.1	<5.0	64.1	9170	3960	<5.0	503
T3-3HT	9/23/2021	6.92	156	467	152	4160	0.0024 J	1.8 J	0.071	82.7	<5.0	82.7	14100	6340	<4.5	862
T3-3HT	3/2/2022	7.09	254	731	289	5720	<0.0026	3.1	0.11	107	<1.8	107	22100	9160	<5.0	1180
T3-3HTS	9/23/2021	7.24	70.4	193	64.3 J	1690	0.0020 J	0.83 J	0.027 J	45.4	<5.0	45.4	6600	2500	<4.5	315
T3-3HTS	3/2/2022	7.14	251	731	282	5650	<0.0026	3.1	0.11	106	<1.8	106	20000	9030	<5.0	1170
T3-3LT	9/30/2021	6.89	101	289	90.0 J	2460	0.0015 J	0.75	0.028 J	62.5	<5.0	62.5	8670	3740	<5.0	475
T3-4HT	9/23/2021	6.94	122	374	121	3860	0.0022 J	1.8 J	0.069	80.0	<5.0	80.0	14200	6020	<4.5	815
T3-4HT	12/15/2021	7.45	248	732	241	6200	<0.0043	2.4 J	0.091 J	101	<5.0	101	19800	9440	<5.0	1290
T3-4HT	3/2/2022	7.07	246	733	289	5730	<0.0026	3.2	0.11	107	<1.8	107	22900	9180	<5.0	1190
T3-4HTS	9/23/2021	7.09	107	312	103	2640	0.0023 J	1.0 J	0.041 J	61.5	<5.0	61.5	9850	4080	<4.5	538
T3-4HTS	12/15/2021	7.46	246	730	243	6180	<0.0043	2.4 J	0.089 J	99.0	<5.0	99.0	19000	9740	<5.0	1330
T3-4HTS	3/2/2022	7.14	245	729	284	6190	<0.0026	2.9	0.11	107	<1.8	107	21600	8970	<5.0	1150
T3-4LT	9/30/2021	6.90	84.1	232	73.1 J	1990	<0.0013	0.65 J	0.025 J	56.2	<5.0	56.2	8070	3110	<5.0	396
T3-4LT	12/15/2021	7.62	247	744	251	6390	<0.0017	0.24 J	<0.010	102	<5.0	102	20800	9790	<5.0	1330
T3-4LT	3/1/2022	7.43	236	701	273	5750	<0.0026	3.0	0.10	106	<1.8	106	21000	8830	<5.0	1180
T4-1HB	9/22/2021	7.06	174	530	170	4540	0.0031 J	1.8 J	0.077	90.4	<5.0	90.4	15500	7160	<4.5	983
T4-1HB	12/15/2021	7.35	263	774	257	6190	<0.0043	2.5	0.094 J	106	<5.0	106	20800	11300	<5.0	1410

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T4-1HB	3/3/2022	7.45	252	746	292	6270	<0.0026	2.9	0.11	113	<1.8	113	22700	9360	<5.0	1200
T4-1HS	9/22/2021	7.22	172	513	169	4400	0.0028 J	1.8 J	0.067	88.5	<5.0	88.5	12900	6540	<4.5	891
T4-1HS	12/15/2021	7.40	276	814	268	6430	<0.0043	2.5 J	0.095 J	105	<5.0	105	21200	10400	<5.0	1430
T4-1HS	3/3/2022	7.51	253	749	295	6100	<0.0026	3.1	0.11	110	<1.8	110	24300	9510	<5.0	1230
T4-1L	9/22/2021	7.35	165	495	165	4650	0.0042 J	1.7 J	0.088	90.3	<5.0	90.3	15600	6920	<4.5	944
T4-2HB	9/22/2021	7.04	180	541	179	4870	0.0025 J	2.0 J	0.076	97.3	<5.0	97.3	15800	7420	<4.5	1020
T4-2HB	12/15/2021	7.44	273	808	269	6730	<0.0043	2.4 J	0.096 J	105	<5.0	105	21100	10100	<5.0	1440
T4-2HB	3/3/2022	7.47	253	752	296	6190	<0.0026	3.1	0.11	111	<1.8	111	<2500	9390	<5.0	1220
T4-2HS	9/22/2021	7.13	170	504	166	4440	0.0028 J	1.8 J	0.069	90.5	<5.0	90.5	14800	6730	<4.5	918
T4-2HS	12/15/2021	7.45	294	868	284	6710	<0.0043	2.6	0.10 J	108	<5.0	108	21100	11300	<5.0	1410
T4-2HS	3/3/2022	7.47	251	750	297	6220	<0.0026	3.2	0.12	110	<1.8	110	24000	9420	<5.0	1210
T4-2L	9/22/2021	7.31	174	512	170	4520	0.0040 J	2.0 J	0.090	94.8	<5.0	94.8	14800	6820	<4.5	933
T4-3HB	9/22/2021	7.04	168	506	168	4800	0.0025 J	2.1 J	0.076	92.0	<5.0	92.0	16000	7410	<4.5	1020
T4-3HB	12/15/2021	7.49	284	838	278	6790	<0.0043	2.6	0.098 J	105	<5.0	105	21800	9880	<5.0	1420
T4-3HB	3/3/2022	7.47	254	751	297	6210	<0.0026	3.2	0.11	112	<1.8	112	23100	9350	<5.0	1210
T4-3HS	9/22/2021	7.16	168	502	165	4600	0.0027 J	1.9 J	0.072	92.4	<5.0	92.4	15400	6790	<4.5	928
T4-3HS	12/15/2021	7.55	281	832	274	6570	<0.0043	2.6	0.10 J	107	<5.0	107	22200	11800	<5.0	1410
T4-3HS	3/3/2022	7.49	261	773	308	6220	<0.0026	3.0	0.11	109	<1.8	109	24500	9680	<5.0	1240
T4-3L	9/22/2021	7.38	182	542	178	<12.2	0.0037 J	1.7 J	0.086	95.8	<5.0	95.8	15200	7160	<4.5	966
T4-4HB	9/22/2021	7.08	167	499	165	4620	0.0027 J	2.0 J	0.081	92.5	<5.0	92.5	16400	7310	<4.5	1090
T4-4HB	12/15/2021	7.52	281	830	275	6300	<0.0043	2.8	0.10 J	105	<5.0	105	21400	10800	<5.0	1420
T4-4HB	3/3/2022	7.52	258	765	304	6130	<0.0026	2.9	0.11	108	<1.8	108	25700	9370	<5.0	1210
T4-4HS	9/22/2021	7.17	186	547	180	4810	0.0028 J	2.1 J	0.087	88.9	<5.0	88.9	16200	7220	<4.5	994
T4-4HS	12/15/2021	7.50	252	752	251	6180	<0.0043	2.8	0.10 J	104	<5.0	104	21500	11300	<5.0	1430
T4-4HS	3/3/2022	7.47	260	775	306	6270	<0.0026	3.0	0.099	109	<1.8	109	23800	9380	<5.0	1210
T4-4L	9/22/2021	7.32	313	953	307	4500	0.0035 J	1.9 J	0.086	95.1	<5.0	95.1	15200	6830	<4.5	1250
T4-4L	12/15/2021	7.60	249	751	251	6270	<0.0017	0.26 J	0.010 J	109	<5.0	109	20700	10600	<5.0	1410

Sample ID	Date	pH	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Arsenic (mg/L)	Boron (mg/L)	Lithium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total Alk (mg/L)	TDS (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)
T4-4L	3/1/2022	6.78	267	792	313	6240	<0.0026	3.1	0.11	109	<1.8	109	21600	9390	<5.0	1210

1. Results shown in milligrams per liter (mg/L).
2. "<" - not detected at the laboratory's Method Detection Limit (MDL) shown
3. "J" - Estimated concentration greater than the laboratory's MDL, but less than the laboratory's reporting limit.

Updated by: KMS 4/21/22

Checked by: RM 5/24/22

Table 8
 Federal Groundwater Protection Standards September 2021
 Plant McManus
 Inactive AP-1
 Brunswick, Georgia

MCMANUS ASH POND GWPS - FEDERAL				
Constituent Name	MCL	RSL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.031	0.031
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.026	0.04
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, September 2021

Notes:

mg/L = milligram per liter;
 pCi/L = picocuries per liter;
 n/a = Not Available;
 MCL = Maximum Contaminant Level;
 RSL = Rule Specified Limit (Not adopted by EPD as of September 2021)

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95 (h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).

[2] Under 40 CFR § 257(h)(1-3) the GWPS is: (i) the MCL, (ii) where the MCL is not established, the rule specific GWPS, or (iii) background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

Table 9
 Georgia EPD Groundwater Protection Standards September 2021
 Plant McManus
 Inactive AP-1
 Brunswick, Georgia

MCMANUS ASH POND GWPS - STATE				
Constituent Name	MCL	RSL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.031	0.031
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.005
Lithium, Total (mg/L)	n/a	0.04	0.026	0.026
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.01
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.001	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, September 2021

Notes:

mg/L = milligram per liter;
 pCi/L = picocuries per liter;
 n/a = Not Available;
 MCL = Maximum Contaminant Level;
 RSL = Rule Specified Limit (Not adopted by EPD as of September 2021)

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95 (h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).

[2] Under existing EPD rules, the GWPS is (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL.

Table 10
 Federal and Georgia EPD Groundwater Protection Standards July 2022
 Plant McManus
 Inactive AP-1
 Brunswick, Georgia

MCMANUS ASH POND GWPS – FEDERAL AND GEORGIA EPD				
Constituent Name	MCL	RSL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.032	0.032
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.021	0.021
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.011	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.036	0.036
Combined Radium, Total (pCi/L)	5		55.8	55.8
Fluoride, Total (mg/L)	4		1.5	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.05	0.05
Mercury, Total (mg/L)	0.002		0.0007	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.15	0.15
Thallium, Total (mg/L)	0.002		0.002	0.002

Groundwater Protection Standards from Appendix D - Groundwater Stats Consulting, July 2022

Notes:

mg/L = milligram per liter;

pCi/L = picocuries per liter;

n/a = Not Available;

MCL = Maximum Contaminant Level;

RSL = Rule Specified Limit (Adopted by EPD on February 2022)

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95 (h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).

[2] Under 40 CFR § 257(h)(1-3) the GWPS is: (i) the MCL, (ii) where the MCL is not established, the rule specific GWPS, or (iii) background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

FIGURES



Legend
 CCR Permitted Boundary

Resolute
 Environmental & Water Resources Consulting

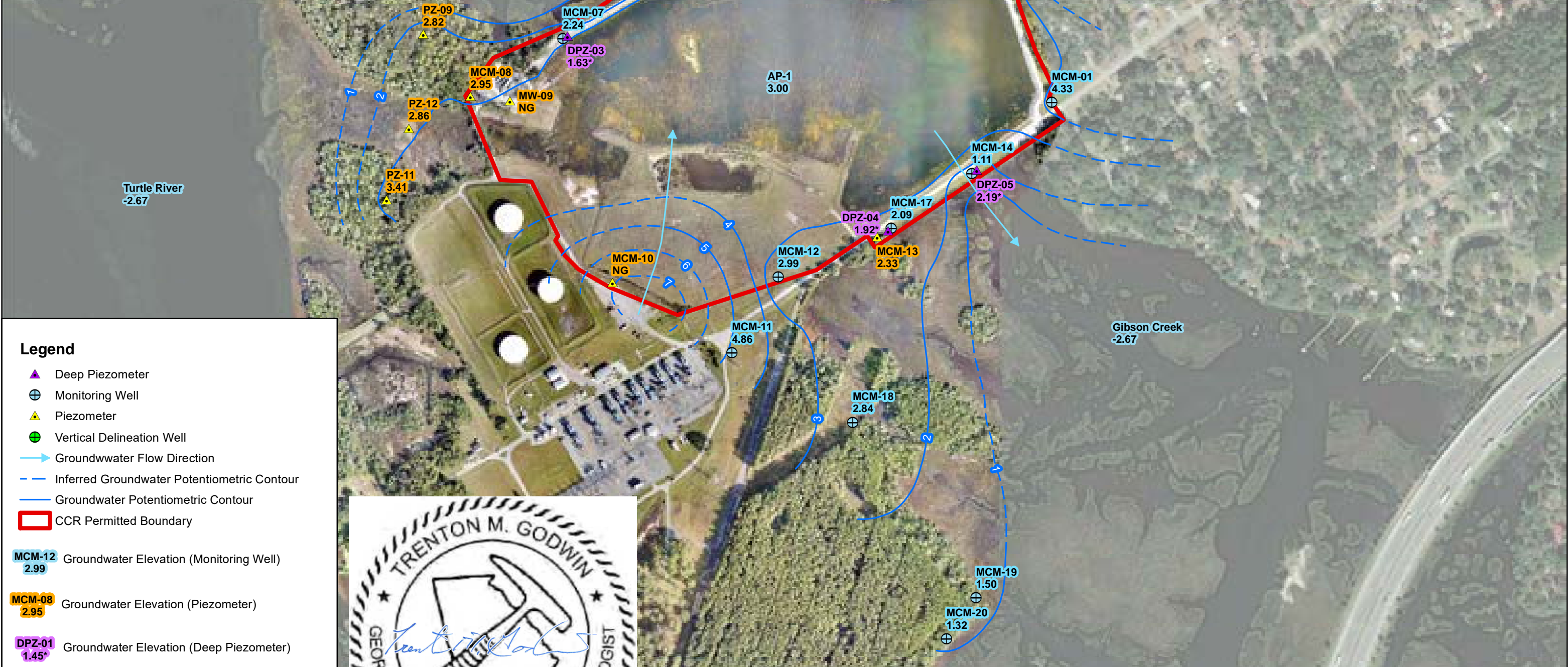
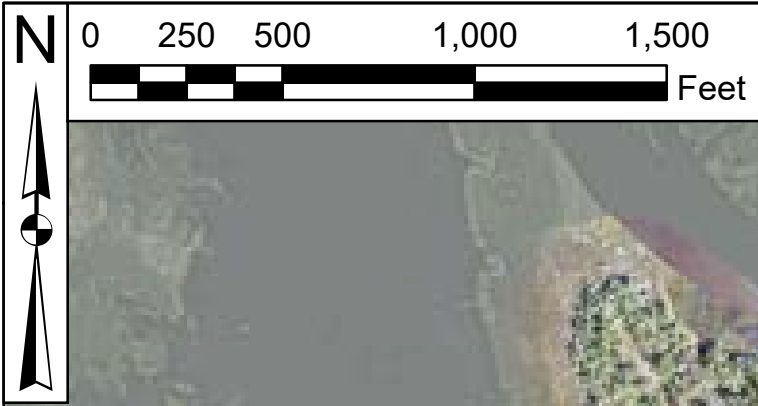
**Plant McManus
 Inactive AP-1
 Site Location Map**

**Figure
 1**

Woodstock, GA

May 2022

Brunswick, GA



Legend

- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Flow Direction
- - - Inferred Groundwater Potentiometric Contour
- Groundwater Potentiometric Contour
- ▭ CCR Permitted Boundary

MCM-12 Groundwater Elevation (Monitoring Well)
2.99

MCM-08 Groundwater Elevation (Piezometer)
2.95

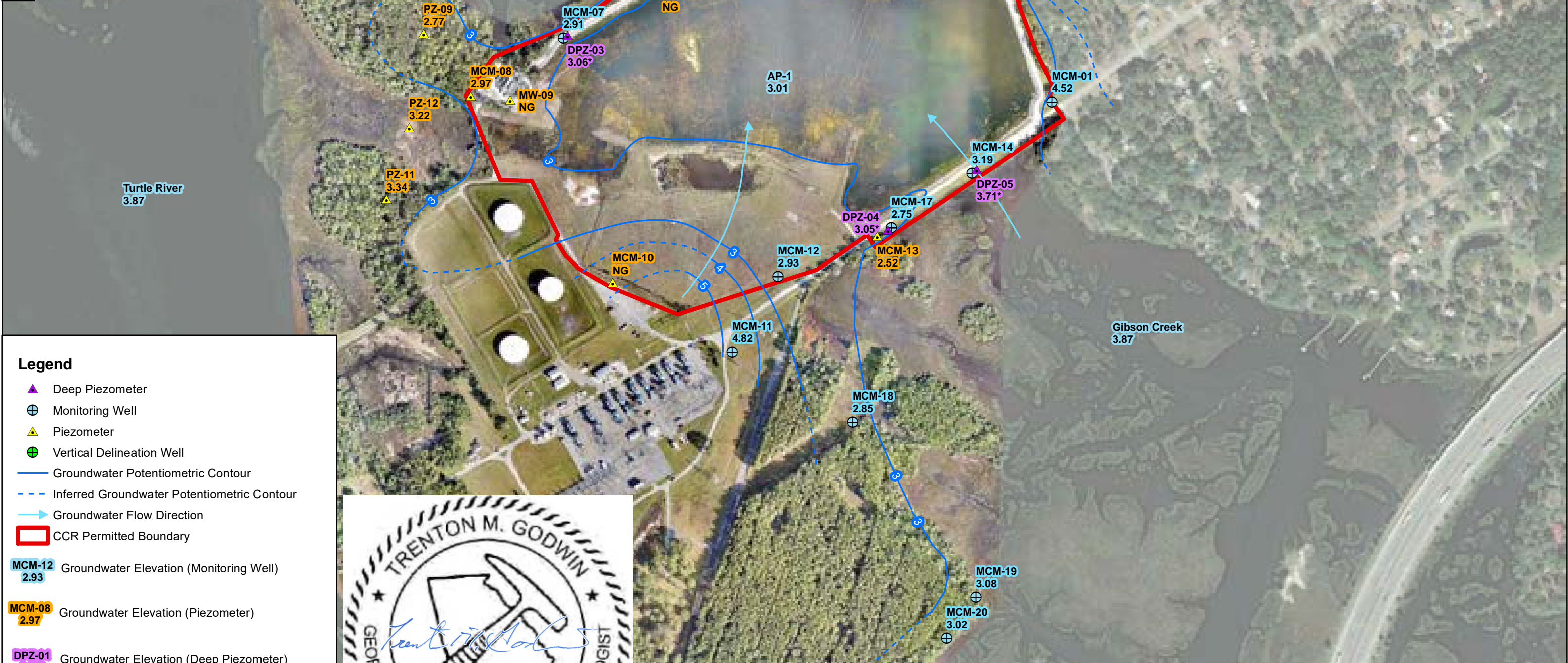
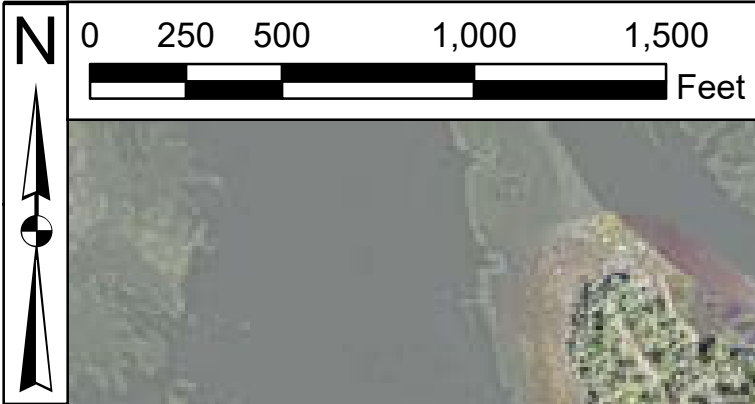
DPZ-01 Groundwater Elevation (Deep Piezometer)
1.45*

DPZ-02 Groundwater Elevation (Vertical Delineation Well)
1.12*

Notes:
 NG - Not Gauged, No transducer at this location
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



		Plant McManus Inactive AP-1 Potentiometric Surface Map Low Tide September 13, 2021 Brunswick, GA	Figure 2



Legend

- Deep Piezometer
- Monitoring Well
- Piezometer
- Vertical Delineation Well
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

MCM-12 2.93 Groundwater Elevation (Monitoring Well)

MCM-08 2.97 Groundwater Elevation (Piezometer)

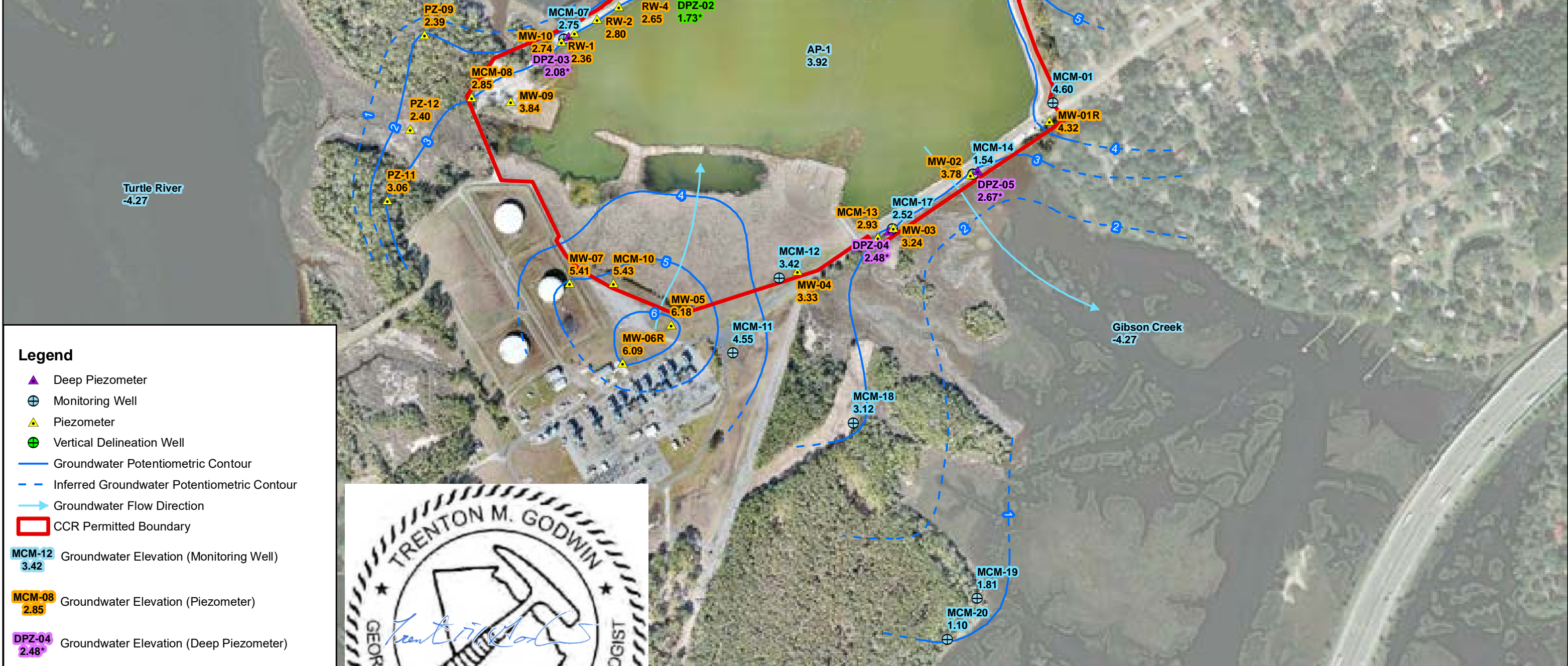
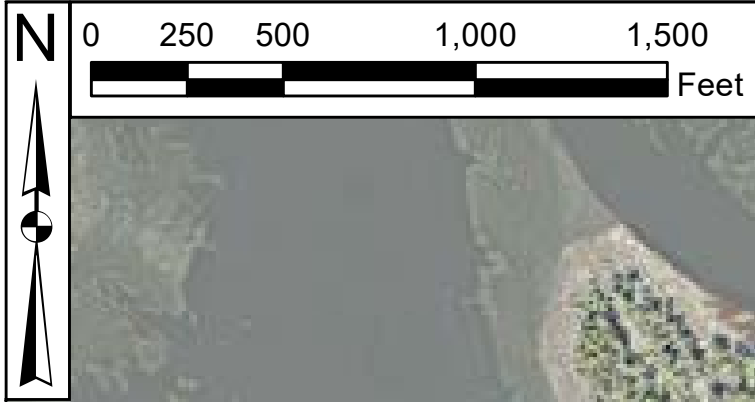
DPZ-01 3.20* Groundwater Elevation (Deep Piezometer)

DPZ-02 3.08* Groundwater Elevation (Vertical Delineation Well)

Notes:
 NG - Not Gauged, No transducer at this location
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



		Plant McManus Inactive AP-1 Potentiometric Surface Map High Tide September 13, 2021	Figure 3



Legend

- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Potentiometric Contour
- - - Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- ▭ CCR Permitted Boundary

MCM-12 3.42 Groundwater Elevation (Monitoring Well)

MCM-08 2.85 Groundwater Elevation (Piezometer)

DPZ-04 2.48* Groundwater Elevation (Deep Piezometer)

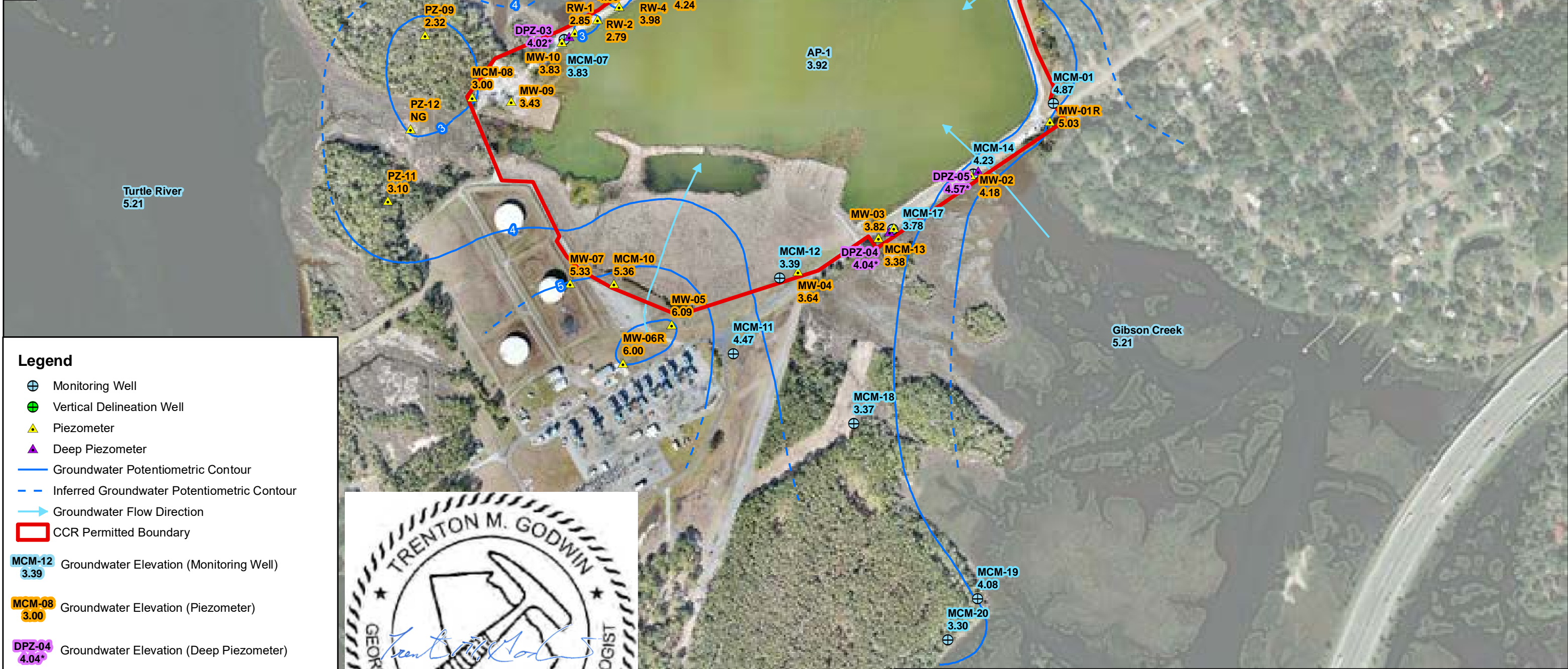
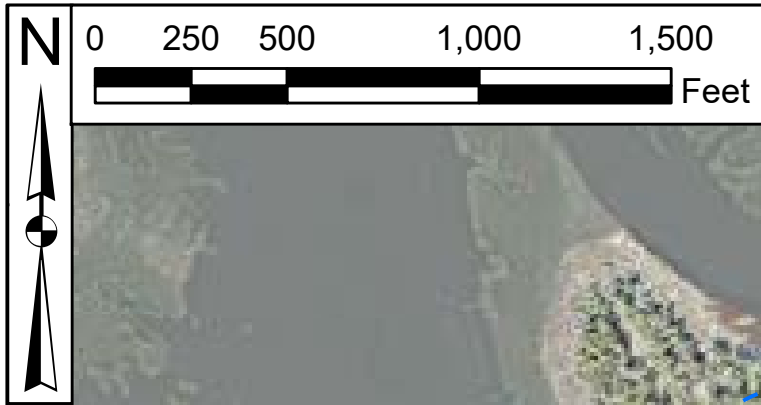
DPZ-02 1.73* Groundwater Elevation (Vertical Delineation Well)

Notes:
 NG - Not Gauged
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



		Plant McManus Inactive AP-1 Potentiometric Surface Map Low Tide February 28, 2022	Figure 4

2022 Annual Groundwater Monitoring and Corrective Action Report



Legend

- Monitoring Well
- Vertical Delineation Well
- Piezometer
- Deep Piezometer
- Groundwater Potentiometric Contour
- Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

MCM-12 3.39 Groundwater Elevation (Monitoring Well)

MCM-08 3.00 Groundwater Elevation (Piezometer)

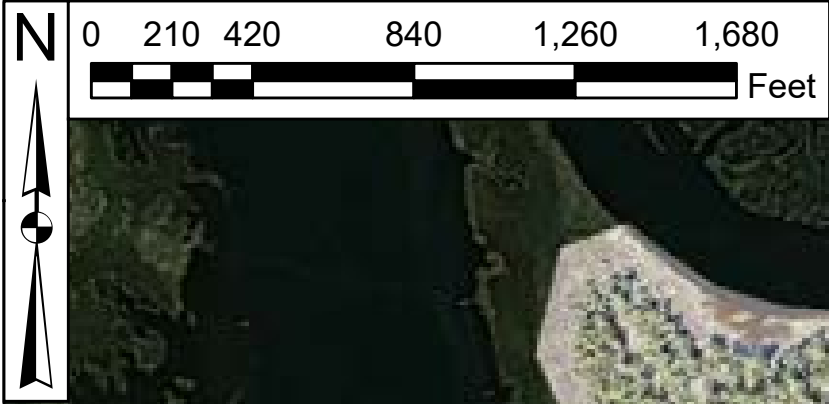
DPZ-04 4.04* Groundwater Elevation (Deep Piezometer)

DPZ-02 4.18* Groundwater Elevation (Vertical Delineation Well)

Notes:
 NG - Not Gauged
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.



		Plant McManus Inactive AP-1 Potentiometric Surface Map High Tide March 1, 2022 Brunswick, GA	Figure 5



Legend

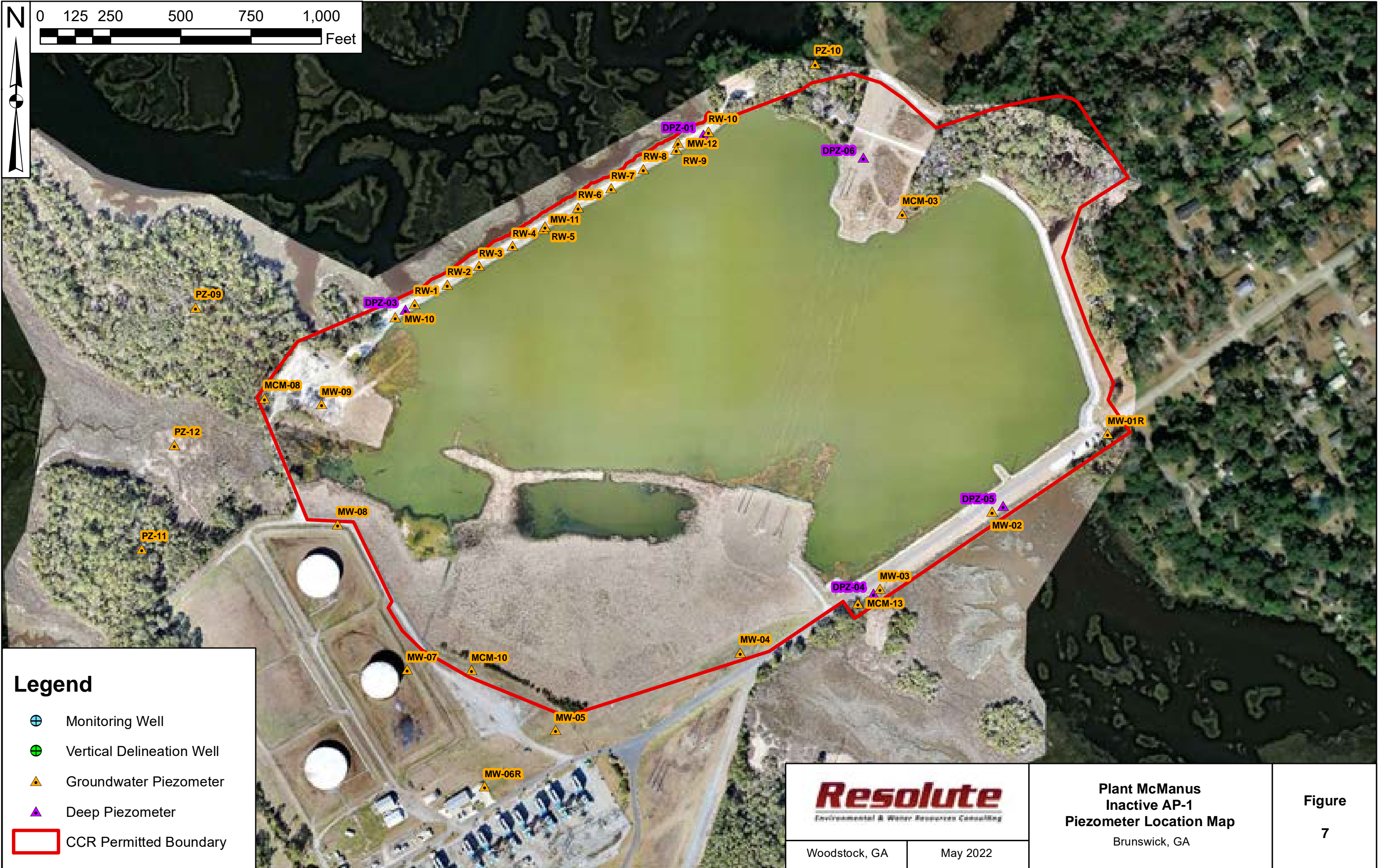
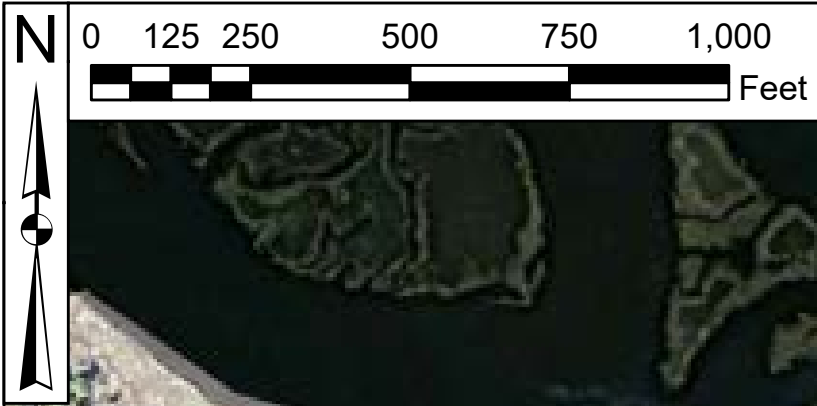
- ⊕ Monitoring Well
- ⊕ Vertical Delineation Well
- ▲ Groundwater Piezometer
- ▲ Deep Piezometer
- CCR Permitted Boundary



Woodstock, GA May 2022

**Plant McManus
Inactive AP-1
Monitoring Well Location Map**
Brunswick, GA

**Figure
6**



Legend

- Monitoring Well
- Vertical Delineation Well
- Groundwater Piezometer
- Deep Piezometer
- CCR Permitted Boundary

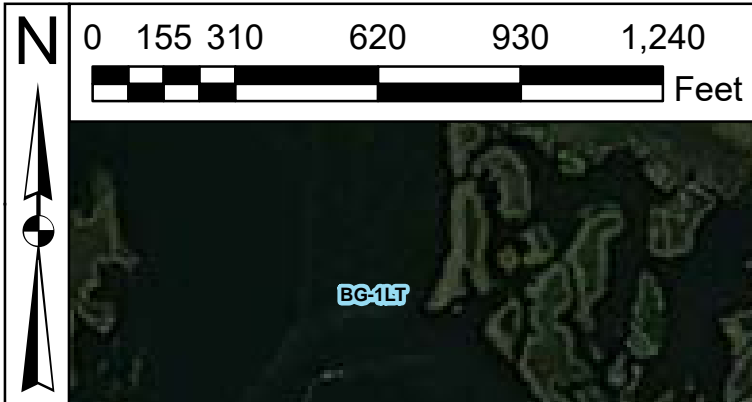


Woodstock, GA

May 2022

**Plant McManus
Inactive AP-1
Piezometer Location Map**
Brunswick, GA

**Figure
7**



EG-1LT

Cowpen Creek

Burnett Creek

Mainland

Former AP-1

T3-4HT
T3-4HTS
T3-4LT

T2-4HT
T2-4HTS
T2-4LT

T3-3HT
T3-3HTS
T3-3LT

T3-2HT
T3-2HTS
T3-2LT

T3-1HT

T2-3HT
T2-3HTS
T2-3LT
T2-2HT
T2-2HTS
T2-2LT
T2-1HT

T1-4HT
T1-4HTS
T1-4LT

T1-3HT
T1-3HTS
T1-3LT

T1-2HT
T1-2HTS
T1-2LT
T1-1HT
T1-1HTS
T1-1LT

Transect 1

Transect 2

Transect 3

Legend

- Surface Water Sample
- CCR Permitted Boundary



**Plant McManus
Surface Water Sample Locations
Transects 1-3**

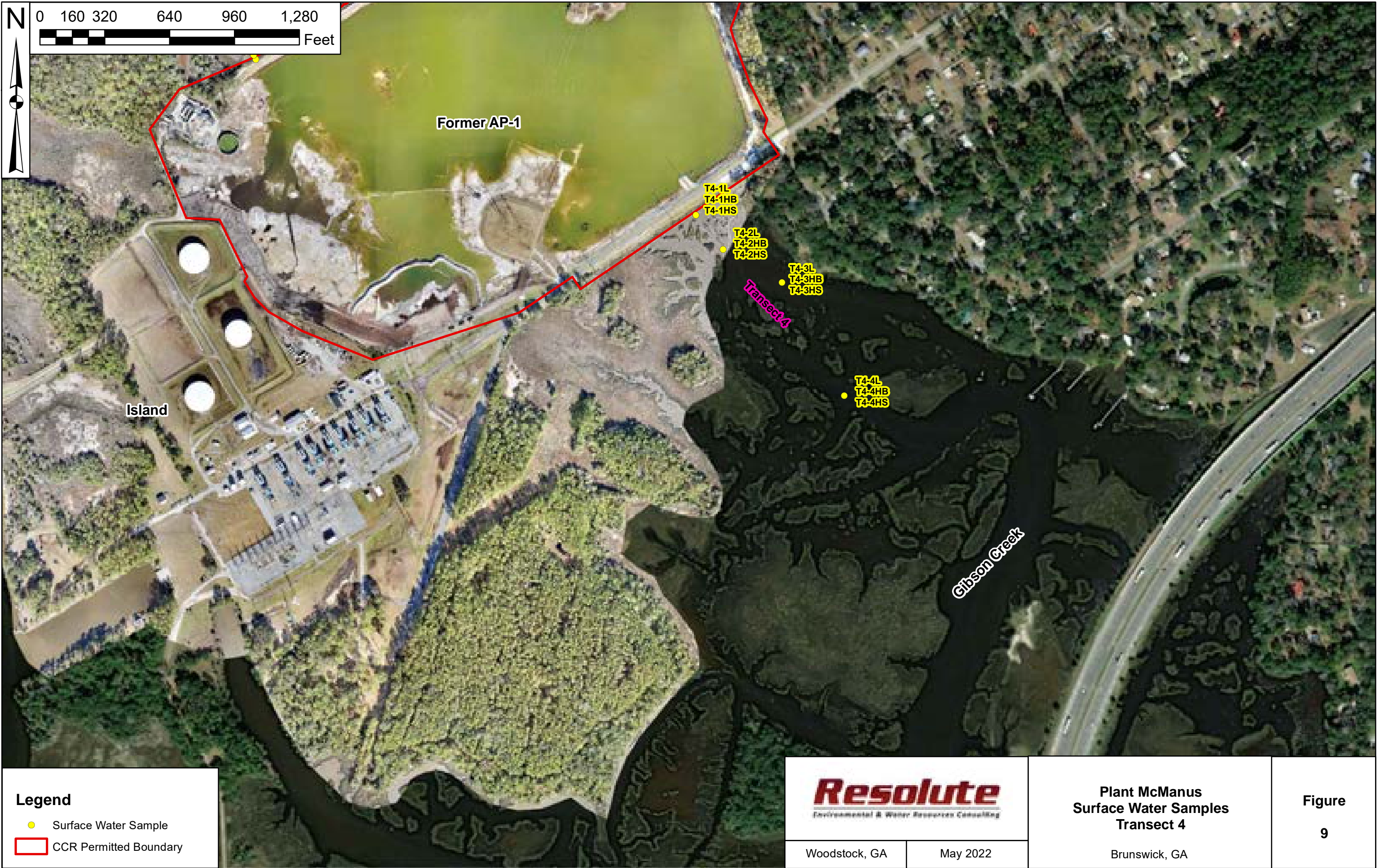
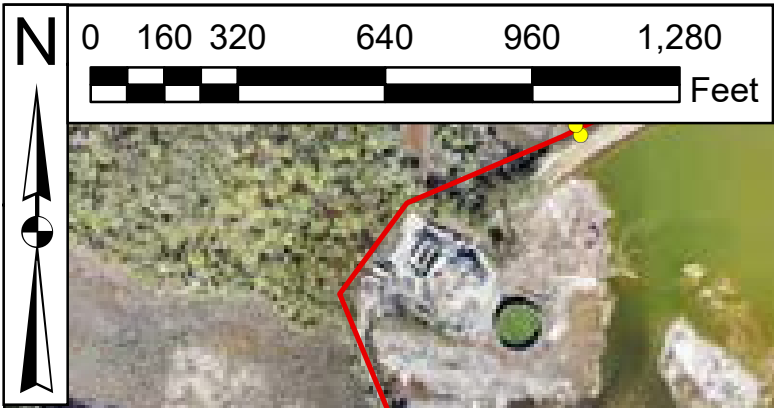
Figure

Woodstock, GA

May 2022

Brunswick, GA

8



Legend	
●	Surface Water Sample
	CCR Permitted Boundary

Resolute
Environmental & Water Resources Consulting

Woodstock, GA

May 2022

**Plant McManus
Surface Water Samples
Transect 4**

Brunswick, GA

**Figure
9**

APPENDIX A

MONITORING WELL MAINTENANCE AND REPAIR DOCUMENTATION



MEMORANDUM

Date: October 15, 2021
 To: Kristen Jurinko – Georgia Power
 CC: Ben Hodges
 From: Resolute Environmental
 Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
 Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	9/13/21	MCM-18	Signage added
Plant McManus Ash Pond	9/13/21	MCM-19	Signage added
Plant McManus Ash Pond	9/13/21	MCM-20	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-1	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-2	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-3	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-4	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-5	Signage added
Plant McManus Ash Pond	9/13/21	DPZ-6	Signage added
Plant McManus Ash Pond	9/13/21	PZ-9	Signage added
Plant McManus Ash Pond	9/13/21	PZ-10	Signage added

Plant McManus Ash Pond	9/13/21	PZ-11	Signage added
Plant McManus Ash Pond	9/13/21	PZ-12	Signage added

All maintenance and repairs are also documented in the September 2021 semiannual groundwater monitoring report.



MEMORANDUM

Date: June 21, 2022
To: Kristen Jurinko – Georgia Power
CC: Ben Hodges
From: Resolute Environmental
Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	6/14/22	MCM-06	Redeveloped Well
Plant McManus Ash Pond	6/14/22	DPZ-02	Redeveloped Well

All maintenance and repairs are also documented in the 2022 Annual Groundwater Monitoring and Corrective Action report.



MEMORANDUM

Date: June 30, 2022
 To: Kristen Jurinko – Georgia Power
 CC: Ben Hodges
 From: Resolute Environmental
 Subject: Plant McManus Ash Pond - Well Maintenance and Repair Documentation
 Georgia Power Company

Resolute Environmental has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at PLANT MCMANUS during the semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Plant McManus Ash Pond	6/27/22	DPZ-02	Installed MCM-13's AquaTROLL 200
Plant McManus Ash Pond	6/27/22	MCM-13	Installed DPZ-02's Level TROLL 500
Plant McManus Ash Pond	6/28/22	MW-04	New pad poured around existing pad to ensure ground contact

All maintenance and repairs are also documented in the 2022 Annual Groundwater Monitoring and Corrective Action report.

Consolidated MAJOR PROJECTS 2000-2001 Budgetary Process

John Hutton
Director, Department
Well III
1/25/01

PROJECT INFORMATION

24300-01-01

13/21

yes no n/a

1. Location of project/line group

- a. Is the well within cost area 24300-01?
- b. Is the well (project) specifically within the current well III?
- c. Is the well in a high traffic area and does the well require protection from traffic?
- d. Is the drainage around the well as required? (no standing water, dirt or well be placed in stream or drainage flow paths)

yes no n/a

2. Project/line grouping

- a. Is this project being initiated from the departmental budget and then to be covered?
- b. Is this project being supported by other departments?
- c. Does the funding base include funding from other?
- d. Is this project being performed in accordance with the state plan or other, or filled with pass-through?
- e. Is this well being placed in the high traffic area?

yes no n/a

3. Well type/pool

- a. Is the well pool in general condition (not a maintenance backlog)?
- b. Is the pool depth checked weekly from the well flow chart?
- c. Is the well pool in compliance with the maintenance manual?
- d. Is the well pool in compliance with the general maintenance manual? (not addressed by current manual but new and done not done when changed in.)
- e. Is this pool water within pool system with sufficient circulation?

yes no n/a

4. Method of entry

- a. Does the improvement entry of foreign material into the well?
- b. Is the existing level of water in tanks, or any associated lower levels of the well below 5 feet below?
- c. Is the well properly sealed for aquifer protection of the aquifer?
- d. Is the existing depth of the well checked on the level chart?
- e. Is the depth of the well consistent with the original well log?
- f. Is the existing depth of the well checked for depth within 500 feet of the bottom of the well by hand down to look for gravel or some other obstructions in the well?

yes no n/a

5. Operational Characteristics Well's Only:

- a. Does well run during scheduled water program?
- b. If not, what equipment is maintained, or is greater maintenance needed than in the approved groundwater plan for the facility?
- c. Does the well require additional flow flow, velocity?

yes no n/a

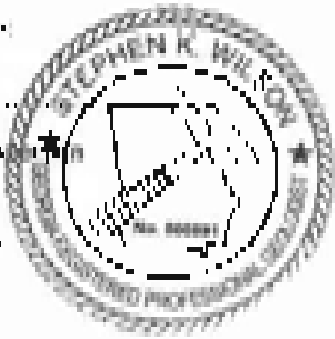
6. Have the your professional judgment in the well's condition as well as any applicable regulatory requirements? Monitoring Program and 2) comply with the applicable regulatory requirements?

yes no n/a

7. How does it look as required, by date:

Signature and Title of MAJOR PROJECTS Director

[Handwritten Signature]



Site Name
 Current Address
 Well ID
 Date

Well ID: 123456789

Well ID: 123456789

Well ID: 123456789

1. General Well Functionality

- a. Is the well operating as intended?
- b. Is the well producing water from the intended aquifer?
- c. Is the well or its intake structure in good condition?
- d. Is the well protected from surface contamination?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Physical Condition

- a. Is the well structure in good condition?
- b. Is the well casing intact and properly sealed?
- c. Is the well head in good condition?
- d. Is the well head protected from surface contamination?
- e. Is the well head secure and properly sealed?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Wellhead

- a. Is the wellhead in good condition?
- b. Is the wellhead properly sealed and protected?
- c. Is the wellhead properly labeled and identified?
- d. Is the wellhead properly secured and locked?
- e. Is the wellhead properly maintained?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Wellhead Details

- a. Is the wellhead properly labeled and identified?
- b. Is the wellhead properly secured and locked?
- c. Is the wellhead properly maintained?
- d. Is the wellhead properly sealed and protected?
- e. Is the wellhead properly secured and locked?
- f. Is the wellhead properly secured and locked?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Wellhead Groundwater Wells Only

- a. Is the wellhead properly sealed and protected?
- b. Is the wellhead properly secured and locked?
- c. Is the wellhead properly maintained?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Has the well been inspected and maintained according to the applicable regulatory requirements?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Other Information

Signature and Seal of Person responsible for inspection



Demanded (M) MINIMUM WELL Integrity Form

Well Name: WELL 102 (2) (2) (2)
 Owner Name: WELLS
 State: TX

year: 2011 m: 10 d: 10

1. Location of Well

- a. Is the well location marked on a map?
- b. Is the well properly identified with the correct well ID?
- c. Is the well in a right-of-way, easement, or other area that the well owner controls?
- d. Is the well owner aware of the well's location? (not including whether the well is located in an area of surface disturbance from drilling)

2. Wellhead Integrity

- a. Is the wellhead assembly free from apparent damage and able to function normally?
- b. Is the casing head or string-casing or surface casing?
- c. Does the casing head or string-casing assembly?
- d. Is the wellhead assembly free from any apparent damage or other condition that could affect the well's integrity?
- e. Is the wellhead assembly free from any apparent damage or other condition?

3. Wellbore Wall

- a. Is the wellbore wall free from any apparent damage or other condition?
- b. Is the wellbore wall free from any apparent damage or other condition?
- c. Is the wellbore wall free from any apparent damage or other condition?
- d. Is the wellbore wall free from any apparent damage or other condition?
- e. Is the wellbore wall free from any apparent damage or other condition?

4. Wellbore Casing

- a. Does the casing prevent entry of foreign material into the well?
- b. Is the casing free from holes or fractures or any condition that could allow foreign material to enter the casing?
- c. Is the wellbore casing properly installed and supported?
- d. Is the casing properly installed and supported?
- e. Is the depth of the wellbore casing with the casing wall log?
- f. Is the casing properly installed and supported?

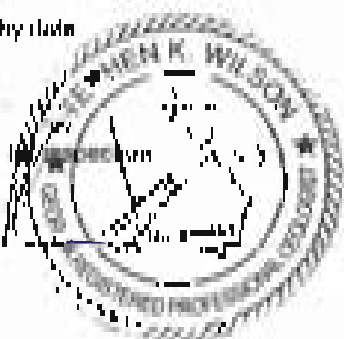
5. Casing and Groundwater Wells Only

- a. Does the well have any apparent damage or other condition?
- b. If applicable, is the wellbore casing properly installed and supported?
- c. Does the wellbore casing properly installed and supported?

6. Does the wellbore casing prevent entry of foreign material into the well?
 7. Does the wellbore casing prevent entry of foreign material into the well?
 8. Does the wellbore casing prevent entry of foreign material into the well?

9. Does the wellbore casing prevent entry of foreign material into the well?

Signature and Title of Well Owner: [Signature]

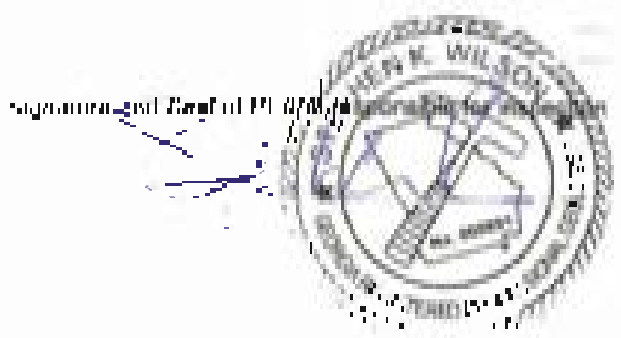


Elementary Well Completion Form (Form 1) (1/11)

Well Name: **10001-1400000**
 License Number: **1400000**
 Well ID: **1400000**
 Date: **1/12/20**

	yes	no	na
1) Wellbore Integrity			
a. Is the well casing and/or annulus?	<input checked="" type="checkbox"/>		
b. Is the well casing cemented in the correct well log?	<input checked="" type="checkbox"/>		
c. Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there a drainage system for well or production? (e.g. ditching system, flow well or well located in drainage drainage flow well?)	<input checked="" type="checkbox"/>		
2) Production Casing			
a. Is the casing free from casing from areas exposed to damage area after the well is used?	<input checked="" type="checkbox"/>		
b. Is the casing free of spalling, pitting or other defects?	<input checked="" type="checkbox"/>		
c. Check the casing from a term casing water hole?	<input checked="" type="checkbox"/>		
d. Is the casing open in surface drainage area of casing and water, or filled with poor gravel or sand?	<input checked="" type="checkbox"/>		
e. Is the casing well attached to the pipe or metal connections?	<input checked="" type="checkbox"/>		
3) Wellbore Seal			
a. Is the well sealed against surface water? (e.g. top hole or bottom hole?)	<input checked="" type="checkbox"/>		
b. Is the well sealed against surface from the production casing?	<input checked="" type="checkbox"/>		
c. Is the well sealed against surface water with the production casing?	<input checked="" type="checkbox"/>		
d. Is the well sealed against surface water with the ground surface and shales? (not wellbore seal by means, unusual surface seal from well cover when it appears)	<input checked="" type="checkbox"/>		
e. Is the well sealed against surface water with cement or slurry?	<input checked="" type="checkbox"/>		
4) Internal Casing			
a. Does there are movement of form gas around into the well?	<input checked="" type="checkbox"/>		
b. Is there a casing from of water or liquids in any other form from the casing? (e.g. water, gas, oil, etc.)	<input checked="" type="checkbox"/>		
c. Is the well properly protected from the effects of the production?	<input checked="" type="checkbox"/>		
d. Is there any pipe or form number on the casing casing?	<input checked="" type="checkbox"/>		
e. Is the depth of the well as indicated in the original well log?	<input checked="" type="checkbox"/>		
f. Is there a casing water? (e.g. water in the casing or any water in the well) or is the casing water? (e.g. water in the casing or any water in the well) or is the casing water? (e.g. water in the casing or any water in the well)	<input checked="" type="checkbox"/>		
5) Completion			
a. Is the well completed with a well?	<input checked="" type="checkbox"/>		
b. Is there any completion equipment installed, is it in good operating condition? (e.g. the completion equipment) (e.g. the completion equipment)	<input checked="" type="checkbox"/>		
c. Does the well contain any equipment (e.g. flow back)?	<input checked="" type="checkbox"/>		
d. Is there any other completion equipment, is the well in good operating condition? (e.g. the completion equipment) (e.g. the completion equipment)	<input checked="" type="checkbox"/>		
e. Is there any other completion equipment, is the well in good operating condition? (e.g. the completion equipment) (e.g. the completion equipment)	<input checked="" type="checkbox"/>		
f. Is there any other completion equipment, is the well in good operating condition? (e.g. the completion equipment) (e.g. the completion equipment)	<input checked="" type="checkbox"/>		


7. When was the form completed by date

Signature and Stamp of PI: 

Standard WELL INSPECTION WELL Integrity Form

Site Name: WATER TREATMENT PLANT
 General Address: 12345 Main St
 Well ID: W-001
 Date: 1/15/23

	Y/N	RM	CM
1 Location/Construction			
a	Is the well visible and accessible?	✓	
b	Is the well properly capped with the correct well ID??	✓	
c	Is the well in a high traffic area and does the well require protection from traffic?		✓
d	Is the drainage around the well properly sloped? (no standing water, but the well is not an collection area near these wells)	✓	
2 Protective Casing			
a	Is the protection casing from down equipment openings and slots in the casing?	✓	
b	Is the casing free of degradation or deterioration?	✓	
c	Does the casing have a flow opening every 10ft?	✓	
d	Is the annular space between casing a layer of sludge and debris or filled with fine gravel/sand?	✓	
e	Is the well sealed and in the hole in good condition?	✓	
3 Surface seal			
a	Is the well pad in good condition (not cracked or broken)?	✓	
b	Is the well pad sloped away from the protected casing?	✓	
c	Is the well pad completely covered with the protection casing?	✓	
d	Is the well pad in a permanent contact with the ground surface for stability? (not undermined by erosion, animal burrows, and other soil erosion such as tree roots)	✓	
e	Is the pad surface clean (not covered with sediment or debris)?	✓	
4 Internal casing			
a	Does the cap prevent entry of surface material into the well?	✓	
b	Is the casing free of holes or breaks, or any physical gaps from foreign objects (such as ballers)?	✓	
c	Is the well properly vented for equalization of air pressure?	✓	
d	Is the annular joint clearly marked on the inner casing?	✓	
e	Is the depth of the well compared with the ground water log?	✓	
f	Is the casing stable? (it does not give when heavy weight is applied or can it be taken apart by hand due to lack of grout or use of pipe couplings as construction)	✓	
5 Groundwater Withdrawal Wells			
a	Does well no surge abnormally when pumped?	✓	
b	If discharge sampling equipment installed, is it in good condition and approved in the approved groundwater plan for the facility?	✓	
c	Does the well require redevelopment (low flow, turbid)?		✓
6 Check all your professional programs, is the well construction / location appropriate to 1) address the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
		✓	
7 Closure from minimum as required, by date			



 Signature and Date of Inspector: _____

QUESTIONNAIRE REGARDING WELL CONSTRUCTION

Well Name
 Location
 Well ID
 Date

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

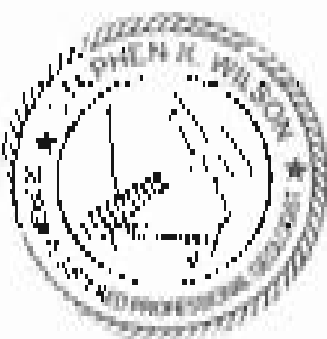
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

yes no n/a

- 1. Location/Identification
 - a. Is the well visible and accessible?
 - b. Is the well properly identified with the correct well ID?
 - c. Is the well in a high traffic area and does the well require permanent access points?
 - d. Is the discharge around the well well defined? (no standing water on the well pad area)
- 2. Design/DBD Labels
 - a. Do the labels have warning text from approved discharge well identification label?
 - b. Do the labels have type of designation or identification?
 - c. Does the warning text include warning words?
 - d. Is the warning label placed in a line of vision of the well?
 - e. Is the well label area in a line of vision of the well?
- 3. Wellhead Label
 - a. Do the well head or pump conditions (not seen below ground)?
 - b. Is the well head labeled away from the pad area warning?
 - c. Is the well head or pump label with the pad area warning?
 - d. Is the well head or pump label with the pad area warning?
 - e. Is the well head or pump label with the pad area warning?
- 4. Wellhead Warning
 - a. Does the warning label have the correct warning words?
 - b. Is the warning label clearly visible from the pad area?
 - c. Is the well head or pump label with the pad area warning?
 - d. Is the well head or pump label with the pad area warning?
 - e. Is the well head or pump label with the pad area warning?
- 5. Labeling (Wellhead/Well Only)
 - a. Is the well ID clearly visible from the pad area?
 - b. Is the well ID clearly visible from the pad area?
 - c. Does the well ID clearly visible from the pad area?
- 6. Discharge area professional judgement on the well construction and location appropriate to the discharge site or level of the discharge area. Does the discharge area clearly show any applicable regulatory requirements?

2. If you have no data on a question, by date

Signature and Title of Responsible Person



WATERWELL INSPECTION REPORT

Well Name: **WELL 104246000**
 District Number: **104246000**
 Well No: **104246000**
 Date: **11/15/20**

| | Yield | Flow | Rate |
|--|-------|------|------|
| 1. General Well Construction | | | |
| a. Is the well sealed into a casing? | ✓ | | |
| b. Is the well properly cemented into the casing? | ✓ | | |
| c. Is the well in a high traffic area and does the well casing provide for a traffic? | | ✓ | |
| d. Is the casing in contact with the aquifer? (from standing water and is well located in maximum drawdown flow path?) | ✓ | | |
| 2. Wellhead Location | | | |
| a. Is the pump house located above the water table? | | | |
| b. Is the casing from the pump house protected by a concrete pad? | | | |
| c. Is the casing from the pump house protected by a concrete pad? | | | |
| d. Is the casing from the pump house protected by a concrete pad and is the well filled with pea gravel? | ✓ | | |
| e. Is the well head seal in this location good? | ✓ | | |
| 3. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |
| d. Is the well head seal in a casing in good condition? | ✓ | | |
| e. Is the well head seal in a casing in good condition? | ✓ | | |
| 4. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |
| d. Is the well head seal in a casing in good condition? | ✓ | | |
| e. Is the well head seal in a casing in good condition? | ✓ | | |
| f. Is the well head seal in a casing in good condition? | ✓ | | |
| 5. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |
| 6. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |
| 7. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |
| 8. Wellhead Seal | | | |
| a. Is the well head seal in a casing in good condition? | ✓ | | |
| b. Is the well head seal in a casing in good condition? | ✓ | | |
| c. Is the well head seal in a casing in good condition? | ✓ | | |

1. The well is in good condition and is suitable for use.

Inspector Name: _____
 Title: _____



Environmental Monitoring Well Integrity Review

Project Name: **Plant Addition**
 Permit Number: **744-0000**
 Issue Date: **7/13/20**

| | Yes | No | NA |
|---|-------------------------------------|--------------------------|--------------------------|
| 1. Location/Identification | | | |
| a. Is the well location given on a map? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well on a right-of-way, easement, or access. Has the well owner/producer been notified? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the drainage area of the well as applicable? (for monitoring wells that are well located in adjacent drainage District) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Monitoring Logging | | | |
| a. Is the proper type of logs from logs appropriate drainage unit of the well has been? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the casing depth of logs within a 10% variation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well casing depth within a 10% variation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the annular space between casing and bore of casing and water, or fluid space properly sealed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the well located in a location in ground conditions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Casing and Seal | | | |
| a. Is the well casing depth within 10% of the kind of depth? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well seal depth away from the production casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well seal as complete as the casing production casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the well seal as complete as the casing production casing? (for monitoring wells that are well located in adjacent drainage District) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the well seal as complete as the casing production casing? (for monitoring wells that are well located in adjacent drainage District) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Grout and Seal | | | |
| a. Is the well seal as complete as the casing production casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the casing joint a heavy material, or any material from the casing joint to the casing head? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well properly sealed for equilibration of the pressure? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the casing joint a heavy material, or any material from the casing joint to the casing head? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the casing joint a heavy material, or any material from the casing joint to the casing head? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Is the casing joint a heavy material, or any material from the casing joint to the casing head? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Logging/Logging Wells Only | | | |
| a. Does well log change as frequently when required? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well monitoring equipment installed in the ground conditions area, and is the equipment guaranteed to stay in place? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Does the well response indicate a problem with the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Compliance with applicable regulations, or any other applicable laws or rules that are not specifically listed in the title of this form of the Environmental Monitoring Program and that comply with the applicable regulatory requirements? | | | |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. This form is to be completed by the:

Signature and Title of EPCO Representative for Inspection

[Handwritten Signature]



Groundwater Monitoring Well Inspection Form

Site Name: Plant Materials
 District Number: _____
 Well ID: 44M-10
 Date: 4/13/14

| | Pass | Fail | Not |
|--|-------------------------------------|-------------------------------------|-----|
| 1. Location/Use of Well | | | |
| a. Is the well located per regulations? | <input checked="" type="checkbox"/> | | |
| b. Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c. Is the well at a safe depth from structures, lines, and other obstructions? | | <input checked="" type="checkbox"/> | |
| d. Is the discharge area well secured and suitable? (no standing water that could be used to store and transport flow to?) | <input checked="" type="checkbox"/> | | |
| 2. Protective Casing | | | |
| a. Is the casing free from any apparent damage and able to be removed? | <input checked="" type="checkbox"/> | | |
| b. Is the casing free of degradation or deterioration? | <input checked="" type="checkbox"/> | | |
| c. Does the casing have a flow control system? | <input checked="" type="checkbox"/> | | |
| d. Is the casing's seal or interface with the hole or wellhead, or other well head part, maintained? | <input checked="" type="checkbox"/> | | |
| e. Is the well head and any part of the casing protected? | <input checked="" type="checkbox"/> | | |
| 3. Wellhead | | | |
| a. Is the well head in good condition and in good location? | <input checked="" type="checkbox"/> | | |
| b. Is the well head shielded away from the public area? | <input checked="" type="checkbox"/> | | |
| c. Is the well head in compliance with well head protection zoning? | <input checked="" type="checkbox"/> | | |
| d. Is the well head as complete as required by the regulatory authority and shielded from unauthorized access and tampering with the well head and casing when not in use? | <input checked="" type="checkbox"/> | | |
| e. Is the well head in a secure and controlled area? | <input checked="" type="checkbox"/> | | |
| 4. Integrity Casing | | | |
| a. Does the casing prevent entry of foreign materials into the well? | <input checked="" type="checkbox"/> | | |
| b. Is the casing free of cracks or leaks, or any other leaks or damage? | <input checked="" type="checkbox"/> | | |
| c. Is the well properly sealed for abandonment of the well? | <input checked="" type="checkbox"/> | | |
| d. Is the casing properly sealed to prevent gas or liquid migration? | <input checked="" type="checkbox"/> | | |
| e. Is the depth of the well's circulation well the depth of the well? | <input checked="" type="checkbox"/> | | |
| f. Is the casing able to be removed and replaced with a new casing if necessary? | <input checked="" type="checkbox"/> | | |
| 5. Sampling (For Specific Wells Only) | | | |
| a. Is the well or large adequately secured and protected? | | <input checked="" type="checkbox"/> | |
| b. If made, are sampling equipment installed in a good condition and used, and is the equipment ground under the floor? | | <input checked="" type="checkbox"/> | |
| c. Does the well meet the standards for flow rate, flow rate? | | <input checked="" type="checkbox"/> | |
| 6. General Well Condition, Equipment, and Other Information | | | |
| a. Are there any other information, or other equipment, lines, or other information that are not in compliance with the applicable regulatory requirements? | <input checked="" type="checkbox"/> | | |

7. Comments or Notes: _____

Inspector: [Signature] responsible for inspection



Professional Membership Application Form

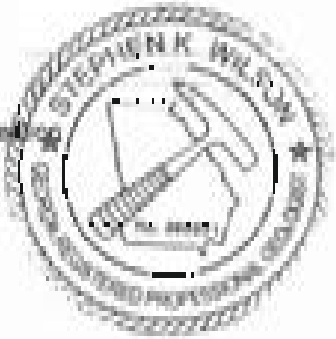
Name: Priscilla M. Manning
 Phone No. (day): 803.241.1111
 Cell: 803.241.1111

| | yes | no | na |
|--|-------------------------------------|-------------------------------------|----|
| 1. Construction/Installation | | | |
| a. Is the well depth and diameter correct? | <input checked="" type="checkbox"/> | | |
| b. Is the well properly sealed and work done around well top? | <input checked="" type="checkbox"/> | | |
| c. Is the well depth, depth, location, diameter, flow rate, and pump installed in accordance? | | <input checked="" type="checkbox"/> | |
| d. Is the well depth, diameter, flow rate, and pump installed in accordance? | <input checked="" type="checkbox"/> | | |
| 2. Production Testing | | | |
| a. Is the well free of casing, tool joint, equipment damage and other debris? | <input checked="" type="checkbox"/> | | |
| b. Is the casing free of the production or distribution? | <input checked="" type="checkbox"/> | | |
| c. Does the casing have any leaks, cracks, or other damage? | <input checked="" type="checkbox"/> | | |
| d. Is the production or distribution equipment free of debris and debris in line with pump operation? | <input checked="" type="checkbox"/> | | |
| e. Is the well free of debris in the line, in ground conditions? | <input checked="" type="checkbox"/> | | |
| 3. Production Test | | | |
| a. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| b. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| c. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| d. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| e. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| 4. Final Test | | | |
| a. Does the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| b. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| c. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| d. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| e. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| f. Is the well production rate, flow rate, and flow rate correct? | <input checked="" type="checkbox"/> | | |
| 5. Corrosion, Groundwater Wells Only | | | |
| a. Does the well have any corrosion or other damage? | <input checked="" type="checkbox"/> | | |
| b. Is the well production rate, flow rate, and flow rate correct? | | <input checked="" type="checkbox"/> | |
| c. Is the well production rate, flow rate, and flow rate correct? | | <input checked="" type="checkbox"/> | |
| 6. Final and/or production test on the well and/or distribution system appropriate to the production or distribution of the groundwater production equipment? | | | |
| | <input checked="" type="checkbox"/> | | |

Is there any other information provided by client?

Signature of Applicant: Priscilla M. Manning

(Handwritten signature)



Groundwater Monitoring Well Integrity Form

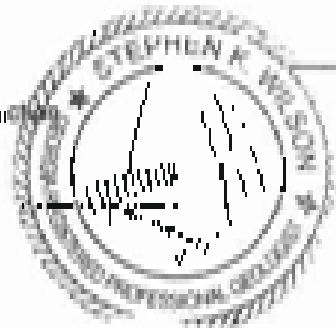
Well Number
 Location
 Well ID
 Date

Flow Indicator
 PAU () / ()
 () / ()

| | yes | no | NA |
|--|-------------------------------------|-------------------------------------|----|
| 1) Type of well/identification | | | |
| a) Is this well a type of well previously? | <input checked="" type="checkbox"/> | | |
| b) Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c) Is the well in a high traffic area and does the well require protection from traffic? | | <input checked="" type="checkbox"/> | |
| d) Is the discharge area of the well established? (see above for details, can the well be used for other activities than the primary purpose?) | <input checked="" type="checkbox"/> | | |
| 2) Protective Methods | | | |
| a) Is the discharge from the well into the ground protected from surface water? | <input checked="" type="checkbox"/> | | |
| b) Is the casing free of degradation or other damage? | <input checked="" type="checkbox"/> | | |
| c) Does the casing have any leaks or other damage? | <input checked="" type="checkbox"/> | | |
| d) Is the discharge area of the well established and protected from surface water? | <input checked="" type="checkbox"/> | | |
| e) Is the well located in an area of high traffic? | <input checked="" type="checkbox"/> | | |
| 3) Well ID | | | |
| a) Is the well ID clearly established and visible to the public? | <input checked="" type="checkbox"/> | | |
| b) Is the well ID clearly visible from the surface line of view? | <input checked="" type="checkbox"/> | | |
| c) Is the well ID clearly visible to the public from the ground surface? | <input checked="" type="checkbox"/> | | |
| d) Is the well ID clearly visible to the public from the ground surface and the well ID is clearly visible to the public from the ground surface? | <input checked="" type="checkbox"/> | | |
| e) Is the well ID clearly visible to the public from the ground surface? | <input checked="" type="checkbox"/> | | |
| 4) Wellhead sealing | | | |
| a) Does the wellhead seal meet the minimum seal requirements? | <input checked="" type="checkbox"/> | | |
| b) Is the casing free of holes or leaks in any section from the discharge to the wellhead? | <input checked="" type="checkbox"/> | | |
| c) Is the well properly sealed for surface water and air pollution? | <input checked="" type="checkbox"/> | | |
| d) Is the wellhead properly sealed for surface water and air pollution? | <input checked="" type="checkbox"/> | | |
| e) Is the head of the well connected with the adjacent well head? | <input checked="" type="checkbox"/> | | |
| f) Is the casing sealed for surface water and air pollution from the discharge to the wellhead and the discharge to the wellhead is clearly visible to the public? | <input checked="" type="checkbox"/> | | |
| 5) Monitoring Well ID | | | |
| a) Is the well ID clearly established and visible to the public? | <input checked="" type="checkbox"/> | | |
| b) Is the well ID clearly established and visible to the public from the discharge to the wellhead and the discharge to the wellhead is clearly visible to the public? | <input checked="" type="checkbox"/> | | |
| c) Does the well require redevelopment (see flow chart)? | | <input checked="" type="checkbox"/> | |
| 6) Other | | | |
| a) Does the well ID clearly established and visible to the public? | <input checked="" type="checkbox"/> | | |
| b) Does the well ID clearly established and visible to the public from the discharge to the wellhead and the discharge to the wellhead is clearly visible to the public? | <input checked="" type="checkbox"/> | | |
| c) Does the well require redevelopment (see flow chart)? | | <input checked="" type="checkbox"/> | |
| 7) Other | | | |
| a) Does the well ID clearly established and visible to the public? | <input checked="" type="checkbox"/> | | |
| b) Does the well ID clearly established and visible to the public from the discharge to the wellhead and the discharge to the wellhead is clearly visible to the public? | <input checked="" type="checkbox"/> | | |
| c) Does the well require redevelopment (see flow chart)? | | <input checked="" type="checkbox"/> | |

If a well has problems as indicated, by this

Signature of _____



Handwritten Report on Well Construction

Site Name: **Handwritten Name**
 Project Number: **Handwritten Number**
 Date: **Handwritten Date**

Handwritten Title

Handwritten Date

1. Well Identification

- a. Is this well a new or existing well?
- b. Is this well properly identified with the correct name of the well?
- c. Is the well in a high water area near the well surface? (If so, how deep is the well?)
- d. Is the structure around the well in a suitable condition from water runoff or other causes of erosion (flow walls)?

yes no n/a

2. Physical Characteristics

- a. Is the well depth measured from an approved datum? (If not, what is the datum?)
- b. Is the casing head or top of the well in a suitable condition?
- c. Is the casing head in a suitable condition for use?
- d. Is the casing pipe in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- e. Is the well in a suitable condition for use?

3. Wellhead

- a. Is the wellhead in good condition (not a rusted metal)?
- b. Is the wellhead secured away from the public view?
- c. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- d. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- e. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?

4. Well Casing

- a. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- b. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- c. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- d. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- e. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- f. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- g. Is the casing in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?

5. Wellhead Identification and Labeling

- a. Is the wellhead properly identified with the correct name of the well?
- b. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- c. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?

- d. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?
- e. Is the wellhead in a suitable condition for use (no rust, no leaks, no holes, no cracks, no damage)?

6. Wellhead Identification and Labeling, by date

Signature and Title of PE/PSI responsible for the well:

[Handwritten Signature]


STANDARDIZATION WITHIN THE WELL-BEING OF THE

Date: 10/10/2020
 Period: 1st
 Well: 10
 Page: 10

year no size

1) (10/10/2020) (10/10/2020)

- a) Is the well water used in the house?
- b) Is the well properly sealed from surface water?
- c) Is the well in a safe place, protected from surface water?
- d) Is the drainage around the well at a safe level (preventing water from entering the well)?

✓
 ✓
 ✓
 ✓

2) (10/10/2020) (10/10/2020)

- a) Is the well free from any form of animal droppings and other debris?
- b) Is the well free from any form of surface water?
- c) Is the well free from any form of surface water?
- d) Is the well free from any form of surface water?
- e) Is the well free from any form of surface water?

✓
 ✓
 ✓
 ✓
 ✓

3) (10/10/2020) (10/10/2020)

- a) Is the well used in good conditions (not cracked or broken)?
- b) Is the well and its pipes away from the public sewer?
- c) Is the well used in a safe place (not near a public sewer)?
- d) Is the well used in a safe place (not near a public sewer)?
- e) Is the well used in a safe place (not near a public sewer)?

✓
 ✓
 ✓
 ✓
 ✓

4) (10/10/2020) (10/10/2020)

- a) Is the well covered with a lid?
- b) Is the well covered with a lid?
- c) Is the well covered with a lid?
- d) Is the well covered with a lid?
- e) Is the well covered with a lid?

✓
 ✓
 ✓
 ✓
 ✓

5) (10/10/2020) (10/10/2020)

- a) Is the well covered with a lid?
- b) Is the well covered with a lid?
- c) Is the well covered with a lid?

✓
 ✓
 ✓

6) Based on your previous observations, is the well in good condition for use?
 appropriate to 1) or less than the other items of the Environmental
 Monitoring Program case 2) comply with the applicable regulatory
 requirements?

✓
 ✓

7) (10/10/2020) (10/10/2020)

Signature and stamp of the EPA Inspector for inspection

[Handwritten Signature]



Consolidated Monthly Well Completion Report

Field Name:
 Location:
 Well No:
 Date:

Plant Name/Type

**WV-1-26
 4/13/21**

| | yes | no | na |
|--|-------------------------------------|----|----|
| 1. Well Identification | | | |
| a. Is the well number and name visible? | <input checked="" type="checkbox"/> | | |
| b. Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c. Is the well ID clearly visible from the wellhead? | <input checked="" type="checkbox"/> | | |
| d. Is the drainage location that applies to the well clearly marked on the wellhead or adjacent property? | <input checked="" type="checkbox"/> | | |
| 2. Wellhead Capping | | | |
| a. Is the wellhead capping device properly installed and in the correct state? | <input checked="" type="checkbox"/> | | |
| b. Is there a lock device or other mechanism in place? | <input checked="" type="checkbox"/> | | |
| c. Does the capping device have a warning sign on it? | <input checked="" type="checkbox"/> | | |
| d. Is the capping device in the correct state of maintenance, or filled with proper gas/fluid? | <input checked="" type="checkbox"/> | | |
| e. Is the wellhead clearly marked as being capped? | <input checked="" type="checkbox"/> | | |
| 3. Well Integrity | | | |
| a. Is the well pipe integrity maintained (no visible leakage)? | <input checked="" type="checkbox"/> | | |
| b. Is the well pipe properly capped from the bottom of the well? | <input checked="" type="checkbox"/> | | |
| c. Is the well pipe and capping device in the correct state of maintenance? | <input checked="" type="checkbox"/> | | |
| d. Is the well pipe (and any capping device) with the ground surface level checked and capped by someone trained to perform such tasks (e.g., wellhead operator)? | <input checked="" type="checkbox"/> | | |
| e. Is the wellhead clearly marked with well ID and status? | <input checked="" type="checkbox"/> | | |
| 4. Internal Casing | | | |
| a. Is there any gas pressure being maintained in the well? | <input checked="" type="checkbox"/> | | |
| b. Is there a locking device on the wellhead, and any other locking devices? | <input checked="" type="checkbox"/> | | |
| c. Is the well properly vented for identification of air pressure? | <input checked="" type="checkbox"/> | | |
| d. Is the casing pipe clearly marked on the inner casing? | <input checked="" type="checkbox"/> | | |
| e. Is the depth of the well measured with the original well log? | <input checked="" type="checkbox"/> | | |
| f. Is the casing integrity checked (e.g., visual inspection, pressure testing, etc.) at least once every 12 months, or more often if required by the regulatory agency? | <input checked="" type="checkbox"/> | | |
| 5. Casinghead & Annular Well Seals | | | |
| a. Does well the casinghead/sealing device function? | <input checked="" type="checkbox"/> | | |
| b. Is the casinghead/sealing device properly maintained, in the correct state of maintenance and in the correct state of maintenance? | <input checked="" type="checkbox"/> | | |
| c. Does the well casinghead/sealing device have the correct seal? | <input checked="" type="checkbox"/> | | |
| 6. Drilling and Well Completion and Maintenance on the well completion and/or other appropriate for the well the depth of the casinghead/sealing device is properly maintained by a company with the appropriate regulatory requirements? | | | |
| | <input checked="" type="checkbox"/> | | |
| 7. Comments or Notes on Wellhead or Well | | | |

Signature and Seal of the Wellhead Operator: _____

[Handwritten Signature]



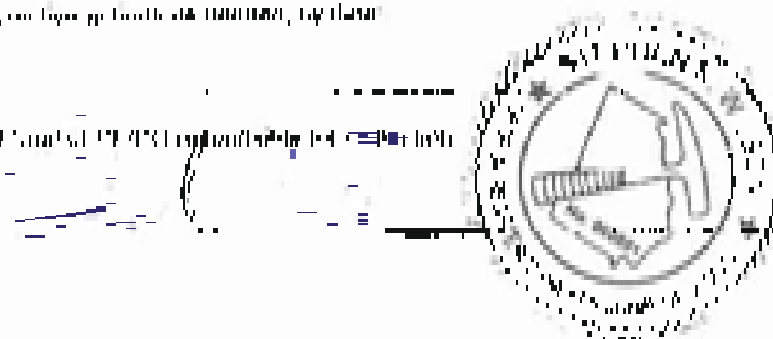
[REDACTED] Well Integrity Review

Well Name: **130117-01-001**
 Well Number: **130117-01-001**
 Well ID: **130117-01-001**
 Area: **130117-01-001**

Year: 2018 No: 001 WP

- 1. **LOGGING/Wellbore**
 - a. Is the well's condition and logs available? ✓
 - b. Is the well's integrity identified with the current well log? ✓
 - c. Is the well log in file's profile (depth, depth, etc.) correct? ✓
 - d. Is the log's integrity and accuracy as required? (see remaining sections, etc.) ✓
- 2. **Wellbore Integrity**
 - a. Is the wellbore's casing logs/records appropriate and able to be accessed? ✓
 - b. Is the wellbore's integrity as required? ✓
 - c. Does the wellbore's integrity logs/records meet the requirements? ✓
 - d. Is the wellbore's integrity logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore's integrity logs/records appropriate and able to be accessed? ✓
- 3. **Wellbore Fluid**
 - a. Is the wellbore fluid in good condition and able to be accessed? ✓
 - b. Is the wellbore fluid's integrity logs/records appropriate and able to be accessed? ✓
 - c. Is the wellbore fluid's integrity logs/records appropriate and able to be accessed? ✓
 - d. Is the wellbore fluid's integrity logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore fluid's integrity logs/records appropriate and able to be accessed? ✓
- 4. **Wellbore Casing**
 - a. Is the wellbore casing logs/records appropriate and able to be accessed? ✓
 - b. Is the wellbore casing logs/records appropriate and able to be accessed? ✓
 - c. Is the wellbore casing logs/records appropriate and able to be accessed? ✓
 - d. Is the wellbore casing logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore casing logs/records appropriate and able to be accessed? ✓
- 5. **Wellbore Cement**
 - a. Is the wellbore cement logs/records appropriate and able to be accessed? ✓
 - b. Is the wellbore cement logs/records appropriate and able to be accessed? ✓
 - c. Is the wellbore cement logs/records appropriate and able to be accessed? ✓
 - d. Is the wellbore cement logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore cement logs/records appropriate and able to be accessed? ✓
- 6. **Wellbore Completion**
 - a. Is the wellbore completion logs/records appropriate and able to be accessed? ✓
 - b. Is the wellbore completion logs/records appropriate and able to be accessed? ✓
 - c. Is the wellbore completion logs/records appropriate and able to be accessed? ✓
 - d. Is the wellbore completion logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore completion logs/records appropriate and able to be accessed? ✓
- 7. **Wellbore Production**
 - a. Is the wellbore production logs/records appropriate and able to be accessed? ✓
 - b. Is the wellbore production logs/records appropriate and able to be accessed? ✓
 - c. Is the wellbore production logs/records appropriate and able to be accessed? ✓
 - d. Is the wellbore production logs/records appropriate and able to be accessed? ✓
 - e. Is the wellbore production logs/records appropriate and able to be accessed? ✓

*Signature and Stamp of the responsible person



Groundwater Monitoring Well Integrity Test

Site Name: WYOMING POLYMER
 Project Name: WYOMING
 Well ID: WY1312
 Date: 10/13/11

well: 001 test: 001

1. Wellhead Identification

- a. Is the well visible and accessible?
- b. Is the well cap, when closed, with the correct identification?
- c. Is the well in a safe health area and does the well require restricted access?
- d. Is the discharge around the well acceptable? Are discharge water and soil conditions acceptable?

2. Drilling Log Review

- a. Is the geologic log covering from the assumed discharge level able to be reviewed?
- b. Is the survey level of the geologic log acceptable?
- c. Does the geologic log include a free liquid sample?
- d. Is the assumed aquifer thickness adequate above the discharge level and below the filter screen?
- e. Is the well located and is the log in general condition?

3. Wellhead

- a. Is the well head in good condition (no cracks or leakage)?
- b. Is the well head equipped with the proper type cap?
- c. Is the cap top 10 cm above the level with the discharge?
- d. Is the well head in a suitable condition with the ground surface and stable? (not overburdened by material, rocks, trees, and other well equipment)?
- e. Is the cap marked with depth?

4. Wellhead Screen

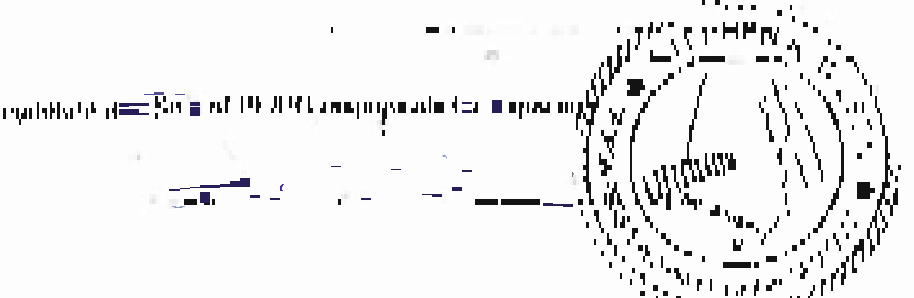
- a. Does the cap extend above of the screen and not into the well?
- b. Is the survey level of the screen in a safe area from the discharge?
- c. Is the screen properly installed in the hole?
- d. Is the screen well clearly marked in the survey diagram?
- e. Is the depth of the well measured with the original well log?
- f. Is the screen depth measured by means of any other means than the original log taken immediately after the backfill of material above the screen?

5. Additional Groundwater Well Only

- a. Have any discharge irregularities been noted?
- b. If there are irregularities noted, is the general condition and condition of the approved groundwater plan for this day?
- c. Does the well require further equipment flow flow test?

6. General Requirements for All Wells, in the general survey, and if possible, monitoring wells by the Department of the Environment Monitoring Program must comply with the applicable regulatory requirements?

7. General Requirements for All Wells, in the general survey



Name: Maximilian
 Matrikelnummer: 11111111
 Matrikelnummer
 Nachname

1.1
 1.2
 1.3
 1.4

1.1) Lagererhöhung durch

- a) In der Welt stabil und in Deutschland?
- b) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- c) In der Welt in einem leichten Anstieg und in Deutschland die Welt um 10% (Umsatzsteuersatz 19%)?
- d) In der Welt in einem leichten Anstieg und in Deutschland die Welt um 10% (Umsatzsteuersatz 19%)?

ja
 nein
 ja

2) Exportsteuer

- a) In der Praxis Exportsteuer durch die Abgrenzung der Exporterzeugnisse?
- b) In der Praxis durch die Abgrenzung der Exporterzeugnisse?
- c) In der Praxis durch die Abgrenzung der Exporterzeugnisse?
- d) In der Praxis durch die Abgrenzung der Exporterzeugnisse?
- e) In der Praxis durch die Abgrenzung der Exporterzeugnisse?

ja
 ja
 ja
 ja
 ja

3) Lagererhöhung

- a) In der Welt stabil und in Deutschland?
- b) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- c) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- d) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- e) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?

ja
 ja
 ja
 ja
 ja

4) Lagererhöhung

- a) In der Welt stabil und in Deutschland?
- b) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- c) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- d) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- e) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- f) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?

ja
 ja
 ja
 ja
 ja
 ja

5) Lagererhöhung

- a) In der Welt stabil und in Deutschland?
- b) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?
- c) In der Welt stabil und in Deutschland mit dem Umsatzsteuersatz 19%?

ja
 ja
 ja

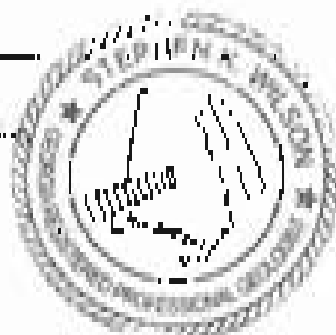
6) Lagererhöhung

ja
 ja
 ja

7) Lagererhöhung

Signature and Stamp of the Tax Authority

Signature and Stamp of the Tax Authority



Groundwater Monitoring Well Integrity Form

Site Name: W. Apt. MacMurray
 Project Number: _____
 Well ID: MCMA-20
 Date: 9/18/20

| | | Yes | No | N/A |
|--|---|-------------------------------------|-------------------------------------|--------------------------|
| 1. Construction/Installation | | | | |
| a | Is the well casing and annulus sealed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well at a high enough elevation above the well casing to prevent backflow? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the drainage around the well acceptable? (no standing water, not in well located in obvious drainage flow path) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Protective Casings | | | | |
| a | Is the protective casing free from significant damage and able to be maintained? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of degradation or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the casing have a functioning sweep joint? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the annular space between casings clear of debris and water, or filled with fine gravel/sand? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well located and is the back logging complete? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Surface and | | | | |
| a | Is the well cap in good condition (not cracked or broken)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well cap sloped away from the protective casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well cap in complete contact with the ground surface? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well cap in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the cap surface clean (not covered with sediment or debris)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Internal casing | | | | |
| a | Does the cap prevent entry of foreign material into the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of leaks or joints, or any other openings from the top of the casing (such as drains)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well properly vented for equalization of air pressure? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the casing good quality material for the casing casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the depth of the well consistent with the original well log? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f | Is the casing sealed? (or does the casing have any other openings or leaks that can be taken apart by hand due to lack of proper use of the casing in construction) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Standalone Groundwater Wells Only | | | | |
| a | Does well cap open adequately when required? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | If dedicated sampling equipment malfunctions, is it replaced immediately and installed in the appropriate groundwater area for the facility? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the well require maintenance (flow line, tubing)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Based on your professional judgement, is the well construction / the above appropriate to fully address the objectives of the Groundwater Monitoring Program and all other applicable regulatory requirements? | | | | |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Corrective actions as needed, by date | | | | |
| | | | | |

Signature of _____ of _____ or _____

[Handwritten signature]

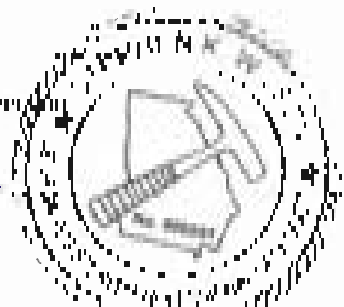


Unit Name: Process of Water Treatment
 Period Allocation: 10
 Unit ID: 1012121
 Date: 10/12/21

| | | yes | no | na |
|--|--|-------------------------------------|-------------------------------------|----|
| 1. Location/destination | | | | |
| a | Is the well located near or to the left? | <input checked="" type="checkbox"/> | | |
| b | Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c | Is there sufficient space (width, depth) around the well to place a filter from further? | | <input checked="" type="checkbox"/> | |
| d | Is the well range excessive (too close to buildings, roads, etc.)? | <input checked="" type="checkbox"/> | | |
| 2. Protection Enclosure | | | | |
| a | Is the enclosure built using firm foundation (concrete) and able to be secured? | <input checked="" type="checkbox"/> | | |
| b | Is the enclosure built to a height of 2.1m (7ft) or more? | <input checked="" type="checkbox"/> | | |
| c | Does the enclosure have a firm locking door? | <input checked="" type="checkbox"/> | | |
| d | Is the enclosure open to the sky? (covered with a roof and water is able to get in?) | <input checked="" type="checkbox"/> | | |
| e | Is the well located in the back of ground level? | <input checked="" type="checkbox"/> | | |
| 3. Well at point | | | | |
| a | Is the well protected against animals (not reached in tank)? | <input checked="" type="checkbox"/> | | |
| b | Is the well protected against insects that pass from a nearby? | <input checked="" type="checkbox"/> | | |
| c | Is the well protected against any other ground level nearby? | <input checked="" type="checkbox"/> | | |
| d | Is the well protected against any other ground level nearby? | <input checked="" type="checkbox"/> | | |
| e | Is the well protected against any other ground level nearby? | <input checked="" type="checkbox"/> | | |
| 4. Well at point | | | | |
| a | Does the well have a cover of concrete or metal? | <input checked="" type="checkbox"/> | | |
| b | Is the well cover of concrete or metal, or any other material from a nearby? | <input checked="" type="checkbox"/> | | |
| c | Is the well cover of concrete or metal, or any other material from a nearby? | <input checked="" type="checkbox"/> | | |
| d | Is the well cover of concrete or metal, or any other material from a nearby? | <input checked="" type="checkbox"/> | | |
| e | Is the well cover of concrete or metal, or any other material from a nearby? | <input checked="" type="checkbox"/> | | |
| f | Is the well cover of concrete or metal, or any other material from a nearby? | <input checked="" type="checkbox"/> | | |
| 5. Sampling | | | | |
| a | Does the well have a sample valve when required? | <input checked="" type="checkbox"/> | | |
| b | Is the well sample valve located in the well enclosure? | <input checked="" type="checkbox"/> | | |
| c | Is the well sample valve located in the well enclosure? | <input checked="" type="checkbox"/> | | |
| d | Is the well sample valve located in the well enclosure? | <input checked="" type="checkbox"/> | | |
| e | Is the well sample valve located in the well enclosure? | <input checked="" type="checkbox"/> | | |
| f | Is the well sample valve located in the well enclosure? | <input checked="" type="checkbox"/> | | |
| 6. Ground level enclosure and protection | | | | |
| a | Is the well enclosure built to a height of 2.1m (7ft) or more? | <input checked="" type="checkbox"/> | | |
| b | Is the well enclosure built to a height of 2.1m (7ft) or more? | <input checked="" type="checkbox"/> | | |
| c | Is the well enclosure built to a height of 2.1m (7ft) or more? | <input checked="" type="checkbox"/> | | |

1. The well is protected against animals (not reached in tank)?

Approved and signed by: [Signature]



Use Answer
Bubbles to Mark
Answers

1. The wall's purpose was to

keep the
city safe.

2. The wall's purpose was to

keep the
city safe.

ANSWER KEY

1. The wall's purpose was to

- a. to keep the city safe and secure.
- b. to keep the city safe from the enemy.
- c. to keep the city safe from the enemy and from the sea.
- d. to keep the city safe from the enemy and from the sea.

a b c d

2. The wall's purpose was to

- a. to keep the city safe from the enemy and from the sea.
- b. to keep the city safe from the enemy.
- c. to keep the city safe from the enemy and from the sea.
- d. to keep the city safe from the enemy and from the sea.
- e. to keep the city safe from the enemy and from the sea.

a b c d e

3. The wall's purpose was to

- a. to keep the city safe from the enemy and from the sea.
- b. to keep the city safe from the enemy.
- c. to keep the city safe from the enemy and from the sea.
- d. to keep the city safe from the enemy and from the sea.
- e. to keep the city safe from the enemy and from the sea.

a b c d e

4. The wall's purpose was to

- a. to keep the city safe from the enemy and from the sea.
- b. to keep the city safe from the enemy.
- c. to keep the city safe from the enemy and from the sea.
- d. to keep the city safe from the enemy and from the sea.
- e. to keep the city safe from the enemy and from the sea.
- f. to keep the city safe from the enemy and from the sea.

a b c d e f

5. The wall's purpose was to

- a. to keep the city safe from the enemy and from the sea.
- b. to keep the city safe from the enemy.
- c. to keep the city safe from the enemy and from the sea.
- d. to keep the city safe from the enemy and from the sea.

a b c d

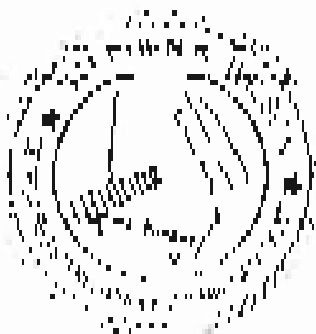
6. The wall's purpose was to

a b c d

7. The wall's purpose was to

a b c d

Agreement and Consent of PEWCA is required for responses

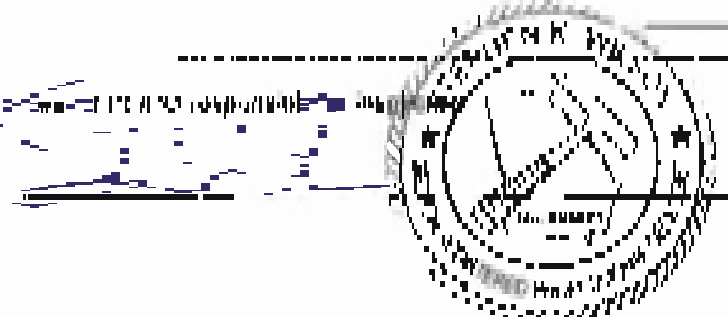


የግንባታ ስራ ለማረጋገጥ የሚያገለግል የሥራ ሰነድ

የሥራ ስም: የገበያ ማሰባሰቢያ ስራ
 የሥራ ቦታ: ወንጌል
 የሥራ ዓይነት: የግንባታ ስራ

| የሥራ ዓይነት | የሥራ ስም | የሥራ ቦታ | የሥራ ዓይነት |
|----------|---|-------------------------------------|--------------------------|
| 1 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው በሥራ ስራው ላይ ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7 | የግንባታ ስራ | | |
| a | የግንባታ ስራው ለማረጋገጥ የሚያገለግል ነው? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

የሥራ ስም: _____



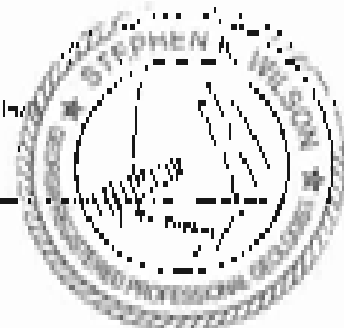
1.1. INTERVIEWING APPLICANTS WITH LIMITED [] [] [] []

Job Name: PLUMBER (PUMP) WORKER
 District/Division: _____
 Region: 13
 Date: 11/11/24

| | yes | no | NA |
|--|-------------------------------------|--------------------------|--------------------------|
| 1. General/Basic Information | | | |
| a) Is the work suitable and reasonable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Is the work properly described and explained with the? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Is the work in itself health and safety hazardous or dangerous? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Is the description given in any way deceptive? (e.g. describing water, not to work in place) or otherwise misleading? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Physical Nature | | | |
| a) Is the job/role physically demanding/ strenuous/ physically demanding/ has any manual? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Is there a heavy form of lifting/carrying or other manual? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Is there any carrying/lifting of heavy lifting/lifting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Is the physical work in itself a source of any form of strain/stress? (e.g. lifting, or other work/lifting?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Is there any risk of injury or other health issues? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Equipment | | | |
| a) Is the work done in a hazardous environment? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Additional Issues | | | |
| a) Is there any potential safety or health issues related to the work? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Is there any potential health or safety, or any other issues from the job/role? (e.g. lifting, or other work/lifting?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. General/Basic Information (continued) | | | |
| a) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Is the work done in a confined space? (e.g. confined spaces?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If there are any potential safety or health issues related to the work, please provide details of the issues and how they are being addressed. | | | |

7. Contact information provided by job?

Signature of _____



Site Name:
 General Location:
 Well ID:
 Date:

1. Location/Identification

- a. Is the well within a well use restriction?
- b. Is the well properly identified with the correct well ID?
- c. Is the well in a high traffic area and does the well present a problem from foot traffic?
- d. Is the average access path well or comparable path exceeding seven feet to the well head or within a distance there of?

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Wellhead Location

- a. Is the well head marking from a well approval drawing used able to be seen from?
- b. Is the casing base or a geographic reference visible?
- c. Does the casing base or a fence mark well hole?
- d. Is the wellhead within a wellhead marking class of class 1 and wellhead or filled with concrete markers?
- e. Is the well head used in the field in good condition?

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. Wellhead

- a. Is the well used in good conditions (not over head or broken)?
- b. Is the well and adjacent casing base or geographic marking?
- c. Is the well and its components (except pipe) protected from damage?
- d. Is the well (not its components) within the ground surface or other stable? (not compromised by surface, natural features, and there are marks when stepped on)
- e. Is the well within a fence (not a fence with markers or chains)?

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. Wellhead Casing

- a. Does the top prevent entry of foreign material into the well?
- b. Is the casing free of scales or other debris attached from the casing (other than pipe scale)?
- c. Is the well regularly vented for equalization of air pressure?
- d. Is the casing painted clearly marked in the area casing?
- e. Is the depth of the casing material sufficient to the well head?
- f. Is the casing (pipes) free of debris (pipes) (except scaling) within the well? Is the casing and top head free of debris (other than scale) or other obstructions (except scaling) within the casing?

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Geologic Groundwater Wells Only

- a. Is the well being adequately when pumped?
- b. If the well water is used for drinking, is it safe to drink (as determined by the approved groundwater plus for the facility)?
- c. Does the well appear to be adequately (flow, flow, level)?

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Based on your professional judgement, is the well (a) the best (b) the appropriate for (c) as long as the (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

7. Under Right to Life and Limb, up claim

Signature: (Print Name) (Print Name)



LOCAL GOVERNMENT PROFESSIONAL WORK CERTIFICATE FORM

City Name: City of Meriden Date: 05/21/2021
 District Number: 1172
 Ward ID: 1172
 Title: City Clerk

| | YES | NO | NA |
|--|-----|----|----|
| 1. Construction/Installation | | | |
| a. Is the well visible and accessible? | ✓ | | |
| b. Is the well properly identified with the correct well ID? | ✓ | | |
| c. Is the well in a high traffic area and does the well operator display the correct ID? | ✓ | | |
| d. Is the shut-off valve on the well at 6' or less? (No shut-off valve, or a shut-off valve at a distance greater than 6'?) | ✓ | | |
| 2. Electrical Wiring | | | |
| a. Is the power line causing from type approved damage protected by a wire cover? | ✓ | | |
| b. Is the wiring free of degradation or deterioration? | ✓ | | |
| c. Is the wiring housed in a listed wiring device? | ✓ | | |
| d. Is the electric service between a service line of utility and water, gas or fuel utility separated? | ✓ | | |
| e. Is the well to be used in the back of a vehicle? | ✓ | | |
| 3. Structural Integrity | | | |
| a. Is the well properly capped, clogged, lined, plugged or blocked? | ✓ | | |
| b. Is the well properly sealed away from the public area using? | ✓ | | |
| c. Is the well properly completely sealed with the proper low-sagging? | ✓ | | |
| d. Is the well not in contact with the ground surface and adjacent? (No concrete formed by means of vertical concrete pipe, or concrete cover when damaged) | ✓ | | |
| e. Is the well surface or frame (not covered with sediment or debris)? | ✓ | | |
| 4. Safety Hazards | | | |
| a. Is any hazardous material (oil, gas, acid, etc.) near the well? | ✓ | | |
| b. Is there a safety hazard (holes or debris) causing injury when from foreign objects (such as nails)? | ✓ | | |
| c. Is the well properly sealed for the absence of a propane tank? | ✓ | | |
| d. Is the locking device properly installed on the back of the cap? | ✓ | | |
| e. Is any debris of the well (any type) near the well head? | ✓ | | |
| f. Is the ground surface equal to the level of the back of ground in area of the well opening (no more than 5'?) | ✓ | | |
| 5. Groundwater Wells Only | | | |
| a. Is the well in the correct water category? | | ✓ | |
| b. If identified as a category requiring detection, is it of good condition and operated in the appropriate pressure zone for the category? | | ✓ | |
| c. Is the well water category correct (see flow diagram)? | | ✓ | |
| B. Based on your professional judgement, is the well's construction (based on appropriate to 1) within the requirements of the Groundwater Monitoring Program and 2) comply with any applicable regulatory requirements? | | | |
| | ✓ | | |

I have read and I am in agreement with this

Inspected and Seal of PE/PC responsible for inspection:




Standardized Monitoring Form (SMF) 1000-000000

Site Name: _____
 District/Division: _____
 Well ID: _____
 UICID: _____

Plant Name: MICHIGAN

PE 1A

9/13/21

1 Location/Condition/Type:

- a Is the well visible and accessible?
- b Is the well properly identified with the system (well ID)?
- c Is the well in a high traffic area and does the well require protection from traffic?
- d Is the drainage adjacent to the well appropriate? (see standard water, not on well located or otherwise through filter shell)

| yes | no | na |
|-----|----|----|
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |

2 Protective Casing

- a Is the protection casing from lower equipment drainage used where it is not required?
- b Is the casing from oil field activities or other activities?
- c Does the casing have a functioning weep hole?
- d Is the casing open to the atmosphere (type of debris and water, or filled with gas or sludge)?
- e Is the well blocked and in the back in good condition?

| yes | no | na |
|-----|----|----|
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |

3 Surface Seal

- a Is the well in the good condition (not cracked or broken)?
- b Is the well joint integral every time the partition is made?
- c Is the well joint in complete contact with the partition casing?
- d Is the well joint in complete contact with the casing and the well? (not necessarily by rotation, initial break and other well casing material)
- e Is the well joint in the good condition with sealant or other?

| yes | no | na |
|-----|----|----|
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |

4 Internal Casing

- a Does the case between activity of activities condition with the well?
- b Is the casing free of blocks of laminar or any other condition from debris (gas, oil, water, etc.)?
- c Is the well properly vented to the atmosphere or air circulation?
- d Is the casing joint closely connected and the casing opening?
- e Is the casing of the well connected with the original well hole?
- f Is the casing stable? (is there the gas or water column in the casing or are the tubes open by lateral flow or loss of ground or some other condition as a result)

| yes | no | na |
|-----|----|----|
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |

5 Casing/Well Construction Walls Only

- a Is the well casing adequately spaced apart?
- b If mechanical coupling equipment installed, is it in good condition and installed in the correct position and orientation?
- c Does the well require backfilling? (see flow, table)

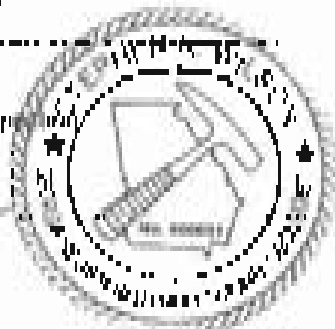
| yes | no | na |
|-----|----|----|
| ● | ○ | □ |
| ● | ○ | □ |
| ● | ○ | □ |

If changed on your professional judgment, in the well casing (other than plug) appropriate to 1) indicate the requirements of the Environmental Monitoring Program and 2) comply with the applicable regulatory requirements?

7 Construction activities completed by date

Signature and Title of PE/IC responsible for completion

[Handwritten Signature]



Underwater Welding Skill Proficiency Exam

Name: Yusef, Ali, Alwan
 License Number: PA-10
 Date: 11/13/11

| | YES | NO | NA |
|----------------------------------|--|-------------------------------------|--------------------------|
| 1 Location/Identification | | | |
| a | Is the well visible as an obstacle? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well properly marked with the correct well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well or depth marker marked close to the rig's position? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the marking clearly visible from a position 100 yards away? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2 Protective Clothing | | | |
| a | Is the protection against fire from approved clothing and shoes in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is the clothing type of appropriate construction? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Does the clothing have a flame-retardant lining? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the material specifically suitable for dry, steam, and water immersion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well protected in the tank in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3 Weighting | | | |
| a | Is the well put in good condition prior to use in the tank? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well put in good condition prior to use in the tank? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well put in good condition prior to use in the tank? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well put in good condition prior to use in the tank? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well put in good condition prior to use in the tank? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4 PROTECTIVE EQUIPMENT | | | |
| a | Is there a sign posted in the area of the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is there a sign posted in the area of the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5 Drilling | | | |
| a | Does the well have a permit to drill? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6 Overall | | | |
| a | Does the well have a permit to drill? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well properly marked for identification of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Signature and Title of Candidate: _____



Groundwater Monitoring WITH SURVEY FORM

Title Number: 2023-06-24-0001
 Project Number: _____
 Well ID: 03-01
 Date: 7/13/21

| | yes | no | not |
|---|-------------------------------------|-------------------------------------|-----|
| 1. Geophysical methods | | | |
| a) Do any wells include water level indicators? | <input checked="" type="checkbox"/> | | |
| b) Do any well geophysical indicators show that a well is well ID? | <input checked="" type="checkbox"/> | | |
| c) Do any well geophysical indicators indicate that well ID is a non-productive well? | | <input checked="" type="checkbox"/> | |
| d) Do any geophysical indicators show that well ID is a well ID? | <input checked="" type="checkbox"/> | | |
| 2. Production Summary | | | |
| a) Do any wells have a history of production? (Please provide details) | <input checked="" type="checkbox"/> | | |
| b) Do any wells have a history of production? (Please provide details) | <input checked="" type="checkbox"/> | | |
| c) Do any wells have a history of production? (Please provide details) | <input checked="" type="checkbox"/> | | |
| d) Do any wells have a history of production? (Please provide details) | <input checked="" type="checkbox"/> | | |
| e) Do any wells have a history of production? (Please provide details) | <input checked="" type="checkbox"/> | | |
| 3. Fluid Content | | | |
| a) Do any wells have a fluid content that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| b) Do any wells have a fluid content that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| c) Do any wells have a fluid content that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| d) Do any wells have a fluid content that is not listed in the table? | | <input checked="" type="checkbox"/> | |
| e) Do any wells have a fluid content that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| 4. Other Notes | | | |
| a) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| b) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| c) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| d) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| e) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| 5. Summary | | | |
| a) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| b) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| c) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| d) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| e) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |
| 6. Other Notes | | | |
| a) Do any wells have a history of production that is not listed in the table? | | <input checked="" type="checkbox"/> | |
| b) Do any wells have a history of production that is not listed in the table? | | <input checked="" type="checkbox"/> | |
| c) Do any wells have a history of production that is not listed in the table? | | <input checked="" type="checkbox"/> | |
| 7. Summary | | | |
| a) Do any wells have a history of production that is not listed in the table? | <input checked="" type="checkbox"/> | | |

8. Other Notes: There are no other notes for this well.

Signature and Seal of PE/PG responsible for inspection





Groundwater Monitoring Well Integrity Audit

Well ID: 201017 MUMAWAY
Parent Number: _____
Well ID: 12 12
Date: 27/10/21

1. General Well Integrity

- a. Is the well within an approved area?
- b. Is the well properly identified with the correct identification?
- c. Is the well on a high level? even and there are well surface points more than 1m?
- d. Is the structure around the well as expected? (no standing water over well for about 12 hours drainage flow path)

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Drilling Log Quality

- a. Is the primary casing from the operation appropriate for the location?
- b. Is the casing free of degradation or deterioration?
- c. Does the casing have a free casing surface?
- d. Is the casing free of debris, sludge, or other material, or filled with pore fluid?
- e. Is the well head and/or seal as given?

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. Surface Log

- a. Is the well (and casing) correctly identified and marked?
- b. Is the well and casing away from the production casing?
- c. Is the well and casing sealed with the correct sealant?
- d. Is the well head and casing sealed with the ground surface and adjacent pore fluid?
- e. Is the well (and casing) free of debris, sludge, or other material?

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. Wellhead

- a. Is the wellhead properly sealed and marked?
- b. Is the casing free of debris, sludge, or other material?
- c. Is the well properly sealed for liquid containment?
- d. Is the wellhead properly sealed and marked?
- e. Is the wellhead of the well as expected?
- f. Is the casing sealed? (no more than 100 mm above ground level)

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Drilling Log Quality

- a. Is the wellhead properly sealed and marked?
- b. Is the wellhead of the well as expected?
- c. Is the casing sealed? (no more than 100 mm above ground level)

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Does the well (and casing) comply with the requirements of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?

| yes | no | na |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Does the well (and casing) comply with the requirements of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?

Signature and Seal of P.I.E. Representative for MUMAWAY

[Handwritten Signature]



GROUNDWATER MONITORING WELL INSTALLATION FORM

Site Name: St. Louis University

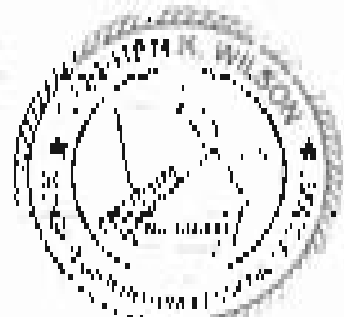
Legal Description: _____

Well ID: W1000-01

Date: 11/11/15

| | | yes | no | na |
|---|--|-------------------------------------|-------------------------------------|--------------------------|
| 1. Location/Installation | | | | |
| a | Is the well location map provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well accurately placed based on the current well log? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well in a high traffic area and does the well require protection from traffic? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the discharge around the well to a public? (no standing water over a well for which it is not an approved base path) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Drilling/Construction | | | | |
| a | Is the groundwater table from from approved drawings and data for the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is there a casing log of any equipment or equipment used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Check that casing logs in base casing casing logs? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the casing pipe a minimum diameter of 4 inches and water, or fluid with any other liquid? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well to be installed in the hole in ground conditions? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Wellhead/Well | | | | |
| a | Is the well head in ground conditions (not a hole in the ground)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well head design using a well protection cap casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well head in a concrete casing with the proper pipe casing? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well head in a concrete casing with the proper pipe casing? (Note: if the well is not in a concrete casing, it must be secured with a well head and casing which is approved) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well head in a concrete casing with a minimum diameter? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Log/Well Casing | | | | |
| a | Does the approved copy of logs go into the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is there a casing log of logs in casing, or any other logs from logs or other logs in the casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well casing pipe of any other logs in the casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the casing pipe of any other logs in the casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the depth of the well measured with the original well log? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f | Is the casing pipe of any other logs in the casing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Additional Groundwater Wells Only | | | | |
| a | Does well on large substantially altered well? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is there a well on large substantially altered well? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the well require measurement (base flow, total)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Signatures | | | | |
| I hereby certify that the information provided on this form is true and correct to the best of my knowledge and belief. | | | | |
| I hereby certify that the information provided on this form is true and correct to the best of my knowledge and belief. | | | | |
| I hereby certify that the information provided on this form is true and correct to the best of my knowledge and belief. | | | | |

Signature and Title of PI/PCA Representative for Installation



PROFESSIONAL ENGINEERING BOARD REGULATORY BOARD

Site Name: PALEO - MALABON
 Parcel Number: _____
 Plot ID: ANCP 702
 Date: 8/29/22

pen size rate

1 Location/Identification

- a. Is the well clearly marked on the subdivision?
- b. Is the well properly identified with the correct well ID?
- c. Is the well depth (1) 10' or more and does the well contain groundwater from the ground?
- d. Is the discharge around the well as suitable? (no standing water or in some form of obvious drainage flow path)

2 Drilling/Logging

- a. Is the probe free of any free fluid apparent damage seal while in the drilled?
- b. Is the casing free of any significant seal irregularities?
- c. Does the casing have a functional weep hole?
- d. Is the annular space between casing and bore hole or well water, or filled with grout/ cement?
- e. Is the well sealed top in the hole in good condition?

3 Surface seal

- a. Is the well good in good condition (not a seal hole or broken)?
- b. Is the well seal placed directly below the production casing?
- c. Is the well good in complete contact with the annular space casing?
- d. Is the well good in complete contact with the annular space casing? (not undermined by erosion, natural burrows, and other soil erosion when exposed gas)
- e. Is the final seal or clean seal covered well condition in detail?

4 Internal casing

- a. Does the well prevent entry of foreign material into the well?
- b. Is the casing free of holes or breaks in any other areas from foreign objects into the well?
- c. Is the well properly vented for equalization of air pressure?
- d. Is the casing bore directly exposed to the upper casing?
- e. Is the depth of the well consistent with the original well log?
- f. Is the casing stable? (no block the log, broken stability etc.) (not full or out of the hole) (no block the log or back of ground or soil or other obstructions in casing)

5 Sampling Groundwater Wells Only

- a. Does your sampling equipment show proper?
- b. If equipped with air purifier installed, is it in good condition and installed in the approved groundwater plan for the facility?
- c. Does the well feature disinfection (not filter surface)?

6 Based on your professional judgement, is the well construction/location appropriate to 1) address the objectives of the Groundwater Monitoring Program and 2) comply with any applicable regulatory requirements?

7 Construction status as revealed, by name

Signature and Seal of P.E. responsible for analysis



QUESTIONNAIRE FOR WELL INSPECTION FORM

Name Master
 District Master
 Well ID
 Date

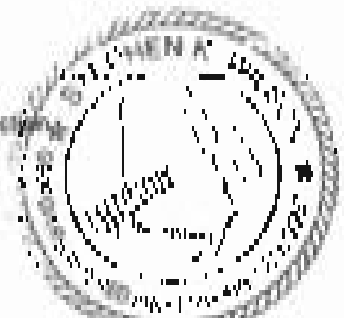
176.310.2010000
 176.310.2010000

- | | yes | no | na |
|------------------------------|--------------------------|--------------------------|--------------------------|
| 1. Location/Condition | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Production/Logging | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Wellbore/Well | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Tubing/Wellhead | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Safety/Environment | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Summary/Remarks | | | |
| a | <input type="checkbox"/> | | |
| b | <input type="checkbox"/> | | |
| c | <input type="checkbox"/> | | |
| 7. Signature/Date | | | |
| a | <input type="checkbox"/> | | |
| b | <input type="checkbox"/> | | |
| c | <input type="checkbox"/> | | |

Handwritten notes and signatures in the right margin, including a large signature that appears to be "S. S. S." and other illegible markings.

Signature and Date of P/MS responsible

Handwritten signature and date in the bottom left corner.



WATERWELL MONITORING WELL INSPECTION FORM

Well Name: 2128122
 Operator/Inspector: _____
 Well ID: _____
 Date, Time & Location: 2/28/22

- | | yes | no | obs |
|---|---|-------------------------------------|-----|
| 1. Construction/Construction | | | |
| a | Is the well sealed with approved materials? | <input checked="" type="checkbox"/> | |
| b | Is the well properly finished with the correct well lid? | <input checked="" type="checkbox"/> | |
| c | Is the well in a high traffic area and does the well cap(s) provide full protection? | <input type="checkbox"/> | |
| d | Is the drainage around the well as required? (no storm sewer or well leakage or drainage flow path) | <input type="checkbox"/> | |
| 2. Protective Casing | | | |
| a | Is the protective casing free from external damage and able to be repaired? | <input checked="" type="checkbox"/> | |
| b | Is the casing free of obstructions or displacement? | <input checked="" type="checkbox"/> | |
| c | Has the casing been properly wrapped? | <input checked="" type="checkbox"/> | |
| d | Is the annular space between casing and hole of casing and water in filled with pea gravel/sand? | <input checked="" type="checkbox"/> | |
| e | Is the well located and installed in good condition? | <input type="checkbox"/> | |
| 3. Wellhead | | | |
| a | Is the well head in good condition (no leakage or damage)? | <input checked="" type="checkbox"/> | |
| b | Is the well head sealed away from the protective casing? | <input checked="" type="checkbox"/> | |
| c | Is the well head in complete contact with the protective casing? | <input checked="" type="checkbox"/> | |
| d | Is the well head in complete contact with the ground surface area directly? (not compromised by grass, ground heave, soil slabs and other debris adjacent to) | <input type="checkbox"/> | |
| e | Is the well surface area free of external well enclosure or debris? | <input type="checkbox"/> | |
| 4. Wellhead Casing | | | |
| a | Does the casing prevent entry of foreign material into the well? | <input checked="" type="checkbox"/> | |
| b | Is the casing free of leaks or debris, or any obstructions from foreign objects (such as debris)? | <input checked="" type="checkbox"/> | |
| c | Is the well properly vented for equilibration of air pressure? | <input checked="" type="checkbox"/> | |
| d | Is the survey point clearly marked on the inner casing? | <input checked="" type="checkbox"/> | |
| e | Is the depth of the well consistent with the original well log? | <input checked="" type="checkbox"/> | |
| f | Is the casing stable? (no signs that pipe is moving, usually when lean hard on rod for false report by hand due to lack of pipe or use of slip couplings or connections) | <input checked="" type="checkbox"/> | |
| 5. Monitoring (For Protective Casing Only) | | | |
| a | Does well monitoring adequately verify program? | <input checked="" type="checkbox"/> | |
| b | If the monitoring equipment is not in good condition and/or not in the approved groundwater plan for the facility? | <input checked="" type="checkbox"/> | |
| c | Does the well require remedial/other (State, Fed, local)? | <input type="checkbox"/> | |
| 6. General | | | |
| a | Has the well been professionally inspected, in the well record book (see other requirements in 1) or does the owner have a State-licensed Monitoring Program and 2) comply with the applicable regulatory requirements? | <input checked="" type="checkbox"/> | |

Signature of Inspector: _____
 Date: _____

Signature and Seal of the DPSS responsible for inspection

[Handwritten Signature]



REGULATORY INFORMATION AND DISCLOSURE STATEMENT

File Number: 2018-00000000
 Primary Applicant: XXXXXXXXXX
 Well ID: XXXXXXXXXX
 Field: XXXXXXXXXX

| | yes | no | na |
|--|-----|----|----|
| 1. Local environmental | | | |
| a) Is the well status and/or condition? | X | | |
| b) Is the well properly maintained per the applicable regulations? | X | | |
| c) Is the well in a safe condition, does not show the well casing problem from fluid flow? | | X | |
| d) Is the well properly secured and sealed for preventing water, gas, or other substances from escaping from the well? | X | | |
| 2. Production Control | | | |
| a) Is the production control system installed and able to be used? | X | | |
| b) Is the casing head or production control system installed? | X | | |
| c) Is the production control system installed and able to be used? | X | | |
| d) Is the well head and/or the production control system installed and able to be used? | X | | |
| 3. Wellhead and | | | |
| a) Is the wellhead and/or production control system installed and able to be used? | X | | |
| b) Is the wellhead and/or production control system installed and able to be used? | X | | |
| c) Is the wellhead and/or production control system installed and able to be used? | X | | |
| d) Is the wellhead and/or production control system installed and able to be used? | X | | |
| 4. Wellhead and | | | |
| a) Is the wellhead and/or production control system installed and able to be used? | X | | |
| b) Is the wellhead and/or production control system installed and able to be used? | X | | |
| c) Is the wellhead and/or production control system installed and able to be used? | X | | |
| d) Is the wellhead and/or production control system installed and able to be used? | X | | |
| 5. Wellhead and | | | |
| a) Is the wellhead and/or production control system installed and able to be used? | X | | |
| b) Is the wellhead and/or production control system installed and able to be used? | X | | |
| c) Is the wellhead and/or production control system installed and able to be used? | X | | |
| d) Is the wellhead and/or production control system installed and able to be used? | X | | |
| 6. Wellhead and | | | |
| a) Is the wellhead and/or production control system installed and able to be used? | X | | |
| b) Is the wellhead and/or production control system installed and able to be used? | X | | |
| c) Is the wellhead and/or production control system installed and able to be used? | X | | |
| d) Is the wellhead and/or production control system installed and able to be used? | X | | |
| 7. Wellhead and | | | |
| a) Is the wellhead and/or production control system installed and able to be used? | X | | |
| b) Is the wellhead and/or production control system installed and able to be used? | X | | |
| c) Is the wellhead and/or production control system installed and able to be used? | X | | |
| d) Is the wellhead and/or production control system installed and able to be used? | X | | |

7. Certificate number as issued by state: XXXXXXXXXX

Signature and Title of the well owner responsible for completion:

[Handwritten Signature]



UNIVERSITY OF CALIFORNIA, BERKELEY

Table Number: _____
 Location Name: _____
 Well ID: _____
 Date: _____

Well Number: _____

Well Name: _____

Well Status: _____

| yes | no | na |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

1) Location/Identification

- a. Is this well considered an open hole?
- b. Is the well casing/piping located more than 5 feet from the well?
- c. Is the well in a hole drilled more than 5 feet from the well? (used to provide room from traffic?)
- d. Is the casing or around the well on a stable surface (concrete pad, etc.) or is it in a well located in a drainage drainage flow path?

2) Wellhead Stability

- a. Is the casing/piping showing signs of movement, damage, or abrasion to the casing?
- b. Is the casing frame of the wellhead or seal area damaged?
- c. Has the casing been damaged from equipment work?
- d. Is the wellhead located on a concrete pad?
- e. Is the wellhead located on a concrete pad?

3) Seal (Casing Head)

- a. Is the wellhead seal in good condition (no leaks, no damage)?
- b. Is the wellhead seal away from the casing head?
- c. Is the wellhead seal in contact with the casing head?
- d. Is the wellhead seal in contact with the ground surface?
- e. Is the wellhead seal in contact with the ground surface?
- f. Is the seal surface clean and free of debris?

4) Drilling/Logging

- a. Has the casing/piping been drilled into the well?
- b. Is the casing/piping located more than 5 feet from the well?
- c. Is the well primarily sealed for aquifer protection?
- d. Is the casing/piping located more than 5 feet from the well?
- e. Is the casing/piping located more than 5 feet from the well?
- f. Is the casing/piping located more than 5 feet from the well?

5) Logging/Seal

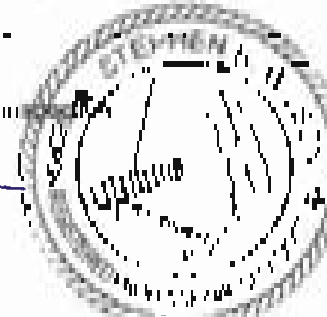
- a. Has the well been logged/sealed?
- b. If not, what is the reason for not logging/sealing?
- c. Has the well been logged/sealed?

Has the well been logged/sealed? If not, what is the reason for not logging/sealing?

6) Wellhead Seal (Casing Head)

Is the wellhead seal in good condition?

Signature and Title of UCB Representative for this well: _____



WATERWELLING REGULATORY PLAN (REGULATORY PLAN)

Site Name: 11000A - 1640000000
 Property Address: _____
 Well ID: 11000A-08
 Type: 2" / 2" / 2"

yes no not

1. Construction/Identification

- a. Is the well used for any purpose? yes no not
- b. Is the well properly identified with the correct well ID? yes no not
- c. Is the well in a high traffic area and (from the well location) visible to the public? yes no not
- d. Is the clearance around the well as required? (see drawing under next to well no sign in drawing requirements page given) yes no not

2. Drilling/Logging

- a. Is the profile from casing from lower apparent than any well above the maximum? yes no not
- b. Is the vertical depth of the bottom of the well correct? yes no not
- c. Does the casing have a true casing seal? yes no not
- d. Is the casing properly sealed at the top of the casing and around the well head? yes no not
- e. Is the well in the well in the well in the ground conditions? yes no not

3. Surface Data

- a. Is the well used to pump groundwater for domestic use? yes no not
- b. Is the well used to pump water from the ground for a pump? yes no not
- c. Is the well used to pump water from the ground for a pump? yes no not
- d. Is the well used to pump water from the ground for a pump? yes no not
- e. Is the well used to pump water from the ground for a pump? yes no not

4. Potential Contamination

- a. Does the top of the well casing extend into the well? yes no not
- b. Is the casing from the bottom of the well, or any other from lower than the casing from the casing? yes no not
- c. Is the well properly sealed for installation of the casing? yes no not
- d. Is the casing from the bottom of the well, or any other from lower than the casing? yes no not
- e. Is the casing from the bottom of the well, or any other from lower than the casing? yes no not
- f. Is the casing from the bottom of the well, or any other from lower than the casing? yes no not

5. Unusual Groundwater Wells Only

- a. Does well casing or other casing extend into the well? yes no not
- b. If there is any casing equipment installed, is it in good condition and does it meet the requirements for the well? yes no not
- c. Does the well require maintenance (see flow chart)? yes no not

If based on your observation and/or other information, is the well construction/condition sufficient to protect the groundwater from contamination from the well? yes no not

6. Construction/Identification of Well



LABORATORY REPORT: MECHANICAL PROPERTIES OF POLYMER

Name: _____
 Date: _____
 Group: _____

$$\sigma = \frac{F}{A_0}$$

$$\epsilon = \frac{\Delta L}{L_0}$$

1. Yielding of polymer

- a) In this work, describe what is a yield point? ✓
- b) In this work, describe what is a yield point? ✓
- c) In this work, describe what is a yield point? ✓
- d) In this work, describe what is a yield point? ✓

2. Plastic flow

- a) In this work, describe what is a plastic flow? ✓
- b) In this work, describe what is a plastic flow? ✓
- c) In this work, describe what is a plastic flow? ✓
- d) In this work, describe what is a plastic flow? ✓

3. Strain hardening

- a) In this work, describe what is a strain hardening? ✓
- b) In this work, describe what is a strain hardening? ✓
- c) In this work, describe what is a strain hardening? ✓
- d) In this work, describe what is a strain hardening? ✓

4. Necking

- a) In this work, describe what is a necking? ✓
- b) In this work, describe what is a necking? ✓
- c) In this work, describe what is a necking? ✓
- d) In this work, describe what is a necking? ✓

5. Fracture

- a) In this work, describe what is a fracture? ✓
- b) In this work, describe what is a fracture? ✓
- c) In this work, describe what is a fracture? ✓

In this work, describe what is a fracture? ✓

6. Conclusion

Signature and Name of Student: _____



Environmental Monitoring Worksheet (EMW) (1/2019)

Site Name: Wells (2)
 Project Name: Wells (2)
 Well ID: W1
 Date: 1/2/20

| | | yes | no | na |
|--|---|-----|----|----|
| 1. Wellhead/Identification | | | | |
| a | Is the well identification clearly visible? | ✓ | | |
| b | Is the well properly capped and equipped with a well cap? | | ✓ | |
| c | Is the well in a high traffic area and does the well owner provide any fence? | | ✓ | |
| d | Is the equipment (e.g. pump, gauges) properly maintained and free from oil or other contaminants? | ✓ | | |
| 2. Location/Access | | | | |
| a | Is the well free of any debris or equipment cluttered with debris? | ✓ | | |
| b | Is the wellhead free of any debris or clutter? | ✓ | | |
| c | Is the wellhead free of any debris or clutter? | ✓ | | |
| d | Is the wellhead free of any debris or clutter? | ✓ | | |
| e | Is the wellhead free of any debris or clutter? | ✓ | | |
| 3. Surface Area | | | | |
| a | Is the wellhead in good condition (not cracked or leaking)? | ✓ | | |
| b | Is the wellhead adequately away from the production casing? | ✓ | | |
| c | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| d | Is the wellhead in a suitable condition with the production casing and wellbore? (see instructions for details, standard practices, and equipment maintenance requirements) | ✓ | | |
| e | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| 4. Internal Issues | | | | |
| a | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| b | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| c | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| d | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| e | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| f | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| 5. Wellhead/Wellbore | | | | |
| a | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| b | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| c | Is the wellhead in a suitable condition with the production casing? | ✓ | | |
| 6. Summary and Professional Judgment | | | | |
| Is the well in good condition and free from any equipment cluttered with debris? | | | | |
| Is the wellhead in a suitable condition with the production casing and wellbore? (see instructions for details, standard practices, and equipment maintenance) | | | | |
| Is the wellhead in a suitable condition with the production casing? | | | | |

Signature: [Signature]



REGULATORY REVIEW REPORT FOR THE PROPOSED PROJECT

Name of the
 Project/Company
 Well ID
 Date

1. The well is located in the area of _____
 2. The well is located in the area of _____
 3. The well is located in the area of _____

| Part | Yes | No |
|--|-----|----|
| 1. Location/Description | | |
| 1.1 Is the well visible and accessible? | / | |
| 1.2 Is the well properly identified by the company name? | / | |
| 1.3 Is the well ID clearly marked on the well casing? | / | |
| 1.4 Is the well ID clearly marked on the well casing? | / | |
| 2. Safety/Security | | |
| 2.1 Is the production casing from lower adjacent formations sealed from migration? | / | |
| 2.2 Is the casing from adjacent formations sealed from migration? | / | |
| 2.3 Is the casing from adjacent formations sealed from migration? | / | |
| 2.4 Is the casing from adjacent formations sealed from migration? | / | |
| 3. Wellhead | | |
| 3.1 Is the wellhead properly secured from unauthorized access? | / | |
| 3.2 Is the wellhead properly secured from unauthorized access? | / | |
| 3.3 Is the wellhead properly secured from unauthorized access? | / | |
| 3.4 Is the wellhead properly secured from unauthorized access? | / | |
| 3.5 Is the wellhead properly secured from unauthorized access? | / | |
| 3.6 Is the wellhead properly secured from unauthorized access? | / | |
| 3.7 Is the wellhead properly secured from unauthorized access? | / | |
| 3.8 Is the wellhead properly secured from unauthorized access? | / | |
| 4. Integrity | | |
| 4.1 Is the wellhead properly secured from unauthorized access? | / | |
| 4.2 Is the wellhead properly secured from unauthorized access? | / | |
| 4.3 Is the wellhead properly secured from unauthorized access? | / | |
| 4.4 Is the wellhead properly secured from unauthorized access? | / | |
| 4.5 Is the wellhead properly secured from unauthorized access? | / | |
| 4.6 Is the wellhead properly secured from unauthorized access? | / | |
| 4.7 Is the wellhead properly secured from unauthorized access? | / | |
| 4.8 Is the wellhead properly secured from unauthorized access? | / | |
| 4.9 Is the wellhead properly secured from unauthorized access? | / | |
| 4.10 Is the wellhead properly secured from unauthorized access? | / | |
| 4.11 Is the wellhead properly secured from unauthorized access? | / | |
| 4.12 Is the wellhead properly secured from unauthorized access? | / | |
| 4.13 Is the wellhead properly secured from unauthorized access? | / | |
| 4.14 Is the wellhead properly secured from unauthorized access? | / | |
| 4.15 Is the wellhead properly secured from unauthorized access? | / | |
| 4.16 Is the wellhead properly secured from unauthorized access? | / | |
| 4.17 Is the wellhead properly secured from unauthorized access? | / | |
| 4.18 Is the wellhead properly secured from unauthorized access? | / | |
| 4.19 Is the wellhead properly secured from unauthorized access? | / | |
| 4.20 Is the wellhead properly secured from unauthorized access? | / | |
| 4.21 Is the wellhead properly secured from unauthorized access? | / | |
| 4.22 Is the wellhead properly secured from unauthorized access? | / | |
| 4.23 Is the wellhead properly secured from unauthorized access? | / | |
| 4.24 Is the wellhead properly secured from unauthorized access? | / | |
| 4.25 Is the wellhead properly secured from unauthorized access? | / | |
| 4.26 Is the wellhead properly secured from unauthorized access? | / | |
| 4.27 Is the wellhead properly secured from unauthorized access? | / | |
| 4.28 Is the wellhead properly secured from unauthorized access? | / | |
| 4.29 Is the wellhead properly secured from unauthorized access? | / | |
| 4.30 Is the wellhead properly secured from unauthorized access? | / | |
| 4.31 Is the wellhead properly secured from unauthorized access? | / | |
| 4.32 Is the wellhead properly secured from unauthorized access? | / | |
| 4.33 Is the wellhead properly secured from unauthorized access? | / | |
| 4.34 Is the wellhead properly secured from unauthorized access? | / | |
| 4.35 Is the wellhead properly secured from unauthorized access? | / | |
| 4.36 Is the wellhead properly secured from unauthorized access? | / | |
| 4.37 Is the wellhead properly secured from unauthorized access? | / | |
| 4.38 Is the wellhead properly secured from unauthorized access? | / | |
| 4.39 Is the wellhead properly secured from unauthorized access? | / | |
| 4.40 Is the wellhead properly secured from unauthorized access? | / | |
| 4.41 Is the wellhead properly secured from unauthorized access? | / | |
| 4.42 Is the wellhead properly secured from unauthorized access? | / | |
| 4.43 Is the wellhead properly secured from unauthorized access? | / | |
| 4.44 Is the wellhead properly secured from unauthorized access? | / | |
| 4.45 Is the wellhead properly secured from unauthorized access? | / | |
| 4.46 Is the wellhead properly secured from unauthorized access? | / | |
| 4.47 Is the wellhead properly secured from unauthorized access? | / | |
| 4.48 Is the wellhead properly secured from unauthorized access? | / | |
| 4.49 Is the wellhead properly secured from unauthorized access? | / | |
| 4.50 Is the wellhead properly secured from unauthorized access? | / | |

Signature and Seal of PEIPC responsible for inspection



Standard Inspection Manual for Sewer Well (RPV 2019 Edition)

Field Number: 101010101
Project Name: 101010101
Well ID: 101010101
Date: 10/10/2019

101010101
101010101
101010101
101010101

yes no na

1. Location/Identification

- a. Is this well visible and accessible?
- b. Is this well accessible from the street?
- c. Is this well in a high traffic area that could obstruct the well access or pedestrian flow?
- d. Is this well in a high traffic area that could obstruct the well access or pedestrian flow?

2. Wellhead/Opening

- a. Is the wellhead opening from the street or other area clearly marked?
- b. Is there any form of signage or other marking?
- c. Is the wellhead opening clearly marked with the word "WELL"?
- d. Is the wellhead opening clearly marked with the word "WELL" and "SEWER"?
- e. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER"?

3. Wellhead/Opening

- a. Is the wellhead opening clearly marked with the word "WELL"?
- b. Is the wellhead opening clearly marked with the word "WELL" and "SEWER"?
- c. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER"?
- d. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER" and "WELL"?
- e. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER" and "WELL" and "SEWER"?

4. Wellhead/Opening

- a. Is the wellhead opening clearly marked with the word "WELL"?
- b. Is the wellhead opening clearly marked with the word "WELL" and "SEWER"?
- c. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER"?
- d. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER" and "WELL"?
- e. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER" and "WELL" and "SEWER"?

5. Wellhead/Opening

- a. Is the wellhead opening clearly marked with the word "WELL"?
- b. Is the wellhead opening clearly marked with the word "WELL" and "SEWER"?
- c. Is the wellhead opening clearly marked with the word "WELL" and "SEWER" and "WATER"?

- 6. Has the wellhead/Opening been inspected in the well a minimum of 2 times per year?

7. Comments and/or other information (if any):

Inspector and Head of PD: 101010101



APPENDIX III - ASSESSING WELL INTEGRITY

Well Name
Well No/Water
Well ID
(UW)

Well #100

Well #100

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 as a high barrier (properly capped) and clearly marked for identification?
- d Is the drainage around the well appropriate? (no standing water next to well or other unapproved drainage there)

2 Protective Capping

- a Is the cap or cover being used from approved materials and able to be replaced?
- b Is the existing type of cap/cover in place as required?
- c Does the cap/cover have a leak detection system?
- d Is the structure upon a foundation (concrete base of floor in road water or filled with concrete)?
- e Is the well sealed and is the lock in good condition?

3 Construction

- a Is the well part or greater than in good area and is it maintain?
- b Is the well part or cap/cover made the proper type of steel?
- c Is the cap/cover completely sealed with the ground has covered?
- d Is the well part or completely sealed with the ground surface and stable? (not undermined by erosion, normal weather, and other non approved material)
- e Is the cap/cover made the proper quality of material (proper seal and stability)?

4 Wellbore Integrity

- a Does the casing show signs of foreign material into the well?
- b Is the casing free of holes or leaks or any other signs from foreign material (can be water)?
- c Is the well properly cased and properly grouted at the bottom?
- d Is the casing properly sealed and sealed on the inner casing?
- e Is the depth of the well cemented with the original casing?
- f Is the casing grouted with the proper type of grout (concrete or other approved material) and is it free of holes or other signs of grout in use of this casing and around case?

5 Design/Construction Details

- a Does well meet the design/constructing system design?
- b Is the design/constructing system maintain as is in good condition and approved government plan for the facility?
- c Does the well meet the requirements for the well (how flow, etc.)?

- b Is the well part or greater than in good area and is it maintain (approved or 1) as shown the design of the Government?
- Is the well part or greater than in good area and is it maintain (approved or 1) as shown the design of the Government?

1. Well #100 is in good condition, by name

Signature of the Head of LULU (Company/Institution)

[Handwritten Signature]



WALLS AND PARTITIONS

Client Name: _____
 Project Name: _____
 Wall ID: _____
 Date: _____

(Handwritten notes)
 1/20/2020
 1/20/2020

- | | | Yield | Min | Qty |
|-------------------------------|---|-------|-----|-----|
| 1. Visual Inspection (Visual) | | | | |
| a | Is the wall suitable used as a partition? | ✓ | | |
| b | Is the wall visually identified with any visible defects? | ✓ | | |
| c | Is the wall in a high traffic area with some wear and tear (scratches, scuffs, etc.)? | | | |
| d | Is the wall in a high traffic area with some wear and tear (scratches, scuffs, etc.)? | ✓ | | |
| 2. Performance (Working) | | | | |
| a | Is the partition level, strong, firm, free of apparent damage and secure to the wall/ceiling? | | | |
| b | Is there a visible defect of disintegration or delamination? | | | |
| c | Is there any staining, discoloration, or other marks? | | | |
| d | Is the partition rigid, free of vibration, and free of electrical and other defects? | | | |
| e | Is the wall free of any visible defects or damage? | | | |
| 3. Operating (Dry) | | | | |
| a | Is the wall free of any visible defects (scratches, scuffs, etc.)? | ✓ | | |
| b | Is the wall free of any visible defects (scratches, scuffs, etc.)? | ✓ | | |
| c | Is the wall free of any visible defects (scratches, scuffs, etc.)? | ✓ | | |
| d | Is the wall free of any visible defects (scratches, scuffs, etc.)? | ✓ | | |
| e | Is the wall free of any visible defects (scratches, scuffs, etc.)? | ✓ | | |
| 4. Structural (Working) | | | | |
| a | Is there any visible evidence of damage or defects to the wall? | | | |
| b | Is there any visible evidence of damage or defects to the wall? | | | |
| c | Is there any visible evidence of damage or defects to the wall? | | | |
| d | Is there any visible evidence of damage or defects to the wall? | | | |
| e | Is there any visible evidence of damage or defects to the wall? | | | |
| f | Is there any visible evidence of damage or defects to the wall? | | | |
| 5. Operating (Dry) | | | | |
| a | Is there any visible evidence of damage or defects to the wall? | | | |
| b | Is there any visible evidence of damage or defects to the wall? | | | |
| c | Is there any visible evidence of damage or defects to the wall? | | | |
| d | Is there any visible evidence of damage or defects to the wall? | | | |
| e | Is there any visible evidence of damage or defects to the wall? | | | |
| f | Is there any visible evidence of damage or defects to the wall? | | | |
| 6. Structural (Working) | | | | |
| a | Is there any visible evidence of damage or defects to the wall? | | | |
| b | Is there any visible evidence of damage or defects to the wall? | | | |
| c | Is there any visible evidence of damage or defects to the wall? | | | |
| d | Is there any visible evidence of damage or defects to the wall? | | | |
| e | Is there any visible evidence of damage or defects to the wall? | | | |
| f | Is there any visible evidence of damage or defects to the wall? | | | |

7. Change Request (to be filled in by client)

Handwritten and Seal of PEPC responsible for inspection

(Handwritten signature)



UNIVERSITY OF CALIFORNIA, BERKELEY

John Moore
 Natural Resources
 Well ID: 200-116
 Date: 12/28/12

| | yes | no | na |
|--|-------------------------------------|----|----|
| 1. Construction/Installation | | | |
| a. Is the well suitable and in compliance? | | | |
| b. Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c. Is the well in a high traffic area and does the well require protection from traffic? | | | |
| d. Is the placement of the well in compliance? (no standing water on the well head in adverse weather flow path) | <input checked="" type="checkbox"/> | | |
| 2. Protective Casings | | | |
| a. Is the protective casing properly installed through the well to the surface? | <input checked="" type="checkbox"/> | | |
| b. Is the casing free of degradation or corrosion? | <input checked="" type="checkbox"/> | | |
| c. Is the casing free of leaks or fluid leakage above the well? | <input checked="" type="checkbox"/> | | |
| d. Is the annular space between casings a free of debris and water, or filled with fine gravel/sand? | <input checked="" type="checkbox"/> | | |
| e. Is the well located in the back of your yard? | <input checked="" type="checkbox"/> | | |
| 3. Well Closures | | | |
| a. Is the well used in good condition (not clogged or broken)? | <input checked="" type="checkbox"/> | | |
| b. Is the well used properly (not for purposes other than intended)? | <input checked="" type="checkbox"/> | | |
| c. Is the well used in compliance with the local water laws? | <input checked="" type="checkbox"/> | | |
| d. Is the well used in compliance with the ground water monitoring rules? (not contaminated by animals, humans, pesticides, herbicides, etc.) | <input checked="" type="checkbox"/> | | |
| e. Is the well used in compliance with the ground water monitoring rules? | <input checked="" type="checkbox"/> | | |
| 4. Intentional Leaking | | | |
| a. Does the cap prevent entry of foreign material into the well? | <input checked="" type="checkbox"/> | | |
| b. Is the casing free of leaks or water, or any other liquid or gas? (leakage above the well is allowed) | <input checked="" type="checkbox"/> | | |
| c. Is the well properly sealed for installation of a pump? | <input checked="" type="checkbox"/> | | |
| d. Is the casing properly installed and sealed? | <input checked="" type="checkbox"/> | | |
| e. Is the depth of the well consistent with the original well log? | <input checked="" type="checkbox"/> | | |
| f. Is the casing clean? (no debris, mud, or other material in casing or annular space) | <input checked="" type="checkbox"/> | | |
| 5. Domestic Groundwater Wells Only | | | |
| a. Does well comply with local water laws? | <input checked="" type="checkbox"/> | | |
| b. If the well sampling equipment is installed, is it in good condition and kept clean? (is the well head cleaned/flushed with the facility?) | <input checked="" type="checkbox"/> | | |
| c. Does the well require maintenance (how often, how)? | | | |
| If the well is used for drinking water, is the well certified? (check appropriate to 11.01.010 of the California Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements? | | | |

If Corrections are required, by date:

Signature and Title of PI/POC responsible for compliance:  

UNIVERSITY OF MICHIGAN WELL INSPECTION FORM

Well Number
 Well ID
 Date

2011-01-27
 2011-01-27
 6/12/12

1 Location/Description

- a Is the well visibly free of leaks?
- b Is the well properly sealed on the top, correct cap in place?
- c Is the well in a high traffic area and does the well require protection from heavy traffic?
- d Is the drainage around the well not adequate? (no drainage ditch, or the well is in a drainage flow path)

yes no not

2 Protection/Access

- a Is the well free of any items from equipment storage and able to be accessed?
- b Is the access free of obstructions or other hazards?
- c Does the access have a hand railing wrap back?
- d Is the path to the well between storage area of debris and water or filled with any obstructions?
- e Is the well located in a low traffic area?

3 Construction

- a Is the well part on good conditions (no cracks or leaks)?
- b Is the well cap tight away from the well head casing?
- c Is the well part in a suitable area with the proper head casing?
- d Is the well part in a suitable condition with the ground surface and stable? (no erosion, no cracks, no debris, and no loose soil)
- e Is the part surface in a good condition with no damage to the cap?

4 Internal/Other

- a Does the cap prevent entry of foreign material into the well?
- b Is the cap and top of well protected by the well casing from foreign debris (see item 1e)?
- c Is the well protected against contamination of air and soil?
- d Is the casing ground nearby sealed on the inner casing?
- e Is the depth of the well consistent with the official well log?
- f Is the casing secure - no movement or any other signs of movement or failure? (see item 1e)

5 Operation/Construction/Use/Other

- a Is the well equipped with safety devices when required?
- b If dedicated equipment is installed, is it in good condition and operation in the approved groundwater plan for the facility?
- c Does the well require backwashing or any other maintenance?

Is there any other information regarding the well construction/operation/inspection to be included in the inspection report?
 (Please include any other information regarding the well construction/operation/inspection to be included in the inspection report.)

Inspection actions required, by date

Inspected and found to be in compliance with the Michigan Well Act



STATEMENT OF WORKING CONDITIONS SURVEY REPORT

Mine Name: Alameda Meadows
 District Name: _____
 Well ID: 2024-18
 Date: 1/20/24

| | Yes | No | NA |
|---|-------------------------------------|-------------------------------------|--------------------------|
| 1. Well Construction/Installation | | | |
| a. Is the well sealed to meet seal standards? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well properly installed with seal casing as per 155? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. If the well is not installed properly, what seal standards does the well operator intend to meet? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Is the casing cement the same as required? (see appendix table, 155-156) (if not, list the seal material used) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Production Logging | | | |
| a. Is the water flow logging flow meter equipment functioning and able to be used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the logging flow log (pressure) or (depth) correct? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Does the company have a flow logging work plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the water flow measurement using a class of device and water, as per 155-156 (table 155-156)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the well sealed and in the best operational condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Surface well | | | |
| a. Is the well good in ground condition (not sealed or broken)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well good against surface water from adjacent property? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well good against surface water from the adjacent property? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the well good in condition to be used for general surface water collection? (not contaminated by excessive, unusual, or unusual surface water flow or other nearby activities) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. If the well is not in good condition, what is the status of the well? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Hydrological monitoring | | | |
| a. Does the company record any of the hydrological data into the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the company free of leaks or faults, or any other issues from the hydrological data (table 155-156)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. If the well is not sealed for installation of the pressure? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Is the company good in the condition of the water logging? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the depth of the well measurement with the surface well log? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Is the company stable? (in other words, does the company have had in the last year any of the issues such as from the lack of good or from of slip, ripples, or irregularity) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Construction/Installation Work Log | | | |
| a. Is the well construction/Installation work done? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. If construction/Installation work is not done, what is the reason for the equipment/production plan for the facility? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Does the well company intend to resume (flow flow, water)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Have you given professional judgement on the well construction/Installation requirements for 1) include the objectives of the Construction Maintenance Program and 2) comply with the applicable regulatory requirements? | | | |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Attachments/References are attached. (if data)

Signature and Title of PE/MS representative for completion



UNIVERSITY OF CALIFORNIA, BERKELEY

Exam Number: (Please Print Name)
 Student Number: _____
 Well ID: _____
 Date: _____

| | | yes | no | na |
|--------------------------------------|---|-------------------------------------|-------------------------------------|--------------------------|
| 1. Local well characteristics | | | | |
| a | Is the well visibly open to the atmosphere? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is your station a safe working area away from electrical conductors from traffic? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d | Is the area around the well well marked? (no standing water, etc. Is well located in a safe area?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Protective casing | | | | |
| a | Is the casing free from any form of structural damage and able to support load? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of degradation or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the casing have a leak during water tests? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the casing free of any form of debris and other material that could interfere with pump operation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Casing pipe | | | | |
| a | Is the well pipe in good condition and installed in the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well pipe adequately away from the ground surface? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well pipe in good condition and installed in the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well pipe in good condition and installed in the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the pipe installed in the well in a safe manner? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Internal casing | | | | |
| a | Does the casing show any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of any form of debris and other material that could interfere with pump operation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the depth of the well consistent with the original well log? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Casing pipe | | | | |
| a | Does the casing show any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the casing show any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Casing pipe | | | | |
| a | Does the casing show any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the casing free of any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the casing show any form of structural damage or deterioration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Signature and Title of P.E. (Please Print Name)



EXHIBIT 10 - PROPOSED WELL CONSTRUCTION PERMITS

Well Name:

100100010001000100010001

Proposed Location:

100100010001000100010001

Well ID:

100100010001000100010001

Date:

100100010001000100010001

yes no n/a

1. Location/Identification

- a. Is this well visible and accessible? yes no n/a
- b. Is this well properly identified as to the correct well ID? yes no n/a
- c. Is the depth of the well sufficient to allow the well to fully penetrate to the aquifer? yes no n/a
- d. Is the structure around the well designed to prevent surface water and debris from entering the well? yes no n/a

2. Drilling Criteria

- a. Is the permit location being drilled from approved structures and within the allowed zone? yes no n/a
- b. Is the casing from all strata above the strata being drilled? yes no n/a
- c. Does the casing have a sufficient weight to prevent collapse? yes no n/a
- d. Is the casing spaced sufficiently above the strata and water table with permeability? yes no n/a
- e. Is the well located in the hole or ground conditions? yes no n/a

3. Depth and

- a. Is the well depth sufficient to reach the aquifer? yes no n/a
- b. Is the well depth sufficient to reach the aquifer? yes no n/a
- c. Is the well depth sufficient to reach the aquifer? yes no n/a
- d. Is the well depth sufficient to reach the aquifer? yes no n/a
- e. Is the well depth sufficient to reach the aquifer? yes no n/a

4. Internal Casing

- a. Is the casing sufficient to prevent collapse? yes no n/a
- b. Is the casing from all strata above the strata being drilled? yes no n/a
- c. Is the casing depth sufficient to reach the aquifer? yes no n/a
- d. Is the casing depth sufficient to reach the aquifer? yes no n/a
- e. Is the casing depth sufficient to reach the aquifer? yes no n/a
- f. Is the casing depth sufficient to reach the aquifer? yes no n/a

5. Structural Construction Wells Only

- a. Does the well collapse adequately when drilled? yes no n/a
- b. If there are any existing structures, is the permit location and location of the proposed groundwater well for the facility? yes no n/a
- c. Does the well comply with development (flow flow, stability)? yes no n/a

6. Other: Do you have professional judgment in the well construction? In other appropriate for 1) and/or the other items of the Construction Monitoring Program and 2) comply with the applicable regulatory requirements?

7. Construction activities are tracked, by date:

1. FUNDAMENTALS OF PROFESSIONAL ETHICS AND CONDUCT

Case Name: Richard J. ...
 Project Manager
 Well ID: ...
 Date: ...

| | | Yes | No | NA |
|--|--|-----|----|----|
| 1. Location/Identification | | | | |
| a | Is the well status and ownership? | X | | |
| b | Is the well properly identified with the correct well ID? | X | | |
| c | Is the well in a high traffic area and does the well region grades have been marked? | | X | |
| d | Is the site fully accessible for well entry and maintenance? (i.e. existing well) and is well in area of adverse drilling? (i.e. drilling) | X | | |
| 2. Wellbore Integrity | | | | |
| a | Is the production coming from the equipment designed and able to be maintained? | X | | |
| b | Is the tubing free of obstructions in the borehole? (e.g. this string is not a complete string) | X | | |
| c | Is the annular space between strings free of debris and water or filled with mud cement? | X | | |
| d | Is the well cased and is the well in good condition? | X | | |
| 3. Wellbore logs | | | | |
| a | Is the well log as good a log as you can get? | X | | |
| b | Is the well log clearly marked and identified? | X | | |
| c | Is the well log complete under the production casing? | X | | |
| d | Is the well log complete and filled with the correct surface and subsurface data (e.g. casing, cement, perforations, etc.)? | X | | |
| e | Is the log sufficient to be used with the well in production? | X | | |
| 4. Wellbore logs | | | | |
| a | Does the equipment ability of being maintained in the well? | X | | |
| b | Is the casing free of holes or cracks, or any obstructions from foreign objects (such as debris)? | X | | |
| c | Is the well properly marked for identification of all problems? | X | | |
| d | Is the casing joint clearly marked on the inner casing? | X | | |
| e | Is the depth of the well measured with the original well log? | X | | |
| f | Is the casing clean? (i.e. free from any debris or mud) so that the tubes can be pulled out for inspection and use of the equipment in construction? | X | | |
| 5. Wellbore logs | | | | |
| a | Does the well log clearly identify the well? | | | X |
| b | Is the well log clearly identified with the correct well ID? | | | X |
| c | Does the well log include the well ID? | | | X |
| 6. Based on your professional judgement, is the well in condition for safe operation to be drilled or the objective of the fundamental requirements (a) and (b) comply with the identification requirements? | | | X | |
| 7. Comments or issues as required by this | | | | |

Signature of well engineer: John ...



PROFESSIONAL ENGINEERING EXAMINATION BOARD

Date Printed: 1.10.2022
 Printed Edition: 1.10.2022
 Year: 1.10.2022
 Date: 1.10.2022

yes no not

1) General Information

- a) Is the well water used for drinking?
- b) Is the well properly constructed with a cement well top?
- c) Is the well as a high water table and an open live well complete protection from pollution?
- d) Is the clean up around the well as explained? Are cleaning water and a good measure to prevent leakage from piping?

2) Protective Cap

- a) Is the protection covering from the ground above and inside the well secure?
- b) Is the covering free of degradation or deterioration?
- c) Does the covering have a low leeway water table?
- d) Is the protective cap a polyethylene sheet or other non porous material, or filled with fine gravel?
- e) Is the well head and is the hole in ground sealed?

3) Wellhead

- a) Is the well head in ground condition and free from cracks?
- b) Is the well head properly sealed and protected from water?
- c) Is the well head in concrete condition with the protective with?
- d) Is the well head in concrete condition with the ground water seal?
- e) Is the well head protected by concrete around the well, and sealed around where it meets the ground?
- f) Is the well head in concrete condition and sealed in the ground?

4) Intake and Filter

- a) Does the cap prevent entry of foreign material into the well?
- b) Is the cap (if present) made of polyethylene or other non porous material?
- c) Is the well properly sealed for infiltration of air pressure?
- d) Is the well head sealed with the filter with?
- e) Is the depth of the well measured with the original well log?
- f) Is the well log (if present) the same as the original log?
- g) Is the well log (if present) the same as the original log?

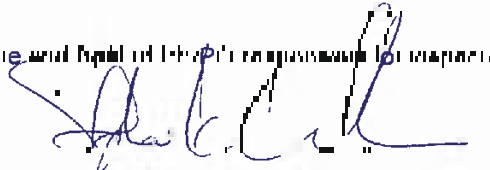
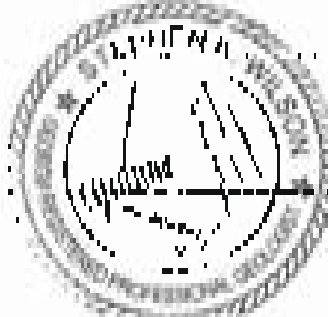
5) Construction - Wells (10)

- a) Does the well construction comply with the code?
- b) If the well was constructed and built, is it done in accordance with specifications in the approved construction plans for the locality?
- c) Does the well comply with the code (flow flow, back)?

6) Based on your professional judgement, is the well construction / location appropriate for the intended use of the groundwater?
 7) Based on your professional judgement, is the well construction / location appropriate for the intended use of the groundwater?
 8) Based on your professional judgement, is the well construction / location appropriate for the intended use of the groundwater?

9) Based on your professional judgement, is the well construction / location appropriate for the intended use of the groundwater?

Signature and Seal of the Professional Engineer

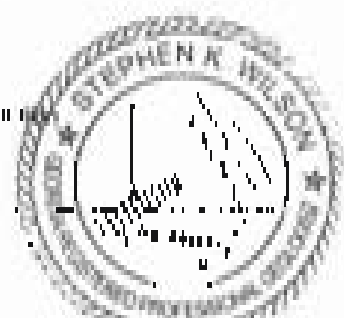



QUESTIONNAIRE REGARDING WELL DRILLING JOB & COSTS

Client Name: W. J. McPherson, Jr.
 Location Address: 1000 S. 10th St.,
 City/State: Wichita, Kansas
 Date: 11/20/2014

| | | yes | no | na |
|---|--|----------|----------|----|
| 1. Environmental concern | | | | |
| a. | Is this well drilled and sealed properly? | <u>Y</u> | | |
| b. | Is this well properly drilled and sealed with best available well HV? | <u>Y</u> | | |
| c. | Is this well in a high traffic area and does this well contain products for use nearby? | <u>Y</u> | <u>Y</u> | |
| d. | Is this well constructed in a well established area where there is no other well in area or adjacent to other wells? | <u>Y</u> | | |
| 2. Protective barriers | | | | |
| a. | Is this protective barrier clearly marked with appropriate signage and other means? | <u>Y</u> | | |
| b. | Is this protective barrier clearly marked with appropriate signage? | <u>Y</u> | <u>Y</u> | |
| c. | Is this protective barrier clearly marked with appropriate signage? | <u>Y</u> | | |
| d. | Is this protective barrier clearly marked with appropriate signage? | <u>Y</u> | | |
| e. | Is this well located near any other wells in ground conditions? | <u>Y</u> | <u>Y</u> | |
| 3. Wellhead | | | | |
| a. | Is this well head in good condition prior to use and in working? | <u>Y</u> | | |
| b. | Is this well head in good condition prior to use and in working? | <u>Y</u> | | |
| c. | Is this well head in good condition prior to use and in working? | <u>Y</u> | | |
| d. | Is this well head in good condition prior to use and in working? | <u>Y</u> | | |
| e. | Is this well head in good condition prior to use and in working? | <u>Y</u> | | |
| 4. Injection casing | | | | |
| a. | Is this the type of casing used for this well in working? | <u>Y</u> | | |
| b. | Is this casing free of leaks and in working condition? | <u>Y</u> | | |
| c. | Is this well properly sealed for injection purposes? | <u>Y</u> | | |
| d. | Is this well properly sealed for injection purposes? | <u>Y</u> | | |
| e. | Is this depth of the well's construction with the injection well log? | <u>Y</u> | | |
| f. | Is this casing in good condition and in working condition? | <u>Y</u> | | |
| 5. Wellhead & Injection Wellhead | | | | |
| a. | Is this wellhead in good condition and in working? | <u>Y</u> | | |
| b. | Is this wellhead in good condition and in working? | <u>Y</u> | | |
| c. | Is this wellhead in good condition and in working? | <u>Y</u> | | |
| 6. Overall | | | | |
| Based on your professional judgement, is this well construction and seal appropriate for its intended use and in working condition? | | | | |
| | | <u>Y</u> | | |
| 7. Other | | | | |
| Other comments or concerns (if any): | | | | |

Signature of Head of PHMSA responsible for inspection: [Signature]



REGULATORY CHECKLIST FOR WELL CONSTRUCTION

Well Name: _____
 Permit Number: _____
 Well ID: _____
 Date: _____

Project Name: _____
 Location: _____

- | | Yes | No | Not |
|--|--------------------------|--------------------------|--------------------------|
| 1. Construction/Quality Issues | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well casing (CSP) as specified? | | | |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well assembly installed with the correct well ID? | | | |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well in a high level of safety and quality that will produce clean drinking water? | | | |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the structure around the well as specified? (For monitoring wells use in wells for only to monitor groundwater levels) | | | |
| 2. Protective Casings | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the protection casing from down equipment damage secure after the run in? | | | |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the casing depth of displacement as determined? | | | |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| From the casing down to the casing annular hole? | | | |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the annular space completely filled with cement grout, or other suitable material? | | | |
| e | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well in good seal when back in service condition? | | | |
| 3. Casing Issues | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well casing as specified (type, material, etc.)? | | | |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well casing from the bottom to the top of the casing hole? | | | |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well casing completely filled with the grout as specified? | | | |
| d | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well casing as specified (type, material, etc.)? | | | |
| e | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the casing depth as specified with the required well ID? | | | |
| f | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the casing annular space completely filled with cement grout, or other suitable material? | | | |
| 4. Completion Requirements Well Casing | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well in the well adequately when pumped? | | | |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If the well is not adequately equipped, what is the proposed plan for the well? | | | |
| c | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well adequately equipped when pumped? | | | |
| 5. Other Well Construction Requirements | | | |
| a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the well construction as specified in the well construction plan when completed? (For monitoring wells use in wells for only to monitor groundwater levels) | | | |
| b | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Monitoring (Wells) (Wells) comply with the applicable regulatory requirements? | | | |

Notes: _____

Signature and Seal of the Director of the Department of Environmental and Natural Resources



International Mine Health and Safety Program

Exam Number: 123456789
 Student Name: John Doe
 Date: 1/15/2024

| Question | Answer | Score | Total |
|---|--------|-------|-------|
| 1. True or False: (Indicate if true or false) | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. The most common cause of mine accidents is unsafe practices? | True | 1 | 2 |
| c. The most common cause of mine accidents is unsafe practices? | True | 1 | 3 |
| d. The most common cause of mine accidents is unsafe practices? | True | 1 | 4 |
| 2. Multiple Choice | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |
| 3. Short Answer | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |
| 4. True or False | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |
| 5. Short Answer | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |
| 6. Multiple Choice | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |
| 7. Short Answer | | | |
| a. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 1 |
| b. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 2 |
| c. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 3 |
| d. In the past, the majority of mine accidents were caused by unsafe practices? | True | 1 | 4 |

Signature: _____

Signature: _____



QUESTIONNAIRE FOR INSPECTION OF WELLS

Well Name
 Location
 Well ID
 Date

Well No. / Meter No. / ...
 ...
 ...

Yes No NA

1. Wellhead/Headframe

- a. Is the well visible and accessible?
- b. Is the well protected against pollution (e.g., by a well cap)?
- c. Is the well in a high traffic area and does the well appear protected from traffic?
- d. Is the wellhead/structure free of debris and clutter? Is the well located in a drainage flow path?

2. Wellhead Casing

- a. Is the production string from the wellhead structure secure and in place?
- b. Is the casing pipe (if any) properly installed and sealed?
- c. Does the casing have a fluid-tight seal?
- d. Is the casing pipe in good condition and free of damage, corrosion, or other defects?
- e. Is the wellhead and casing properly grounded?

3. Wellhead Seal

- a. Is the wellhead seal in good condition and properly installed?
- b. Is the wellhead seal properly secured from the production string?
- c. Is the wellhead seal properly sealed with the production string?
- d. Is the wellhead seal properly sealed with the ground surface seal?
- e. Is the wellhead seal properly sealed with the ground surface seal?
- f. Is the wellhead seal properly sealed with the ground surface seal?

4. Wellhead Components

- a. Does the wellhead have any of the following components in place?
- b. Is the wellhead properly sealed and protected from the ground surface?
- c. Is the wellhead properly sealed and protected from the ground surface?
- d. Is the wellhead properly sealed and protected from the ground surface?
- e. Is the wellhead properly sealed and protected from the ground surface?
- f. Is the wellhead properly sealed and protected from the ground surface?

5. Wellhead Components

- a. Is the wellhead properly sealed and protected from the ground surface?
- b. Is the wellhead properly sealed and protected from the ground surface?
- c. Is the wellhead properly sealed and protected from the ground surface?

If you are a professional geologist, is the well a candidate for a status appropriate to (1) answer the objectives of the Pennsylvania Department of Environmental Protection and (2) comply with the applicable regulatory requirements?

7. Other Information (Please check all that apply)

Signature and Seal of PEPC responsible for inspection

[Handwritten Signature]



QUESTIONNAIRE FOR MINE WELLS

State Name:
Federal Mine Safety and Health Agency:
County:

Well Name: _____
Well ID: _____
Well Type: _____

Well Status: _____
Well Depth: _____

Year: _____

1. General Well Information

- a) Is this well used for any purpose?
- b) Is this well primarily used for water supply?
- c) Is this well used for other purposes (e.g., irrigation, domestic use, etc.)?
- d) Is this well used for any other purpose?

2. Well Construction

- a) Is the well casing made of any material (e.g., steel, wood, concrete, etc.)?
- b) Is there any lining material (e.g., cement, grout, etc.) around the casing?
- c) Is the well bottom sealed with any material (e.g., cement, grout, etc.)?
- d) Is there any other lining material (e.g., gravel, etc.) around the well?

3. Well Completion

- a) Is this well completed with any material (e.g., sand, gravel, etc.)?
- b) Is this well completed with any material (e.g., sand, gravel, etc.)?
- c) Is this well completed with any material (e.g., sand, gravel, etc.)?
- d) Is this well completed with any material (e.g., sand, gravel, etc.)?

4. Well Operation

- a) How often is this well used for any purpose (e.g., water supply, irrigation, etc.)?
- b) Is this well used for any purpose (e.g., water supply, irrigation, etc.)?
- c) Is there any other purpose (e.g., irrigation, etc.) for this well?
- d) Is there any other purpose (e.g., irrigation, etc.) for this well?
- e) Is there any other purpose (e.g., irrigation, etc.) for this well?

5. Well Maintenance

- a) Is this well maintained in any way (e.g., cleaning, etc.)?
- b) Is there any other maintenance (e.g., cleaning, etc.) for this well?
- c) Is there any other maintenance (e.g., cleaning, etc.) for this well?

6. Other Information: Please provide any other information that you think is relevant to the safety and health of the well and its users.

7. Comments: _____

Signature: _____



Geotechnical Engineering WITH MATHS PART B

Time Allowed
 3 Hours
 Max. Marks
 100

$\int_{x_1}^{x_2} f(x) dx = F(x_2) - F(x_1)$
 $\int_{x_1}^{x_2} f(x) dx = - \int_{x_2}^{x_1} f(x) dx$
 $\int_{x_1}^{x_2} f(x) dx = \int_{x_1}^{x_2} f(x) dx + \int_{x_2}^{x_1} f(x) dx$
 $\int_{x_1}^{x_2} f(x) dx = \int_{x_1}^{x_2} f(x) dx + \int_{x_2}^{x_1} f(x) dx$

yes no not

1. **Groundwater conditions**
 - a) Is the well water table and discharge?
 - b) Is the well partially saturated with the ground water table?
 - c) Is the well in a high head area and likely to require pumping liquid water?
 - d) Is the discharge around the well and saturated zone containing water mass with no flow in hydraulic connection flow path?
2. **Effective Stress**
 - a) Is the pore pressure from the ground surface and depth of the soil?
 - b) Is the water table of the soil in the ground surface?
 - c) Does the water table pressure increase with depth?
 - d) Is the vertical stress in the soil equal to the total stress $\sigma_v = \sigma'_v + u$, or total stress $\sigma_v = \sigma'_v + u$?
 - e) Is the total stress in the soil $\sigma_v = \sigma'_v + u$?
3. **Soil types**
 - a) Is the soil sand or gravel or silt or clay or loam or peat?
 - b) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - c) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - d) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - e) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
4. **Soil types**
 - a) Does the soil consist of any of the soil types listed in the soil?
 - b) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - c) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - d) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - e) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
5. **Soil types**
 - a) Does the soil consist of any of the soil types listed in the soil?
 - b) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - c) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
6. **Soil types**
 - a) Does the soil consist of any of the soil types listed in the soil?
 - b) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?
 - c) Is the soil sand or gravel or silt or clay or loam or peat or peat or peat?

(Continue from another page if necessary. Use space)

Signature and Name of the Candidate

[Handwritten Signature]



Standardized Well Inspection Worksheet

Date of Inspection: _____

Inspector Name: _____

Well ID: _____

State: _____

Well Depth: _____

Well Type: _____

Well Status: _____

Year: _____

Mo: _____

Da: _____

1. Location/Use/Location

- a. Is the well in an approved location?
- b. Is the well properly identified with the correct well ID?
- c. Is the well in a high traffic area and clearly marked with signage per the local health dept?
- d. Is the discharge around the well acceptable? (no standing water over the well for about 24 hours after a heavy rain event)

Yes

No

NA

2. Production/Usage

- a. Is the production coming from the approved formation and able to be consumed?
- b. Is the quality free of contamination or objectionable?
- c. Have you noticed any unusual odors or tastes?
- d. Is the water clear (turbidity) and free of debris and waste on the well head or discharge?
- e. Is the well being properly maintained or properly identified?

Yes

No

NA

Yes

No

NA

3. Construction

- a. Is the well head in good condition (not obstructed or tilted)?
- b. Is the well properly capped (per the pressure type rating)?
- c. Is the well head or completion sealed with the production casing?
- d. Is the well casing or completion sealed with the proper grade or sealant? (not undersized by more than 1/2 inch between and there not more than 4 layers)
- e. Is the well surface clean (not covered with debris or dirt)?

Yes

No

NA

Yes

No

NA

4. Wellhead Safety

- a. Does the approved entry of foreign material into the well?
- b. Is the wellhead fully protected from unauthorized access (no foreign objects in or on the casing)?
- c. Is the well securely sealed for subsidence of an adjacent?
- d. Is the casing properly secured against wind damage?
- e. Is the depth of the well consistent with the original well log?
- f. Is the casing properly sealed (no leaks) with safety depth markers (no less than 1/2 inch apart by hand that touch) at ground or base of casing (not 1/2 inch apart by hand)?

Yes

No

NA

Yes

No

NA

Yes

No

NA

5. Casing/Wellhead/Well Only

- a. Does the well meet the applicable code requirements?
- b. If steel well casing is installed, is it in good condition and properly secured against wind damage (per the code)?
- c. Does the well require reinforcement (how does it look)?

Yes

No

NA

Yes

No

NA

- 6. Has the well been professionally inspected in the well construction/operation appropriate to 1) to have the regulatory of the (Department) Monitoring Program, and 2) comply with the applicable regulatory requirements?

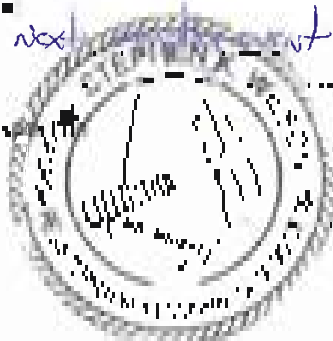
Yes

7. Compliance or Issues as Reported by State

None - (GRAVE) (August-Sept 2022)

Signature and Title of the person responsible for inspection:

[Handwritten Signature]



UNIVERSITY OF MISSISSIPPI - MISSISSIPPI STATE UNIVERSITY

Date: March 2020
 State: Mississippi
 Well ID:
 Name:

$\frac{1}{2} \left(\frac{1}{\rho} + \frac{1}{\sigma} \right) \rho \sigma \omega$

1. Construction/Identification

- a. Is this well a water well or an oil well?
- b. Is this well primarily identified with this well ID#?
- c. Is this well in a high rainfall area where this well requires protection from runoff?
- d. Is this well/pond adjacent to a well or a complete? Is a laboratory water test on well for nitrate or other new substances (lead, radon)?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Production/Logging

- a. Is this production from a single formation, aquifer, or geologic unit or is it from multiple?
- b. Is this well flow of deepwater or shallowwater?
- c. Does this well have any other formations, layers, or zones?
- d. Is this well in a high rainfall area where this well requires protection from runoff?
- e. Is this well located near or in the high rainfall area?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. Production/Logging

- a. Is this well part of a group of wells or a single well?
- b. Is this well part of a group of wells or a single well?
- c. Is this well part of a group of wells or a single well?
- d. Is this well part of a group of wells or a single well?
- e. Is this well part of a group of wells or a single well?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. Production/Logging

- a. Does this well produce any of the following materials from well?
- b. Is there any loss of water or material or any other material from well?
- c. Is this well primarily used for residential use of the community?
- d. Is this well primarily used for residential use of the community?
- e. Is this depth of the well considered with the original well ID#?
- f. Is this well part of a group of wells or a single well?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Construction/Identification Wells Only

- a. Does well discharge water directly to the ground?
- b. Is this well or other well in the immediate area of this well?
- c. Does this well require confinement of flow from the well?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- d. Does this well require confinement of flow from the well?
- e. Does this well require confinement of flow from the well?
- f. Does this well require confinement of flow from the well?

| Yes | No | Other |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(This information is required by state)

Signature and Title of PI responsible for inspection



GROUNDWATER MONITORING WELL INSTALLATION

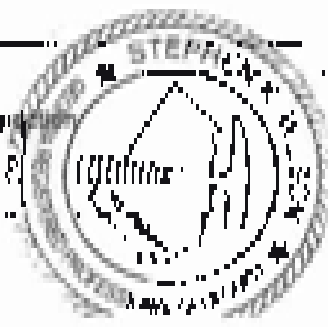
Contract No.
 Project Number
 Well ID
 Date

job no.
 well ID
 date

1. Location/Utility
 - a. Is the well stable and accessible?
 - b. Is the well properly identified with the correct WELL ID?
 - c. Is the well in a high traffic area and does the well require protection from traffic?
 - d. Is the design of the well per approved plans (including whether or not a well collar is required to prevent drainage flow past)?
2. Proximity to Existing Wells
 - a. Is the location for existing flow from approved drawings and plans to be maintained?
 - b. Is any existing flow of groundwater or stormwater?
 - c. Does the existing flow have existing equipment?
 - d. Is the existing flow (stormwater, drainage, etc.) within the well ID and within the proposed flow path?
 - e. Is the well located and in the flow of any existing flow?
3. Well Design
 - a. Is the well per approved drawings (not including or including)?
 - b. Is the well per approved drawings away from the existing flow path?
 - c. Is the well per approved drawings within the existing flow path?
 - d. Is the well per approved drawings within the existing flow path and within the existing flow path? (not identified by existing, approved drawings, and plans and other relevant drawings)
 - e. Is the well per approved drawings (not approved with additional or different)?
4. Installation
 - a. Does the well prevent entry of foreign material into the well?
 - b. Is the existing flow of water or liquid, or any other, under the well?
 - c. Is the well properly sealed for equilibrium of air pressure?
 - d. Is the existing flow properly sealed on the existing flow path?
 - e. Is the depth of the well maintained with the approved well log?
 - f. Is the existing flow properly sealed on the existing flow path? (not approved with additional or different) or other of the existing flow path by tunnel flow to back of ground or wall of the existing flow path.
5. Monitoring: Groundwater Wells Only
 - a. Does the well per approved drawings (not approved with additional or different)?
 - b. Is data about monitoring equipment installed, and its ground conditions and equipment per approved drawings and plans for the existing flow path?
 - c. Does the well per approved drawings (not approved with additional or different)?
6. Reporting
 - a. Reporting per approved drawings: Is the well per approved drawings (not approved with additional or different) or other of the existing flow path by tunnel flow to back of ground or wall of the existing flow path.

7. Correction actions as needed by data

Signature and Title of Project Manager _____



WATERWELL INSPECTION AND REPORT FORM

Site Name: 11217 S. 24th St. S
 Property Address: 11217 S. 24th St. S
 Well ID: 2600 1
 Date: 2/20/12

| | yes | no | NA |
|---|-----|----|----|
| 1. Construction/Installation | | | |
| a. Is the well properly capped and secured?
<small>(If the well is properly identified with the correct well ID?)</small> | ✓ | | |
| b. Is the well or its shaft depth, pipe, pump, pump run, pump supports, installation from 1960's? | ✓ | | |
| c. Is the structure around the well not suitable? (no standing water, etc. at well head) (if not OK, describe below) | | ✓ | |
| 2. Protective Casings | | | |
| a. Is the casing free of any form of structural damage and able to be repaired? | ✓ | | |
| b. Is the casing free of any obstructions or alterations? | ✓ | | |
| c. Does the casing have a true running surface? | | ✓ | |
| d. Is the annular space between casing and hole of casing and water or filled with grout/cement? | ✓ | | |
| e. Is the well casing depth in the hole in hole's condition? | ✓ | | |
| 3. Pumping Unit | | | |
| a. Is the well pump or pump installation (not checked in 1 above)? | ✓ | | |
| b. Is the well pump secured away from the pump run opening? | ✓ | | |
| c. Is the well head of (casing) secured to the structure with tie? | ✓ | | |
| d. Is the well pump or installation (not checked in 1 above) and suitable? (no contamination by animals, mineral deposits, etc. above and below head) (describe below) | | ✓ | |
| e. Is the pump seal area clean (not covered with sediment or debris)? | ✓ | | |
| 4. Internal Casing | | | |
| a. Does the pipe prevent entry of foreign material into the well? | ✓ | | |
| b. Is the casing free of debris or obstructions or any other material? (no foreign objects in (not in condition)?) | ✓ | | |
| c. Is the well properly secured for any purpose of the protection? | ✓ | | |
| d. Is the casing pipe fully secured in the annular space? | ✓ | | |
| e. Is the depth of the well consistent with the original well log? | | ✓ | |
| f. Is the casing stable? (no show the pipe, correct and/or correct) (no case if the hole is not by hand or by hand of ground or case of any disturbance or disturbance) | ✓ | | |
| 5. Miscellaneous Information/Notes | | | |
| a. Does well or pump or pump or pump? | | ✓ | |
| b. If there is any equipment installed in the ground condition near aquifers in the aquifer ground-water plus for the quality? | | ✓ | |
| c. Does the well include disturbance (see 1 above)? | | ✓ | |
| 6. Record on your professional judgement, is the well construction / pumping installation in a manner that complies with the requirements of the Washington Department of Ecology with the applicable regulatory requirements? | | | |
| | ✓ | | |

7. Other notes, remarks or comments (if any):

Inspector and Sign of WWSA representative (if applicable)

[Signature]



APPROPRIATE INFORMATION FOR PROPERTY OWNER

Form Name: **Form 100**
 Form Number: **100**
 Version: **10/2018**
 (Only applicable to certain states)

| | | yes | no | NA |
|--------------------------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Well approval/registration | | | | |
| a | Is the well sealed and uncased? | <input checked="" type="checkbox"/> | | |
| b | Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c | Is the well in a high traffic area and does the well require protection from traffic? | | <input checked="" type="checkbox"/> | |
| d | Is the drainage around the well an impediment to naturally occurring ground water recharge to the well? | <input checked="" type="checkbox"/> | | |
| 2. Drilling quality | | | | |
| a | Is the casing from a casing firm down against the casing wall while in the casing? | <input checked="" type="checkbox"/> | | |
| b | Is the casing free of obstructions or indentations? | <input checked="" type="checkbox"/> | | |
| c | Is the casing from a casing firm down against the casing wall? | <input checked="" type="checkbox"/> | | |
| d | Is the casing from a casing firm down against the casing wall and water in the well from ground water? | <input checked="" type="checkbox"/> | | |
| e | Is the well located in the back yard or elsewhere? | <input checked="" type="checkbox"/> | | |
| 3. Well depth | | | | |
| a | Is the well depth greater than 10 feet? | <input checked="" type="checkbox"/> | | |
| b | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| c | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| d | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| e | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| 4. Well casing | | | | |
| a | Does the casing prevent any of the casing material from the well? | <input checked="" type="checkbox"/> | | |
| b | Is the casing from a casing firm down against the casing wall from the casing to the casing? | <input checked="" type="checkbox"/> | | |
| c | Is the well casing sealed for installation of the casing? | <input checked="" type="checkbox"/> | | |
| d | Is the casing from a casing firm down against the casing wall? | <input checked="" type="checkbox"/> | | |
| e | Is the casing from a casing firm down against the casing wall? | <input checked="" type="checkbox"/> | | |
| 5. Well depth | | | | |
| a | Is the well depth greater than 10 feet? | | | <input checked="" type="checkbox"/> |
| b | Is the well depth greater than 10 feet from the casing? | | | <input checked="" type="checkbox"/> |
| c | Is the well depth greater than 10 feet from the casing? | | | <input checked="" type="checkbox"/> |
| 6. Well depth | | | | |
| a | Is the well depth greater than 10 feet? | <input checked="" type="checkbox"/> | | |
| b | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| c | Is the well depth greater than 10 feet from the casing? | <input checked="" type="checkbox"/> | | |
| 7. Well depth | | | | |
| a | Is the well depth greater than 10 feet? | <input checked="" type="checkbox"/> | | |

I warrant that the information provided is true and correct.

Signature of: _____ of (State) responsible for inspection.



QUESTIONNAIRE ON WATER QUALITY & QUANTITY

Date: _____
 District: _____
 Well ID: _____
 State: _____

1. Location/description

- a) Is the well visible and accessible? yes no info _____
- b) Is the well correctly identified with the correct well ID? yes no info _____
- c) Is the well in a high traffic area and/or in the well owner's private or business property? yes no info _____
- d) Is the drainage around the well an upflow? (i.e. shallow water table as well as above or around concrete pad flow path) yes no info _____

2. Private Use / Spring

- a) Is the private use coming from approved drainage and after the required approval? yes no info _____
- b) Is the private use of the water for drinking water? yes no info _____
- c) Does the private use of the water come from a pump? yes no info _____
- d) Is the private use of the water for irrigation, agriculture, or other uses? yes no info _____
- e) Is the well in a high traffic area and/or in the well owner's private or business property? yes no info _____

3. Well type

- a) Is the well open to ground conditions (not covered or fenced)? yes no info _____
- b) Is the well covered and/or fenced from the outside? yes no info _____
- c) Is the well used to irrigate or for other uses? yes no info _____
- d) Is the well used for drinking water? yes no info _____
- e) Is the well used for other uses? yes no info _____

4. Property / Spring

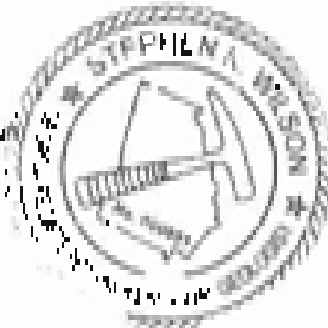
- a) Does the property owner have a permit for the well? yes no info _____
- b) Is the well used for drinking water? yes no info _____
- c) Is the well used for irrigation or other uses? yes no info _____
- d) Is the well used for other uses? yes no info _____
- e) Is the well used for other uses? yes no info _____
- f) Is the well used for other uses? yes no info _____

5. Property / Spring

- a) Is the well used for drinking water? yes no info _____
- b) Is the well used for irrigation or other uses? yes no info _____
- c) Is the well used for other uses? yes no info _____

If there are any problems/requirements, in the well's construction, location, equipment, or if you have any questions, please contact the Ministry of Agriculture and Fisheries, Ministry of Environment and Planning, or the relevant authority.

6. Other information



UNIVERSITY OF CALIFORNIA, BERKELEY

Term: Winter
 Parent Number: 2020-00000000
 Well ID: 2020-00000000
 Date: 12/15/2020

page 1 of 1

- 1. Location/Description**
- a. Is this well situated near a residence? No
 - b. Is this well properly identified with the name of well ID? No
 - c. Is this well in a high traffic area and does the well owner provide proper signage? No
 - d. Is this well properly protected from unauthorized access (adequately fenced, covered, or gated) for safety or other reasons (e.g., deep wells)? No
- 2. Production Concerns**
- a. Is this production causing any adverse impacts on adjacent areas or the environment? No
 - b. Is this causing any form of degradation or disturbance? No
 - c. Have there been any adverse health or safety concerns? No
 - d. Is this causing any adverse impacts on adjacent areas or the environment? No
 - e. Is this well properly protected from unauthorized access (adequately fenced, covered, or gated) for safety or other reasons (e.g., deep wells)? No
- 3. Construction**
- a. Is this well properly constructed (depth, diameter, etc.)? No
 - b. Is this well properly installed (depth, diameter, etc.)? No
 - c. Is this well properly sealed (depth, diameter, etc.)? No
 - d. Is this well properly sealed (depth, diameter, etc.)? No
 - e. Is this well properly sealed (depth, diameter, etc.)? No
- 4. Other Information**
- a. Have there been any previous violations of this well? No
 - b. Is this causing any form of degradation or disturbance? No
 - c. Is this causing any form of degradation or disturbance? No
 - d. Is this causing any form of degradation or disturbance? No
 - e. Is this causing any form of degradation or disturbance? No
 - f. Is this causing any form of degradation or disturbance? No
- 5. Signage**
- a. Is this well properly identified with the name of well ID? No
 - b. Is this well properly identified with the name of well ID? No
 - c. Is this well properly identified with the name of well ID? No
- 6. Other Information**
- a. Is this well properly identified with the name of well ID? No
 - b. Is this well properly identified with the name of well ID? No
 - c. Is this well properly identified with the name of well ID? No

7. Comments or other information by owner: _____

Signature and Seal of PEPC responsible for inspection:




Self Report
 Personal Number
 Year of
 Date of this condition

McManns
2022
2/28/22

- | | Y | N | NA |
|---|---|---|----|
| 1. Is the well's construction: | | | |
| a. Is the well suitable and maintainable? | X | | |
| b. Is the well properly identified with the correct well ID? | X | | |
| c. Is the well in a safe condition such that there are no safety hazards? | | X | |
| d. Is the discharge around the well an acceptable non-absorbing surface and is the well in a safe condition for the public? | X | | |
| 2. Design (see Category) | | | |
| a. Is the production capacity flow rate appropriate and able to be measured? | | | |
| b. Is the casing from the top of the hole to the bottom? | X | | |
| c. Is the casing from the top of the hole to the water table? | X | | |
| d. Is the casing from the water table to the bottom of the hole and annulus filled with permeable material? | X | | |
| e. Is the well located and in the rock in good condition? | X | | |
| 3. Location (see) | | | |
| a. Is the well part of a good condition and is it located in a safe area? | X | | |
| b. Is the well part of a good condition and is it located in a safe area? | X | | |
| c. Is the well part of a good condition and is it located in a safe area? | X | | |
| d. Is the well part of a good condition and is it located in a safe area? | X | | |
| e. Is the well part of a good condition and is it located in a safe area? | X | | |
| 4. Is the well: | | | |
| a. Is the well properly identified with the correct well ID? | X | | |
| b. Is the well properly identified with the correct well ID? | X | | |
| c. Is the well properly identified with the correct well ID? | X | | |
| d. Is the well properly identified with the correct well ID? | X | | |
| e. Is the well properly identified with the correct well ID? | X | | |
| 5. Maintenance | | | |
| a. Is the well properly identified with the correct well ID? | | | |
| b. Is the well properly identified with the correct well ID? | | | |
| c. Is the well properly identified with the correct well ID? | | | |
| d. Is the well properly identified with the correct well ID? | | | |
| e. Is the well properly identified with the correct well ID? | | | |
| 6. Overall | | | |
| a. Is the well properly identified with the correct well ID? | | | |
| b. Is the well properly identified with the correct well ID? | | | |
| c. Is the well properly identified with the correct well ID? | | | |
| d. Is the well properly identified with the correct well ID? | | | |
| e. Is the well properly identified with the correct well ID? | | | |

Signature and Seal of self (I am responsible for my report)

Stephen McManns



WELL CONSTRUCTION REGULATORY WELL INSPECTION FORM

Well Number: 17011-101
 Well Name: 17011-101
 Well ID: 17011-101
 Date: 2/20/22

yes no not

1 Location/Use of well

- a Is the well properly identified with the correct well ID?
- b Is the well properly identified with the correct well ID?
- c Is the well in a high traffic area and does the well require additional foot traffic?
- d Is the discharge around the well acceptable? (no standing water, no oil spill, no other obstructions, etc.)

2 Drilling/Log Quality

- a Is the well free from casing from force supported damage and other hole expansion?
- b Is the casing free of irregularities or obstructions?
- c From the casing down to the bottom casing?
- d Is the casing secure between all types of obstructions and debris and filled with permeable material?
- e Is the well casing and its logs in good condition?

3 Well Construction

- a Is the well constructed in good condition (not cracked or broken)?
- b Is the well properly sealed away from the surface from casing?
- c Is the well properly sealed away from the surface from casing?
- d Is the well properly sealed away from the surface from casing and debris? (not contaminated by animals, animal carcasses, and other and proper seals applied)?
- e Is the well sealed with a material of sufficient strength?

4 Internal casing

- a Does the well show evidence of foreign material into the well?
- b Is there a strong flow of foreign matter, or any other irregularities from the well?
- c Is the well properly sealed for equilibrium of air pressure?
- d Is the well properly sealed for equilibrium of air pressure?
- e Is the depth of the well consistent with the original well log?
- f Is the casing properly sealed? (no leaks, no gas, no other irregularities, etc.)
- g Is the casing properly sealed? (no leaks, no gas, no other irregularities, etc.)

5 Construction Requirements

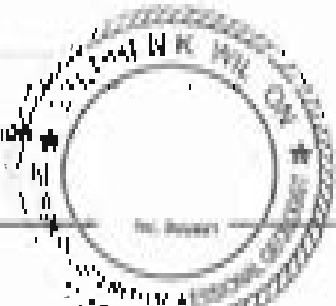
- a Does the well meet the requirements of the rules?
- b If the well meets the requirements of the rules, is it in good condition and operated in the approved groundwater plan for the facility?
- c Does this well require additional protection from flow?

If based on your professional judgment, is the well a construction / function appropriate for 1) review the design of the groundwater monitoring program and 2) comply with the applicable regulatory requirements?

2. Construction and/or use, as required, by state.

Signature and Seal of the State representative of the well owner

[Handwritten Signature]



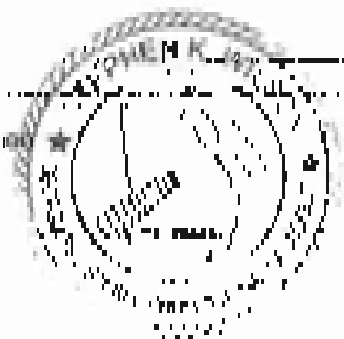
ENVIRONMENTAL MONITORING AND INSPECTION FORM

Date: 11/11/2011
 District: Alameda
 County: Alameda
 Title: Field Inspection

| | yes | no | NA |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Visual Identification | | | |
| a. Is the well visible and accessible? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well in a high traffic area and does the well require proper signage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Is the discharge around the well an impediment for standing water near the discharge area as a result of improper signage? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discharge Egress | | | |
| a. Is the proper egress signage that has appeared damaged and able to be fully read? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the egress line of sight clear of obstructions? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Does the egress line of sight extend to the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the minimum egress line of sight a clear line of sight to the water of flow from the gravel mound? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the well located and is the well in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Discharge Signage | | | |
| a. Is the well and its good condition clearly visible to the public? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the well sign clearly visible from the public area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well sign clearly visible from the discharge area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Is the well sign clearly visible from the discharge area and is the sign clearly visible from the discharge area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the well sign clearly visible from the discharge area and is the sign clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Discharge Signage | | | |
| a. Does the discharge area of water of discharge appear to be visible? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the discharge area of water of discharge clearly visible from the discharge area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Is the well clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the discharge area clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Is the discharge area clearly visible from the discharge area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. Is the discharge area clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Discharge Signage - Well ID | | | |
| a. Does well ID clearly identify the well? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Is the well ID clearly visible from the discharge area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Is the well ID clearly visible from the discharge area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Discharge Signage - Discharge Area | | | |
| a. Is the discharge area clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is the discharge area clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the discharge area clearly visible from the discharge area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I hereby certify that the information provided by me is true and correct.

Signature: _____
 Title: _____



REGISTRATION AND INSPECTION FORM FOR MINING PERMITS

Mine Name: YAKAMA MOUNTAIN
 Permit Number: 12-11
 Date: 11/28/11

yes no NA

1. Location/Identification

- a. Is the well visible and accessible? yes no NA
- b. Is the well properly identified with the correct well ID? yes no NA
- c. Is the well in a safe location (e.g., away from power lines, roads, other wells, etc.)? yes no NA
- d. Is the proposed person(s) who will be responsible for the well identified in all relevant documents? yes no NA

2. Proposed Well(s)

- a. Is the well being sited away from any potential obstructions and risks to the well itself? yes no NA
- b. Is the casing type of construction as indicated? yes no NA
- c. Does the casing type is from existing casing hole? yes no NA
- d. Is the well(s) depth sufficient to reach above all debris and water or filled with fine grained sand? yes no NA
- e. Is the well to be used in the 1000 or greater condition? yes no NA

3. Surface well

- a. Is the well pipe in good condition (not cracked or broken)? yes no NA
- b. Is the well pipe sloped away from the point from casing? yes no NA
- c. Is the well pipe in complete (good) with the casing casing? yes no NA
- d. Is the well pipe in complete (good) with the ground surface and what is the well protected by concrete, gravel, etc. (e.g., well cap)? yes no NA
- e. Is the well surface in good condition with no cracks or debris? yes no NA

4. Internal casing

- a. Does the well casing have any of the following conditions? yes no NA
- b. Is the casing free of holes or cracks, or any other damage from handling or use? yes no NA
- c. Is the well properly sealed for installation of the casing? yes no NA
- d. Has the casing pipe been properly installed in the casing casing? yes no NA
- e. Is the casing of the well accumulated with the original casing? yes no NA
- f. Is the casing stable? Is there any pipe or other debris in the well or casing? Is the casing supported by bedding or a bank of gravel or sand or other suitable material? yes no NA

5. Monitoring Groundwater Wells Only

- a. Does the well casing have any other damage? yes no NA
- b. Is the well casing properly installed in the casing casing? yes no NA
- c. Is the well casing properly installed in the casing casing? yes no NA

I declare on your professional judgment, to the best of my knowledge and belief, that I am not aware of any other conditions of the well or casing that would affect the safety or health of the community. My inspection complies with the applicable regulatory requirements.

7. Name from an form was submitted, by date

Regulated Dept of DE/PC responsible for inspection

[Handwritten Signature]



UNIVERSITY OF CALIFORNIA, BERKELEY

Course Number: ENR 120
 Project Number: 120-12
 Worksheet: 120-12
 Date: 1/28/63

yes no n/a

- 1. Use of Hand Tools (continued)**
- a. Is the well visible from a road?
 - b. Is the well properly equipped with the correct capacity?
 - c. Is the well on a high traffic area and does the well require protection from users nearby?
 - d. Is the drainage around the well adequately? (no standing water, use of well for other than original purpose, flow paths)

- 2. Protective Coating**
- a. Is the protection coating free from significant damage and able to be repaired?
 - b. Is the coating free of significant surface deterioration?
 - c. Does the coating appear to be properly applied?
 - d. Is the concrete surface between coating areas of slabs and walls, or filled with good grout?
 - e. Is the well backfill and the backfill placed satisfactorily?

- 3. Surface Seal**
- a. Is the well pool integral, continuous and well marked?
 - b. Is the well pool properly away from the protection coating?
 - c. Is the well pool free of debris and filled with the proper flow lining?
 - d. Is the well pool free of protruding objects, sharp edges, protruding pipe, etc. which are not adequately protected? (not influenced by erosion, material loss, etc. and does not require special attention)
 - e. Is the pool bottom surface covered with concrete or grout?

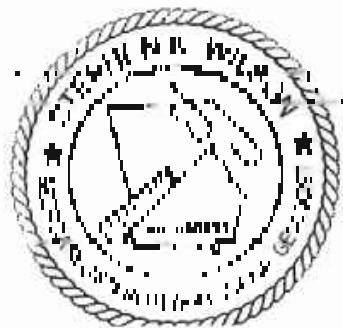
- 4. Internal Coating**
- a. Does the top concrete layer of lining material into the well?
 - b. Is the coating free of holes or breaks of any significant size? (not in concrete)
 - c. Is the well properly vented for circulation of air through?
 - d. Is the surface finish firmly attached to the concrete lining?
 - e. Is the depth of top well lining seal area over original well top?
 - f. Is the lining stable? (no slabs the pool cover easily when disturbed or cover has holes open by water flow back of ground or road ways) (depth may be somewhat)

- 5. Barriers: Surrounding Wall Only**
- a. Does the structure appear ready when program?
 - b. Is equipment properly equipped, installed, and in good condition and operated in the approved procedures plan for the facility?
 - c. Does the well require maintenance (flow lines, backfill)?

6. How do you give present overall judgement, is this well considered to be above acceptable (a) or below the standards of the University? (check one)
 Above the standards?
 Below the standards?

7. Corrective actions, if needed, by date:

Approved and Accepted by: _____



STATEWIDE WELL INSPECTION CHECKLIST

Site Name _____

Point of Use/Use _____

Well ID# _____

Date _____

- 1. Casing/Drift/Grout/Seal:
 - a. Is the well sealed and in a condition? yes no NA
 - b. Is the seal properly installed and were two casing wells used? yes no NA
 - c. Is the seal to a depth of 20' or 25' from the surface? yes no NA
 - d. Is the seal depth consistent with the seal depth? (see monitoring water, casing well for depth to casing feet) yes no NA

- 2. Protective Casings:
 - a. Is the pipe been damaged from being exposed, damaged and able to be used? yes no NA
 - b. Is the casing free of chemical or debris? yes no NA
 - c. Does there any loose or from being swept? yes no NA
 - d. Is the material used in casing made of plastic, steel and water resistant? yes no NA
 - e. Is the well located in the back or ground surface? yes no NA

- 3. Wellhead (pump):
 - a. Is the well pump in good condition (not tampered with)? yes no NA
 - b. Is the well pump placed away from the pump house? yes no NA
 - c. Is the well pump in complete contact with the pump house? yes no NA
 - d. Is the well pump in contact with the ground surface and stable? (not covered by concrete, ground surface, and there are no other supports) yes no NA
 - e. Is the pump in contact with the ground water and not in contact? yes no NA

- 4. Drift/Casing:
 - a. Is there any apparent entry of foreign material into the well? yes no NA
 - b. Is there any type of debris or foreign material in the well? yes no NA
 - c. Is the well properly sealed for maintenance of air pressure? yes no NA
 - d. Is the well in good condition and free of debris? yes no NA
 - e. Is the shaft of the well surrounded with the correct well cap? yes no NA
 - f. Is the well cap in good condition and free of debris? yes no NA

- 5. Operating Groundwater Wells Only:
 - a. Does well in range adequately when pumped? yes no NA
 - b. Is there any monitoring equipment installed in ground conditions and recorded in the recorded groundwater table for the facility? yes no NA
 - c. Does the well require environmental physical, chemical? yes no NA

- 6. Hand-dug wells (not permitted in the well category) - Are there any appropriate to 1) in how the operation of the groundwater table during the operation? (1) sample will be taken, all the results of the test results? yes no NA

7. Water test results are recorded by date: _____

Signature _____



UNIVERSITY OF MISSISSIPPI WELL DRILLING PERMITS

Site Name: WATER TOWER
 Federal Mine/Drill Well ID: 2011-01
 Date: 02/23/2011

year: 2011 mile: 000

1. Location/Identification

- a. Is this well stable and not unstable? Yes
- b. Is this well properly identified with the correct well ID? Yes
- c. Is this well properly capped with a cap and does the well cap meet general standards? Yes
- d. Is the drainage around the well stable? (Is it overflowing, seeping, or is water present in drainage from well?) Yes

2. Protective Casing

- a. Is this casing free from any apparent damage and holes to be repaired? Yes
- b. Is this casing free of degradation or deterioration? Yes
- c. Does this casing have a leak lining when drilled? Yes
- d. Is the oil/water block between casing joints of drilling mud weight, or filled with grout/ cement? Yes
- e. Is the well blocked and is the leak repaired? Yes

3. Surface and

- a. Is this well properly capped and does the cap meet standards? Yes
- b. Is this well properly capped from the surface from casing? Yes
- c. Is this well properly capped with the proper leak lining? Yes
- d. Is this well properly capped with the ground surface with mud? (see instructions by section, manual manual, and down hole when drilled.) Yes
- e. Is this well properly capped (see manual up to surface or casing)? Yes

4. Internal casing

- a. Does this casing provide some of (see up casing) any other well? Yes
- b. Is this casing free of holes or damage or any visible wear from (see up casing or manual manual)? Yes
- c. Is this well properly sealed for replacement of the casing? Yes
- d. Is this well properly sealed with the correct casing? Yes
- e. Is the depth of this well correct and with the original well log? Yes
- f. Is the casing stable? (see down the well, manual manual, and manual manual of the leak repair by hand down to leak or seal of the casing or casing manual?) Yes

5. Landfill/ Groundwater Wells Only

- a. Have shall exchange substantially when drilled? Yes
- b. Has a shall exchange equipment installed in the ground conditions near ground in the appropriate groundwater plan for the facility? Yes
- c. Have the well cap replaced/removed (New, filled)? Yes

6. Internal casing (production and program), in this well a minimum 1/2 inch diameter (see up casing or manual manual) comply with the applicable regulatory requirements? Yes

7. Construction records are provided, by state:

Yes

Signature and Title of the responsible person:

[Signature]



UNIVERSITY OF CALIFORNIA, BERKELEY

1998 Edition
 General Structure
 (WSP) 101
 Table

2/2/2022

1. Well Identification (WID)

- a. Is the well visible with a telescope? Y
- b. Is the well properly identified with this current WID ID? Y
- c. Is the pump or sign visible above the ground surface within 100 feet? Y
- d. Is the drainage around the well in a typical? (no standing water, no gravel located in between drainage pipe and W) Y

2. Drilling Location

- a. Is the proposed casing flow from appropriate drainage and shall be in accordance? Y
- b. Is the casing flow of slag/stone or debris? Y
- c. Does the casing flow in to the proposed flow? Y
- d. Is the annular space between casing & bore of shaft and water or flow with gas/steam? Y
- e. Is the well for use as a flow back or ground conditions? Y

3. Construction

- a. Is the well good in good condition (not covered or marked)? Y
- b. Is the well good in good condition (not covered or marked)? Y
- c. Is the well good in good condition with the water flow? Y
- d. Is the well good in good condition with the ground surface and water? (not covered or marked, avoid drainage and mark the casing when complete) Y
- e. Is the well surface in good condition with uniform condition? Y

4. Initial Setup

- a. Does the equipment used of design material and size? Y
- b. Is the casing flow of holes or debris in any other form from leakage above the ground surface? Y
- c. Is the well properly sealed for installation of an enclosure? Y
- d. Is the casing good in good condition with the water flow? Y
- e. Is the depth of the casing proposed system design good? Y
- f. Is the casing stable? (no flow the casing evenly over the ground surface? for when work is done to form of good or use of slip coupling for connection) Y

5. Casing, Casing, and Well ID

- a. Does well casing is adequately sealed? Y
- b. Is the well casing measurement and flow in good condition and applied to the appropriate ground surface plan for the facility? Y
- c. Does the well casing is adequately sealed (flow back, flow)? Y

6. Does the well casing is adequately sealed in the well casing and has been applied to the 1) and flow the slope from the groundwater monitoring program and 2) comply with the applicable regulatory requirements? Y

7. Construction program is complete and approved

Signature and Title of PE/PG responsible for inspection



STATEMENT OF WORK FOR THE ...

Project Name

Project Location

Project No.

Date

yes no info

1. General Site/Project Information

- a. Is the well visible and accessible?
- b. Is the well properly capped and secured?
- c. Is the well in a safe location and does the well owner provide any barrier?
- d. Is the well properly labeled with the appropriate signage?

yes no info

2. Well Construction

- a. Is the well constructed from a concrete or steel pipe?
- b. Is the well lined with a concrete or steel pipe?
- c. Is the well lined with a concrete or steel pipe and is the well properly sealed at the bottom?
- d. Is the well properly sealed at the bottom with a concrete or steel pipe?

yes no info

3. Well Cap

- a. Is the well cap in good condition (not cracked or broken)?
- b. Is the well cap properly secured to the well pipe?
- c. Is the well cap properly labeled with the appropriate signage?
- d. Is the well cap in good condition and is the well properly sealed at the bottom?

yes no info

4. Well Enclosure

- a. Does the well enclosure meet the requirements of the code?
- b. Is the well enclosure properly constructed and maintained?
- c. Is the well enclosure properly labeled with the appropriate signage?
- d. Is the well enclosure properly secured to the well pipe?
- e. Is the well enclosure properly labeled with the appropriate signage?
- f. Is the well enclosure properly secured to the well pipe and is the well properly sealed at the bottom?

yes no info

5. Wellhead Enclosure

- a. Is the wellhead enclosure properly constructed and maintained?
- b. Is the wellhead enclosure properly labeled with the appropriate signage?
- c. Is the wellhead enclosure properly secured to the well pipe?

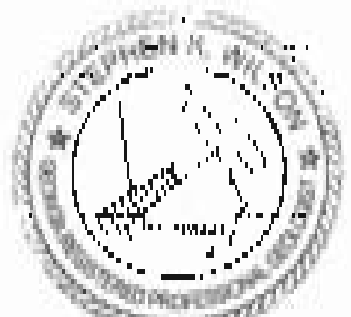
yes no info

6. Based on your professional judgement, is the well construction system substantially compliant with the applicable regulatory requirements?

yes no info

7. Other notes or comments, if any

Handwritten notes and signatures in the bottom left corner.



Handwritten notes in the bottom right corner.

CONFIDENTIAL - INFORMATIONAL PURPOSES ONLY

Case Number: 19-00000000000000000000
 Property Address: Wall 102
 Owner: [Redacted]

[Handwritten signature]

[Handwritten signature]

1. WELL CONSTRUCTION

- a. Is the well properly installed with the correct well ID? Y
- b. Is the well properly installed with the correct well ID? Y
- c. Is this well a sign of a major water source that will require protection from future drilling? Y
- d. Is the construction accurate to well completion? (see scheduling water on a well be able to determine if correct flow well) Y

2. Drilling Log Quality

- a. Is this log clear enough from from required language and able to be measured? Y
- b. Is the running form of logs clear and understandable? Y
- c. Is the log a copy of a log or a copy of a log? Y
- d. Is the recorded data of logs clear and understandable? Y
- e. Is the well log clear and understandable? Y

3. Well Log Log

- a. Is the well log a copy of a log or a copy of a log? Y
- b. Is the well log a copy of a log or a copy of a log? Y
- c. Is the well log a copy of a log or a copy of a log? Y
- d. Is the well log a copy of a log or a copy of a log? Y
- e. Is the well log a copy of a log or a copy of a log? Y

4. Log Log Log

- a. Have the log provided any of the log provided data the well? Y
- b. Is the log a copy of a log or a copy of a log? Y
- c. Is the log a copy of a log or a copy of a log? Y
- d. Is the log a copy of a log or a copy of a log? Y
- e. Is the log a copy of a log or a copy of a log? Y
- f. Is the log a copy of a log or a copy of a log? Y

5. Log Log Log

- a. Is the well log a copy of a log or a copy of a log? Y
- b. Is the well log a copy of a log or a copy of a log? Y
- c. Is the well log a copy of a log or a copy of a log? Y

6. Please see your professional judgement on the well construction for the well log provided for 1) and how the log form of the log provided through the Program and 2) compare with the applicable regulatory requirements.

7. Log Log Log

[Handwritten signature]

Signature of [Redacted]

[Handwritten signature]


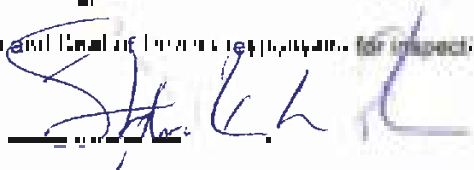


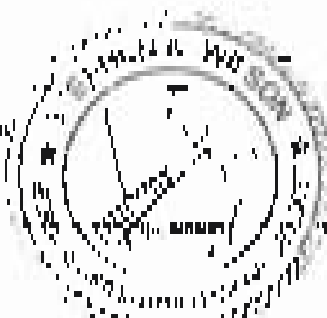
REGULATORY COMPLIANCE CHECKLIST

Form Number: _____
 Date of Inspection: _____
 Well ID: _____
 State: _____

Rev. 1
1/28/22

| | Y/N | NA | NOI |
|---|-----|----|-----|
| 1. Identification/Label Information | | | |
| a. Is the well correctly labeled as a water well? | N | | |
| b. Is the well properly identified with the correct well ID? | N | | |
| c. Is the well as a water well (groundwater) or a well (surface water) clearly identified on the label? | | | N |
| d. Is the discharge measured flow well as installed? (For a monitoring well, are the well bore and/or discharge screen(s) free of debris?) | N | | |
| 2. Protection/Security | | | |
| a. Is the well protected by a (locking) cap(s), (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz) | | | |
| a. Is the well cap properly secured by a locking mechanism on the well? | N | | |
| b. Is the locking device on the cap(s) properly secured from the well bore? | N | | |
| c. Is the well cap(s) properly secured from the surface? | N | | |
| d. Is the well cap(s) properly secured from the ground surface? | N | | |
| e. Is the well cap(s) properly secured from the ground surface? | N | | |
| f. Is the well cap(s) properly secured from the ground surface? | N | | |
| 3. Wellhead/Well | | | |
| a. Is the wellhead properly installed on the well? | N | | |
| b. Is the wellhead properly secured from the ground surface? | N | | |
| c. Is the wellhead properly secured from the ground surface? | N | | |
| d. Is the wellhead properly secured from the ground surface? | N | | |
| e. Is the wellhead properly secured from the ground surface? | N | | |
| f. Is the wellhead properly secured from the ground surface? | N | | |
| 4. Injection/Leakage | | | |
| a. Does the cap prevent entry of foreign material into the well? | N | | |
| b. Is the wellhead properly secured from the ground surface? | N | | |
| c. Is the wellhead properly secured from the ground surface? | N | | |
| d. Is the wellhead properly secured from the ground surface? | N | | |
| e. Is the wellhead properly secured from the ground surface? | N | | |
| f. Is the wellhead properly secured from the ground surface? | N | | |
| 5. Wellhead/Well | | | |
| a. Does the wellhead properly secure the well? | | | N |
| b. Is the wellhead properly secured from the ground surface? | | | N |
| c. Is the wellhead properly secured from the ground surface? | | | N |
| 6. Wellhead/Well | | | |
| a. Does the wellhead properly secure the well? | | | N |
| b. Is the wellhead properly secured from the ground surface? | | | N |
| c. Is the wellhead properly secured from the ground surface? | | | N |

Inspector and Client to sign and date for inspection:






UNIVERSITY OF CALIFORNIA - BERKELEY

Field Number: UCB 1000-10
 Project Number: _____
 Date: 2/28/22

| | | Yes | No | NA |
|-----------------------------|---|-------------------------------------|--------------------------|--------------------------|
| 1 Location/Geography | | | | |
| a | Is this well within road boundaries? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is this well primarily identified with the original well ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well ID highly visible on any road signs, maps, or progress from traffic? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is this drainage around the well acceptable? (no standing water on or well located in drainage during the rainy season) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Height/Topography | | | | |
| a | Is the visible topography flat to 10 degrees? (no steep slopes or hills?) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is there any form of degradation or disturbance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is there any form of degradation or disturbance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is there any form of degradation or disturbance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is there any form of degradation or disturbance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Well Structure | | | | |
| a | Is the well structure made of concrete or masonry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is the well structure made of concrete or masonry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well structure made of concrete or masonry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well structure made of concrete or masonry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well structure made of concrete or masonry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Well Access | | | | |
| a | Does the well have a means of access to the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Is there any form of barrier or fence, or any other structure from the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Is the well structure visible from the road? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d | Is the well structure visible from the road? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e | Is the well structure visible from the road? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f | Is the well structure visible from the road? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Well Condition | | | | |
| a | Does the well appear to be in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b | Does the well appear to be in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c | Does the well appear to be in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 General Comments | | | | |
| | Is there any other information about the well? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Signature and Seal of the UC Berkeley Professional Geologist

[Handwritten Signature]



UNIVERSITY OF CALIFORNIA, BERKELEY

State Agency: McManus
 Contract Number: _____
 Well ID: RW-12
 Date, Time, Conditions: 4/28/22

- | | | | | |
|--------------------------------|--|-----|----|-------|
| | | yes | no | other |
| 1) Construction of well | | | | |
| a) | In the well section of the well, is the hole? | X | | |
| b) | In the well properly lined with the correct well ID? | X | | |
| c) | In the well is a ring for the correct and correct the well requires plastic material in the water? | | | X |
| d) | In the well is there any debris or other material in the well section? | X | | |
| 2) Fracturing, grouting | | | | |
| a) | In the well there is any grout or other material in the well section? | | | |
| b) | In the well there is any material in the well section? | X | | |
| c) | Is there any material in the well section? | X | | |
| d) | In the well there is any material in the well section? | X | | |
| e) | In the well there is any material in the well section? | X | | |
| 3) Completion | | | | |
| a) | In the well there is any material in the well section? | X | | |
| b) | In the well there is any material in the well section? | X | | |
| c) | In the well there is any material in the well section? | X | | |
| d) | In the well there is any material in the well section? | X | | |
| e) | In the well there is any material in the well section? | X | | |
| 4) Testing | | | | |
| a) | In the well there is any material in the well section? | X | | |
| b) | In the well there is any material in the well section? | X | | |
| c) | In the well there is any material in the well section? | X | | |
| d) | In the well there is any material in the well section? | X | | |
| e) | In the well there is any material in the well section? | X | | |
| 5) Sampling | | | | |
| a) | In the well there is any material in the well section? | | | X |
| b) | In the well there is any material in the well section? | | | X |
| c) | In the well there is any material in the well section? | | | X |
| 6) General | | | | |
| a) | In the well there is any material in the well section? | X | | |

Signature: [Signature]

Signature: [Signature]



ENVIRONMENTAL PROTECTION AGENCY FORM NO. 100-1 (REV. 1-77)

Order Number
Contract Number
WAFB ID
Date, Time & conditions

100-100000000

100-100000000

| | | yes | no | n/a |
|--|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Construction/Installation | | | | |
| a | Is the well visible and accessible? | <input checked="" type="checkbox"/> | | |
| b | Is the well properly identified with the correct well ID? | <input checked="" type="checkbox"/> | | |
| c | Is the well in a safe place? Does the well require protection from traffic? | | <input checked="" type="checkbox"/> | |
| d | Is the drainage around the well to any holes? Are standing water 10' of well identified & cleaned/eliminated/covered? | <input checked="" type="checkbox"/> | | |
| 2. Physical Integrity | | | | |
| a | Is any surface water coming from adjacent structures into the well area? | <input checked="" type="checkbox"/> | | |
| b | Is the sealing base of the wellhead at 100% integrity? | <input checked="" type="checkbox"/> | | |
| c | Does the casing have a liner? Is it 100% intact? | <input checked="" type="checkbox"/> | | |
| d | Is the annular space between casing & hole of debris, dirt, water or filled with grout/annular seal? | <input checked="" type="checkbox"/> | | |
| e | Is the annular space at the top of casing covered? | <input checked="" type="checkbox"/> | | |
| 3. Grouting/Sealing | | | | |
| a | Is the well part or gravel annular seal installed or in place? | <input checked="" type="checkbox"/> | | |
| b | Is the well part or gravel annular seal in place? Is it 100% intact? | <input checked="" type="checkbox"/> | | |
| c | Is the well part or annular seal covered with the proper sealant? | <input checked="" type="checkbox"/> | | |
| d | Is the well part or annular seal covered with the proper sealant? Is the sealant covered by wire mesh, vertical bars, or other steel? Is the sealant covered by wire mesh, vertical bars, or other steel? Is the sealant covered by wire mesh, vertical bars, or other steel? | <input checked="" type="checkbox"/> | | |
| e | Is the sealant covered by wire mesh, vertical bars, or other steel? | <input checked="" type="checkbox"/> | | |
| 4. Operation | | | | |
| a | Does the annular seal or top of casing extend into the well? | <input checked="" type="checkbox"/> | | |
| b | Is the casing free of holes, cracks, or any other damage from foreign objects? Is it 100% intact? | <input checked="" type="checkbox"/> | | |
| c | Is the well properly vented for equalization of air pressure? | <input checked="" type="checkbox"/> | | |
| d | Is the casing part clearly marked on the water gauge? | <input checked="" type="checkbox"/> | | |
| e | Is the depth of the well measured with the original well log? | <input checked="" type="checkbox"/> | | |
| f | Is the casing stable? Do there are any signs of water leakage? Is there any evidence of water leakage? Is there any evidence of water leakage? Is there any evidence of water leakage? | <input checked="" type="checkbox"/> | | |
| 5. Construction/Installation | | | | |
| a | Does the well casing extend into the well? | | | <input checked="" type="checkbox"/> |
| b | Is there any evidence of water leakage? Is there any evidence of water leakage? Is there any evidence of water leakage? Is there any evidence of water leakage? | | | <input checked="" type="checkbox"/> |
| c | Does the well casing extend into the well? | | | <input checked="" type="checkbox"/> |
| 6. Material and Professional Responsibility | | | | |
| a | Has the well been inspected by a professional? Is the well constructed of the same material as the original? Is the well constructed of the same material as the original? Is the well constructed of the same material as the original? | <input checked="" type="checkbox"/> | | |

Inspected by: [Signature]

Signature and Seal of PE/PO responsible for inspection

[Signature]



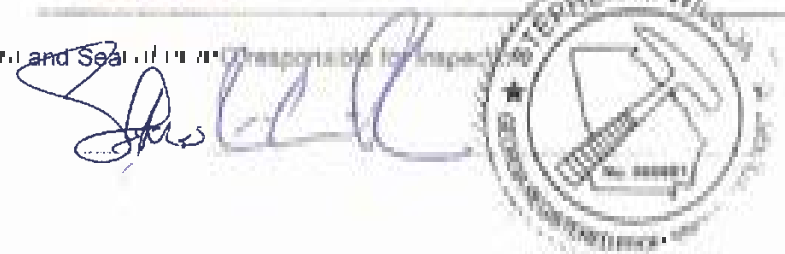
REGISTRATION AND INSPECTION OF MINING OPERATIONS

John P. Brown
 Director, Division
 Mine Safety
 (Title, Name, Qualification) 2/28/22

| | Y1 | Y2 | Y3 |
|--|----|----|----|
| I. General Information | | | |
| a. Is the well suitable for use as a mine? | X | | |
| b. Is the well properly identified with a name and a well ID? | X | | |
| c. Is the well in a safe condition and does the well comply with the requirements of the Code? | | X | |
| d. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| J. Production Capacity | | | |
| a. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| b. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| c. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| d. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| K. Safety Requirements | | | |
| a. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| b. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| c. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| d. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| L. Other Requirements | | | |
| a. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| b. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| c. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| d. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |
| M. Other Requirements | | | |
| a. Is the well in a safe condition and does the well comply with the requirements of the Code? | | | X |
| b. Is the well in a safe condition and does the well comply with the requirements of the Code? | | | X |
| c. Is the well in a safe condition and does the well comply with the requirements of the Code? | | | X |
| N. Other Requirements | | | |
| a. Is the well in a safe condition and does the well comply with the requirements of the Code? | X | | |

Inspector

Signature and Seal of the person responsible for inspection



APPENDIX B

LABORATORY ANALYTICAL, DATA VALIDATION AND FIELD SAMPLING REPORTS



September 30, 2021

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

RE: Project: MCMANUS CCR
Pace Project No.: 92561848

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2021. 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

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR

Pace Project No.: 92561848

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

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 Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92561848001 | MCM-12 | Water | 09/13/21 17:53 | 09/16/21 11:30 |
| 92561848002 | FB-1 | Water | 09/13/21 17:00 | 09/16/21 11:30 |
| 92561848003 | MCM-14 | Water | 09/13/21 17:32 | 09/16/21 11:30 |
| 92561848004 | MCM-01 | Water | 09/14/21 09:59 | 09/16/21 11:30 |
| 92561848005 | MCM-02 | Water | 09/14/21 11:26 | 09/16/21 11:30 |
| 92561848006 | MCM-04 | Water | 09/14/21 09:52 | 09/16/21 11:30 |
| 92561848007 | MCM-11 | Water | 09/14/21 13:08 | 09/16/21 11:30 |
| 92561848008 | MCM-15 | Water | 09/14/21 16:48 | 09/16/21 11:30 |
| 92561848009 | MCM-16 | Water | 09/14/21 11:10 | 09/16/21 11:30 |
| 92561848010 | MCM-18 | Water | 09/14/21 13:28 | 09/16/21 11:30 |
| 92561848011 | MCM-19 | Water | 09/14/21 15:01 | 09/16/21 11:30 |
| 92561848012 | MCM-20 | Water | 09/14/21 16:27 | 09/16/21 11:30 |
| 92561848013 | DPZ-2 | Water | 09/14/21 14:52 | 09/16/21 11:30 |
| 92561848014 | DUP-1 | Water | 09/14/21 00:00 | 09/16/21 11:30 |
| 92561848015 | DUP-2 | Water | 09/14/21 00:00 | 09/16/21 11:30 |
| 92561848016 | FB-2 | Water | 09/14/21 17:05 | 09/16/21 11:30 |
| 92561848017 | EB-1 | Water | 09/14/21 17:10 | 09/16/21 11:30 |
| 92561848018 | MCM-05 | Water | 09/14/21 13:35 | 09/16/21 11:30 |
| 92561848019 | MCM-06 | Water | 09/14/21 11:43 | 09/16/21 11:30 |
| 92561848020 | MCM-07 | Water | 09/14/21 09:23 | 09/16/21 11:30 |
| 92561848021 | MCM-17 | Water | 09/14/21 17:28 | 09/16/21 11:30 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92561848001 | MCM-12 | EPA 6010D | RDT | 1 | PASI-A |
| | | EPA 6020B | CRW | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848002 | FB-1 | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848003 | MCM-14 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| 92561848004 | MCM-01 | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| 92561848005 | MCM-02 | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| 92561848006 | MCM-04 | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| 92561848007 | MCM-11 | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR
 Pace Project No.: 92561848

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92561848008 | MCM-15 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848009 | MCM-16 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848010 | MCM-18 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848011 | MCM-19 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848012 | MCM-20 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848013 | DPZ-2 | EPA 6010D | RDT | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848014 | DUP-1 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92561848015 | DUP-2 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92561848016 | FB-2 | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848017 | EB-1 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848018 | MCM-05 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848019 | MCM-06 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848020 | MCM-07 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92561848021 | MCM-17 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | NMP | 1 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR
Pace Project No.: 92561848

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|--------|-----------|------------------------|----------|-------------------|------------|
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |

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

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848001 | MCM-12 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 17:32 | |
| | | R | | | | |
| | pH | 6.24 | Std. Units | | 09/16/21 17:32 | |
| EPA 6010D | Calcium | 6.0 | mg/L | 0.10 | 09/23/21 23:26 | |
| EPA 6020B | Barium | 0.086 | mg/L | 0.010 | 09/20/21 10:21 | |
| EPA 6020B | Beryllium | 0.0011 | mg/L | 0.0010 | 09/20/21 10:21 | |
| EPA 6020B | Boron | 1.4 | mg/L | 0.50 | 09/20/21 10:21 | M1 |
| EPA 6020B | Lithium | 0.010J | mg/L | 0.025 | 09/20/21 10:21 | |
| SM 2540C-2011 | Total Dissolved Solids | 1450 | mg/L | 50.0 | 09/21/21 12:40 | 1g,H1 |
| EPA 300.0 Rev 2.1 1993 | Chloride | 433 | mg/L | 10.0 | 09/19/21 19:26 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 1.4 | mg/L | 0.10 | 09/18/21 21:34 | |
| 92561848002 | FB-1 | | | | | |
| EPA 6020B | Molybdenum | 0.00028J | mg/L | 0.0010 | 09/20/21 10:38 | |
| 92561848003 | MCM-14 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 17:33 | |
| | | R | | | | |
| | pH | 6.30 | Std. Units | | 09/16/21 17:33 | |
| EPA 6010D | Calcium | 165 | mg/L | 1.0 | 09/23/21 23:23 | |
| EPA 6010D | Magnesium | 393 | mg/L | 1.0 | 09/23/21 23:23 | |
| EPA 6010D | Potassium | 123 | mg/L | 50.0 | 09/23/21 23:23 | |
| EPA 6010D | Sodium | 2910 | mg/L | 250 | 09/24/21 13:46 | |
| EPA 6020B | Barium | 0.16 | mg/L | 0.010 | 09/21/21 15:42 | |
| EPA 6020B | Boron | 1.2 | mg/L | 0.50 | 09/21/21 15:42 | |
| EPA 6020B | Lithium | 0.047 | mg/L | 0.025 | 09/20/21 11:05 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 139 | mg/L | 5.0 | 09/24/21 16:05 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 139 | mg/L | 5.0 | 09/24/21 16:05 | |
| SM 2540C-2011 | Total Dissolved Solids | 11400 | mg/L | 833 | 09/21/21 12:40 | 1g,H1 |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5010 | mg/L | 100 | 09/19/21 19:41 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 680 | mg/L | 100 | 09/19/21 19:41 | |
| 92561848004 | MCM-01 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:08 | |
| | | R | | | | |
| | pH | 5.13 | Std. Units | | 09/16/21 18:08 | |
| EPA 6010D | Calcium | 9.6 | mg/L | 0.10 | 09/23/21 01:04 | |
| EPA 6020B | Arsenic | 0.0055 | mg/L | 0.0050 | 09/21/21 15:45 | |
| EPA 6020B | Barium | 0.065 | mg/L | 0.0050 | 09/21/21 15:45 | |
| EPA 6020B | Boron | 0.079J | mg/L | 0.25 | 09/21/21 15:45 | |
| SM 2540C-2011 | Total Dissolved Solids | 66.0 | mg/L | 25.0 | 09/21/21 12:47 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 16.7 | mg/L | 1.0 | 09/18/21 22:21 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 34.2 | mg/L | 1.0 | 09/18/21 22:21 | |
| 92561848005 | MCM-02 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:08 | |
| | | R | | | | |
| | pH | 5.04 | Std. Units | | 09/16/21 18:08 | |
| EPA 6010D | Calcium | 4.2 | mg/L | 0.10 | 09/23/21 01:07 | |
| EPA 6020B | Arsenic | 0.00067J | mg/L | 0.0050 | 09/21/21 15:53 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848005 | MCM-02 | | | | | |
| EPA 6020B | Barium | 0.082 | mg/L | 0.0050 | 09/21/21 15:53 | |
| EPA 6020B | Boron | 0.093J | mg/L | 0.25 | 09/21/21 15:53 | |
| EPA 6020B | Chromium | 0.0056 | mg/L | 0.0050 | 09/21/21 15:53 | |
| EPA 6020B | Molybdenum | 0.00080J | mg/L | 0.0050 | 09/21/21 15:53 | |
| SM 2540C-2011 | Total Dissolved Solids | 76.0 | mg/L | 25.0 | 09/21/21 12:47 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 21.8 | mg/L | 1.0 | 09/18/21 22:36 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 30.4 | mg/L | 1.0 | 09/18/21 22:36 | |
| 92561848006 | MCM-04 | | | | | |
| | Performed by | CUSTOMER | | | 09/16/21 18:09 | |
| | pH | 5.09 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 12.5 | mg/L | 0.10 | 09/23/21 01:10 | |
| EPA 6020B | Arsenic | 0.0047J | mg/L | 0.0050 | 09/21/21 15:56 | |
| EPA 6020B | Barium | 0.043 | mg/L | 0.0050 | 09/21/21 15:56 | |
| EPA 6020B | Boron | 0.070J | mg/L | 0.25 | 09/21/21 15:56 | |
| EPA 6020B | Cobalt | 0.0054 | mg/L | 0.0050 | 09/21/21 15:56 | |
| SM 2540C-2011 | Total Dissolved Solids | 193 | mg/L | 25.0 | 09/21/21 12:47 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 28.5 | mg/L | 1.0 | 09/21/21 11:05 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 96.2 | mg/L | 1.0 | 09/21/21 11:05 | M1 |
| 92561848007 | MCM-11 | | | | | |
| | Performed by | CUSTOMER | | | 09/16/21 18:09 | |
| | pH | 5.50 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 14.0 | mg/L | 0.10 | 09/23/21 01:14 | |
| EPA 6020B | Arsenic | 0.011 | mg/L | 0.0050 | 09/21/21 16:04 | |
| EPA 6020B | Barium | 0.070 | mg/L | 0.0050 | 09/21/21 16:04 | |
| EPA 6020B | Boron | 0.060J | mg/L | 0.25 | 09/21/21 16:04 | |
| EPA 6020B | Lithium | 0.0033J | mg/L | 0.012 | 09/20/21 11:26 | |
| SM 2540C-2011 | Total Dissolved Solids | 191 | mg/L | 25.0 | 09/21/21 12:47 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 62.8 | mg/L | 1.0 | 09/19/21 20:27 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.18 | mg/L | 0.10 | 09/19/21 20:27 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 33.1 | mg/L | 1.0 | 09/19/21 20:27 | |
| 92561848008 | MCM-15 | | | | | |
| | Performed by | CUSTOMER | | | 09/16/21 18:09 | |
| | pH | 5.39 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 6.7 | mg/L | 0.10 | 09/23/21 01:17 | |
| EPA 6020B | Arsenic | 0.0035J | mg/L | 0.0050 | 09/21/21 16:11 | |
| EPA 6020B | Barium | 0.050 | mg/L | 0.0050 | 09/21/21 16:11 | |
| EPA 6020B | Beryllium | 0.00034J | mg/L | 0.00050 | 09/20/21 11:30 | |
| EPA 6020B | Boron | 0.068J | mg/L | 0.25 | 09/21/21 16:11 | |
| EPA 6020B | Chromium | 0.0027J | mg/L | 0.0050 | 09/21/21 16:11 | |
| EPA 6020B | Molybdenum | 0.00090J | mg/L | 0.0050 | 09/21/21 16:11 | |
| SM 2540C-2011 | Total Dissolved Solids | 96.0 | mg/L | 25.0 | 09/21/21 12:47 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 13.6 | mg/L | 1.0 | 09/19/21 20:43 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 16.7 | mg/L | 1.0 | 09/19/21 20:43 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848009 | MCM-16 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:09 | |
| | | R | | | | |
| | pH | 4.69 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 6.5 | mg/L | 0.10 | 09/23/21 01:20 | |
| EPA 6020B | Barium | 0.16 | mg/L | 0.0050 | 09/21/21 16:30 | |
| EPA 6020B | Beryllium | 0.00062 | mg/L | 0.00050 | 09/20/21 12:27 | |
| EPA 6020B | Boron | 0.071J | mg/L | 0.25 | 09/21/21 16:30 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 30.0 | mg/L | 1.0 | 09/19/21 20:58 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 24.4 | mg/L | 1.0 | 09/19/21 20:58 | |
| 92561848010 | MCM-18 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:09 | |
| | | R | | | | |
| | pH | 4.28 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 18.8 | mg/L | 0.10 | 09/23/21 01:23 | |
| EPA 6020B | Arsenic | 0.0029J | mg/L | 0.010 | 09/21/21 15:49 | |
| EPA 6020B | Barium | 0.098 | mg/L | 0.010 | 09/21/21 15:49 | |
| EPA 6020B | Beryllium | 0.0031 | mg/L | 0.0010 | 09/20/21 12:38 | |
| EPA 6020B | Boron | 0.20J | mg/L | 0.50 | 09/21/21 15:49 | |
| SM 2540C-2011 | Total Dissolved Solids | 2190 | mg/L | 278 | 09/21/21 12:48 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1020 | mg/L | 100 | 09/19/21 21:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 134 | mg/L | 100 | 09/19/21 21:14 | |
| 92561848011 | MCM-19 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:09 | |
| | | R | | | | |
| | pH | 5.31 | Std. Units | | 09/16/21 18:09 | |
| EPA 6010D | Calcium | 93.6 | mg/L | 0.10 | 09/23/21 01:27 | |
| EPA 6020B | Arsenic | 0.018J | mg/L | 0.020 | 09/21/21 16:00 | |
| EPA 6020B | Barium | 0.13 | mg/L | 0.020 | 09/21/21 16:00 | |
| EPA 6020B | Beryllium | 0.0062 | mg/L | 0.0020 | 09/20/21 12:41 | |
| EPA 6020B | Boron | 1.2 | mg/L | 1.0 | 09/21/21 16:00 | |
| EPA 6020B | Lithium | 0.011J | mg/L | 0.050 | 09/20/21 12:41 | |
| EPA 6020B | Selenium | 0.0022J | mg/L | 0.040 | 09/21/21 16:00 | |
| SM 2540C-2011 | Total Dissolved Solids | 14600 | mg/L | 1250 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7250 | mg/L | 100 | 09/19/21 21:29 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 995 | mg/L | 100 | 09/19/21 21:29 | |
| 92561848012 | MCM-20 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:10 | |
| | | R | | | | |
| | pH | 3.72 | Std. Units | | 09/16/21 18:10 | |
| EPA 6010D | Calcium | 61.1 | mg/L | 0.10 | 09/23/21 01:30 | |
| EPA 6020B | Arsenic | 0.028 | mg/L | 0.020 | 09/21/21 16:08 | |
| EPA 6020B | Barium | 0.11 | mg/L | 0.020 | 09/21/21 16:08 | |
| EPA 6020B | Beryllium | 0.016 | mg/L | 0.0020 | 09/20/21 12:45 | |
| EPA 6020B | Boron | 0.91J | mg/L | 1.0 | 09/21/21 16:08 | |
| EPA 6020B | Cobalt | 0.030 | mg/L | 0.020 | 09/21/21 16:08 | |
| EPA 6020B | Lithium | 0.020J | mg/L | 0.050 | 09/20/21 12:45 | |
| EPA 6020B | Selenium | 0.0018J | mg/L | 0.040 | 09/21/21 16:08 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848012 | MCM-20 | | | | | |
| SM 2540C-2011 | Total Dissolved Solids | 10300 | mg/L | 833 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5100 | mg/L | 100 | 09/19/21 21:44 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 659 | mg/L | 100 | 09/19/21 21:44 | |
| 92561848013 | DPZ-2 | | | | | |
| | Performed by | CUSTOMER | | | 09/16/21 18:10 | |
| | pH | 7.11 | Std. Units | | 09/16/21 18:10 | |
| EPA 6010D | Calcium | 273 | mg/L | 1.0 | 09/23/21 23:49 | |
| EPA 6020B | Arsenic | 0.022 | mg/L | 0.020 | 09/21/21 16:26 | |
| EPA 6020B | Barium | 0.082 | mg/L | 0.020 | 09/21/21 16:26 | |
| EPA 6020B | Boron | 2.0 | mg/L | 1.0 | 09/21/21 16:26 | |
| EPA 6020B | Lithium | 0.092 | mg/L | 0.050 | 09/20/21 12:48 | |
| SM 2540C-2011 | Total Dissolved Solids | 16400 | mg/L | 1250 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7610 | mg/L | 100 | 09/19/21 22:30 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 971 | mg/L | 100 | 09/19/21 22:30 | |
| 92561848014 | DUP-1 | | | | | |
| EPA 6010D | Calcium | 6.7 | mg/L | 0.10 | 09/23/21 01:50 | |
| EPA 6020B | Barium | 0.15 | mg/L | 0.0050 | 09/21/21 16:34 | |
| EPA 6020B | Beryllium | 0.00032J | mg/L | 0.00050 | 09/20/21 12:52 | |
| EPA 6020B | Boron | 0.062J | mg/L | 0.25 | 09/21/21 16:34 | |
| SM 2540C-2011 | Total Dissolved Solids | 79.0 | mg/L | 25.0 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 30.2 | mg/L | 1.0 | 09/21/21 11:21 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 29.1 | mg/L | 1.0 | 09/21/21 11:21 | |
| 92561848015 | DUP-2 | | | | | |
| EPA 6010D | Calcium | 95.6 | mg/L | 0.10 | 09/23/21 01:53 | |
| EPA 6020B | Arsenic | 0.020J | mg/L | 0.020 | 09/21/21 16:37 | |
| EPA 6020B | Barium | 0.13 | mg/L | 0.020 | 09/21/21 16:37 | |
| EPA 6020B | Beryllium | 0.0062 | mg/L | 0.0020 | 09/20/21 12:55 | |
| EPA 6020B | Boron | 1.4 | mg/L | 1.0 | 09/21/21 16:37 | |
| EPA 6020B | Lithium | 0.012J | mg/L | 0.050 | 09/20/21 12:55 | |
| EPA 6020B | Selenium | 0.0019J | mg/L | 0.040 | 09/21/21 16:37 | |
| SM 2540C-2011 | Total Dissolved Solids | 15100 | mg/L | 1250 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7230 | mg/L | 100 | 09/19/21 23:01 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 978 | mg/L | 100 | 09/19/21 23:01 | |
| 92561848017 | EB-1 | | | | | |
| EPA 6020B | Barium | 0.00024J | mg/L | 0.0010 | 09/21/21 14:37 | |
| 92561848018 | MCM-05 | | | | | |
| | Performed by | CUSTOMER | | | 09/16/21 18:10 | |
| | pH | 6.67 | Std. Units | | 09/16/21 18:10 | |
| EPA 6010D | Calcium | 13.9 | mg/L | 0.10 | 09/24/21 00:19 | |
| EPA 6010D | Magnesium | 32.4 | mg/L | 0.10 | 09/24/21 00:19 | |
| EPA 6010D | Potassium | 10.7 | mg/L | 5.0 | 09/24/21 00:19 | |
| EPA 6010D | Sodium | 2410 | mg/L | 250 | 09/24/21 00:09 | |
| EPA 6020B | Arsenic | 0.020J | mg/L | 0.020 | 09/21/21 14:59 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848018 | MCM-05 | | | | | |
| EPA 6020B | Barium | 0.080 | mg/L | 0.020 | 09/21/21 22:10 | |
| EPA 6020B | Boron | 0.95J | mg/L | 1.0 | 09/21/21 14:59 | |
| EPA 6020B | Lithium | 0.042J | mg/L | 0.050 | 09/21/21 22:10 | |
| EPA 6020B | Molybdenum | 0.0099J | mg/L | 0.020 | 09/21/21 14:59 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 233 | mg/L | 5.0 | 09/27/21 13:49 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 233 | mg/L | 5.0 | 09/27/21 13:49 | |
| SM 2540C-2011 | Total Dissolved Solids | 8020 | mg/L | 625 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3940 | mg/L | 100 | 09/20/21 00:18 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 459 | mg/L | 100 | 09/20/21 00:18 | |
| 92561848019 | MCM-06 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:10 | |
| | | R | | | | |
| | pH | 6.94 | Std. Units | | 09/16/21 18:10 | |
| EPA 6010D | Calcium | 299 | mg/L | 1.0 | 09/24/21 00:22 | |
| EPA 6010D | Magnesium | 515 | mg/L | 1.0 | 09/24/21 00:22 | |
| EPA 6010D | Potassium | 117 | mg/L | 50.0 | 09/24/21 00:22 | |
| EPA 6010D | Sodium | 3270 | mg/L | 250 | 09/24/21 00:12 | |
| EPA 6020B | Arsenic | 0.51 | mg/L | 0.020 | 09/21/21 15:06 | |
| EPA 6020B | Barium | 0.22 | mg/L | 0.020 | 09/21/21 22:14 | |
| EPA 6020B | Boron | 1.1 | mg/L | 1.0 | 09/21/21 15:06 | |
| EPA 6020B | Lithium | 0.084 | mg/L | 0.050 | 09/21/21 22:14 | |
| EPA 7470A | Mercury | 0.16J | ug/L | 0.20 | 09/29/21 12:15 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 507 | mg/L | 5.0 | 09/24/21 20:16 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 507 | mg/L | 5.0 | 09/24/21 20:16 | |
| SM 2540C-2011 | Total Dissolved Solids | 11800 | mg/L | 833 | 09/21/21 12:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5360 | mg/L | 100 | 09/20/21 16:06 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 490 | mg/L | 10.0 | 09/20/21 00:33 | |
| 92561848020 | MCM-07 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:10 | |
| | | R | | | | |
| | pH | 6.28 | Std. Units | | 09/16/21 18:10 | |
| EPA 6010D | Calcium | 225 | mg/L | 1.0 | 09/24/21 00:26 | |
| EPA 6010D | Magnesium | 496 | mg/L | 1.0 | 09/24/21 00:26 | |
| EPA 6010D | Potassium | 154 | mg/L | 50.0 | 09/24/21 00:26 | |
| EPA 6010D | Sodium | 3860 | mg/L | 250 | 09/24/21 00:16 | |
| EPA 6020B | Arsenic | 0.013J | mg/L | 0.020 | 09/21/21 15:13 | |
| EPA 6020B | Barium | 0.20 | mg/L | 0.020 | 09/21/21 22:17 | |
| EPA 6020B | Boron | 1.5 | mg/L | 1.0 | 09/21/21 15:13 | |
| EPA 6020B | Lithium | 0.035J | mg/L | 0.050 | 09/21/21 22:17 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 246 | mg/L | 5.0 | 09/24/21 20:45 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 246 | mg/L | 5.0 | 09/24/21 20:45 | |
| SM 2540C-2011 | Total Dissolved Solids | 13400 | mg/L | 1250 | 09/21/21 12:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6300 | mg/L | 100 | 09/20/21 00:48 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 819 | mg/L | 100 | 09/20/21 00:48 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92561848

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|---------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92561848021 | MCM-17 | | | | | |
| | Performed by | CUSTOME | | | 09/16/21 18:11 | |
| | | R | | | | |
| | pH | 6.77 | Std. Units | | 09/16/21 18:11 | |
| EPA 6010D | Calcium | 190 | mg/L | 1.0 | 09/28/21 13:06 | M1, P8 |
| EPA 6010D | Magnesium | 277 | mg/L | 1.0 | 09/28/21 13:06 | M1 |
| EPA 6010D | Potassium | 143 | mg/L | 50.0 | 09/28/21 13:06 | M1 |
| EPA 6010D | Sodium | 2600 | mg/L | 250 | 09/29/21 11:58 | M1 |
| EPA 6020B | Barium | 0.20 | mg/L | 0.030 | 09/21/21 18:14 | M1 |
| EPA 6020B | Boron | 2.1 | mg/L | 1.5 | 09/21/21 18:14 | M1 |
| EPA 6020B | Lithium | 0.035J | mg/L | 0.075 | 09/21/21 18:14 | |
| SM 2320B-2011 | Alkalinity, Bicarbonate (CaCO3) | 535 | mg/L | 5.0 | 09/24/21 20:54 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 535 | mg/L | 5.0 | 09/24/21 20:54 | |
| SM 2540C-2011 | Total Dissolved Solids | 8820 | mg/L | 625 | 09/21/21 12:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4090 | mg/L | 100 | 09/20/21 16:27 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 460 | mg/L | 10.0 | 09/20/21 01:34 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-12 **Lab ID: 92561848001** Collected: 09/13/21 17:53 Received: 09/16/21 11:30 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 | | 09/16/21 17:32 | | |
| pH | 6.24 | Std. Units | | | 1 | | 09/16/21 17:32 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 6.0 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 23:26 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.010 | 0.0020 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.010 | 0.00087 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-38-2 | |
| Barium | 0.086 | mg/L | 0.010 | 0.0021 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-39-3 | |
| Beryllium | 0.0011 | mg/L | 0.0010 | 0.00050 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-41-7 | |
| Boron | 1.4 | mg/L | 0.50 | 0.085 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-42-8 | M1 |
| Cadmium | ND | mg/L | 0.0020 | 0.00060 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.010 | 0.0050 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.010 | 0.00050 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-48-4 | |
| Lead | ND | mg/L | 0.010 | 0.00077 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7439-92-1 | |
| Lithium | 0.010J | mg/L | 0.025 | 0.0050 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.010 | 0.0013 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.020 | 0.00072 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0047 | 0.00050 | 10 | 09/17/21 11:44 | 09/20/21 10:21 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:33 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 1450 | mg/L | 50.0 | 50.0 | 1 | | 09/21/21 12:40 | | 1g,H1 |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 433 | mg/L | 10.0 | 6.0 | 10 | | 09/19/21 19:26 | 16887-00-6 | |
| Fluoride | 1.4 | mg/L | 0.10 | 0.050 | 1 | | 09/18/21 21:34 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/18/21 21:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: FB-1 **Lab ID: 92561848002** Collected: 09/13/21 17:00 Received: 09/16/21 11:30 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|-------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 23:39 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 09/17/21 11:44 | 09/23/21 23:39 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 09/17/21 11:44 | 09/23/21 23:39 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 09/17/21 11:44 | 09/23/21 23:39 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7439-93-2 | |
| Molybdenum | 0.00028J | mg/L | 0.0010 | 0.00013 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:38 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:36 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 15:48 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 15:48 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 15:48 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:40 | | 1g,H1 |
| 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 | | 09/18/21 21:50 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/18/21 21:50 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/18/21 21:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-14 **Lab ID: 92561848003** Collected: 09/13/21 17:32 Received: 09/16/21 11:30 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 | | 09/16/21 17:33 | | |
| pH | 6.30 | Std. Units | | | 1 | | 09/16/21 17:33 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 165 | mg/L | 1.0 | 0.94 | 10 | 09/17/21 11:44 | 09/23/21 23:23 | 7440-70-2 | |
| Magnesium | 393 | mg/L | 1.0 | 0.68 | 10 | 09/17/21 11:44 | 09/23/21 23:23 | 7439-95-4 | |
| Potassium | 123 | mg/L | 50.0 | 30.4 | 10 | 09/17/21 11:44 | 09/23/21 23:23 | 7440-09-7 | |
| Sodium | 2910 | mg/L | 250 | 30.5 | 50 | 09/17/21 11:44 | 09/24/21 13:46 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.010 | 0.0020 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.010 | 0.00087 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-38-2 | |
| Barium | 0.16 | mg/L | 0.010 | 0.0021 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0010 | 0.00050 | 10 | 09/17/21 11:44 | 09/20/21 11:05 | 7440-41-7 | |
| Boron | 1.2 | mg/L | 0.50 | 0.085 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0020 | 0.00060 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.010 | 0.0050 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.010 | 0.00050 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-48-4 | |
| Lead | ND | mg/L | 0.010 | 0.00077 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7439-92-1 | |
| Lithium | 0.047 | mg/L | 0.025 | 0.0050 | 10 | 09/17/21 11:44 | 09/20/21 11:05 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.010 | 0.0013 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.020 | 0.00072 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0047 | 0.00050 | 10 | 09/17/21 11:44 | 09/21/21 15:42 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:38 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 139 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 16:05 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 16:05 | | |
| Alkalinity, Total as CaCO3 | 139 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 16:05 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11400 | mg/L | 833 | 833 | 1 | | 09/21/21 12:40 | | 1g,H1 |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5010 | mg/L | 100 | 60.0 | 100 | | 09/19/21 19:41 | 16887-00-6 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: **MCM-14** Lab ID: **92561848003** Collected: 09/13/21 17:32 Received: 09/16/21 11:30 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|------------|-------|--------|-------|-----|----------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 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 | | 09/18/21 22:05 | 16984-48-8 | |
| Sulfate | 680 | mg/L | 100 | 50.0 | 100 | | 09/19/21 19:41 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-01 **Lab ID: 92561848004** Collected: 09/14/21 09:59 Received: 09/16/21 11:30 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 | | 09/16/21 18:08 | | |
| pH | 5.13 | Std. Units | | | 1 | | 09/16/21 18:08 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 9.6 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:04 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-36-0 | |
| Arsenic | 0.0055 | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-38-2 | |
| Barium | 0.065 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 11:09 | 7440-41-7 | |
| Boron | 0.079J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 11:09 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:45 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:41 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 66.0 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:47 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 16.7 | mg/L | 1.0 | 0.60 | 1 | | 09/18/21 22:21 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/18/21 22:21 | 16984-48-8 | |
| Sulfate | 34.2 | mg/L | 1.0 | 0.50 | 1 | | 09/18/21 22:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-02 **Lab ID: 92561848005** Collected: 09/14/21 11:26 Received: 09/16/21 11:30 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 | | 09/16/21 18:08 | | |
| pH | 5.04 | Std. Units | | | 1 | | 09/16/21 18:08 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 4.2 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:07 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-36-0 | |
| Arsenic | 0.00067J | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-38-2 | |
| Barium | 0.082 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 11:16 | 7440-41-7 | |
| Boron | 0.093J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-43-9 | |
| Chromium | 0.0056 | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 11:16 | 7439-93-2 | |
| Molybdenum | 0.00080J | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:53 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:43 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 76.0 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:47 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 21.8 | mg/L | 1.0 | 0.60 | 1 | | 09/18/21 22:36 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/18/21 22:36 | 16984-48-8 | |
| Sulfate | 30.4 | mg/L | 1.0 | 0.50 | 1 | | 09/18/21 22:36 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-04 **Lab ID: 92561848006** Collected: 09/14/21 09:52 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 5.09 | Std. Units | | | 1 | | 09/16/21 18:09 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 12.5 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:10 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-36-0 | |
| Arsenic | 0.0047J | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-38-2 | |
| Barium | 0.043 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 11:19 | 7440-41-7 | |
| Boron | 0.070J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-47-3 | |
| Cobalt | 0.0054 | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 11:19 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 15:56 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:46 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 193 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:47 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 28.5 | mg/L | 1.0 | 0.60 | 1 | | 09/21/21 11:05 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/21/21 11:05 | 16984-48-8 | M1 |
| Sulfate | 96.2 | mg/L | 1.0 | 0.50 | 1 | | 09/21/21 11:05 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-11 **Lab ID: 92561848007** Collected: 09/14/21 13:08 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 5.50 | Std. Units | | | 1 | | 09/16/21 18:09 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|------|-------|---|----------------|----------------|-----------|--|
| Calcium | 14.0 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:14 | 7440-70-2 | |
|---------|-------------|------|------|-------|---|----------------|----------------|-----------|--|

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|----------------|------|---------|---------|---|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-36-0 | |
| Arsenic | 0.011 | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-38-2 | |
| Barium | 0.070 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 11:26 | 7440-41-7 | |
| Boron | 0.060J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7439-92-1 | |
| Lithium | 0.0033J | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 11:26 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:04 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:48 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 191 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:47 | | |
|------------------------|------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 62.8 | mg/L | 1.0 | 0.60 | 1 | | 09/19/21 20:27 | 16887-00-6 | |
| Fluoride | 0.18 | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 20:27 | 16984-48-8 | |
| Sulfate | 33.1 | mg/L | 1.0 | 0.50 | 1 | | 09/19/21 20:27 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-15 **Lab ID: 92561848008** Collected: 09/14/21 16:48 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 5.39 | Std. Units | | | 1 | | 09/16/21 18:09 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 6.7 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:17 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-36-0 | |
| Arsenic | 0.0035J | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-38-2 | |
| Barium | 0.050 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-39-3 | |
| Beryllium | 0.00034J | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 11:30 | 7440-41-7 | |
| Boron | 0.068J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-43-9 | |
| Chromium | 0.0027J | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 11:30 | 7439-93-2 | |
| Molybdenum | 0.00090J | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:11 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:51 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 96.0 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:47 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 13.6 | mg/L | 1.0 | 0.60 | 1 | | 09/19/21 20:43 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 20:43 | 16984-48-8 | |
| Sulfate | 16.7 | mg/L | 1.0 | 0.50 | 1 | | 09/19/21 20:43 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-16 **Lab ID: 92561848009** Collected: 09/14/21 11:10 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 4.69 | Std. Units | | | 1 | | 09/16/21 18:09 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|------------|------|------|-------|---|----------------|----------------|-----------|--|
| Calcium | 6.5 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:20 | 7440-70-2 | |
|---------|------------|------|------|-------|---|----------------|----------------|-----------|--|

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|----------------|------|---------|---------|---|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-38-2 | |
| Barium | 0.16 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-39-3 | |
| Beryllium | 0.00062 | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 12:27 | 7440-41-7 | |
| Boron | 0.071J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 12:27 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:30 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:53 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|----|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:48 | | |
|------------------------|----|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 30.0 | mg/L | 1.0 | 0.60 | 1 | | 09/19/21 20:58 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 20:58 | 16984-48-8 | |
| Sulfate | 24.4 | mg/L | 1.0 | 0.50 | 1 | | 09/19/21 20:58 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-18 **Lab ID: 92561848010** Collected: 09/14/21 13:28 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 4.28 | Std. Units | | | 1 | | 09/16/21 18:09 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 18.8 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:23 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.010 | 0.0020 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-36-0 | |
| Arsenic | 0.0029J | mg/L | 0.010 | 0.00087 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-38-2 | |
| Barium | 0.098 | mg/L | 0.010 | 0.0021 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-39-3 | |
| Beryllium | 0.0031 | mg/L | 0.0010 | 0.00050 | 10 | 09/17/21 11:44 | 09/20/21 12:38 | 7440-41-7 | |
| Boron | 0.20J | mg/L | 0.50 | 0.085 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0020 | 0.00060 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.010 | 0.0050 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.010 | 0.00050 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-48-4 | |
| Lead | ND | mg/L | 0.010 | 0.00077 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.025 | 0.0050 | 10 | 09/17/21 11:44 | 09/20/21 12:38 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.010 | 0.0013 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.020 | 0.00072 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0047 | 0.00050 | 10 | 09/17/21 11:44 | 09/21/21 15:49 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 15:56 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 2190 | mg/L | 278 | 278 | 1 | | 09/21/21 12:48 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 1020 | mg/L | 100 | 60.0 | 100 | | 09/19/21 21:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 01:27 | 16984-48-8 | |
| Sulfate | 134 | mg/L | 100 | 50.0 | 100 | | 09/19/21 21:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92561848

Sample: MCM-19 **Lab ID: 92561848011** Collected: 09/14/21 15:01 Received: 09/16/21 11:30 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 | | 09/16/21 18:09 | | |
| pH | 5.31 | Std. Units | | | 1 | | 09/16/21 18:09 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 93.6 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:27 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-36-0 | |
| Arsenic | 0.018J | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-38-2 | |
| Barium | 0.13 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-39-3 | |
| Beryllium | 0.0062 | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/20/21 12:41 | 7440-41-7 | |
| Boron | 1.2 | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7439-92-1 | |
| Lithium | 0.011J | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/20/21 12:41 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7439-98-7 | |
| Selenium | 0.0022J | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:00 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 11:43 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 14600 | mg/L | 1250 | 1250 | 1 | | 09/21/21 12:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7250 | mg/L | 100 | 60.0 | 100 | | 09/19/21 21:29 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 01:42 | 16984-48-8 | |
| Sulfate | 995 | mg/L | 100 | 50.0 | 100 | | 09/19/21 21:29 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-20 **Lab ID: 92561848012** Collected: 09/14/21 16:27 Received: 09/16/21 11:30 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 | | 09/16/21 18:10 | | |
| pH | 3.72 | Std. Units | | | 1 | | 09/16/21 18:10 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 61.1 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:30 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-36-0 | |
| Arsenic | 0.028 | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-38-2 | |
| Barium | 0.11 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-39-3 | |
| Beryllium | 0.016 | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/20/21 12:45 | 7440-41-7 | |
| Boron | 0.91J | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-47-3 | |
| Cobalt | 0.030 | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7439-92-1 | |
| Lithium | 0.020J | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/20/21 12:45 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7439-98-7 | |
| Selenium | 0.0018J | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:08 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 11:51 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10300 | mg/L | 833 | 833 | 1 | | 09/21/21 12:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5100 | mg/L | 100 | 60.0 | 100 | | 09/19/21 21:44 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 01:57 | 16984-48-8 | |
| Sulfate | 659 | mg/L | 100 | 50.0 | 100 | | 09/19/21 21:44 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: DPZ-2 **Lab ID:** 92561848013 Collected: 09/14/21 14:52 Received: 09/16/21 11:30 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 | | 09/16/21 18:10 | | |
| pH | 7.11 | Std. Units | | | 1 | | 09/16/21 18:10 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|------------|------|-----|------|----|----------------|----------------|-----------|--|
| Calcium | 273 | mg/L | 1.0 | 0.94 | 10 | 09/17/21 11:44 | 09/23/21 23:49 | 7440-70-2 | |
|---------|------------|------|-----|------|----|----------------|----------------|-----------|--|

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|--------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-36-0 | |
| Arsenic | 0.022 | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-38-2 | |
| Barium | 0.082 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/20/21 12:48 | 7440-41-7 | |
| Boron | 2.0 | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7439-92-1 | |
| Lithium | 0.092 | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/20/21 12:48 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:26 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 11:53 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 16400 | mg/L | 1250 | 1250 | 1 | | 09/21/21 12:53 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|-----|--|----------------|------------|--|
| Chloride | 7610 | mg/L | 100 | 60.0 | 100 | | 09/19/21 22:30 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 02:13 | 16984-48-8 | |
| Sulfate | 971 | mg/L | 100 | 50.0 | 100 | | 09/19/21 22:30 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92561848

| Sample: DUP-1 | | Lab ID: 92561848014 | | Collected: 09/14/21 00:00 | Received: 09/16/21 11:30 | Matrix: Water | | | | |
|-------------------------------------|----------|--|--------------|---------------------------|--------------------------|----------------|----------------|------------|------|--|
| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual | |
| 6010 MET ICP | | Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | |
| Calcium | 6.7 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:50 | 7440-70-2 | | |
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | |
| Antimony | ND | mg/L | 0.0050 | 0.0010 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-36-0 | | |
| Arsenic | ND | mg/L | 0.0050 | 0.00043 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-38-2 | | |
| Barium | 0.15 | mg/L | 0.0050 | 0.0011 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-39-3 | | |
| Beryllium | 0.00032J | mg/L | 0.00050 | 0.00025 | 5 | 09/17/21 11:44 | 09/20/21 12:52 | 7440-41-7 | | |
| Boron | 0.062J | mg/L | 0.25 | 0.042 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-42-8 | | |
| Cadmium | ND | mg/L | 0.0010 | 0.00030 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-43-9 | | |
| Chromium | ND | mg/L | 0.0050 | 0.0025 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-47-3 | | |
| Cobalt | ND | mg/L | 0.0050 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-48-4 | | |
| Lead | ND | mg/L | 0.0050 | 0.00038 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7439-92-1 | | |
| Lithium | ND | mg/L | 0.012 | 0.0025 | 5 | 09/17/21 11:44 | 09/20/21 12:52 | 7439-93-2 | | |
| Molybdenum | ND | mg/L | 0.0050 | 0.00063 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7439-98-7 | | |
| Selenium | ND | mg/L | 0.010 | 0.00036 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7782-49-2 | | |
| Thallium | ND | mg/L | 0.0024 | 0.00025 | 5 | 09/17/21 11:44 | 09/21/21 16:34 | 7440-28-0 | | |
| 7470 Mercury | | Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 11:56 | 7439-97-6 | | |
| 2540C Total Dissolved Solids | | Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | |
| Total Dissolved Solids | 79.0 | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:53 | | | |
| 300.0 IC Anions 28 Days | | Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | |
| Chloride | 30.2 | mg/L | 1.0 | 0.60 | 1 | | 09/21/21 11:21 | 16887-00-6 | | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/21/21 11:21 | 16984-48-8 | | |
| Sulfate | 29.1 | mg/L | 1.0 | 0.50 | 1 | | 09/21/21 11:21 | 14808-79-8 | | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: DUP-2 **Lab ID: 92561848015** Collected: 09/14/21 00:00 Received: 09/16/21 11:30 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|----------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 95.6 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/23/21 01:53 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-36-0 | |
| Arsenic | 0.020J | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-38-2 | |
| Barium | 0.13 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-39-3 | |
| Beryllium | 0.0062 | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/20/21 12:55 | 7440-41-7 | |
| Boron | 1.4 | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7439-92-1 | |
| Lithium | 0.012J | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/20/21 12:55 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7439-98-7 | |
| Selenium | 0.0019J | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 16:37 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 11:59 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15100 | mg/L | 1250 | 1250 | 1 | | 09/21/21 12:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7230 | mg/L | 100 | 60.0 | 100 | | 09/19/21 23:01 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 03:15 | 16984-48-8 | |
| Sulfate | 978 | mg/L | 100 | 50.0 | 100 | | 09/19/21 23:01 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: FB-2 **Lab ID: 92561848016** Collected: 09/14/21 17:05 Received: 09/16/21 11:30 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/24/21 00:03 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 09/17/21 11:44 | 09/24/21 00:03 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 09/17/21 11:44 | 09/24/21 00:03 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 09/17/21 11:44 | 09/24/21 00:03 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 09/17/21 11:44 | 09/20/21 10:45 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:01 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 18:48 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 18:48 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 18:48 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:53 | | |
| 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 | | 09/19/21 23:16 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/19/21 23:16 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/19/21 23:16 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: EB-1 **Lab ID: 92561848017** Collected: 09/14/21 17:10 Received: 09/16/21 11:30 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/24/21 00:06 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 09/17/21 11:44 | 09/24/21 00:06 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 09/17/21 11:44 | 09/24/21 00:06 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 09/17/21 11:44 | 09/24/21 00:06 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-38-2 | |
| Barium | 0.00024J | mg/L | 0.0010 | 0.00021 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 09/17/21 11:44 | 09/21/21 14:37 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:10 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:02 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:02 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:02 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/21/21 12:53 | | |
| 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 | | 09/20/21 00:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/20/21 00:02 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/20/21 00:02 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-05 **Lab ID: 92561848018** Collected: 09/14/21 13:35 Received: 09/16/21 11:30 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 | | 09/16/21 18:10 | | |
| pH | 6.67 | Std. Units | | | 1 | | 09/16/21 18:10 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|-------|----|----------------|----------------|-----------|--|
| Calcium | 13.9 | mg/L | 0.10 | 0.094 | 1 | 09/17/21 11:44 | 09/24/21 00:19 | 7440-70-2 | |
| Magnesium | 32.4 | mg/L | 0.10 | 0.068 | 1 | 09/17/21 11:44 | 09/24/21 00:19 | 7439-95-4 | |
| Potassium | 10.7 | mg/L | 5.0 | 3.0 | 1 | 09/17/21 11:44 | 09/24/21 00:19 | 7440-09-7 | |
| Sodium | 2410 | mg/L | 250 | 30.5 | 50 | 09/17/21 11:44 | 09/24/21 00:09 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|----------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-36-0 | |
| Arsenic | 0.020J | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-38-2 | |
| Barium | 0.080 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 22:10 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-41-7 | |
| Boron | 0.95J | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7439-92-1 | |
| Lithium | 0.042J | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/21/21 22:10 | 7439-93-2 | |
| Molybdenum | 0.0099J | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 14:59 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:12 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|--|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO ₃) | 233 | mg/L | 5.0 | 5.0 | 1 | | 09/27/21 13:49 | | |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/27/21 13:49 | | |
| Alkalinity, Total as CaCO ₃ | 233 | mg/L | 5.0 | 5.0 | 1 | | 09/27/21 13:49 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 8020 | mg/L | 625 | 625 | 1 | | 09/21/21 12:53 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 3940 | mg/L | 100 | 60.0 | 100 | | 09/20/21 00:18 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-05 **Lab ID: 92561848018** Collected: 09/14/21 13:35 Received: 09/16/21 11:30 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 | | 09/19/21 04:32 | 16984-48-8 | |
| Sulfate | 459 | mg/L | 100 | 50.0 | 100 | | 09/20/21 00:18 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-06 **Lab ID: 92561848019** Collected: 09/14/21 11:43 Received: 09/16/21 11:30 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 | | 09/16/21 18:10 | | |
| pH | 6.94 | Std. Units | | | 1 | | 09/16/21 18:10 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 299 | mg/L | 1.0 | 0.94 | 10 | 09/17/21 11:44 | 09/24/21 00:22 | 7440-70-2 | |
| Magnesium | 515 | mg/L | 1.0 | 0.68 | 10 | 09/17/21 11:44 | 09/24/21 00:22 | 7439-95-4 | |
| Potassium | 117 | mg/L | 50.0 | 30.4 | 10 | 09/17/21 11:44 | 09/24/21 00:22 | 7440-09-7 | |
| Sodium | 3270 | mg/L | 250 | 30.5 | 50 | 09/17/21 11:44 | 09/24/21 00:12 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|--------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-36-0 | |
| Arsenic | 0.51 | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-38-2 | |
| Barium | 0.22 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 22:14 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-41-7 | |
| Boron | 1.1 | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7439-92-1 | |
| Lithium | 0.084 | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/21/21 22:14 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:06 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|--------------|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | 0.16J | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:15 | 7439-97-6 | |
|---------|--------------|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|--|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO ₃) | 507 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:16 | | |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:16 | | |
| Alkalinity, Total as CaCO ₃ | 507 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:16 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 11800 | mg/L | 833 | 833 | 1 | | 09/21/21 12:53 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 5360 | mg/L | 100 | 60.0 | 100 | | 09/20/21 16:06 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-06 **Lab ID: 92561848019** Collected: 09/14/21 11:43 Received: 09/16/21 11:30 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 | | 09/19/21 04:48 | 16984-48-8 | |
| Sulfate | 490 | mg/L | 10.0 | 5.0 | 10 | | 09/20/21 00:33 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-07 **Lab ID: 92561848020** Collected: 09/14/21 09:23 Received: 09/16/21 11:30 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 | | 09/16/21 18:10 | | |
| pH | 6.28 | Std. Units | | | 1 | | 09/16/21 18:10 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 225 | mg/L | 1.0 | 0.94 | 10 | 09/17/21 11:44 | 09/24/21 00:26 | 7440-70-2 | |
| Magnesium | 496 | mg/L | 1.0 | 0.68 | 10 | 09/17/21 11:44 | 09/24/21 00:26 | 7439-95-4 | |
| Potassium | 154 | mg/L | 50.0 | 30.4 | 10 | 09/17/21 11:44 | 09/24/21 00:26 | 7440-09-7 | |
| Sodium | 3860 | mg/L | 250 | 30.5 | 50 | 09/17/21 11:44 | 09/24/21 00:16 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-36-0 | |
| Arsenic | 0.013J | mg/L | 0.020 | 0.0017 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-38-2 | |
| Barium | 0.20 | mg/L | 0.020 | 0.0043 | 20 | 09/17/21 11:44 | 09/21/21 22:17 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-41-7 | |
| Boron | 1.5 | mg/L | 1.0 | 0.17 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7439-92-1 | |
| Lithium | 0.035J | mg/L | 0.050 | 0.010 | 20 | 09/17/21 11:44 | 09/21/21 22:17 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 09/17/21 11:44 | 09/21/21 15:13 | 7440-28-0 | |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:17 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|--|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO ₃) | 246 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:45 | | |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:45 | | |
| Alkalinity, Total as CaCO ₃ | 246 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:45 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 13400 | mg/L | 1250 | 1250 | 1 | | 09/21/21 12:56 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 6300 | mg/L | 100 | 60.0 | 100 | | 09/20/21 00:48 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-07 **Lab ID: 92561848020** Collected: 09/14/21 09:23 Received: 09/16/21 11:30 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 | | 09/19/21 05:03 | 16984-48-8 | |
| Sulfate | 819 | mg/L | 100 | 50.0 | 100 | | 09/20/21 00:48 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-17 **Lab ID: 92561848021** Collected: 09/14/21 17:28 Received: 09/16/21 11:30 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 | | 09/16/21 18:11 | | |
| pH | 6.77 | Std. Units | | | 1 | | 09/16/21 18:11 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 190 | mg/L | 1.0 | 0.94 | 10 | 09/24/21 10:21 | 09/28/21 13:06 | 7440-70-2 | M1,P8 |
| Magnesium | 277 | mg/L | 1.0 | 0.68 | 10 | 09/24/21 10:21 | 09/28/21 13:06 | 7439-95-4 | M1 |
| Potassium | 143 | mg/L | 50.0 | 30.4 | 10 | 09/24/21 10:21 | 09/28/21 13:06 | 7440-09-7 | M1 |
| Sodium | 2600 | mg/L | 250 | 30.5 | 50 | 09/24/21 10:21 | 09/29/21 11:58 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.030 | 0.0060 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-38-2 | |
| Barium | 0.20 | mg/L | 0.030 | 0.0064 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-39-3 | M1 |
| Beryllium | ND | mg/L | 0.0030 | 0.0015 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-41-7 | |
| Boron | 2.1 | mg/L | 1.5 | 0.26 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-42-8 | M1 |
| Cadmium | ND | mg/L | 0.0060 | 0.0018 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.030 | 0.015 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.030 | 0.0015 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-48-4 | |
| Lead | ND | mg/L | 0.030 | 0.0023 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7439-92-1 | |
| Lithium | 0.035J | mg/L | 0.075 | 0.015 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.030 | 0.0038 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.060 | 0.0021 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7782-49-2 | M1 |
| Thallium | ND | mg/L | 0.014 | 0.0015 | 30 | 09/17/21 11:44 | 09/21/21 18:14 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 09/23/21 11:30 | 09/29/21 12:20 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | 535 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:54 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:54 | | |
| Alkalinity, Total as CaCO3 | 535 | mg/L | 5.0 | 5.0 | 1 | | 09/24/21 20:54 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8820 | mg/L | 625 | 625 | 1 | | 09/21/21 12:56 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4090 | mg/L | 100 | 60.0 | 100 | | 09/20/21 16:27 | 16887-00-6 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92561848

Sample: MCM-17 **Lab ID: 92561848021** Collected: 09/14/21 17:28 Received: 09/16/21 11:30 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 | | 09/19/21 05:19 | 16984-48-8 | |
| Sulfate | 460 | mg/L | 10.0 | 5.0 | 10 | | 09/20/21 01:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

QC Batch: 648837 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010

METHOD BLANK: 3403261 Matrix: Water
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 09/29/21 14:46 | |

LABORATORY CONTROL SAMPLE: 3403262

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.4 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3403263 3403264

| Parameter | Units | 92560393009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.3 | 2.2 | 88 | 86 | 75-125 | 3 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

QC Batch: 648839 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

METHOD BLANK: 3403272 Matrix: Water
 Associated Lab Samples: 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 09/29/21 11:39 | |

LABORATORY CONTROL SAMPLE: 3403273

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.4 | 97 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3403274 3403275

| Parameter | Units | 92561848011 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.4 | 2.0 | 90 | 77 | 75-125 | 15 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 648049 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3398866 | Matrix: | Water |
| Associated Lab Samples: | 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 09/23/21 22:50 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 09/23/21 22:50 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 09/23/21 22:50 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 09/23/21 22:50 | |

| LABORATORY CONTROL SAMPLE: 3398867 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Calcium | mg/L | 5 | 5.0 | 101 | 80-120 | |
| Magnesium | mg/L | 5 | 4.9 | 99 | 80-120 | |
| Potassium | mg/L | 5 | 5.1 | 102 | 80-120 | |
| Sodium | mg/L | 5 | 5.3 | 106 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398868 | | | | | | | | | | | | 3398869 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92561848001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
| Calcium | mg/L | 6.0 | 5 | 5 | 11.1 | 11.4 | 103 | 108 | 75-125 | 3 | 20 | | |
| Magnesium | mg/L | 11.0 | 5 | 5 | 16.4 | 16.6 | 106 | 110 | 75-125 | 1 | 20 | | |
| Potassium | mg/L | 24.8 | 5 | 5 | 31.3 | 32.1 | 130 | 146 | 75-125 | 2 | 20 | | |
| Sodium | mg/L | 954 | 5 | 5 | 506 | 13.3J | -8960 | -18800 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92561848

QC Batch: 649213 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561848021

METHOD BLANK: 3405140 Matrix: Water

Associated Lab Samples: 92561848021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | 0.11 | 0.10 | 0.094 | 09/28/21 13:03 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 09/28/21 13:03 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 09/28/21 13:03 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 09/26/21 21:57 | |

LABORATORY CONTROL SAMPLE: 3405141

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 5.1 | 102 | 80-120 | |
| Magnesium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Potassium | mg/L | 5 | 4.9J | 99 | 80-120 | |
| Sodium | mg/L | 5 | 5.0 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405142 3405143

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | 92561848021 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 190 | 5 | 5 | 196 | 185 | 124 | -95 | 75-125 | 6 | 20 M1 |
| Magnesium | mg/L | 277 | 5 | 5 | 285 | 268 | 151 | -181 | 75-125 | 6 | 20 M1 |
| Potassium | mg/L | 143 | 5 | 5 | 150 | 141 | 135 | -35 | 75-125 | 6 | 20 M1 |
| Sodium | mg/L | 2600 | 5 | 5 | 2620 | 2500 | 336 | -1910 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

QC Batch: 648052 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020

METHOD BLANK: 3398884 Matrix: Water
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 09/20/21 10:42 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 09/20/21 10:42 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 09/20/21 10:42 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 09/20/21 10:42 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 09/20/21 10:42 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 09/20/21 10:42 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 09/20/21 10:42 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 09/20/21 10:42 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 09/20/21 10:42 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 09/20/21 10:42 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 09/20/21 10:42 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 09/20/21 10:42 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 09/20/21 10:42 | |

LABORATORY CONTROL SAMPLE: 3398885

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.047 | 95 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.045 | 90 | 80-120 | |
| Barium | mg/L | 0.05 | 0.045 | 89 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Boron | mg/L | 0.05 | 0.054 | 107 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.047 | 95 | 80-120 | |
| Lead | mg/L | 0.05 | 0.047 | 95 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.046 | 92 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.047 | 94 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.024 | 95 | 80-120 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

| Parameter | Units | 3398886 | | 3398887 | | MS
% Rec | MSD
% Rec | % Rec
Limits | RPD | Max
RPD | Qual |
|------------|-------|-----------------------|----------------------|-----------------------|--------------|-------------|--------------|-----------------|--------|------------|-------|
| | | 92561848001
Result | MS
Spike
Conc. | MSD
Spike
Conc. | MS
Result | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.052 | 0.052 | 103 | 104 | 75-125 | 1 | 20 |
| Arsenic | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.050 | 96 | 99 | 75-125 | 3 | 20 |
| Barium | mg/L | 0.086 | 0.05 | 0.05 | 0.14 | 0.14 | 98 | 104 | 75-125 | 2 | 20 |
| Beryllium | mg/L | 0.0011 | 0.05 | 0.05 | 0.048 | 0.048 | 95 | 95 | 75-125 | 0 | 20 |
| Boron | mg/L | 1.4 | 0.05 | 0.05 | 1.5 | 1.6 | 234 | 273 | 75-125 | 1 | 20 M1 |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.052 | 0.051 | 104 | 102 | 75-125 | 1 | 20 |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.055 | 0.055 | 101 | 100 | 75-125 | 1 | 20 |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.052 | 0.053 | 103 | 104 | 75-125 | 1 | 20 |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.050 | 0.052 | 101 | 103 | 75-125 | 3 | 20 |
| Lithium | mg/L | 0.010J | 0.05 | 0.05 | 0.057 | 0.058 | 94 | 95 | 75-125 | 1 | 20 |
| Molybdenum | mg/L | ND | 0.05 | 0.05 | 0.055 | 0.052 | 109 | 104 | 75-125 | 4 | 20 |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.046 | 0.046 | 93 | 92 | 75-125 | 0 | 20 |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.025 | 0.026 | 100 | 103 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

QC Batch: 648054

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561848021

METHOD BLANK: 3398888

Matrix: Water

Associated Lab Samples: 92561848021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 09/21/21 18:32 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 09/21/21 18:32 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 09/21/21 18:32 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 09/21/21 18:32 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 09/21/21 18:32 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 09/21/21 18:32 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 09/21/21 18:32 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 09/21/21 18:32 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 09/21/21 18:32 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 09/21/21 18:32 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 09/21/21 18:32 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 09/21/21 18:32 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 09/21/21 18:32 | |

LABORATORY CONTROL SAMPLE: 3398889

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.049 | 99 | 80-120 | |
| Barium | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.052 | 103 | 80-120 | |
| Boron | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Lead | mg/L | 0.05 | 0.049 | 99 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.051 | 102 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.049 | 99 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.024 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398890 3398891

| Parameter | Units | 92561848021 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.054 | 0.057 | 106 | 111 | 75-125 | 5 | 20 | |
| Arsenic | mg/L | ND | 0.05 | 0.05 | 0.053 | 0.058 | 105 | 114 | 75-125 | 8 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

| Parameter | Units | MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398890 | | 3398891 | | MS
Result | MSD
Result | MS
% Rec | MSD
% Rec | % Rec
Limits | RPD | Max
RPD | Qual |
|------------|-------|--|----------------------|-----------------------|--------|--------------|---------------|-------------|--------------|-----------------|-----|------------|------|
| | | 92561848021
Result | MS
Spike
Conc. | MSD
Spike
Conc. | | | | | | | | | |
| Barium | mg/L | 0.20 | 0.05 | 0.05 | 0.23 | 0.25 | 58 | 107 | 75-125 | 10 | 20 | M1 | |
| Beryllium | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.052 | 98 | 104 | 75-125 | 6 | 20 | | |
| Boron | mg/L | 2.1 | 0.05 | 0.05 | 2.0 | 2.1 | -135 | 105 | 75-125 | 6 | 20 | M1 | |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.052 | 0.056 | 103 | 111 | 75-125 | 7 | 20 | | |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.060 | 0.065 | 108 | 118 | 75-125 | 8 | 20 | | |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.053 | 0.056 | 105 | 112 | 75-125 | 7 | 20 | | |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.053 | 0.056 | 104 | 111 | 75-125 | 6 | 20 | | |
| Lithium | mg/L | 0.035J | 0.05 | 0.05 | 0.081 | 0.083 | 91 | 95 | 75-125 | 2 | 20 | | |
| Molybdenum | mg/L | ND | 0.05 | 0.05 | 0.054 | 0.058 | 107 | 116 | 75-125 | 8 | 20 | | |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.028J | 0.034J | 56 | 67 | 75-125 | | 20 | M1 | |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.025 | 0.028 | 101 | 112 | 75-125 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92561848

QC Batch: 649005 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561848002, 92561848003

METHOD BLANK: 3403997 Matrix: Water
 Associated Lab Samples: 92561848002, 92561848003

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 09/24/21 13:29 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/24/21 13:29 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/24/21 13:29 | |

LABORATORY CONTROL SAMPLE: 3403998

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.4 | 103 | 80-120 | |

LABORATORY CONTROL SAMPLE: 3403999

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 52.1 | 104 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404000 3404001

| Parameter | Units | 92561815001 | | 3404000 | | 3404001 | | % Rec Limits | RPD | Max RPD | Qual | |
|----------------------------|-------|-------------|------------|----------------|-----------------|-----------|------------|--------------|-----|---------|------|----------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | MS % Rec |
| Alkalinity, Total as CaCO3 | mg/L | 35.7 | 35.7 | 50 | 50 | 85.4 | 85.3 | 99 | 99 | 80-120 | 0 | 25 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404002 3404003

| Parameter | Units | 92561848002 | | 3404002 | | 3404003 | | % Rec Limits | RPD | Max RPD | Qual | |
|----------------------------|-------|-------------|------------|----------------|-----------------|-----------|------------|--------------|-----|---------|------|----------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | MS % Rec |
| Alkalinity, Total as CaCO3 | mg/L | ND | ND | 50 | 50 | 51.7 | 51.7 | 103 | 103 | 80-120 | 0 | 25 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92561848

QC Batch: 649222 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

METHOD BLANK: 3405201 Matrix: Water
 Associated Lab Samples: 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 09/24/21 18:32 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/24/21 18:32 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/24/21 18:32 | |

LABORATORY CONTROL SAMPLE: 3405202

| 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: 3405203

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 52.1 | 104 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405204 3405205

| Parameter | Units | 92561848016 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|--------------------|-------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | ND | 50 | 50 | 51.2 | 51.6 | 102 | 103 | 80-120 | 1 | 25 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405206 3405207

| Parameter | Units | 92561848019 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|--------------------|-------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 507 | 50 | 50 | 551 | 565 | 87 | 115 | 80-120 | 3 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92561848

QC Batch: 648163 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010

METHOD BLANK: 3399353 Matrix: Water
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005, 92561848006, 92561848007, 92561848008, 92561848009, 92561848010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 09/21/21 12:40 | |

LABORATORY CONTROL SAMPLE: 3399354

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 256 | 102 | 90-110 | |

SAMPLE DUPLICATE: 3399355

| Parameter | Units | 92561848001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 1450 | 1430 | 1 | 25 | 1g,H1 |

SAMPLE DUPLICATE: 3399356

| Parameter | Units | 92561829005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | ND | ND | | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

QC Batch: 648165

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

METHOD BLANK: 3399359

Matrix: Water

Associated Lab Samples: 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 09/21/21 12:52 | |

LABORATORY CONTROL SAMPLE: 3399360

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 256 | 102 | 90-110 | |

SAMPLE DUPLICATE: 3399361

| Parameter | Units | 92561848011 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 14600 | 14200 | 2 | 25 | |

SAMPLE DUPLICATE: 3399362

| Parameter | Units | 92561848021 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 8820 | 8850 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

| | | | |
|------------------|------------------------|-----------------------|--------------------------------------|
| QC Batch: | 648189 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005

METHOD BLANK: 3399514 Matrix: Water
 Associated Lab Samples: 92561848001, 92561848002, 92561848003, 92561848004, 92561848005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 09/18/21 14:35 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 09/18/21 14:35 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 09/18/21 14:35 | |

LABORATORY CONTROL SAMPLE: 3399515

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 52.9 | 106 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.4 | 97 | 90-110 | |
| Sulfate | mg/L | 50 | 51.2 | 102 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3399516 3399517

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92561571002 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Chloride | mg/L | 23.0 | 50 | 50 | 80.2 | 82.8 | 115 | 120 | 90-110 | 3 | 10 | M1 | |
| Fluoride | mg/L | 0.38 | 2.5 | 2.5 | 4.4 | 4.4 | 161 | 161 | 90-110 | 0 | 10 | M1 | |
| Sulfate | mg/L | ND | 50 | 50 | 55.7 | 56.4 | 111 | 113 | 90-110 | 1 | 10 | M1 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3399518 3399519

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92562010002 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Chloride | mg/L | 12.7 | 50 | 50 | 63.3 | 63.8 | 101 | 102 | 90-110 | 1 | 10 | | |
| Fluoride | mg/L | 0.10 | 2.5 | 2.5 | 2.6 | 2.6 | 98 | 98 | 90-110 | 0 | 10 | | |
| Sulfate | mg/L | 8.6 | 50 | 50 | 58.8 | 59.3 | 100 | 101 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92561848

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 648191 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3399543 | Matrix: | Water |
| Associated Lab Samples: | 92561848006, 92561848007, 92561848008, 92561848009, 92561848010, 92561848011, 92561848012, 92561848013, 92561848014, 92561848015, 92561848016, 92561848017, 92561848018, 92561848019, 92561848020, 92561848021 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 09/18/21 22:52 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 09/18/21 22:52 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 09/18/21 22:52 | |

| LABORATORY CONTROL SAMPLE: | 3399544 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 52.1 | 104 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.5 | 101 | 90-110 | |
| Sulfate | mg/L | 50 | 52.5 | 105 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3399545 | | | 3399546 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92561848006 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Chloride | mg/L | 28.5 | 50 | 50 | 79.4 | 80.0 | 102 | 103 | 90-110 | 1 | 10 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 3.7 | 3.6 | 147 | 144 | 90-110 | 2 | 10 | M1 |
| Sulfate | mg/L | 96.2 | 50 | 50 | 123 | 124 | 54 | 55 | 90-110 | 0 | 10 | M1 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3399547 | | | 3399548 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92561848016 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 | 50.5 | 50.3 | 101 | 100 | 90-110 | 0 | 10 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.5 | 2.5 | 101 | 98 | 90-110 | 3 | 10 | |
| Sulfate | mg/L | ND | 50 | 50 | 51.6 | 51.6 | 103 | 103 | 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

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



QUALIFIERS

Project: MCMANUS CCR

Pace Project No.: 92561848

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

- | | |
|----|---|
| 1g | In-hold results could not be obtained due to suspected inaccurate tare weights on the stable-weigh bags initially used for analysis. |
| H1 | Analysis conducted outside the EPA method holding time. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| P8 | Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit. |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
 Pace Project No.: 92561848

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92561848001 | MCM-12 | | | | |
| 92561848003 | MCM-14 | | | | |
| 92561848004 | MCM-01 | | | | |
| 92561848005 | MCM-02 | | | | |
| 92561848006 | MCM-04 | | | | |
| 92561848007 | MCM-11 | | | | |
| 92561848008 | MCM-15 | | | | |
| 92561848009 | MCM-16 | | | | |
| 92561848010 | MCM-18 | | | | |
| 92561848011 | MCM-19 | | | | |
| 92561848012 | MCM-20 | | | | |
| 92561848013 | DPZ-2 | | | | |
| 92561848018 | MCM-05 | | | | |
| 92561848019 | MCM-06 | | | | |
| 92561848020 | MCM-07 | | | | |
| 92561848021 | MCM-17 | | | | |
| 92561848001 | MCM-12 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848002 | FB-1 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848003 | MCM-14 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848004 | MCM-01 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848005 | MCM-02 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848006 | MCM-04 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848007 | MCM-11 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848008 | MCM-15 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848009 | MCM-16 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848010 | MCM-18 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848011 | MCM-19 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848012 | MCM-20 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848013 | DPZ-2 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848014 | DUP-1 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848015 | DUP-2 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848016 | FB-2 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848017 | EB-1 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848018 | MCM-05 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848019 | MCM-06 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848020 | MCM-07 | EPA 3010A | 648049 | EPA 6010D | 648097 |
| 92561848021 | MCM-17 | EPA 3010A | 649213 | EPA 6010D | 649297 |
| 92561848001 | MCM-12 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848002 | FB-1 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848003 | MCM-14 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848004 | MCM-01 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848005 | MCM-02 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848006 | MCM-04 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848007 | MCM-11 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848008 | MCM-15 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848009 | MCM-16 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848010 | MCM-18 | EPA 3010A | 648052 | EPA 6020B | 648088 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
 Pace Project No.: 92561848

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92561848011 | MCM-19 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848012 | MCM-20 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848013 | DPZ-2 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848014 | DUP-1 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848015 | DUP-2 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848016 | FB-2 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848017 | EB-1 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848018 | MCM-05 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848019 | MCM-06 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848020 | MCM-07 | EPA 3010A | 648052 | EPA 6020B | 648088 |
| 92561848021 | MCM-17 | EPA 3010A | 648054 | EPA 6020B | 648093 |
| 92561848001 | MCM-12 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848002 | FB-1 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848003 | MCM-14 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848004 | MCM-01 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848005 | MCM-02 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848006 | MCM-04 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848007 | MCM-11 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848008 | MCM-15 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848009 | MCM-16 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848010 | MCM-18 | EPA 7470A | 648837 | EPA 7470A | 649070 |
| 92561848011 | MCM-19 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848012 | MCM-20 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848013 | DPZ-2 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848014 | DUP-1 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848015 | DUP-2 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848016 | FB-2 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848017 | EB-1 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848018 | MCM-05 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848019 | MCM-06 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848020 | MCM-07 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848021 | MCM-17 | EPA 7470A | 648839 | EPA 7470A | 649077 |
| 92561848002 | FB-1 | SM 2320B-2011 | 649005 | | |
| 92561848003 | MCM-14 | SM 2320B-2011 | 649005 | | |
| 92561848016 | FB-2 | SM 2320B-2011 | 649222 | | |
| 92561848017 | EB-1 | SM 2320B-2011 | 649222 | | |
| 92561848018 | MCM-05 | SM 2320B-2011 | 649222 | | |
| 92561848019 | MCM-06 | SM 2320B-2011 | 649222 | | |
| 92561848020 | MCM-07 | SM 2320B-2011 | 649222 | | |
| 92561848021 | MCM-17 | SM 2320B-2011 | 649222 | | |
| 92561848001 | MCM-12 | SM 2540C-2011 | 648163 | | |
| 92561848002 | FB-1 | SM 2540C-2011 | 648163 | | |
| 92561848003 | MCM-14 | SM 2540C-2011 | 648163 | | |
| 92561848004 | MCM-01 | SM 2540C-2011 | 648163 | | |
| 92561848005 | MCM-02 | SM 2540C-2011 | 648163 | | |
| 92561848006 | MCM-04 | SM 2540C-2011 | 648163 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
Pace Project No.: 92561848

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92561848007 | MCM-11 | SM 2540C-2011 | 648163 | | |
| 92561848008 | MCM-15 | SM 2540C-2011 | 648163 | | |
| 92561848009 | MCM-16 | SM 2540C-2011 | 648163 | | |
| 92561848010 | MCM-18 | SM 2540C-2011 | 648163 | | |
| 92561848011 | MCM-19 | SM 2540C-2011 | 648165 | | |
| 92561848012 | MCM-20 | SM 2540C-2011 | 648165 | | |
| 92561848013 | DPZ-2 | SM 2540C-2011 | 648165 | | |
| 92561848014 | DUP-1 | SM 2540C-2011 | 648165 | | |
| 92561848015 | DUP-2 | SM 2540C-2011 | 648165 | | |
| 92561848016 | FB-2 | SM 2540C-2011 | 648165 | | |
| 92561848017 | EB-1 | SM 2540C-2011 | 648165 | | |
| 92561848018 | MCM-05 | SM 2540C-2011 | 648165 | | |
| 92561848019 | MCM-06 | SM 2540C-2011 | 648165 | | |
| 92561848020 | MCM-07 | SM 2540C-2011 | 648165 | | |
| 92561848021 | MCM-17 | SM 2540C-2011 | 648165 | | |
| 92561848001 | MCM-12 | EPA 300.0 Rev 2.1 1993 | 648189 | | |
| 92561848002 | FB-1 | EPA 300.0 Rev 2.1 1993 | 648189 | | |
| 92561848003 | MCM-14 | EPA 300.0 Rev 2.1 1993 | 648189 | | |
| 92561848004 | MCM-01 | EPA 300.0 Rev 2.1 1993 | 648189 | | |
| 92561848005 | MCM-02 | EPA 300.0 Rev 2.1 1993 | 648189 | | |
| 92561848006 | MCM-04 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848007 | MCM-11 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848008 | MCM-15 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848009 | MCM-16 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848010 | MCM-18 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848011 | MCM-19 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848012 | MCM-20 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848013 | DPZ-2 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848014 | DUP-1 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848015 | DUP-2 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848016 | FB-2 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848017 | EB-1 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848018 | MCM-05 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848019 | MCM-06 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848020 | MCM-07 | EPA 300.0 Rev 2.1 1993 | 648191 | | |
| 92561848021 | MCM-17 | EPA 300.0 Rev 2.1 1993 | 648191 | | |

REPORT OF LABORATORY ANALYSIS

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



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
P-CAR-CI-033-Rev.07

Document Revised: October 28, 2020
Page 1 of 2
Issuing Authority:
Pace Carolina Quality Office

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO#: 92561848

Container:
 Commercial

Pesticide VOCs Metals Client
 Other



92561848

Custody Seal Present? Yes No Seal Intact? Yes No

Date/Time Person Extending Container: 10/29/20

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Present?
 Yes No N/A

Thermometer:

In Use ID: 937071 Type of Use: Pre Use None

Cooler Temp: 2.9/2.4/2.5 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 5°C
 Samples out of temp control. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.9/2.4/2.5

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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. | |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. | |
| Short Hold Time Analysis (<12 hr.)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 3. | |
| Run to Turn Around Time Requested? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 4. | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. | |
| Correct Containers Used?
- Pace Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 6. | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 7. | |
| Disturbed analysis: Samples Field Filtered? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 8. | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. | |
| - Includes Date/Time/Temp/Analysis Matrix <u>WT</u> | | | |
| Resuspension in VOA Vials (>5-min)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 10. | |
| Trip Blank Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11. | |
| Trip Blank Custody Seal Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | | |

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split container:

CLIENT NOTIFICATION/REVISION

Person contacted:

Date/Time:

Project Manager SCUR Review:

Date:

Project Manager SHP Review:

Date:



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-GAR-C2-083-Rev.07

Document Revised: October 28, 2020
 Page 2 of 2
 Issuing Authority:

WO# : 92561848

PR: NMG Due Date: 09/30/21
 CLIENT: GR-GA Power

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

Exceptions: YDA, Coliform, TDC, Oil and Grease, DRB/DBL (water) DOC, UHG
 **Bottom half of box is to list number of bottles

| Sample | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| BP41-125 ml, Plastic Unpreserved (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP43-100 ml, Plastic Unpreserved (N/A) | 1 | 2 | 2 | | | | | | | | | |
| BP43-100 ml, Plastic Unpreserved (N/A) | 1 | 1 | 1 | | | | | | | | | |
| BP44-100 ml, Plastic Unpreserved (N/A) | | | | | | | | | | | | |
| BP44-125 ml, Plastic Unpreserved (N/A) (D-) | 1 | 1 | 1 | | | | | | | | | |
| BP44-200 ml, Plastic Unpreserved (N/A) (D-) | 1 | 1 | 1 | | | | | | | | | |
| BP42-125 ml, Plastic (B), Acetate, & Acetic (B) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP45-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP46-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP47-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP48-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP49-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP51-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP52-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP53-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP54-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP55-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP56-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP57-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP58-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP59-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP60-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP61-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP62-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP63-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP64-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP65-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP66-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP67-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP68-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP69-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP70-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP71-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP72-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP73-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP74-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP75-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP76-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP77-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP78-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP79-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP80-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP81-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP82-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP83-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP84-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP85-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP86-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP87-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP88-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP89-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP90-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP91-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP92-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP93-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP94-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP95-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP96-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP97-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP98-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP99-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP100-125 ml, Plastic Acetic (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |

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 District Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).



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

Exception: WDA, Coliform, TOC, Oil and Grease, DOC/POC (water) DOC, UHg

**Bottom half of box is to list number of bottles

Project: **W0# : 92561848**
 PR: NMS Due Date: 09/30/21
 CLIENT: CA-CA Power

| Brand | Material | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP43-125 ml Plastic Unpreserved (N/A) (G-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-125 ml Plastic Unpreserved (N/A) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-500 ml Plastic Unpreserved (N/A) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-500 ml Plastic Unpreserved (N/A) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-125 ml Plastic HDPE (pH = 1) (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-125 ml Plastic HDPE (pH = 2) (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-125 ml Plastic (2) Acetone & NaOH (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| BP43-125 ml Plastic Isobutyl (pH = 1) (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| WSP-125ml-mixed Glass Jar Unpreserved | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-1 Bar Amber Unpreserved (N/A) (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-1 Bar Amber (pH = 2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber Unpreserved (N/A) (D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH = 2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1)(D-L) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| AL321-125 ml Amber HDPE (pH=2) | | X | X | X | X | X | X | X | X | X | X | X | X |

BPIN

12
11
10
9
8
7
6
5
4
3
2
1

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 Official Certification Officer (i.e. Out of field, incorrect preservative, out of time, incorrect volumes).



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-CAR-CI-038-Rev.07

Document Revised: October 28, 2020
Page 1 of 2
Issuing Authority:
Pace Carolina Quality Office

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

Exceptional: VDA, Coliform, TOC, Oil and Grease, DBO/BSL (water) DOC, LLP

**Bottom half of box is to list number of bottles

Project #

W0# : 92561848

PM: NHC

Due Date: 09/30/21

CLIENT: GA-GA Power

| Item # | Item Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP40-125 mL Plastic Unpreserved (N/A) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-125 mL Plastic Unpreserved (N/A) | | | 1 | 2 | 2 | 2 | | | | | | | |
| BP100-125 mL Plastic Unpreserved (N/A) | | | 1 | 1 | 1 | | | | | | | | |
| BP150-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP200-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP250-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP300-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP350-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP400-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP450-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP500-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP550-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP600-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP650-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP700-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP750-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP800-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP850-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP900-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP950-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1000-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1050-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1100-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1150-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1200-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1250-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1300-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1350-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1400-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1450-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1500-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1550-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1600-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1650-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1700-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1750-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1800-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1850-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1900-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP1950-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP2000-125 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | |

OPIN

XXXXXX

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 Division Certification Office (i.e. Out of Field, incorrect preservative, out of temp, incorrect containers).



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

Exceptional VOA, Cellulose, TOC, Oil and Grease, O&G/S&G (water), DOC, I.Hg

**Bottom half of box is to list number of bottles

Project #

WO# : 92561848

PH: NMC

Due Date: 09/30/21

CLIENT: GR-GR Power

| Sample ID | Matrix | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|--------|---|---|---|---|---|---|---|---|---|----|----|----|
| SP10-128 mL Plastic Unpreserved (MVA) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-200 mL Plastic Unpreserved (MVA) | | 2 | 2 | 2 | 1 | | | | | | | | |
| SP10-500 mL Plastic Unpreserved (MVA) | | 1 | | | | | | | | | | | |
| SP10-1000 mL Plastic Unpreserved (MVA) | | | | | | | | | | | | | |
| SP10-128 mL Plastic H2SO4 (pH < 2) (D-1) | | X | X | X | X | X | X | X | X | X | X | X | X |
| SP10-200 mL Plastic H2SO4 (pH < 2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| SP10-500 mL Plastic H2SO4 (pH < 2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| SP10-1000 mL Plastic H2SO4 (pH < 2) | | X | X | X | X | X | X | X | X | X | X | X | X |
| VO10-128 mL Amber Unpreserved (MVA) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-200 mL Amber Unpreserved (MVA) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-500 mL Amber Unpreserved (MVA) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-1000 mL Amber Unpreserved (MVA) (D-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-128 mL VOA HD (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-200 mL VOA HD (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-500 mL VOA HD (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-1000 mL VOA HD (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-128 mL VOA Top (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-200 mL VOA Top (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-500 mL VOA Top (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-1000 mL VOA Top (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-128 mL Plastic (MVA - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-200 mL Plastic (MVA - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-500 mL Plastic (MVA - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-1000 mL Plastic (MVA - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| DPW | | X | X | X | X | X | X | X | X | X | X | X | X |
| SP10-128 mL Plastic (D-1-a-7) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-200 mL Amber Unpreserved vials (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-128 mL Dechlorination vials (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-200 mL Amber Unpreserved vials (MVA) | | / | / | / | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

| Sample ID | Type of Preservation | 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 Official Certification Office (i.e. Out of Inlet, incorrect preservative, out of range, incorrect containers).

Richard
 Signature

Submitting a sample for the chain of custody certifies authenticity, integrity and possession of the sample. Terms and Conditions found at <http://www.fda.gov/oc/chainofcustody.html>

CHAIN-OF-CUSTODY / Analytical Request Document

Page: 1 of 1

| | |
|---|--|
| <p>Section A
 Analytical Request Information
 Agency: [Blank] Address: 500 Independence Parkway
 City: [Blank] State: GA 30138
 Phone: (770) 521-5133 Fax: [Blank]
 Requested Test: [Blank]</p> | <p>Section B
 Analytical Request Information
 Request # of: [Blank] Sample Description: [Blank]
 Project Name: [Blank] Material Code: [Blank]
 Request #: [Blank]</p> |
| <p>Section C
 Analytical Information
 Analyte: [Blank] Method: [Blank]
 Matrix: [Blank]</p> | <p>Section D
 Other Information
 Contact Name: [Blank] Title: [Blank]
 Phone: [Blank] Fax: [Blank]
 E-mail: [Blank]</p> |

| ITEM # | SAMPLE ID
One Character per line.
Max. 34 (1-4)
Samples to be analyzed | ANALYTE | MATERIAL TYPE (FORMER INCOMP) | COLLECTED | | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | | | | TEMP AT COLLECTION | Real-time Volume (ml) | | | |
|--------|---|---------|-------------------------------|-----------|-----|------|------|---------------------------|-----------------|---------------|-------|-----|------|-------|----------|-------|-----------|------------------|------------|--------------------|-----------------------|----|-----|---------------|
| | | | | START | END | DATE | TIME | | | UNPRESERVED | H3BO3 | HCl | NaOH | H2SO4 | Methanol | Other | EDTA/EDTA | EDTA + Mg, K, Na | OL, P, SO4 | | | NH | SIB | SAB-521519320 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 1001 | 1001 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1002 | 1002 | WT | 9/15/21 | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1003 | 1003 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1004 | 1004 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1005 | 1005 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1006 | 1006 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1007 | 1007 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1008 | 1008 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1009 | 1009 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1010 | 1010 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| 1011 | 1011 | WT | | | | | | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |

pH: 6.24

| | | | | | | | | | | | | | |
|-----------|----------------|-------------------|---------|----------------|------|-------------|-------------|---------------|---------|--------------|------|----------|-------------|
| Material | William Lecker | Date | 9/15/21 | Time | 1100 | Initials | [Signature] | Date | 9/15/21 | Time | 1100 | Initials | [Signature] |
| Temp at C | | Received at (Y/N) | | Capacity (Y/N) | | Color (Y/N) | | Residue (Y/N) | | Weight (Y/N) | | | |

| | |
|--|---|
| Project Name of Sample Use: <u>William Lecker Project</u>
Date/Time of Submission: <u>9/15/21</u> | William Lecker Project
<u>[Signature]</u>
Project Manager
Date: <u>9/15/21</u> |
|--|---|



Acquiring a sample via this chain of custody operation acknowledges and accepts the terms and conditions listed at www.pilotage.com/chain-of-custody.pdf

Section A
Section B
Section C

CHAIN-OF-CUSTODY / Analytical Request Document

| | | | |
|--|--------------------------|------------------------------------|-----------|
| Client
SECURITY SYSTEM | Project ID
001 | Project Name
SECURITY SYSTEM | Section A |
| Address
3001 Westchester Parkway
Westchester, GA 30086 | Project Location
001 | Project Contact
SECURITY SYSTEM | Section B |
| Phone
770.328.1111 | Project Start
10/1/11 | Project End
10/1/11 | Section C |

| ITEM # | SAMPLE ID
One observation per bag, bag, 24-31, 1-1
Enough to send for analysis | MATRIX CODE (see web site for list) | SAMPLE TYPE (S-DIBAG G-COMB) | COLLECTED | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | TESTS PERFORMED | | | | | | | | | | Request Chain (TSS) | | | | | | |
|--------|--|-------------------------------------|------------------------------|-----------|------|------|---------------------------|-----------------|---------------|-----------------|------|------|----|------|---------|----------|-------|------------|-----------------|---------------------|-----------------------|----|-----|--------------|---|---|
| | | | | START | TIME | DATE | | | | Unpreserved | PHOS | PROS | PC | NaOH | ALCOHOL | METHANOL | Color | SVT Metals | SVT + Mg, K, Na | | C, P, SO ₄ | SI | TDS | AND SERVICES | | |
| 01 | SAMPLE | WT | WT | 09/14 | 1700 | 1100 | 6 | 3 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

| | | | | | | | |
|---|----------------------------------|--------------------------|-------------------------------|-----------------------------|---------------------|-----------------------|--------------------|
| Project Name of Sample/ID
William Lecker | Project Location
9/15/11 1100 | Project Contact
Eyles | Project Start
9/15/11 1100 | Project End
9/15/11 1100 | Project Status
Y | Project Priority
Y | Project Notes
N |
|---|----------------------------------|--------------------------|-------------------------------|-----------------------------|---------------------|-----------------------|--------------------|

Page 1 of 1

Boydell
 LABORATORY

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All retrieval steps must be completed accurately.
 Analytical Request Document

Project # 1208113

Site # 1208113

Requester: William Lusk

Requester Title: Project Director

Requester Address: 1208113

Requester Phone:

Requester Email:

Project Name: Material COC

Project Location:

Project Start:

Project End:

| ITEM # | SAMPLE ID | DATE | TIME | COLLECTOR | THROW | END | SAMPLE TEST AT COLLECTION | # OF CONTAINERS | PRESERVATION | | | | | | | ANALYSIS TEST | PERMANENT RECORD | | | | | | |
|--------|-----------|------|------|-----------|-------|-----|---------------------------|-----------------|--------------|--------------|--------|-----|-------|-----|--------------|---------------|------------------|------------------------|----|-----|------------|-----------------------|--|
| | | | | | | | | | Unpreserved | Refrigerated | Freeze | Dry | Other | PCB | Other Metals | | SVI - Mg, K, Ca | Co, P, SO ₄ | PH | TOB | RESISTANCE | Residual Chloride (%) | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|---------|-------|--|--|--|--|---|---|--|--|--|--|--|---|---|---|---|---|--|--|--|--|----------|
| 1 | WT | 9/15/21 | 11:26 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.13 |
| 2 | WT | 9/15/21 | 11:26 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.04 |
| 3 | WT | 9/15/21 | 13:03 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.09 |
| 4 | WT | 9/15/21 | 13:03 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.50 |
| 5 | WT | 9/15/21 | 13:48 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.39 |
| 6 | WT | 9/15/21 | 11:50 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 4.69 |
| 7 | WT | 9/15/21 | 13:39 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 4.28 |
| 8 | WT | 9/15/21 | 13:41 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 5.31 |
| 9 | WT | 9/15/21 | 13:47 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 3.72 |
| 10 | WT | 9/15/21 | 14:52 | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | PH: 7.11 |
| | WT | 9/15/21 | --- | | | | | 5 | 2 | | | | | | X | X | X | X | X | | | | | |

Location: William Lusk

Requester Name: William Lusk

Requester Title: Project Director

Requester Address: 1208113

Requester Phone:

Requester Email:

Project Start: 9/15/21

Project End: 9/15/21

Time: 11:00

Analyst: [Signature]

PH: 5.13

PH: 5.04

PH: 5.09

PH: 5.50

PH: 5.39

PH: 4.69

PH: 4.28

PH: 5.31

PH: 3.72

PH: 7.11

Page 1 of 1



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A - Project Information
 Requested Project Information:
 Report To: Matt Engstrom
 Date: 9/14/21
 Analyst: [Blank]

Section B - Sample Information
 Requested Project Information:
 Sample ID: [Blank]
 Matrix Code: [Blank]
 Sample Type: [Blank]

Section C - Analytical Information
 Requested Project Information:
 Analytical Method: [Blank]
 Units: [Blank]

| ITEM # | SAMPLE ID
<i>(See Chain of Custody for Sample ID - 1)</i> | MATRIX CODE <i>(See field notes to left)</i> | SAMPLE TYPE <i>(S-GRADE C-COMP)</i> | COLLECTOR | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | | ANALYTICAL TEST | REMARKS | | | | | | | | | | | | | | | | | |
|--------|--|--|-------------------------------------|-----------|-----|------|---------------------------|-----------------|---------------|------|----|-----|--------|---------|-------|------------|-----------------|---------|-----------------|-----------|----|-----|---------------|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | START | END | TIME | | | Unpreserved | ACOA | HC | HC2 | AC2OAC | Methane | Other | BiV Metals | | | BiV - Mg, K, Na | D, P, SO4 | Si | TDS | ROD-1010/2020 | | | | | | | | | | | | |
| 1 | DAE-1 | WT | 3/4 | | | | 5 | 2 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 2 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 3 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 4 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 5 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 6 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 7 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 8 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 9 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 10 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 11 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| 12 | DAE-1 | WT | 3/4 | | | | 5 | 3 | 3 | | | | | | | | X | | | | | | | | | | | | | | | | | | |

PH: 6.67

William Lanker 9/15/21 11:00 FedEx **11036** 9/15/21 11:00

PH: 6.67

TEMP h-c

Received on (Date)

Collected (Date)

Sampled (Date)

PH: 6.67

9/14/21



November 02, 2021

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

RE: Project: MCMANUS CCR RADS
Pace Project No.: 92561843

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2021. 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@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water
Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water
Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR RADS
Pace Project No.: 92561843

Pace Analytical Services Pennsylvania

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

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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92561843001 | MCM-12 | Water | 09/13/21 17:53 | 09/16/21 11:30 |
| 92561843002 | FB-1 | Water | 09/13/21 17:00 | 09/16/21 11:30 |
| 92561843003 | MCM-14 | Water | 09/13/21 17:32 | 09/16/21 11:30 |
| 92561843004 | MCM-01 | Water | 09/14/21 09:59 | 09/16/21 11:30 |
| 92561843005 | MCM-02 | Water | 09/14/21 11:26 | 09/16/21 11:30 |
| 92561843006 | MCM-04 | Water | 09/14/21 09:52 | 09/16/21 11:30 |
| 92561843007 | MCM-11 | Water | 09/14/21 13:08 | 09/16/21 11:30 |
| 92561843008 | MCM-15 | Water | 09/14/21 16:48 | 09/16/21 11:30 |
| 92561843009 | MCM-16 | Water | 09/14/21 11:10 | 09/16/21 11:30 |
| 92561843010 | MCM-18 | Water | 09/14/21 13:28 | 09/16/21 11:30 |
| 92561843011 | MCM-19 | Water | 09/14/21 15:01 | 09/16/21 11:30 |
| 92561843012 | MCM-20 | Water | 09/14/21 16:27 | 09/16/21 11:30 |
| 92561843013 | DPZ-2 | Water | 09/14/21 14:52 | 09/16/21 11:30 |
| 92561843014 | DUP-1 | Water | 09/14/21 00:00 | 09/16/21 11:30 |
| 92561843015 | DUP-2 | Water | 09/14/21 00:00 | 09/16/21 11:30 |
| 92561843016 | FB-2 | Water | 09/14/21 17:05 | 09/16/21 11:30 |
| 92561843017 | EB-1 | Water | 09/14/21 17:10 | 09/16/21 11:30 |
| 92561843018 | MCM-05 | Water | 09/14/21 13:35 | 09/16/21 11:30 |
| 92561843019 | MCM-06 | Water | 09/14/21 11:43 | 09/16/21 11:30 |
| 92561843020 | MCM-07 | Water | 09/14/21 09:23 | 09/16/21 11:30 |
| 92561843021 | MCM-17 | Water | 09/14/21 17:28 | 09/16/21 11:30 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|--------------------------|----------|-------------------|------------|
| 92561843001 | MCM-12 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843002 | FB-1 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843003 | MCM-14 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843004 | MCM-01 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843005 | MCM-02 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843006 | MCM-04 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843007 | MCM-11 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843008 | MCM-15 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843009 | MCM-16 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843010 | MCM-18 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843011 | MCM-19 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843012 | MCM-20 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843013 | DPZ-2 | EPA 9315 | JJY | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR RADS
 Pace Project No.: 92561843

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|--------------------------|----------|-------------------|------------|
| 92561843014 | DUP-1 | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| 92561843015 | DUP-2 | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843016 | FB-2 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| 92561843017 | EB-1 | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| 92561843018 | MCM-05 | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92561843019 | MCM-06 | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| 92561843020 | MCM-07 | EPA 9320 | JC2 | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | JC2 | 1 | PASI-PA |
| 92561843021 | MCM-17 | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JJY | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92561843001 | MCM-12 | | | | | |
| EPA 9315 | Radium-226 | 1.59 ±
0.669
(0.713)
C:100%
T:NA | pCi/L | | 10/29/21 06:51 | |
| EPA 9320 | Radium-228 | 0.950 ±
0.476
(0.831)
C:62%
T:89% | pCi/L | | 10/07/21 11:27 | |
| Total Radium Calculation | Total Radium | 2.54 ± 1.15
(1.54) | pCi/L | | 10/29/21 15:07 | |
| 92561843002 | FB-1 | | | | | |
| EPA 9315 | Radium-226 | 0.0835 ±
0.171
(0.399)
C:94% T:NA | pCi/L | | 10/07/21 09:13 | |
| EPA 9320 | Radium-228 | 0.204 ±
0.376
(0.825)
C:55%
T:93% | pCi/L | | 10/07/21 11:28 | |
| Total Radium Calculation | Total Radium | 0.288 ±
0.547
(1.22) | pCi/L | | 10/29/21 15:07 | |
| 92561843003 | MCM-14 | | | | | |
| EPA 9315 | Radium-226 | 3.37 ±
0.808
(0.625)
C:98% T:NA | pCi/L | | 10/29/21 06:51 | |
| EPA 9320 | Radium-228 | 5.01 ± 1.16
(0.814)
C:59%
T:89% | pCi/L | | 10/07/21 11:28 | |
| Total Radium Calculation | Total Radium | 8.38 ± 1.97
(1.44) | pCi/L | | 10/29/21 15:07 | |
| 92561843004 | MCM-01 | | | | | |
| EPA 9315 | Radium-226 | 0.180 ±
0.244
(0.525)
C:95% T:NA | pCi/L | | 10/07/21 09:13 | |
| EPA 9320 | Radium-228 | 0.879 ±
0.502
(0.928)
C:62%
T:86% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 1.06 ±
0.746
(1.45) | pCi/L | | 10/29/21 15:07 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92561843005 | MCM-02 | | | | | |
| EPA 9315 | Radium-226 | 0.204 ±
0.245
(0.510)
C:94% T:NA | pCi/L | | 10/07/21 09:13 | |
| EPA 9320 | Radium-228 | 0.674 ±
0.493
(0.961)
C:58%
T:86% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 0.878 ±
0.738
(1.47) | pCi/L | | 10/29/21 15:07 | |
| 92561843006 | MCM-04 | | | | | |
| EPA 9315 | Radium-226 | 1.84 ±
0.400
(0.188)
C:93% T:NA | pCi/L | | 10/29/21 06:51 | |
| EPA 9320 | Radium-228 | 0.854 ±
0.489
(0.891)
C:56%
T:88% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 2.69 ±
0.889
(1.08) | pCi/L | | 10/29/21 15:07 | |
| 92561843007 | MCM-11 | | | | | |
| EPA 9315 | Radium-226 | 0.542 ±
0.315
(0.484)
C:97% T:NA | pCi/L | | 10/07/21 09:13 | |
| EPA 9320 | Radium-228 | 0.824 ±
0.520
(0.983)
C:57%
T:85% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 1.37 ±
0.835
(1.47) | pCi/L | | 10/29/21 15:07 | |
| 92561843008 | MCM-15 | | | | | |
| EPA 9315 | Radium-226 | 0.861 ±
0.330
(0.501)
C:95% T:NA | pCi/L | | 10/07/21 09:11 | |
| EPA 9320 | Radium-228 | 0.290 ±
0.400
(0.856)
C:57%
T:87% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 1.15 ±
0.730
(1.36) | pCi/L | | 10/29/21 15:07 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS
 Pace Project No.: 92561843

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92561843009 | MCM-16 | | | | | |
| EPA 9315 | Radium-226 | 0.614 ±
0.301
(0.429)
C:95% T:NA | pCi/L | | 10/08/21 08:00 | |
| EPA 9320 | Radium-228 | 1.41 ±
0.539
(0.799)
C:59%
T:88% | pCi/L | | 10/07/21 11:29 | |
| Total Radium Calculation | Total Radium | 2.02 ±
0.840
(1.23) | pCi/L | | 10/29/21 15:07 | |
| 92561843010 | MCM-18 | | | | | |
| EPA 9315 | Radium-226 | 3.83 ±
0.705
(0.224)
C:87% T:NA | pCi/L | | 10/29/21 06:52 | |
| EPA 9320 | Radium-228 | 4.48 ± 1.06
(0.942)
C:65%
T:89% | pCi/L | | 10/07/21 11:30 | |
| Total Radium Calculation | Total Radium | 8.31 ± 1.77
(1.17) | pCi/L | | 10/29/21 15:07 | |
| 92561843011 | MCM-19 | | | | | |
| EPA 9315 | Radium-226 | 6.64 ± 1.28
(0.437)
C:97% T:NA | pCi/L | | 10/29/21 06:52 | |
| EPA 9320 | Radium-228 | 19.6 ± 3.72
(0.826)
C:62%
T:87% | pCi/L | | 10/07/21 11:30 | |
| Total Radium Calculation | Total Radium | 26.2 ± 5.00
(1.26) | pCi/L | | 10/29/21 15:07 | |
| 92561843012 | MCM-20 | | | | | |
| EPA 9315 | Radium-226 | 6.34 ± 1.27
(0.614)
C:94% T:NA | pCi/L | | 10/29/21 06:52 | |
| EPA 9320 | Radium-228 | 28.6 ± 5.32
(0.881)
C:63%
T:90% | pCi/L | | 10/07/21 11:30 | |
| Total Radium Calculation | Total Radium | 34.9 ± 6.59
(1.50) | pCi/L | | 10/29/21 15:07 | |
| 92561843013 | DPZ-2 | | | | | |
| EPA 9315 | Radium-226 | 4.86 ± 1.03
(0.476)
C:95% T:NA | pCi/L | | 10/29/21 06:52 | |
| EPA 9320 | Radium-228 | 2.11 ±
0.627
(0.745)
C:66%
T:86% | pCi/L | | 10/07/21 11:30 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92561843013 | DPZ-2 | | | | | |
| Total Radium Calculation | Total Radium | 6.97 ± 1.66
(1.22) | pCi/L | | 10/29/21 15:07 | |
| 92561843014 | DUP-1 | | | | | |
| EPA 9315 | Radium-226 | 0.771 ± 0.357
(0.543) | pCi/L | | 10/08/21 08:00 | |
| EPA 9320 | Radium-228 | C:97% T:NA
0.643 ± 0.416
(0.783) | pCi/L | | 10/07/21 11:30 | |
| Total Radium Calculation | Total Radium | C:60%
T:87%
1.41 ± 0.773
(1.33) | pCi/L | | 10/29/21 15:07 | |
| 92561843015 | DUP-2 | | | | | |
| EPA 9315 | Radium-226 | 6.79 ± 1.32
(0.495) | pCi/L | | 10/29/21 06:53 | |
| EPA 9320 | Radium-228 | C:98% T:NA
22.7 ± 4.30
(1.20) | pCi/L | | 10/07/21 11:20 | |
| Total Radium Calculation | Total Radium | C:60%
T:85%
29.5 ± 5.62
(1.70) | pCi/L | | 10/29/21 15:07 | |
| 92561843016 | FB-2 | | | | | |
| EPA 9315 | Radium-226 | 0.137 ± 0.182
(0.386) | pCi/L | | 10/08/21 08:00 | |
| EPA 9320 | Radium-228 | C:94% T:NA
-0.0494 ± 0.544
(1.25) | pCi/L | | 10/07/21 11:20 | |
| Total Radium Calculation | Total Radium | C:61%
T:81%
0.137 ± 0.726
(1.64) | pCi/L | | 10/29/21 15:07 | |
| 92561843017 | EB-1 | | | | | |
| EPA 9315 | Radium-226 | -0.0271 ± 0.246
(0.636) | pCi/L | | 10/08/21 08:00 | |
| EPA 9320 | Radium-228 | C:94% T:NA
0.687 ± 0.600
(1.21) | pCi/L | | 10/07/21 15:13 | |
| Total Radium Calculation | Total Radium | C:60%
T:91%
0.687 ± 0.846
(1.85) | pCi/L | | 10/29/21 15:07 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92561843018 | MCM-05 | | | | | |
| EPA 9315 | Radium-226 | 2.98 ±
0.957
(0.957) | pCi/L | | 10/29/21 06:53 | |
| EPA 9320 | Radium-228 | C:97% T:NA
4.17 ± 1.04
(1.06) | pCi/L | | 10/07/21 11:20 | |
| Total Radium Calculation | Total Radium | C:62%
T:92%
7.15 ± 2.00
(2.02) | pCi/L | | 10/29/21 15:16 | |
| 92561843019 | MCM-06 | | | | | |
| EPA 9315 | Radium-226 | 5.05 ± 1.33
(1.10) | pCi/L | | 10/29/21 06:53 | |
| EPA 9320 | Radium-228 | C:94% T:NA
3.06 ± 1.06
(1.64) | pCi/L | | 10/07/21 14:30 | |
| Total Radium Calculation | Total Radium | C:64%
T:87%
8.11 ± 2.39
(2.74) | pCi/L | | 10/29/21 15:16 | |
| 92561843020 | MCM-07 | | | | | |
| EPA 9315 | Radium-226 | 5.22 ± 1.32
(0.991) | pCi/L | | 10/29/21 06:53 | |
| EPA 9320 | Radium-228 | C:92% T:NA
5.11 ± 1.37
(1.62) | pCi/L | | 10/07/21 14:30 | |
| Total Radium Calculation | Total Radium | C:60%
T:88%
10.3 ± 2.69
(2.61) | pCi/L | | 10/29/21 15:16 | |
| 92561843021 | MCM-17 | | | | | |
| EPA 9315 | Radium-226 | 4.96 ± 1.30
(0.904) | pCi/L | | 10/29/21 06:53 | |
| EPA 9320 | Radium-228 | C:96% T:NA
3.86 ±
0.975
(0.918) | pCi/L | | 10/07/21 14:37 | |
| Total Radium Calculation | Total Radium | C:63%
T:86%
8.82 ± 2.28
(1.82) | pCi/L | | 10/29/21 15:16 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-12 Lab ID: 92561843001 Collected: 09/13/21 17:53 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 1.59 ± 0.669 (0.713)
C:100% T:NA | pCi/L | 10/29/21 06:51 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.950 ± 0.476 (0.831)
C:62% T:89% | pCi/L | 10/07/21 11:27 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 2.54 ± 1.15 (1.54) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: FB-1 Lab ID: 92561843002 Collected: 09/13/21 17:00 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.0835 ± 0.171 (0.399)
C:94% T:NA | pCi/L | 10/07/21 09:13 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.204 ± 0.376 (0.825)
C:55% T:93% | pCi/L | 10/07/21 11:28 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.288 ± 0.547 (1.22) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-14 Lab ID: 92561843003 Collected: 09/13/21 17:32 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 3.37 ± 0.808 (0.625)
C:98% T:NA | pCi/L | 10/29/21 06:51 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 5.01 ± 1.16 (0.814)
C:59% T:89% | pCi/L | 10/07/21 11:28 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.38 ± 1.97 (1.44) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: MCM-01 **Lab ID: 92561843004** Collected: 09/14/21 09:59 Received: 09/16/21 11:30 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 | 0.180 ± 0.244 (0.525)
C:95% T:NA | pCi/L | 10/07/21 09:13 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.879 ± 0.502 (0.928)
C:62% T:86% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 1.06 ± 0.746 (1.45) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: MCM-02 Lab ID: 92561843005 Collected: 09/14/21 11:26 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.204 ± 0.245 (0.510)
C:94% T:NA | pCi/L | 10/07/21 09:13 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.674 ± 0.493 (0.961)
C:58% T:86% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.878 ± 0.738 (1.47) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---------------------------------------|--------------------------|--|-------|----------------|------------|------|
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 1.84 ± 0.400 (0.188)
C:93% T:NA | pCi/L | 10/29/21 06:51 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.854 ± 0.489 (0.891)
C:56% T:88% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 2.69 ± 0.889 (1.08) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: MCM-11 Lab ID: 92561843007 Collected: 09/14/21 13:08 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.542 ± 0.315 (0.484)
C:97% T:NA | pCi/L | 10/07/21 09:13 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.824 ± 0.520 (0.983)
C:57% T:85% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 1.37 ± 0.835 (1.47) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: MCM-15 **Lab ID: 92561843008** Collected: 09/14/21 16:48 Received: 09/16/21 11:30 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 | 0.861 ± 0.330 (0.501)
C:95% T:NA | pCi/L | 10/07/21 09:11 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.290 ± 0.400 (0.856)
C:57% T:87% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 1.15 ± 0.730 (1.36) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-16 Lab ID: 92561843009 Collected: 09/14/21 11:10 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 0.614 ± 0.301 (0.429)
C:95% T:NA | pCi/L | 10/08/21 08:00 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 1.41 ± 0.539 (0.799)
C:59% T:88% | pCi/L | 10/07/21 11:29 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 2.02 ± 0.840 (1.23) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-18 Lab ID: 92561843010 Collected: 09/14/21 13:28 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 3.83 ± 0.705 (0.224)
C:87% T:NA | pCi/L | 10/29/21 06:52 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 4.48 ± 1.06 (0.942)
C:65% T:89% | pCi/L | 10/07/21 11:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.31 ± 1.77 (1.17) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: MCM-19 **Lab ID: 92561843011** Collected: 09/14/21 15:01 Received: 09/16/21 11:30 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 | 6.64 ± 1.28 (0.437)
C:97% T:NA | pCi/L | 10/29/21 06:52 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 19.6 ± 3.72 (0.826)
C:62% T:87% | pCi/L | 10/07/21 11:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 26.2 ± 5.00 (1.26) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-20 Lab ID: 92561843012 Collected: 09/14/21 16:27 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 6.34 ± 1.27 (0.614)
C:94% T:NA | pCi/L | 10/29/21 06:52 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 28.6 ± 5.32 (0.881)
C:63% T:90% | pCi/L | 10/07/21 11:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 34.9 ± 6.59 (1.50) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: DPZ-2 **Lab ID: 92561843013** Collected: 09/14/21 14:52 Received: 09/16/21 11:30 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 | 4.86 ± 1.03 (0.476)
C:95% T:NA | pCi/L | 10/29/21 06:52 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 2.11 ± 0.627 (0.745)
C:66% T:86% | pCi/L | 10/07/21 11:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 6.97 ± 1.66 (1.22) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--|--------------------------|--|-------|----------------|------------|------|
| Sample: DUP-1 Lab ID: 92561843014 Collected: 09/14/21 00:00 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.771 ± 0.357 (0.543)
C:97% T:NA | pCi/L | 10/08/21 08:00 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.643 ± 0.416 (0.783)
C:60% T:87% | pCi/L | 10/07/21 11:30 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 1.41 ± 0.773 (1.33) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: DUP-2 **Lab ID: 92561843015** Collected: 09/14/21 00:00 Received: 09/16/21 11:30 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 | 6.79 ± 1.32 (0.495)
C:98% T:NA | pCi/L | 10/29/21 06:53 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 22.7 ± 4.30 (1.20)
C:60% T:85% | pCi/L | 10/07/21 11:20 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 29.5 ± 5.62 (1.70) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: FB-2 **Lab ID: 92561843016** Collected: 09/14/21 17:05 Received: 09/16/21 11:30 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 | 0.137 ± 0.182 (0.386)
C:94% T:NA | pCi/L | 10/08/21 08:00 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | -0.0494 ± 0.544 (1.25)
C:61% T:81% | pCi/L | 10/07/21 11:20 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 0.137 ± 0.726 (1.64) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

Sample: EB-1 **Lab ID: 92561843017** Collected: 09/14/21 17:10 Received: 09/16/21 11:30 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 | -0.0271 ± 0.246 (0.636)
C:94% T:NA | pCi/L | 10/08/21 08:00 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.687 ± 0.600 (1.21)
C:60% T:91% | pCi/L | 10/07/21 15:13 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 0.687 ± 0.846 (1.85) | pCi/L | 10/29/21 15:07 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---------------------------------------|--------------------------|--|-------|----------------|------------|------|
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 2.98 ± 0.957 (0.957)
C:97% T:NA | pCi/L | 10/29/21 06:53 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 4.17 ± 1.04 (1.06)
C:62% T:92% | pCi/L | 10/07/21 11:20 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 7.15 ± 2.00 (2.02) | pCi/L | 10/29/21 15:16 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-06 Lab ID: 92561843019 Collected: 09/14/21 11:43 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 5.05 ± 1.33 (1.10)
C:94% T:NA | pCi/L | 10/29/21 06:53 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 3.06 ± 1.06 (1.64)
C:64% T:87% | pCi/L | 10/07/21 14:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.11 ± 2.39 (2.74) | pCi/L | 10/29/21 15:16 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-07 Lab ID: 92561843020 Collected: 09/14/21 09:23 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 5.22 ± 1.32 (0.991)
C:92% T:NA | pCi/L | 10/29/21 06:53 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 5.11 ± 1.37 (1.62)
C:60% T:88% | pCi/L | 10/07/21 14:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 10.3 ± 2.69 (2.61) | pCi/L | 10/29/21 15:16 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-17 Lab ID: 92561843021 Collected: 09/14/21 17:28 Received: 09/16/21 11:30 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 4.96 ± 1.30 (0.904)
C:96% T:NA | pCi/L | 10/29/21 06:53 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 3.86 ± 0.975 (0.918)
C:63% T:86% | pCi/L | 10/07/21 14:37 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.82 ± 2.28 (1.82) | pCi/L | 10/29/21 15:16 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| | | | |
|------------------|----------|-----------------------|---------------------------------------|
| QC Batch: | 466263 | Analysis Method: | EPA 9315 |
| QC Batch Method: | EPA 9315 | Analysis Description: | 9315 Total Radium |
| | | Laboratory: | Pace Analytical Services - Greensburg |

Associated Lab Samples: 92561843001, 92561843002, 92561843003, 92561843004, 92561843005, 92561843006, 92561843007, 92561843008, 92561843009, 92561843010, 92561843011, 92561843012, 92561843013, 92561843014, 92561843015, 92561843016, 92561843017

METHOD BLANK: 2251636 Matrix: Water

Associated Lab Samples: 92561843001, 92561843002, 92561843003, 92561843004, 92561843005, 92561843006, 92561843007, 92561843008, 92561843009, 92561843010, 92561843011, 92561843012, 92561843013, 92561843014, 92561843015, 92561843016, 92561843017

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.112 ± 0.184 (0.410) C:98% T:NA | pCi/L | 10/07/21 09:13 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

QC Batch: 466410

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92561843021

METHOD BLANK: 2252279

Matrix: Water

Associated Lab Samples: 92561843021

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.420 ± 0.367 (0.738) C:65% T:90% | pCi/L | 10/07/21 11:22 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| | | | |
|------------------|----------|-----------------------|---------------------------------------|
| QC Batch: | 466264 | Analysis Method: | EPA 9315 |
| QC Batch Method: | EPA 9315 | Analysis Description: | 9315 Total Radium |
| | | Laboratory: | Pace Analytical Services - Greensburg |

Associated Lab Samples: 92561843018, 92561843019, 92561843020, 92561843021

METHOD BLANK: 2251638 Matrix: Water

Associated Lab Samples: 92561843018, 92561843019, 92561843020, 92561843021

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.284 ± 0.229 (0.421) C:95% T:NA | pCi/L | 10/08/21 08:00 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| | | | |
|------------------|----------|-----------------------|---------------------------------------|
| QC Batch: | 466409 | Analysis Method: | EPA 9320 |
| QC Batch Method: | EPA 9320 | Analysis Description: | 9320 Radium 228 |
| | | Laboratory: | Pace Analytical Services - Greensburg |

Associated Lab Samples: 92561843001, 92561843002, 92561843003, 92561843004, 92561843005, 92561843006, 92561843007, 92561843008, 92561843009, 92561843010, 92561843011, 92561843012, 92561843013, 92561843014, 92561843015, 92561843016, 92561843017, 92561843018, 92561843019, 92561843020

METHOD BLANK: 2252274 Matrix: Water

Associated Lab Samples: 92561843001, 92561843002, 92561843003, 92561843004, 92561843005, 92561843006, 92561843007, 92561843008, 92561843009, 92561843010, 92561843011, 92561843012, 92561843013, 92561843014, 92561843015, 92561843016, 92561843017, 92561843018, 92561843019, 92561843020

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.304 ± 0.374 (0.792) C:64% T:89% | pCi/L | 10/07/21 11:22 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALIFIERS

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

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.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR RADS
 Pace Project No.: 92561843

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|--------------------------|----------|-------------------|------------------|
| 92561843001 | MCM-12 | EPA 9315 | 466263 | | |
| 92561843002 | FB-1 | EPA 9315 | 466263 | | |
| 92561843003 | MCM-14 | EPA 9315 | 466263 | | |
| 92561843004 | MCM-01 | EPA 9315 | 466263 | | |
| 92561843005 | MCM-02 | EPA 9315 | 466263 | | |
| 92561843006 | MCM-04 | EPA 9315 | 466263 | | |
| 92561843007 | MCM-11 | EPA 9315 | 466263 | | |
| 92561843008 | MCM-15 | EPA 9315 | 466263 | | |
| 92561843009 | MCM-16 | EPA 9315 | 466263 | | |
| 92561843010 | MCM-18 | EPA 9315 | 466263 | | |
| 92561843011 | MCM-19 | EPA 9315 | 466263 | | |
| 92561843012 | MCM-20 | EPA 9315 | 466263 | | |
| 92561843013 | DPZ-2 | EPA 9315 | 466263 | | |
| 92561843014 | DUP-1 | EPA 9315 | 466263 | | |
| 92561843015 | DUP-2 | EPA 9315 | 466263 | | |
| 92561843016 | FB-2 | EPA 9315 | 466263 | | |
| 92561843017 | EB-1 | EPA 9315 | 466263 | | |
| 92561843018 | MCM-05 | EPA 9315 | 466264 | | |
| 92561843019 | MCM-06 | EPA 9315 | 466264 | | |
| 92561843020 | MCM-07 | EPA 9315 | 466264 | | |
| 92561843021 | MCM-17 | EPA 9315 | 466264 | | |
| 92561843001 | MCM-12 | EPA 9320 | 466409 | | |
| 92561843002 | FB-1 | EPA 9320 | 466409 | | |
| 92561843003 | MCM-14 | EPA 9320 | 466409 | | |
| 92561843004 | MCM-01 | EPA 9320 | 466409 | | |
| 92561843005 | MCM-02 | EPA 9320 | 466409 | | |
| 92561843006 | MCM-04 | EPA 9320 | 466409 | | |
| 92561843007 | MCM-11 | EPA 9320 | 466409 | | |
| 92561843008 | MCM-15 | EPA 9320 | 466409 | | |
| 92561843009 | MCM-16 | EPA 9320 | 466409 | | |
| 92561843010 | MCM-18 | EPA 9320 | 466409 | | |
| 92561843011 | MCM-19 | EPA 9320 | 466409 | | |
| 92561843012 | MCM-20 | EPA 9320 | 466409 | | |
| 92561843013 | DPZ-2 | EPA 9320 | 466409 | | |
| 92561843014 | DUP-1 | EPA 9320 | 466409 | | |
| 92561843015 | DUP-2 | EPA 9320 | 466409 | | |
| 92561843016 | FB-2 | EPA 9320 | 466409 | | |
| 92561843017 | EB-1 | EPA 9320 | 466409 | | |
| 92561843018 | MCM-05 | EPA 9320 | 466409 | | |
| 92561843019 | MCM-06 | EPA 9320 | 466409 | | |
| 92561843020 | MCM-07 | EPA 9320 | 466409 | | |
| 92561843021 | MCM-17 | EPA 9320 | 466410 | | |
| 92561843001 | MCM-12 | Total Radium Calculation | 470455 | | |
| 92561843002 | FB-1 | Total Radium Calculation | 470455 | | |
| 92561843003 | MCM-14 | Total Radium Calculation | 470455 | | |
| 92561843004 | MCM-01 | Total Radium Calculation | 470455 | | |
| 92561843005 | MCM-02 | Total Radium Calculation | 470455 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR RADS

Pace Project No.: 92561843

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|--------------------------|----------|-------------------|------------------|
| 92561843006 | MCM-04 | Total Radium Calculation | 470455 | | |
| 92561843007 | MCM-11 | Total Radium Calculation | 470455 | | |
| 92561843008 | MCM-15 | Total Radium Calculation | 470455 | | |
| 92561843009 | MCM-16 | Total Radium Calculation | 470455 | | |
| 92561843010 | MCM-18 | Total Radium Calculation | 470455 | | |
| 92561843011 | MCM-19 | Total Radium Calculation | 470455 | | |
| 92561843012 | MCM-20 | Total Radium Calculation | 470455 | | |
| 92561843013 | DPZ-2 | Total Radium Calculation | 470455 | | |
| 92561843014 | DUP-1 | Total Radium Calculation | 470455 | | |
| 92561843015 | DUP-2 | Total Radium Calculation | 470455 | | |
| 92561843016 | FB-2 | Total Radium Calculation | 470455 | | |
| 92561843017 | EB-1 | Total Radium Calculation | 470455 | | |
| 92561843018 | MCM-05 | Total Radium Calculation | 470459 | | |
| 92561843019 | MCM-06 | Total Radium Calculation | 470459 | | |
| 92561843020 | MCM-07 | Total Radium Calculation | 470459 | | |
| 92561843021 | MCM-17 | Total Radium Calculation | 470459 | | |

REPORT OF LABORATORY ANALYSIS

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



Document Name: Sample Condition Upon Receipt (SCUR)
 Document No.: F-CAN-CS-033-Rev.07
 Document Revised: October 28, 2020
 Page 1 of 2
 Issuing Authority: Pate Carolina Quality Office

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power

Project #:

WO#: 92561843



Date/Initial Person Examining Contents: 6/26/21

Custodian: Commercial Field USPS USPS Client Other

Custody Seal Present? Yes No Seal Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags Foam Other

Biological Toxin Present? Yes No N/A

Temperature: Ice Dry Other

Cooler Temp: 29/29/29 Correction Factor: 0

Temp should be above freezing to 5°C
 Samples out of temp control. Samples on ice, cooling process in progress

Cooler Temp Corrected (°C): 29/29/29

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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. | |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. | |
| Sho it (Hold) Time Analysis (17 hr.?) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 3. | |
| Run It Turn Around Time Requested? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 4. | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. | |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 6. | |
| - Pace Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 7. | |
| Required analysis: Samples Field Filtered? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 8. | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. | |
| - Includes Date/Time/ID/Analysis Matrix | <u>LT</u> | | |
| Headspace in VOA Vials (>5-min)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 10. | |
| Trips Blank Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11. | |
| Trips Blank Custody Seals Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | | |

Field Data Required? Yes No

COMMENTS/SAMPLE DISCREPANCY

Lot ID of 1 pH container:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____

Done: _____

Project Manager SHP Review: _____

Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
F-CM-02-033-Rev.07

Document Revised: October 28, 2020
 Page 3 of 3
 Issuing Authority:
 Steve Fairhead, Quality Officer

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

Project #

WO# : 92561843

PR: NHC

Due Date: 10/27/21

CLIENT: GA-GA Power

Exception: VOA, Coliform, TOC, Oil and Grease, GPO/SO2 (water) DOC, UHg

**Bottom half of box is to list number of bottles

| Serial | Sample Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| SP01-125 ml, Plastic, Unpreserved (N/A) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP02-125 ml, Plastic, Unpreserved (N/A) | | | 2 | | | | | | | | | | |
| SP03-125 ml, Plastic, Unpreserved (N/A) | | | 1 | | | | | | | | | | |
| SP04-125 ml, Plastic, Unpreserved (N/A) | | | | | | | | | | | | | |
| SP05-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP06-125 ml, Plastic, 1000µg (pH < 7) | | | | | | | | | | | | | |
| SP07-125 ml, Plastic, 20 Acetone & NaOCl (pH) | | | | | | | | | | | | | |
| SP08-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP09-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP10-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP11-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP12-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP13-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP14-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP15-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP16-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP17-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP18-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP19-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP20-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP21-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP22-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP23-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP24-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP25-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP26-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP27-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP28-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP29-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP30-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP31-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP32-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP33-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP34-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP35-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP36-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP37-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP38-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP39-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP40-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP41-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP42-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP43-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP44-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP45-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP46-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP47-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP48-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP49-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |
| SP50-125 ml, Plastic, 1000µg (pH < 7) (D-) | | | | | | | | | | | | | |

Handwritten: BPLW

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 permit Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect container).



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

Project # [Redacted]

Exceptions: VOA, Coliform, TSC, Oil and Grease, DOC/BOD5 (water) DOC, UAG

**Bottom half of box is to list number of bottles

| Sample ID | Sample Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP40-125 mL Plastic (preserved) (M) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-200 mL Plastic (preserved) (M) (A) | | | 1 | 2 | 2 | 1 | | | | | | | |
| BP50-500 mL Plastic (preserved) (M) (A) | | | 1 | 1 | | | | | | | | | |
| BP50-1 liter Amber (preserved) (M) (A) | | | | | | | | | | | | | |
| BP50-125 mL Plastic (M) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-250 mL Plastic (M) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-500 mL Plastic (M) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP50-1 liter Amber (M) (D-) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| AD50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| AD50-150 mL Amber (preserved) (M) (A) (D-) | | | | | | | | | | | | | |
| AD50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| AD50-200 mL Amber (M) (D-) | | | | | | | | | | | | | |
| AD50-250 mL Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-150 mL VOA (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-250 mL VOA (M) (D-) | | | | | | | | | | | | | |
| DO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |
| VO50-1 liter Amber (M) (D-) | | | | | | | | | | | | | |

OPIN

BP2-125

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 Dept. Certification Office [e.g. Out of field, incorrect preservative, out of time, incorrect containers.

Sending a sample via this chain of custody constitutes acknowledgment and acceptance of the terms and conditions listed at <https://dhs.gov/submit-analysis-services-form>

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A: Analytical Request Information

Requester: George Tyler
 Address: 3000 North 19th Street, Phoenix, AZ 85018
 Contact: George Tyler, 480-312-3119
 Requested Date: 09/15/21

Section B: Analytical Request Information

Request for: Sample Submission
 Case No.:
 Request Name: Salivary COC
 Request #:

Section C: Sample Information

Sample Name: Salivary COC
 Case Number: 100064131

| SAMPLE ID
<i>(This document per box, label, etc., will be stamped throughout the entire collection)</i> | MATERIAL CODE (See with notes on left) | SAMPLE TYPE (SOLID/ LIQUID/ COMBUSTIBLE) | COLLECTOR | | | SAMPLE TEMP AT COLLECTION | FBI CONTAINERS | | | | | | | | | | RECEIVED CHAINS (Y/N) | | | | | | | | |
|--|--|--|-----------|------|------|---------------------------|----------------|--------|-------|------|----|----|---------|-------|----------|------------|-------------------------|-----------------|-----------------|----|----|---------------|---|---|---|
| | | | START | END | | | Preservatives | | | | | | | | | | | | | | | | | | |
| | | | DATE | TIME | DATE | TIME | UNDEGRADED | GRADED | POBOD | PROD | NO | NO | METABOL | OTHER | DBP/MSDS | 100% Meats | 100% Meats + Fat, K, No | 100% Fat, K, No | 100% Fat, K, No | MS | MS | SAC-MS-MSMSMS | | | |
| 00001 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| 00002 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00003 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00004 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00005 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00006 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00007 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00008 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00009 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00010 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00011 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00012 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 00013 | WT | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

William Lecker

9/15/21 11:00

Folck
~~AS~~
AL

9/15/21 11:00

287
28
28

FOOTNOTES

Requester Name at Collection: William Lecker, 3000 North 19th Street, Phoenix, AZ 85018

Signature of Collector: *William Lecker*

Date: 9/15/21

Time: 11:00

Temp: 28

Received in container (Y/N): Y

Sealed container (Y/N): Y

Sample intact (Y/N): N

PH: 6:24



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: Submitting a sample via the state of custody conditions acknowledgment and acceptance of the Form Items and Conditions found at <http://epd.state.ga.us/epd/epdmain.asp?module=chainofcustody>, pdf

Physical Client Information: Agency: Georgia Dept. of Transportation, Address: 1000 Northchase Parkway, Marietta, GA 30067, Phone: 770-487-1111, Fax: 770-487-1111, E-mail: transportation@dot.ga.gov

Physical Project Information: Project Title: South Expansion, City: Atlanta, GA, State: GA, Project Manager: Robert M. Smith, Project #:

Section B: Analytical Request Information: Analytical Request: Trace, Bulk, Other

Section C: Analytical Information: Analytical Method: Trace, Bulk, Other

| ITEM # | DESCRIPTION | MATRIX CODE (See table below for list) | SAMPLE TYPE (S-SOLID C-COOL) | COLLECTION | | | SAMPLE TIME AT COLLECTION | # OF CONTAINERS | PRESERVATION | | | | | | | ANALYST | RECEIVED DATE (MM/DD) | ANALYST SIGNATURE |
|--------|--|--|------------------------------|------------|-----|------|---------------------------|-----------------|--------------|------|------|--------|-------------|-------|-------|---------|-----------------------|-------------------|
| | | | | START | END | TIME | | | Unpreserved | REFR | COOL | FREEZE | FREEZE/THAW | OTHER | OTHER | | | |
| 1 | SAMPLE ID
See Description on back, Sample ID must be unique | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | | | | | |
| 46 | | | | | | | | | | | | | | | | | | |
| 47 | | | | | | | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | | | |
| 49 | | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | | |

LAB USE ONLY: Project Name at Request: William Leaker, Requested at Laboratory: William Leaker, Robert Smith, Edwin Leathers, Kevin Stephenson, Date Requested: 9/13/21

Received in Lab (Y/N): Y, Collected in Lab (Y/N): Y, Sampled in Lab (Y/N): Y



CHAIN-OF-CUSTODY / Analytical Request Document

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

Project Information:
 Project Name: Wetland Losses
 Project Location: Wetland Losses
 Project Description: Wetland Losses

Client Information:
 Client Name: Wetland Losses
 Client Address: Wetland Losses
 Client Phone: Wetland Losses
 Client Email: Wetland Losses

Sample Information:
 Sample ID: Wetland Losses
 Sample Location: Wetland Losses
 Sample Date: Wetland Losses
 Sample Time: Wetland Losses

| ITEM # | DESCRIPTION | WEIGHT (WT) | COLLECTOR | START TIME | END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | PRESERVATION | ANALYTES REQUESTED | | | | | | | | | | | | | | | | | |
|--------|-------------|-------------|----------------|------------|----------|---------------------------|-----------------|--------------|--------------------|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|
| | | | | | | | | | As | Bi | Co | Cr | Cu | Fe | Mn | Ni | Pb | Sb | Se | Zn | | | | | | |
| 1 | Soil | WT | Wetland Losses | | | | 3 | None | | | | | | | | | | | | | | | | | | |
| 2 | Soil | WT | Wetland Losses | | | | 3 | None | | | | | | | | | | | | | | | | | | |
| 3 | Soil | WT | Wetland Losses | | | | 3 | None | | | | | | | | | | | | | | | | | | |
| 4 | Soil | WT | Wetland Losses | | | | 3 | None | | | | | | | | | | | | | | | | | | |

Notes:
 Additional information regarding the samples and the chain-of-custody process.

Signature: _____

Date: _____

Temp. (C): _____

Received on: _____

Condition: _____

Sealed: _____

Covered: _____

Sealed: _____

Covered: _____

Sealed: _____

Covered: _____

Sealed: _____

Covered: _____



Obtaining a sample for the chain of custody procedure is not intended to be used as evidence in any legal proceeding. All relevant parties must be contacted accurately.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a legal document. All relevant parties must be contacted accurately. All relevant parties must be contacted accurately.

Page: 1 of 2

Section A: Requestor Information
 Requestor Name: William Leaker
 Requestor Title: COO
 Requestor Company: William Leaker Support Mail
 Requestor Phone: 914/421-9141

Section B: Sample Information
 Sample ID: 914/21 1100
 Sample Description: Feder 1100
 Sample Date: 9/15/21
 Sample Time: 11:30 AM

Section C: Laboratory Information
 Laboratory Name: Rockstar
 Laboratory Address: Rockstar

Section D: Analyst Information
 Analyst Name: Colin Legman
 Analyst Title: COO Support
 Analyst Phone: 914/421

| SAMPLE ID | Date Collected | Time Collected | Temperature (°C) | Collection Method | | Signature |
|-------------|----------------|----------------|------------------|-------------------|----|--------------------|
| | | | | From | To | |
| 914/21 1100 | 9/15/21 | 11:30 AM | 25° | From | To | <i>[Signature]</i> |

| Temp (°C) | Received by (Name) | Collected by (Name) | Date/Time |
|-----------|--------------------|---------------------|------------------|
| 25° | Colin Legman | William Leaker | 9/15/21 11:30 AM |

Section E: Laboratory Analysis
 Analysis Type: COO Support
 Analysis Date: 9/14/21

Quality Control Sample Performance Assessment

Participant: _____

Analysis Method: Manually Computed with High Magnification at 1000x

Year: 2010
 Date: 11/11/10
 Time: 1:00
 Station: 100

Sample Name: Lead From Automobile

Analysis Method: Manually Computed with High Magnification at 1000x

Analysis Date: 11/11/10

Analysis Time: 1:00

Station: 100

Operator: _____

Analyst: _____

Sample ID: _____

Sample Weight: _____

Sample Volume: _____

Sample Concentration: _____

Sample Purity: _____

Sample Grade: _____

Sample Type: _____

Sample Source: _____

Sample Location: _____

Sample History: _____

Sample Notes: _____

| Element | Concentration | Units |
|----------|---------------|-------|
| Lead | 100.0 | wt% |
| Antimony | 0.0 | wt% |
| As | 0.0 | wt% |
| Bi | 0.0 | wt% |
| Co | 0.0 | wt% |
| Cu | 0.0 | wt% |
| Fe | 0.0 | wt% |
| Mn | 0.0 | wt% |
| Ni | 0.0 | wt% |
| Pb | 100.0 | wt% |
| S | 0.0 | wt% |
| Se | 0.0 | wt% |
| Si | 0.0 | wt% |
| Sn | 0.0 | wt% |
| Tl | 0.0 | wt% |
| Zn | 0.0 | wt% |

| Element | Concentration | Units |
|---------|---------------|-------|
| As | 0.0 | wt% |
| Bi | 0.0 | wt% |
| Co | 0.0 | wt% |
| Cu | 0.0 | wt% |
| Fe | 0.0 | wt% |
| Mn | 0.0 | wt% |
| Ni | 0.0 | wt% |
| Pb | 100.0 | wt% |
| S | 0.0 | wt% |
| Se | 0.0 | wt% |
| Si | 0.0 | wt% |
| Sn | 0.0 | wt% |
| Tl | 0.0 | wt% |
| Zn | 0.0 | wt% |

| Element | Concentration | Units |
|---------|---------------|-------|
| As | 0.0 | wt% |
| Bi | 0.0 | wt% |
| Co | 0.0 | wt% |
| Cu | 0.0 | wt% |
| Fe | 0.0 | wt% |
| Mn | 0.0 | wt% |
| Ni | 0.0 | wt% |
| Pb | 100.0 | wt% |
| S | 0.0 | wt% |
| Se | 0.0 | wt% |
| Si | 0.0 | wt% |
| Sn | 0.0 | wt% |
| Tl | 0.0 | wt% |
| Zn | 0.0 | wt% |

Sample Name: Lead From Automobile

Analysis Method: Manually Computed with High Magnification at 1000x

Analysis Date: 11/11/10

Analysis Time: 1:00

Station: 100

Operator: _____

Analyst: _____

Sample ID: _____

Sample Weight: _____

Sample Volume: _____

Sample Concentration: _____

Sample Purity: _____

Sample Grade: _____

Sample Type: _____

Sample Source: _____

Sample Location: _____

Sample History: _____

Sample Notes: _____

Participant: _____

Analysis Method: Manually Computed with High Magnification at 1000x

Year: 2010

Date: 11/11/10

Time: 1:00

Station: 100

Operator: _____

Analyst: _____

Sample ID: _____

Sample Weight: _____

Sample Volume: _____

Sample Concentration: _____

Sample Purity: _____

Sample Grade: _____

Sample Type: _____

Sample Source: _____

Sample Location: _____

Sample History: _____

Sample Notes: _____

Sample Name: Lead From Automobile

Analysis Method: Manually Computed with High Magnification at 1000x

Analysis Date: 11/11/10

Analysis Time: 1:00

Station: 100

Operator: _____

Analyst: _____

Sample ID: _____

Sample Weight: _____

Sample Volume: _____

Sample Concentration: _____

Sample Purity: _____

Sample Grade: _____

Sample Type: _____

Sample Source: _____

Sample Location: _____

Sample History: _____

Sample Notes: _____

Quality Control Sample Performance Assessment

6. **Implementation**
 2017-2018

7. **Assessment Methodology**
 2017-2018

| Assessment Methodology | Assessment Data | Assessment Results |
|---|--|---|
| <p>Methodology</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Data</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Results</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> |
| <p>Assessment Methodology</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Data</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Results</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> |
| <p>Assessment Methodology</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Data</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> | <p>Assessment Results</p> <p>1. Review of course syllabi</p> <p>2. Review of course materials</p> <p>3. Review of student work</p> <p>4. Review of faculty work</p> <p>5. Review of institutional data</p> |

Handwritten signature

Quality Control Sample Performance Assessment

Analysis Method: Manual; Lower AD: Field; Method: Standard; In: Table

Handwritten signature

Date: 11/10/07
 Analyst: [Name]
 Method: [Method]
 Location: [Location]

Method Blank Summary

| Sample ID | Concentration |
|-----------|---------------|
| MB-01 | 0.00 |
| MB-02 | 0.00 |
| MB-03 | 0.00 |
| MB-04 | 0.00 |
| MB-05 | 0.00 |
| MB-06 | 0.00 |
| MB-07 | 0.00 |
| MB-08 | 0.00 |
| MB-09 | 0.00 |
| MB-10 | 0.00 |

Summary Table of Sample Concentrations

| Sample ID | Concentration |
|-----------|---------------|
| S-01 | 0.00 |
| S-02 | 0.00 |
| S-03 | 0.00 |
| S-04 | 0.00 |
| S-05 | 0.00 |
| S-06 | 0.00 |
| S-07 | 0.00 |
| S-08 | 0.00 |
| S-09 | 0.00 |
| S-10 | 0.00 |
| S-11 | 0.00 |
| S-12 | 0.00 |
| S-13 | 0.00 |
| S-14 | 0.00 |
| S-15 | 0.00 |
| S-16 | 0.00 |
| S-17 | 0.00 |
| S-18 | 0.00 |
| S-19 | 0.00 |
| S-20 | 0.00 |

Summary Table of Sample Concentrations

| Sample ID | Concentration |
|-----------|---------------|
| S-21 | 0.00 |
| S-22 | 0.00 |
| S-23 | 0.00 |
| S-24 | 0.00 |
| S-25 | 0.00 |
| S-26 | 0.00 |
| S-27 | 0.00 |
| S-28 | 0.00 |
| S-29 | 0.00 |
| S-30 | 0.00 |
| S-31 | 0.00 |
| S-32 | 0.00 |
| S-33 | 0.00 |
| S-34 | 0.00 |
| S-35 | 0.00 |
| S-36 | 0.00 |
| S-37 | 0.00 |
| S-38 | 0.00 |
| S-39 | 0.00 |
| S-40 | 0.00 |

Method: Manual; Lower AD: Field; Method: Standard; In: Table

Summary

Summary Table of Sample Concentrations

| Sample ID | Concentration |
|-----------|---------------|
| S-41 | 0.00 |
| S-42 | 0.00 |
| S-43 | 0.00 |
| S-44 | 0.00 |
| S-45 | 0.00 |
| S-46 | 0.00 |
| S-47 | 0.00 |
| S-48 | 0.00 |
| S-49 | 0.00 |
| S-50 | 0.00 |
| S-51 | 0.00 |
| S-52 | 0.00 |
| S-53 | 0.00 |
| S-54 | 0.00 |
| S-55 | 0.00 |
| S-56 | 0.00 |
| S-57 | 0.00 |
| S-58 | 0.00 |
| S-59 | 0.00 |
| S-60 | 0.00 |

Summary Table of Sample Concentrations

| Sample ID | Concentration |
|-----------|---------------|
| S-61 | 0.00 |
| S-62 | 0.00 |
| S-63 | 0.00 |
| S-64 | 0.00 |
| S-65 | 0.00 |
| S-66 | 0.00 |
| S-67 | 0.00 |
| S-68 | 0.00 |
| S-69 | 0.00 |
| S-70 | 0.00 |
| S-71 | 0.00 |
| S-72 | 0.00 |
| S-73 | 0.00 |
| S-74 | 0.00 |
| S-75 | 0.00 |
| S-76 | 0.00 |
| S-77 | 0.00 |
| S-78 | 0.00 |
| S-79 | 0.00 |
| S-80 | 0.00 |

Handwritten signature

Quality Control Sample Performance Assessment

APR 2013

APR 2013

APR 2013

APR 2013

| Sample ID | Sample Type | Sample Location | Sample Date | Sample Time | Sample Status |
|-----------|-------------|-----------------|-------------|-------------|---------------|
| 1 | Water | Well 1 | 4/1/13 | 10:00 | Pass |
| 2 | Water | Well 2 | 4/1/13 | 10:15 | Pass |
| 3 | Water | Well 3 | 4/1/13 | 10:30 | Pass |
| 4 | Water | Well 4 | 4/1/13 | 10:45 | Pass |
| 5 | Water | Well 5 | 4/1/13 | 11:00 | Pass |

| Sample ID | Sample Type | Sample Location | Sample Date | Sample Time | Sample Status |
|-----------|-------------|-----------------|-------------|-------------|---------------|
| 6 | Water | Well 6 | 4/1/13 | 11:15 | Pass |
| 7 | Water | Well 7 | 4/1/13 | 11:30 | Pass |
| 8 | Water | Well 8 | 4/1/13 | 11:45 | Pass |
| 9 | Water | Well 9 | 4/1/13 | 12:00 | Pass |
| 10 | Water | Well 10 | 4/1/13 | 12:15 | Pass |

| Sample ID | Sample Type | Sample Location | Sample Date | Sample Time | Sample Status |
|-----------|-------------|-----------------|-------------|-------------|---------------|
| 11 | Water | Well 11 | 4/1/13 | 12:30 | Pass |
| 12 | Water | Well 12 | 4/1/13 | 12:45 | Pass |
| 13 | Water | Well 13 | 4/1/13 | 13:00 | Pass |
| 14 | Water | Well 14 | 4/1/13 | 13:15 | Pass |
| 15 | Water | Well 15 | 4/1/13 | 13:30 | Pass |

| Sample ID | Sample Type | Sample Location | Sample Date | Sample Time | Sample Status |
|-----------|-------------|-----------------|-------------|-------------|---------------|
| 16 | Water | Well 16 | 4/1/13 | 13:45 | Pass |
| 17 | Water | Well 17 | 4/1/13 | 14:00 | Pass |
| 18 | Water | Well 18 | 4/1/13 | 14:15 | Pass |
| 19 | Water | Well 19 | 4/1/13 | 14:30 | Pass |
| 20 | Water | Well 20 | 4/1/13 | 14:45 | Pass |

| Sample ID | Sample Type | Sample Location | Sample Date | Sample Time | Sample Status |
|-----------|-------------|-----------------|-------------|-------------|---------------|
| 21 | Water | Well 21 | 4/1/13 | 15:00 | Pass |
| 22 | Water | Well 22 | 4/1/13 | 15:15 | Pass |
| 23 | Water | Well 23 | 4/1/13 | 15:30 | Pass |
| 24 | Water | Well 24 | 4/1/13 | 15:45 | Pass |
| 25 | Water | Well 25 | 4/1/13 | 16:00 | Pass |

APR 2013

APR 2013

APR 2013



March 14, 2022

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

RE: Project: MCMANUS CCR
Pace Project No.: 92590990

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 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 - Minneapolis

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
 Anna Bottum, ERM
 Andrea Brazell, ERM
 Trent Godwin, Resolute Environmental & Water Resources
 Kristen Jurinko
 Ms. Lauren Petty, Southern Company
 Lacy Smith, ERM
 Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
 Caitlin Tillema, ERM
 Christine Weaver, ERM

Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR

Pace Project No.: 92590990

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

- A2LA Certification #: 2926.01*
- Alabama Certification #: 40770
- Alaska Contaminated Sites Certification #: 17-009*
- Alaska DW Certification #: MN00064
- Arizona Certification #: AZ0014*
- Arkansas DW Certification #: MN00064
- Arkansas WW Certification #: 88-0680
- California Certification #: 2929
- Colorado Certification #: MN00064
- Connecticut Certification #: PH-0256
- EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
- Florida Certification #: E87605*
- Georgia Certification #: 959
- Hawaii Certification #: MN00064
- Idaho Certification #: MN00064
- Illinois Certification #: 200011
- Indiana Certification #: C-MN-01
- Iowa Certification #: 368
- Kansas Certification #: E-10167
- Kentucky DW Certification #: 90062
- Kentucky WW Certification #: 90062
- Louisiana DEQ Certification #: AI-03086*
- Louisiana DW Certification #: MN00064
- Maine Certification #: MN00064*
- Maryland Certification #: 322
- Michigan Certification #: 9909
- Minnesota Certification #: 027-053-137*
- Minnesota Dept of Ag Approval: via MN 027-053-137
- Minnesota Petrofund Registration #: 1240*
- Mississippi Certification #: MN00064

- Missouri Certification #: 10100
 - Montana Certification #: CERT0092
 - Nebraska Certification #: NE-OS-18-06
 - Nevada Certification #: MN00064
 - New Hampshire Certification #: 2081*
 - New Jersey Certification #: MN002
 - New York Certification #: 11647*
 - North Carolina DW Certification #: 27700
 - North Carolina WW Certification #: 530
 - North Dakota Certification #: R-036
 - Ohio DW Certification #: 41244
 - Ohio VAP Certification (1700) #: CL101
 - Ohio VAP Certification (1800) #: CL110*
 - Oklahoma Certification #: 9507*
 - Oregon Primary Certification #: MN300001
 - Oregon Secondary Certification #: MN200001*
 - Pennsylvania Certification #: 68-00563*
 - Puerto Rico Certification #: MN00064
 - South Carolina Certification #:74003001
 - Tennessee Certification #: TN02818
 - Texas Certification #: T104704192*
 - Utah Certification #: MN00064*
 - Vermont Certification #: VT-027053137
 - Virginia Certification #: 460163*
 - Washington Certification #: C486*
 - West Virginia DEP Certification #: 382
 - West Virginia DW Certification #: 9952 C
 - Wisconsin Certification #: 999407970
 - Wyoming UST Certification #: via A2LA 2926.01
 - USDA Permit #: P330-19-00208
- *Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey 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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR
Pace Project No.: 92590990

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92590990001 | DPZ-02 | Water | 03/01/22 11:50 | 03/02/22 10:03 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92590990001 | DPZ-02 | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|---------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92590990001 | DPZ-02 | | | | | |
| | Performed by | CUSTOMER | | | 03/02/22 15:26 | |
| | pH | 7.08 | Std. Units | | 03/02/22 15:26 | |
| EPA 6010D | Calcium | 303 | mg/L | 2.0 | 03/14/22 11:25 | |
| EPA 6010D | Magnesium | 506 | mg/L | 2.0 | 03/14/22 11:25 | |
| EPA 6010D | Potassium | 171 | mg/L | 100 | 03/14/22 11:25 | |
| EPA 6010D | Sodium | 4320 | mg/L | 500 | 03/14/22 14:06 | |
| EPA 6020B | Arsenic | 0.015J | mg/L | 0.050 | 03/11/22 15:30 | |
| EPA 6020B | Barium | 0.074 | mg/L | 0.050 | 03/11/22 15:30 | |
| EPA 6020B | Boron | 1.6J | mg/L | 2.5 | 03/11/22 15:30 | |
| EPA 6020B | Lithium | 0.088J | mg/L | 0.12 | 03/11/22 15:30 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 372 | mg/L | 5.0 | 03/10/22 11:27 | |
| SM 2320B | Alkalinity, Bicarbonate (CaCO3) | 372 | mg/L | 5.0 | 03/10/22 11:27 | |
| SM 2540C-2011 | Total Dissolved Solids | 15600 | mg/L | 500 | 03/04/22 11:30 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6750 | mg/L | 100 | 03/05/22 03:47 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 755 | mg/L | 100 | 03/05/22 03:47 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92590990

Sample: DPZ-02 **Lab ID:** 92590990001 Collected: 03/01/22 11:50 Received: 03/02/22 10:03 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 | | 03/02/22 15:26 | | |
| pH | 7.08 | Std. Units | | | 1 | | 03/02/22 15:26 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|-----|----------------|----------------|-----------|--|
| Calcium | 303 | mg/L | 2.0 | 1.9 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7440-70-2 | |
| Magnesium | 506 | mg/L | 2.0 | 1.4 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7439-95-4 | |
| Potassium | 171 | mg/L | 100 | 60.8 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7440-09-7 | |
| Sodium | 4320 | mg/L | 500 | 61.1 | 100 | 03/12/22 04:00 | 03/14/22 14:06 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.050 | 0.010 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-36-0 | D3 |
| Arsenic | 0.015J | mg/L | 0.050 | 0.0043 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-38-2 | |
| Barium | 0.074 | mg/L | 0.050 | 0.011 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-41-7 | D3 |
| Boron | 1.6J | mg/L | 2.5 | 0.42 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.010 | 0.0030 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.050 | 0.025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-92-1 | D3 |
| Lithium | 0.088J | mg/L | 0.12 | 0.025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.050 | 0.0063 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.024 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/07/22 17:30 | 03/09/22 09:28 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 372 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |
| Alkalinity,Bicarbonate (CaCO3) | 372 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 15600 | mg/L | 500 | 500 | 1 | | 03/04/22 11:30 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 6750 | mg/L | 100 | 60.0 | 100 | | 03/05/22 03:47 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92590990

Sample: DPZ-02 **Lab ID: 92590990001** Collected: 03/01/22 11:50 Received: 03/02/22 10:03 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 | | 03/04/22 16:55 | 16984-48-8 | |
| Sulfate | 755 | mg/L | 100 | 50.0 | 100 | | 03/05/22 03:47 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 682780

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3571431

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 03/09/22 09:22 | |

LABORATORY CONTROL SAMPLE: 3571432

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.8 | 113 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571433 3571434

| Parameter | Units | 92590990001 | | 3571434 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|--------|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.5 | 2.4 | 101 | 95 | 75-125 | 6 | 25 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 683540

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3575406

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/14/22 12:05 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/14/22 12:05 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/14/22 12:05 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/14/22 12:05 | |

LABORATORY CONTROL SAMPLE: 3575407

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 97 | 80-120 | |
| Magnesium | mg/L | 5 | 4.7 | 95 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 91 | 80-120 | |
| Sodium | mg/L | 5 | 4.9J | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575408 3575409

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92590280014 | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 959 ug/L | 5 | 5 | 5.9 | 6.0 | 99 | 100 | 75-125 | 1 | 20 |
| Magnesium | mg/L | 1740 ug/L | 5 | 5 | 6.7 | 6.8 | 99 | 102 | 75-125 | 2 | 20 |
| Potassium | mg/L | ND | 5 | 5 | 6.8 | 6.8 | 101 | 102 | 75-125 | 0 | 20 |
| Sodium | mg/L | 12700 ug/L | 5 | 5 | 17.9 | 18.5 | 104 | 116 | 75-125 | 3 | 20 E |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 683547

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3575445

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 03/11/22 11:03 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/11/22 11:03 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/11/22 11:03 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/11/22 12:12 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/11/22 11:03 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 03/11/22 11:03 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 03/11/22 11:03 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/11/22 11:03 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/11/22 11:03 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/11/22 11:03 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 03/11/22 11:03 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/11/22 11:03 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 03/11/22 11:03 | |

LABORATORY CONTROL SAMPLE: 3575446

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.049 | 97 | 80-120 | |
| Barium | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Boron | mg/L | 0.05 | 0.044J | 88 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Lead | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.048 | 95 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.048 | 95 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.024 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575447 3575448

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92590508001 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 97 | 99 | 75-125 | 2 | 20 | | |
| Arsenic | mg/L | 3.8 ug/L | 0.05 | 0.05 | 0.053 | 0.055 | 98 | 102 | 75-125 | 3 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

| Parameter | Units | 92590508001 | | 3575447 | | 3575448 | | % Rec | % Rec | % Rec | Limits | RPD | Max RPD | Qual |
|------------|-------|-------------|----------------|-----------------|-----------|------------|----|-------|--------|-------|--------|-----|---------|------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | | | |
| Barium | mg/L | 6.8 ug/L | 0.05 | 0.05 | 0.053 | 0.056 | 93 | 99 | 75-125 | 6 | 20 | | | |
| Beryllium | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.051 | 98 | 102 | 75-125 | 3 | 20 | E | | |
| Boron | mg/L | ND | 0.05 | 0.05 | 0.063 | 0.066 | 85 | 90 | 75-125 | 4 | 20 | | | |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 96 | 99 | 75-125 | 3 | 20 | | | |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.050 | 0.051 | 99 | 101 | 75-125 | 3 | 20 | | | |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.050 | 98 | 99 | 75-125 | 2 | 20 | | | |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 95 | 99 | 75-125 | 3 | 20 | | | |
| Lithium | mg/L | 4.8 ug/L | 0.05 | 0.05 | 0.052 | 0.054 | 95 | 99 | 75-125 | 4 | 20 | | | |
| Molybdenum | mg/L | 23.7 ug/L | 0.05 | 0.05 | 0.072 | 0.075 | 97 | 103 | 75-125 | 4 | 20 | | | |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.047 | 0.049 | 95 | 98 | 75-125 | 4 | 20 | | | |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.024 | 0.025 | 97 | 99 | 75-125 | 3 | 20 | | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

| | | | |
|------------------|----------|-----------------------|--|
| QC Batch: | 802971 | Analysis Method: | SM 2320B |
| QC Batch Method: | SM 2320B | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Minneapolis |

Associated Lab Samples: 92590990001

METHOD BLANK: 4263589 Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 1.8J | 5.0 | 1.8 | 03/10/22 10:53 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | 1.8J | 5.0 | 1.8 | 03/10/22 10:53 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/10/22 10:53 | |

| Parameter | Units | 4263590 | | 4263591 | | % Rec | LCSD | % Rec | Limits | RPD | Max RPD | Qualifiers |
|----------------------------|-------|-------------|------------|------------|------|-------|--------|-------|--------|-----|---------|------------|
| | | Spike Conc. | LCS Result | LCS Result | LCSD | | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 40 | 42.2 | 43.8 | 106 | 109 | 90-110 | 4 | 20 | | | |

| Parameter | Units | 4263592 | | 4263593 | | MS | MSD | MS | MSD | % Rec | Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|----------------|-----------------|-----------|------|-----|-----|--------|-------|--------|-----|---------|------|
| | | 10599927001 | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 22.5 | 40 | 40 | 64.7 | 63.6 | 106 | 103 | 80-120 | 2 | 20 | | | |

| Parameter | Units | 4263594 | | 4263595 | | MS | MSD | MS | MSD | % Rec | Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|----------------|-----------------|-----------|-----|-----|-----|--------|-------|--------|-----|---------|------|
| | | 10599310004 | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 174 | 40 | 40 | 216 | 216 | 104 | 104 | 80-120 | 0 | 20 | | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

| | |
|--------------------------------|--|
| QC Batch: 682447 | Analysis Method: SM 2540C-2011 |
| QC Batch Method: SM 2540C-2011 | Analysis Description: 2540C Total Dissolved Solids |
| | Laboratory: Pace Analytical Services - Asheville |

Associated Lab Samples: 92590990001

METHOD BLANK: 3569612 Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/04/22 11:30 | |

LABORATORY CONTROL SAMPLE: 3569613

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 252 | 101 | 90-110 | |

SAMPLE DUPLICATE: 3569614

| Parameter | Units | 92590714002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 98.0 | 97.0 | 1 | 25 | H3 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

| | | | |
|------------------|------------------------|-----------------------|--------------------------------------|
| QC Batch: | 682504 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92590990001

METHOD BLANK: 3569838 Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/04/22 12:48 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/04/22 12:48 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/04/22 12:48 | |

LABORATORY CONTROL SAMPLE: 3569839

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.5 | 97 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 105 | 90-110 | |
| Sulfate | mg/L | 50 | 47.7 | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3569840 3569841

| Parameter | Units | 92590802001 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 | ND | ND | 0 | 0 | 90-110 | | 10 | M1 |
| Fluoride | mg/L | 0.10 | 2.5 | 2.5 | ND | ND | -4 | -4 | 90-110 | | 10 | M1 |
| Sulfate | mg/L | ND | 50 | 50 | ND | ND | -1 | -1 | 90-110 | | 10 | 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

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



QUALIFIERS

Project: MCMANUS CCR

Pace Project No.: 92590990

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.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92590990001 | DPZ-02 | | | | |
| 92590990001 | DPZ-02 | EPA 3010A | 683540 | EPA 6010D | 684307 |
| 92590990001 | DPZ-02 | EPA 3010A | 683547 | EPA 6020B | 684030 |
| 92590990001 | DPZ-02 | EPA 7470A | 682780 | EPA 7470A | 683136 |
| 92590990001 | DPZ-02 | SM 2320B | 802971 | | |
| 92590990001 | DPZ-02 | SM 2540C-2011 | 682447 | | |
| 92590990001 | DPZ-02 | EPA 300.0 Rev 2.1 1993 | 682504 | | |

REPORT OF LABORATORY ANALYSIS

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

| | | |
|---|--|--|
|  | Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: November 15, 2003
Page 1 of 3 |
| | Document No.:
F-CAR-CL-033-Rev.08 | Issuing Authority:
Face Carolina Quality Office |

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: **92590990**



Date/Initials Person Examining Contents: JDE 3/2/21

Courier: Commercial Fed Ex UPS USPS Other Client

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer: If (See ID): 230 Type of Use: Air Ice None

Biological Tissue Frozen?

Yes No N/A

Cooler Temp: 1.0 Correction Factor: +0.2

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.2

USDA Regulated Soil (No/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? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 1 |
|--|---|--|------------------------------|----|
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 2 |
| Short Hold Time Analysis (<72 hr)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 3 |
| Batch Turn Around Time Requested? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | 4 |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 5 |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 6 |
| Face Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 6 |
| Containers Intact? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 7 |
| Dissolved analysis: Samples Field Filtered? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 8 |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 9 |
| Includes Date/Time/ID/Analysis Matrix: <u>GW</u> | | | | |
| Headspace in VOA Vials (>6-8mm)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 10 |
| Trip Blank Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 11 |
| Trip Blank Custody Seals Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | |

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

CLIENT NOTIFICATION/RESOLUTION

Lot ID of spike containers:

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-C3-033-Rev.08

Document Revised: November 15, 2021
 Page 2 of 2
 Issuing Authority:
 Pace Carolina Quality Office

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

Exceptions: VOA, Coliform, TOC, Oil and Grease, DOC/BOC5 (water) DOC, LUG

**Bottom half of box is to list number of bottles

Project #

WO# : 92590990

PR: NPG

Due Date: 03/09/22

CLIENT: GR-GR Power

| Sample ID | Type of Preservative | pH upon receipt | Date preservation adjusted | Time preservation adjusted | Amount of Preservative added | Lot # |
|---|----------------------|-----------------|----------------------------|----------------------------|------------------------------|-------|
| BP40-125 ml, Plastic Unpreserved (N/A) (D1) | | | | | | |
| BP40-250 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP50-500 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP50-1 liter Plastic Unpreserved (N/A) | | | | | | |
| BP40-125 ml Plastic HClSO4 (pH < 2) (D1) | | | | | | |
| BP20-250 ml, plastic HClO4 (pH < 2) | | | | | | |
| BP40-125 ml Plastic 20 Acetate & NaOH (pH) | | | | | | |
| BP40-125 ml Plastic NaOH (pH > 12) (D1) | | | | | | |
| WFOU-white mouthed Glass Jar Unpreserved | | | | | | |
| AG100-1 liter Amber Unpreserved (N/A) (D1) | | | | | | |
| AG110-1 liter Amber 100 (pH < 2) | | | | | | |
| AG200-250 ml, Amber Unpreserved (N/A) (D1) | | | | | | |
| AG21-1 liter Amber HClSO4 (pH < 2) | | | | | | |
| AG20-250 ml, Amber HClSO4 (pH < 2) | | | | | | |
| AG100(200ml)-250 ml, Amber HClO4 (N/A)(D1) | | | | | | |
| DO200-40 ml, VOA HCl (N/A) | | | | | | |
| VO200-40 ml, VOA Na2S2O3 (N/A) | | | | | | |
| VO200-40 ml, VOA Unpreserved (N/A) | | | | | | |
| DO200-40 ml, VOA H2PO4 (N/A) | | | | | | |
| VO400 (3 vials per kit)-5000 L (N/A) | | | | | | |
| VO400 (3 vials per kit)-1000 L (N/A) | | | | | | |
| SP10-125 ml, Sterile Plastic (N/A - 100) | | | | | | |
| SP01-250 ml, Sterile Plastic (N/A - 100) | | | | | | |
| BRIN | | | | | | |
| BP50A-250 ml, Plastic (N/A)(2000 (P-3-18-7) | | | | | | |
| AG200-100 ml, Amber unpreserved vials (N/A) | | | | | | |
| VO200-40 ml, Sterilization vials (N/A) | | | | | | |
| DO200-40 ml, Amber unpreserved vials (N/A) | | | | | | |

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 O&M Certification Office (i.e. Out of field, incorrect preservatives, out of temp, incorrect containers)



March 18, 2022

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

RE: Project: MCMANUS CCR
Pace Project No.: 92591517

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 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 - Minneapolis

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
 Anna Bottum, ERM
 Andrea Brazell, ERM
 Trent Godwin, Resolute Environmental & Water Resources
 Kristen Jurinko
 Ms. Lauren Petty, Southern Company
 Lacy Smith, ERM
 Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
 Caitlin Tillema, ERM
 Christine Weaver, ERM

Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR

Pace Project No.: 92591517

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

- A2LA Certification #: 2926.01*
- Alabama Certification #: 40770
- Alaska Contaminated Sites Certification #: 17-009*
- Alaska DW Certification #: MN00064
- Arizona Certification #: AZ0014*
- Arkansas DW Certification #: MN00064
- Arkansas WW Certification #: 88-0680
- California Certification #: 2929
- Colorado Certification #: MN00064
- Connecticut Certification #: PH-0256
- EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
- Florida Certification #: E87605*
- Georgia Certification #: 959
- Hawaii Certification #: MN00064
- Idaho Certification #: MN00064
- Illinois Certification #: 200011
- Indiana Certification #: C-MN-01
- Iowa Certification #: 368
- Kansas Certification #: E-10167
- Kentucky DW Certification #: 90062
- Kentucky WW Certification #: 90062
- Louisiana DEQ Certification #: AI-03086*
- Louisiana DW Certification #: MN00064
- Maine Certification #: MN00064*
- Maryland Certification #: 322
- Michigan Certification #: 9909
- Minnesota Certification #: 027-053-137*
- Minnesota Dept of Ag Approval: via MN 027-053-137
- Minnesota Petrofund Registration #: 1240*
- Mississippi Certification #: MN00064

- Missouri Certification #: 10100
 - Montana Certification #: CERT0092
 - Nebraska Certification #: NE-OS-18-06
 - Nevada Certification #: MN00064
 - New Hampshire Certification #: 2081*
 - New Jersey Certification #: MN002
 - New York Certification #: 11647*
 - North Carolina DW Certification #: 27700
 - North Carolina WW Certification #: 530
 - North Dakota Certification #: R-036
 - Ohio DW Certification #: 41244
 - Ohio VAP Certification (1700) #: CL101
 - Ohio VAP Certification (1800) #: CL110*
 - Oklahoma Certification #: 9507*
 - Oregon Primary Certification #: MN300001
 - Oregon Secondary Certification #: MN200001*
 - Pennsylvania Certification #: 68-00563*
 - Puerto Rico Certification #: MN00064
 - South Carolina Certification #:74003001
 - Tennessee Certification #: TN02818
 - Texas Certification #: T104704192*
 - Utah Certification #: MN00064*
 - Vermont Certification #: VT-027053137
 - Virginia Certification #: 460163*
 - Washington Certification #: C486*
 - West Virginia DEP Certification #: 382
 - West Virginia DW Certification #: 9952 C
 - Wisconsin Certification #: 999407970
 - Wyoming UST Certification #: via A2LA 2926.01
 - USDA Permit #: P330-19-00208
- *Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey 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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92591517001 | MCM-19 | Water | 03/01/22 12:05 | 03/04/22 10:45 |
| 92591517002 | MCM-20 | Water | 03/01/22 15:15 | 03/04/22 10:45 |
| 92591517003 | MCM-01 | Water | 03/02/22 15:10 | 03/04/22 10:45 |
| 92591517004 | MCM-02 | Water | 03/02/22 15:42 | 03/04/22 10:45 |
| 92591517005 | MCM-11 | Water | 03/02/22 14:00 | 03/04/22 10:45 |
| 92591517006 | MCM-15 | Water | 03/02/22 11:41 | 03/04/22 10:45 |
| 92591517007 | MCM-18 | Water | 03/02/22 10:00 | 03/04/22 10:45 |
| 92591517008 | DUP-1 | Water | 03/02/22 00:00 | 03/04/22 10:45 |
| 92591517009 | MCM-04 | Water | 03/03/22 10:32 | 03/04/22 10:45 |
| 92591517010 | MCM-12 | Water | 03/03/22 11:40 | 03/04/22 10:45 |
| 92591517011 | MCM-16 | Water | 03/03/22 12:22 | 03/04/22 10:45 |
| 92591517012 | DUP-2 | Water | 03/03/22 00:00 | 03/04/22 10:45 |
| 92591517013 | FB-3 | Water | 03/03/22 12:10 | 03/04/22 10:45 |
| 92591517014 | EB-3 | Water | 03/03/22 14:35 | 03/04/22 10:45 |
| 92591517015 | FB-1 | Water | 03/01/22 17:05 | 03/04/22 10:45 |
| 92591517016 | EB-1 | Water | 03/01/22 16:55 | 03/04/22 10:45 |
| 92591517017 | FB-2 | Water | 03/02/22 15:50 | 03/04/22 10:45 |
| 92591517018 | EB-2 | Water | 03/02/22 16:00 | 03/04/22 10:45 |
| 92591517019 | MCM-05 | Water | 03/01/22 14:36 | 03/04/22 10:45 |
| 92591517020 | MCM-06 | Water | 03/01/22 15:52 | 03/04/22 10:45 |
| 92591517021 | MCM-07 | Water | 03/02/22 09:50 | 03/04/22 10:45 |
| 92591517022 | MCM-14 | Water | 03/03/22 10:20 | 03/04/22 10:45 |
| 92591517023 | MCM-17 | Water | 03/03/22 09:04 | 03/04/22 10:45 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591517001 | MCM-19 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517002 | MCM-20 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517003 | MCM-01 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517004 | MCM-02 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517005 | MCM-11 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517006 | MCM-15 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517007 | MCM-18 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517008 | DUP-1 | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591517009 | MCM-04 | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| 92591517010 | MCM-12 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| 92591517011 | MCM-16 | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| 92591517012 | DUP-2 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 1 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591517013 | FB-3 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| 92591517014 | EB-3 | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| 92591517015 | FB-1 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591517016 | EB-1 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591517017 | FB-2 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591517018 | EB-2 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591517019 | MCM-05 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591517020 | MCM-06 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591517021 | MCM-07 | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591517022 | MCM-14 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| 92591517023 | MCM-17 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |

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

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|-----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517001 | MCM-19 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:49 | |
| | pH | 5.38 | Std. Units | | 03/04/22 14:49 | |
| EPA 6010D | Calcium | 35.5 | mg/L | 0.10 | 03/18/22 01:12 | |
| EPA 6020B | Arsenic | 0.0061J | mg/L | 0.020 | 03/16/22 16:39 | |
| EPA 6020B | Barium | 0.14 | mg/L | 0.020 | 03/16/22 16:39 | |
| EPA 6020B | Beryllium | 0.0057 | mg/L | 0.0020 | 03/16/22 16:39 | |
| EPA 6020B | Boron | 0.41J | mg/L | 1.0 | 03/16/22 16:39 | M1 |
| SM 2540C-2011 | Total Dissolved Solids | 4050 | mg/L | 312 | 03/05/22 11:50 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1870 | mg/L | 100 | 03/07/22 22:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 158 | mg/L | 100 | 03/07/22 22:14 | |
| 92591517002 | MCM-20 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:49 | |
| | pH | 3.69 | Std. Units | | 03/04/22 14:49 | |
| EPA 6010D | Calcium | 99.8 | mg/L | 2.0 | 03/16/22 03:12 | |
| EPA 6020B | Arsenic | 0.032 | mg/L | 0.020 | 03/16/22 17:05 | |
| EPA 6020B | Barium | 0.11 | mg/L | 0.020 | 03/16/22 17:05 | |
| EPA 6020B | Beryllium | 0.016 | mg/L | 0.0020 | 03/16/22 17:05 | |
| EPA 6020B | Boron | 0.87J | mg/L | 1.0 | 03/16/22 17:05 | |
| EPA 6020B | Cobalt | 0.031 | mg/L | 0.020 | 03/16/22 17:05 | |
| EPA 6020B | Lithium | 0.020J | mg/L | 0.050 | 03/16/22 17:05 | |
| EPA 6020B | Selenium | 0.0058J | mg/L | 0.040 | 03/16/22 17:05 | |
| SM 2540C-2011 | Total Dissolved Solids | 10500 | mg/L | 500 | 03/05/22 11:50 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4900 | mg/L | 100 | 03/07/22 22:29 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 543 | mg/L | 100 | 03/07/22 22:29 | |
| 92591517003 | MCM-01 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:49 | |
| | pH | 5.32 | Std. Units | | 03/04/22 14:49 | |
| EPA 6010D | Calcium | 8.2 | mg/L | 0.10 | 03/17/22 02:31 | |
| EPA 6020B | Arsenic | 0.0043 | mg/L | 0.0010 | 03/17/22 11:12 | |
| EPA 6020B | Barium | 0.064 | mg/L | 0.0010 | 03/17/22 11:12 | |
| EPA 6020B | Beryllium | 0.000096J | mg/L | 0.00010 | 03/17/22 11:12 | |
| EPA 6020B | Boron | 0.048J | mg/L | 0.050 | 03/17/22 11:12 | |
| EPA 6020B | Lithium | 0.00064J | mg/L | 0.0025 | 03/17/22 11:12 | |
| SM 2540C-2011 | Total Dissolved Solids | 97.0 | mg/L | 25.0 | 03/05/22 11:51 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 13.4 | mg/L | 1.0 | 03/08/22 08:48 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 30.8 | mg/L | 1.0 | 03/08/22 08:48 | |
| 92591517004 | MCM-02 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:50 | |
| | pH | 5.16 | Std. Units | | 03/04/22 14:50 | |
| EPA 6010D | Calcium | 4.1 | mg/L | 0.10 | 03/17/22 02:35 | |
| EPA 6020B | Arsenic | 0.00077J | mg/L | 0.0010 | 03/17/22 11:16 | |
| EPA 6020B | Barium | 0.080 | mg/L | 0.0010 | 03/17/22 11:16 | |
| EPA 6020B | Beryllium | 0.00015 | mg/L | 0.00010 | 03/17/22 11:16 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|-----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517004 | MCM-02 | | | | | |
| EPA 6020B | Boron | 0.086 | mg/L | 0.050 | 03/17/22 11:16 | |
| EPA 6020B | Cobalt | 0.00035J | mg/L | 0.0010 | 03/17/22 11:16 | |
| SM 2540C-2011 | Total Dissolved Solids | 94.0 | mg/L | 25.0 | 03/05/22 11:51 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 20.6 | mg/L | 1.0 | 03/08/22 09:04 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 25.7 | mg/L | 1.0 | 03/08/22 09:04 | |
| 92591517005 | MCM-11 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:50 | |
| | pH | 5.11 | Std. Units | | 03/04/22 14:50 | |
| EPA 6010D | Calcium | 6.8 | mg/L | 0.10 | 03/17/22 02:38 | |
| EPA 6020B | Arsenic | 0.0071 | mg/L | 0.0010 | 03/17/22 11:20 | |
| EPA 6020B | Barium | 0.050 | mg/L | 0.0010 | 03/17/22 11:20 | |
| EPA 6020B | Beryllium | 0.00011 | mg/L | 0.00010 | 03/17/22 11:20 | |
| EPA 6020B | Boron | 0.038J | mg/L | 0.050 | 03/17/22 11:20 | |
| EPA 6020B | Chromium | 0.00094J | mg/L | 0.0010 | 03/17/22 11:20 | |
| EPA 6020B | Cobalt | 0.00029J | mg/L | 0.0010 | 03/17/22 11:20 | |
| EPA 6020B | Lithium | 0.0026 | mg/L | 0.0025 | 03/17/22 11:20 | |
| EPA 6020B | Selenium | 0.00022J | mg/L | 0.0020 | 03/17/22 11:20 | |
| SM 2540C-2011 | Total Dissolved Solids | 124 | mg/L | 25.0 | 03/05/22 11:51 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 28.4 | mg/L | 1.0 | 03/08/22 09:19 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.097J | mg/L | 0.10 | 03/08/22 09:19 | M1, R1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 19.5 | mg/L | 1.0 | 03/08/22 09:19 | |
| 92591517006 | MCM-15 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:50 | |
| | pH | 5.37 | Std. Units | | 03/04/22 14:50 | |
| EPA 6010D | Calcium | 7.2 | mg/L | 0.10 | 03/17/22 02:49 | |
| EPA 6020B | Arsenic | 0.0032 | mg/L | 0.0010 | 03/17/22 11:24 | |
| EPA 6020B | Barium | 0.040 | mg/L | 0.0010 | 03/17/22 11:24 | |
| EPA 6020B | Beryllium | 0.00032 | mg/L | 0.00010 | 03/17/22 11:24 | |
| EPA 6020B | Boron | 0.054 | mg/L | 0.050 | 03/17/22 11:24 | |
| EPA 6020B | Chromium | 0.0029 | mg/L | 0.0010 | 03/17/22 11:24 | |
| EPA 6020B | Cobalt | 0.000077J | mg/L | 0.0010 | 03/17/22 11:24 | |
| EPA 6020B | Lithium | 0.0017J | mg/L | 0.0025 | 03/17/22 11:24 | |
| EPA 6020B | Molybdenum | 0.00078J | mg/L | 0.0010 | 03/17/22 11:24 | |
| EPA 6020B | Selenium | 0.00028J | mg/L | 0.0020 | 03/17/22 11:24 | |
| SM 2540C-2011 | Total Dissolved Solids | 103 | mg/L | 25.0 | 03/05/22 11:52 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 14.3 | mg/L | 1.0 | 03/08/22 10:06 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 16.0 | mg/L | 1.0 | 03/08/22 10:06 | |
| 92591517007 | MCM-18 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:50 | |
| | pH | 4.33 | Std. Units | | 03/04/22 14:50 | |
| EPA 6010D | Calcium | 22.3 | mg/L | 0.10 | 03/17/22 02:52 | |
| EPA 6020B | Arsenic | 0.0064J | mg/L | 0.020 | 03/16/22 17:24 | |
| EPA 6020B | Barium | 0.091 | mg/L | 0.020 | 03/16/22 17:24 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517007 | MCM-18 | | | | | |
| EPA 6020B | Beryllium | 0.0037 | mg/L | 0.0020 | 03/16/22 17:24 | |
| EPA 6020B | Boron | 0.23J | mg/L | 1.0 | 03/16/22 17:24 | |
| SM 2540C-2011 | Total Dissolved Solids | 3100 | mg/L | 312 | 03/05/22 11:52 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1420 | mg/L | 20.0 | 03/08/22 10:21 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 186 | mg/L | 20.0 | 03/08/22 10:21 | |
| 92591517008 | DUP-1 | | | | | |
| EPA 6010D | Calcium | 22.1 | mg/L | 0.10 | 03/17/22 02:56 | |
| EPA 6020B | Arsenic | 0.0063J | mg/L | 0.020 | 03/16/22 17:27 | |
| EPA 6020B | Barium | 0.095 | mg/L | 0.020 | 03/16/22 17:27 | |
| EPA 6020B | Beryllium | 0.0036 | mg/L | 0.0020 | 03/16/22 17:27 | |
| EPA 6020B | Boron | 0.26J | mg/L | 1.0 | 03/16/22 17:27 | |
| EPA 6020B | Selenium | 0.0015J | mg/L | 0.040 | 03/16/22 17:27 | |
| SM 2540C-2011 | Total Dissolved Solids | 3080 | mg/L | 312 | 03/05/22 11:52 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1420 | mg/L | 20.0 | 03/08/22 10:37 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 184 | mg/L | 20.0 | 03/08/22 10:37 | |
| 92591517009 | MCM-04 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:50 | |
| | | R | | | | |
| | pH | 4.98 | Std. Units | | 03/04/22 14:50 | |
| EPA 6010D | Calcium | 8.0 | mg/L | 0.10 | 03/17/22 02:59 | |
| EPA 6020B | Arsenic | 0.0041 | mg/L | 0.0010 | 03/17/22 11:28 | |
| EPA 6020B | Barium | 0.031 | mg/L | 0.0010 | 03/17/22 11:28 | |
| EPA 6020B | Beryllium | 0.00025 | mg/L | 0.00010 | 03/17/22 11:28 | |
| EPA 6020B | Boron | 0.053 | mg/L | 0.050 | 03/17/22 11:28 | |
| EPA 6020B | Cadmium | 0.00043 | mg/L | 0.00020 | 03/17/22 11:28 | |
| EPA 6020B | Chromium | 0.00085J | mg/L | 0.0010 | 03/17/22 11:28 | |
| EPA 6020B | Cobalt | 0.0049 | mg/L | 0.0010 | 03/17/22 11:28 | |
| EPA 6020B | Lithium | 0.0017J | mg/L | 0.0025 | 03/17/22 11:28 | |
| EPA 6020B | Molybdenum | 0.00015J | mg/L | 0.0010 | 03/17/22 11:28 | |
| EPA 6020B | Selenium | 0.00012J | mg/L | 0.0020 | 03/17/22 11:28 | |
| SM 2540C-2011 | Total Dissolved Solids | 146 | mg/L | 25.0 | 03/05/22 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 12.2 | mg/L | 1.0 | 03/08/22 10:52 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 50.6 | mg/L | 1.0 | 03/08/22 10:52 | |
| 92591517010 | MCM-12 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:51 | |
| | | R | | | | |
| | pH | 6.51 | Std. Units | | 03/04/22 14:51 | |
| EPA 6010D | Calcium | 4.6 | mg/L | 0.10 | 03/17/22 03:03 | |
| EPA 6020B | Barium | 0.069 | mg/L | 0.020 | 03/16/22 17:43 | |
| EPA 6020B | Beryllium | 0.0012J | mg/L | 0.0020 | 03/16/22 17:43 | |
| EPA 6020B | Boron | 1.2 | mg/L | 1.0 | 03/16/22 17:43 | |
| SM 2540C-2011 | Total Dissolved Solids | 1400 | mg/L | 125 | 03/05/22 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 394 | mg/L | 5.0 | 03/08/22 11:54 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.95 | mg/L | 0.50 | 03/08/22 11:54 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|------------------------|-----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517011 | MCM-16 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:51 | |
| | | R | | | | |
| | pH | 4.88 | Std. Units | | 03/04/22 14:51 | |
| EPA 6010D | Calcium | 5.4 | mg/L | 0.10 | 03/17/22 03:06 | |
| EPA 6020B | Arsenic | 0.00024J | mg/L | 0.0010 | 03/17/22 11:31 | |
| EPA 6020B | Barium | 0.13 | mg/L | 0.0010 | 03/17/22 11:31 | |
| EPA 6020B | Beryllium | 0.00023 | mg/L | 0.00010 | 03/17/22 11:31 | |
| EPA 6020B | Boron | 0.057 | mg/L | 0.050 | 03/17/22 11:31 | |
| EPA 6020B | Cobalt | 0.00035J | mg/L | 0.0010 | 03/17/22 11:31 | |
| EPA 6020B | Lithium | 0.00061J | mg/L | 0.0025 | 03/17/22 11:31 | |
| EPA 6020B | Molybdenum | 0.00021J | mg/L | 0.0010 | 03/17/22 11:31 | |
| EPA 6020B | Thallium | 0.000066J | mg/L | 0.00047 | 03/17/22 11:31 | |
| SM 2540C-2011 | Total Dissolved Solids | 104 | mg/L | 25.0 | 03/05/22 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 26.5 | mg/L | 1.0 | 03/08/22 11:38 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 20.4 | mg/L | 1.0 | 03/08/22 11:38 | |
| 92591517012 | DUP-2 | | | | | |
| EPA 6010D | Calcium | 6.5 | mg/L | 0.10 | 03/17/22 03:10 | |
| EPA 6020B | Arsenic | 0.0041 | mg/L | 0.0010 | 03/17/22 11:35 | |
| EPA 6020B | Barium | 0.032 | mg/L | 0.0010 | 03/17/22 11:35 | |
| EPA 6020B | Beryllium | 0.00025 | mg/L | 0.00010 | 03/17/22 11:35 | |
| EPA 6020B | Boron | 0.053 | mg/L | 0.050 | 03/17/22 11:35 | |
| EPA 6020B | Chromium | 0.0010 | mg/L | 0.0010 | 03/17/22 11:35 | |
| EPA 6020B | Cobalt | 0.0050 | mg/L | 0.0010 | 03/17/22 11:35 | |
| EPA 6020B | Lithium | 0.0015J | mg/L | 0.0025 | 03/17/22 11:35 | |
| EPA 6020B | Selenium | 0.00011J | mg/L | 0.0020 | 03/17/22 11:35 | |
| SM 2540C-2011 | Total Dissolved Solids | 144 | mg/L | 25.0 | 03/05/22 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 12.5 | mg/L | 1.0 | 03/08/22 12:09 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 51.2 | mg/L | 1.0 | 03/08/22 12:09 | |
| 92591517013 | FB-3 | | | | | |
| EPA 6010D | Sodium | 0.69J | mg/L | 5.0 | 03/17/22 03:13 | |
| 92591517015 | FB-1 | | | | | |
| EPA 6020B | Barium | 0.00032J | mg/L | 0.0010 | 03/16/22 15:49 | |
| 92591517016 | EB-1 | | | | | |
| EPA 6020B | Barium | 0.00041J | mg/L | 0.0010 | 03/16/22 15:53 | |
| 92591517017 | FB-2 | | | | | |
| EPA 6020B | Barium | 0.00028J | mg/L | 0.0010 | 03/16/22 15:57 | |
| 92591517018 | EB-2 | | | | | |
| EPA 6020B | Barium | 0.00032J | mg/L | 0.0010 | 03/16/22 16:01 | |
| 92591517019 | MCM-05 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:51 | |
| | | R | | | | |
| | pH | 6.87 | Std. Units | | 03/04/22 14:51 | |
| EPA 6010D | Calcium | 48.4 | mg/L | 0.10 | 03/17/22 03:42 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517019 | MCM-05 | | | | | |
| EPA 6010D | Magnesium | 135 | mg/L | 2.0 | 03/17/22 11:50 | |
| EPA 6010D | Potassium | 63.6J | mg/L | 100 | 03/18/22 01:19 | |
| EPA 6010D | Sodium | 1160 | mg/L | 100 | 03/17/22 11:50 | |
| EPA 6020B | Arsenic | 0.011J | mg/L | 0.020 | 03/16/22 17:54 | |
| EPA 6020B | Barium | 0.035 | mg/L | 0.020 | 03/16/22 17:54 | |
| EPA 6020B | Boron | 0.75J | mg/L | 1.0 | 03/16/22 17:54 | |
| EPA 6020B | Lithium | 0.028J | mg/L | 0.050 | 03/16/22 17:54 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 262 | mg/L | 5.0 | 03/12/22 14:44 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 262 | mg/L | 5.0 | 03/12/22 14:44 | |
| SM 2540C-2011 | Total Dissolved Solids | 3780 | mg/L | 312 | 03/05/22 11:51 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1680 | mg/L | 25.0 | 03/08/22 12:25 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 143 | mg/L | 25.0 | 03/08/22 12:25 | |
| 92591517020 | MCM-06 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:51 | |
| | pH | 7.24 | Std. Units | | 03/04/22 14:51 | |
| EPA 6010D | Calcium | 131 | mg/L | 2.0 | 03/17/22 21:26 | M1 |
| EPA 6010D | Magnesium | 254 | mg/L | 2.0 | 03/17/22 21:26 | M1 |
| EPA 6010D | Potassium | 106 | mg/L | 100 | 03/17/22 21:26 | M1 |
| EPA 6010D | Sodium | 2440 | mg/L | 250 | 03/17/22 21:23 | M1 |
| EPA 6020B | Arsenic | 0.24 | mg/L | 0.020 | 03/16/22 17:58 | |
| EPA 6020B | Barium | 0.084 | mg/L | 0.020 | 03/16/22 17:58 | |
| EPA 6020B | Boron | 1.7 | mg/L | 1.0 | 03/16/22 17:58 | |
| EPA 6020B | Lithium | 0.074 | mg/L | 0.050 | 03/16/22 17:58 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 377 | mg/L | 5.0 | 03/12/22 14:50 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 377 | mg/L | 5.0 | 03/12/22 14:50 | |
| SM 2540C-2011 | Total Dissolved Solids | 9040 | mg/L | 500 | 03/05/22 11:51 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4150 | mg/L | 100 | 03/07/22 14:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 440 | mg/L | 100 | 03/07/22 14:14 | |
| 92591517021 | MCM-07 | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 14:51 | |
| | pH | 6.41 | Std. Units | | 03/04/22 14:51 | |
| EPA 6010D | Calcium | 198 | mg/L | 2.0 | 03/17/22 21:40 | |
| EPA 6010D | Magnesium | 431 | mg/L | 2.0 | 03/17/22 21:40 | |
| EPA 6010D | Potassium | 131 | mg/L | 100 | 03/17/22 21:40 | |
| EPA 6010D | Sodium | 3260 | mg/L | 250 | 03/17/22 21:37 | |
| EPA 6020B | Arsenic | 0.0090J | mg/L | 0.020 | 03/16/22 18:21 | |
| EPA 6020B | Barium | 0.12 | mg/L | 0.020 | 03/16/22 18:21 | M1 |
| EPA 6020B | Boron | 1.3 | mg/L | 1.0 | 03/16/22 18:21 | M1 |
| EPA 6020B | Lithium | 0.022J | mg/L | 0.050 | 03/16/22 18:21 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 279 | mg/L | 5.0 | 03/16/22 11:43 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 279 | mg/L | 5.0 | 03/16/22 11:43 | |
| SM 2540C-2011 | Total Dissolved Solids | 12600 | mg/L | 625 | 03/05/22 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5630 | mg/L | 100 | 03/07/22 14:29 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 702 | mg/L | 100 | 03/07/22 14:29 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591517022 | MCM-14 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:52 | |
| | | R | | | | |
| | pH | 6.49 | Std. Units | | 03/04/22 14:52 | |
| EPA 6010D | Calcium | 224 | mg/L | 2.0 | 03/17/22 21:47 | |
| EPA 6010D | Magnesium | 387 | mg/L | 2.0 | 03/17/22 21:47 | |
| EPA 6010D | Potassium | 134 | mg/L | 100 | 03/17/22 21:47 | |
| EPA 6010D | Sodium | 2950 | mg/L | 250 | 03/17/22 21:44 | |
| EPA 6020B | Barium | 0.15 | mg/L | 0.020 | 03/16/22 18:40 | |
| EPA 6020B | Boron | 0.89J | mg/L | 1.0 | 03/16/22 18:40 | |
| EPA 6020B | Lithium | 0.037J | mg/L | 0.050 | 03/16/22 18:40 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 264 | mg/L | 5.0 | 03/16/22 12:00 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 264 | mg/L | 5.0 | 03/16/22 12:00 | |
| SM 2540C-2011 | Total Dissolved Solids | 11500 | mg/L | 500 | 03/08/22 12:04 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5040 | mg/L | 100 | 03/07/22 17:58 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 754 | mg/L | 100 | 03/07/22 17:58 | |
| 92591517023 | MCM-17 | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 14:52 | |
| | | R | | | | |
| | pH | 4.27 | Std. Units | | 03/04/22 14:52 | |
| EPA 6010D | Calcium | 84.0 | mg/L | 2.0 | 03/17/22 21:54 | |
| EPA 6010D | Magnesium | 222 | mg/L | 2.0 | 03/17/22 21:54 | |
| EPA 6010D | Potassium | 106 | mg/L | 100 | 03/17/22 21:54 | |
| EPA 6010D | Sodium | 2180 | mg/L | 250 | 03/17/22 21:51 | |
| EPA 6020B | Barium | 0.10 | mg/L | 0.020 | 03/16/22 18:44 | |
| EPA 6020B | Boron | 1.4 | mg/L | 1.0 | 03/16/22 18:44 | |
| EPA 6020B | Lithium | 0.020J | mg/L | 0.050 | 03/16/22 18:44 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 257 | mg/L | 5.0 | 03/16/22 12:05 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 257 | mg/L | 5.0 | 03/16/22 12:05 | |
| SM 2540C-2011 | Total Dissolved Solids | 8120 | mg/L | 417 | 03/08/22 12:05 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3540 | mg/L | 100 | 03/07/22 18:13 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 324 | mg/L | 100 | 03/07/22 18:13 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-19 **Lab ID: 92591517001** Collected: 03/01/22 12:05 Received: 03/04/22 10:45 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 | | 03/04/22 14:49 | | |
| pH | 5.38 | Std. Units | | | 1 | | 03/04/22 14:49 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 35.5 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/18/22 01:12 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-36-0 | D3 |
| Arsenic | 0.0061J | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-38-2 | |
| Barium | 0.14 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-39-3 | |
| Beryllium | 0.0057 | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-41-7 | |
| Boron | 0.41J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-42-8 | M1 |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7439-92-1 | D3 |
| Lithium | ND | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7439-93-2 | D3 |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 16:39 | 7440-28-0 | D3 |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 10:59 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 4050 | mg/L | 312 | 312 | 1 | | 03/05/22 11:50 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 1870 | mg/L | 100 | 60.0 | 100 | | 03/07/22 22:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 22:14 | 16984-48-8 | D3 |
| Sulfate | 158 | mg/L | 100 | 50.0 | 100 | | 03/07/22 22:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-20 **Lab ID: 92591517002** Collected: 03/01/22 15:15 Received: 03/04/22 10:45 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 | | 03/04/22 14:49 | | |
| pH | 3.69 | Std. Units | | | 1 | | 03/04/22 14:49 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 99.8 | mg/L | 2.0 | 1.9 | 20 | 03/15/22 12:20 | 03/16/22 03:12 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-36-0 | D3 |
| Arsenic | 0.032 | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-38-2 | |
| Barium | 0.11 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-39-3 | |
| Beryllium | 0.016 | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-41-7 | |
| Boron | 0.87J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-47-3 | D3 |
| Cobalt | 0.031 | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7439-92-1 | D3 |
| Lithium | 0.020J | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7439-98-7 | D3 |
| Selenium | 0.0058J | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:05 | 7440-28-0 | D3 |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:01 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10500 | mg/L | 500 | 500 | 1 | | 03/05/22 11:50 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4900 | mg/L | 100 | 60.0 | 100 | | 03/07/22 22:29 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 22:29 | 16984-48-8 | |
| Sulfate | 543 | mg/L | 100 | 50.0 | 100 | | 03/07/22 22:29 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: MCM-01 **Lab ID: 92591517003** Collected: 03/02/22 15:10 Received: 03/04/22 10:45 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 | | 03/04/22 14:49 | | |
| pH | 5.32 | Std. Units | | | 1 | | 03/04/22 14:49 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 8.2 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:31 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-36-0 | |
| Arsenic | 0.0043 | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-38-2 | |
| Barium | 0.064 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-39-3 | |
| Beryllium | 0.000096J | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-41-7 | |
| Boron | 0.048J | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7439-92-1 | |
| Lithium | 0.00064J | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:12 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:04 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 97.0 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:51 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 13.4 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 08:48 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 08:48 | 16984-48-8 | |
| Sulfate | 30.8 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 08:48 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: MCM-02 **Lab ID: 92591517004** Collected: 03/02/22 15:42 Received: 03/04/22 10:45 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 | | 03/04/22 14:50 | | |
| pH | 5.16 | Std. Units | | | 1 | | 03/04/22 14:50 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 4.1 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:35 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-36-0 | |
| Arsenic | 0.00077J | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-38-2 | |
| Barium | 0.080 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-39-3 | |
| Beryllium | 0.00015 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-41-7 | |
| Boron | 0.086 | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-47-3 | |
| Cobalt | 0.00035J | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:16 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:06 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 94.0 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:51 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 20.6 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 09:04 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 09:04 | 16984-48-8 | |
| Sulfate | 25.7 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 09:04 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: MCM-11 **Lab ID: 92591517005** Collected: 03/02/22 14:00 Received: 03/04/22 10:45 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 | | 03/04/22 14:50 | | |
| pH | 5.11 | Std. Units | | | 1 | | 03/04/22 14:50 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 6.8 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:38 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-36-0 | |
| Arsenic | 0.0071 | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-38-2 | |
| Barium | 0.050 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-39-3 | |
| Beryllium | 0.00011 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-41-7 | |
| Boron | 0.038J | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-43-9 | |
| Chromium | 0.00094J | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-47-3 | |
| Cobalt | 0.00029J | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7439-92-1 | |
| Lithium | 0.0026 | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7439-98-7 | |
| Selenium | 0.00022J | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:20 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:31 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 124 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:51 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 28.4 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 09:19 | 16887-00-6 | |
| Fluoride | 0.097J | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 09:19 | 16984-48-8 | M1,R1 |
| Sulfate | 19.5 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 09:19 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-15 **Lab ID: 92591517006** Collected: 03/02/22 11:41 Received: 03/04/22 10:45 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 | | 03/04/22 14:50 | | |
| pH | 5.37 | Std. Units | | | 1 | | 03/04/22 14:50 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 7.2 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:49 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-36-0 | |
| Arsenic | 0.0032 | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-38-2 | |
| Barium | 0.040 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-39-3 | |
| Beryllium | 0.00032 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-41-7 | |
| Boron | 0.054 | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-43-9 | |
| Chromium | 0.0029 | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-47-3 | |
| Cobalt | 0.000077J | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7439-92-1 | |
| Lithium | 0.0017J | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7439-93-2 | |
| Molybdenum | 0.00078J | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7439-98-7 | |
| Selenium | 0.00028J | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:24 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:37 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 103 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:52 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 14.3 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 10:06 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 10:06 | 16984-48-8 | |
| Sulfate | 16.0 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 10:06 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-18 **Lab ID: 92591517007** Collected: 03/02/22 10:00 Received: 03/04/22 10:45 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 | | 03/04/22 14:50 | | |
| pH | 4.33 | Std. Units | | | 1 | | 03/04/22 14:50 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 22.3 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:52 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-36-0 | D3 |
| Arsenic | 0.0064J | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-38-2 | |
| Barium | 0.091 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-39-3 | |
| Beryllium | 0.0037 | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-41-7 | |
| Boron | 0.23J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7439-92-1 | D3 |
| Lithium | ND | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7439-93-2 | D3 |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:24 | 7440-28-0 | D3 |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:12 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 3100 | mg/L | 312 | 312 | 1 | | 03/05/22 11:52 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 1420 | mg/L | 20.0 | 12.0 | 20 | | 03/08/22 10:21 | 16887-00-6 | |
| Fluoride | ND | mg/L | 2.0 | 1.0 | 20 | | 03/08/22 10:21 | 16984-48-8 | D3 |
| Sulfate | 186 | mg/L | 20.0 | 10.0 | 20 | | 03/08/22 10:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: DUP-1 **Lab ID:** 92591517008 Collected: 03/02/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|----------------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 22.1 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:56 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-36-0 | D3 |
| Arsenic | 0.0063J | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-38-2 | |
| Barium | 0.095 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-39-3 | |
| Beryllium | 0.0036 | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-41-7 | |
| Boron | 0.26J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7439-92-1 | D3 |
| Lithium | ND | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7439-93-2 | D3 |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7439-98-7 | D3 |
| Selenium | 0.0015J | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:27 | 7440-28-0 | D3 |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:14 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 3080 | mg/L | 312 | 312 | 1 | | 03/05/22 11:52 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 1420 | mg/L | 20.0 | 12.0 | 20 | | 03/08/22 10:37 | 16887-00-6 | |
| Fluoride | ND | mg/L | 2.0 | 1.0 | 20 | | 03/08/22 10:37 | 16984-48-8 | D3 |
| Sulfate | 184 | mg/L | 20.0 | 10.0 | 20 | | 03/08/22 10:37 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: MCM-04 **Lab ID: 92591517009** Collected: 03/03/22 10:32 Received: 03/04/22 10:45 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 | | 03/04/22 14:50 | | |
| pH | 4.98 | Std. Units | | | 1 | | 03/04/22 14:50 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 8.0 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 02:59 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-36-0 | |
| Arsenic | 0.0041 | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-38-2 | |
| Barium | 0.031 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-39-3 | |
| Beryllium | 0.00025 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-41-7 | |
| Boron | 0.053 | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-42-8 | |
| Cadmium | 0.00043 | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-43-9 | |
| Chromium | 0.00085J | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-47-3 | |
| Cobalt | 0.0049 | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7439-92-1 | |
| Lithium | 0.0017J | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7439-93-2 | |
| Molybdenum | 0.00015J | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7439-98-7 | |
| Selenium | 0.00012J | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:28 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:16 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 146 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 12.2 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 10:52 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 10:52 | 16984-48-8 | |
| Sulfate | 50.6 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 10:52 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-12 **Lab ID: 92591517010** Collected: 03/03/22 11:40 Received: 03/04/22 10:45 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 | | 03/04/22 14:51 | | |
| pH | 6.51 | Std. Units | | | 1 | | 03/04/22 14:51 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 4.6 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:03 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-36-0 | D3 |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-38-2 | D3 |
| Barium | 0.069 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-39-3 | |
| Beryllium | 0.0012J | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-41-7 | |
| Boron | 1.2 | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7439-92-1 | D3 |
| Lithium | ND | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7439-93-2 | D3 |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:43 | 7440-28-0 | D3 |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:18 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 1400 | mg/L | 125 | 125 | 1 | | 03/05/22 11:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 394 | mg/L | 5.0 | 3.0 | 5 | | 03/08/22 11:54 | 16887-00-6 | |
| Fluoride | 0.95 | mg/L | 0.50 | 0.25 | 5 | | 03/08/22 11:54 | 16984-48-8 | |
| Sulfate | ND | mg/L | 5.0 | 2.5 | 5 | | 03/08/22 11:54 | 14808-79-8 | D3 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-16 **Lab ID: 92591517011** Collected: 03/03/22 12:22 Received: 03/04/22 10:45 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 03/04/22 14:51

pH **4.88** Std. Units 1 03/04/22 14:51

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

Calcium **5.4** mg/L 0.10 0.094 1 03/15/22 12:20 03/17/22 03:06 7440-70-2

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | |
|------------|------------------|------|---------|----------|---|----------------|----------------|-----------|
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-36-0 |
| Arsenic | 0.00024J | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-38-2 |
| Barium | 0.13 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-39-3 |
| Beryllium | 0.00023 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-41-7 |
| Boron | 0.057 | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-42-8 |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-43-9 |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-47-3 |
| Cobalt | 0.00035J | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-48-4 |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7439-92-1 |
| Lithium | 0.00061J | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7439-93-2 |
| Molybdenum | 0.00021J | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7439-98-7 |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7782-49-2 |
| Thallium | 0.000066J | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:31 | 7440-28-0 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

Mercury ND ug/L 0.20 0.12 1 03/11/22 16:00 03/17/22 11:20 7439-97-6

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

Total Dissolved Solids **104** mg/L 25.0 25.0 1 03/05/22 11:53

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | |
|----------|-------------|------|------|-------|---|----------------|------------|
| Chloride | 26.5 | mg/L | 1.0 | 0.60 | 1 | 03/08/22 11:38 | 16887-00-6 |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | 03/08/22 11:38 | 16984-48-8 |
| Sulfate | 20.4 | mg/L | 1.0 | 0.50 | 1 | 03/08/22 11:38 | 14808-79-8 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: DUP-2 **Lab ID:** 92591517012 Collected: 03/03/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|----------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 6.5 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:10 | 7440-70-2 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-36-0 | |
| Arsenic | 0.0041 | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-38-2 | |
| Barium | 0.032 | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-39-3 | |
| Beryllium | 0.00025 | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-41-7 | |
| Boron | 0.053 | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-43-9 | |
| Chromium | 0.0010 | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-47-3 | |
| Cobalt | 0.0050 | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7439-92-1 | |
| Lithium | 0.0015J | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7439-98-7 | |
| Selenium | 0.00011J | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/17/22 11:35 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:22 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 144 | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 12.5 | mg/L | 1.0 | 0.60 | 1 | | 03/08/22 12:09 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/22 12:09 | 16984-48-8 | |
| Sulfate | 51.2 | mg/L | 1.0 | 0.50 | 1 | | 03/08/22 12:09 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: FB-3 **Lab ID: 92591517013** Collected: 03/03/22 12:10 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:13 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 03:13 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 03:13 | 7440-09-7 | |
| Sodium | 0.69J | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 03:13 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/17/22 11:08 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:41 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:25 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:53 | | |
| 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 | | 03/07/22 11:08 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 11:08 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 11:08 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: EB-3 **Lab ID: 92591517014** Collected: 03/03/22 14:35 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:17 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 03:17 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 03:17 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 03:17 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:45 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:27 | 7439-97-6 | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/08/22 12:04 | | |
| 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 | | 03/07/22 12:10 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 12:10 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 12:10 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: FB-1 **Lab ID: 92591517015** Collected: 03/01/22 17:05 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:20 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 03:20 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 03:20 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 03:20 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-38-2 | |
| Barium | 0.00032J | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:49 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/17/22 11:29 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO ₃ | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:31 | | |
| Alkalinity,Bicarbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:31 | | |
| Alkalinity,Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:31 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:50 | | |
| 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 | | 03/07/22 12:26 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 12:26 | 16984-48-8 | M1 |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 12:26 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: EB-1 **Lab ID: 92591517016** Collected: 03/01/22 16:55 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 11:00 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 11:00 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 11:00 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 11:00 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-38-2 | |
| Barium | 0.00041J | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:53 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 11:55 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:34 | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:34 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:34 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:51 | | |
| 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 | | 03/07/22 13:12 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 13:12 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 13:12 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: FB-2 **Lab ID: 92591517017** Collected: 03/02/22 15:50 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 11:03 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 11:03 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 11:03 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 11:03 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-38-2 | |
| Barium | 0.00028J | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 15:57 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 11:57 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:38 | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:38 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:38 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:52 | | |
| 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 | | 03/07/22 13:28 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 13:28 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 13:28 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: EB-2 **Lab ID: 92591517018** Collected: 03/02/22 16:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-----------------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 11:07 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/17/22 11:07 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/17/22 11:07 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/17/22 11:07 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Antimony | ND | mg/L | 0.0010 | 0.00020 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-36-0 | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-38-2 | |
| Barium | 0.00032J | mg/L | 0.0010 | 0.00021 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.00020 | 0.000060 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-43-9 | |
| Chromium | ND | mg/L | 0.0010 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-47-3 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.0010 | 0.00013 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7439-98-7 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7782-49-2 | |
| Thallium | ND | mg/L | 0.00047 | 0.000050 | 1 | 03/16/22 10:34 | 03/16/22 16:01 | 7440-28-0 | |
| 7470 Mercury | | | | | | | | | |
| Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 11:59 | 7439-97-6 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO ₃ | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:41 | | |
| Alkalinity,Bicarbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:41 | | |
| Alkalinity,Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:41 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/05/22 11:52 | | |
| 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 | | 03/07/22 13:43 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 13:43 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 13:43 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-05 **Lab ID: 92591517019** Collected: 03/01/22 14:36 Received: 03/04/22 10:45 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 | | 03/04/22 14:51 | | |
| pH | 6.87 | Std. Units | | | 1 | | 03/04/22 14:51 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|------|-------|----|----------------|----------------|-----------|--|
| Calcium | 48.4 | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/17/22 03:42 | 7440-70-2 | |
| Magnesium | 135 | mg/L | 2.0 | 1.4 | 20 | 03/15/22 12:20 | 03/17/22 11:50 | 7439-95-4 | |
| Potassium | 63.6J | mg/L | 100 | 60.8 | 20 | 03/15/22 12:20 | 03/18/22 01:19 | 7440-09-7 | |
| Sodium | 1160 | mg/L | 100 | 12.2 | 20 | 03/15/22 12:20 | 03/17/22 11:50 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-36-0 | D3 |
| Arsenic | 0.011J | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-38-2 | |
| Barium | 0.035 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-41-7 | D3 |
| Boron | 0.75J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7439-92-1 | D3 |
| Lithium | 0.028J | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:54 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 12:01 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 262 | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:44 | | |
| Alkalinity,Bicarbonate (CaCO3) | 262 | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:44 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:44 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 3780 | mg/L | 312 | 312 | 1 | | 03/05/22 11:51 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|----|--|----------------|------------|--|
| Chloride | 1680 | mg/L | 25.0 | 15.0 | 25 | | 03/08/22 12:25 | 16887-00-6 | |
|----------|-------------|------|------|------|----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-05 **Lab ID: 92591517019** Collected: 03/01/22 14:36 Received: 03/04/22 10:45 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 | 2.5 | 1.2 | 25 | | 03/08/22 12:25 | 16984-48-8 | D3 |
| Sulfate | 143 | mg/L | 25.0 | 12.5 | 25 | | 03/08/22 12:25 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-06 **Lab ID: 92591517020** Collected: 03/01/22 15:52 Received: 03/04/22 10:45 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 | | 03/04/22 14:51 | | |
| pH | 7.24 | Std. Units | | | 1 | | 03/04/22 14:51 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|----|----------------|----------------|-----------|----|
| Calcium | 131 | mg/L | 2.0 | 1.9 | 20 | 03/16/22 11:50 | 03/17/22 21:26 | 7440-70-2 | M1 |
| Magnesium | 254 | mg/L | 2.0 | 1.4 | 20 | 03/16/22 11:50 | 03/17/22 21:26 | 7439-95-4 | M1 |
| Potassium | 106 | mg/L | 100 | 60.8 | 20 | 03/16/22 11:50 | 03/17/22 21:26 | 7440-09-7 | M1 |
| Sodium | 2440 | mg/L | 250 | 30.5 | 50 | 03/16/22 11:50 | 03/17/22 21:23 | 7440-23-5 | M1 |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|--------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-36-0 | D3 |
| Arsenic | 0.24 | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-38-2 | |
| Barium | 0.084 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-41-7 | D3 |
| Boron | 1.7 | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7439-92-1 | D3 |
| Lithium | 0.074 | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 17:58 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 12:03 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 377 | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:50 | | |
| Alkalinity,Bicarbonate (CaCO3) | 377 | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:50 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/12/22 14:50 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 9040 | mg/L | 500 | 500 | 1 | | 03/05/22 11:51 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 4150 | mg/L | 100 | 60.0 | 100 | | 03/07/22 14:14 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: **MCM-06** Lab ID: **92591517020** Collected: 03/01/22 15:52 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|------------|-------|--------|------|-----|----------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 14:14 | 16984-48-8 | D3 |
| Sulfate | 440 | mg/L | 100 | 50.0 | 100 | | 03/07/22 14:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR
 Pace Project No.: 92591517

Sample: MCM-07 **Lab ID: 92591517021** Collected: 03/02/22 09:50 Received: 03/04/22 10:45 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 | | 03/04/22 14:51 | | |
| pH | 6.41 | Std. Units | | | 1 | | 03/04/22 14:51 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|----|----------------|----------------|-----------|--|
| Calcium | 198 | mg/L | 2.0 | 1.9 | 20 | 03/16/22 11:50 | 03/17/22 21:40 | 7440-70-2 | |
| Magnesium | 431 | mg/L | 2.0 | 1.4 | 20 | 03/16/22 11:50 | 03/17/22 21:40 | 7439-95-4 | |
| Potassium | 131 | mg/L | 100 | 60.8 | 20 | 03/16/22 11:50 | 03/17/22 21:40 | 7440-09-7 | |
| Sodium | 3260 | mg/L | 250 | 30.5 | 50 | 03/16/22 11:50 | 03/17/22 21:37 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|----------------|------|--------|--------|----|----------------|----------------|-----------|-------|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-36-0 | D3 |
| Arsenic | 0.0090J | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-38-2 | |
| Barium | 0.12 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-39-3 | M1 |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-41-7 | D3 |
| Boron | 1.3 | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-42-8 | M1 |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7439-92-1 | D3 |
| Lithium | 0.022J | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7782-49-2 | D3,M1 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:21 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 12:05 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
 Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 279 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 11:43 | | |
| Alkalinity,Bicarbonate (CaCO3) | 279 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 11:43 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 11:43 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 12600 | mg/L | 625 | 625 | 1 | | 03/05/22 11:53 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 5630 | mg/L | 100 | 60.0 | 100 | | 03/07/22 14:29 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-07 Lab ID: 92591517021 Collected: 03/02/22 09:50 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|------|-----|----------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 14:29 | 16984-48-8 | D3 |
| Sulfate | 702 | mg/L | 100 | 50.0 | 100 | | 03/07/22 14:29 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-14 **Lab ID: 92591517022** Collected: 03/03/22 10:20 Received: 03/04/22 10:45 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 | | 03/04/22 14:52 | | |
| pH | 6.49 | Std. Units | | | 1 | | 03/04/22 14:52 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|----|----------------|----------------|-----------|--|
| Calcium | 224 | mg/L | 2.0 | 1.9 | 20 | 03/16/22 11:50 | 03/17/22 21:47 | 7440-70-2 | |
| Magnesium | 387 | mg/L | 2.0 | 1.4 | 20 | 03/16/22 11:50 | 03/17/22 21:47 | 7439-95-4 | |
| Potassium | 134 | mg/L | 100 | 60.8 | 20 | 03/16/22 11:50 | 03/17/22 21:47 | 7440-09-7 | |
| Sodium | 2950 | mg/L | 250 | 30.5 | 50 | 03/16/22 11:50 | 03/17/22 21:44 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-36-0 | D3 |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-38-2 | D3 |
| Barium | 0.15 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-41-7 | D3 |
| Boron | 0.89J | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7439-92-1 | D3 |
| Lithium | 0.037J | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:40 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 12:07 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 264 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:00 | | |
| Alkalinity,Bicarbonate (CaCO3) | 264 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:00 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:00 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 11500 | mg/L | 500 | 500 | 1 | | 03/08/22 12:04 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 5040 | mg/L | 100 | 60.0 | 100 | | 03/07/22 17:58 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: **MCM-14** Lab ID: **92591517022** Collected: 03/03/22 10:20 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|------------|-------|--------|------|-----|----------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 17:58 | 16984-48-8 | D3 |
| Sulfate | 754 | mg/L | 100 | 50.0 | 100 | | 03/07/22 17:58 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-17 **Lab ID: 92591517023** Collected: 03/03/22 09:04 Received: 03/04/22 10:45 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 | | 03/04/22 14:52 | | |
| pH | 4.27 | Std. Units | | | 1 | | 03/04/22 14:52 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|----|----------------|----------------|-----------|--|
| Calcium | 84.0 | mg/L | 2.0 | 1.9 | 20 | 03/16/22 11:50 | 03/17/22 21:54 | 7440-70-2 | |
| Magnesium | 222 | mg/L | 2.0 | 1.4 | 20 | 03/16/22 11:50 | 03/17/22 21:54 | 7439-95-4 | |
| Potassium | 106 | mg/L | 100 | 60.8 | 20 | 03/16/22 11:50 | 03/17/22 21:54 | 7440-09-7 | |
| Sodium | 2180 | mg/L | 250 | 30.5 | 50 | 03/16/22 11:50 | 03/17/22 21:51 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.020 | 0.0040 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-36-0 | D3 |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-38-2 | D3 |
| Barium | 0.10 | mg/L | 0.020 | 0.0043 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-41-7 | D3 |
| Boron | 1.4 | mg/L | 1.0 | 0.17 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.0040 | 0.0012 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.020 | 0.0099 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7439-92-1 | D3 |
| Lithium | 0.020J | mg/L | 0.050 | 0.010 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.020 | 0.0025 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.040 | 0.0014 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.0094 | 0.0010 | 20 | 03/16/22 10:34 | 03/16/22 18:44 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/11/22 16:00 | 03/15/22 12:09 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 257 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:05 | | |
| Alkalinity,Bicarbonate (CaCO3) | 257 | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:05 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/16/22 12:05 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 8120 | mg/L | 417 | 417 | 1 | | 03/08/22 12:05 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 3540 | mg/L | 100 | 60.0 | 100 | | 03/07/22 18:13 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92591517

Sample: MCM-17 Lab ID: 92591517023 Collected: 03/03/22 09:04 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|------|-----|----------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 18:13 | 16984-48-8 | D3 |
| Sulfate | 324 | mg/L | 100 | 50.0 | 100 | | 03/07/22 18:13 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 683595 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015

METHOD BLANK: 3575649 Matrix: Water
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 03/17/22 10:41 | |

LABORATORY CONTROL SAMPLE: 3575650

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.4 | 97 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575651 3575652

| Parameter | Units | 92591496021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.4 | 2.3 | 97 | 89 | 75-125 | 8 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 683596 | Analysis Method: | EPA 7470A |
| QC Batch Method: | EPA 7470A | Analysis Description: | 7470 Mercury |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021, 92591517022, 92591517023

METHOD BLANK: 3575654 Matrix: Water

Associated Lab Samples: 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021, 92591517022, 92591517023

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 03/15/22 11:50 | |

LABORATORY CONTROL SAMPLE: 3575655

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.8 | 112 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575656 3575657

| Parameter | Units | 92591058006 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.6 | 2.7 | 105 | 108 | 75-125 | 3 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

QC Batch: 684772 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019

METHOD BLANK: 3580835 Matrix: Water
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/16/22 02:48 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/16/22 02:48 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/16/22 02:48 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/16/22 02:48 | |

LABORATORY CONTROL SAMPLE: 3580836

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 92 | 80-120 | |
| Sodium | mg/L | 5 | 4.8J | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3580837 3580838

| Parameter | Units | 92591489041 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | | | | | | | | | | | |
| Magnesium | mg/L | ND | 5 | 5 | 4.9 | 4.9 | 98 | 98 | 75-125 | 0 | 20 | |
| Potassium | mg/L | ND | 5 | 5 | 4.8J | 4.8J | 96 | 95 | 75-125 | | 20 | |
| Sodium | mg/L | ND | 5 | 5 | 4.9J | 4.8J | 97 | 95 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 685058 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517020, 92591517021, 92591517022, 92591517023

METHOD BLANK: 3582204 Matrix: Water
 Associated Lab Samples: 92591517020, 92591517021, 92591517022, 92591517023

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/17/22 03:45 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/17/22 03:45 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/17/22 03:45 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/17/22 12:43 | |

LABORATORY CONTROL SAMPLE: 3582205

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.7 | 94 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Potassium | mg/L | 5 | 4.8J | 95 | 80-120 | |
| Sodium | mg/L | 5 | 5.0 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3582206 3582207

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | 92591517020 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 131 | 5 | 5 | 141 | 144 | 198 | 258 | 75-125 | 2 | 20 M1 |
| Magnesium | mg/L | 254 | 5 | 5 | 267 | 274 | 262 | 404 | 75-125 | 3 | 20 M1 |
| Potassium | mg/L | 106 | 5 | 5 | 115 | 119 | 185 | 260 | 75-125 | 3 | 20 M1 |
| Sodium | mg/L | 2440 | 5 | 5 | 2560 | 2660 | 2340 | 4430 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

QC Batch: 685054 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020

METHOD BLANK: 3582190 Matrix: Water
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 03/16/22 15:33 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/16/22 15:33 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/16/22 15:33 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/16/22 15:33 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/16/22 15:33 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 03/16/22 15:33 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 03/16/22 15:33 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/16/22 15:33 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/16/22 15:33 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/16/22 15:33 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 03/16/22 15:33 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/16/22 15:33 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 03/16/22 15:33 | |

LABORATORY CONTROL SAMPLE: 3582191

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.050 | 101 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Barium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.053 | 105 | 80-120 | |
| Boron | mg/L | 0.05 | 0.052 | 103 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.052 | 103 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.050 | 99 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.051 | 102 | 80-120 | |
| Lead | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.052 | 105 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.025 | 101 | 80-120 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

| Parameter | Units | 3582192 | | 3582193 | | MS
Result | MSD
Result | MS
% Rec | MSD
% Rec | % Rec
Limits | RPD | Max
RPD | Qual |
|------------|-------|-----------------------|----------------------|-----------------------|--------------|--------------|---------------|-------------|--------------|-----------------|-----|------------|------|
| | | 92591517001
Result | MS
Spike
Conc. | MSD
Spike
Conc. | MS
Result | | | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.052 | 98 | 104 | 75-125 | 7 | 20 | | |
| Arsenic | mg/L | 0.0061J | 0.05 | 0.05 | 0.055 | 0.056 | 97 | 99 | 75-125 | 2 | 20 | | |
| Barium | mg/L | 0.14 | 0.05 | 0.05 | 0.19 | 0.18 | 113 | 88 | 75-125 | 7 | 20 | | |
| Beryllium | mg/L | 0.0057 | 0.05 | 0.05 | 0.058 | 0.057 | 105 | 102 | 75-125 | 2 | 20 | | |
| Boron | mg/L | 0.41J | 0.05 | 0.05 | 0.50J | 0.51J | 170 | 193 | 75-125 | | 20 | M1 | |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.053 | 0.051 | 105 | 102 | 75-125 | 3 | 20 | | |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.053 | 0.051 | 103 | 98 | 75-125 | 5 | 20 | | |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.051 | 0.050 | 102 | 100 | 75-125 | 2 | 20 | | |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.060 | 0.052 | 119 | 104 | 75-125 | 13 | 20 | | |
| Lithium | mg/L | ND | 0.05 | 0.05 | 0.061 | 0.061 | 103 | 102 | 75-125 | 1 | 20 | | |
| Molybdenum | mg/L | ND | 0.05 | 0.05 | 0.054 | 0.051 | 106 | 101 | 75-125 | 5 | 20 | | |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.052 | 0.050 | 101 | 97 | 75-125 | 4 | 20 | | |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.025 | 0.026 | 100 | 103 | 75-125 | 3 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 685057 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517021, 92591517022, 92591517023

METHOD BLANK: 3582200 Matrix: Water
 Associated Lab Samples: 92591517021, 92591517022, 92591517023

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 03/16/22 16:12 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/16/22 16:12 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/16/22 16:12 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/16/22 16:12 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/16/22 16:12 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 03/16/22 16:12 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 03/16/22 16:12 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/16/22 16:12 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/16/22 16:12 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/16/22 16:12 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 03/16/22 16:12 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/16/22 16:12 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 03/16/22 16:12 | |

LABORATORY CONTROL SAMPLE: 3582201

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.046 | 93 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.046 | 91 | 80-120 | |
| Barium | mg/L | 0.05 | 0.045 | 91 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.047 | 95 | 80-120 | |
| Boron | mg/L | 0.05 | 0.049J | 98 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.046 | 93 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.047 | 94 | 80-120 | |
| Lead | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.047 | 95 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.047 | 94 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.046 | 93 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.023 | 93 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3582202 3582203

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92591517021 | Result | Conc. | Conc. | | | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.047 | 0.043 | 94 | 87 | 75-125 | 8 | 20 | | |
| Arsenic | mg/L | 0.0090J | 0.05 | 0.05 | 0.053 | 0.049 | 88 | 80 | 75-125 | 8 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

| Parameter | Units | 3582202 | | 3582203 | | MS
Result | MSD
Result | MS
% Rec | MSD
% Rec | % Rec
Limits | RPD | Max
RPD | Qual |
|------------|-------|-----------------------|----------------------|-----------------------|--------------|--------------|---------------|-------------|--------------|-----------------|-----|------------|------|
| | | 92591517021
Result | MS
Spike
Conc. | MSD
Spike
Conc. | MS
Result | | | | | | | | |
| Barium | mg/L | 0.12 | 0.05 | 0.05 | 0.16 | 0.14 | 76 | 40 | 75-125 | 12 | 20 | M1 | |
| Beryllium | mg/L | ND | 0.05 | 0.05 | 0.044 | 0.041 | 87 | 81 | 75-125 | 7 | 20 | | |
| Boron | mg/L | 1.3 | 0.05 | 0.05 | 1.4 | 1.3 | 200 | -41 | 75-125 | 9 | 20 | M1 | |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.046 | 0.042 | 91 | 83 | 75-125 | 10 | 20 | | |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.046 | 0.043 | 90 | 83 | 75-125 | 8 | 20 | | |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.047 | 0.040 | 93 | 80 | 75-125 | 15 | 20 | | |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.046 | 0.041 | 93 | 82 | 75-125 | 12 | 20 | | |
| Lithium | mg/L | 0.022J | 0.05 | 0.05 | 0.065 | 0.062 | 86 | 80 | 75-125 | 5 | 20 | | |
| Molybdenum | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.043 | 91 | 81 | 75-125 | 11 | 20 | | |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.012J | 0.011J | 23 | 20 | 75-125 | | 20 | M1 | |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.023 | 0.021 | 92 | 84 | 75-125 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

| | | | |
|-------------------------|--|-----------------------|--|
| QC Batch: | 803408 | Analysis Method: | SM 2320B |
| QC Batch Method: | SM 2320B | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Minneapolis |
| Associated Lab Samples: | 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 4265613 | Matrix: | Water |
| Associated Lab Samples: | 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 1.8 | 03/12/22 12:06 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/12/22 12:06 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/12/22 12:06 | |

| LABORATORY CONTROL SAMPLE & LCSD: | | 4265614 | 4265615 | | | | | | | | | |
|-----------------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|--|--|
| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers | | |
| Alkalinity, Total as CaCO3 | mg/L | 40 | 42.3 | 42.3 | 106 | 106 | 90-110 | 0 | 20 | | | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4265616 | 4265617 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 10599450001 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 | 5.2 | 40 | 40 | 56.5 | 55.8 | 128 | 127 | 80-120 | 1 | 20 | M1 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4265634 | 4265635 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 10599691013 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 | 250 | 40 | 40 | 290 | 292 | 102 | 106 | 80-120 | 1 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 803963 Analysis Method: SM 2320B
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Minneapolis
 Associated Lab Samples: 92591517021, 92591517022, 92591517023

METHOD BLANK: 4267884 Matrix: Water
 Associated Lab Samples: 92591517021, 92591517022, 92591517023

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 2.4J | 5.0 | 1.8 | 03/16/22 11:28 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | 2.4J | 5.0 | 1.8 | 03/16/22 11:28 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/16/22 11:28 | |

LABORATORY CONTROL SAMPLE & LCSD: 4267885 4267886

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|----------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 40 | 43.5 | 43.1 | 109 | 108 | 90-110 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4267887 4267888

| Parameter | Units | 92591517021 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 | 279 | 40 | 40 | 320 | 321 | 102 | 104 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 682615 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007,
 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517015,
 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021

METHOD BLANK: 3570748 Matrix: Water
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004, 92591517005, 92591517006, 92591517007,
 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517015,
 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/05/22 11:50 | |

LABORATORY CONTROL SAMPLE: 3570749

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 244 | 98 | 90-110 | |

SAMPLE DUPLICATE: 3570750

| Parameter | Units | 92591517001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 4050 | 4110 | 2 | 25 | |

SAMPLE DUPLICATE: 3570751

| Parameter | Units | 92591517007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 3100 | 3100 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92591517

QC Batch: 683079 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517014, 92591517022, 92591517023

METHOD BLANK: 3572887 Matrix: Water
 Associated Lab Samples: 92591517014, 92591517022, 92591517023

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/08/22 12:04 | |

LABORATORY CONTROL SAMPLE: 3572888

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 254 | 102 | 90-110 | |

SAMPLE DUPLICATE: 3572889

| Parameter | Units | 92591424002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 2810 | 2690 | 4 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

QC Batch: 682746 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004

METHOD BLANK: 3571289 Matrix: Water
 Associated Lab Samples: 92591517001, 92591517002, 92591517003, 92591517004

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/06/22 22:48 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/06/22 22:48 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/06/22 22:48 | |

LABORATORY CONTROL SAMPLE: 3571290

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 49.3 | 99 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 103 | 90-110 | |
| Sulfate | mg/L | 50 | 48.3 | 97 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571291 3571292

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92591489040 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 55.4 | 54.5 | 111 | 109 | 90-110 | 2 | 10 | M1 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 3.1 | 2.9 | 122 | 117 | 90-110 | 4 | 10 | M1 | |
| Sulfate | mg/L | ND | 50 | 50 | 55.4 | 54.4 | 111 | 109 | 90-110 | 2 | 10 | M1 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571293 3571294

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92591380002 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Chloride | mg/L | 10.0 | 50 | 50 | 65.6 | 9.7 | 111 | -1 | 90-110 | 148 | 10 | M1,R1 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 3.1 | ND | 124 | 0 | 90-110 | | 10 | M1 | |
| Sulfate | mg/L | 20.3 | 50 | 50 | 75.6 | 20.0 | 111 | -1 | 90-110 | 116 | 10 | M1,R1 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92591517

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 682747 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021, 92591517022, 92591517023 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3571295 | Matrix: | Water |
| Associated Lab Samples: | 92591517005, 92591517006, 92591517007, 92591517008, 92591517009, 92591517010, 92591517011, 92591517012, 92591517013, 92591517014, 92591517015, 92591517016, 92591517017, 92591517018, 92591517019, 92591517020, 92591517021, 92591517022, 92591517023 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/07/22 07:34 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/07/22 07:34 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/07/22 07:34 | |

| LABORATORY CONTROL SAMPLE: | 3571296 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 49.4 | 99 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 104 | 90-110 | |
| Sulfate | mg/L | 50 | 48.4 | 97 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3571297 | | 3571298 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|----------|
| Parameter | Units | 92591517005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | Max | |
| | | | | | | | | | | RPD | RPD |
| Chloride | mg/L | 28.4 | 50 | 50 | 77.5 | 75.9 | 98 | 95 | 90-110 | 2 | 10 |
| Fluoride | mg/L | 0.097J | 2.5 | 2.5 | 3.3 | 2.9 | 126 | 112 | 90-110 | 11 | 10 M1,R1 |
| Sulfate | mg/L | 19.5 | 50 | 50 | 70.3 | 68.0 | 102 | 97 | 90-110 | 3 | 10 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3571299 | | 3571300 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|-------|
| Parameter | Units | 92591517015 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | Max | |
| | | | | | | | | | | RPD | RPD |
| Chloride | mg/L | ND | 50 | 50 | 55.2 | 56.3 | 110 | 113 | 90-110 | 2 | 10 M1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 3.1 | 3.0 | 123 | 119 | 90-110 | 3 | 10 M1 |
| Sulfate | mg/L | ND | 50 | 50 | 55.2 | 56.1 | 110 | 112 | 90-110 | 2 | 10 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

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



QUALIFIERS

Project: MCMANUS CCR

Pace Project No.: 92591517

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.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591517001 | MCM-19 | | | | |
| 92591517002 | MCM-20 | | | | |
| 92591517003 | MCM-01 | | | | |
| 92591517004 | MCM-02 | | | | |
| 92591517005 | MCM-11 | | | | |
| 92591517006 | MCM-15 | | | | |
| 92591517007 | MCM-18 | | | | |
| 92591517009 | MCM-04 | | | | |
| 92591517010 | MCM-12 | | | | |
| 92591517011 | MCM-16 | | | | |
| 92591517019 | MCM-05 | | | | |
| 92591517020 | MCM-06 | | | | |
| 92591517021 | MCM-07 | | | | |
| 92591517022 | MCM-14 | | | | |
| 92591517023 | MCM-17 | | | | |
| 92591517001 | MCM-19 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517002 | MCM-20 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517003 | MCM-01 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517004 | MCM-02 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517005 | MCM-11 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517006 | MCM-15 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517007 | MCM-18 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517008 | DUP-1 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517009 | MCM-04 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517010 | MCM-12 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517011 | MCM-16 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517012 | DUP-2 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517013 | FB-3 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517014 | EB-3 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517015 | FB-1 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517016 | EB-1 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517017 | FB-2 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517018 | EB-2 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517019 | MCM-05 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591517020 | MCM-06 | EPA 3010A | 685058 | EPA 6010D | 685176 |
| 92591517021 | MCM-07 | EPA 3010A | 685058 | EPA 6010D | 685176 |
| 92591517022 | MCM-14 | EPA 3010A | 685058 | EPA 6010D | 685176 |
| 92591517023 | MCM-17 | EPA 3010A | 685058 | EPA 6010D | 685176 |
| 92591517001 | MCM-19 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517002 | MCM-20 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517003 | MCM-01 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517004 | MCM-02 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517005 | MCM-11 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517006 | MCM-15 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517007 | MCM-18 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517008 | DUP-1 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517009 | MCM-04 | EPA 3010A | 685054 | EPA 6020B | 685194 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591517010 | MCM-12 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517011 | MCM-16 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517012 | DUP-2 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517013 | FB-3 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517014 | EB-3 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517015 | FB-1 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517016 | EB-1 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517017 | FB-2 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517018 | EB-2 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517019 | MCM-05 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517020 | MCM-06 | EPA 3010A | 685054 | EPA 6020B | 685194 |
| 92591517021 | MCM-07 | EPA 3010A | 685057 | EPA 6020B | 685203 |
| 92591517022 | MCM-14 | EPA 3010A | 685057 | EPA 6020B | 685203 |
| 92591517023 | MCM-17 | EPA 3010A | 685057 | EPA 6020B | 685203 |
| 92591517001 | MCM-19 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517002 | MCM-20 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517003 | MCM-01 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517004 | MCM-02 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517005 | MCM-11 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517006 | MCM-15 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517007 | MCM-18 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517008 | DUP-1 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517009 | MCM-04 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517010 | MCM-12 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517011 | MCM-16 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517012 | DUP-2 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517013 | FB-3 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517014 | EB-3 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517015 | FB-1 | EPA 7470A | 683595 | EPA 7470A | 684420 |
| 92591517016 | EB-1 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517017 | FB-2 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517018 | EB-2 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517019 | MCM-05 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517020 | MCM-06 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517021 | MCM-07 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517022 | MCM-14 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517023 | MCM-17 | EPA 7470A | 683596 | EPA 7470A | 684406 |
| 92591517015 | FB-1 | SM 2320B | 803408 | | |
| 92591517016 | EB-1 | SM 2320B | 803408 | | |
| 92591517017 | FB-2 | SM 2320B | 803408 | | |
| 92591517018 | EB-2 | SM 2320B | 803408 | | |
| 92591517019 | MCM-05 | SM 2320B | 803408 | | |
| 92591517020 | MCM-06 | SM 2320B | 803408 | | |
| 92591517021 | MCM-07 | SM 2320B | 803963 | | |
| 92591517022 | MCM-14 | SM 2320B | 803963 | | |
| 92591517023 | MCM-17 | SM 2320B | 803963 | | |

REPORT OF LABORATORY ANALYSIS

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




QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR
 Pace Project No.: 92591517

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92591517001 | MCM-19 | SM 2540C-2011 | 682615 | | |
| 92591517002 | MCM-20 | SM 2540C-2011 | 682615 | | |
| 92591517003 | MCM-01 | SM 2540C-2011 | 682615 | | |
| 92591517004 | MCM-02 | SM 2540C-2011 | 682615 | | |
| 92591517005 | MCM-11 | SM 2540C-2011 | 682615 | | |
| 92591517006 | MCM-15 | SM 2540C-2011 | 682615 | | |
| 92591517007 | MCM-18 | SM 2540C-2011 | 682615 | | |
| 92591517008 | DUP-1 | SM 2540C-2011 | 682615 | | |
| 92591517009 | MCM-04 | SM 2540C-2011 | 682615 | | |
| 92591517010 | MCM-12 | SM 2540C-2011 | 682615 | | |
| 92591517011 | MCM-16 | SM 2540C-2011 | 682615 | | |
| 92591517012 | DUP-2 | SM 2540C-2011 | 682615 | | |
| 92591517013 | FB-3 | SM 2540C-2011 | 682615 | | |
| 92591517014 | EB-3 | SM 2540C-2011 | 683079 | | |
| 92591517015 | FB-1 | SM 2540C-2011 | 682615 | | |
| 92591517016 | EB-1 | SM 2540C-2011 | 682615 | | |
| 92591517017 | FB-2 | SM 2540C-2011 | 682615 | | |
| 92591517018 | EB-2 | SM 2540C-2011 | 682615 | | |
| 92591517019 | MCM-05 | SM 2540C-2011 | 682615 | | |
| 92591517020 | MCM-06 | SM 2540C-2011 | 682615 | | |
| 92591517021 | MCM-07 | SM 2540C-2011 | 682615 | | |
| 92591517022 | MCM-14 | SM 2540C-2011 | 683079 | | |
| 92591517023 | MCM-17 | SM 2540C-2011 | 683079 | | |
| 92591517001 | MCM-19 | EPA 300.0 Rev 2.1 1993 | 682746 | | |
| 92591517002 | MCM-20 | EPA 300.0 Rev 2.1 1993 | 682746 | | |
| 92591517003 | MCM-01 | EPA 300.0 Rev 2.1 1993 | 682746 | | |
| 92591517004 | MCM-02 | EPA 300.0 Rev 2.1 1993 | 682746 | | |
| 92591517005 | MCM-11 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517006 | MCM-15 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517007 | MCM-18 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517008 | DUP-1 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517009 | MCM-04 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517010 | MCM-12 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517011 | MCM-16 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517012 | DUP-2 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517013 | FB-3 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517014 | EB-3 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517015 | FB-1 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517016 | EB-1 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517017 | FB-2 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517018 | EB-2 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517019 | MCM-05 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517020 | MCM-06 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517021 | MCM-07 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517022 | MCM-14 | EPA 300.0 Rev 2.1 1993 | 682747 | | |
| 92591517023 | MCM-17 | EPA 300.0 Rev 2.1 1993 | 682747 | | |

REPORT OF LABORATORY ANALYSIS

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

| | | |
|---|--|--|
|  | Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: November 19, 2022
Page 1 of 2 |
| | Document No.:
P-CAR-01-001-Rev.08 | Issuing Authority:
Pace Carolina Quality Office |

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Temp to Condition Upon Receipt

Client Name: Georgia Power

Project #: **WO#: 92591517**



Container: Seals JMS JSM Other

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initial Person Receiving Contents: 3/4/22

Packing Material: Bubble Wrap Bubble Bag None Other

Biological Tissue Present? Yes No N/A

Thermometer: In Use ID: 437074 Type of Ion: Beta Alpha None

Cooler Temp: 1.6/1.7/1.4 Correction Factor: add/subtract (C) 0

Temp should be above freezing in °C
 Samples out of temp criteria. Samples ok for cooling process per logbook

Cooler Temp Corrected (°C): 1.6/1.7/1.4

USDA Bag related Soil N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, HI, or KC (check main)? Yes No

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

| Checklist Item | Yes | No | Obs | Comments/Discrepancy |
|--|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|
| Chain of Custody Initiated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| Temp log Applied within field time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2 |
| Short: Hold Time Analysis (CFI In/Out) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 |
| Right: Turn Around Time Requested? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4 |
| Sufficient Volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5 |
| Correct Container Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6 |
| Proper Container Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7 |
| Containers Intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8 |
| Inspected analysis Samples Field Filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9 |
| Temp Re-Labels Match CFC? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 |
| Includes Date/Time/ID/Analysis Matrix: | <u>h-T</u> | | | |
| Residue in VOA Mail (20-6mm)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 11 |
| Top Blank Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 12 |
| Top Blank Custody Seals Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |

COMMENTS/SAMPLE DISCREPANCY: Missing Rad Sample Containers (MCM-16/Aug-1/EB-1/EB-1/MCM-05/MCM-06/MCM-19/MCM-20) Field Data Required? Yes No

CLIENT NOTIFICATION/REDUCTION

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SHP Review: _____ Date: _____



| | |
|--|--|
| Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: November 15, 2021
Page 2 of 3 |
| Document No.:
P-CAR-CI-025-Rev 02 | Issuing Authority:
Pace Carolina Quality Office |

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

Exceptions: VDA, Coliform, TOC, Oil and Grease, DRG/RO25 (water) DOC, UMG

**See top half of box is to list number of bottles

Project #

W0# : 92591517

PR: NHD

Due Date: 03/18/22

CLIENT: GR-GR Power

| Method | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| BP01-125 ml. Plastic Unpreserved (N/A) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP01-250 ml. Plastic Unpreserved (N/A) | / | 2 | 2 | 2 | 2 | 2 | 1 | / | / | / | / | / |
| BP01-500 ml. Plastic Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP01-1 Liter Plastic Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP02-125 ml. Plastic HDPE (pH + 2) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP02-250 ml. Plastic HDPE (pH + 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP02-500 ml. Plastic (2) Acetate/B. Resin (pH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP02-125 ml. Plastic HDPE (pH + 2) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| W001-W004-1000-0000 (pH) (Unpreserved) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-1 liter Amber Unpreserved (N/A) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-5 liter Amber (pH + 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-500 ml. Amber Unpreserved (N/A) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-1 liter Amber (pH + 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-250 ml. Amber (pH + 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-500ml-250 ml. Amber (pH + 2) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| DP01-40 ml. VDA (C) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VP01-40 ml. VDA (C) (C) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VP01-40 ml. VDA Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| DP01-40 ml. VDA (pH) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VP01-40 vials per lot-40 vials (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VP01-40 vials per lot-40 vials (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| SP01-125 ml. Sterile Plastic (N/A - 100) | / | / | / | / | / | / | / | / | / | / | / | / |
| SP01-250 ml. Sterile Plastic (N/A - 100) | / | / | / | / | / | / | / | / | / | / | / | / |
| BRIN | | | | | | | | | | | | |
| BP01-125 ml. Plastic (N/A) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD01-1 liter Amber Unpreserved (N/A) (C) | / | / | / | / | / | / | / | / | / | / | / | / |
| VP01-40 ml. VDA (pH) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| DP01-40 ml. VDA Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

| Sample ID | Type of Preservative | pH upon receipt | Date preservation adjusted | Date 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 DWR Certification Office (i.e. Our of field, incorrect preservative, out of temp, incorrect containers).



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-CAR-CS-001-Rev.08

Document Revised: November 15, 2021
Page 1 of 3
Issuing Authority:
Pace Carolina Quality Office

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

Acceptance: VOA, Coliform, DOC, CF and Gross, DRG/ROTS (water) DOC, UMG

**Bottom half of box is to list number of bottles

Project #

W0# : 92591517

PR: NRG

Due Date: 03/18/22

CLIENT: GR-GR Power

| Row # | Sample Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------|--|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | 8000-120 ml, Purite Unpreserved (N/A) (D-) | | | | | | | | | | | | |
| 2 | 8000-120 ml, Purite Unpreserved (N/A) | 2 | | | | | | | | | | | |
| 3 | 8000-120 ml, Purite Unpreserved (N/A) | 1 | | | | | | | | | | | |
| 4 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 5 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 6 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 7 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 8 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 9 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |
| 10 | 8000-120 ml, Purite Unpreserved (N/A) | 2 | | | | | | | | | | | |
| 11 | 8000-120 ml, Purite Unpreserved (N/A) | 2 | | | | | | | | | | | |
| 12 | 8000-120 ml, Purite Unpreserved (N/A) | | | | | | | | | | | | |

DFIN

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 DHEM Certification Office (i.e. Out of State, Incorrect preservation, out of temp, incorrect containers)



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

| | | |
|--|---|---|
| Analytical Request Information
Requester: <u>General Electric</u>
Address: <u>5000 Westborough Turnpike</u>
Location: <u>01581</u> | Requested Project Information
Project #: <u>10000000000000000000</u>
Job #: <u>10000000000000000000</u> | Sample Information
Sample ID: <u>10000000000000000000</u>
Sample Name: <u>10000000000000000000</u>
Sample Date: <u>10/1/11</u> |
| Requester Contact Information
Name: <u>10000000000000000000</u>
Title: <u>10000000000000000000</u>
Phone: <u>10000000000000000000</u>
Email: <u>10000000000000000000</u> | Laboratory Contact Information
Name: <u>10000000000000000000</u>
Title: <u>10000000000000000000</u>
Phone: <u>10000000000000000000</u>
Email: <u>10000000000000000000</u> | Other Information
Comments: <u>10000000000000000000</u>
Date: <u>10/1/11</u> |

| ITEM # | SAMPLE ID | DATE COLLECTED | TIME COLLECTED | LOCATION | ANALYTES TESTED | PRESERVATION | | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED | ANALYTES TESTED |
|--------|-----------|----------------|----------------|----------|-----------------|--------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | | | | Method | Other | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|---------|-------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 10000000000000000000 | 10/1/11 | 10:00 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 |
| 2 | 10000000000000000000 | 10/1/11 | 10:00 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 |

| | |
|--|--|
| Project Name: <u>10000000000000000000</u>
Requested by: <u>10000000000000000000</u>
Date Requested: <u>10/1/11</u> | Project Manager: <u>10000000000000000000</u>
Date Requested: <u>10/1/11</u> |
|--|--|



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 04 1

Medical Chain Information: **Project Name** [Blank], **Client** [Blank], **Project Location** [Blank], **Project Start Date** [Blank], **Project End Date** [Blank]

Analytical Request Information: **Requester Name** [Blank], **Requester Title** [Blank], **Requester Organization** [Blank], **Requester Address** [Blank], **Requester Phone** [Blank], **Requester Email** [Blank]

Sample Information: **Sample ID** [Blank], **Sample Description** [Blank], **Sample Quantity** [Blank], **Sample Container** [Blank], **Sample Storage Location** [Blank]

Collection Information: **Collection Date** [Blank], **Collection Time** [Blank], **Collection Location** [Blank], **Collection Method** [Blank], **Collection Notes** [Blank]

Analysis Information: **Analysis Type** [Blank], **Analysis Method** [Blank], **Analysis Laboratory** [Blank], **Analysis Date** [Blank], **Analysis Results** [Blank]

| ITEM # | SAMPLE ID | DESCRIPTION | WEIGHT (G) | SAMPLE TYPE | COLLECTED | | | ANALYSIS TYPE | ANALYSIS METHOD | ANALYSIS LABORATORY | ANALYSIS DATE | ANALYSIS RESULTS |
|--------|-----------|-------------|------------|-------------|-----------|------|----------|---------------|-----------------|---------------------|---------------|------------------|
| | | | | | DATE | TIME | LOCATION | | | | | |
| 1 | 121 | White/Red | WT | Q-COAG | | | | | | | | |
| 2 | 122 | White/Red | WT | Q-COAG | | | | | | | | |
| 3 | 123 | White/Red | WT | Q-COAG | | | | | | | | |
| 4 | 124 | White/Red | WT | Q-COAG | | | | | | | | |
| 5 | 125 | White/Red | WT | Q-COAG | | | | | | | | |
| 6 | 126 | White/Red | WT | Q-COAG | | | | | | | | |
| 7 | 127 | White/Red | WT | Q-COAG | | | | | | | | |
| 8 | 128 | White/Red | WT | Q-COAG | | | | | | | | |
| 9 | 129 | White/Red | WT | Q-COAG | | | | | | | | |
| 10 | 130 | White/Red | WT | Q-COAG | | | | | | | | |
| 11 | 131 | White/Red | WT | Q-COAG | | | | | | | | |
| 12 | 132 | White/Red | WT | Q-COAG | | | | | | | | |
| 13 | 133 | White/Red | WT | Q-COAG | | | | | | | | |
| 14 | 134 | White/Red | WT | Q-COAG | | | | | | | | |
| 15 | 135 | White/Red | WT | Q-COAG | | | | | | | | |
| 16 | 136 | White/Red | WT | Q-COAG | | | | | | | | |
| 17 | 137 | White/Red | WT | Q-COAG | | | | | | | | |
| 18 | 138 | White/Red | WT | Q-COAG | | | | | | | | |
| 19 | 139 | White/Red | WT | Q-COAG | | | | | | | | |
| 20 | 140 | White/Red | WT | Q-COAG | | | | | | | | |
| 21 | 141 | White/Red | WT | Q-COAG | | | | | | | | |
| 22 | 142 | White/Red | WT | Q-COAG | | | | | | | | |
| 23 | 143 | White/Red | WT | Q-COAG | | | | | | | | |
| 24 | 144 | White/Red | WT | Q-COAG | | | | | | | | |
| 25 | 145 | White/Red | WT | Q-COAG | | | | | | | | |
| 26 | 146 | White/Red | WT | Q-COAG | | | | | | | | |
| 27 | 147 | White/Red | WT | Q-COAG | | | | | | | | |
| 28 | 148 | White/Red | WT | Q-COAG | | | | | | | | |
| 29 | 149 | White/Red | WT | Q-COAG | | | | | | | | |
| 30 | 150 | White/Red | WT | Q-COAG | | | | | | | | |
| 31 | 151 | White/Red | WT | Q-COAG | | | | | | | | |
| 32 | 152 | White/Red | WT | Q-COAG | | | | | | | | |
| 33 | 153 | White/Red | WT | Q-COAG | | | | | | | | |
| 34 | 154 | White/Red | WT | Q-COAG | | | | | | | | |
| 35 | 155 | White/Red | WT | Q-COAG | | | | | | | | |
| 36 | 156 | White/Red | WT | Q-COAG | | | | | | | | |
| 37 | 157 | White/Red | WT | Q-COAG | | | | | | | | |
| 38 | 158 | White/Red | WT | Q-COAG | | | | | | | | |
| 39 | 159 | White/Red | WT | Q-COAG | | | | | | | | |
| 40 | 160 | White/Red | WT | Q-COAG | | | | | | | | |
| 41 | 161 | White/Red | WT | Q-COAG | | | | | | | | |
| 42 | 162 | White/Red | WT | Q-COAG | | | | | | | | |
| 43 | 163 | White/Red | WT | Q-COAG | | | | | | | | |
| 44 | 164 | White/Red | WT | Q-COAG | | | | | | | | |
| 45 | 165 | White/Red | WT | Q-COAG | | | | | | | | |
| 46 | 166 | White/Red | WT | Q-COAG | | | | | | | | |
| 47 | 167 | White/Red | WT | Q-COAG | | | | | | | | |
| 48 | 168 | White/Red | WT | Q-COAG | | | | | | | | |
| 49 | 169 | White/Red | WT | Q-COAG | | | | | | | | |
| 50 | 170 | White/Red | WT | Q-COAG | | | | | | | | |
| 51 | 171 | White/Red | WT | Q-COAG | | | | | | | | |
| 52 | 172 | White/Red | WT | Q-COAG | | | | | | | | |
| 53 | 173 | White/Red | WT | Q-COAG | | | | | | | | |
| 54 | 174 | White/Red | WT | Q-COAG | | | | | | | | |
| 55 | 175 | White/Red | WT | Q-COAG | | | | | | | | |
| 56 | 176 | White/Red | WT | Q-COAG | | | | | | | | |
| 57 | 177 | White/Red | WT | Q-COAG | | | | | | | | |
| 58 | 178 | White/Red | WT | Q-COAG | | | | | | | | |
| 59 | 179 | White/Red | WT | Q-COAG | | | | | | | | |
| 60 | 180 | White/Red | WT | Q-COAG | | | | | | | | |
| 61 | 181 | White/Red | WT | Q-COAG | | | | | | | | |
| 62 | 182 | White/Red | WT | Q-COAG | | | | | | | | |
| 63 | 183 | White/Red | WT | Q-COAG | | | | | | | | |
| 64 | 184 | White/Red | WT | Q-COAG | | | | | | | | |
| 65 | 185 | White/Red | WT | Q-COAG | | | | | | | | |
| 66 | 186 | White/Red | WT | Q-COAG | | | | | | | | |
| 67 | 187 | White/Red | WT | Q-COAG | | | | | | | | |
| 68 | 188 | White/Red | WT | Q-COAG | | | | | | | | |
| 69 | 189 | White/Red | WT | Q-COAG | | | | | | | | |
| 70 | 190 | White/Red | WT | Q-COAG | | | | | | | | |
| 71 | 191 | White/Red | WT | Q-COAG | | | | | | | | |
| 72 | 192 | White/Red | WT | Q-COAG | | | | | | | | |
| 73 | 193 | White/Red | WT | Q-COAG | | | | | | | | |
| 74 | 194 | White/Red | WT | Q-COAG | | | | | | | | |
| 75 | 195 | White/Red | WT | Q-COAG | | | | | | | | |
| 76 | 196 | White/Red | WT | Q-COAG | | | | | | | | |
| 77 | 197 | White/Red | WT | Q-COAG | | | | | | | | |
| 78 | 198 | White/Red | WT | Q-COAG | | | | | | | | |
| 79 | 199 | White/Red | WT | Q-COAG | | | | | | | | |
| 80 | 200 | White/Red | WT | Q-COAG | | | | | | | | |

Chain of Custody Signature: **Signature** [Blank], **Date** [Blank], **Print Name** [Blank]

Requested on: **Requester Name** [Blank], **Requester Title** [Blank], **Requester Organization** [Blank], **Requester Address** [Blank], **Requester Phone** [Blank], **Requester Email** [Blank]

Sample Information: **Sample ID** [Blank], **Sample Description** [Blank], **Sample Quantity** [Blank], **Sample Container** [Blank], **Sample Storage Location** [Blank]

Analysis Information: **Analysis Type** [Blank], **Analysis Method** [Blank], **Analysis Laboratory** [Blank], **Analysis Date** [Blank], **Analysis Results** [Blank]



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A: Requested Client Information
 Project: 03001100
 Client: 5701 Southwestern Avenue
 Location: LA 90248
 Contact: John Anderson/John.Ander@perkinelmer.com
 Date: 07/26/2011
 Requested Client Information: PerkinElmer

Section B: Requested Project Information
 Project ID: 0001
 Project Name: Analytical CS01
 Analytical Unit: ANALYTICAL

Section C: Analytical Information
 Analytical Unit: ANALYTICAL CS01

Section D: Shipping Information
 Shipping Name: PerkinElmer
 Shipping Address: PerkinElmer, 7815 Littleton Drive, Littleton, CO 80120-5220
 Shipping Method: OVERNIGHT

SAMPLE ID
 One Character per box, (A-Z, 0-9, -)
 Sample ID's must be unique

N/A Water Air Soil Sediment Sludge
 Plant Food Blood Urine Hair Nail
 Other _____

| SAMPLE NO. | SAMPLE TYPE (S-O-B-C-U-D) | COLLECTOR | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | | PRESERVATION | | | | | | | | | | ANALYSIS TYPE | | | | | Recovery Criteria (%) | | |
|------------|---------------------------|-----------|-------|-------|---------------------------|-----------------|--------|--------------|------|---------|------------|-----------|------------|-----------|------------|-----------|------------|---------------|------------|-----------|--|--|-----------------------|------|-----|
| | | DATE | TIME | TEMP. | | UNSEALED | SEALED | COLD | DARK | STIRRED | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | | | | | |
| 10001 | WT | 3/6/11 | 15:10 | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | 5-32 | 002 |
| 10002 | WT | 3/6/11 | 15:42 | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | 5-16 | 014 |
| 10003 | WT | 3/6/11 | 19:00 | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | 5-11 | 005 |
| 10004 | WT | 3/6/11 | 19:00 | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | 5-37 | 006 |
| 10005 | WT | 3/6/11 | 19:00 | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | 4-33 | 007 |
| 10006 | WT | 3/6/11 | --- | | 5-2 | 3 | | | | | | | | | | | | X | | | | | | | 008 |

| ANALYST | DATE | TIME | TEMP. | UNSEALED | SEALED | COLD | DARK | STIRRED | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | REF. TEMP. | REF. TIME | |
|---------|------|------|-------|----------|--------|------|------|---------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|--|
| | | | | | | | | | | | | | | | | | | | | | | | |

Handwritten initials: John Anderson

10001: 115 Y Y Y
 10002: 115 Y Y Y
 10003: 115 Y Y Y
 10004: 115 Y Y Y
 10005: 115 Y Y Y
 10006: 115 Y Y Y

Client Name: PerkinElmer

Project Manager: John Anderson

Date: 3/6/11

Signature: [Signature]

PerkinElmer
 Analytical Services

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed thoroughly, including the name, phone, and address of the client, the name and address of the analyst, the name and address of the laboratory, the name and address of the analyst, the name and address of the laboratory, and the name and address of the analyst.

Page 1 of 1

Section A
 Analytical Request Information
 Client Name: [Blank]
 Client Address: [Blank]
 Client Phone: [Blank]
 Client Email: [Blank]
 Client Website: [Blank]

Section B
 Analytical Request Information
 Request For: [Blank]
 Reference: [Blank]
 Requested By: [Blank]
 Requested On: [Blank]

Section C
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section D
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section E
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

| ITEM # | SAMPLE ID | ANALYTICAL METHOD | ANALYTICAL INSTRUMENT | ANALYTICAL SOFTWARE | ANALYST | LABORATORY | COLLECTION | | ANALYSIS | RESULTS |
|--------|-----------|-------------------|-----------------------|---------------------|---------|------------|------------|------|----------|---------|
| | | | | | | | DATE | TIME | | |
| 01 | 0141 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 |
| 02 | 0142 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |
| 03 | 0143 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 |
| 04 | 0144 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 |
| 05 | 0145 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 |
| 06 | 0146 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 |
| 07 | 0147 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 |
| 08 | 0148 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| 09 | 0149 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 |
| 10 | 0150 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 11 | 0151 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 12 | 0152 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 13 | 0153 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 14 | 0154 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 15 | 0155 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 16 | 0156 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 17 | 0157 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 18 | 0158 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 19 | 0159 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 20 | 0160 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

Section F
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section G
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section H
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section I
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section J
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section K
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section L
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section M
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section N
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section O
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section P
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section Q
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section R
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section S
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section T
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section U
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section V
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section W
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section X
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section Y
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]

Section Z
 Analytical Information
 Analytical Method: [Blank]
 Analytical Instrument: [Blank]
 Analytical Software: [Blank]



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All received data must be completed accurately.

Submitting a sample via this chain of custody certifies acknowledgment and acceptance of the Chain of Custody and Chain-of-Custody Form at the time of collection and transfer of the sample to the laboratory.

| | | |
|--|--|--|
| Section 1
Project Name
Project No.
Project Location
Project Date | Section 2
Project Name
Project No.
Project Location
Project Date | Section 3
Project Name
Project No.
Project Location
Project Date |
| Section 4
Project Name
Project No.
Project Location
Project Date | Section 5
Project Name
Project No.
Project Location
Project Date | Section 6
Project Name
Project No.
Project Location
Project Date |

| ITEM # | SAMPLE ID
See Chapter 4, Part 1
Sample ID must be unique | DATE | TIME | LOCATION | METHOD | ANALYSIS | | | | LABORATORY | | |
|--------|--|------|------|----------|--------|----------|----------|----------|----------|------------|--|--|
| | | | | | | ANALYSIS | | ANALYSIS | | | | |
| | | | | | | ANALYSIS | ANALYSIS | ANALYSIS | ANALYSIS | | | |
| 1 | 6.41 | 02.1 | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |

| | | | |
|--------------|-------------|------------------|--------------|
| Project Name | Project No. | Project Location | Project Date |
| Project Name | Project No. | Project Location | Project Date |
| Project Name | Project No. | Project Location | Project Date |
| Project Name | Project No. | Project Location | Project Date |
| Project Name | Project No. | Project Location | Project Date |
| Project Name | Project No. | Project Location | Project Date |



CHAIN-OF-CUSTODY / Analytical Request Document

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

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Terms and Conditions listed at www.polarstar-llp.com

Page | 1 | of 4

Requester Contact Information:
 Name: [Blank]
 Address: [Blank]
 City: [Blank] State: [Blank] Zip: [Blank]
 Phone: [Blank] Fax: [Blank]
 Email: [Blank]

Requester Project Information:
 Project Name: [Blank]
 Project ID: [Blank]

Sample Information:
 Sample ID: [Blank]
 Sample Description: [Blank]

Requester Signature:
 Name: [Blank]
 Title: [Blank]
 Date: [Blank]

Receiver Contact Information:
 Name: [Blank]
 Address: [Blank]
 City: [Blank] State: [Blank] Zip: [Blank]
 Phone: [Blank] Fax: [Blank]
 Email: [Blank]

Receiver Project Information:
 Project Name: [Blank]
 Project ID: [Blank]

Receiver Signature:
 Name: [Blank]
 Title: [Blank]
 Date: [Blank]

| ITEM # | SAMPLE ID | Container Type | Container Material | Container Size | Net Weight | Gross Weight | COLLECTOR | | SAMPLE TAKEN AT | # OF CONTAINERS | PRESERVATION | | | | | | | | | | | | ANALYSE TEST | RESIDUAL OBSERVE (Y/N) | | | | | | |
|--------|-----------|----------------|--------------------|----------------|------------|--------------|-----------|-----|-----------------|-----------------|--------------|--------|-----|------|--------|-------|------|-----------------|----------|--------|----|----|--------------|------------------------|--|--|--|--|--|--|
| | | | | | | | START | END | | | CRYSTALL | FREEZE | DRI | WASH | METHOD | OTHER | ENVY | ENVY - ME, K, N | C, F, SO | ALUMIN | IR | IR | | | | | | | | |
| 1 | 572 | 3 | PLASTIC | 1000 | 1140 | 1200 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 2 | 572 | 3 | PLASTIC | 1000 | 1200 | 1250 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 3 | 572 | 3 | PLASTIC | 1000 | 1250 | 1300 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 4 | 572 | 3 | PLASTIC | 1000 | 1300 | 1350 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 5 | 572 | 3 | PLASTIC | 1000 | 1350 | 1400 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 6 | 572 | 3 | PLASTIC | 1000 | 1400 | 1450 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 7 | 572 | 3 | PLASTIC | 1000 | 1450 | 1500 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 8 | 572 | 3 | PLASTIC | 1000 | 1500 | 1550 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 9 | 572 | 3 | PLASTIC | 1000 | 1550 | 1600 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |
| 10 | 572 | 3 | PLASTIC | 1000 | 1600 | 1650 | 572 | Y | | 3 | | | | | | | | | | | | | | | | | | | | |

Print Name of Client: [Blank]
 Location of Sample: [Blank]

Print Name of Collector: [Blank]
 Date: [Blank]

Print Name of Receiver: [Blank]
 Date: [Blank]



April 27, 2022

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

RE: Project: MCMANUS CCR RAD
Pace Project No.: 92590937

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 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@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water
Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water
Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR RAD
Pace Project No.: 92590937

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92590937001 | DPZ-02 | Water | 03/01/22 11:50 | 03/02/22 10:03 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|--------------------------|----------|-------------------|------------|
| 92590937001 | DPZ-02 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | JSM | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92590937001 | DPZ-02 | | | | | |
| EPA 9315 | Radium-226 | 7.02 ± 1.25
(0.218) | pCi/L | | 03/22/22 09:47 | |
| EPA 9320 | Radium-228 | C:99% T:NA
2.01 ±
0.606
(0.737) | pCi/L | | 03/31/22 14:30 | |
| Total Radium Calculation | Total Radium | C:72%
T:88%
9.03 ± 1.86
(0.955) | pCi/L | | 04/06/22 17:55 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: DPZ-02 Lab ID: 92590937001 Collected: 03/01/22 11:50 Received: 03/02/22 10:03 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 7.02 ± 1.25 (0.218)
C:99% T:NA | pCi/L | 03/22/22 09:47 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 2.01 ± 0.606 (0.737)
C:72% T:88% | pCi/L | 03/31/22 14:30 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 9.03 ± 1.86 (0.955) | pCi/L | 04/06/22 17:55 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

QC Batch: 490022

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92590937001

METHOD BLANK: 2370697

Matrix: Water

Associated Lab Samples: 92590937001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-226 | 0.0235 ± 0.102 (0.263) C:96% T:NA | pCi/L | 03/22/22 09:47 | |

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

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

QC Batch: 491659

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92590937001

METHOD BLANK: 2378699

Matrix: Water

Associated Lab Samples: 92590937001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.492 ± 0.352 (0.677) C:71% T:92% | pCi/L | 03/31/22 14:29 | |

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

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



QUALIFIERS

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

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.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR RAD

Pace Project No.: 92590937

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|--------------------------|----------|-------------------|------------------|
| 92590937001 | DPZ-02 | EPA 9315 | 490022 | | |
| 92590937001 | DPZ-02 | EPA 9320 | 491659 | | |
| 92590937001 | DPZ-02 | Total Radium Calculation | 495618 | | |

REPORT OF LABORATORY ANALYSIS

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
USGS Retrieval

Client Name: GA Power

Project #: **WO#: 92590937**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other _____



Date/Initials Person Examining Contents: DE 3/2/21

Custody Seal Present? Yes No Seal Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 230 Type of Use: Yes Blue None

Cooler Temp: 1.0 Correction Factor: Add/Subtract (°C) +2

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.2

USDA Regulated Soil (No, 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 Mexico and Puerto Rico)? Yes No

| | Yes | No | N/A | Comments/Discrepancy |
|--|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|
| Chain of Custody Present? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. |
| Short Hold Time Analysis (<72 hr)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. |
| Batch Turn Around Time Requested? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. |
| Sufficient Volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. |
| Correct Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. |
| Pace Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Containers Intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. |
| Dissolved analysis: Samples Field Filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. |
| Includes Date/Time/ID/Analysis Matrix: <u>GW</u> | | | | |
| Headspace in VOA Vials (V-S-Sm)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. |
| Trip Blank Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 11. |
| Trip Blank Custody Seals Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |

COMMENTS/SAMPLE DISCREPANCY _____ Field Data Required? Yes No

CLIENT NOTIFICATION/RESOLUTION _____ Lot ID of spill containers: _____

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SW Review: _____ Date: _____



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 2 of 3
 Issuing Authority:
 Pace Carolina's Quality Office

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

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRB/DOC (water) DOC, LUG

**Bottom half of box is to list number of bottles

Project #

WO# : 92590937

PR: NPG

Due Date: 03/23/22

CLIENT: GR-GR Power

| Sample | Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|-------------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP04-175 ml Plastic Unpreserved (N/A) (2) | | | | | | | | | | | | | |
| BP04-250 ml Plastic Unpreserved (N/A) | | 2 | | | | | | | | | | | |
| BP04-500 ml Plastic Unpreserved (N/A) | | 1 | | | | | | | | | | | |
| BP04 1 liter Plastic Unpreserved (N/A) | | | | | | | | | | | | | |
| BP04-125 ml Plastic H2SO4 (pH < 7) (2) | | | | | | | | | | | | | |
| BP04-150 ml plastic vials (pH < 7) | | | | | | | | | | | | | |
| BP04-125 ml Plastic 2% Acetic & Acetic (2) | | | | | | | | | | | | | |
| BP04-125 ml Plastic NaOH (pH > 12) (2) | | | | | | | | | | | | | |
| WGLU-wide-mouthed Glass Jar Unpreserved | | | | | | | | | | | | | |
| AS04 1 liter Amber Unpreserved (N/A) (2) | | | | | | | | | | | | | |
| AS04 1 liter Amber HD (pH < 2) | | | | | | | | | | | | | |
| AS04-150 ml Amber Unpreserved (N/A) (2) | | | | | | | | | | | | | |
| AS04-1 liter Amber H2SO4 (pH < 2) | | | | | | | | | | | | | |
| AS04-150 ml Amber H2SO4 (pH < 2) | | | | | | | | | | | | | |
| AS04(250ml)-150 ml Amber H2SO4 (N/A)(2) | | | | | | | | | | | | | |
| ES04-40 ml VOA HD (N/A) | | | | | | | | | | | | | |
| VS04-40 ml VOA Na2S2O3 (N/A) | | | | | | | | | | | | | |
| VS04-40 ml VOA Unpreserved (N/A) | | | | | | | | | | | | | |
| DS04-40 ml VOA H2PO4 (N/A) | | | | | | | | | | | | | |
| VOA4 (1 vial per bag)-500 ml (N/A) | | | | | | | | | | | | | |
| VOA4 (1 vial per bag)-500 ml (N/A) | | | | | | | | | | | | | |
| SP04-125 ml Sterile Plastic (N/A - lab) | | | | | | | | | | | | | |
| SP04-150 ml Sterile Plastic (N/A - lab) | | | | | | | | | | | | | |
| | BRIN | | | | | | | | | | | | |
| BP04-150 ml Plastic (N/A)(2)(3)(4)(7) | | | | | | | | | | | | | |
| AS04-150 ml Amber Unpreserved vials (N/A) | | | | | | | | | | | | | |
| VS04-40 ml Sterilization vials (N/A) | | | | | | | | | | | | | |
| DS04-40 ml Amber Unpreserved vials (N/A) | | | | | | | | | | | | | |

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 State), incorrect preservatives, out of range, incorrect containers

Company: Georgia Power
 Address: 1803 Westmore Parkway, Atlanta, GA 30338
 Report to: Tom Gehring, Beth Sorenson
 E-mail to: Resolute Environmental
 1015 Atlanta Peachtree Parkway, Suite 1100, Marietta, GA 30066

Customer Project Name/Number: MD / Benavides
 Date / Quantity / Time: 11/11/00 10 10 10
 Sample Description: 100007-500-1015
 Collected by: Robert McCall

Sample Disposal: Shred
 1 1 Days at appropriate temp
 1 1 Days at appropriate temp
 1 1 Days at appropriate temp
 1 1 Days at appropriate temp
 1 1 Days at appropriate temp
 1 1 Days at appropriate temp

| Customer Sample ID | Matrix * | Comp/Grab | Collected for (Complete Date) | Composite Date | Analysis |
|--------------------|----------|-----------|-------------------------------|----------------|----------|
| DP2-02 | GD | G | 11/15/00 | 11/15/00 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Customer Remarks / Special Conditions / Provider Remarks:
 Type of Use: wet dry none
 Fasting Material Used:
 Address (sample) received (date) / time: Y N NA
 Address (sample) received (date) / time: Y N NA
 Address (sample) received (date) / time: Y N NA
 Address (sample) received (date) / time: Y N NA

Lab Use - only - Lab Sample # / Comments:
 ALL SHADED AREAS ARE FOR LAB USE ONLY

| Lab Sample # | Lab Project Manager | Lab Project Number | Lab Project Name |
|--------------|---------------------|--------------------|------------------|
| <u>1</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>2</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>3</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>4</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>5</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>6</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>7</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>8</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>9</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>10</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>11</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>12</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>13</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>14</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>15</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>16</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>17</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>18</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>19</u> | <u>U</u> | <u>U</u> | <u>U</u> |
| <u>20</u> | <u>U</u> | <u>U</u> | <u>U</u> |

Lab Project Manager: APRIL 2000 + M. R. No
C.L.F. SOU
Alkalinity/Carbonate/Bicarbonate
TDS
RAD 9315/9320
 Lab Sample # / Comments:
7.08
 Lab Sample # / Comments:
 Lab Sample # / Comments:
 Lab Sample # / Comments:

Quality Control Sample Performance Assessment

Product Name: _____

Product Model Number: _____

Total Samples: _____
 Total Passed: _____
 Total Failed: _____
 Defect Rate: _____

Process Name: _____

Quality Control Sample Performance Assessment

| Category | Sub-Category | Pass/Fail |
|-------------------------|----------------------|-----------|
| Process Parameters | Temperature | Pass |
| | Pressure | Pass |
| | Time | Pass |
| | Material | Pass |
| | Environment | Pass |
| Product Characteristics | Dimensional Accuracy | Pass |
| | Material Integrity | Pass |
| | Surface Finish | Pass |
| | Internal Features | Pass |
| | Assembly Status | Pass |

Quality Control Sample Performance Assessment

| Category | Sub-Category | Pass/Fail |
|-------------------------|----------------------|-----------|
| Process Parameters | Temperature | Pass |
| | Pressure | Pass |
| | Time | Pass |
| | Material | Pass |
| | Environment | Pass |
| Product Characteristics | Dimensional Accuracy | Pass |
| | Material Integrity | Pass |
| | Surface Finish | Pass |
| | Internal Features | Pass |
| | Assembly Status | Pass |

Quality Control Sample Performance Assessment

| Category | Sub-Category | Pass/Fail |
|-------------------------|----------------------|-----------|
| Process Parameters | Temperature | Pass |
| | Pressure | Pass |
| | Time | Pass |
| | Material | Pass |
| | Environment | Pass |
| Product Characteristics | Dimensional Accuracy | Pass |
| | Material Integrity | Pass |
| | Surface Finish | Pass |
| | Internal Features | Pass |
| | Assembly Status | Pass |

All data were collected from the test runs. The results are accurate.

Signature: _____

Handwritten signature

Handwritten notes in the top right box of the page.

Handwritten notes in the bottom right box of the page.



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: JSM
Date: 3/29/2022
Worklist: 65664
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

| Method Blank Assessment | | |
|-------------------------------------|---------|--|
| MB Sample ID | 2378699 | |
| MB concentration: | 0.492 | |
| M/B 2 Sigma CSU: | 0.352 | |
| MB MDC: | 0.677 | |
| MB Numerical Performance Indicator: | 2.74 | |
| MB Status vs Numerical Indicator: | Warning | |
| MB Status vs. MDC: | Pass | |

| Laboratory Control Sample Assessment | LCSD (Y or N)? | N |
|---|----------------|-----------------|
| | | LCS65664 |
| Count Date: | 3/31/2022 | |
| Spike I.D.: | 22-016 | |
| Decay Corrected Spike Concentration (pCi/mL): | 36.277 | |
| Volume Used (mL): | 0.10 | |
| Aliquot Volume (L, g, F): | 0.808 | |
| Target Conc. (pCi/L, g, F): | 4.489 | |
| Uncertainty (Calculated): | 0.220 | |
| Result (pCi/L, g, F): | 3.707 | |
| LCS/LCSD 2 Sigma CSU (pCi/L, g, F): | 0.903 | |
| Numerical Performance Indicator: | -1.65 | |
| Percent Recovery: | 82.58% | |
| Status vs Numerical Indicator: | N/A | |
| Status vs Recovery: | Pass | |
| Upper % Recovery Limits: | 135% | |
| Lower % Recovery Limits: | 60% | |

| Sample Matrix Spike Control Assessment | MS/MSD 1 | MS/MSD 2 |
|--|-------------|----------|
| Sample Collection Date: | 2/14/2022 | |
| Sample I.D. | 30470864009 | |
| Sample MS I.D. | 30470864071 | |
| Sample MSD I.D. | 30470864072 | |
| Spike I.D.: | 22-016 | |
| MS/MSD Decay Corrected Spike Concentration (pCi/mL): | 36.822 | |
| Spike Volume Used in MS (mL): | 0.20 | |
| Spike Volume Used in MSD (mL): | 0.20 | |
| MS Aliquot (L, g, F): | 0.817 | |
| MS Target Conc.(pCi/L, g, F): | 9.015 | |
| MSD Aliquot (L, g, F): | 0.813 | |
| MSD Target Conc. (pCi/L, g, F): | 9.063 | |
| MS Spike Uncertainty (calculated): | 0.442 | |
| MSD Spike Uncertainty (calculated): | 0.444 | |
| Sample Result: | 0.408 | |
| Sample Result 2 Sigma CSU (pCi/L, g, F): | 0.355 | |
| Sample Matrix Spike Result: | 7.422 | |
| Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): | 1.539 | |
| Sample Matrix Spike Duplicate Result: | 6.717 | |
| Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): | 1.446 | |
| MS Numerical Performance Indicator: | -2.392 | |
| MSD Numerical Performance Indicator: | -3.475 | |
| MS Percent Recovery: | 77.80% | |
| MSD Percent Recovery: | 69.61% | |
| MS Status vs Numerical Indicator: | Warning | |
| MSD Status vs Numerical Indicator: | Fail**** | |
| MS Status vs Recovery: | Pass | |
| MSD Status vs Recovery: | Pass | |
| MS/MSD Upper % Recovery Limits: | 135% | |
| MS/MSD Lower % Recovery Limits: | 60% | |

| Duplicate Sample Assessment | | |
|--|--------------|---|
| Sample I.D.: | | Enter Duplicate sample IDs if other than LCS/LCSD in the space below. |
| Duplicate Sample I.D.: | | |
| Sample Result (pCi/L, g, F): | | |
| Sample Result 2 Sigma CSU (pCi/L, g, F): | | |
| Sample Duplicate Result (pCi/L, g, F): | | |
| Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): | | |
| Are sample and/or duplicate results below RL? | See Below ## | |
| Duplicate Numerical Performance Indicator: | | |
| Duplicate RPD: | | |
| Duplicate Status vs Numerical Indicator: | | |
| Duplicate Status vs RPD: | | |
| % RPD Limit: | | |

| Matrix Spike/Matrix Spike Duplicate Sample Assessment | | |
|--|-------------|--|
| Sample I.D. | 30470864009 | |
| Sample MS I.D. | 30470864071 | |
| Sample MSD I.D. | 30470864072 | |
| Sample Matrix Spike Result: | 7.422 | |
| Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): | 1.539 | |
| Sample Matrix Spike Duplicate Result: | 6.717 | |
| Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): | 1.446 | |
| Duplicate Numerical Performance Indicator: | 0.654 | |
| (Based on the Percent Recoveries) MS/ MSD Duplicate RPD: | 11.11% | |
| MS/ MSD Duplicate Status vs Numerical Indicator: | Pass | |
| MS/ MSD Duplicate Status vs RPD: | Pass | |
| % RPD Limit: | 36% | |

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

Comments:



April 26, 2022

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

RE: Project: MCMANUS CCR RADS
Pace Project No.: 92591814

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 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@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water
Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water
Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR RADS
Pace Project No.: 92591814

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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92591814001 | MCM-19 | Water | 03/01/22 12:05 | 03/04/22 10:45 |
| 92591814002 | MCM-20 | Water | 03/01/22 15:15 | 03/04/22 10:45 |
| 92591814003 | FB-1 | Water | 03/01/22 17:05 | 03/04/22 10:45 |
| 92591814004 | EB-1 | Water | 03/01/22 16:55 | 03/04/22 10:45 |
| 92591814005 | MCM-05 | Water | 03/01/22 14:36 | 03/04/22 10:45 |
| 92591814006 | MCM-06 | Water | 03/01/22 15:52 | 03/04/22 10:45 |
| 92591814007 | MCM-01 | Water | 03/02/22 15:10 | 03/04/22 10:45 |
| 92591814008 | MCM-02 | Water | 03/02/22 15:42 | 03/04/22 10:45 |
| 92591814009 | MCM-11 | Water | 03/02/22 14:00 | 03/04/22 10:45 |
| 92591814010 | MCM-15 | Water | 03/02/22 11:41 | 03/04/22 10:45 |
| 92591814011 | MCM-18 | Water | 03/02/22 10:00 | 03/04/22 10:45 |
| 92591814012 | DUP-1 | Water | 03/02/22 00:00 | 03/04/22 10:45 |
| 92591814013 | FB-2 | Water | 03/02/22 15:50 | 03/04/22 10:45 |
| 92591814014 | EB-2 | Water | 03/02/22 16:00 | 03/04/22 10:45 |
| 92591814015 | MCM-07 | Water | 03/02/22 09:50 | 03/04/22 10:45 |
| 92591814016 | MCM-04 | Water | 03/03/22 10:32 | 03/04/22 10:45 |
| 92591814017 | MCM-12 | Water | 03/03/22 11:40 | 03/04/22 10:45 |
| 92591814018 | MCM-16 | Water | 03/03/22 12:22 | 03/04/22 10:45 |
| 92591814019 | DUP-2 | Water | 03/03/22 00:00 | 03/04/22 10:45 |
| 92591814020 | FB-3 | Water | 03/03/22 12:10 | 03/04/22 10:45 |
| 92591814021 | EB-3 | Water | 03/03/22 14:35 | 03/04/22 10:45 |
| 92591814022 | MCM-14 | Water | 03/03/22 10:20 | 03/04/22 10:45 |
| 92591814023 | MCM-17 | Water | 03/03/22 09:04 | 03/04/22 10:45 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|--------------------------|----------|-------------------|------------|
| 92591814001 | MCM-19 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | JSM | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814002 | MCM-20 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814003 | FB-1 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814004 | EB-1 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814005 | MCM-05 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814006 | MCM-06 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814007 | MCM-01 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814008 | MCM-02 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814009 | MCM-11 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814010 | MCM-15 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814011 | MCM-18 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814012 | DUP-1 | EPA 9315 | JC2 | 1 | PASI-PA |
| | | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| 92591814013 | FB-2 | EPA 9315 | JC2 | 1 | PASI-PA |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR RADS
 Pace Project No.: 92591814

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|--------------------------|----------|-------------------|------------|
| 92591814014 | EB-2 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814015 | MCM-07 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814016 | MCM-04 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814017 | MCM-12 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814018 | MCM-16 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814019 | DUP-2 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814020 | FB-3 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814021 | EB-3 | EPA 9320 | VAL | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814022 | MCM-14 | EPA 9320 | JSM | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |
| 92591814023 | MCM-17 | EPA 9320 | JSM | 1 | PASI-PA |
| | | Total Radium Calculation | JAL | 1 | PASI-PA |
| | | EPA 9315 | JC2 | 1 | PASI-PA |

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92591814001 | MCM-19 | | | | | |
| EPA 9315 | Radium-226 | 3.08 ± 0.700
(0.409) | pCi/L | | 03/25/22 08:00 | |
| EPA 9320 | Radium-228 | 6.57 ± 1.42
(0.884)
C:95% T:NA
C:69%
T:86% | pCi/L | | 04/04/22 14:48 | |
| Total Radium Calculation | Total Radium | 9.65 ± 2.12
(1.29) | pCi/L | | 04/08/22 13:11 | |
| 92591814002 | MCM-20 | | | | | |
| EPA 9315 | Radium-226 | 7.04 ± 1.28
(0.380) | pCi/L | | 03/25/22 08:00 | |
| EPA 9320 | Radium-228 | 20.5 ± 4.07
(1.37)
C:99% T:NA
C:63%
T:81% | pCi/L | | 04/07/22 18:03 | |
| Total Radium Calculation | Total Radium | 27.5 ± 5.35
(1.75) | pCi/L | | 04/10/22 18:08 | |
| 92591814003 | FB-1 | | | | | |
| EPA 9315 | Radium-226 | -0.0756 ± 0.127
(0.397) | pCi/L | | 03/25/22 08:32 | |
| EPA 9320 | Radium-228 | 0.322 ± 0.496
(1.07)
C:99% T:NA
C:65%
T:93% | pCi/L | | 04/07/22 18:03 | |
| Total Radium Calculation | Total Radium | 0.322 ± 0.623
(1.47) | pCi/L | | 04/10/22 18:08 | |
| 92591814004 | EB-1 | | | | | |
| EPA 9315 | Radium-226 | 0.131 ± 0.153
(0.309) | pCi/L | | 03/25/22 08:32 | |
| EPA 9320 | Radium-228 | 0.197 ± 0.518
(1.16)
C:96% T:NA
C:66%
T:92% | pCi/L | | 04/07/22 18:05 | |
| Total Radium Calculation | Total Radium | 0.328 ± 0.671
(1.47) | pCi/L | | 04/10/22 18:08 | |
| 92591814005 | MCM-05 | | | | | |
| EPA 9315 | Radium-226 | 1.06 ± 0.344
(0.270)
C:99% T:NA | pCi/L | | 03/25/22 08:32 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92591814005 | MCM-05 | | | | | |
| EPA 9320 | Radium-228 | 7.10 ± 4.84
(9.18)
C:70%
T:80% | pCi/L | | 04/07/22 18:05 | |
| Total Radium Calculation | Total Radium | 8.16 ± 5.18
(9.45) | pCi/L | | 04/10/22 18:08 | |
| 92591814006 | MCM-06 | | | | | |
| EPA 9315 | Radium-226 | 2.60 ±
0.591
(0.275)
C:101%
T:NA | pCi/L | | 03/25/22 08:32 | |
| EPA 9320 | Radium-228 | 3.23 ± 5.05
(10.9)
C:70%
T:73% | pCi/L | | 04/07/22 18:05 | |
| Total Radium Calculation | Total Radium | 5.83 ± 5.64
(11.2) | pCi/L | | 04/10/22 18:08 | |
| 92591814007 | MCM-01 | | | | | |
| EPA 9315 | Radium-226 | 0.370 ±
0.202
(0.268)
C:96% T:NA | pCi/L | | 03/25/22 08:32 | |
| EPA 9320 | Radium-228 | 0.00894 ±
0.576
(1.35)
C:66%
T:73% | pCi/L | | 04/07/22 18:06 | |
| Total Radium Calculation | Total Radium | 0.379 ±
0.778
(1.62) | pCi/L | | 04/10/22 18:08 | |
| 92591814008 | MCM-02 | | | | | |
| EPA 9315 | Radium-226 | 0.327 ±
0.191
(0.258)
C:94% T:NA | pCi/L | | 03/25/22 08:32 | |
| EPA 9320 | Radium-228 | 0.149 ±
0.501
(1.14)
C:67%
T:79% | pCi/L | | 04/07/22 18:06 | |
| Total Radium Calculation | Total Radium | 0.476 ±
0.692
(1.40) | pCi/L | | 04/10/22 18:08 | |
| 92591814009 | MCM-11 | | | | | |
| EPA 9315 | Radium-226 | 0.313 ±
0.197
(0.299)
C:97% T:NA | pCi/L | | 03/25/22 08:32 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92591814009 | MCM-11 | | | | | |
| EPA 9320 | Radium-228 | -0.260 ±
0.469
(1.17)
C:66%
T:84% | pCi/L | | 04/07/22 18:06 | |
| Total Radium Calculation | Total Radium | 0.313 ±
0.666
(1.47) | pCi/L | | 04/10/22 18:08 | |
| 92591814010 | MCM-15 | | | | | |
| EPA 9315 | Radium-226 | 0.825 ±
0.304
(0.249)
C:88% T:NA | pCi/L | | 03/25/22 08:33 | |
| EPA 9320 | Radium-228 | 0.659 ±
0.540
(1.07)
C:69%
T:87% | pCi/L | | 04/07/22 18:07 | |
| Total Radium Calculation | Total Radium | 1.48 ±
0.844
(1.32) | pCi/L | | 04/10/22 18:08 | |
| 92591814011 | MCM-18 | | | | | |
| EPA 9315 | Radium-226 | 4.31 ±
0.857
(0.250)
C:101%
T:NA | pCi/L | | 03/25/22 08:33 | |
| EPA 9320 | Radium-228 | 4.92 ± 1.31
(1.39)
C:66%
T:83% | pCi/L | | 04/07/22 18:08 | |
| Total Radium Calculation | Total Radium | 9.23 ± 2.17
(1.64) | pCi/L | | 04/10/22 18:08 | |
| 92591814012 | DUP-1 | | | | | |
| EPA 9315 | Radium-226 | 4.52 ±
0.889
(0.264)
C:102%
T:NA | pCi/L | | 03/25/22 08:33 | |
| EPA 9320 | Radium-228 | 10.3 ± 2.27
(1.46)
C:63%
T:75% | pCi/L | | 04/07/22 18:09 | |
| Total Radium Calculation | Total Radium | 14.8 ± 3.16
(1.72) | pCi/L | | 04/10/22 18:08 | |
| 92591814013 | FB-2 | | | | | |
| EPA 9315 | Radium-226 | 0.00420 ±
0.0707
(0.210)
C:97% T:NA | pCi/L | | 03/25/22 08:33 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92591814013 | FB-2 | | | | | |
| EPA 9320 | Radium-228 | 0.137 ±
0.583
(1.33)
C:67%
T:82% | pCi/L | | 04/07/22 18:09 | |
| Total Radium Calculation | Total Radium | 0.141 ±
0.654
(1.54) | pCi/L | | 04/10/22 18:08 | |
| 92591814014 | EB-2 | | | | | |
| EPA 9315 | Radium-226 | 0.0400 ±
0.101
(0.247)
C:98% T:NA | pCi/L | | 03/25/22 08:33 | |
| EPA 9320 | Radium-228 | 0.435 ±
0.564
(1.20)
C:63%
T:93% | pCi/L | | 04/07/22 18:09 | |
| Total Radium Calculation | Total Radium | 0.475 ±
0.665
(1.45) | pCi/L | | 04/10/22 18:08 | |
| 92591814015 | MCM-07 | | | | | |
| EPA 9315 | Radium-226 | 4.69 ±
0.906
(0.247)
C:103%
T:NA | pCi/L | | 03/25/22 08:33 | |
| EPA 9320 | Radium-228 | 0.974 ±
4.74 (10.9)
C:62%
T:74% | pCi/L | | 04/07/22 18:09 | |
| Total Radium Calculation | Total Radium | 5.66 ± 5.65
(11.1) | pCi/L | | 04/10/22 18:08 | |
| 92591814016 | MCM-04 | | | | | |
| EPA 9315 | Radium-226 | 1.10 ±
0.355
(0.276)
C:93% T:NA | pCi/L | | 03/25/22 08:58 | |
| EPA 9320 | Radium-228 | 1.41 ±
0.833
(1.49)
C:65%
T:57% | pCi/L | | 04/07/22 18:10 | |
| Total Radium Calculation | Total Radium | 2.51 ± 1.19
(1.77) | pCi/L | | 04/10/22 18:08 | |
| 92591814017 | MCM-12 | | | | | |
| EPA 9315 | Radium-226 | 0.932 ±
0.321
(0.299)
C:97% T:NA | pCi/L | | 03/25/22 08:58 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|---|-------|--------------|----------------|------------|
| 92591814017 | MCM-12 | | | | | |
| EPA 9320 | Radium-228 | 2.63 ± 3.43
(7.25)
C:66%
T:89% | pCi/L | | 04/07/22 18:10 | |
| Total Radium Calculation | Total Radium | 3.56 ± 3.75
(7.55) | pCi/L | | 04/10/22 18:08 | |
| 92591814018 | MCM-16 | | | | | |
| EPA 9315 | Radium-226 | 0.844 ±
0.303
(0.293)
C:97% T:NA | pCi/L | | 03/25/22 08:58 | |
| EPA 9320 | Radium-228 | 0.254 ±
0.606
(1.35)
C:67%
T:80% | pCi/L | | 04/07/22 18:10 | |
| Total Radium Calculation | Total Radium | 1.10 ±
0.909
(1.64) | pCi/L | | 04/10/22 18:08 | |
| 92591814019 | DUP-2 | | | | | |
| EPA 9315 | Radium-226 | 1.14 ±
0.369
(0.321)
C:94% T:NA | pCi/L | | 03/25/22 08:58 | |
| EPA 9320 | Radium-228 | 1.44 ±
0.887
(1.65)
C:66%
T:60% | pCi/L | | 04/07/22 18:10 | |
| Total Radium Calculation | Total Radium | 2.58 ± 1.26
(1.97) | pCi/L | | 04/10/22 18:08 | |
| 92591814020 | FB-3 | | | | | |
| EPA 9315 | Radium-226 | -0.0125 ±
0.0915
(0.273)
C:99% T:NA | pCi/L | | 03/25/22 08:58 | |
| EPA 9320 | Radium-228 | 0.325 ±
0.310
(0.624)
C:66%
T:90% | pCi/L | | 04/07/22 14:53 | |
| Total Radium Calculation | Total Radium | 0.325 ±
0.402
(0.897) | pCi/L | | 04/10/22 18:08 | |
| 92591814021 | EB-3 | | | | | |
| EPA 9315 | Radium-226 | -0.0326 ±
0.0666
(0.217)
C:99% T:NA | pCi/L | | 03/31/22 18:40 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR RAD5

Pace Project No.: 92591814

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|--------------------------|--------------------------------|--|-------|--------------|----------------|------------|
| 92591814021 | EB-3 | | | | | |
| EPA 9320 | Radium-228 | 0.368 ±
0.704
(1.55)
C:63%
T:64% | pCi/L | | 04/07/22 18:11 | |
| Total Radium Calculation | Total Radium | 0.368 ±
0.771
(1.77) | pCi/L | | 04/10/22 18:08 | |
| 92591814022 | MCM-14 | | | | | |
| EPA 9315 | Radium-226 | 3.31 ±
0.636
(0.138)
C:95% T:NA | pCi/L | | 03/31/22 18:40 | |
| EPA 9320 | Radium-228 | 4.69 ± 1.35
(1.49)
C:66%
T:90% | pCi/L | | 04/11/22 12:05 | |
| Total Radium Calculation | Total Radium | 8.00 ± 1.99
(1.63) | pCi/L | | 04/13/22 08:32 | |
| 92591814023 | MCM-17 | | | | | |
| EPA 9315 | Radium-226 | 3.93 ±
0.737
(0.164)
C:95% T:NA | pCi/L | | 03/31/22 18:41 | |
| EPA 9320 | Radium-228 | 5.17 ± 1.44
(1.54)
C:62%
T:93% | pCi/L | | 04/11/22 12:04 | |
| Total Radium Calculation | Total Radium | 9.10 ± 2.18
(1.70) | pCi/L | | 04/13/22 08:32 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---------------------------------------|--------------------------|--|-------|----------------|------------|------|
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 3.08 ± 0.700 (0.409)
C:95% T:NA | pCi/L | 03/25/22 08:00 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 6.57 ± 1.42 (0.884)
C:69% T:86% | pCi/L | 04/04/22 14:48 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 9.65 ± 2.12 (1.29) | pCi/L | 04/08/22 13:11 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-20 Lab ID: 92591814002 Collected: 03/01/22 15:15 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 7.04 ± 1.28 (0.380)
C:99% T:NA | pCi/L | 03/25/22 08:00 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 20.5 ± 4.07 (1.37)
C:63% T:81% | pCi/L | 04/07/22 18:03 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 27.5 ± 5.35 (1.75) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|---|-------|----------------|------------|------|
| Sample: FB-1 Lab ID: 92591814003 Collected: 03/01/22 17:05 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | -0.0756 ± 0.127 (0.397)
C:99% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.322 ± 0.496 (1.07)
C:65% T:93% | pCi/L | 04/07/22 18:03 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.322 ± 0.623 (1.47) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|---|-------|----------------|------------|------|
| Sample: EB-1 Lab ID: 92591814004 Collected: 03/01/22 16:55 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.131 ± 0.153 (0.309)
C:96% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.197 ± 0.518 (1.16)
C:66% T:92% | pCi/L | 04/07/22 18:05 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.328 ± 0.671 (1.47) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: MCM-05 **Lab ID: 92591814005** Collected: 03/01/22 14:36 Received: 03/04/22 10:45 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 | 1.06 ± 0.344 (0.270)
C:99% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 7.10 ± 4.84 (9.18)
C:70% T:80% | pCi/L | 04/07/22 18:05 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.16 ± 5.18 (9.45) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-06 Lab ID: 92591814006 Collected: 03/01/22 15:52 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 2.60 ± 0.591 (0.275)
C:101% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 3.23 ± 5.05 (10.9)
C:70% T:73% | pCi/L | 04/07/22 18:05 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 5.83 ± 5.64 (11.2) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|---|-------|----------------|------------|------|
| Sample: MCM-01 Lab ID: 92591814007 Collected: 03/02/22 15:10 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.370 ± 0.202 (0.268)
C:96% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.00894 ± 0.576 (1.35)
C:66% T:73% | pCi/L | 04/07/22 18:06 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.379 ± 0.778 (1.62) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: MCM-02 **Lab ID: 92591814008** Collected: 03/02/22 15:42 Received: 03/04/22 10:45 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 | 0.327 ± 0.191 (0.258)
C:94% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.149 ± 0.501 (1.14)
C:67% T:79% | pCi/L | 04/07/22 18:06 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 0.476 ± 0.692 (1.40) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: MCM-11 Lab ID: 92591814009 Collected: 03/02/22 14:00 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.313 ± 0.197 (0.299)
C:97% T:NA | pCi/L | 03/25/22 08:32 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | -0.260 ± 0.469 (1.17)
C:66% T:84% | pCi/L | 04/07/22 18:06 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.313 ± 0.666 (1.47) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|---|-------|----------------|------------|------|
| Sample: MCM-15 Lab ID: 92591814010 Collected: 03/02/22 11:41 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.825 ± 0.304 (0.249)
C:88% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.659 ± 0.540 (1.07)
C:69% T:87% | pCi/L | 04/07/22 18:07 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 1.48 ± 0.844 (1.32) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: MCM-18 **Lab ID: 92591814011** Collected: 03/02/22 10:00 Received: 03/04/22 10:45 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 | 4.31 ± 0.857 (0.250)
C:101% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 4.92 ± 1.31 (1.39)
C:66% T:83% | pCi/L | 04/07/22 18:08 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 9.23 ± 2.17 (1.64) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: DUP-1 **Lab ID: 92591814012** Collected: 03/02/22 00:00 Received: 03/04/22 10:45 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 | 4.52 ± 0.889 (0.264)
C:102% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 10.3 ± 2.27 (1.46)
C:63% T:75% | pCi/L | 04/07/22 18:09 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 14.8 ± 3.16 (1.72) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: FB-2 Lab ID: 92591814013 Collected: 03/02/22 15:50 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.00420 ± 0.0707 (0.210)
C:97% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.137 ± 0.583 (1.33)
C:67% T:82% | pCi/L | 04/07/22 18:09 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.141 ± 0.654 (1.54) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: EB-2 **Lab ID: 92591814014** Collected: 03/02/22 16:00 Received: 03/04/22 10:45 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 | 0.0400 ± 0.101 (0.247)
C:98% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.435 ± 0.564 (1.20)
C:63% T:93% | pCi/L | 04/07/22 18:09 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 0.475 ± 0.665 (1.45) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|---|-------|----------------|------------|------|
| Sample: MCM-07 Lab ID: 92591814015 Collected: 03/02/22 09:50 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 4.69 ± 0.906 (0.247)
C:103% T:NA | pCi/L | 03/25/22 08:33 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.974 ± 4.74 (10.9)
C:62% T:74% | pCi/L | 04/07/22 18:09 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 5.66 ± 5.65 (11.1) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-04 Lab ID: 92591814016 Collected: 03/03/22 10:32 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 1.10 ± 0.355 (0.276)
C:93% T:NA | pCi/L | 03/25/22 08:58 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 1.41 ± 0.833 (1.49)
C:65% T:57% | pCi/L | 04/07/22 18:10 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 2.51 ± 1.19 (1.77) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---------------------------------------|--------------------------|---|-------|----------------|------------|------|
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | 0.932 ± 0.321 (0.299)
C:97% T:NA | pCi/L | 03/25/22 08:58 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 2.63 ± 3.43 (7.25)
C:66% T:89% | pCi/L | 04/07/22 18:10 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 3.56 ± 3.75 (7.55) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: MCM-16 **Lab ID: 92591814018** Collected: 03/03/22 12:22 Received: 03/04/22 10:45 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 | 0.844 ± 0.303 (0.293)
C:97% T:NA | pCi/L | 03/25/22 08:58 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.254 ± 0.606 (1.35)
C:67% T:80% | pCi/L | 04/07/22 18:10 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 1.10 ± 0.909 (1.64) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

Sample: DUP-2 **Lab ID: 92591814019** Collected: 03/03/22 00:00 Received: 03/04/22 10:45 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 | 1.14 ± 0.369 (0.321)
C:94% T:NA | pCi/L | 03/25/22 08:58 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 1.44 ± 0.887 (1.65)
C:66% T:60% | pCi/L | 04/07/22 18:10 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 2.58 ± 1.26 (1.97) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: FB-3 Lab ID: 92591814020 Collected: 03/03/22 12:10 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | -0.0125 ± 0.0915 (0.273)
C:99% T:NA | pCi/L | 03/25/22 08:58 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 0.325 ± 0.310 (0.624)
C:66% T:90% | pCi/L | 04/07/22 14:53 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 0.325 ± 0.402 (0.897) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|--------------------------|--|-------|----------------|------------|------|
| Sample: EB-3 Lab ID: 92591814021 Collected: 03/03/22 14:35 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-226 | EPA 9315 | -0.0326 ± 0.0666 (0.217)
C:99% T:NA | pCi/L | 03/31/22 18:40 | 13982-63-3 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Radium-228 | EPA 9320 | 0.368 ± 0.704 (1.55)
C:63% T:64% | pCi/L | 04/07/22 18:11 | 15262-20-1 | |
| Pace Analytical Services - Greensburg | | | | | | |
| Total Radium | Total Radium Calculation | 0.368 ± 0.771 (1.77) | pCi/L | 04/10/22 18:08 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-14 Lab ID: 92591814022 Collected: 03/03/22 10:20 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 3.31 ± 0.636 (0.138)
C:95% T:NA | pCi/L | 03/31/22 18:40 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 4.69 ± 1.35 (1.49)
C:66% T:90% | pCi/L | 04/11/22 12:05 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 8.00 ± 1.99 (1.63) | pCi/L | 04/13/22 08:32 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---------------------------------------|--|-------|----------------|------------|------|
| Sample: MCM-17 Lab ID: 92591814023 Collected: 03/03/22 09:04 Received: 03/04/22 10:45 Matrix: Water
PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 9315 | 3.93 ± 0.737 (0.164)
C:95% T:NA | pCi/L | 03/31/22 18:41 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 9320 | 5.17 ± 1.44 (1.54)
C:62% T:93% | pCi/L | 04/11/22 12:04 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | 9.10 ± 2.18 (1.70) | pCi/L | 04/13/22 08:32 | 7440-14-4 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

QC Batch: 491611

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92591814001, 92591814002, 92591814003, 92591814004, 92591814005, 92591814006, 92591814007, 92591814008, 92591814009, 92591814010, 92591814011, 92591814012, 92591814013, 92591814014, 92591814015, 92591814016, 92591814017, 92591814018, 92591814019, 92591814020

METHOD BLANK: 2378533

Matrix: Water

Associated Lab Samples: 92591814001, 92591814002, 92591814003, 92591814004, 92591814005, 92591814006, 92591814007, 92591814008, 92591814009, 92591814010, 92591814011, 92591814012, 92591814013, 92591814014, 92591814015, 92591814016, 92591814017, 92591814018, 92591814019, 92591814020

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-226 | 0.0482 ± 0.103 (0.243) C:96% T:NA | pCi/L | 03/25/22 08:00 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| | | | |
|------------------|----------|-----------------------|---------------------------------------|
| QC Batch: | 492483 | Analysis Method: | EPA 9315 |
| QC Batch Method: | EPA 9315 | Analysis Description: | 9315 Total Radium |
| | | Laboratory: | Pace Analytical Services - Greensburg |

Associated Lab Samples: 92591814021, 92591814022, 92591814023

METHOD BLANK: 2383094 Matrix: Water

Associated Lab Samples: 92591814021, 92591814022, 92591814023

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-------------------------------------|-------|----------------|------------|
| Radium-226 | -0.0645 ± 0.0814 (0.268) C:99% T:NA | pCi/L | 03/31/22 18:36 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| | | | |
|------------------|----------|-----------------------|---------------------------------------|
| QC Batch: | 491673 | Analysis Method: | EPA 9320 |
| QC Batch Method: | EPA 9320 | Analysis Description: | 9320 Radium 228 |
| | | Laboratory: | Pace Analytical Services - Greensburg |

Associated Lab Samples: 92591814002, 92591814003, 92591814004, 92591814005, 92591814006, 92591814007, 92591814008, 92591814009, 92591814010, 92591814011, 92591814012, 92591814013, 92591814014, 92591814015, 92591814016, 92591814017, 92591814018, 92591814019, 92591814020, 92591814021

METHOD BLANK: 2378755 Matrix: Water

Associated Lab Samples: 92591814002, 92591814003, 92591814004, 92591814005, 92591814006, 92591814007, 92591814008, 92591814009, 92591814010, 92591814011, 92591814012, 92591814013, 92591814014, 92591814015, 92591814016, 92591814017, 92591814018, 92591814019, 92591814020, 92591814021

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|------------------------------------|-------|----------------|------------|
| Radium-228 | 0.0825 ± 0.341 (0.778) C:64% T:88% | pCi/L | 04/07/22 14:57 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

QC Batch: 494515

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92591814022, 92591814023

METHOD BLANK: 2392623

Matrix: Water

Associated Lab Samples: 92591814022, 92591814023

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.220 ± 0.297 (0.634) C:68% T:98% | pCi/L | 04/11/22 12:04 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

QC Batch: 491672

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92591814001

METHOD BLANK: 2378754

Matrix: Water

Associated Lab Samples: 92591814001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-------------------------------------|-------|----------------|------------|
| Radium-228 | 0.0340 ± 0.180 (0.415) C:82% T:101% | pCi/L | 04/04/22 11:41 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALIFIERS

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

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.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR RADS

Pace Project No.: 92591814

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591814001 | MCM-19 | EPA 9315 | 491611 | | |
| 92591814002 | MCM-20 | EPA 9315 | 491611 | | |
| 92591814003 | FB-1 | EPA 9315 | 491611 | | |
| 92591814004 | EB-1 | EPA 9315 | 491611 | | |
| 92591814005 | MCM-05 | EPA 9315 | 491611 | | |
| 92591814006 | MCM-06 | EPA 9315 | 491611 | | |
| 92591814007 | MCM-01 | EPA 9315 | 491611 | | |
| 92591814008 | MCM-02 | EPA 9315 | 491611 | | |
| 92591814009 | MCM-11 | EPA 9315 | 491611 | | |
| 92591814010 | MCM-15 | EPA 9315 | 491611 | | |
| 92591814011 | MCM-18 | EPA 9315 | 491611 | | |
| 92591814012 | DUP-1 | EPA 9315 | 491611 | | |
| 92591814013 | FB-2 | EPA 9315 | 491611 | | |
| 92591814014 | EB-2 | EPA 9315 | 491611 | | |
| 92591814015 | MCM-07 | EPA 9315 | 491611 | | |
| 92591814016 | MCM-04 | EPA 9315 | 491611 | | |
| 92591814017 | MCM-12 | EPA 9315 | 491611 | | |
| 92591814018 | MCM-16 | EPA 9315 | 491611 | | |
| 92591814019 | DUP-2 | EPA 9315 | 491611 | | |
| 92591814020 | FB-3 | EPA 9315 | 491611 | | |
| 92591814021 | EB-3 | EPA 9315 | 492483 | | |
| 92591814022 | MCM-14 | EPA 9315 | 492483 | | |
| 92591814023 | MCM-17 | EPA 9315 | 492483 | | |
| 92591814001 | MCM-19 | EPA 9320 | 491672 | | |
| 92591814002 | MCM-20 | EPA 9320 | 491673 | | |
| 92591814003 | FB-1 | EPA 9320 | 491673 | | |
| 92591814004 | EB-1 | EPA 9320 | 491673 | | |
| 92591814005 | MCM-05 | EPA 9320 | 491673 | | |
| 92591814006 | MCM-06 | EPA 9320 | 491673 | | |
| 92591814007 | MCM-01 | EPA 9320 | 491673 | | |
| 92591814008 | MCM-02 | EPA 9320 | 491673 | | |
| 92591814009 | MCM-11 | EPA 9320 | 491673 | | |
| 92591814010 | MCM-15 | EPA 9320 | 491673 | | |
| 92591814011 | MCM-18 | EPA 9320 | 491673 | | |
| 92591814012 | DUP-1 | EPA 9320 | 491673 | | |
| 92591814013 | FB-2 | EPA 9320 | 491673 | | |
| 92591814014 | EB-2 | EPA 9320 | 491673 | | |
| 92591814015 | MCM-07 | EPA 9320 | 491673 | | |
| 92591814016 | MCM-04 | EPA 9320 | 491673 | | |
| 92591814017 | MCM-12 | EPA 9320 | 491673 | | |
| 92591814018 | MCM-16 | EPA 9320 | 491673 | | |
| 92591814019 | DUP-2 | EPA 9320 | 491673 | | |
| 92591814020 | FB-3 | EPA 9320 | 491673 | | |
| 92591814021 | EB-3 | EPA 9320 | 491673 | | |
| 92591814022 | MCM-14 | EPA 9320 | 494515 | | |
| 92591814023 | MCM-17 | EPA 9320 | 494515 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS CCR RADS
 Pace Project No.: 92591814

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|--------------------------|----------|-------------------|------------------|
| 92591814001 | MCM-19 | Total Radium Calculation | 496153 | | |
| 92591814002 | MCM-20 | Total Radium Calculation | 496399 | | |
| 92591814003 | FB-1 | Total Radium Calculation | 496399 | | |
| 92591814004 | EB-1 | Total Radium Calculation | 496399 | | |
| 92591814005 | MCM-05 | Total Radium Calculation | 496399 | | |
| 92591814006 | MCM-06 | Total Radium Calculation | 496399 | | |
| 92591814007 | MCM-01 | Total Radium Calculation | 496399 | | |
| 92591814008 | MCM-02 | Total Radium Calculation | 496399 | | |
| 92591814009 | MCM-11 | Total Radium Calculation | 496399 | | |
| 92591814010 | MCM-15 | Total Radium Calculation | 496399 | | |
| 92591814011 | MCM-18 | Total Radium Calculation | 496399 | | |
| 92591814012 | DUP-1 | Total Radium Calculation | 496399 | | |
| 92591814013 | FB-2 | Total Radium Calculation | 496399 | | |
| 92591814014 | EB-2 | Total Radium Calculation | 496399 | | |
| 92591814015 | MCM-07 | Total Radium Calculation | 496399 | | |
| 92591814016 | MCM-04 | Total Radium Calculation | 496399 | | |
| 92591814017 | MCM-12 | Total Radium Calculation | 496399 | | |
| 92591814018 | MCM-16 | Total Radium Calculation | 496399 | | |
| 92591814019 | DUP-2 | Total Radium Calculation | 496399 | | |
| 92591814020 | FB-3 | Total Radium Calculation | 496399 | | |
| 92591814021 | EB-3 | Total Radium Calculation | 496399 | | |
| 92591814022 | MCM-14 | Total Radium Calculation | 497042 | | |
| 92591814023 | MCM-17 | Total Radium Calculation | 497042 | | |

REPORT OF LABORATORY ANALYSIS

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



| | |
|--|--|
| Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: November 15, 2021
Page 1 of 3 |
| Document No.:
F-CAR-CS-033-Rev.08 | Issuing Authority:
Pace Carolina Quality Office |

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name: Power
Coastal Carolina Portific

Project #: **WO#: 92591814**

Courier: Fed Ex UPS USPS Other
 Commercial Private Other:

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer: IR Gun ID: 927064 Type of Ice: Wet Dry None

Cooler Temp: 13.7 Correction Factor: Add/Subtract (°C) 0

Date/Initial Person Examining Contents: JE 3/7/22
Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process not begun

Cooler Temp Corrected (°C): 13.7

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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. | |
| Samples Arrived within Hold Time? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. | |
| Short Hold Time Analysis (<72 hr.)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 3. | |
| Bulk Turn Around Time Requested? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 4. | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. | |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 6. | |
| -Pace Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 7. | |
| Dissolved analysis: Samples Field Filtered? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 8. | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. | |
| -Includes Date/Time/NO/Analysis Matrix: <u>W*</u> | | | |
| Headspace in VOA Vials (>5-6mm)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 10. | |
| Trip Blank Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11. | |
| Trip Blank Custody Seals Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | | |

COMMENTS/SAMPLE DISCREPANCY _____ Field Data Required? Yes No

Let ID of split containers: _____
CLIENT NOTIFICATION/RESOLUTION _____

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____
Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
I-CAR-CI-033-Rev.08

Document Revised: November 15, 2021
Page 2 of 3
Issuing Authority:
Pace Carolina Quality Office

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

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRG/8003 (water) DOC, LSPG

**Bottom half of box is to list number of bottles

Project #

WO#: 92591814

PR: NHG

Due Date: 03/25/22

CLIENT: GR-GR Power

| Sample ID | Type of Preservative | pH upon receipt | Date preservation adjusted | Time preservation adjusted | Amount of Preservative added | Lot # |
|---|----------------------|-----------------|----------------------------|----------------------------|------------------------------|-------|
| BR00-125 ml, Plastic Unpreserved (N/A) (C1) | | | | | | |
| BR00-250 ml, Plastic Unpreserved (N/A) | | | | | | |
| BR00-500 ml, Plastic Unpreserved (N/A) | | | | | | |
| BR00-1 liter Plastic Unpreserved (N/A) | | | | | | |
| BR00-125 ml, Plastic w/1004 (pH < 2) (C1) | | | | | | |
| BR00-250 ml, plastic w/1004 (pH < 2) | | | | | | |
| BR00-500 ml, Plastic 2M Acetic & NaOCl (V9) | | | | | | |
| BR00-125 ml, Plastic NaOCl (pH < 12) (C1) | | | | | | |
| BR00-250 ml, Plastic NaOCl (pH < 12) (C1) | | | | | | |
| BR00-500 ml, Plastic NaOCl (pH < 12) (C1) | | | | | | |
| AD010-1 liter Amber Unpreserved (N/A) (C1) | | | | | | |
| AD010-1 liter Amber (C1) (pH < 2) | | | | | | |
| AD010-250 ml, Amber Unpreserved (N/A) (C1) | | | | | | |
| AD010-1 liter Amber w/1004 (pH < 2) | | | | | | |
| AD010-250 ml, Amber w/1004 (pH < 2) | | | | | | |
| AD010 (00104)-250 ml, Amber w/1004 (N/A) (C1) | | | | | | |
| BD00-40 ml, VOA (C1) (N/A) | | | | | | |
| V000-40 ml, VOA NaClO2 (N/A) | | | | | | |
| V000-40 ml, VOA Unpreserved (N/A) | | | | | | |
| BD00-40 ml, VOA w/PC4 (N/A) | | | | | | |
| V000 (B vials per lot)-40 ml (N/A) | | | | | | |
| V000 (B vials per lot) vials (N/A) | | | | | | |
| BR00-125 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-250 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-500 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-125 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-250 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-500 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-125 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-250 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-500 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-125 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-250 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-500 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-125 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-250 ml, Barite Plastic (N/A - lot) | | | | | | |
| BR00-500 ml, Barite Plastic (N/A - lot) | | | | | | |

BR00-125 ml, Barite Plastic (N/A - lot)

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 Division of Certification Office, i.e. Out of Bond, incorrect preservative, out of temp, incorrect containers.



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
 Page 2 of 3
 Issuing Authority:
 Pace Carolina Quality Office

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

Project #

WO# : 92591814

PR: HRG

Due Date: 03/28/22

CLIENT: GR-GR Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DAQ/BD15 (water) DOC, UMG

**Bottom half of box is to list number of bottles

| Sample ID | Container | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|-----------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP40-125 ml, Plastic Unpreserved (N/A) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP100-150 ml, Plastic Unpreserved (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP200-500 ml, Plastic Unpreserved (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP100-1 liter Plastic Unpreserved (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP40-125 ml, Plastic HClSO ₄ (pH < 2) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP100-150 ml, plastic HClO ₄ (pH < 2) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP40-125 ml, Plastic 2N Acrylamide & NaOH (N) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP40-125 ml, Plastic NaOH (pH > 12) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| WQ100 Wide mouthed Glass jar Unpreserved | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-1 liter Amber Unpreserved (N/A) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-1 liter Amber HCl (pH < 2) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-250 ml, Amber Unpreserved (N/A) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-1 liter Amber HClO ₄ (pH < 2) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-250 ml, Amber HClO ₄ (pH < 2) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100(250ml)-250 ml, Amber HClO ₄ (pH < 2) (C-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| DO100-60 ml, VOA HCl (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VQ100-60 ml, VOA NaOH (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VQ100-60 ml, VOA Unpreserved (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| DO100-60 ml, VOA HClO ₄ (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VQ100 (3 vials per lot)-2015 lot (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VQ100 (3 vials per lot)-2015 lot (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP100-125 ml, Sterile Plastic (N/A - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP100-250 ml, Sterile Plastic (N/A - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP100-500 ml, Sterile Plastic (N/A - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP100-1 liter, Sterile Plastic (N/A - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP100-1 liter, Sterile Plastic (N/A - 100) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AG100-100 ml, Amber Unpreserved vials (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VQ100-60 ml, Scintillation vials (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| DO100-60 ml, Amber Unpreserved vials (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |

25/3/22
 5/7/22

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 District Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).



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

Section 1 - Requester Information

Requester Name: Requester Title:

Requester Department: Requester Phone:

Requester Email:

Section 2 - Sample Information

Sample ID: Sample Description:

Sample Location: Sample Date/Time:

Section 3 - Collection Information

Collector Name: Collector Title:

Collector Department: Collector Phone:

Collector Email:

Section 4 - Laboratory Information

Laboratory Name: Laboratory Address:

Laboratory Phone: Laboratory Fax:

Laboratory Email:

| ITEM # | SAMPLE ID | DESCRIPTION | COLLECTION | | | NO. OF CONTAINERS | CONTAINER TYPE | NO. OF CONTAINERS | NO. OF CONTAINERS | NO. OF CONTAINERS | NO. OF CONTAINERS | NO. OF CONTAINERS | NO. OF CONTAINERS | NO. OF CONTAINERS |
|--------|-----------|-------------|------------|------|----------|-------------------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | | DATE | TIME | LOCATION | | | | | | | | | |
| 01 | 572 | S/FA/IB/S | | | | | 5 | | | | | | | |
| 02 | 572 | S/FA/IB/S | | | | | 5 | | | | | | | |
| 03 | | | | | | | | | | | | | | |
| 04 | | | | | | | | | | | | | | |
| 05 | | | | | | | | | | | | | | |
| 06 | | | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | | |
| 09 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | |

Handwritten notes: **572**, **5**, **3**, **572**, **5**

Handwritten signature: *[Signature]*

Handwritten text: **572**, **5**, **3**

ProQuest
 PROQUEST
 UNIVERSITY MICROFILMS

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a FORD, OCCUPANT, or OCCASIONAL. All relevant fields must be completed accurately.

Requester: ProQuest
 Agency: PROQUEST UNIVERSITY MICROFILMS
 Address: 300 North Zeeb Road
 City: Ann Arbor, MI 48106
 State: MI
 Country: USA
 Date: 5/1/12

Requested Project Information:
 Project ID: 10000000000000000000
 Requested By: PROQUEST
 Requested On: 5/1/12

Requested Item Information:
 Item ID: 10000000000000000000
 Item Name: PROQUEST
 Item Description: PROQUEST
 Item Quantity: 1

Requested Analysis:
 Analysis Type: GC/MS
 Analysis Location: PROQUEST
 Analysis Date: 5/1/12

| ITEM # | SAMPLE ID | QTY | COLLECTOR | | | ANALYSIS | | | | | | | | | | REMARKS | | | | |
|--------|-----------|-----|-----------|------|------|----------|----|-------|----|----|-------|----|----|-------|----|---------|----|-------|--|--|
| | | | NAME | TIME | DATE | GC | MS | GC/MS | GC | MS | GC/MS | GC | MS | GC/MS | GC | | MS | GC/MS | | |
| 1 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 2 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 3 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 4 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 5 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 6 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 7 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 8 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 9 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 10 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 11 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 12 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 13 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 14 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 15 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 16 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 17 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 18 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 19 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 20 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 21 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 22 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 23 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 24 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 25 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 26 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 27 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 28 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 29 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |
| 30 | SAMPLE ID | 1 | | | | | | | | | | | | | | | | | | |

Date of Collection: 5/1/12
 Location of Collection: PROQUEST
 Name of Collector: PROQUEST
 Signature of Collector: PROQUEST
 Date of Analysis: 5/1/12
 Location of Analysis: PROQUEST
 Name of Analyst: PROQUEST
 Signature of Analyst: PROQUEST



CHAIN-OF-CUSTODY / Analytical Request Document

The District Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section I
Analytical Request Information
Requester: George Taver
Request Date: 10/24/2011
Requester Title: Asst. State's Atty. Gen.
Requester Address: 1000 Bankers Building, Hartford, CT 06103
Requester Phone: 860-424-2700
Requester Email: g.taver@ct.gov
Requester Signature: [Signature]
Requester Title: Asst. State's Atty. Gen.
Requester Date: 10/24/2011

Section II
District Custody Information
Request To: State Department of Environmental Protection
Request Date: 10/24/2011
Requester Name: George Taver
Requester Title: Asst. State's Atty. Gen.
Requester Address: 1000 Bankers Building, Hartford, CT 06103
Requester Phone: 860-424-2700
Requester Email: g.taver@ct.gov
Requester Signature: [Signature]
Requester Title: Asst. State's Atty. Gen.
Requester Date: 10/24/2011

Section III
Analytical Information
Analysis: GC/MS
Analyzing Lab: State Dept. of Environmental Protection, 650 Capital Boulevard, Middletown, CT 06457
Analysis Date: 10/24/2011
Analysis Time: 10:00 AM
Analysis Technician: [Signature]
Analysis Date: 10/24/2011
Analysis Time: 10:00 AM
Analysis Technician: [Signature]

| SAMPLE ID | Date/Time of Collection | Collector | Location | Number of Samples | Preservation | | | | | | | | | | Analysis Test | | | | Analysis Results | | | | Remarks | | | |
|-----------|-------------------------|-----------|-----------------------|-------------------|-------------------------|----------|----------|----------|----------|-------------------|-------|------|------|------|---------------|--------|------|-------|------------------|--------|--------|------|---------|--------|--------|------|
| | | | | | Date/Time of Collection | | | | | Number of Samples | | | | | Method | | | | Value | | | | Notes | | | |
| | | | | | Start | End | Time | Date | Day | Start | End | Time | Date | Day | Method | Result | Unit | Value | Unit | Method | Result | Unit | Notes | Method | Result | Unit |
| S-32 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |
| S-16 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |
| S-11 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |
| S-37 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |
| S-33 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |
| S-1 | 10/24/11 | 10:00 AM | 1000 Bankers Building | 1 | 10/24/11 | 10:00 AM | 10:00 AM | 10/24/11 | 10:00 AM | 10:00 AM | GC/MS | 0.00 | ug/L | 0.00 | ug/L | GC/MS | 0.00 | ug/L | | GC/MS | 0.00 | ug/L | | | | |

Requester's Signature: [Signature]
Requester's Title: Asst. State's Atty. Gen.
Requester's Date: 10/24/11
Requester's Phone: 860-424-2700
Requester's Email: g.taver@ct.gov



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant details must be completed accurately.
 For more information on this document, please visit www.analyticalservices.ca

| | | |
|---|---|---|
| Section 1: Client Information
Name: <u>Client Name</u>
Address: <u>Client Address</u>
City/Prov/Postal: <u>City, Prov, Postal</u>
Phone: <u>Client Phone</u>
Fax: <u>Client Fax</u> | Section 2: Sample Information
Sample ID: <u>Sample ID</u>
Date Collected: <u>Date</u>
Location: <u>Location</u>
Quantity: <u>Quantity</u>
Container: <u>Container</u> | Section 3: Laboratory Information
Lab Name: <u>Lab Name</u>
Lab Address: <u>Lab Address</u>
Lab City/Prov/Postal: <u>Lab City, Prov, Postal</u>
Lab Phone: <u>Lab Phone</u>
Lab Fax: <u>Lab Fax</u> |
| Section 4: Analyst Information
Analyst Name: <u>Analyst Name</u>
Analyst ID: <u>Analyst ID</u> | | |

SAMPLE ID
 One Dimensional
 Two Dimensional
 Three Dimensional
 Other
 Sample ID must be unique

| ITEM # | Description | Quantity | Unit | Sample Type at Collection | | POF Container | Preservation | | | | | | | | | | | | | | | |
|--------|-------------|----------|------|---------------------------|-------------|---------------|--------------|--------|---------|-------------|-----------|-------|-------|-------|-------|--|--|--|--|--|--|--|
| | | | | Sample Type | Material | | Isoprop | Freeze | Alcohol | Refrigerate | Room Temp | Other | Other | Other | Other | | | | | | | |
| 1 | Substance A | 10 | g | Substance A | Substance A | Isoprop | | | | | | | | | | | | | | | | |
| 2 | Substance B | 5 | g | Substance B | Substance B | Freeze | | | | | | | | | | | | | | | | |
| 3 | Substance C | 2 | g | Substance C | Substance C | Alcohol | | | | | | | | | | | | | | | | |
| 4 | Substance D | 1 | g | Substance D | Substance D | Refrigerate | | | | | | | | | | | | | | | | |
| 5 | Substance E | 3 | g | Substance E | Substance E | Room Temp | | | | | | | | | | | | | | | | |
| 6 | Substance F | 1 | g | Substance F | Substance F | Other | | | | | | | | | | | | | | | | |
| 7 | Substance G | 4 | g | Substance G | Substance G | Other | | | | | | | | | | | | | | | | |
| 8 | Substance H | 1 | g | Substance H | Substance H | Other | | | | | | | | | | | | | | | | |
| 9 | Substance I | 2 | g | Substance I | Substance I | Other | | | | | | | | | | | | | | | | |
| 10 | Substance J | 3 | g | Substance J | Substance J | Other | | | | | | | | | | | | | | | | |

Name: Name
 Title: Title
 Signature: [Signature]
 Date: Date



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All entries must be completed accurately. All entries must be signed and dated. All entries must be completed in black ink.

Section 1: Analytical Request Information

Requester: Parsippany Analytical Request Information: 6-011

Requester Address: 1000 Parsippany Blvd Requester Phone: 973-261-1111

Requester Contact: John J. ... Requester Title: ...

Requester Date: 6/11/11 Requester Signature: [Signature]

Section 2: Analytical Request Information

Requester Name: ... Requester Address: ...

Requester Contact: ... Requester Title: ...

Requester Date: ... Requester Signature: ...

| ITEM # | SAMPLE ID | ANALYSIS REQUESTED | ANALYSIS TYPE | | ANALYSIS DATE | | ANALYSIS TIME | | ANALYSIS METHOD | | ANALYSIS RESULTS | | ANALYSIS COMMENTS |
|--------|-----------|--------------------|---------------|-----|---------------|-----|---------------|-----|-----------------|-----|------------------|-----|-------------------|
| | | | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| 1 | 6-011 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Section 3: Chain of Custody

Requester Name: John J. ... Requester Title: ...

Requester Address: 1000 Parsippany Blvd Requester Phone: 973-261-1111

Requester Contact: John J. ... Requester Title: ...

Requester Date: 6/11/11 Requester Signature: [Signature]

Section 4: Chain of Custody

Requester Name: John J. ... Requester Title: ...

Requester Address: 1000 Parsippany Blvd Requester Phone: 973-261-1111

Requester Contact: John J. ... Requester Title: ...

Requester Date: 6/11/11 Requester Signature: [Signature]

Parker
 PAPER
 LABORATORY

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

Section 1
 Customer / Client Information

Section 2
 Sampling & Storage Information

Section 3
 Analysis Information

Date: 1 1 01

Customer / Client Information
 Name: _____
 Address: _____
 City/State/Zip: _____
 Phone: _____
 Fax: _____
 Email: _____

Sampling & Storage Information
 Sample ID: _____
 Description: _____
 Quantity: _____
 Date/Time: _____
 Location: _____
 Collector: _____
 Storage Location: _____
 Storage Conditions: _____

Analysis Information
 Requested Analysis: _____
 Reference: _____
 Method: _____
 Analyst: _____
 Date: _____

| ITEM # | SAMPLE ID | Description of Sample | Sampling Method | | Sampling Location | | Date/Time | Collector | Storage Location | Storage Conditions | Analysis Information | | | | | | | | | | | | Requester Name | Requester Address | Requester Phone | Requester Fax | Requester Email | | | | | | | | | | | | |
|--------|-----------|-----------------------|-----------------|--------|-------------------|--------|-----------|-----------|------------------|--------------------|----------------------|--------|-------------|----------|----------|------|-------|------------|-----------|------|---------|------|----------------|-------------------|-----------------|---------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | Method | Device | Container | Volume | | | | | Depth | Height | Temperature | Humidity | Pressure | Wind | Cloud | Visibility | Sea State | Wave | Current | Tide | | | | | | Moq | Qc | Qa | Qb | Qc | Qd | | | | | | |
| 001 | 572 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 002 | 572 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 003 | 572 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 004 | 572 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Prepared by: John Doe
 Reviewed by: John Doe
 Date: 3/2/02

Requester Name: John Doe / Home Security
 Requester Address: 1234 Main St
 Requester City/State/Zip: Anytown, CA 90210
 Requester Phone: 555-1234
 Requester Fax: 555-5678
 Requester Email: john.doe@example.com

Quality Control Sample Performance Assessment

Analysis of the Monthly Control Data Points Highlighted in Yellow

| | |
|--------------------|-----|
| Total | 18 |
| Mean | 100 |
| Standard Deviation | 15 |
| Quality | 100 |

| Sample Name | Sample Number | Mean | Standard Deviation | Quality |
|-------------|---------------|------|--------------------|---------|
| Sample 1 | 1 | 100 | 15 | 100 |
| Sample 2 | 2 | 100 | 15 | 100 |
| Sample 3 | 3 | 100 | 15 | 100 |
| Sample 4 | 4 | 100 | 15 | 100 |
| Sample 5 | 5 | 100 | 15 | 100 |
| Sample 6 | 6 | 100 | 15 | 100 |
| Sample 7 | 7 | 100 | 15 | 100 |
| Sample 8 | 8 | 100 | 15 | 100 |
| Sample 9 | 9 | 100 | 15 | 100 |
| Sample 10 | 10 | 100 | 15 | 100 |
| Sample 11 | 11 | 100 | 15 | 100 |
| Sample 12 | 12 | 100 | 15 | 100 |
| Sample 13 | 13 | 100 | 15 | 100 |
| Sample 14 | 14 | 100 | 15 | 100 |
| Sample 15 | 15 | 100 | 15 | 100 |
| Sample 16 | 16 | 100 | 15 | 100 |
| Sample 17 | 17 | 100 | 15 | 100 |
| Sample 18 | 18 | 100 | 15 | 100 |

| Sample Name | Sample Number | Mean | Standard Deviation | Quality |
|-------------|---------------|------|--------------------|---------|
| Sample 1 | 1 | 100 | 15 | 100 |
| Sample 2 | 2 | 100 | 15 | 100 |
| Sample 3 | 3 | 100 | 15 | 100 |
| Sample 4 | 4 | 100 | 15 | 100 |
| Sample 5 | 5 | 100 | 15 | 100 |
| Sample 6 | 6 | 100 | 15 | 100 |
| Sample 7 | 7 | 100 | 15 | 100 |
| Sample 8 | 8 | 100 | 15 | 100 |
| Sample 9 | 9 | 100 | 15 | 100 |
| Sample 10 | 10 | 100 | 15 | 100 |
| Sample 11 | 11 | 100 | 15 | 100 |
| Sample 12 | 12 | 100 | 15 | 100 |
| Sample 13 | 13 | 100 | 15 | 100 |
| Sample 14 | 14 | 100 | 15 | 100 |
| Sample 15 | 15 | 100 | 15 | 100 |
| Sample 16 | 16 | 100 | 15 | 100 |
| Sample 17 | 17 | 100 | 15 | 100 |
| Sample 18 | 18 | 100 | 15 | 100 |

| Sample Name | Sample Number | Mean | Standard Deviation | Quality |
|-------------|---------------|------|--------------------|---------|
| Sample 1 | 1 | 100 | 15 | 100 |
| Sample 2 | 2 | 100 | 15 | 100 |
| Sample 3 | 3 | 100 | 15 | 100 |
| Sample 4 | 4 | 100 | 15 | 100 |
| Sample 5 | 5 | 100 | 15 | 100 |
| Sample 6 | 6 | 100 | 15 | 100 |
| Sample 7 | 7 | 100 | 15 | 100 |
| Sample 8 | 8 | 100 | 15 | 100 |
| Sample 9 | 9 | 100 | 15 | 100 |
| Sample 10 | 10 | 100 | 15 | 100 |
| Sample 11 | 11 | 100 | 15 | 100 |
| Sample 12 | 12 | 100 | 15 | 100 |
| Sample 13 | 13 | 100 | 15 | 100 |
| Sample 14 | 14 | 100 | 15 | 100 |
| Sample 15 | 15 | 100 | 15 | 100 |
| Sample 16 | 16 | 100 | 15 | 100 |
| Sample 17 | 17 | 100 | 15 | 100 |
| Sample 18 | 18 | 100 | 15 | 100 |

| Sample Name | Sample Number | Mean | Standard Deviation | Quality |
|-------------|---------------|------|--------------------|---------|
| Sample 1 | 1 | 100 | 15 | 100 |
| Sample 2 | 2 | 100 | 15 | 100 |
| Sample 3 | 3 | 100 | 15 | 100 |
| Sample 4 | 4 | 100 | 15 | 100 |
| Sample 5 | 5 | 100 | 15 | 100 |
| Sample 6 | 6 | 100 | 15 | 100 |
| Sample 7 | 7 | 100 | 15 | 100 |
| Sample 8 | 8 | 100 | 15 | 100 |
| Sample 9 | 9 | 100 | 15 | 100 |
| Sample 10 | 10 | 100 | 15 | 100 |
| Sample 11 | 11 | 100 | 15 | 100 |
| Sample 12 | 12 | 100 | 15 | 100 |
| Sample 13 | 13 | 100 | 15 | 100 |
| Sample 14 | 14 | 100 | 15 | 100 |
| Sample 15 | 15 | 100 | 15 | 100 |
| Sample 16 | 16 | 100 | 15 | 100 |
| Sample 17 | 17 | 100 | 15 | 100 |
| Sample 18 | 18 | 100 | 15 | 100 |

Handwritten signature/initials

Quality Control Sample Performance Assessment

MS-0000000000

LABORATORY REPORT NO. 2000000000

TEST
 4.4.17
 4.4.18
 4.4.19
 4.4.20

DATE
 2000-00-00
 2000-00-00
 2000-00-00
 2000-00-00

| Method Description | Result | Unit | Acceptance Criteria |
|--------------------|--------|------|---------------------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

| Method Description | Result | Unit | Acceptance Criteria |
|--------------------|--------|------|---------------------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

| Method Description | Result | Unit | Acceptance Criteria |
|--------------------|--------|------|---------------------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

| Method Description | Result | Unit | Acceptance Criteria |
|--------------------|--------|------|---------------------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

| Method Description | Result | Unit | Acceptance Criteria |
|--------------------|--------|------|---------------------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

LABORATORY REPORT NO. 2000000000

MS-0000000000

LABORATORY REPORT NO. 2000000000

Quality Control Sample Performance Assessment

03/15/24
 10:00 AM
 10:00 AM

100% (100%) (100%) (100%)

100% (100%) (100%) (100%)

| Sample ID | Sample Type | Sample Date | Sample Time | Sample Location | Sample Status |
|-----------|-------------|-------------|-------------|-----------------|---------------|
| 1001 | ... | ... | ... | ... | ... |
| 1002 | ... | ... | ... | ... | ... |
| 1003 | ... | ... | ... | ... | ... |
| 1004 | ... | ... | ... | ... | ... |
| 1005 | ... | ... | ... | ... | ... |

| Sample ID | Sample Type | Sample Date | Sample Time | Sample Location | Sample Status |
|-----------|-------------|-------------|-------------|-----------------|---------------|
| 1001 | ... | ... | ... | ... | ... |
| 1002 | ... | ... | ... | ... | ... |
| 1003 | ... | ... | ... | ... | ... |
| 1004 | ... | ... | ... | ... | ... |
| 1005 | ... | ... | ... | ... | ... |

| Sample ID | Sample Type | Sample Date | Sample Time | Sample Location | Sample Status |
|-----------|-------------|-------------|-------------|-----------------|---------------|
| 1001 | ... | ... | ... | ... | ... |
| 1002 | ... | ... | ... | ... | ... |
| 1003 | ... | ... | ... | ... | ... |
| 1004 | ... | ... | ... | ... | ... |
| 1005 | ... | ... | ... | ... | ... |

| Sample ID | Sample Type | Sample Date | Sample Time | Sample Location | Sample Status |
|-----------|-------------|-------------|-------------|-----------------|---------------|
| 1001 | ... | ... | ... | ... | ... |
| 1002 | ... | ... | ... | ... | ... |
| 1003 | ... | ... | ... | ... | ... |
| 1004 | ... | ... | ... | ... | ... |
| 1005 | ... | ... | ... | ... | ... |

| Sample ID | Sample Type | Sample Date | Sample Time | Sample Location | Sample Status |
|-----------|-------------|-------------|-------------|-----------------|---------------|
| 1001 | ... | ... | ... | ... | ... |
| 1002 | ... | ... | ... | ... | ... |
| 1003 | ... | ... | ... | ... | ... |
| 1004 | ... | ... | ... | ... | ... |
| 1005 | ... | ... | ... | ... | ... |

100% (100%) (100%) (100%)

100% (100%) (100%) (100%)

Quality Control Sample Performance Assessment

[Handwritten signature]

2013-2014 Quality Control Sample Performance Assessment

| | |
|-------|----------|
| Year | 2013 |
| Month | July |
| Day | 15 |
| Time | 10:00 AM |

| | |
|-----------------|--------|
| Sample ID | 100001 |
| Sample Name | 100001 |
| Sample Type | 100001 |
| Sample Location | 100001 |
| Sample Date | 100001 |
| Sample Time | 100001 |

| | |
|-----------------|--------|
| Sample ID | 100001 |
| Sample Name | 100001 |
| Sample Type | 100001 |
| Sample Location | 100001 |
| Sample Date | 100001 |
| Sample Time | 100001 |

| | |
|-----------------|--------|
| Sample ID | 100001 |
| Sample Name | 100001 |
| Sample Type | 100001 |
| Sample Location | 100001 |
| Sample Date | 100001 |
| Sample Time | 100001 |

| | |
|-----------------|--------|
| Sample ID | 100001 |
| Sample Name | 100001 |
| Sample Type | 100001 |
| Sample Location | 100001 |
| Sample Date | 100001 |
| Sample Time | 100001 |

| | |
|-----------------|--------|
| Sample ID | 100001 |
| Sample Name | 100001 |
| Sample Type | 100001 |
| Sample Location | 100001 |
| Sample Date | 100001 |
| Sample Time | 100001 |

[Handwritten signature]

[Handwritten signature]

**Stage 2A Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 16 groundwater samples collected as part of the September 2021 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Pace Analytical Services, LLC (Pace) in Asheville, North Carolina (Pace Asheville) for total metals by SW-846 Method 6010D and 6020B; for mercury by SW-846 Method 7470A; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, and sulfate) by US EPA Method 300.0; and for alkalinity by SM 2320B. In addition, these samples were collectively analyzed by Pace of Greensburg, Pennsylvania (Pace Pittsburgh), for total radium-226 by SW-846 Method 9315, for total radium-228 by SW-846 Method 9320, and for combined radium-226+228 by calculation.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 9/13/2021 through 9/14/2021 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-01, MCM-02, MCM-04, MCM-05, MCM-06, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, MCM-18, MCM-19, MCM-20, and DPZ-2.

The following Pace inorganic SDG were evaluated as part of this QA review: 92561848.

The following Pace radiological SDG was evaluated as part of this QA review: 92561843.

All data are considered usable as reported, or usable after integration of data validation qualifications.



Inorganic and Radiological Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic and radiological analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Chemical yield
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. In all SDGs, the laboratory did not provide a Case Narrative associated with the inorganic and radiological analyses. As this item was not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.
2. In SDG 92561843, the laboratory did not provide the subcontract COC Record or the Sample Login Receipt Checklist for Pace Pittsburgh. As these items were not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.
3. In the anion fraction of SDG 92561848, the laboratory performed matrix QC (MS/MSD) analyses on an associated field blank. Matrix QC analyses are performed to evaluate the impact of matrix interferences on target analyte results in investigative samples, which would not be present in a field blank sample.
4. The data validator applied qualification to combined radium-226+228 based upon the QC samples associated with the analyses of the individual isotopes, radium-226 and radium-228. The database only includes the laboratory results for the combined radium-226+228; therefore, qualification of the individual isotopes is not addressed in this QA review.
5. SW-846 Method 9315 includes all alpha-emitting isotopes of radium. In order to analyze for only radium-226, a 21-day ingrowth period must be used. The radium-226 reported by the laboratory did not undergo a 21-day ingrowth; therefore, the results reported as radium-226 potentially contain additional alpha-emitting radium isotopes and could be high biased.

6. Combined radium-226+228 was reported as the summation of the calculated activities for radium-226 and radium-228. As consistent with routine radiological reporting conventions, negative activities were reported for the radium-226 and radium-228 analyses; however, all negative activities were entered as zero in the calculation of combined radium-226+228 activity.
7. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the summation of the MDCs for radium-226 and radium-228. Consequently, there may be instances where a detection was observed in one of the individual isotopes but the combined radium-226+228 result was reported as “not-detected” due to the laboratory’s reporting convention for combined radium-226+228.
8. The combined radium-226+228 result uncertainty was reported as the summation of the calculated uncertainties for radium-226 and radium-228. If routine statistical uncertainty reporting conventions were followed, the result uncertainty would have been reported as the root sum square (RSS; the square root of the sum of the squared individual uncertainties).
9. The laboratory did not flag results < the MDC as “not-detected” in the data package provided. The data validator qualified these samples as “U” on the data tables.
10. The following field duplicate pairs (see table) were submitted and analyzed for inorganic and radiological parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was $\leq 20\%$ when both results were $\geq 5\times$ the reporting limit [RL], the difference between results was \leq the RL when at least one result was $< 5\times$ the RL, or replicate error ratio [RER] < 3).

| <u>Laboratory SDG(s)</u> | <u>Sample</u> | <u>Field Duplicate</u> |
|--------------------------|---------------|------------------------|
| 92561848
92561843 | MCM-16 | DUP-1 |
| 92561848
92561843 | MCM-19 | DUP-2 |

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

| <u>Laboratory SDG(s)</u> | <u>Sample(s)</u> | <u>Analyte(s)</u> | <u>Qualifier</u> | <u>Reason(s) for Qualification</u> |
|--------------------------|----------------------|-------------------|------------------|------------------------------------|
| 92561848 | MCM-12 and
MCM-14 | TDS | J | H – Hold time exceeded |
| 92561848 | MCM-17 | Selenium | UJ | M- – Low MS/MSD recoveries |

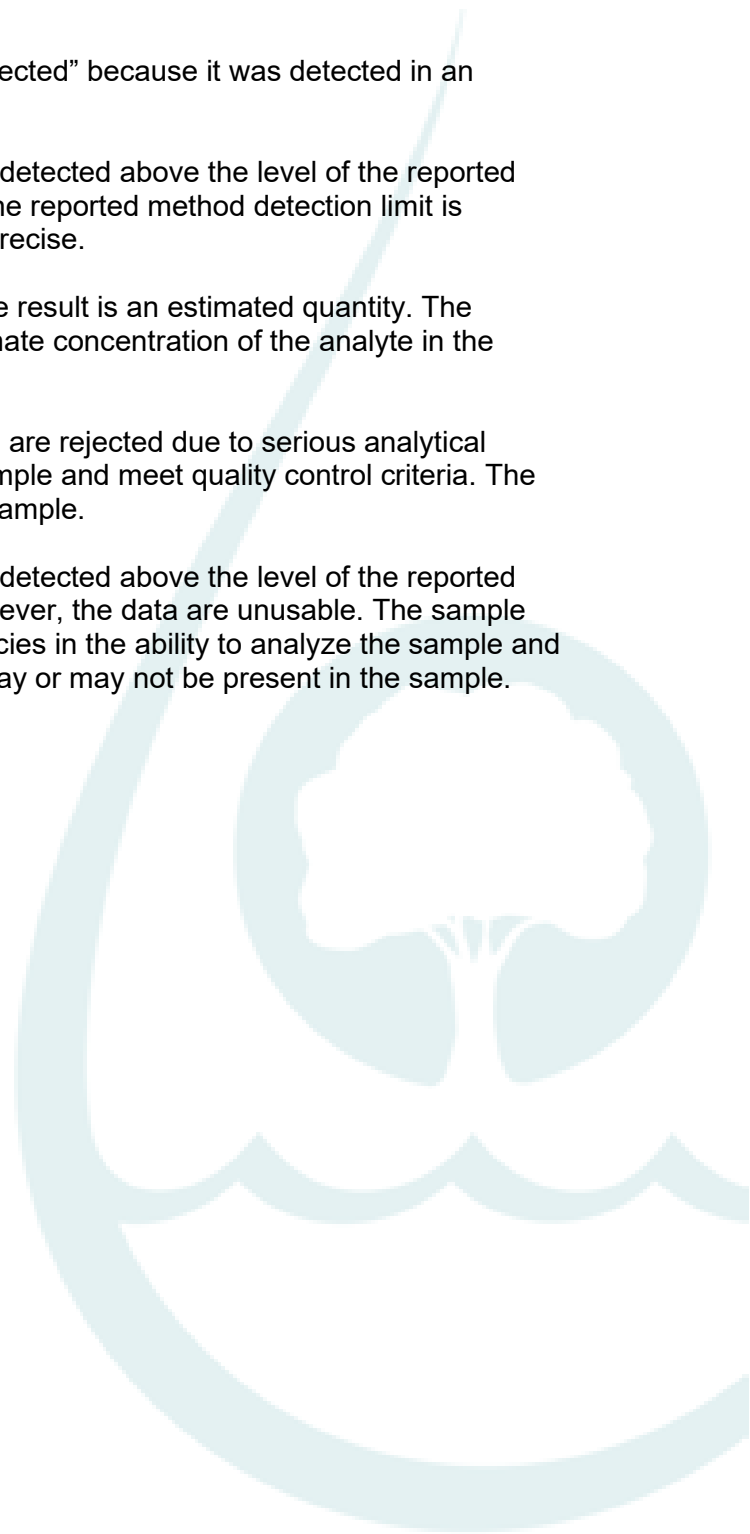
| <u>Laboratory SDG(s)</u> | <u>Sample(s)</u> | <u>Analyte(s)</u> | <u>Qualifier</u> | <u>Reason(s) for Qualification</u> |
|--------------------------|---|-------------------------|------------------|------------------------------------|
| 92561848 | MCM-04, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, MCM-20, DPZ-2, MCM-05, MCM-06, MCM-07, and MCM-17 | Sulfate | J | M- – Low MS/MSD recoveries |
| 92561848 | MCM-11 and MCM-16 | Fluoride | J | M+ – High MS/MSD recoveries |
| 92561848 | MCM-16 | TDS | J | FD – Field duplicate imprecision |
| 92561843 | MCM-05, MCM-06, MCM-07, and MCM-17 | combined radium-226+228 | J | L- – Low LCS recovery |

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”
- All radiological results reported below the MDC have been flagged “U.”

Report prepared by: Abigail P. Bossbaly, Quality Assurance Chemist
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 12/10/2021

INORGANIC DATA QUALIFIERS

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



Reason Codes and Explanations

| Reason Code | Explanation |
|-------------|--|
| BE | Equipment blank contamination. |
| BF | Field blank contamination. |
| BL | Laboratory blank contamination. |
| BN | Negative laboratory blank contamination. |
| C | Initial and/or continuing calibration issue, indeterminate bias. |
| C+ | Initial and/or continuing calibration issue. The result may be biased high. |
| C- | Initial and/or continuing calibration issue. The result may be biased low. |
| FD | Field duplicate imprecision. |
| FG | Total versus dissolved imprecision. |
| H | Holding time exceeded. |
| I | Internal standard recovery outside of acceptance limits. |
| L | LCS and LCSD recoveries outside of acceptance limits, indeterminate bias. |
| L+ | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high. |
| L- | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low. |
| LD | Laboratory duplicate imprecision. |
| LP | LCS/LCSD imprecision. |
| M | MS and MSD recoveries outside of acceptance limits, indeterminate bias. |
| M+ | MS and/or MSD recoveries outside of acceptance limits. The result may be biased high. |
| M- | MS and/or MSD recoveries outside of acceptance limits. The result may be biased low. |
| MP | MS/MSD imprecision. |
| P | Post-digestion spike recoveries outside of acceptance limits, indeterminate bias. |
| P+ | Post-digestion spike recovery outside of acceptance limits. The result may be biased high. |
| P- | Post-digestion spike recovery outside of acceptance limits. The result may be biased low. |
| Q | Chemical preservation issue. |
| R | RL standards outside of acceptance limits, indeterminate bias. |
| R+ | RL standard(s) outside of acceptance limits. The result may be biased high. |
| R- | RL standard(s) outside of acceptance limits. The result may be biased low. |
| T | Temperature preservation issue. |
| SD | Serial dilution imprecision. |
| Y | Chemical yields outside of acceptance limits, indeterminate bias. |
| Y+ | Chemical yield(s) outside of acceptance limits. The result may be biased high. |
| Y- | Chemical yield(s) outside of acceptance limits. The result may be biased low. |
| ZZ | Other |

**Stage 2A Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 16 groundwater samples collected as part of the March 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Pace Analytical Services, LLC (Pace) in Asheville, North Carolina (Pace Asheville) and Minneapolis, Minnesota (Pace Minneapolis) for total metals by SW-846 Method 6010D and 6020B; for mercury by SW-846 Method 7470A; for total dissolved solids (TDS) by Standard Method (SM) 2540C; for anions (specifically, chloride, fluoride, and sulfate) by US EPA Method 300.0; and for alkalinity by SM 2320B.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SM, SW-846, and US EPA methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 3/1/2022 through 3/3/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-01, MCM-02, MCM-04, MCM-05, MCM-06, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, MCM-18, MCM-19, MCM-20, and DPZ-02.

The following Pace inorganic SDGs were evaluated as part of this QA review: 92591517 and 92590990.

All data are considered usable as reported, or usable after integration of data validation qualifications.

Inorganic Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the inorganic analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. In all SDGs, the laboratory did not provide a Case Narrative associated with the inorganic analyses. As this item was not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.
2. In all SDGs, the laboratory did not provide the subcontract COC Record or the Sample Login Receipt Checklist for Pace Minneapolis. As these items were not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.

3. In the SW-846 Method 6020B analyses of samples MCM-19, MCM-20, MCM-18, MCM-12, MCM-05, MCM-06, MCM-07, MCM-14, MCM-17, and DPZ-02, high levels of non-target analytes and matrix interferences required the sample to be analyzed at a dilution. As a result, “not-detected” results were reported from a diluted analysis. Qualification of data due to this issue was not warranted.
4. In the anions fraction of SDG 92591517, the laboratory performed matrix QC (MS/MSD) analyses on an associated field blank. Matrix QC analyses are performed to evaluate the impact of matrix interferences on target analyte results in investigative samples, which would not be present in a field blank sample. The data reviewer evaluated the MS/MSD analyses performed on the equipment blank as an LCS/LCSD analysis.
5. The following field duplicate pairs (see table) were submitted and analyzed for inorganic parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the relative percent difference [RPD] between results was $\leq 20\%$ when both results were $\geq 5\times$ the reporting limit [RL]), with any exceptions noted below.

| <u>Laboratory SDG(s)</u> | <u>Sample</u> | <u>Field Duplicate</u> |
|--------------------------|---------------|------------------------|
| 92591517 | MCM-18 | DUP-1 |
| 92591517 | MCM-04 | DUP-2 |

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

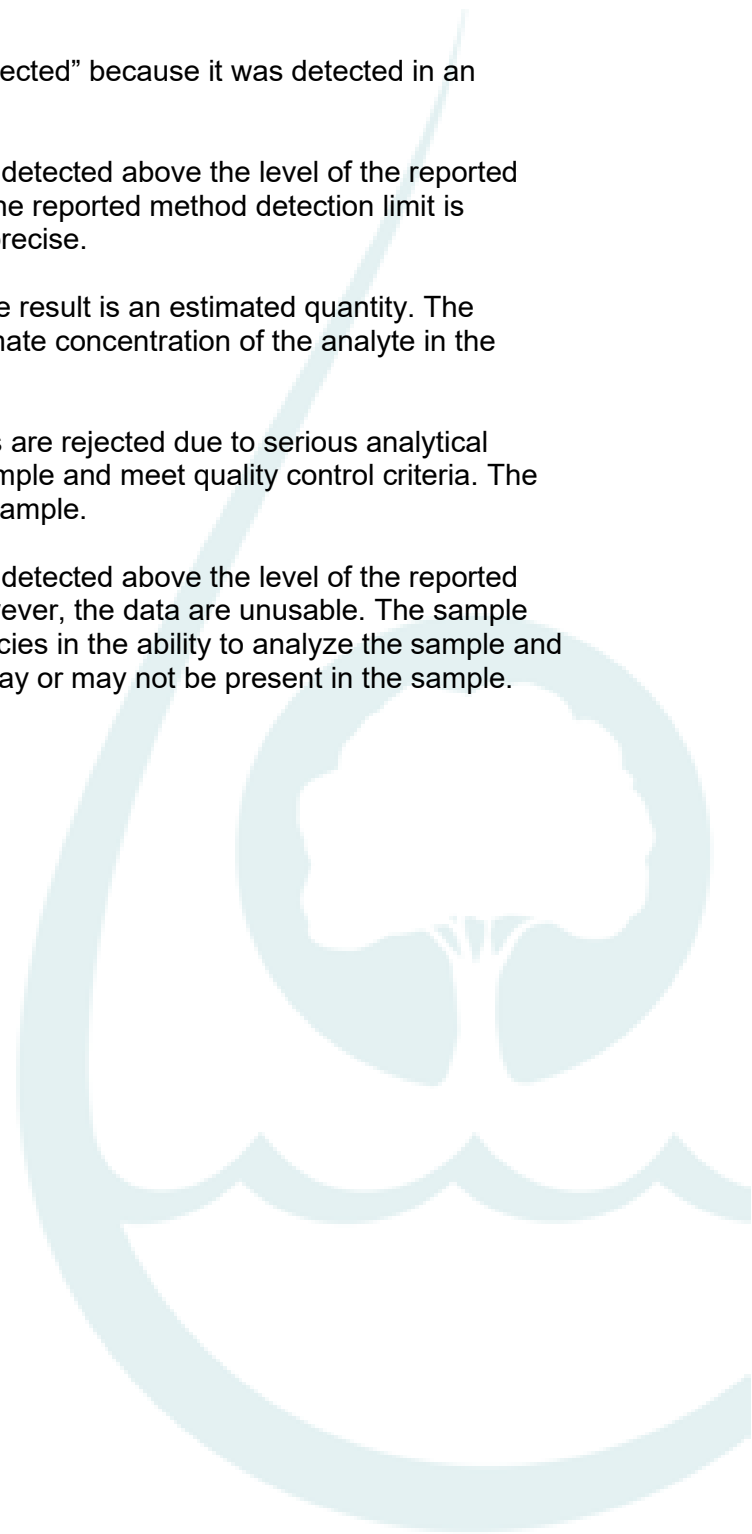
| <u>Laboratory SDG</u> | <u>Sample(s)</u> | <u>Analyte(s)</u> | <u>Qualifier</u> | <u>Reason for Qualification</u> |
|-----------------------|----------------------------|---------------------|------------------|----------------------------------|
| 92591517 | MCM-04 | calcium | J | FD – Field duplicate imprecision |
| 92591517 | MCM-07, MCM-14, and MCM-17 | barium and selenium | J/UJ | M- – Low MS/MSD recoveries |
| 92591517 | MCM-11 and MCM-12 | fluoride | J | M+ – High MS recoveries |

- All inorganic positive results reported between the method detection limit (MDL) and RL have been flagged “J”.

Report prepared by: Abigail P. Bossbaly, Quality Assurance Chemist
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 4/21/2022

INORGANIC DATA QUALIFIERS

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



Reason Codes and Explanations

| Reason Code | Explanation |
|-------------|--|
| BE | Equipment blank contamination. |
| BF | Field blank contamination. |
| BL | Laboratory blank contamination. |
| BN | Negative laboratory blank contamination. |
| C | Initial and/or continuing calibration issue, indeterminate bias. |
| C+ | Initial and/or continuing calibration issue. The result may be biased high. |
| C- | Initial and/or continuing calibration issue. The result may be biased low. |
| FD | Field duplicate imprecision. |
| FG | Total versus dissolved imprecision. |
| H | Holding time exceeded. |
| I | Internal standard recovery outside of acceptance limits. |
| L | LCS and LCSD recoveries outside of acceptance limits, indeterminate bias. |
| L+ | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high. |
| L- | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low. |
| LD | Laboratory duplicate imprecision. |
| LP | LCS/LCSD imprecision. |
| M | MS and MSD recoveries outside of acceptance limits, indeterminate bias. |
| M+ | MS and/or MSD recoveries outside of acceptance limits. The result may be biased high. |
| M- | MS and/or MSD recoveries outside of acceptance limits. The result may be biased low. |
| MP | MS/MSD imprecision. |
| P | Post-digestion spike recoveries outside of acceptance limits, indeterminate bias. |
| P+ | Post-digestion spike recovery outside of acceptance limits. The result may be biased high. |
| P- | Post-digestion spike recovery outside of acceptance limits. The result may be biased low. |
| Q | Chemical preservation issue. |
| R | RL standards outside of acceptance limits, indeterminate bias. |
| R+ | RL standard(s) outside of acceptance limits. The result may be biased high. |
| R- | RL standard(s) outside of acceptance limits. The result may be biased low. |
| T | Temperature preservation issue. |
| SD | Serial dilution imprecision. |
| Y | Chemical yields outside of acceptance limits, indeterminate bias. |
| Y+ | Chemical yield(s) outside of acceptance limits. The result may be biased high. |
| Y- | Chemical yield(s) outside of acceptance limits. The result may be biased low. |
| ZZ | Other |

**Stage 2A Data Verification Report
Georgia Power
McManus Fossil Plant
Coal Combustion Residuals Project
Groundwater Samples**

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the 16 groundwater samples collected as part of the March 2022 semi-annual monitoring at the Georgia Power McManus Fossil Plant facility. These samples were collectively analyzed by Pace of Greensburg, Pennsylvania (Pace Pittsburgh), for total radium-226 by SW-846 Method 9315, for total radium-228 by SW-846 Method 9320, and for combined radium-226+228 by calculation.

This review was performed with guidance from the US EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the US EPA Region IV Data Validation Standard Operating Procedures (SOPs; US EPA Region IV, September 2011); and the applied analytical methods. These validation guidance documents, with the exception of the analytical methods, specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the SM, SW-846, and US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the SW-846 methods utilized by the laboratory.

Summary

The analytical results and associated laboratory quality control (QC) samples were reviewed to determine the integrity of the reported analytical results and to verify that the data met the established data quality objectives.

The samples collected 3/1/2022 through 3/3/2022 were evaluated as part of this QA review.

The following samples were evaluated as part of this QA review: MCM-01, MCM-02, MCM-04, MCM-05, MCM-06, MCM-07, MCM-11, MCM-12, MCM-14, MCM-15, MCM-16, MCM-17, MCM-18, MCM-19, MCM-20, and DPZ-02.

The following Pace radiological SDGs were evaluated as part of this QA review: 92590937 and 92591814.

All data are considered usable as reported, or usable after integration of data validation qualifications.

Radiological Data Review

Data validation was performed for these samples based on the sample results, summary QC data, and raw data provided by the laboratory. The findings offered in this report for the radiological analyses are based upon a review of the following QC measures:

- Sample condition upon laboratory receipt
- Chain-of-Custody (COC) Records
- Blank analysis results
- Laboratory control sample (LCS) recoveries
- Laboratory duplicate precision
- Sample holding times
- Case Narratives
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Chemical Yield

The above QC measures were evaluated against the analytical method requirements and QC acceptance criteria. The data were validated based on guidance from the US EPA Region IV Data Validation SOPs, the referenced procedures, and were qualified as appropriate as described in the sections below.

Comments and Exceptions

1. In all SDGs, the laboratory did not provide a Case Narrative associated with the radiological analyses. As this item was not needed to complete the data validation, the laboratory had not been requested to provide this information. Qualification of data due to this issue was not warranted.
2. The data validator applied qualification to combined radium-226+228 based upon the QC samples associated with the analyses of the individual isotopes, radium-226 and radium-228. The database only includes the laboratory results for the combined

radium-226+228; therefore, qualification of the individual isotopes is not addressed in this QA review.

3. SW-846 Method 9315 includes all alpha-emitting isotopes of radium. In order to analyze for only radium-226, a 21-day ingrowth period must be used. The radium-226 reported by the laboratory did not undergo a 21-day ingrowth; therefore, the results reported as radium-226 potentially contain additional alpha-emitting radium isotopes and could be high biased.
4. Combined radium-226+228 was reported as the summation of the calculated activities for radium-226 and radium-228. As consistent with routine radiological reporting conventions, negative activities were reported for the radium-226 and radium-228 analyses; however, all negative activities were entered as zero in the calculation of combined radium-226+228 activity.
5. The combined radium-226+228 sample-specific minimum detectable concentration (MDC) was reported as the summation of the MDCs for radium-226 and radium-228. Consequently, there may be instances where a detection was observed in one of the individual isotopes but the combined radium-226+228 result was reported as “not-detected” due to the laboratory’s reporting convention for combined radium-226+228.
6. The combined radium-226+228 result uncertainty was reported as the summation of the calculated uncertainties for radium-226 and radium-228. If routine statistical uncertainty reporting conventions were followed, the result uncertainty would have been reported as the root sum square (RSS; the square root of the sum of the squared individual uncertainties).
7. The laboratory did not flag results < the MDC as “not-detected” in the data package provided. The data validator qualified these samples as “U” on the data tables.
8. The following field duplicate pairs (see table) were submitted and analyzed for radiological parameters with this data set. Acceptable precision and sample representativeness were demonstrated by the reported results in the field duplicate pair evaluation (the replicate error ratio [RER] < 3), with any exceptions noted below.

| <u>Laboratory SDG(s)</u> | <u>Sample</u> | <u>Field Duplicate</u> |
|--------------------------|---------------|------------------------|
| 92591814 | MCM-18 | DUP-1 |
| 92591814 | MCM-04 | DUP-2 |

Overall Assessment of Data

Based on a review of the data, qualification of data was warranted as noted below.

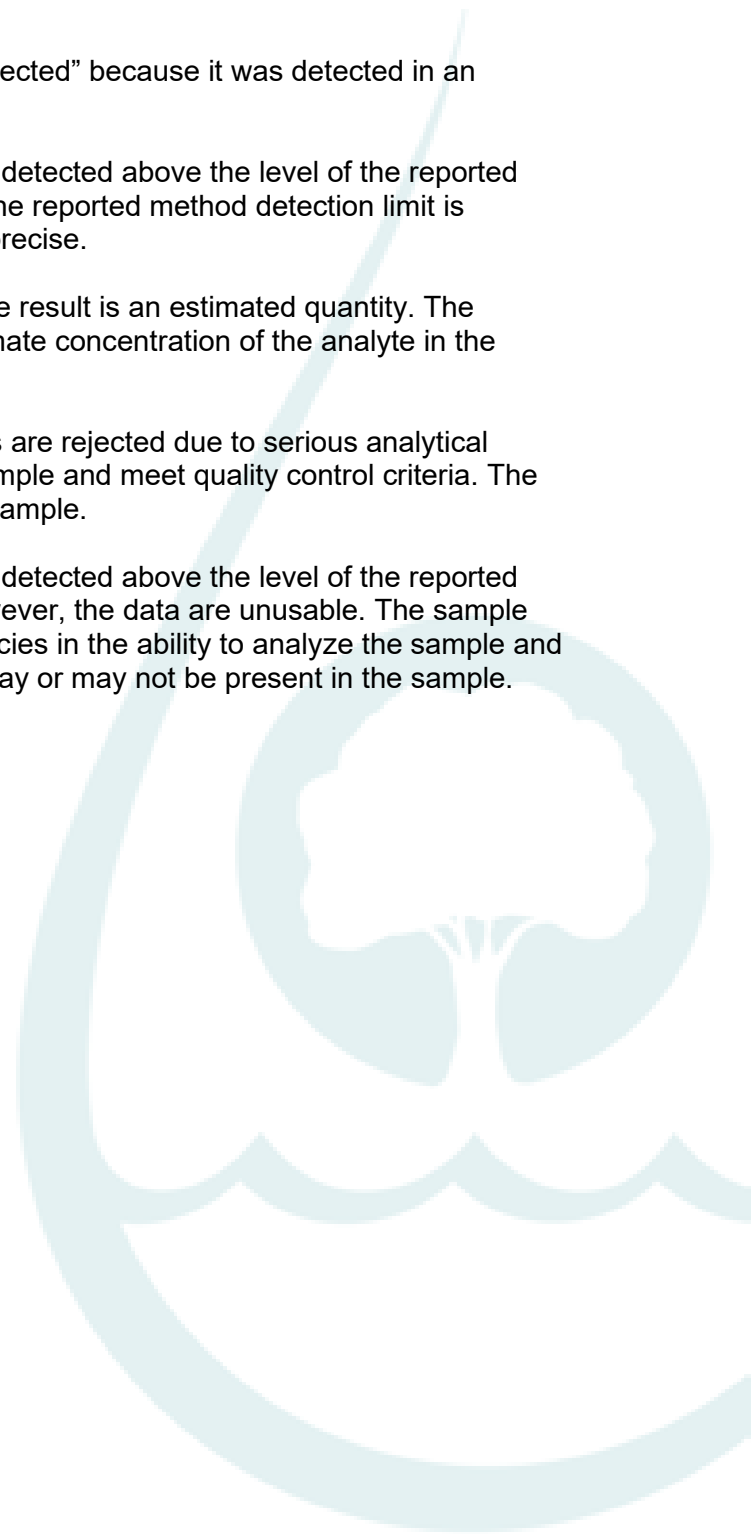
| <u>Laboratory SDG</u> | <u>Sample(s)</u> | <u>Analyte(s)</u> | <u>Qualifier</u> | <u>Reason for Qualification</u> |
|-----------------------|---------------------------|-------------------------|------------------|-------------------------------------|
| 92591814 | all samples except MCM-19 | combined radium-226+228 | J/UJ | L- – Low LCS and/or LCSD recoveries |
| 92591814 | MCM-18 | combined radium-226+228 | J | FD – field duplicate imprecision |

- All radiological results reported below the MDC have been flagged “U.”

Report prepared by: Abigail P. Bossbaly, Quality Assurance Chemist
 Report reviewed by: Alyssa M. Reed, Senior Quality Assurance Chemist/Project Manager
 Report approved by: David I. Thal, CEAC, CQA, Principal Chemist
 Date: 4/29/2022

INORGANIC DATA QUALIFIERS

- U - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* - This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- UJ - The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
- J - The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- R - The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- UR - The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.



Reason Codes and Explanations

| Reason Code | Explanation |
|-------------|--|
| BE | Equipment blank contamination. |
| BF | Field blank contamination. |
| BL | Laboratory blank contamination. |
| BN | Negative laboratory blank contamination. |
| C | Initial and/or continuing calibration issue, indeterminate bias. |
| C+ | Initial and/or continuing calibration issue. The result may be biased high. |
| C- | Initial and/or continuing calibration issue. The result may be biased low. |
| FD | Field duplicate imprecision. |
| FG | Total versus dissolved imprecision. |
| H | Holding time exceeded. |
| I | Internal standard recovery outside of acceptance limits. |
| L | LCS and LCSD recoveries outside of acceptance limits, indeterminate bias. |
| L+ | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high. |
| L- | LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low. |
| LD | Laboratory duplicate imprecision. |
| LP | LCS/LCSD imprecision. |
| M | MS and MSD recoveries outside of acceptance limits, indeterminate bias. |
| M+ | MS and/or MSD recoveries outside of acceptance limits. The result may be biased high. |
| M- | MS and/or MSD recoveries outside of acceptance limits. The result may be biased low. |
| MP | MS/MSD imprecision. |
| P | Post-digestion spike recoveries outside of acceptance limits, indeterminate bias. |
| P+ | Post-digestion spike recovery outside of acceptance limits. The result may be biased high. |
| P- | Post-digestion spike recovery outside of acceptance limits. The result may be biased low. |
| Q | Chemical preservation issue. |
| R | RL standards outside of acceptance limits, indeterminate bias. |
| R+ | RL standard(s) outside of acceptance limits. The result may be biased high. |
| R- | RL standard(s) outside of acceptance limits. The result may be biased low. |
| T | Temperature preservation issue. |
| SD | Serial dilution imprecision. |
| Y | Chemical yields outside of acceptance limits, indeterminate bias. |
| Y+ | Chemical yield(s) outside of acceptance limits. The result may be biased high. |
| Y- | Chemical yield(s) outside of acceptance limits. The result may be biased low. |
| ZZ | Other |

Customer: Robert Mull No: 9/17/21 / 1600 / 1739
 Address: 778566 Location: Lytle 2020 Wc No: 1729-5011
 Equip: 3021 Meters CCR Location: Polly Judy, 85°F

Continued

| Part # | Part Name | Serial Number | Type of Standard | Calibration Reading | Comments |
|--------|-----------------|---------------|------------------|---------------------|----------|
| 3021 | 3021 Meters CCR | | | 85.651 | |
| 3021 | 3021 Meters CCR | 3111 | 100 | 5.4584 | |
| 3021 | 3021 Meters CCR | 3122 | 100 | 4.44 | |
| 3021 | 3021 Meters CCR | 3125 | 100 | 7.12 | |
| 3021 | 3021 Meters CCR | 3046 | 100 | 9.64 | |
| 3021 | 3021 Meters CCR | 3040 | 100 | 21.8 | |

| Part # | Part Name | Serial Number | Calibration Reading | Calibration Range | Part | Comments |
|--------|-----------------|---------------|---------------------|-------------------|------|----------|
| 3021 | 3021 Meters CCR | | 0.00 | 10.00 | 10 | |
| 3021 | 3021 Meters CCR | | 1.00 | 11.00 | 10 | |
| 3021 | 3021 Meters CCR | | 7.80 | 11.00 | 10 | |

| Part # | Part Name | Serial Number | Calibration Reading | Calibration Range | Part | Comments |
|--------|-----------------|---------------|---------------------|-------------------|------|----------|
| 3021 | 3021 Meters CCR | 3111 | 3.90 | 11.00 | 10 | |
| 3021 | 3021 Meters CCR | 3122 | 7.01 | 11.00 | 10 | |
| 3021 | 3021 Meters CCR | 3125 | 10.10 | 11.00 | 10 | |

Client: CAUTION Limited Date: 3/13/21 Location: 16115 Time: 12:34
 Meter: 794310 Equipment: LAMORTE ID: 5916-3715
 Model: MC4000 Range: 65/97

Cost Summary

| Item | Standard Cost / Part of Standard | Time of Standard (hr) | Rate of Standard | Standard Quantity to be Used | Comments |
|----------|----------------------------------|-----------------------|------------------|------------------------------|----------|
| Material | | | | 38.31 | |
| Material | 25070100 0.25 | 28.96 | 1.00 | 4.51404 | |
| Material | 21072100 0.22 | 29.17 | 1 | 5.31 | |
| Material | 11070000 0.22 | 25.46 | 7 | 6.71 | |
| Material | 11001000 0.22 | 28.49 | 10 | 9.48 | |
| Material | 21000100 0.14 | 28.49 | 100 | 215.3 | |

| Item | Value of Standard | Standard Quantity | Standard Rate | Rate | Comments |
|----------|-------------------|-------------------|---------------|------|----------|
| Material | 0 | 0 | 1.00 | 0.00 | |
| Material | 1 | 96 | 1.00 | 0.00 | |
| Material | 10 | 117 | 1.00 | 0.00 | |

| Item | Value of Standard | Standard Quantity | Standard Rate | Rate | Comments |
|----------|-------------------|-------------------|---------------|------|----------|
| Material | 21.71 | 4 | 4.18 | 0.00 | |
| Material | 28.49 | 1 | 2.84 | 0.00 | |
| Material | 0.22 | 10 | 10.12 | 0.00 | |

Equipment: Caliper Machine Date: 9/14/11 Page: 8-25 Job No: 18-01
 Serial No: 789510 Location: LAWRENCE Job: 3826-373
 Operator: SPRINGFIELD (20) CALIBRATION COR Date: 10/1/11

Component

| Part Name | Manufacturer / Part No. | Test Location No. | Level of Precision | Reference Range or Reference | Comments |
|--------------|-------------------------|-------------------|--------------------|------------------------------|----------|
| 100.00 | | | | 100.00 | |
| 21579173 803 | 21579173 803 | 25 14 | 400 | 43 14.1 | |
| 21579173 801 | 21579173 801 | 25 24 | + | 4.00 | |
| 21579173 802 | 21579173 802 | 25 34 | 7 | 5.97 | |
| 21579173 803 | 21579173 803 | 25 34 | 18 | 3.47 | |
| 21579173 804 | 21579173 804 | 25 34 | 278 | 1.81 0 | |

| Part Name | Manufacturer / Part No. | Test Location No. | Level of Precision | Reference Range or Reference | Comments |
|-----------|-------------------------|-------------------|--------------------|------------------------------|----------|
| 100.00 | | | | 100.00 | |
| 100.00 | | | | 100.00 | |
| 100.00 | | | | 100.00 | |

| Part Name | Manufacturer / Part No. | Test Location No. | Level of Precision | Reference Range or Reference | Comments |
|-----------|-------------------------|-------------------|--------------------|------------------------------|----------|
| 100.00 | | | | 100.00 | |
| 100.00 | | | | 100.00 | |
| 100.00 | | | | 100.00 | |

Collection: Kolant Mill Date: 9/14/21 Status: 2025 ID: 1727
 Account: 778566 Location: La Mesa 2024 WFL Address: 1729 - 5011
 Collector: Ed. M. Murray CLR Supervisor: 83

Collection Log

| TO / No. | Account Number | Amount Collected | Days in Arrears | Amount Owed | Comments |
|----------|----------------|------------------|-----------------|-------------|----------|
| TO / No. | | | | 107847 | |
| 778566 | 21001193 822 | 22.58 | 4798 | 3717.1 | |
| 778566 | 21001193 822 | 22.63 | 0 | 5.75 | |
| 778566 | 21001194 822 | 23.11 | 0 | 6.94 | |
| 778566 | 21001197 822 | 23.48 | 18 | 10.21 | |
| 778566 | 21001191 822 | 23.59 | 228 | 234.2 | |

| Invoice # | Value of Invoice | Invoice Date | Invoice Type | Due Date | Comments |
|----------------|------------------|--------------|--------------|----------|----------|
| Invoice # 1727 | 0 | 0.01 | 11-12 | 12/31 | |
| Invoice # 1728 | 1 | 1.11 | 11-12 | 12/31 | |
| Invoice # 1729 | 10 | 10.05 | 11-12 | 12/31 | |

| Invoice # | Value of Invoice | Invoice Date | Invoice Type | Due Date | Comments |
|----------------|------------------|--------------|--------------|----------|----------|
| Invoice # 1730 | 4 | 4.08 | 11-12 | 12/31 | |
| Invoice # 1731 | 7 | 7.09 | 11-12 | 12/31 | |
| Invoice # 1732 | 9 | 9.98 | 11-12 | 12/31 | |

46-

Membership Number: 37831 Date: 2/12/21 Period: 8/07/2020 to 2/12/21
 Name: Scott 2021 MEMBERS COR Location: LaPlata 2020 Total: 3915
 Status: 87+ / 26+ / 3000

1/24/2021

| | Account Card Order Express | Days of Payment (D) | Number of Members | Revenue Breakdown Category | Revenue |
|-------------------------|----------------------------|---------------------|-------------------|----------------------------|---------|
| MEMBERSHIP | | | | | 3792 |
| Special Membership Rate | 21070202 021 | 23.30 | 4000 | 4501.9 | |
| MEMBERSHIP | 11970193 021 | 23.52 | 4 | 94.57 | |
| MEMBERSHIP | 21010044 021 | 24.01 | 7 | 169 | |
| MEMBERSHIP | 20000109 022 | 24.45 | 18 | 430.01 | |
| MEMBERSHIP | 21110008 022 | 24.58 | 22 | 223.1 | |

| | Number of Members | Revenue Breakdown | Revenue Breakdown Category | Revenue |
|------------|-------------------|-------------------|----------------------------|---------|
| MEMBERSHIP | 8 | 3.02 | - MEMBERSHIP | |
| MEMBERSHIP | 8 | 1.07 | - MEMBERSHIP | |
| MEMBERSHIP | 16 | 19.95 | - MEMBERSHIP | |

| | Number of Members | Days of Payment | Revenue Breakdown Category | Revenue |
|------------|-------------------|-----------------|----------------------------|---------|
| MEMBERSHIP | 12.30 | 4 | | |
| MEMBERSHIP | 25.45 | 7 | | |
| MEMBERSHIP | 49.63 | 18 | | |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 9:36:11 AM

Project: September 2021 McManus CCR Event

Operator Name: William Laaker

| | | |
|--|--|--|
| Location Name: MCM-01
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.32 ft
Total Depth: 27.32 ft
Initial Depth to Water: 4.34 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 22.32 ft
Estimated Total Volume Pumped: 2600 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 130 ml/min
Final Draw Down: 0.03 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:

Prepurged 1 L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 9:36 AM | 00:00 | 5.11 pH | 25.42 °C | 152.20 µS/cm | 0.79 mg/L | 1.44 NTU | 102.3 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |
| 9/14/2021 9:40 AM | 04:00 | 5.11 pH | 25.23 °C | 154.47 µS/cm | 0.75 mg/L | 0.99 NTU | 96.6 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |
| 9/14/2021 9:44 AM | 08:00 | 5.11 pH | 25.19 °C | 154.71 µS/cm | 0.65 mg/L | 1.18 NTU | 94.4 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |
| 9/14/2021 9:48 AM | 12:00 | 5.10 pH | 25.42 °C | 154.10 µS/cm | 0.49 mg/L | 0.66 NTU | 93.4 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |
| 9/14/2021 9:52 AM | 16:00 | 5.13 pH | 25.64 °C | 155.45 µS/cm | 0.38 mg/L | 0.46 NTU | 90.9 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |
| 9/14/2021 9:56 AM | 20:00 | 5.13 pH | 25.71 °C | 155.44 µS/cm | 0.33 mg/L | 0.43 NTU | 89.6 mV | 4.37 ft | 0.07 PSU | 130.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-01 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 10:49:00 AM

Project: September 2021 McManus CCR Event

Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: MCM-02
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.35 ft
Total Depth: 27.35 ft
Initial Depth to Water: 4.46 ft | Pump Type: Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 22.5 m
Estimated Total Volume Pumped: 6720 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 210 ml/min
Final Draw Down: 0.13 ft | Instrument Used: Aqua TROLL 400
Serial Number: 728566 |
|--|--|--|

Test Notes:

Prepurged 750mL

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|--------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 10:49 AM | 00:00 | 5.08 pH | 22.89 °C | 163.41 µS/cm | 0.30 mg/L | 0.05 NTU | 60.2 mV | 4.58 ft | 0.08 PSU | 210.00 ml/min |
| 9/14/2021 10:53 AM | 04:00 | 5.11 pH | 22.52 °C | 174.00 µS/cm | 0.22 mg/L | 0.02 NTU | 54.4 mV | 4.59 ft | 0.08 PSU | 210.00 ml/min |
| 9/14/2021 10:57 AM | 08:00 | 5.11 pH | 22.50 °C | 168.19 µS/cm | 0.18 mg/L | 0.09 NTU | 49.1 mV | 4.59 ft | 0.08 PSU | 210.00 ml/min |
| 9/14/2021 11:01 AM | 12:00 | 5.10 pH | 22.45 °C | 165.77 µS/cm | 0.16 mg/L | 0.06 NTU | 45.5 mV | 4.59 ft | 0.08 PSU | 210.00 ml/min |
| 9/14/2021 11:05 AM | 16:00 | 5.08 pH | 22.44 °C | 162.01 µS/cm | 0.14 mg/L | 0.17 NTU | 43.4 mV | 4.59 ft | 0.08 PSU | 210.00 ml/min |
| 9/14/2021 11:09 AM | 20:00 | 5.07 pH | 22.40 °C | 157.15 µS/cm | 0.13 mg/L | 0.10 NTU | 41.5 mV | 4.59 ft | 0.07 PSU | 210.00 ml/min |
| 9/14/2021 11:13 AM | 24:00 | 5.05 pH | 22.49 °C | 155.54 µS/cm | 0.12 mg/L | 0.16 NTU | 40.5 mV | 4.59 ft | 0.07 PSU | 210.00 ml/min |
| 9/14/2021 11:17 AM | 28:00 | 5.04 pH | 22.44 °C | 153.48 µS/cm | 0.11 mg/L | 0.03 NTU | 39.9 mV | 4.59 ft | 0.07 PSU | 210.00 ml/min |
| 9/14/2021 11:21 AM | 32:00 | 5.04 pH | 22.49 °C | 155.74 µS/cm | 0.10 mg/L | 0.06 NTU | 39.0 mV | 4.59 ft | 0.07 PSU | 210.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-02 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 9:31:59 AM

Project: September 2021 McManus CCR EVENT

Operator Name: Robert Mull

| | | |
|---|--|--|
| Location Name: MCM-04
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 m
Top of Screen: 18.57 m
Total Depth: 28.57 m
Initial Depth to Water: 9.49 ft | Pump Type: Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 23.5 m
Estimated Total Volume Pumped: 2560 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 160 ml/min
Final Draw Down: 0.23 ft | Instrument Used: Aqua TROLL 400
Serial Number: 728566 |
|---|--|--|

Test Notes:

Prepurged 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 9:31 AM | 00:00 | 5.08 pH | 22.54 °C | 340.61 µS/cm | 0.26 mg/L | 0.10 NTU | 85.1 mV | 9.69 ft | 0.16 PSU | 160.00 ml/min |
| 9/14/2021 9:35 AM | 04:00 | 5.09 pH | 22.36 °C | 341.85 µS/cm | 0.20 mg/L | 0.22 NTU | 79.9 mV | 9.70 ft | 0.16 PSU | 160.00 ml/min |
| 9/14/2021 9:39 AM | 08:00 | 5.09 pH | 22.26 °C | 342.65 µS/cm | 0.17 mg/L | 0.02 NTU | 75.5 mV | 9.70 ft | 0.17 PSU | 160.00 ml/min |
| 9/14/2021 9:43 AM | 12:00 | 5.08 pH | 22.19 °C | 341.62 µS/cm | 0.15 mg/L | 0.05 NTU | 71.5 mV | 9.71 ft | 0.16 PSU | 160.00 ml/min |
| 9/14/2021 9:47 AM | 16:00 | 5.09 pH | 22.17 °C | 340.75 µS/cm | 0.13 mg/L | 0.13 NTU | 68.2 mV | 9.72 ft | 0.16 PSU | 160.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-04 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 1:10:42 PM

Project: September 2021 McManus CCR Event

Operator Name: Calvin Layman

| | | |
|--|---|--|
| Location Name: MCM-05
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.05 ft
Total Depth: 28.05 ft
Initial Depth to Water: 7.98 ft | Pump Type: QED Bladder
Tubing Type: LDPE
Pump Intake From TOC: 23.05 ft
Estimated Total Volume Pumped: 2800 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 140 ml/min
Final Draw Down: -0.13 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|---|--|

Test Notes:

Prepurge 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 1:10 PM | 00:00 | 6.68 pH | 35.67 °C | 11,015 µS/cm | 1.31 mg/L | 1.96 NTU | -122.1 mV | 7.98 ft | 6.34 PSU | 140.00 ml/min |
| 9/14/2021 1:14 PM | 04:00 | 6.66 pH | 28.20 °C | 14,002 µS/cm | 0.33 mg/L | 1.11 NTU | -127.4 mV | 7.98 ft | 8.22 PSU | 140.00 ml/min |
| 9/14/2021 1:18 PM | 08:00 | 6.67 pH | 27.37 °C | 14,436 µS/cm | 0.21 mg/L | 0.56 NTU | -127.5 mV | 7.94 ft | 8.50 PSU | 140.00 ml/min |
| 9/14/2021 1:22 PM | 12:00 | 6.67 pH | 27.12 °C | 14,608 µS/cm | 0.17 mg/L | 0.28 NTU | -128.1 mV | 7.86 ft | 8.61 PSU | 140.00 ml/min |
| 9/14/2021 1:26 PM | 16:00 | 6.67 pH | 27.18 °C | 14,676 µS/cm | 0.15 mg/L | 0.07 NTU | -128.3 mV | 7.88 ft | 8.65 PSU | 140.00 ml/min |
| 9/14/2021 1:30 PM | 20:00 | 6.67 pH | 27.05 °C | 14,659 µS/cm | 0.14 mg/L | 0.14 NTU | -127.7 mV | 7.85 ft | 8.64 PSU | 140.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-5 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 11:14:38 AM

Project: September 2021 McManus CCR Event

Operator Name: Calvin Layman

| | | |
|--|---|--|
| Location Name: MCM-06
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.2 ft
Total Depth: 27.2 ft
Initial Depth to Water: 9.09 ft | Pump Type: QED Bladder
Tubing Type: LDPE
Pump Intake From TOC: 22.2 ft
Estimated Total Volume Pumped: 2880 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 120 ml/min
Final Draw Down: 0.05 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|---|--|

Test Notes:

Prepurge 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|--------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 11:14 AM | 00:00 | 6.85 pH | 35.52 °C | 17,732 µS/cm | 1.98 mg/L | 4.71 NTU | -173.2 mV | 9.14 ft | 10.62 PSU | 120.00 ml/min |
| 9/14/2021 11:18 AM | 04:00 | 6.89 pH | 28.61 °C | 19,426 µS/cm | 0.08 mg/L | 5.30 NTU | -188.5 mV | 9.14 ft | 11.74 PSU | 120.00 ml/min |
| 9/14/2021 11:22 AM | 08:00 | 6.91 pH | 28.06 °C | 19,597 µS/cm | 0.06 mg/L | 6.07 NTU | -200.1 mV | 9.14 ft | 11.85 PSU | 120.00 ml/min |
| 9/14/2021 11:26 AM | 12:00 | 6.94 pH | 28.03 °C | 19,552 µS/cm | 0.06 mg/L | 5.49 NTU | -211.1 mV | 9.14 ft | 11.82 PSU | 120.00 ml/min |
| 9/14/2021 11:30 AM | 16:00 | 6.94 pH | 28.06 °C | 19,435 µS/cm | 0.06 mg/L | 3.90 NTU | -219.7 mV | 9.14 ft | 11.74 PSU | 120.00 ml/min |
| 9/14/2021 11:34 AM | 20:00 | 6.94 pH | 28.09 °C | 19,489 µS/cm | 0.05 mg/L | 3.41 NTU | -227.5 mV | 9.14 ft | 11.78 PSU | 120.00 ml/min |
| 9/14/2021 11:38 AM | 24:00 | 6.94 pH | 28.07 °C | 19,452 µS/cm | 0.05 mg/L | 2.62 NTU | -232.8 mV | 9.14 ft | 11.75 PSU | 120.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-6 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 9:20:39 AM

Project: September 2021 McManus CCR Event

Operator Name: Calvin Layman

| | | |
|--|--|--|
| Location Name: MCM-07
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 13.75 ft
Total Depth: 23.75 ft
Initial Depth to Water: 7.97 ft | Pump Type: QED Bladder
Tubing Type: LDPE
Pump Intake From TOC: 18.75 ft
Estimated Total Volume Pumped: 2600 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 130 ml/min
Final Draw Down: 0.18 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:

Prepurge 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 9:20 AM | 00:00 | 6.15 pH | 28.81 °C | 20,719 µS/cm | 2.95 mg/L | 2.31 NTU | -74.4 mV | 8.21 ft | 12.59 PSU | 130.00 ml/min |
| 9/14/2021 9:24 AM | 04:00 | 6.22 pH | 26.82 °C | 20,875 µS/cm | 1.16 mg/L | 1.78 NTU | -84.0 mV | 8.21 ft | 12.69 PSU | 130.00 ml/min |
| 9/14/2021 9:28 AM | 08:00 | 6.26 pH | 26.70 °C | 21,045 µS/cm | 0.72 mg/L | 1.66 NTU | -90.5 mV | 8.21 ft | 12.80 PSU | 130.00 ml/min |
| 9/14/2021 9:32 AM | 12:00 | 6.27 pH | 26.78 °C | 21,195 µS/cm | 0.38 mg/L | 1.75 NTU | -95.2 mV | 8.15 ft | 12.90 PSU | 130.00 ml/min |
| 9/14/2021 9:36 AM | 16:00 | 6.28 pH | 26.95 °C | 21,317 µS/cm | 0.22 mg/L | 1.63 NTU | -97.1 mV | 8.15 ft | 12.98 PSU | 130.00 ml/min |
| 9/14/2021 9:40 AM | 20:00 | 6.28 pH | 26.93 °C | 21,587 µS/cm | 0.16 mg/L | 1.84 NTU | -100.0 mV | 8.15 ft | 13.16 PSU | 130.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-7 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 12:42:10 PM

Project: September 2021 McManus CCR Event

Operator Name: Robert Mull

| | | |
|--|---|--|
| Location Name: MCM-11
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 14 ft
Total Depth: 24 ft
Initial Depth to Water: 5.43 ft | Pump Type: Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 19 ft
Estimated Total Volume Pumped: 3720 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 170 ml/min
Final Draw Down: 1.16 ft | Instrument Used: Aqua TROLL 400
Serial Number: 728566 |
|--|---|--|

Test Notes:

Prepurged 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|--------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 12:42 PM | 00:00 | 5.53 pH | 27.70 °C | 355.13 µS/cm | 0.31 mg/L | 0.56 NTU | 97.1 mV | 6.43 ft | 0.17 PSU | 210.00 ml/min |
| 9/14/2021 12:46 PM | 04:00 | 5.52 pH | 27.46 °C | 333.15 µS/cm | 0.21 mg/L | 0.25 NTU | 96.4 mV | 6.58 ft | 0.16 PSU | 210.00 ml/min |
| 9/14/2021 12:50 PM | 08:00 | 5.52 pH | 27.46 °C | 323.45 µS/cm | 0.21 mg/L | 0.02 NTU | 97.5 mV | 6.60 ft | 0.16 PSU | 170.00 ml/min |
| 9/14/2021 12:54 PM | 12:00 | 5.51 pH | 27.15 °C | 326.65 µS/cm | 0.19 mg/L | 0.08 NTU | 98.8 mV | 6.59 ft | 0.16 PSU | 170.00 ml/min |
| 9/14/2021 12:58 PM | 16:00 | 5.49 pH | 27.45 °C | 328.94 µS/cm | 0.19 mg/L | 0.01 NTU | 101.6 mV | 6.59 ft | 0.16 PSU | 170.00 ml/min |
| 9/14/2021 1:02 PM | 20:00 | 5.50 pH | 27.50 °C | 333.23 µS/cm | 0.17 mg/L | 0.03 NTU | 103.6 mV | 6.59 ft | 0.16 PSU | 170.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-11 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/13/2021 5:09:33 PM

Project: September 2021 McManus CCR Event

Operator Name: Calvin Layman

| | | |
|--|---|--|
| Location Name: MCM-12
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 19 ft
Total Depth: 29 ft
Initial Depth to Water: 8.84 ft | Pump Type: QED Bladder
Tubing Type: LDPE
Pump Intake From TOC: 24 ft
Estimated Total Volume Pumped: 5040 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 140 ml/min
Final Draw Down: 1.26 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|---|--|

Test Notes:

Prepurge 2L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/13/2021 5:09 PM | 00:00 | 6.22 pH | 30.84 °C | 2,247.3 µS/cm | 0.54 mg/L | 1.15 NTU | 55.1 mV | 9.80 ft | 1.16 PSU | 140.00 ml/min |
| 9/13/2021 5:13 PM | 04:00 | 6.25 pH | 26.95 °C | 2,360.9 µS/cm | 0.12 mg/L | 1.08 NTU | 40.8 mV | 9.85 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:17 PM | 08:00 | 6.24 pH | 26.53 °C | 2,370.0 µS/cm | 0.09 mg/L | 1.50 NTU | 39.7 mV | 9.87 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:21 PM | 12:00 | 6.24 pH | 26.49 °C | 2,361.3 µS/cm | 0.06 mg/L | 2.41 NTU | 39.1 mV | 9.89 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:25 PM | 16:00 | 6.24 pH | 26.25 °C | 2,357.2 µS/cm | 0.05 mg/L | 3.46 NTU | 40.9 mV | 9.94 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:29 PM | 20:00 | 6.24 pH | 26.00 °C | 2,363.4 µS/cm | 0.04 mg/L | 4.29 NTU | 40.5 mV | 9.97 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:33 PM | 24:00 | 6.24 pH | 25.72 °C | 2,362.0 µS/cm | 0.04 mg/L | 4.89 NTU | 40.4 mV | 10.02 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:37 PM | 28:00 | 6.24 pH | 25.57 °C | 2,368.1 µS/cm | 0.03 mg/L | 4.95 NTU | 41.2 mV | 10.06 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:41 PM | 32:00 | 6.24 pH | 25.43 °C | 2,371.0 µS/cm | 0.02 mg/L | 4.98 NTU | 40.6 mV | 10.07 ft | 1.23 PSU | 140.00 ml/min |
| 9/13/2021 5:45 PM | 36:00 | 6.24 pH | 25.40 °C | 2,373.6 µS/cm | 0.02 mg/L | 4.69 NTU | 40.4 mV | 10.10 ft | 1.24 PSU | 140.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-12 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/13/2021 5:08:14 PM

Project: September 2021 McManus CCR Event

Operator Name: Robert Mull

| | | |
|--|---|--|
| Location Name: MCM-14
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.11 ft
Total Depth: 28.11 ft
Initial Depth to Water: 8.55 ft | Pump Type: QED Dedicated Bladder
Tubing Type: LDPE
Pump Intake From TOC: 23 ft
Estimated Total Volume Pumped: 4000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0.38 ft | Instrument Used: Aqua TROLL 400
Serial Number: 728566 |
|--|---|--|

Test Notes:

Prepurged 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|----------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 10 | |
| 9/13/2021 5:08 PM | 00:00 | 6.48 pH | 26.79 °C | 14,542 µS/cm | 2.05 mg/L | 0.70 NTU | -212.0 mV | 8.74 ft | 8.56 PSU | 200.00 ml/min |
| 9/13/2021 5:12 PM | 04:00 | 6.41 pH | 25.50 °C | 14,808 µS/cm | 0.73 mg/L | 0.39 NTU | -240.9 mV | 8.75 ft | 8.73 PSU | 200.00 ml/min |
| 9/13/2021 5:16 PM | 08:00 | 6.36 pH | 25.24 °C | 14,868 µS/cm | 0.46 mg/L | 0.23 NTU | -247.8 mV | 8.79 ft | 8.77 PSU | 200.00 ml/min |
| 9/13/2021 5:20 PM | 12:00 | 6.32 pH | 25.12 °C | 14,819 µS/cm | 0.31 mg/L | 0.26 NTU | -249.5 mV | 8.86 ft | 8.74 PSU | 200.00 ml/min |
| 9/13/2021 5:24 PM | 16:00 | 6.30 pH | 24.99 °C | 14,718 µS/cm | 0.24 mg/L | 0.24 NTU | -248.6 mV | 8.90 ft | 8.67 PSU | 200.00 ml/min |
| 9/13/2021 5:28 PM | 20:00 | 6.30 pH | 24.90 °C | 14,731 µS/cm | 0.19 mg/L | 0.22 NTU | -250.6 mV | 8.93 ft | 8.68 PSU | 200.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-14 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 4:04:00 PM

Project: September 2021 McManus CCR Event

Operator Name: Robert Mull

| | | |
|---|--|---|
| <p>Location Name: MCM-15
 Well Diameter: 2 in
 Casing Type: PVC
 Screen Length: 10 ft
 Top of Screen: 16.6 ft
 Total Depth: 26.6 ft
 Initial Depth to Water: 8.86 ft</p> | <p>Pump Type: Dedicated Bladder
 Tubing Type: LDPE
 Pump Intake From TOC: 21.6 ft
 Estimated Total Volume Pumped: 8000 ml
 Flow Cell Volume: 90 ml
 Final Flow Rate: 160 ml/min
 Final Draw Down: 0.02 ft</p> | <p>Instrument Used: Aqua TROLL 400
 Serial Number: 728566</p> |
|---|--|---|

Test Notes:

Prepurged 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 4:04 PM | 00:00 | 5.49 pH | 27.60 °C | 58.68 µS/cm | 0.85 mg/L | 2.82 NTU | 80.1 mV | 8.92 ft | 0.03 PSU | 240.00 ml/min |
| 9/14/2021 4:08 PM | 04:00 | 5.33 pH | 26.14 °C | 61.57 µS/cm | 0.85 mg/L | 1.17 NTU | 66.9 mV | 8.95 ft | 0.03 PSU | 240.00 ml/min |
| 9/14/2021 4:12 PM | 08:00 | 5.25 pH | 25.58 °C | 55.36 µS/cm | 0.48 mg/L | 1.09 NTU | 60.9 mV | 8.95 ft | 0.03 PSU | 240.00 ml/min |
| 9/14/2021 4:16 PM | 12:00 | 5.23 pH | 25.24 °C | 59.74 µS/cm | 0.26 mg/L | 1.52 NTU | 55.0 mV | 8.94 ft | 0.03 PSU | 240.00 ml/min |
| 9/14/2021 4:20 PM | 16:00 | 5.42 pH | 24.96 °C | 110.33 µS/cm | 0.19 mg/L | 2.70 NTU | 29.6 mV | 8.94 ft | 0.05 PSU | 240.00 ml/min |
| 9/14/2021 4:24 PM | 20:00 | 5.40 pH | 25.10 °C | 112.54 µS/cm | 0.19 mg/L | 3.01 NTU | 27.7 mV | 8.91 ft | 0.05 PSU | 160.00 ml/min |
| 9/14/2021 4:28 PM | 24:00 | 5.41 pH | 25.49 °C | 118.73 µS/cm | 0.15 mg/L | 3.65 NTU | 26.5 mV | 8.90 ft | 0.06 PSU | 160.00 ml/min |
| 9/14/2021 4:32 PM | 28:00 | 5.39 pH | 25.77 °C | 116.80 µS/cm | 0.13 mg/L | 4.07 NTU | 28.0 mV | 8.88 ft | 0.05 PSU | 160.00 ml/min |
| 9/14/2021 4:36 PM | 32:00 | 5.39 pH | 25.86 °C | 117.80 µS/cm | 0.14 mg/L | 3.90 NTU | 28.0 mV | 8.89 ft | 0.06 PSU | 160.00 ml/min |
| 9/14/2021 4:40 PM | 36:00 | 5.39 pH | 25.92 °C | 121.56 µS/cm | 0.13 mg/L | 4.05 NTU | 26.2 mV | 8.88 ft | 0.06 PSU | 160.00 ml/min |
| 9/14/2021 4:44 PM | 40:00 | 5.39 pH | 25.83 °C | 121.74 µS/cm | 0.14 mg/L | 4.03 NTU | 25.5 mV | 8.88 ft | 0.06 PSU | 160.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-15 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 10:50:10 AM

Project: September 2021 McManus CCR Event

Operator Name: William Laaker

| | | |
|--|--|--|
| Location Name: MCM-16
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.39 ft
Total Depth: 28.39 ft
Initial Depth to Water: 9.05 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 23.39 ft
Estimated Total Volume Pumped: 2240 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 140 ml/min
Final Draw Down: 0.08 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:

Prepurged 1 L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|--------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 10:50 AM | 00:00 | 4.67 pH | 23.42 °C | 174.67 µS/cm | 0.52 mg/L | 0.24 NTU | 109.2 mV | 9.13 ft | 0.08 PSU | 140.00 ml/min |
| 9/14/2021 10:54 AM | 04:00 | 4.66 pH | 22.93 °C | 177.65 µS/cm | 0.35 mg/L | 0.60 NTU | 100.9 mV | 9.13 ft | 0.08 PSU | 140.00 ml/min |
| 9/14/2021 10:58 AM | 08:00 | 4.67 pH | 22.76 °C | 177.77 µS/cm | 0.33 mg/L | 0.12 NTU | 98.5 mV | 9.13 ft | 0.08 PSU | 140.00 ml/min |
| 9/14/2021 11:02 AM | 12:00 | 4.70 pH | 22.70 °C | 174.21 µS/cm | 0.28 mg/L | 0.06 NTU | 96.4 mV | 9.13 ft | 0.08 PSU | 140.00 ml/min |
| 9/14/2021 11:06 AM | 16:00 | 4.69 pH | 22.64 °C | 175.65 µS/cm | 0.31 mg/L | 0.01 NTU | 95.3 mV | 9.13 ft | 0.08 PSU | 140.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-16 | Metals, Inorganics, TDS, Radium |
| DUP-1 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 2:58:52 PM

Project: September 2021 McManus CCR Event

Operator Name: Calvin Layman

| | | |
|--|--|--|
| Location Name: MCM-17
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.44 ft
Total Depth: 27.44 ft
Initial Depth to Water: 9.12 ft | Pump Type: QED Bladder
Tubing Type: LDPE
Pump Intake From TOC: 22.44 ft
Estimated Total Volume Pumped: 26240 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: -0.51 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:

Prepurge 1L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 2:58 PM | 00:00 | 6.28 pH | 30.91 °C | 13,304 µS/cm | 1.01 mg/L | 0.90 NTU | -59.5 mV | 9.12 ft | 7.78 PSU | 120.00 ml/min |
| 9/14/2021 3:02 PM | 04:00 | 6.26 pH | 28.17 °C | 14,041 µS/cm | 0.26 mg/L | 0.53 NTU | -56.6 mV | 9.12 ft | 8.25 PSU | 120.00 ml/min |
| 9/14/2021 3:06 PM | 08:00 | 6.26 pH | 28.40 °C | 14,107 µS/cm | 0.27 mg/L | 0.40 NTU | -57.2 mV | 9.06 ft | 8.29 PSU | 120.00 ml/min |
| 9/14/2021 3:10 PM | 12:00 | 6.25 pH | 28.10 °C | 14,111 µS/cm | 0.27 mg/L | 0.79 NTU | -55.1 mV | 9.06 ft | 8.29 PSU | 120.00 ml/min |
| 9/14/2021 3:14 PM | 16:00 | 6.24 pH | 27.72 °C | 14,233 µS/cm | 0.16 mg/L | 3.34 NTU | -56.1 mV | 9.04 ft | 8.37 PSU | 120.00 ml/min |
| 9/14/2021 3:18 PM | 20:00 | 6.24 pH | 27.24 °C | 14,250 µS/cm | 0.13 mg/L | 6.75 NTU | -55.6 mV | 9.04 ft | 8.38 PSU | 120.00 ml/min |
| 9/14/2021 3:22 PM | 24:00 | 6.23 pH | 27.16 °C | 14,274 µS/cm | 0.10 mg/L | 11.68 NTU | -55.0 mV | 9.00 ft | 8.39 PSU | 120.00 ml/min |
| 9/14/2021 3:26 PM | 28:00 | 6.22 pH | 27.83 °C | 14,262 µS/cm | 0.08 mg/L | 14.61 NTU | -57.6 mV | 8.96 ft | 8.39 PSU | 120.00 ml/min |
| 9/14/2021 3:30 PM | 32:00 | 6.24 pH | 26.85 °C | 13,991 µS/cm | 0.08 mg/L | 11.40 NTU | -51.5 mV | 8.98 ft | 8.21 PSU | 200.00 ml/min |
| 9/14/2021 3:34 PM | 36:00 | 6.24 pH | 25.58 °C | 14,177 µS/cm | 0.09 mg/L | 12.00 NTU | -50.9 mV | 8.92 ft | 8.33 PSU | 200.00 ml/min |
| 9/14/2021 3:38 PM | 40:00 | 6.25 pH | 25.50 °C | 14,181 µS/cm | 0.08 mg/L | 12.20 NTU | -57.9 mV | 8.92 ft | 8.33 PSU | 200.00 ml/min |
| 9/14/2021 3:42 PM | 44:00 | 6.28 pH | 25.53 °C | 14,234 µS/cm | 0.08 mg/L | 11.90 NTU | -68.1 mV | 8.92 ft | 8.37 PSU | 200.00 ml/min |
| 9/14/2021 3:46 PM | 48:00 | 6.32 pH | 25.43 °C | 14,205 µS/cm | 0.08 mg/L | 11.20 NTU | -58.2 mV | 8.92 ft | 8.35 PSU | 200.00 ml/min |
| 9/14/2021 3:50 PM | 52:00 | 6.39 pH | 25.43 °C | 14,301 µS/cm | 0.08 mg/L | 14.53 NTU | -61.1 mV | 8.84 ft | 8.41 PSU | 200.00 ml/min |
| 9/14/2021 3:54 PM | 56:00 | 6.45 pH | 25.40 °C | 14,351 µS/cm | 0.08 mg/L | 13.52 NTU | -64.3 mV | 8.86 ft | 8.44 PSU | 200.00 ml/min |

| | | | | | | | | | | |
|----------------------|----------|---------|----------|-----------------|-----------|-----------|----------|---------|----------|------------------|
| 9/14/2021
3:58 PM | 01:00:00 | 6.50 pH | 25.50 °C | 14,392
µS/cm | 0.07 mg/L | 12.39 NTU | -66.4 mV | 8.86 ft | 8.47 PSU | 200.00
ml/min |
| 9/14/2021
4:02 PM | 01:04:00 | 6.54 pH | 25.52 °C | 14,354
µS/cm | 0.09 mg/L | 12.45 NTU | -66.4 mV | 8.78 ft | 8.44 PSU | 200.00
ml/min |
| 9/14/2021
4:06 PM | 01:08:00 | 6.56 pH | 24.82 °C | 14,443
µS/cm | 0.09 mg/L | 11.72 NTU | -65.0 mV | 8.81 ft | 8.50 PSU | 200.00
ml/min |
| 9/14/2021
4:10 PM | 01:12:00 | 6.60 pH | 24.54 °C | 14,512
µS/cm | 0.08 mg/L | 10.69 NTU | -66.8 mV | 8.81 ft | 8.54 PSU | 200.00
ml/min |
| 9/14/2021
4:14 PM | 01:16:00 | 6.63 pH | 24.41 °C | 14,568
µS/cm | 0.08 mg/L | 9.25 NTU | -66.7 mV | 8.81 ft | 8.58 PSU | 200.00
ml/min |
| 9/14/2021
4:18 PM | 01:20:00 | 6.65 pH | 24.27 °C | 14,630
µS/cm | 0.08 mg/L | 8.68 NTU | -66.4 mV | 8.74 ft | 8.61 PSU | 200.00
ml/min |
| 9/14/2021
4:22 PM | 01:24:00 | 6.67 pH | 24.59 °C | 14,694
µS/cm | 0.07 mg/L | 8.64 NTU | -65.8 mV | 8.69 ft | 8.66 PSU | 200.00
ml/min |
| 9/14/2021
4:26 PM | 01:28:00 | 6.68 pH | 24.86 °C | 14,779
µS/cm | 0.07 mg/L | 7.76 NTU | -67.9 mV | 8.68 ft | 8.71 PSU | 200.00
ml/min |
| 9/14/2021
4:30 PM | 01:32:00 | 6.70 pH | 24.81 °C | 14,755
µS/cm | 0.07 mg/L | 7.58 NTU | -66.7 mV | 8.68 ft | 8.70 PSU | 200.00
ml/min |
| 9/14/2021
4:34 PM | 01:36:00 | 6.71 pH | 24.97 °C | 14,802
µS/cm | 0.07 mg/L | 7.53 NTU | -66.8 mV | 8.68 ft | 8.73 PSU | 200.00
ml/min |
| 9/14/2021
4:38 PM | 01:40:00 | 6.72 pH | 24.90 °C | 14,825
µS/cm | 0.07 mg/L | 7.11 NTU | -65.7 mV | 8.68 ft | 8.74 PSU | 200.00
ml/min |
| 9/14/2021
4:42 PM | 01:44:00 | 6.73 pH | 24.86 °C | 14,838
µS/cm | 0.06 mg/L | 6.24 NTU | -65.0 mV | 8.68 ft | 8.75 PSU | 200.00
ml/min |
| 9/14/2021
4:46 PM | 01:48:00 | 6.73 pH | 24.81 °C | 14,930
µS/cm | 0.07 mg/L | 5.98 NTU | -66.3 mV | 8.68 ft | 8.81 PSU | 200.00
ml/min |
| 9/14/2021
4:50 PM | 01:52:00 | 6.74 pH | 24.74 °C | 14,970
µS/cm | 0.07 mg/L | 5.96 NTU | -65.2 mV | 8.68 ft | 8.83 PSU | 200.00
ml/min |
| 9/14/2021
4:54 PM | 01:56:00 | 6.74 pH | 24.59 °C | 15,015
µS/cm | 0.07 mg/L | 5.60 NTU | -65.7 mV | 8.68 ft | 8.86 PSU | 200.00
ml/min |
| 9/14/2021
4:58 PM | 02:00:00 | 6.75 pH | 24.41 °C | 15,056
µS/cm | 0.07 mg/L | 5.65 NTU | -64.5 mV | 8.65 ft | 8.89 PSU | 200.00
ml/min |
| 9/14/2021
5:02 PM | 02:04:00 | 6.75 pH | 24.32 °C | 15,062
µS/cm | 0.07 mg/L | 5.63 NTU | -65.8 mV | 8.61 ft | 8.89 PSU | 200.00
ml/min |
| 9/14/2021
5:06 PM | 02:08:00 | 6.76 pH | 24.23 °C | 15,094
µS/cm | 0.08 mg/L | 5.01 NTU | -64.5 mV | 8.61 ft | 8.91 PSU | 200.00
ml/min |
| 9/14/2021
5:10 PM | 02:12:00 | 6.76 pH | 24.23 °C | 15,083
µS/cm | 0.07 mg/L | 5.16 NTU | -63.1 mV | 8.61 ft | 8.90 PSU | 200.00
ml/min |
| 9/14/2021
5:14 PM | 02:16:00 | 6.77 pH | 24.18 °C | 15,104
µS/cm | 0.07 mg/L | 4.92 NTU | -64.5 mV | 8.61 ft | 8.92 PSU | 200.00
ml/min |
| 9/14/2021
5:18 PM | 02:20:00 | 6.77 pH | 24.27 °C | 15,186
µS/cm | 0.07 mg/L | 4.82 NTU | -64.7 mV | 8.61 ft | 8.97 PSU | 200.00
ml/min |
| 9/14/2021
5:22 PM | 02:24:00 | 6.77 pH | 24.36 °C | 15,155
µS/cm | 0.07 mg/L | 4.54 NTU | -64.4 mV | 8.61 ft | 8.95 PSU | 200.00
ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-17 | Metals, Inorganics, Alkalinity, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 1:09:37 PM

Project: September 2021 McManus CCR Event

Operator Name: William Laaker

| | | |
|--|--|--|
| Location Name: MCM-18
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.86 ft
Total Depth: 27.86 ft
Initial Depth to Water: 6.34 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 22.86 ft
Estimated Total Volume Pumped: 2400 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0.16 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:

Prepurged 1 L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 1:09 PM | 00:00 | 4.25 pH | 25.70 °C | 4,174.9 µS/cm | 0.32 mg/L | 0.64 NTU | 116.0 mV | 6.49 ft | 2.25 PSU | 150.00 ml/min |
| 9/14/2021 1:13 PM | 04:00 | 4.27 pH | 24.78 °C | 4,175.2 µS/cm | 0.24 mg/L | 0.12 NTU | 110.4 mV | 6.49 ft | 2.25 PSU | 150.00 ml/min |
| 9/14/2021 1:17 PM | 08:00 | 4.28 pH | 24.45 °C | 4,150.8 µS/cm | 0.19 mg/L | 0.04 NTU | 108.1 mV | 6.49 ft | 2.23 PSU | 150.00 ml/min |
| 9/14/2021 1:21 PM | 12:00 | 4.28 pH | 24.93 °C | 4,141.7 µS/cm | 0.16 mg/L | 0.34 NTU | 111.8 mV | 6.50 ft | 2.23 PSU | 150.00 ml/min |
| 9/14/2021 1:25 PM | 16:00 | 4.28 pH | 25.23 °C | 4,094.3 µS/cm | 0.15 mg/L | 0.13 NTU | 114.1 mV | 6.50 ft | 2.20 PSU | 150.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-18 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 2:38:20 PM

Project: September 2021 McManus CCR Event

Operator Name: William Laaker

| | | |
|--|--|--|
| Location Name: MCM-19
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.32 ft
Total Depth: 28.32 ft
Initial Depth to Water: 6.39 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 23.32 ft
Estimated Total Volume Pumped: 3400 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 170 ml/min
Final Draw Down: -0.1 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:

Prepurged 1 L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 2:38 PM | 00:00 | 5.29 pH | 24.60 °C | 24,939 µS/cm | 0.29 mg/L | 0.08 NTU | 104.2 mV | 6.48 ft | 15.40 PSU | 170.00 ml/min |
| 9/14/2021 2:42 PM | 04:00 | 5.31 pH | 24.24 °C | 25,038 µS/cm | 0.22 mg/L | 0.46 NTU | 100.1 mV | 6.46 ft | 15.46 PSU | 170.00 ml/min |
| 9/14/2021 2:46 PM | 08:00 | 5.31 pH | 24.19 °C | 24,967 µS/cm | 0.17 mg/L | 0.15 NTU | 98.2 mV | 6.42 ft | 15.41 PSU | 170.00 ml/min |
| 9/14/2021 2:50 PM | 12:00 | 5.31 pH | 24.24 °C | 24,818 µS/cm | 0.16 mg/L | 0.13 NTU | 97.2 mV | 6.38 ft | 15.31 PSU | 170.00 ml/min |
| 9/14/2021 2:54 PM | 16:00 | 5.31 pH | 24.06 °C | 24,829 µS/cm | 0.15 mg/L | 0.59 NTU | 95.4 mV | 6.34 ft | 15.32 PSU | 170.00 ml/min |
| 9/14/2021 2:58 PM | 20:00 | 5.31 pH | 24.08 °C | 24,714 µS/cm | 0.14 mg/L | 0.11 NTU | 94.4 mV | 6.29 ft | 15.24 PSU | 170.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-19 | Metals, Inorganics, TDS, Radium |
| DUP-2 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 4:08:52 PM

Project: September 2021 McManus CCR Event

Operator Name: William Laaker

| | | |
|--|--|--|
| Location Name: MCM-20
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 13.05 ft
Total Depth: 23.05 ft
Initial Depth to Water: 6.99 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 18.05 ft
Estimated Total Volume Pumped: 2880 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 180 ml/min
Final Draw Down: 0.44 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:

Prepurged 1 L

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 4:08 PM | 00:00 | 3.73 pH | 25.30 °C | 17,732 µS/cm | 0.23 mg/L | 0.37 NTU | 147.6 mV | 7.42 ft | 10.62 PSU | 180.00 ml/min |
| 9/14/2021 4:12 PM | 04:00 | 3.73 pH | 25.01 °C | 17,843 µS/cm | 0.19 mg/L | 0.66 NTU | 142.9 mV | 7.43 ft | 10.69 PSU | 180.00 ml/min |
| 9/14/2021 4:16 PM | 08:00 | 3.73 pH | 24.74 °C | 17,802 µS/cm | 0.17 mg/L | 0.34 NTU | 138.5 mV | 7.44 ft | 10.66 PSU | 180.00 ml/min |
| 9/14/2021 4:20 PM | 12:00 | 3.72 pH | 24.64 °C | 17,856 µS/cm | 0.16 mg/L | 0.21 NTU | 134.4 mV | 7.43 ft | 10.70 PSU | 180.00 ml/min |
| 9/14/2021 4:24 PM | 16:00 | 3.72 pH | 24.69 °C | 17,838 µS/cm | 0.14 mg/L | 0.09 NTU | 130.6 mV | 7.43 ft | 10.68 PSU | 180.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-20 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 9/14/2021 2:30:03 PM

Project: September 2021 McManus CCR Event

Operator Name: Robert Mull

| | | |
|--|---|--|
| Location Name: DPZ-02
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 33.46 ft
Total Depth: 43.46 ft
Initial Depth to Water: 7.23 ft | Pump Type: Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 38.5 ft
Estimated Total Volume Pumped: 3360 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 210 ml/min
Final Draw Down: 0.02 ft | Instrument Used: Aqua TROLL 400
Serial Number: 728566 |
|--|---|--|

Test Notes:

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 9/14/2021 2:30 PM | 00:00 | 7.15 pH | 27.21 °C | 25,374 µS/cm | 0.41 mg/L | 2.72 NTU | -237.9 mV | 7.36 ft | 15.71 PSU | 210.00 ml/min |
| 9/14/2021 2:34 PM | 04:00 | 7.11 pH | 26.17 °C | 24,859 µS/cm | 0.20 mg/L | 0.49 NTU | -247.1 mV | 7.33 ft | 15.36 PSU | 210.00 ml/min |
| 9/14/2021 2:38 PM | 08:00 | 7.10 pH | 25.96 °C | 25,312 µS/cm | 0.14 mg/L | 0.09 NTU | -254.9 mV | 7.31 ft | 15.66 PSU | 210.00 ml/min |
| 9/14/2021 2:42 PM | 12:00 | 7.11 pH | 25.71 °C | 25,908 µS/cm | 0.11 mg/L | 0.05 NTU | -259.0 mV | 7.28 ft | 16.06 PSU | 210.00 ml/min |
| 9/14/2021 2:46 PM | 16:00 | 7.11 pH | 25.63 °C | 26,002 µS/cm | 0.10 mg/L | 0.03 NTU | -260.2 mV | 7.25 ft | 16.13 PSU | 210.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| DPZ-02 | Metals, Inorganics, TDS, Radium |

Case: Yasir Suleiman Date: 11/15/18 Status: Open Page: 1 of 1

Case: 883473 Description: Investigation of suspicious activity

Case: Mohammed O. O. Description: Investigation of suspicious activity

Investigation Log

| Case ID | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Comments |
|-----------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------|
| 883473 | [Redacted] | [Redacted] | [Redacted] | [Redacted] | [Redacted] |
| 214798141-44-11 | 11/15/18 | 1 | 1.00 | 1.00 | |
| 214798141-44-14 | 11/15/18 | 4 | 4.00 | 4.00 | |
| 214798141-44-11 | 11/15/18 | 7 | 7.00 | 7.00 | |
| 214798141-44-11 | 11/15/18 | 28 | 28.00 | 28.00 | |
| 214798141-44-11 | 11/15/18 | 216 | 216.00 | 216.00 | |

| Case ID | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity |
|---------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 883473 | [Redacted] | 4 | 4.00 | 4.00 | |
| 883473 | [Redacted] | 1 | 1.00 | 1.00 | |
| 883473 | [Redacted] | 12 | 12.00 | 12.00 | |

| Case ID | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity | Investigation of Suspicious Activity |
|---------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 883473 | [Redacted] | 4 | 4.00 | 4.00 | |
| 883473 | [Redacted] | 1 | 1.00 | 1.00 | |
| 883473 | [Redacted] | 18 | 18.00 | 18.00 | |

Name: Kevin Sigmund Title: Analyst Date: 10/20/2015 Location: Lab
 ID: 38327 Instrument: Agilent 1100
 Manufacturer: Agilent Model: 1100

| Item | Manufacturer | Model | Serial Number | Calibration Due |
|--------------|---------------|-------|---------------|-----------------|
| Agilent 1100 | | | | 4/3/16 |
| Agilent 1100 | 21879903 4673 | 13035 | 4673 | 4/5/16 |
| Agilent 1100 | 21879901 4674 | 13036 | 4 | 4/5/16 |
| Agilent 1100 | 21879902 4675 | 13037 | 7 | 7/10 |
| Agilent 1100 | 21879904 4676 | 13038 | 10 | 10/17 |
| Agilent 1100 | 21879905 4677 | 13039 | 13 | 13/15 |

| Item | Manufacturer | Model | Serial Number | Calibration Due | Notes |
|--------------|--------------|-------|---------------|-----------------|-------|
| Agilent 1100 | | | | | |
| Agilent 1100 | | | | | |
| Agilent 1100 | | | | | |

| Item | Manufacturer | Model | Serial Number | Calibration Due | Notes |
|--------------|--------------|-------|---------------|-----------------|-------|
| Agilent 1100 | | | | | |
| Agilent 1100 | | | | | |
| Agilent 1100 | | | | | |

Client: Meredith Downs Date: 3/1/22 Meter ID: 0943
 Address: 8924701 Location: La Melle GPS: 4855 - 9417
 Meter: Micropipets Status: OK Para: Clarity

SCOURING LOG

| Point ID | Point Name | Point Depth (ft) | Point Location | SCOURING METHOD | SCOURING TIME (min) |
|----------|------------|------------------|----------------|-----------------|---------------------|
| 001 | | | | | 75.18 |
| 002 | | 12.50 | | | 4200.7 |
| 003 | | 16.61 | | | 3.95 |
| 004 | | 17.00 | | | 6.73 |
| 005 | | 17.02 | | | 9.92 |
| 006 | | 17.15 | | | 234.1 |

| Parameter | Units | Value | Acceptable Range | Pass? | |
|-------------|-------|-------|------------------|-------|-----|
| | | | | Min | Max |
| Temperature | °C | 0.03 | 0.000 | Yes | Yes |
| Temperature | °C | 0.83 | 0.000 | Yes | Yes |
| Temperature | °C | 9.51 | 0.000 | Yes | Yes |

| Parameter | Units | Value | Acceptable Range | Pass? | Notes |
|-----------------|-------|-------|------------------|-------|------------------------------------|
| SCOURING METHOD | | 0 | 0-10 | Yes | Technical Issues
With Aquatroll |
| SCOURING METHOD | | 0 | 0-10 | Yes | |
| SCOURING METHOD | | 10 | 0-10 | Yes | |

Job Number: Robert Smith Date: 5/1/22 Year: 2024 Job #/ID: 1657
 Location: 289 E10 Description: Public Service Job # - Sub #: 7048 - 3618
 Plant Name: Plant #1000000 Date: 5/1/22

| Item | Supplier Part # | Quantity | Unit Price | Amount to Charge | Notes |
|--------|-----------------|----------|------------|------------------|-------|
| Item 1 | | | | 95.90 | |
| Item 2 | 11144110420 | 1.20 | 3660 | 4392.00 | |
| Item 3 | 21144110420 | 7.30 | 5.50 | 40.15 | |
| Item 4 | 21144110420 | 10.20 | 0.68 | 6.94 | |
| Item 5 | 21144110420 | 11.13 | 0.90 | 10.02 | |
| Item 6 | 21144110420 | 15.70 | 13.30 | 2088.10 | |

| Year of Service | Hours | Rate | Pay | Notes |
|-----------------|-------|------|------|-------|
| 1 | 6.00 | 1.00 | 6.00 | |
| 7 | 1.00 | 1.00 | 1.00 | |
| 10 | 9.57 | 1.00 | 9.57 | |

| Item | Quantity | Unit Price | Amount to Charge | Pay | Notes |
|--------|----------|------------|------------------|-----|-------|
| Item 1 | 4 | 11.14 | 44.56 | | |
| Item 2 | 7 | 7.30 | 51.10 | | |
| Item 3 | 10 | 10.02 | 100.20 | | |

Name: Robert Mall Date: 3/17/12 Time: 0750 Page: 1 of 3
 ID: 789310 Location: Lab/Melco Bldg Job No: 7092-2815
 Dept: Plant M. Manager Location: Survey SSF

Calibration Log

| Item | Location and Date of Exposure | Exposure (minutes) | Factor of Correction | Instrument Reading at Calibration | Comments |
|------|-------------------------------|--------------------|----------------------|-----------------------------------|----------|
| 100% | | | | 99.75 | |
| 100% | 21470173 0423 | 12.43 | 44% | 4746.6 | |
| 100% | 21470173 0424 | 12.50 | 1 | 3.96 | |
| 100% | 21530107 0423 | 13.94 | 7 | 7.03 | |
| 100% | 20000000 0418 | 14.50 | 10 | 10.12 | |
| 100% | 11140143 0423 | 15.20 | 10 | 14.06 | |

| Item | Location and Date of Exposure | Exposure (minutes) | Factor of Correction | Instrument Reading at Calibration | Comments |
|------|-------------------------------|--------------------|----------------------|-----------------------------------|----------|
| 100% | | | | 0.00 | |
| 100% | | | | 1.06 | |
| 100% | | | | 10.07 | |

| Item | Location and Date of Exposure | Exposure (minutes) | Factor of Correction | Instrument Reading at Calibration | Comments |
|------|-------------------------------|--------------------|----------------------|-----------------------------------|----------|
| 100% | | | | 4.13 | |
| 100% | | | | 7.24 | |
| 100% | | | | 10.17 | |

| | | | |
|-------------------|------------------|-----------------|------------|
| Name: Robert Mull | Date: 3/14/2 | Page: 0717 | Page: 1117 |
| Asset ID: 782310 | Location: 2110 | Date: 7/17 2018 | |
| Plant: Mt. Mans | Department: 2110 | | |

Calibration Log

| Item | Part Number | Quantity | Unit of Measure | Quantity Multiplier | Comments |
|--------|-------------------|----------|-----------------|---------------------|----------|
| DO-174 | | | | 7464 | |
| DO-174 | 21170002 (DO-174) | 13.67 | 440 | 7348 | |
| DO-174 | 21170003 (DO-174) | 3.02 | " | 405 | |
| DO-174 | 21170004 (DO-174) | 3.34 | 7 | 208 | |
| DO-174 | 21170005 (DO-174) | 13.52 | 10 | 1008 | |
| DO-174 | 21170006 (DO-174) | 1.07 | 224 | 240 | |

| Item | Part Number | Quantity | Unit of Measure | Quantity Multiplier | Comments |
|--------|-------------|----------|-----------------|---------------------|----------|
| DO-174 | | 8 | | 800 | |
| DO-174 | | 1 | | 100 | |
| DO-174 | | 10 | | 1000 | |

| Item | Part Number | Quantity | Unit of Measure | Quantity Multiplier | Comments |
|--------|-------------|----------|-----------------|---------------------|----------|
| DO-174 | | 19485 | 8 | 416 | |
| DO-174 | | 7536 | 7 | 731 | |
| DO-174 | | 37118 | 14 | 1024 | |

Low-Flow Test Report:

Test Date / Time: 3/1/2022 11:12:11 AM
Project: March 2022 McManus CCR Event
Operator Name: Meredith Duncan

| | | |
|--|--|--|
| Location Name: MCM-19
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.32 ft
Total Depth: 28.32 ft
Initial Depth to Water: 5.98 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 23.32 ft
Estimated Total Volume Pumped: 5460 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 120 ml/min
Final Draw Down: 0.43 ft | Instrument Used: Aqua TROLL 400
Serial Number: 893479 |
|--|--|--|

Test Notes:

Pre-purged 2.5 liters
Red/brown specks visible in water
Pumprate to 120ml/min to decrease turbidity

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Flow |
|----------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|----------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 | +/- 0.3 | |
| 3/1/2022
11:12 AM | 00:00 | 5.36 pH | 18.93 °C | 6,844.7
µS/cm | 0.21 mg/L | 25.70 NTU | 101.3 mV | 5.98 ft | 135.00 ml/min |
| 3/1/2022
11:16 AM | 04:00 | 5.36 pH | 19.14 °C | 6,864.6
µS/cm | 0.18 mg/L | 15.70 NTU | 96.6 mV | 6.04 ft | 135.00 ml/min |
| 3/1/2022
11:20 AM | 08:00 | 5.36 pH | 19.36 °C | 6,851.3
µS/cm | 0.15 mg/L | 16.50 NTU | 93.2 mV | 6.09 ft | 135.00 ml/min |
| 3/1/2022
11:24 AM | 12:00 | 5.37 pH | 19.71 °C | 6,827.4
µS/cm | 0.16 mg/L | 11.40 NTU | 89.5 mV | 6.11 ft | 120.00 ml/min |
| 3/1/2022
11:28 AM | 16:00 | 5.37 pH | 20.00 °C | 6,836.0
µS/cm | 0.15 mg/L | 10.45 NTU | 90.3 mV | 6.15 ft | 120.00 ml/min |
| 3/1/2022
11:32 AM | 20:00 | 5.37 pH | 19.73 °C | 6,879.7
µS/cm | 0.14 mg/L | 9.68 NTU | 92.3 mV | 6.20 ft | 120.00 ml/min |
| 3/1/2022
11:36 AM | 24:00 | 5.37 pH | 19.78 °C | 6,874.7
µS/cm | 0.14 mg/L | 8.42 NTU | 90.8 mV | 6.24 ft | 120.00 ml/min |
| 3/1/2022
11:40 AM | 28:00 | 5.37 pH | 19.64 °C | 6,897.5
µS/cm | 0.13 mg/L | 6.50 NTU | 88.1 mV | 6.28 ft | 120.00 ml/min |
| 3/1/2022
11:44 AM | 32:00 | 5.38 pH | 19.72 °C | 6,917.1
µS/cm | 0.12 mg/L | 5.63 NTU | 87.4 mV | 6.31 ft | 120.00 ml/min |
| 3/1/2022
11:48 AM | 36:00 | 5.38 pH | 19.78 °C | 6,914.5
µS/cm | 0.12 mg/L | 3.84 NTU | 86.2 mV | 6.35 ft | 120.00 ml/min |
| 3/1/2022
11:52 AM | 40:00 | 5.38 pH | 19.87 °C | 6,904.3
µS/cm | 0.11 mg/L | 4.48 NTU | 85.8 mV | 6.38 ft | 120.00 ml/min |
| 3/1/2022
11:56 AM | 44:00 | 5.38 pH | 20.04 °C | 6,881.0
µS/cm | 0.11 mg/L | 4.59 NTU | 86.3 mV | 6.41 ft | 120.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|--------------------------------|
| MCM-19 | Metals, Inorganic, TDS, Radium |

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/1/2022 11:22:14 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: DPZ-2
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 5 ft
Top of Screen: 38.46 ft
Total Depth: 43.46 ft
Initial Depth to Water: 6.36 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 40.96 ft
Estimated Total Volume Pumped: 3000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0.47 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:
Pre-purged 2 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|----------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/1/2022
11:22 AM | 00:00 | 7.03 pH | 22.19 °C | 24,661 µS/cm | 0.22 mg/L | 0.42 NTU | -162.2 mV | 6.61 ft | 150.00 ml/min |
| 3/1/2022
11:26 AM | 04:00 | 7.06 pH | 22.16 °C | 24,748 µS/cm | 0.14 mg/L | 0.39 NTU | -173.7 mV | 6.65 ft | 150.00 ml/min |
| 3/1/2022
11:30 AM | 08:00 | 7.07 pH | 22.21 °C | 24,781 µS/cm | 0.10 mg/L | 1.08 NTU | -178.0 mV | 6.69 ft | 150.00 ml/min |
| 3/1/2022
11:34 AM | 12:00 | 7.08 pH | 22.38 °C | 24,877 µS/cm | 0.08 mg/L | 0.02 NTU | -182.4 mV | 6.74 ft | 150.00 ml/min |
| 3/1/2022
11:38 AM | 16:00 | 7.08 pH | 21.85 °C | 24,857 µS/cm | 0.08 mg/L | 0.06 NTU | -185.8 mV | 6.79 ft | 150.00 ml/min |
| 3/1/2022
11:42 AM | 20:00 | 7.08 pH | 21.94 °C | 25,093 µS/cm | 0.08 mg/L | 0.13 NTU | -190.8 mV | 6.83 ft | 150.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| DPZ-02 | Metals, inorganics, TDS, Alkalinity, radium |

Low-Flow Test Report:

Test Date / Time: 3/1/2022 2:07:41 PM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: MCM-05
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.05 ft
Total Depth: 28.05 ft
Initial Depth to Water: 7.61 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 23.05 ft
Estimated Total Volume Pumped: 4800 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0.13 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/1/2022 2:07 PM | 00:00 | 6.88 pH | 23.59 °C | 8,299.3 µS/cm | 1.20 mg/L | 1.17 NTU | -154.2 mV | 7.66 ft | 200.00 ml/min |
| 3/1/2022 2:11 PM | 04:00 | 6.89 pH | 22.52 °C | 7,516.7 µS/cm | 0.47 mg/L | 0.43 NTU | -166.0 mV | 7.69 ft | 200.00 ml/min |
| 3/1/2022 2:15 PM | 08:00 | 6.89 pH | 22.48 °C | 7,162.1 µS/cm | 0.24 mg/L | 0.46 NTU | -171.6 mV | 7.69 ft | 200.00 ml/min |
| 3/1/2022 2:19 PM | 12:00 | 6.89 pH | 22.46 °C | 6,962.1 µS/cm | 0.15 mg/L | 0.42 NTU | -175.5 mV | 7.71 ft | 200.00 ml/min |
| 3/1/2022 2:23 PM | 16:00 | 6.88 pH | 22.56 °C | 6,939.5 µS/cm | 0.13 mg/L | 0.33 NTU | -175.6 mV | 7.72 ft | 200.00 ml/min |
| 3/1/2022 2:27 PM | 20:00 | 6.88 pH | 22.52 °C | 6,921.6 µS/cm | 0.11 mg/L | 0.21 NTU | -177.7 mV | 7.73 ft | 200.00 ml/min |
| 3/1/2022 2:31 PM | 24:00 | 6.87 pH | 22.65 °C | 6,866.1 µS/cm | 0.09 mg/L | 0.14 NTU | -178.8 mV | 7.74 ft | 200.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-05 | Metals, inorganics, TDS, Alkalinity, Radium |

Low-Flow Test Report:

Test Date / Time: 3/1/2022 2:49:55 PM
Project: March 2022 McManus CCR Event
Operator Name: Meredith Duncan

| | | |
|--|--|--|
| Location Name: MCM-20
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 13.05 ft
Total Depth: 23.05 ft
Initial Depth to Water: 9.47 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 18.05 ft
Estimated Total Volume Pumped: 3600 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 180 ml/min
Final Draw Down: 0.14 ft | Instrument Used: Aqua TROLL 400
Serial Number: 893479 |
|--|--|--|

Test Notes:
Pre-purged 2 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|----------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 | +/- 0.3 | |
| 3/1/2022 2:49 PM | 00:00 | 3.67 pH | 20.56 °C | 16,615 µS/cm | 0.23 mg/L | 1.53 NTU | 248.5 mV | 9.47 ft | 180.00 ml/min |
| 3/1/2022 2:53 PM | 04:00 | 3.68 pH | 20.31 °C | 16,759 µS/cm | 0.19 mg/L | 2.33 NTU | 256.0 mV | 9.48 ft | 180.00 ml/min |
| 3/1/2022 2:57 PM | 08:00 | 3.68 pH | 20.27 °C | 16,793 µS/cm | 0.16 mg/L | 1.47 NTU | 248.9 mV | 9.50 ft | 180.00 ml/min |
| 3/1/2022 3:01 PM | 12:00 | 3.68 pH | 20.18 °C | 16,819 µS/cm | 0.15 mg/L | 1.12 NTU | 241.0 mV | 9.53 ft | 180.00 ml/min |
| 3/1/2022 3:05 PM | 16:00 | 3.69 pH | 20.15 °C | 16,804 µS/cm | 0.13 mg/L | 0.87 NTU | 226.3 mV | 9.56 ft | 180.00 ml/min |
| 3/1/2022 3:09 PM | 20:00 | 3.69 pH | 20.22 °C | 16,732 µS/cm | 0.12 mg/L | 0.72 NTU | 201.1 mV | 9.61 ft | 180.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-20 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/1/2022 3:22:14 PM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|---|--|
| Location Name: MCM-06
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.2 ft
Total Depth: 27.2 ft
Initial Depth to Water: 8.58 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 22.2 ft
Estimated Total Volume Pumped: 3600 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0.15 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|---|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/1/2022 3:22 PM | 00:00 | 7.06 pH | 23.57 °C | 16,260 µS/cm | 0.75 mg/L | 0.72 NTU | -176.8 mV | 8.67 ft | 150.00 ml/min |
| 3/1/2022 3:26 PM | 04:00 | 7.09 pH | 22.52 °C | 16,202 µS/cm | 0.35 mg/L | 0.69 NTU | -174.6 mV | 8.68 ft | 150.00 ml/min |
| 3/1/2022 3:30 PM | 08:00 | 7.17 pH | 22.47 °C | 16,030 µS/cm | 0.15 mg/L | 0.63 NTU | -182.2 mV | 8.72 ft | 150.00 ml/min |
| 3/1/2022 3:34 PM | 12:00 | 7.21 pH | 22.34 °C | 15,930 µS/cm | 0.06 mg/L | 0.79 NTU | -188.1 mV | 8.72 ft | 150.00 ml/min |
| 3/1/2022 3:38 PM | 16:00 | 7.23 pH | 22.47 °C | 15,837 µS/cm | 0.02 mg/L | 0.31 NTU | -192.4 mV | 8.72 ft | 150.00 ml/min |
| 3/1/2022 3:42 PM | 20:00 | 7.23 pH | 22.48 °C | 15,848 µS/cm | 0.02 mg/L | 0.22 NTU | -196.3 mV | 8.73 ft | 150.00 ml/min |
| 3/1/2022 3:46 PM | 24:00 | 7.24 pH | 22.52 °C | 15,855 µS/cm | 0.01 mg/L | 0.17 NTU | -200.3 mV | 8.73 ft | 150.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-06 | Metals, inorganics, TDS, Alkalinity, Radium |

Low-Flow Test Report:

Test Date / Time: 3/2/2022 9:29:30 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|---|--|--|
| Location Name: MCM-07
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 13.75 ft
Total Depth: 23.75 ft
Initial Depth to Water: 6.5 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 18.75 ft
Estimated Total Volume Pumped: 2496 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 156 ml/min
Final Draw Down: 0.52 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|---|--|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/2/2022 9:29 AM | 00:00 | 6.34 pH | 20.40 °C | 20,038 µS/cm | 0.88 mg/L | 2.47 NTU | -100.2 mV | 6.89 ft | 156.00 ml/min |
| 3/2/2022 9:33 AM | 04:00 | 6.39 pH | 20.15 °C | 19,771 µS/cm | 0.56 mg/L | 0.78 NTU | -106.9 mV | 6.91 ft | 156.00 ml/min |
| 3/2/2022 9:37 AM | 08:00 | 6.40 pH | 20.02 °C | 19,523 µS/cm | 0.38 mg/L | 0.31 NTU | -109.1 mV | 6.93 ft | 156.00 ml/min |
| 3/2/2022 9:41 AM | 12:00 | 6.41 pH | 20.06 °C | 19,610 µS/cm | 0.20 mg/L | 0.30 NTU | -113.5 mV | 7.00 ft | 156.00 ml/min |
| 3/2/2022 9:45 AM | 16:00 | 6.41 pH | 20.15 °C | 19,634 µS/cm | 0.13 mg/L | 0.22 NTU | -115.9 mV | 7.02 ft | 156.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-07 | Metals, inorganics, TDS, Alkalinity, Radium |

Low-Flow Test Report:

Test Date / Time: 3/2/2022 9:36:37 AM
Project: March 2022 McManus CCR Event
Operator Name: Kevin Stephenson

| | | |
|--|--|--|
| Location Name: MCM-18
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.86 ft
Total Depth: 27.86 ft
Initial Depth to Water: 5.89 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 22.86 ft
Estimated Total Volume Pumped: 3520 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 220 ml/min
Final Draw Down: 0.12 ft | Instrument Used: Aqua TROLL 400
Serial Number: 893479 |
|--|--|--|

Test Notes:
Pre-purged 1.5 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Salinity | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 3/2/2022 9:36 AM | 00:00 | 4.33 pH | 17.83 °C | 5,426.9 µS/cm | 0.64 mg/L | 0.12 NTU | 90.1 mV | 6.01 ft | 2.96 PSU | 220.00 ml/min |
| 3/2/2022 9:40 AM | 04:00 | 4.33 pH | 17.84 °C | 5,548.6 µS/cm | 0.51 mg/L | 0.38 NTU | 85.1 mV | 6.01 ft | 3.03 PSU | 220.00 ml/min |
| 3/2/2022 9:44 AM | 08:00 | 4.33 pH | 17.99 °C | 5,549.9 µS/cm | 0.39 mg/L | 0.17 NTU | 87.6 mV | 6.01 ft | 3.03 PSU | 220.00 ml/min |
| 3/2/2022 9:48 AM | 12:00 | 4.33 pH | 18.04 °C | 5,551.4 µS/cm | 0.30 mg/L | 0.12 NTU | 87.2 mV | 6.01 ft | 3.03 PSU | 220.00 ml/min |
| 3/2/2022 9:52 AM | 16:00 | 4.33 pH | 18.08 °C | 5,555.0 µS/cm | 0.24 mg/L | 0.16 NTU | 87.1 mV | 6.01 ft | 3.03 PSU | 220.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-18 | Metals, Inorganics, TDS, Radium |
| DUP-1 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/2/2022 10:53:08 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|---|---|--|
| Location Name: MCM-15
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 16.6 ft
Total Depth: 26.6 ft
Initial Depth to Water: 8.5 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 21.6 ft
Estimated Total Volume Pumped: 8800 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0.11 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|---|---|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/2/2022 10:53 AM | 00:00 | 5.96 pH | 23.06 °C | 120.35 µS/cm | 1.20 mg/L | 2.10 NTU | -4.2 mV | 8.60 ft | 200.00 ml/min |
| 3/2/2022 10:57 AM | 04:00 | 5.52 pH | 22.11 °C | 110.19 µS/cm | 0.76 mg/L | 1.75 NTU | 13.8 mV | 8.62 ft | 200.00 ml/min |
| 3/2/2022 11:01 AM | 08:00 | 5.44 pH | 22.14 °C | 106.96 µS/cm | 0.35 mg/L | 1.61 NTU | 21.5 mV | 8.62 ft | 200.00 ml/min |
| 3/2/2022 11:05 AM | 12:00 | 5.42 pH | 22.11 °C | 105.94 µS/cm | 0.16 mg/L | 1.44 NTU | 24.5 mV | 8.62 ft | 200.00 ml/min |
| 3/2/2022 11:09 AM | 16:00 | 5.41 pH | 22.03 °C | 107.52 µS/cm | 0.11 mg/L | 1.60 NTU | 26.2 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:13 AM | 20:00 | 5.38 pH | 21.98 °C | 111.69 µS/cm | 0.09 mg/L | 1.49 NTU | 26.9 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:17 AM | 24:00 | 5.39 pH | 21.85 °C | 115.63 µS/cm | 0.09 mg/L | 1.83 NTU | 26.0 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:21 AM | 28:00 | 5.38 pH | 21.85 °C | 120.53 µS/cm | 0.08 mg/L | 1.70 NTU | 24.6 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:25 AM | 32:00 | 5.38 pH | 21.88 °C | 124.64 µS/cm | 0.08 mg/L | 1.75 NTU | 24.1 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:29 AM | 36:00 | 5.38 pH | 21.89 °C | 124.65 µS/cm | 0.08 mg/L | 1.83 NTU | 23.8 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:33 AM | 40:00 | 5.36 pH | 21.93 °C | 125.79 µS/cm | 0.07 mg/L | 1.88 NTU | 24.6 mV | 8.61 ft | 200.00 ml/min |
| 3/2/2022 11:37 AM | 44:00 | 5.37 pH | 21.91 °C | 129.39 µS/cm | 0.08 mg/L | 2.04 NTU | 24.0 mV | 8.61 ft | 200.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|--------------|
|------------|--------------|

MCM-15

Metals, inorganics, TDS,Radium

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/2/2022 12:12:07 PM
Project: March 2022 McManus CCR Event
Operator Name: Kevin Stephenson

| | | |
|--|--|--|
| Location Name: MCM-11
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 14 ft
Total Depth: 24 ft
Initial Depth to Water: 5.74 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 19 ft
Estimated Total Volume Pumped: 26000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 250 ml/min
Final Draw Down: 1.92 ft | Instrument Used: Aqua TROLL 400
Serial Number: 893479 |
|--|--|--|

Test Notes:
Pre-purged 6 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 3/2/2022 12:12 PM | 00:00 | 5.13 pH | 23.74 °C | 153.92 µS/cm | 0.14 mg/L | 27.70 NTU | 171.4 mV | 7.63 ft | 0.07 PSU | 250.00 ml/min |
| 3/2/2022 12:16 PM | 04:00 | 4.97 pH | 22.44 °C | 159.67 µS/cm | 0.10 mg/L | 26.20 NTU | 178.5 mV | 7.63 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:20 PM | 08:00 | 4.95 pH | 22.20 °C | 155.58 µS/cm | 0.10 mg/L | 23.50 NTU | 179.6 mV | 7.64 ft | 0.07 PSU | 250.00 ml/min |
| 3/2/2022 12:24 PM | 12:00 | 5.07 pH | 22.12 °C | 160.02 µS/cm | 0.10 mg/L | 20.30 NTU | 179.5 mV | 7.64 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:28 PM | 16:00 | 5.06 pH | 22.00 °C | 150.95 µS/cm | 0.09 mg/L | 21.40 NTU | 179.0 mV | 7.65 ft | 0.07 PSU | 250.00 ml/min |
| 3/2/2022 12:32 PM | 20:00 | 5.06 pH | 22.10 °C | 154.49 µS/cm | 0.09 mg/L | 17.10 NTU | 177.2 mV | 7.64 ft | 0.07 PSU | 250.00 ml/min |
| 3/2/2022 12:36 PM | 24:00 | 5.00 pH | 22.22 °C | 161.23 µS/cm | 0.08 mg/L | 16.50 NTU | 174.9 mV | 7.65 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:40 PM | 28:00 | 4.97 pH | 22.35 °C | 160.26 µS/cm | 0.08 mg/L | 15.60 NTU | 173.6 mV | 7.65 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:44 PM | 32:00 | 5.04 pH | 22.23 °C | 163.92 µS/cm | 0.09 mg/L | 14.40 NTU | 170.8 mV | 7.65 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:48 PM | 36:00 | 5.05 pH | 22.36 °C | 169.70 µS/cm | 0.09 mg/L | 14.20 NTU | 167.6 mV | 7.65 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:52 PM | 40:00 | 5.01 pH | 22.49 °C | 159.94 µS/cm | 0.09 mg/L | 11.90 NTU | 167.5 mV | 7.66 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 12:56 PM | 44:00 | 5.06 pH | 22.56 °C | 167.92 µS/cm | 0.09 mg/L | 11.20 NTU | 164.1 mV | 7.67 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 1:00 PM | 48:00 | 5.03 pH | 22.46 °C | 154.88 µS/cm | 0.08 mg/L | 9.49 NTU | 164.7 mV | 7.67 ft | 0.07 PSU | 250.00 ml/min |
| 3/2/2022 1:04 PM | 52:00 | 5.03 pH | 22.53 °C | 165.82 µS/cm | 0.08 mg/L | 8.80 NTU | 160.9 mV | 7.67 ft | 0.08 PSU | 250.00 ml/min |
| 3/2/2022 1:08 PM | 56:00 | 5.06 pH | 22.49 °C | 165.30 µS/cm | 0.07 mg/L | 8.24 NTU | 159.6 mV | 7.68 ft | 0.08 PSU | 250.00 ml/min |

| | | | | | | | | | | |
|---------------------|----------|---------|----------|-----------------|-----------|----------|----------|---------|----------|------------------|
| 3/2/2022
1:12 PM | 01:00:00 | 5.06 pH | 22.59 °C | 166.32
µS/cm | 0.07 mg/L | 7.69 NTU | 157.7 mV | 7.68 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:16 PM | 01:04:00 | 5.05 pH | 22.63 °C | 163.98
µS/cm | 0.08 mg/L | 7.49 NTU | 156.8 mV | 7.68 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:20 PM | 01:08:00 | 5.07 pH | 22.54 °C | 168.38
µS/cm | 0.08 mg/L | 7.79 NTU | 154.8 mV | 7.69 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:24 PM | 01:12:00 | 5.08 pH | 22.45 °C | 164.01
µS/cm | 0.08 mg/L | 7.29 NTU | 155.7 mV | 7.68 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:28 PM | 01:16:00 | 5.08 pH | 22.59 °C | 174.93
µS/cm | 0.08 mg/L | 6.60 NTU | 151.5 mV | 7.67 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:32 PM | 01:20:00 | 5.07 pH | 22.55 °C | 163.57
µS/cm | 0.07 mg/L | 6.13 NTU | 151.9 mV | 7.67 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:36 PM | 01:24:00 | 5.08 pH | 22.63 °C | 158.69
µS/cm | 0.08 mg/L | 5.33 NTU | 151.8 mV | 7.67 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:40 PM | 01:28:00 | 5.09 pH | 22.67 °C | 162.36
µS/cm | 0.07 mg/L | 4.97 NTU | 149.2 mV | 7.66 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:44 PM | 01:32:00 | 5.10 pH | 22.60 °C | 189.28
µS/cm | 0.07 mg/L | 4.56 NTU | 146.4 mV | 7.66 ft | 0.09 PSU | 250.00
ml/min |
| 3/2/2022
1:48 PM | 01:36:00 | 5.10 pH | 22.72 °C | 177.83
µS/cm | 0.07 mg/L | 4.16 NTU | 146.7 mV | 7.66 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:52 PM | 01:40:00 | 5.10 pH | 22.61 °C | 176.24
µS/cm | 0.07 mg/L | 3.97 NTU | 146.9 mV | 7.66 ft | 0.08 PSU | 250.00
ml/min |
| 3/2/2022
1:56 PM | 01:44:00 | 5.11 pH | 22.65 °C | 176.45
µS/cm | 0.07 mg/L | 3.82 NTU | 145.1 mV | 7.66 ft | 0.08 PSU | 250.00
ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-11 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/2/2022 12:28:44 PM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|---|---|--|
| Location Name: MCM-01
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.32 ft
Total Depth: 27.32 ft
Initial Depth to Water: 4 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 22.32 ft
Estimated Total Volume Pumped: 26200 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0.07 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|---|---|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/2/2022 12:28 PM | 00:00 | 5.05 pH | 23.60 °C | 138.24 µS/cm | 1.12 mg/L | 26.70 NTU | 42.2 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:32 PM | 04:00 | 4.96 pH | 22.82 °C | 138.54 µS/cm | 0.31 mg/L | 50.70 NTU | 46.0 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:36 PM | 08:00 | 4.98 pH | 22.78 °C | 138.64 µS/cm | 0.20 mg/L | 58.10 NTU | 46.7 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:40 PM | 12:00 | 5.01 pH | 22.79 °C | 139.59 µS/cm | 0.17 mg/L | 47.80 NTU | 46.2 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:44 PM | 16:00 | 5.04 pH | 22.83 °C | 139.55 µS/cm | 0.17 mg/L | 35.60 NTU | 46.3 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:48 PM | 20:00 | 5.06 pH | 22.88 °C | 139.20 µS/cm | 0.15 mg/L | 29.50 NTU | 45.7 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:52 PM | 24:00 | 5.07 pH | 22.96 °C | 139.57 µS/cm | 0.16 mg/L | 25.20 NTU | 46.5 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 12:56 PM | 28:00 | 5.09 pH | 22.97 °C | 139.86 µS/cm | 0.11 mg/L | 21.90 NTU | 46.2 mV | 4.02 ft | 200.00 ml/min |
| 3/2/2022 1:00 PM | 32:00 | 5.10 pH | 22.99 °C | 140.33 µS/cm | 0.12 mg/L | 19.30 NTU | 45.9 mV | 4.03 ft | 200.00 ml/min |
| 3/2/2022 1:04 PM | 36:00 | 5.12 pH | 23.03 °C | 140.65 µS/cm | 0.14 mg/L | 17.50 NTU | 45.5 mV | 4.03 ft | 200.00 ml/min |
| 3/2/2022 1:08 PM | 40:00 | 5.12 pH | 23.10 °C | 140.09 µS/cm | 0.13 mg/L | 16.80 NTU | 45.0 mV | 4.04 ft | 200.00 ml/min |
| 3/2/2022 1:12 PM | 44:00 | 5.15 pH | 23.04 °C | 140.37 µS/cm | 0.15 mg/L | 15.80 NTU | 44.7 mV | 4.04 ft | 200.00 ml/min |
| 3/2/2022 1:16 PM | 48:00 | 5.15 pH | 23.10 °C | 142.06 µS/cm | 0.17 mg/L | 15.70 NTU | 44.0 mV | 4.05 ft | 200.00 ml/min |
| 3/2/2022 1:20 PM | 52:00 | 5.15 pH | 23.15 °C | 142.05 µS/cm | 0.13 mg/L | 12.70 NTU | 44.5 mV | 4.05 ft | 200.00 ml/min |
| 3/2/2022 1:24 PM | 56:00 | 5.15 pH | 23.33 °C | 142.28 µS/cm | 0.10 mg/L | 13.10 NTU | 43.6 mV | 4.05 ft | 150.00 ml/min |

| | | | | | | | | | |
|------------------|----------|---------|----------|--------------|-----------|-----------|---------|---------|---------------|
| 3/2/2022 1:28 PM | 01:00:00 | 5.16 pH | 23.41 °C | 141.24 µS/cm | 0.25 mg/L | 13.30 NTU | 45.7 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:32 PM | 01:04:00 | 5.16 pH | 23.46 °C | 140.47 µS/cm | 0.30 mg/L | 12.00 NTU | 46.5 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:36 PM | 01:08:00 | 5.16 pH | 23.50 °C | 140.85 µS/cm | 0.27 mg/L | 11.80 NTU | 46.5 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:40 PM | 01:12:00 | 5.16 pH | 23.55 °C | 140.46 µS/cm | 0.23 mg/L | 11.50 NTU | 47.7 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:44 PM | 01:16:00 | 5.17 pH | 23.41 °C | 140.60 µS/cm | 0.18 mg/L | 11.27 NTU | 47.0 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:48 PM | 01:20:00 | 5.18 pH | 23.43 °C | 141.31 µS/cm | 0.18 mg/L | 10.35 NTU | 48.0 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:52 PM | 01:24:00 | 5.19 pH | 23.44 °C | 141.31 µS/cm | 0.16 mg/L | 10.04 NTU | 47.9 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 1:56 PM | 01:28:00 | 5.20 pH | 23.38 °C | 141.58 µS/cm | 0.16 mg/L | 9.36 NTU | 47.4 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 2:00 PM | 01:32:00 | 5.20 pH | 23.42 °C | 141.83 µS/cm | 0.13 mg/L | 8.72 NTU | 47.9 mV | 4.05 ft | 150.00 ml/min |
| 3/2/2022 2:04 PM | 01:36:00 | 5.22 pH | 23.34 °C | 142.63 µS/cm | 0.12 mg/L | 8.32 NTU | 48.0 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:08 PM | 01:40:00 | 5.21 pH | 23.49 °C | 143.25 µS/cm | 0.13 mg/L | 8.37 NTU | 47.4 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:12 PM | 01:44:00 | 5.22 pH | 23.37 °C | 143.36 µS/cm | 0.13 mg/L | 7.61 NTU | 49.4 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:16 PM | 01:48:00 | 5.21 pH | 23.50 °C | 142.87 µS/cm | 0.13 mg/L | 7.11 NTU | 49.3 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:20 PM | 01:52:00 | 5.24 pH | 23.49 °C | 143.04 µS/cm | 0.14 mg/L | 6.96 NTU | 48.9 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:24 PM | 01:56:00 | 5.21 pH | 23.49 °C | 142.93 µS/cm | 0.13 mg/L | 7.05 NTU | 49.8 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:28 PM | 02:00:00 | 5.26 pH | 23.45 °C | 143.79 µS/cm | 0.12 mg/L | 6.52 NTU | 48.9 mV | 4.06 ft | 150.00 ml/min |
| 3/2/2022 2:32 PM | 02:04:00 | 5.27 pH | 23.29 °C | 145.09 µS/cm | 0.13 mg/L | 6.26 NTU | 49.0 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:36 PM | 02:08:00 | 5.25 pH | 23.09 °C | 144.63 µS/cm | 0.13 mg/L | 5.99 NTU | 49.4 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:40 PM | 02:12:00 | 5.26 pH | 23.01 °C | 144.48 µS/cm | 0.12 mg/L | 5.97 NTU | 49.0 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:44 PM | 02:16:00 | 5.28 pH | 23.12 °C | 145.18 µS/cm | 0.12 mg/L | 5.62 NTU | 49.4 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:48 PM | 02:20:00 | 5.31 pH | 23.04 °C | 146.99 µS/cm | 0.13 mg/L | 5.51 NTU | 49.0 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:52 PM | 02:24:00 | 5.30 pH | 22.97 °C | 146.63 µS/cm | 0.13 mg/L | 5.26 NTU | 48.7 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 2:56 PM | 02:28:00 | 5.30 pH | 23.00 °C | 146.11 µS/cm | 0.13 mg/L | 4.63 NTU | 49.0 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 3:00 PM | 02:32:00 | 5.33 pH | 23.03 °C | 147.83 µS/cm | 0.13 mg/L | 4.55 NTU | 48.5 mV | 4.07 ft | 150.00 ml/min |
| 3/2/2022 3:04 PM | 02:36:00 | 5.32 pH | 22.99 °C | 146.91 µS/cm | 0.13 mg/L | 4.77 NTU | 48.5 mV | 4.07 ft | 150.00 ml/min |

Samples

| | |
|-------------------|---------------------|
| Sample ID: | Description: |
|-------------------|---------------------|

MCM-01

Metals, inorganics, TDS, Radium

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/2/2022 3:19:08 PM
Project: March 2022 McManus CCR Event
Operator Name: Kevin Stephenson

| | | |
|--|--|--|
| Location Name: MCM-02
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.35 ft
Total Depth: 27.35 ft
Initial Depth to Water: 4.57 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 22.35 ft
Estimated Total Volume Pumped: 4160 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 260 ml/min
Final Draw Down: 0.15 ft | Instrument Used: Aqua TROLL 400
Serial Number: 893479 |
|--|--|--|

Test Notes:
Pre-purged 2 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Salinity | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 3/2/2022 3:19 PM | 00:00 | 5.20 pH | 23.13 °C | 161.16 µS/cm | 0.19 mg/L | 0.24 NTU | 137.8 mV | 4.72 ft | 0.08 PSU | 260.00 ml/min |
| 3/2/2022 3:23 PM | 04:00 | 5.19 pH | 21.74 °C | 161.39 µS/cm | 0.13 mg/L | 0.11 NTU | 125.9 mV | 4.72 ft | 0.08 PSU | 260.00 ml/min |
| 3/2/2022 3:27 PM | 08:00 | 5.18 pH | 21.56 °C | 159.17 µS/cm | 0.12 mg/L | 0.12 NTU | 122.5 mV | 4.72 ft | 0.08 PSU | 260.00 ml/min |
| 3/2/2022 3:31 PM | 12:00 | 5.17 pH | 21.46 °C | 157.68 µS/cm | 0.10 mg/L | 0.05 NTU | 120.6 mV | 4.72 ft | 0.07 PSU | 260.00 ml/min |
| 3/2/2022 3:35 PM | 16:00 | 5.16 pH | 21.43 °C | 157.40 µS/cm | 0.09 mg/L | 0.02 NTU | 119.8 mV | 4.72 ft | 0.07 PSU | 260.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-02 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/3/2022 8:43:07 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|---|--|
| Location Name: MCM-17
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.44 ft
Total Depth: 27.44 ft
Initial Depth to Water: 8.74 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 22.44 ft
Estimated Total Volume Pumped: 2400 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|---|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/3/2022 8:43 AM | 00:00 | 6.36 pH | 20.32 °C | 13,576 µS/cm | 1.00 mg/L | 7.63 NTU | -78.0 mV | 8.74 ft | 150.00 ml/min |
| 3/3/2022 8:47 AM | 04:00 | 6.31 pH | 20.71 °C | 13,381 µS/cm | 0.48 mg/L | 3.15 NTU | -87.8 mV | 8.74 ft | 150.00 ml/min |
| 3/3/2022 8:51 AM | 08:00 | 6.29 pH | 20.99 °C | 13,241 µS/cm | 0.27 mg/L | 2.42 NTU | -95.5 mV | 8.73 ft | 150.00 ml/min |
| 3/3/2022 8:55 AM | 12:00 | 6.28 pH | 21.09 °C | 13,169 µS/cm | 0.16 mg/L | 4.62 NTU | -108.2 mV | 8.71 ft | 150.00 ml/min |
| 3/3/2022 8:59 AM | 16:00 | 6.26 pH | 21.32 °C | 13,115 µS/cm | 0.11 mg/L | 4.27 NTU | -119.0 mV | 8.68 ft | 150.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-17 | Metals, inorganics, TDS, Alkalinity, Radium |

Low-Flow Test Report:

Test Date / Time: 3/3/2022 9:54:28 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: MCM-14
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.11 ft
Total Depth: 28.11 ft
Initial Depth to Water: 7.83 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 23.11 ft
Estimated Total Volume Pumped: 2500 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 125 ml/min
Final Draw Down: 0.03 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/3/2022 9:54 AM | 00:00 | 6.42 pH | 22.63 °C | 17,638 µS/cm | 2.33 mg/L | 1.88 NTU | -127.3 mV | 7.85 ft | 125.00 ml/min |
| 3/3/2022 9:58 AM | 04:00 | 6.50 pH | 22.35 °C | 18,257 µS/cm | 0.35 mg/L | 1.58 NTU | -268.0 mV | 7.85 ft | 125.00 ml/min |
| 3/3/2022 10:02 AM | 08:00 | 6.49 pH | 22.38 °C | 18,237 µS/cm | 0.28 mg/L | 1.95 NTU | -294.9 mV | 7.85 ft | 125.00 ml/min |
| 3/3/2022 10:06 AM | 12:00 | 6.49 pH | 22.51 °C | 18,230 µS/cm | 0.20 mg/L | 1.53 NTU | -305.1 mV | 7.85 ft | 125.00 ml/min |
| 3/3/2022 10:10 AM | 16:00 | 6.49 pH | 22.57 °C | 18,299 µS/cm | 0.17 mg/L | 1.67 NTU | -310.1 mV | 7.85 ft | 125.00 ml/min |
| 3/3/2022 10:14 AM | 20:00 | 6.49 pH | 22.61 °C | 18,350 µS/cm | 0.14 mg/L | 1.64 NTU | -312.2 mV | 7.86 ft | 125.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-14 | Metals, inorganics, TDS, Alkalinity, Radium |

Low-Flow Test Report:

Test Date / Time: 3/3/2022 10:06:38 AM
Project: March 2022 McManus CCR Event
Operator Name: Kevin Stephenson

| | | |
|--|--|--|
| Location Name: MCM-04
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.57 ft
Total Depth: 28.57 ft
Initial Depth to Water: 8.79 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 23.57 ft
Estimated Total Volume Pumped: 4000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0.05 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789317 |
|--|--|--|

Test Notes:
Pre-purged 13 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 3/3/2022 10:06 AM | 00:00 | 5.06 pH | 20.42 °C | 208.13 µS/cm | 0.16 mg/L | 5.17 NTU | 139.3 mV | 8.84 ft | 0.10 PSU | 200.00 ml/min |
| 3/3/2022 10:10 AM | 04:00 | 4.95 pH | 20.51 °C | 200.32 µS/cm | 0.09 mg/L | 4.53 NTU | 103.2 mV | 8.84 ft | 0.10 PSU | 200.00 ml/min |
| 3/3/2022 10:14 AM | 08:00 | 4.96 pH | 20.52 °C | 201.69 µS/cm | 0.08 mg/L | 3.97 NTU | 80.8 mV | 8.84 ft | 0.10 PSU | 200.00 ml/min |
| 3/3/2022 10:18 AM | 12:00 | 4.97 pH | 20.56 °C | 200.27 µS/cm | 0.07 mg/L | 3.10 NTU | 68.2 mV | 8.84 ft | 0.10 PSU | 200.00 ml/min |
| 3/3/2022 10:22 AM | 16:00 | 4.97 pH | 20.58 °C | 199.29 µS/cm | 0.07 mg/L | 3.97 NTU | 60.2 mV | 8.84 ft | 0.09 PSU | 200.00 ml/min |
| 3/3/2022 10:26 AM | 20:00 | 4.98 pH | 20.59 °C | 200.67 µS/cm | 0.07 mg/L | 2.27 NTU | 54.8 mV | 8.84 ft | 0.10 PSU | 200.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-04 | Metals, Inorganics, TDS, Radium |
| DUP-2 | Metals, Inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/3/2022 11:14:14 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: MCM-12
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 19 ft
Total Depth: 29 ft
Initial Depth to Water: 8.65 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 24 ft
Estimated Total Volume Pumped: 3500 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 175 ml/min
Final Draw Down: 1.6 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|----------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/3/2022
11:14 AM | 00:00 | 6.67 pH | 22.56 °C | 2,322.4
µS/cm | 0.04 mg/L | 2.64 NTU | -276.0 mV | 9.38 ft | 175.00 ml/min |
| 3/3/2022
11:18 AM | 04:00 | 6.56 pH | 22.18 °C | 2,305.4
µS/cm | 0.02 mg/L | 2.39 NTU | -278.8 mV | 9.77 ft | 175.00 ml/min |
| 3/3/2022
11:22 AM | 08:00 | 6.54 pH | 22.15 °C | 2,296.0
µS/cm | 0.01 mg/L | 2.22 NTU | -279.7 mV | 9.96 ft | 175.00 ml/min |
| 3/3/2022
11:26 AM | 12:00 | 6.52 pH | 22.17 °C | 2,296.6
µS/cm | 0.00 mg/L | 2.34 NTU | -279.9 mV | 10.10 ft | 175.00 ml/min |
| 3/3/2022
11:30 AM | 16:00 | 6.51 pH | 22.16 °C | 2,289.1
µS/cm | 0.00 mg/L | 2.55 NTU | -280.4 mV | 10.17 ft | 175.00 ml/min |
| 3/3/2022
11:34 AM | 20:00 | 6.51 pH | 22.17 °C | 2,291.9
µS/cm | 0.00 mg/L | 2.84 NTU | -279.9 mV | 10.25 ft | 175.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-12 | Metals, inorganics, TDS, Radium |

Low-Flow Test Report:

Test Date / Time: 3/3/2022 11:46:07 AM
Project: March 2022 McManus CCR Event
Operator Name: Kevin Stephenson

| | | |
|--|---|--|
| Location Name: MCM-16
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.39 ft
Total Depth: 28.39 ft
Initial Depth to Water: 9.28 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 23.39 ft
Estimated Total Volume Pumped: 6400 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789317 |
|--|---|--|

Test Notes:
Pre-purged 1 liter

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth to Water | Salinity | Flow |
|-------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 3/3/2022 11:46 AM | 00:00 | 4.85 pH | 22.48 °C | 160.52 µS/cm | 1.04 mg/L | 8.70 NTU | 86.5 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 11:50 AM | 04:00 | 4.84 pH | 21.74 °C | 162.97 µS/cm | 0.65 mg/L | 5.61 NTU | 80.3 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 11:54 AM | 08:00 | 4.85 pH | 21.81 °C | 163.35 µS/cm | 0.53 mg/L | 4.94 NTU | 76.7 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 11:58 AM | 12:00 | 4.87 pH | 22.01 °C | 162.65 µS/cm | 0.50 mg/L | 3.03 NTU | 72.8 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 12:02 PM | 16:00 | 4.85 pH | 22.19 °C | 163.84 µS/cm | 0.56 mg/L | 1.68 NTU | 74.4 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 12:06 PM | 20:00 | 4.86 pH | 22.39 °C | 163.51 µS/cm | 0.56 mg/L | 1.39 NTU | 72.7 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 12:10 PM | 24:00 | 4.88 pH | 22.48 °C | 162.75 µS/cm | 0.49 mg/L | 1.54 NTU | 70.8 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 12:14 PM | 28:00 | 4.88 pH | 22.48 °C | 163.43 µS/cm | 0.49 mg/L | 1.26 NTU | 69.6 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |
| 3/3/2022 12:18 PM | 32:00 | 4.88 pH | 22.52 °C | 162.60 µS/cm | 0.42 mg/L | 0.72 NTU | 68.3 mV | 9.28 ft | 0.08 PSU | 200.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---------------------------------|
| MCM-16 | Metals, Inorganics, TDS, Radium |

APPENDIX C

SURFACE WATER LABORATORY ANALYTICAL RESULTS AND FIELD SAMPLING REPORTS



October 14, 2021

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

RE: Project: MCMANUS SURFACE WATER
Pace Project No.: 92563385

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 25, 2021 and October 01, 2021. 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

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water
Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water
Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
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 Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER
Pace Project No.: 92563385

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92563385001 | T1-1HT | Water | 09/23/21 12:07 | 09/25/21 11:00 |
| 92563385002 | T1-2HT | Water | 09/23/21 12:13 | 09/25/21 11:00 |
| 92563385003 | T1-2HTS | Water | 09/23/21 12:17 | 09/25/21 11:00 |
| 92563385004 | T1-3HT | Water | 09/23/21 12:28 | 09/25/21 11:00 |
| 92563385005 | T1-3HTS | Water | 09/23/21 12:23 | 09/25/21 11:00 |
| 92563385006 | T1-4HT | Water | 09/23/21 14:09 | 09/25/21 11:00 |
| 92563385007 | T1-4HTS | Water | 09/23/21 14:02 | 09/25/21 11:00 |
| 92563385008 | T2-1HT | Water | 09/23/21 11:41 | 09/25/21 11:00 |
| 92563385009 | T2-2HT | Water | 09/23/21 11:49 | 09/25/21 11:00 |
| 92563385010 | T2-2HTS | Water | 09/23/21 11:53 | 09/25/21 11:00 |
| 92563385011 | T2-3HT | Water | 09/23/21 12:52 | 09/25/21 11:00 |
| 92563385012 | T2-3HTS | Water | 09/23/21 12:45 | 09/25/21 11:00 |
| 92563385013 | T2-4HT | Water | 09/23/21 13:47 | 09/25/21 11:00 |
| 92563385014 | T2-4HTS | Water | 09/23/21 13:40 | 09/25/21 11:00 |
| 92563385015 | T3-1HT | Water | 09/23/21 11:16 | 09/25/21 11:00 |
| 92563385016 | T3-2HT | Water | 09/23/21 11:25 | 09/25/21 11:00 |
| 92563385017 | T3-2HTS | Water | 09/23/21 11:30 | 09/25/21 11:00 |
| 92563385018 | T3-3HT | Water | 09/23/21 13:13 | 09/25/21 11:00 |
| 92563385019 | T3-3HTS | Water | 09/23/21 13:07 | 09/25/21 11:00 |
| 92563385020 | T3-4HT | Water | 09/23/21 13:29 | 09/25/21 11:00 |
| 92563385021 | T3-4HTS | Water | 09/23/21 13:24 | 09/25/21 11:00 |
| 92563385022 | T4-1HB | Water | 09/22/21 12:56 | 09/25/21 11:00 |
| 92563385023 | T4-1HS | Water | 09/22/21 12:51 | 09/25/21 11:00 |
| 92563385024 | T4-2HB | Water | 09/22/21 13:08 | 09/25/21 11:00 |
| 92563385025 | T4-2HS | Water | 09/22/21 13:03 | 09/25/21 11:00 |
| 92563385026 | T4-3HB | Water | 09/22/21 13:23 | 09/25/21 11:00 |
| 92563385027 | T4-3HS | Water | 09/22/21 13:15 | 09/25/21 11:00 |
| 92563385028 | T4-4HB | Water | 09/22/21 13:39 | 09/25/21 11:00 |
| 92563385029 | T4-4HS | Water | 09/22/21 13:35 | 09/25/21 11:00 |
| 92563385030 | T4-1L | Water | 09/22/21 19:24 | 09/25/21 11:00 |
| 92563385031 | T4-2L | Water | 09/22/21 19:11 | 09/25/21 11:00 |
| 92563385032 | T4-3L | Water | 09/22/21 19:05 | 09/25/21 11:00 |
| 92563385033 | T4-4L | Water | 09/22/21 18:17 | 09/25/21 11:00 |
| 92563385034 | BG-2HT | Water | 09/22/21 10:21 | 09/25/21 11:00 |
| 92563385035 | DUP-1 | Water | 09/22/21 00:00 | 09/25/21 11:00 |
| 92563385036 | DUP-2 | Water | 09/23/21 00:00 | 09/25/21 11:00 |
| 92563385037 | DUP-3 | Water | 09/23/21 00:00 | 09/25/21 11:00 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92563385038 | FB-1 | Water | 09/23/21 15:10 | 09/25/21 11:00 |
| 92563385039 | EB-1 | Water | 09/23/21 15:15 | 09/25/21 11:00 |
| 92563385040 | T1-1LT | Water | 09/30/21 14:10 | 10/01/21 11:10 |
| 92563385041 | T1-2LT | Water | 09/30/21 14:07 | 10/01/21 11:10 |
| 92563385042 | T1-3LT | Water | 09/30/21 14:00 | 10/01/21 11:10 |
| 92563385043 | T1-4LT | Water | 09/30/21 10:54 | 10/01/21 11:10 |
| 92563385044 | T2-2LT | Water | 09/30/21 13:45 | 10/01/21 11:10 |
| 92563385045 | T2-3LT | Water | 09/30/21 13:33 | 10/01/21 11:10 |
| 92563385046 | T2-4LT | Water | 09/30/21 11:09 | 10/01/21 11:10 |
| 92563385047 | T3-2LT | Water | 09/30/21 12:53 | 10/01/21 11:10 |
| 92563385048 | T3-3LT | Water | 09/30/21 12:19 | 10/01/21 11:10 |
| 92563385049 | T3-4LT | Water | 09/30/21 11:25 | 10/01/21 11:10 |
| 92563385050 | BG-1LT | Water | 09/30/21 10:27 | 10/01/21 11:10 |
| 92563385051 | DUP-4 | Water | 09/30/21 00:00 | 10/01/21 11:10 |
| 92563385052 | DUP-5 | Water | 09/30/21 00:00 | 10/01/21 11:10 |
| 92563385053 | FB-2 | Water | 09/30/21 15:15 | 10/01/21 11:10 |
| 92563385054 | EB-2 | Water | 09/30/21 15:20 | 10/01/21 11:10 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385001 | T1-1HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385002 | T1-2HT | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385003 | T1-2HTS | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385004 | T1-3HT | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385005 | T1-3HTS | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385006 | T1-4HT | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385007 | T1-4HTS | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385008 | T2-1HT | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385009 | T2-2HT | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385010 | T2-2HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| 92563385011 | T2-3HT | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| 92563385012 | T2-3HTS | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385013 | T2-4HT | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| 92563385014 | T2-4HTS | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385015 | T3-1HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385016 | T3-2HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385017 | T3-2HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385018 | T3-3HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385019 | T3-3HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385020 | T3-4HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385021 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385022 | T4-1HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385023 | T4-1HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385024 | T4-2HB | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| 92563385025 | T4-2HS | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385026 | T4-3HB | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| 92563385027 | T4-3HS | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385028 | T4-4HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| 92563385029 | T4-4HS | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| 92563385030 | T4-1L | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385031 | T4-2L | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385032 | T4-3L | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385033 | T4-4L | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| 92563385034 | BG-2HT | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| 92563385035 | DUP-1 | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| 92563385036 | DUP-2 | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| 92563385037 | DUP-3 | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW, JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385038 | FB-1 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92563385039 | EB-1 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | CRW | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | MJP | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385040 | T1-1LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385041 | T1-2LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385042 | T1-3LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385043 | T1-4LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385044 | T2-2LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385045 | T2-3LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385046 | T2-4LT | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385047 | T3-2LT | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| 92563385048 | T3-3LT | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| 92563385049 | T3-4LT | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92563385050 | BG-1LT | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| 92563385051 | DUP-4 | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385052 | DUP-5 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92563385053 | FB-2 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| 92563385054 | EB-2 | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B-2011 | SMK | 3 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |

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

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385001 | T1-1HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:42 | |
| | | R | | | | |
| | pH | 7.05 | Std. Units | | 09/27/21 11:42 | |
| EPA 6010D | Calcium | 126 | mg/L | 2.0 | 10/05/21 07:28 | M1 |
| EPA 6010D | Magnesium | 366 | mg/L | 2.0 | 10/05/21 07:28 | M1 |
| EPA 6010D | Potassium | 122 | mg/L | 100 | 10/05/21 07:28 | M1 |
| EPA 6010D | Sodium | 3230 | mg/L | 500 | 10/05/21 20:47 | |
| EPA 6020B | Arsenic | 0.0027J | mg/L | 0.020 | 09/30/21 21:49 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 09/29/21 16:45 | M1 |
| EPA 6020B | Lithium | 0.060 | mg/L | 0.050 | 09/30/21 21:49 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 66.7 | mg/L | 5.0 | 10/06/21 16:12 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 66.7 | mg/L | 5.0 | 10/06/21 16:12 | |
| SM 2540C-2011 | Total Dissolved Solids | 11800 | mg/L | 1250 | 09/29/21 11:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4790 | mg/L | 90.0 | 09/28/21 13:17 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 668 | mg/L | 20.0 | 09/27/21 21:50 | |
| 92563385002 | T1-2HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:42 | |
| | | R | | | | |
| | pH | 6.97 | Std. Units | | 09/27/21 11:42 | |
| EPA 6010D | Calcium | 185 | mg/L | 2.0 | 10/05/21 07:41 | |
| EPA 6010D | Magnesium | 538 | mg/L | 2.0 | 10/05/21 07:41 | |
| EPA 6010D | Potassium | 177 | mg/L | 100 | 10/05/21 07:41 | |
| EPA 6010D | Sodium | 4650 | mg/L | 500 | 10/05/21 04:47 | |
| EPA 6020B | Arsenic | 0.0025J | mg/L | 0.020 | 09/30/21 22:04 | |
| EPA 6020B | Boron | 2.1J | mg/L | 2.5 | 09/30/21 19:12 | |
| EPA 6020B | Lithium | 0.076 | mg/L | 0.050 | 09/30/21 22:04 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 87.9 | mg/L | 5.0 | 10/06/21 16:18 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 87.9 | mg/L | 5.0 | 10/06/21 16:18 | |
| SM 2540C-2011 | Total Dissolved Solids | 18300 | mg/L | 2500 | 09/29/21 11:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7100 | mg/L | 90.0 | 09/28/21 13:33 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 982 | mg/L | 20.0 | 09/27/21 22:06 | |
| 92563385003 | T1-2HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:42 | |
| | | R | | | | |
| | pH | 7.15 | Std. Units | | 09/27/21 11:42 | |
| EPA 6010D | Calcium | 124 | mg/L | 2.0 | 10/05/21 07:44 | |
| EPA 6010D | Magnesium | 351 | mg/L | 2.0 | 10/05/21 07:44 | |
| EPA 6010D | Potassium | 118 | mg/L | 100 | 10/05/21 07:44 | |
| EPA 6010D | Sodium | 3060 | mg/L | 500 | 10/05/21 04:50 | |
| EPA 6020B | Arsenic | 0.0025J | mg/L | 0.020 | 09/30/21 22:07 | |
| EPA 6020B | Boron | 1.5J | mg/L | 2.5 | 09/30/21 19:15 | |
| EPA 6020B | Lithium | 0.057 | mg/L | 0.050 | 09/30/21 22:07 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 64.6 | mg/L | 5.0 | 10/06/21 16:25 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 64.6 | mg/L | 5.0 | 10/06/21 16:25 | |
| SM 2540C-2011 | Total Dissolved Solids | 12000 | mg/L | 1250 | 09/29/21 11:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4750 | mg/L | 90.0 | 09/28/21 13:49 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1670 | mg/L | 50.0 | 09/27/21 22:21 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385004 | T1-3HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:42 | |
| | | R | | | | |
| | pH | 6.99 | Std. Units | | 09/27/21 11:42 | |
| EPA 6010D | Calcium | 173 | mg/L | 2.0 | 10/05/21 07:48 | |
| EPA 6010D | Magnesium | 499 | mg/L | 2.0 | 10/05/21 07:48 | |
| EPA 6010D | Potassium | 166 | mg/L | 100 | 10/05/21 07:48 | |
| EPA 6010D | Sodium | 4400 | mg/L | 500 | 10/05/21 04:53 | |
| EPA 6020B | Arsenic | 0.0021J | mg/L | 0.020 | 09/30/21 22:14 | |
| EPA 6020B | Boron | 2.0J | mg/L | 2.5 | 09/30/21 19:22 | |
| EPA 6020B | Lithium | 0.073 | mg/L | 0.050 | 09/30/21 22:14 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 90.2 | mg/L | 5.0 | 10/06/21 16:31 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 90.2 | mg/L | 5.0 | 10/06/21 16:31 | |
| SM 2540C-2011 | Total Dissolved Solids | 15700 | mg/L | 2500 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6880 | mg/L | 90.0 | 09/28/21 14:04 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 953 | mg/L | 50.0 | 09/27/21 22:37 | |
| 92563385005 | T1-3HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:43 | |
| | | R | | | | |
| | pH | 7.08 | Std. Units | | 09/27/21 11:43 | |
| EPA 6010D | Calcium | 131 | mg/L | 2.0 | 10/05/21 07:51 | |
| EPA 6010D | Magnesium | 375 | mg/L | 2.0 | 10/05/21 07:51 | |
| EPA 6010D | Potassium | 124 | mg/L | 100 | 10/05/21 07:51 | |
| EPA 6010D | Sodium | 3300 | mg/L | 500 | 10/05/21 04:56 | |
| EPA 6020B | Arsenic | 0.0023J | mg/L | 0.020 | 09/30/21 22:18 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 09/30/21 19:26 | |
| EPA 6020B | Lithium | 0.060 | mg/L | 0.050 | 09/30/21 22:18 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 73.0 | mg/L | 5.0 | 10/06/21 16:38 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 73.0 | mg/L | 5.0 | 10/06/21 16:38 | |
| SM 2540C-2011 | Total Dissolved Solids | 12900 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5000 | mg/L | 50.0 | 09/27/21 22:53 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 698 | mg/L | 50.0 | 09/27/21 22:53 | |
| 92563385006 | T1-4HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:43 | |
| | | R | | | | |
| | pH | 6.98 | Std. Units | | 09/27/21 11:43 | |
| EPA 6010D | Calcium | 152 | mg/L | 2.0 | 10/05/21 07:54 | |
| EPA 6010D | Magnesium | 439 | mg/L | 2.0 | 10/05/21 07:54 | |
| EPA 6010D | Potassium | 144 | mg/L | 100 | 10/05/21 07:54 | |
| EPA 6010D | Sodium | 3900 | mg/L | 500 | 10/05/21 05:00 | |
| EPA 6020B | Arsenic | 0.0022J | mg/L | 0.020 | 09/30/21 22:22 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 19:29 | |
| EPA 6020B | Lithium | 0.069 | mg/L | 0.050 | 09/30/21 22:22 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 81.1 | mg/L | 5.0 | 09/30/21 17:18 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 81.1 | mg/L | 5.0 | 09/30/21 17:18 | |
| SM 2540C-2011 | Total Dissolved Solids | 15400 | mg/L | 2500 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7960 | mg/L | 90.0 | 09/27/21 23:40 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1110 | mg/L | 90.0 | 09/27/21 23:40 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385007 | T1-4HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:43 | |
| | | R | | | | |
| | pH | 7.14 | Std. Units | | 09/27/21 11:43 | |
| EPA 6010D | Calcium | 136 | mg/L | 2.0 | 10/05/21 08:11 | |
| EPA 6010D | Magnesium | 402 | mg/L | 2.0 | 10/05/21 08:11 | |
| EPA 6010D | Potassium | 130 | mg/L | 100 | 10/05/21 08:11 | |
| EPA 6010D | Sodium | 3450 | mg/L | 500 | 10/05/21 05:03 | |
| EPA 6020B | Arsenic | 0.0021J | mg/L | 0.020 | 09/30/21 22:29 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 09/30/21 19:33 | |
| EPA 6020B | Lithium | 0.066 | mg/L | 0.050 | 09/30/21 22:29 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 74.9 | mg/L | 5.0 | 09/30/21 17:28 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 74.9 | mg/L | 5.0 | 09/30/21 17:28 | |
| SM 2540C-2011 | Total Dissolved Solids | 13000 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5270 | mg/L | 90.0 | 09/27/21 23:56 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 717 | mg/L | 90.0 | 09/27/21 23:56 | |
| 92563385008 | T2-1HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:43 | |
| | | R | | | | |
| | pH | 6.89 | Std. Units | | 09/27/21 11:43 | |
| EPA 6010D | Calcium | 124 | mg/L | 2.0 | 10/05/21 08:14 | |
| EPA 6010D | Magnesium | 363 | mg/L | 2.0 | 10/05/21 08:14 | |
| EPA 6010D | Potassium | 118 | mg/L | 100 | 10/05/21 08:14 | |
| EPA 6010D | Sodium | 3100 | mg/L | 500 | 10/05/21 05:06 | |
| EPA 6020B | Arsenic | 0.0020J | mg/L | 0.020 | 09/30/21 22:32 | |
| EPA 6020B | Boron | 1.4J | mg/L | 2.5 | 09/30/21 19:40 | |
| EPA 6020B | Lithium | 0.054 | mg/L | 0.050 | 09/30/21 22:32 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 68.7 | mg/L | 5.0 | 09/30/21 17:36 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 68.7 | mg/L | 5.0 | 09/30/21 17:36 | |
| SM 2540C-2011 | Total Dissolved Solids | 11700 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4750 | mg/L | 90.0 | 09/28/21 00:12 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 638 | mg/L | 90.0 | 09/28/21 00:12 | |
| 92563385009 | T2-2HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:44 | |
| | | R | | | | |
| | pH | 6.87 | Std. Units | | 09/27/21 11:44 | |
| EPA 6010D | Calcium | 165 | mg/L | 2.0 | 10/05/21 08:17 | |
| EPA 6010D | Magnesium | 496 | mg/L | 2.0 | 10/05/21 08:17 | |
| EPA 6010D | Potassium | 160 | mg/L | 100 | 10/05/21 08:17 | |
| EPA 6010D | Sodium | 4250 | mg/L | 500 | 10/05/21 05:10 | |
| EPA 6020B | Arsenic | 0.0032J | mg/L | 0.020 | 09/30/21 22:43 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 19:44 | |
| EPA 6020B | Lithium | 0.071 | mg/L | 0.050 | 09/30/21 22:43 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 83.1 | mg/L | 5.0 | 09/30/21 17:43 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 83.1 | mg/L | 5.0 | 09/30/21 17:43 | |
| SM 2540C-2011 | Total Dissolved Solids | 16400 | mg/L | 2500 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6450 | mg/L | 90.0 | 09/28/21 00:27 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 884 | mg/L | 90.0 | 09/28/21 00:27 | M1 |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385010 | T2-2HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:44 | |
| | | R | | | | |
| | pH | 7.05 | Std. Units | | 09/27/21 11:44 | |
| EPA 6010D | Calcium | 113 | mg/L | 2.0 | 10/05/21 08:20 | |
| EPA 6010D | Magnesium | 330 | mg/L | 2.0 | 10/05/21 08:20 | |
| EPA 6010D | Potassium | 106 | mg/L | 100 | 10/05/21 08:20 | |
| EPA 6010D | Sodium | 2810 | mg/L | 500 | 10/05/21 05:19 | |
| EPA 6020B | Arsenic | 0.0024J | mg/L | 0.020 | 09/30/21 22:47 | |
| EPA 6020B | Boron | 1.5J | mg/L | 2.5 | 09/30/21 19:47 | |
| EPA 6020B | Lithium | 0.048J | mg/L | 0.050 | 09/30/21 22:47 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 65.2 | mg/L | 5.0 | 09/30/21 17:51 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 65.2 | mg/L | 5.0 | 09/30/21 17:51 | |
| SM 2540C-2011 | Total Dissolved Solids | 10400 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4400 | mg/L | 90.0 | 09/28/21 01:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 585 | mg/L | 90.0 | 09/28/21 01:14 | |
| 92563385011 | T2-3HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:44 | |
| | | R | | | | |
| | pH | 6.96 | Std. Units | | 09/27/21 11:44 | |
| EPA 6010D | Calcium | 172 | mg/L | 2.0 | 10/05/21 08:24 | |
| EPA 6010D | Magnesium | 516 | mg/L | 2.0 | 10/05/21 08:24 | |
| EPA 6010D | Potassium | 166 | mg/L | 100 | 10/05/21 08:24 | |
| EPA 6010D | Sodium | 4370 | mg/L | 500 | 10/05/21 05:23 | |
| EPA 6020B | Arsenic | 0.0026J | mg/L | 0.020 | 09/30/21 22:50 | |
| EPA 6020B | Boron | 2.2J | mg/L | 2.5 | 09/30/21 19:51 | |
| EPA 6020B | Lithium | 0.078 | mg/L | 0.050 | 09/30/21 22:50 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 84.0 | mg/L | 5.0 | 09/30/21 17:59 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 84.0 | mg/L | 5.0 | 09/30/21 17:59 | |
| SM 2540C-2011 | Total Dissolved Solids | 16200 | mg/L | 2500 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6700 | mg/L | 90.0 | 09/28/21 01:30 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 918 | mg/L | 90.0 | 09/28/21 01:30 | |
| 92563385012 | T2-3HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:45 | |
| | | R | | | | |
| | pH | 7.18 | Std. Units | | 09/27/21 11:45 | |
| EPA 6010D | Calcium | 104 | mg/L | 2.0 | 10/05/21 08:27 | |
| EPA 6010D | Magnesium | 303 | mg/L | 2.0 | 10/05/21 08:27 | |
| EPA 6010D | Potassium | 97.6J | mg/L | 100 | 10/05/21 08:27 | |
| EPA 6010D | Sodium | 2570 | mg/L | 500 | 10/05/21 05:26 | |
| EPA 6020B | Arsenic | 0.0023J | mg/L | 0.020 | 09/30/21 20:22 | |
| EPA 6020B | Boron | 1.4 | mg/L | 1.0 | 09/30/21 20:22 | |
| EPA 6020B | Lithium | 0.048J | mg/L | 0.050 | 09/30/21 20:22 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 61.5 | mg/L | 5.0 | 09/30/21 18:22 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 61.5 | mg/L | 5.0 | 09/30/21 18:22 | |
| SM 2540C-2011 | Total Dissolved Solids | 10000 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4090 | mg/L | 90.0 | 09/28/21 01:46 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 540 | mg/L | 90.0 | 09/28/21 01:46 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385013 | T2-4HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:45 | |
| | | R | | | | |
| | pH | 6.96 | Std. Units | | 09/27/21 11:45 | |
| EPA 6010D | Calcium | 154 | mg/L | 2.0 | 10/05/21 08:30 | |
| EPA 6010D | Magnesium | 460 | mg/L | 2.0 | 10/05/21 08:30 | |
| EPA 6010D | Potassium | 148 | mg/L | 100 | 10/05/21 08:30 | |
| EPA 6010D | Sodium | 3930 | mg/L | 500 | 10/05/21 05:29 | |
| EPA 6020B | Arsenic | 0.0019J | mg/L | 0.020 | 09/30/21 22:58 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 20:18 | |
| EPA 6020B | Lithium | 0.064 | mg/L | 0.050 | 09/30/21 22:58 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 77.1 | mg/L | 5.0 | 09/30/21 18:29 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 77.1 | mg/L | 5.0 | 09/30/21 18:29 | |
| SM 2540C-2011 | Total Dissolved Solids | 13600 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5670 | mg/L | 90.0 | 09/28/21 02:01 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 768 | mg/L | 90.0 | 09/28/21 02:01 | |
| 92563385014 | T2-4HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:47 | |
| | | R | | | | |
| | pH | 7.09 | Std. Units | | 09/27/21 11:47 | |
| EPA 6010D | Calcium | 130 | mg/L | 2.0 | 10/05/21 08:33 | |
| EPA 6010D | Magnesium | 381 | mg/L | 2.0 | 10/05/21 08:33 | |
| EPA 6010D | Potassium | 123 | mg/L | 100 | 10/05/21 08:33 | |
| EPA 6010D | Sodium | 3230 | mg/L | 500 | 10/05/21 05:33 | |
| EPA 6020B | Arsenic | 0.0019J | mg/L | 0.020 | 09/30/21 23:01 | |
| EPA 6020B | Boron | 1.4J | mg/L | 2.5 | 09/30/21 20:29 | |
| EPA 6020B | Lithium | 0.053 | mg/L | 0.050 | 09/30/21 23:01 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 54.5 | mg/L | 5.0 | 10/04/21 20:27 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 54.5 | mg/L | 5.0 | 10/04/21 20:27 | |
| SM 2540C-2011 | Total Dissolved Solids | 12000 | mg/L | 1250 | 09/29/21 11:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5130 | mg/L | 90.0 | 09/28/21 02:49 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 694 | mg/L | 90.0 | 09/28/21 02:49 | |
| 92563385015 | T3-1HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:47 | |
| | | R | | | | |
| | pH | 7.12 | Std. Units | | 09/27/21 11:47 | |
| EPA 6010D | Calcium | 88.6 | mg/L | 2.0 | 10/05/21 08:37 | |
| EPA 6010D | Magnesium | 252 | mg/L | 2.0 | 10/05/21 08:37 | |
| EPA 6010D | Potassium | 81.1J | mg/L | 100 | 10/05/21 08:37 | |
| EPA 6010D | Sodium | 2150 | mg/L | 500 | 10/05/21 05:36 | |
| EPA 6020B | Arsenic | 0.0022J | mg/L | 0.020 | 09/30/21 20:55 | |
| EPA 6020B | Boron | 1.2 | mg/L | 1.0 | 09/30/21 20:55 | |
| EPA 6020B | Lithium | 0.040J | mg/L | 0.050 | 09/30/21 20:55 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 71.2 | mg/L | 5.0 | 10/04/21 20:35 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 71.2 | mg/L | 5.0 | 10/04/21 20:35 | |
| SM 2540C-2011 | Total Dissolved Solids | 8300 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3230 | mg/L | 90.0 | 09/28/21 03:04 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 419 | mg/L | 90.0 | 09/28/21 03:04 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385016 | T3-2HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:47 | |
| | | R | | | | |
| | pH | 6.79 | Std. Units | | 09/27/21 11:47 | |
| EPA 6010D | Calcium | 138 | mg/L | 2.0 | 10/05/21 08:40 | |
| EPA 6010D | Magnesium | 402 | mg/L | 2.0 | 10/05/21 08:40 | |
| EPA 6010D | Potassium | 130 | mg/L | 100 | 10/05/21 08:40 | |
| EPA 6010D | Sodium | 3430 | mg/L | 500 | 10/05/21 05:39 | |
| EPA 6020B | Arsenic | 0.0034J | mg/L | 0.020 | 09/30/21 23:05 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 20:45 | |
| EPA 6020B | Lithium | 0.071 | mg/L | 0.050 | 09/30/21 23:05 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 75.0 | mg/L | 5.0 | 10/04/21 20:43 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 75.0 | mg/L | 5.0 | 10/04/21 20:43 | |
| SM 2540C-2011 | Total Dissolved Solids | 13400 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5520 | mg/L | 90.0 | 09/28/21 03:20 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 744 | mg/L | 90.0 | 09/28/21 03:20 | |
| 92563385017 | T3-2HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:47 | |
| | | R | | | | |
| | pH | 7.04 | Std. Units | | 09/27/21 11:47 | |
| EPA 6010D | Calcium | 83.7 | mg/L | 2.0 | 10/05/21 08:50 | |
| EPA 6010D | Magnesium | 234 | mg/L | 2.0 | 10/05/21 08:50 | |
| EPA 6010D | Potassium | 77.2J | mg/L | 100 | 10/05/21 08:50 | |
| EPA 6010D | Sodium | 2050 | mg/L | 500 | 10/05/21 05:42 | |
| EPA 6020B | Arsenic | 0.0021J | mg/L | 0.020 | 09/30/21 20:59 | |
| EPA 6020B | Boron | 1.1 | mg/L | 1.0 | 09/30/21 20:59 | |
| EPA 6020B | Lithium | 0.034J | mg/L | 0.050 | 09/30/21 20:59 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 55.6 | mg/L | 5.0 | 10/04/21 20:50 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 55.6 | mg/L | 5.0 | 10/04/21 20:50 | |
| SM 2540C-2011 | Total Dissolved Solids | 7450 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3180 | mg/L | 90.0 | 09/28/21 03:36 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 410 | mg/L | 90.0 | 09/28/21 03:36 | |
| 92563385018 | T3-3HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:54 | |
| | | R | | | | |
| | pH | 6.92 | Std. Units | | 09/27/21 11:54 | |
| EPA 6010D | Calcium | 156 | mg/L | 2.0 | 10/05/21 08:53 | |
| EPA 6010D | Magnesium | 467 | mg/L | 2.0 | 10/05/21 08:53 | |
| EPA 6010D | Potassium | 152 | mg/L | 100 | 10/05/21 08:53 | |
| EPA 6010D | Sodium | 4160 | mg/L | 500 | 10/05/21 05:46 | |
| EPA 6020B | Arsenic | 0.0024J | mg/L | 0.020 | 09/30/21 23:12 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 20:52 | |
| EPA 6020B | Lithium | 0.071 | mg/L | 0.050 | 09/30/21 23:12 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 82.7 | mg/L | 5.0 | 10/04/21 20:57 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 82.7 | mg/L | 5.0 | 10/04/21 20:57 | |
| SM 2540C-2011 | Total Dissolved Solids | 14100 | mg/L | 2500 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6340 | mg/L | 90.0 | 09/28/21 03:51 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 862 | mg/L | 90.0 | 09/28/21 03:51 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385019 | T3-3HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:51 | |
| | | R | | | | |
| | pH | 7.24 | Std. Units | | 09/27/21 11:51 | |
| EPA 6010D | Calcium | 70.4 | mg/L | 2.0 | 10/05/21 08:56 | |
| EPA 6010D | Magnesium | 193 | mg/L | 2.0 | 10/05/21 08:56 | |
| EPA 6010D | Potassium | 64.3J | mg/L | 100 | 10/05/21 08:56 | |
| EPA 6010D | Sodium | 1690 | mg/L | 100 | 10/05/21 08:56 | |
| EPA 6020B | Arsenic | 0.0020J | mg/L | 0.020 | 09/30/21 21:17 | |
| EPA 6020B | Boron | 0.83J | mg/L | 1.0 | 09/30/21 21:17 | |
| EPA 6020B | Lithium | 0.027J | mg/L | 0.050 | 09/30/21 21:17 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 45.4 | mg/L | 5.0 | 10/04/21 21:05 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 45.4 | mg/L | 5.0 | 10/04/21 21:05 | |
| SM 2540C-2011 | Total Dissolved Solids | 6600 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 2500 | mg/L | 90.0 | 09/28/21 04:38 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 315 | mg/L | 90.0 | 09/28/21 04:38 | |
| 92563385020 | T3-4HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:51 | |
| | | R | | | | |
| | pH | 6.94 | Std. Units | | 09/27/21 11:51 | |
| EPA 6010D | Calcium | 122 | mg/L | 2.0 | 10/05/21 09:00 | |
| EPA 6010D | Magnesium | 374 | mg/L | 2.0 | 10/05/21 09:00 | |
| EPA 6010D | Potassium | 121 | mg/L | 100 | 10/05/21 09:00 | |
| EPA 6010D | Sodium | 3860 | mg/L | 500 | 10/05/21 06:06 | |
| EPA 6020B | Arsenic | 0.0022J | mg/L | 0.020 | 09/30/21 23:15 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 21:21 | |
| EPA 6020B | Lithium | 0.069 | mg/L | 0.050 | 09/30/21 23:15 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 80.0 | mg/L | 5.0 | 10/04/21 21:12 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 80.0 | mg/L | 5.0 | 10/04/21 21:12 | |
| SM 2540C-2011 | Total Dissolved Solids | 14200 | mg/L | 2500 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6020 | mg/L | 90.0 | 09/28/21 05:57 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 815 | mg/L | 90.0 | 09/28/21 05:57 | |
| 92563385021 | T3-4HTS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:51 | |
| | | R | | | | |
| | pH | 7.09 | Std. Units | | 09/27/21 11:51 | |
| EPA 6010D | Calcium | 107 | mg/L | 2.0 | 10/05/21 06:09 | M1 |
| EPA 6010D | Magnesium | 312 | mg/L | 2.0 | 10/05/21 06:09 | M1 |
| EPA 6010D | Potassium | 103 | mg/L | 100 | 10/05/21 06:09 | M1 |
| EPA 6010D | Sodium | 2640 | mg/L | 500 | 10/05/21 02:48 | M1 |
| EPA 6020B | Arsenic | 0.0023J | mg/L | 0.020 | 09/29/21 22:45 | M1 |
| EPA 6020B | Boron | 1.0J | mg/L | 2.5 | 09/30/21 16:35 | M1 |
| EPA 6020B | Lithium | 0.041J | mg/L | 0.050 | 09/30/21 19:16 | M1 |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 61.5 | mg/L | 5.0 | 10/05/21 20:58 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 61.5 | mg/L | 5.0 | 10/05/21 20:58 | |
| SM 2540C-2011 | Total Dissolved Solids | 9850 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4080 | mg/L | 90.0 | 09/28/21 06:13 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 538 | mg/L | 90.0 | 09/28/21 06:13 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385022 | T4-1HB | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:51 | |
| | | R | | | | |
| | pH | 7.06 | Std. Units | | 09/27/21 11:51 | |
| EPA 6010D | Calcium | 174 | mg/L | 2.0 | 10/05/21 06:22 | |
| EPA 6010D | Magnesium | 530 | mg/L | 2.0 | 10/05/21 06:22 | |
| EPA 6010D | Potassium | 170 | mg/L | 100 | 10/05/21 06:22 | |
| EPA 6010D | Sodium | 4540 | mg/L | 500 | 10/05/21 03:01 | |
| EPA 6020B | Arsenic | 0.0031J | mg/L | 0.020 | 09/29/21 22:56 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 16:42 | |
| EPA 6020B | Lithium | 0.077 | mg/L | 0.050 | 09/30/21 19:23 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 90.4 | mg/L | 5.0 | 10/05/21 21:20 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 90.4 | mg/L | 5.0 | 10/05/21 21:20 | |
| SM 2540C-2011 | Total Dissolved Solids | 15500 | mg/L | 1250 | 09/28/21 17:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7160 | mg/L | 90.0 | 09/28/21 06:28 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 983 | mg/L | 90.0 | 09/28/21 06:28 | |
| 92563385023 | T4-1HS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:54 | |
| | | R | | | | |
| | pH | 7.22 | Std. Units | | 09/27/21 11:54 | |
| EPA 6010D | Calcium | 172 | mg/L | 2.0 | 10/05/21 06:25 | |
| EPA 6010D | Magnesium | 513 | mg/L | 2.0 | 10/05/21 06:25 | |
| EPA 6010D | Potassium | 169 | mg/L | 100 | 10/05/21 06:25 | |
| EPA 6010D | Sodium | 4400 | mg/L | 500 | 10/05/21 03:04 | |
| EPA 6020B | Arsenic | 0.0028J | mg/L | 0.020 | 09/29/21 22:59 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 16:50 | |
| EPA 6020B | Lithium | 0.067 | mg/L | 0.050 | 09/30/21 19:27 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 88.5 | mg/L | 5.0 | 10/05/21 21:37 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 88.5 | mg/L | 5.0 | 10/05/21 21:37 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 12900 | mg/L | 1250 | 09/28/21 17:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6540 | mg/L | 90.0 | 09/28/21 06:44 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 891 | mg/L | 90.0 | 09/28/21 06:44 | |
| 92563385024 | T4-2HB | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:54 | |
| | | R | | | | |
| | pH | 7.04 | Std. Units | | 09/27/21 11:54 | |
| EPA 6010D | Calcium | 180 | mg/L | 2.0 | 10/05/21 06:29 | |
| EPA 6010D | Magnesium | 541 | mg/L | 2.0 | 10/05/21 06:29 | |
| EPA 6010D | Potassium | 179 | mg/L | 100 | 10/05/21 06:29 | |
| EPA 6010D | Sodium | 4870 | mg/L | 500 | 10/05/21 03:14 | |
| EPA 6020B | Arsenic | 0.0025J | mg/L | 0.020 | 09/29/21 23:03 | |
| EPA 6020B | Boron | 2.0J | mg/L | 2.5 | 09/30/21 16:57 | |
| EPA 6020B | Lithium | 0.076 | mg/L | 0.050 | 09/30/21 19:34 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 97.3 | mg/L | 5.0 | 10/05/21 21:45 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 97.3 | mg/L | 5.0 | 10/05/21 21:45 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 15800 | mg/L | 1250 | 09/28/21 17:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7420 | mg/L | 90.0 | 09/28/21 07:00 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1020 | mg/L | 90.0 | 09/28/21 07:00 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385025 | T4-2HS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:55 | |
| | | R | | | | |
| | pH | 7.13 | Std. Units | | 09/27/21 11:55 | |
| EPA 6010D | Calcium | 170 | mg/L | 2.0 | 10/05/21 06:32 | |
| EPA 6010D | Magnesium | 504 | mg/L | 2.0 | 10/05/21 06:32 | |
| EPA 6010D | Potassium | 166 | mg/L | 100 | 10/05/21 06:32 | |
| EPA 6010D | Sodium | 4440 | mg/L | 500 | 10/05/21 03:17 | |
| EPA 6020B | Arsenic | 0.0028J | mg/L | 0.020 | 09/29/21 23:06 | |
| EPA 6020B | Boron | 1.8J | mg/L | 2.5 | 09/30/21 17:04 | |
| EPA 6020B | Lithium | 0.069 | mg/L | 0.050 | 09/30/21 19:38 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 90.5 | mg/L | 5.0 | 10/05/21 21:55 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 90.5 | mg/L | 5.0 | 10/05/21 21:55 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 14800 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6730 | mg/L | 90.0 | 09/28/21 07:15 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 918 | mg/L | 90.0 | 09/28/21 07:15 | |
| 92563385026 | T4-3HB | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:55 | |
| | | R | | | | |
| | pH | 7.04 | Std. Units | | 09/27/21 11:55 | |
| EPA 6010D | Calcium | 168 | mg/L | 2.0 | 10/05/21 06:35 | |
| EPA 6010D | Magnesium | 506 | mg/L | 2.0 | 10/05/21 06:35 | |
| EPA 6010D | Potassium | 168 | mg/L | 100 | 10/05/21 06:35 | |
| EPA 6010D | Sodium | 4800 | mg/L | 500 | 10/05/21 03:21 | |
| EPA 6020B | Arsenic | 0.0025J | mg/L | 0.020 | 09/29/21 23:10 | |
| EPA 6020B | Boron | 2.1J | mg/L | 2.5 | 09/30/21 17:24 | |
| EPA 6020B | Lithium | 0.076 | mg/L | 0.050 | 09/30/21 19:59 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 92.0 | mg/L | 5.0 | 10/05/21 22:03 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 92.0 | mg/L | 5.0 | 10/05/21 22:03 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 16000 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7410 | mg/L | 90.0 | 09/28/21 07:31 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1020 | mg/L | 90.0 | 09/28/21 07:31 | |
| 92563385027 | T4-3HS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:55 | |
| | | R | | | | |
| | pH | 7.16 | Std. Units | | 09/27/21 11:55 | |
| EPA 6010D | Calcium | 168 | mg/L | 2.0 | 10/05/21 06:45 | |
| EPA 6010D | Magnesium | 502 | mg/L | 2.0 | 10/05/21 06:45 | |
| EPA 6010D | Potassium | 165 | mg/L | 100 | 10/05/21 06:45 | |
| EPA 6010D | Sodium | 4600 | mg/L | 500 | 10/05/21 03:24 | |
| EPA 6020B | Arsenic | 0.0027J | mg/L | 0.020 | 09/29/21 23:13 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 17:31 | |
| EPA 6020B | Lithium | 0.072 | mg/L | 0.050 | 09/30/21 20:06 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 92.4 | mg/L | 5.0 | 10/05/21 22:12 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 92.4 | mg/L | 5.0 | 10/05/21 22:12 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 15400 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6790 | mg/L | 90.0 | 09/28/21 07:47 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 928 | mg/L | 90.0 | 09/28/21 07:47 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385028 | T4-4HB | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:56 | |
| | | R | | | | |
| | pH | 7.08 | Std. Units | | 09/27/21 11:56 | |
| EPA 6010D | Calcium | 167 | mg/L | 2.0 | 10/05/21 06:48 | |
| EPA 6010D | Magnesium | 499 | mg/L | 2.0 | 10/05/21 06:48 | |
| EPA 6010D | Potassium | 165 | mg/L | 100 | 10/05/21 06:48 | |
| EPA 6010D | Sodium | 4620 | mg/L | 500 | 10/05/21 03:27 | |
| EPA 6020B | Arsenic | 0.0027J | mg/L | 0.020 | 09/29/21 23:17 | |
| EPA 6020B | Boron | 2.0J | mg/L | 2.5 | 09/30/21 17:38 | |
| EPA 6020B | Lithium | 0.081 | mg/L | 0.050 | 09/30/21 20:09 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 92.5 | mg/L | 5.0 | 10/05/21 22:21 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 92.5 | mg/L | 5.0 | 10/05/21 22:21 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 16400 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7310 | mg/L | 90.0 | 09/28/21 08:02 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1090 | mg/L | 90.0 | 09/28/21 08:02 | |
| 92563385029 | T4-4HS | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:56 | |
| | | R | | | | |
| | pH | 7.17 | Std. Units | | 09/27/21 11:56 | |
| EPA 6010D | Calcium | 186 | mg/L | 2.0 | 10/05/21 06:52 | |
| EPA 6010D | Magnesium | 547 | mg/L | 2.0 | 10/05/21 06:52 | |
| EPA 6010D | Potassium | 180 | mg/L | 100 | 10/05/21 06:52 | |
| EPA 6010D | Sodium | 4810 | mg/L | 500 | 10/05/21 03:31 | |
| EPA 6020B | Arsenic | 0.0028J | mg/L | 0.020 | 09/29/21 23:31 | |
| EPA 6020B | Boron | 2.1J | mg/L | 2.5 | 09/30/21 17:45 | |
| EPA 6020B | Lithium | 0.087 | mg/L | 0.050 | 09/29/21 23:31 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 88.9 | mg/L | 5.0 | 10/05/21 22:29 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 88.9 | mg/L | 5.0 | 10/05/21 22:29 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 16200 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7220 | mg/L | 90.0 | 09/28/21 08:18 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 994 | mg/L | 90.0 | 09/28/21 08:18 | M1 |
| 92563385030 | T4-1L | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:56 | |
| | | R | | | | |
| | pH | 7.35 | Std. Units | | 09/27/21 11:56 | |
| EPA 6010D | Calcium | 165 | mg/L | 2.0 | 10/05/21 06:55 | |
| EPA 6010D | Magnesium | 495 | mg/L | 2.0 | 10/05/21 06:55 | |
| EPA 6010D | Potassium | 165 | mg/L | 100 | 10/05/21 06:55 | |
| EPA 6010D | Sodium | 4650 | mg/L | 500 | 10/05/21 03:34 | |
| EPA 6020B | Arsenic | 0.0042J | mg/L | 0.020 | 09/29/21 23:34 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 09/30/21 17:52 | |
| EPA 6020B | Lithium | 0.088 | mg/L | 0.050 | 09/29/21 23:34 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 90.3 | mg/L | 5.0 | 10/05/21 22:38 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 90.3 | mg/L | 5.0 | 10/05/21 22:38 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 15600 | mg/L | 1250 | 09/28/21 17:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6920 | mg/L | 90.0 | 09/28/21 10:09 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 944 | mg/L | 90.0 | 09/28/21 10:09 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385031 | T4-2L | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:56 | |
| | | R | | | | |
| | pH | 7.31 | Std. Units | | 09/27/21 11:56 | |
| EPA 6010D | Calcium | 174 | mg/L | 2.0 | 10/05/21 06:58 | |
| EPA 6010D | Magnesium | 512 | mg/L | 2.0 | 10/05/21 06:58 | |
| EPA 6010D | Potassium | 170 | mg/L | 100 | 10/05/21 06:58 | |
| EPA 6010D | Sodium | 4520 | mg/L | 500 | 10/05/21 03:37 | |
| EPA 6020B | Arsenic | 0.0040J | mg/L | 0.020 | 09/29/21 23:38 | |
| EPA 6020B | Boron | 2.0J | mg/L | 2.5 | 09/30/21 18:09 | |
| EPA 6020B | Lithium | 0.090 | mg/L | 0.050 | 09/29/21 23:38 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 94.8 | mg/L | 5.0 | 10/05/21 22:46 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 94.8 | mg/L | 5.0 | 10/05/21 22:46 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 14800 | mg/L | 1250 | 09/28/21 17:36 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6820 | mg/L | 90.0 | 09/28/21 10:24 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 933 | mg/L | 90.0 | 09/28/21 10:24 | |
| 92563385032 | T4-3L | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:57 | |
| | | R | | | | |
| | pH | 7.38 | Std. Units | | 09/27/21 11:57 | |
| EPA 6010D | Calcium | 182 | mg/L | 2.0 | 10/05/21 20:44 | |
| EPA 6010D | Magnesium | 542 | mg/L | 2.0 | 10/05/21 20:44 | |
| EPA 6010D | Potassium | 178 | mg/L | 100 | 10/05/21 20:44 | |
| EPA 6020B | Arsenic | 0.0037J | mg/L | 0.020 | 09/29/21 23:42 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 09/30/21 18:16 | |
| EPA 6020B | Lithium | 0.086 | mg/L | 0.050 | 09/29/21 23:42 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 95.8 | mg/L | 5.0 | 10/05/21 23:20 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 95.8 | mg/L | 5.0 | 10/05/21 23:20 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 15200 | mg/L | 1250 | 09/28/21 17:36 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7160 | mg/L | 90.0 | 09/28/21 10:40 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 966 | mg/L | 90.0 | 09/28/21 10:40 | |
| 92563385033 | T4-4L | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:57 | |
| | | R | | | | |
| | pH | 7.32 | Std. Units | | 09/27/21 11:57 | |
| EPA 6010D | Calcium | 313 | mg/L | 2.0 | 10/05/21 07:05 | |
| EPA 6010D | Magnesium | 953 | mg/L | 2.0 | 10/05/21 07:05 | |
| EPA 6010D | Potassium | 307 | mg/L | 100 | 10/05/21 07:05 | |
| EPA 6010D | Sodium | 4500 | mg/L | 500 | 10/05/21 03:44 | |
| EPA 6020B | Arsenic | 0.0035J | mg/L | 0.020 | 09/29/21 23:53 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 18:24 | |
| EPA 6020B | Lithium | 0.086 | mg/L | 0.050 | 09/29/21 23:53 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 95.1 | mg/L | 5.0 | 10/05/21 23:29 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 95.1 | mg/L | 5.0 | 10/05/21 23:29 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 15200 | mg/L | 1250 | 09/28/21 17:36 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6830 | mg/L | 90.0 | 09/28/21 10:56 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1250 | mg/L | 90.0 | 09/28/21 10:56 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385034 | BG-2HT | | | | | |
| | Performed by | CUSTOME | | | 09/27/21 11:57 | |
| | | R | | | | |
| | pH | 7.13 | Std. Units | | 09/27/21 11:57 | |
| EPA 6010D | Calcium | 178 | mg/L | 2.0 | 10/05/21 07:08 | |
| EPA 6010D | Magnesium | 524 | mg/L | 2.0 | 10/05/21 07:08 | |
| EPA 6010D | Potassium | 171 | mg/L | 100 | 10/05/21 07:08 | |
| EPA 6010D | Sodium | 6380 | mg/L | 500 | 10/05/21 04:00 | |
| EPA 6020B | Arsenic | 0.0040J | mg/L | 0.020 | 09/29/21 23:56 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 09/30/21 18:31 | |
| EPA 6020B | Lithium | 0.14 | mg/L | 0.050 | 09/29/21 23:56 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 10/05/21 23:38 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 10/05/21 23:38 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 21100 | mg/L | 2500 | 09/28/21 17:36 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9780 | mg/L | 100 | 09/28/21 13:02 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1710 | mg/L | 90.0 | 09/28/21 11:11 | |
| 92563385035 | DUP-1 | | | | | |
| EPA 6010D | Calcium | 192 | mg/L | 2.0 | 10/05/21 07:12 | |
| EPA 6010D | Magnesium | 572 | mg/L | 2.0 | 10/05/21 07:12 | |
| EPA 6010D | Potassium | 185 | mg/L | 100 | 10/05/21 07:12 | |
| EPA 6010D | Sodium | 4880 | mg/L | 500 | 10/05/21 04:04 | |
| EPA 6020B | Arsenic | 0.0027J | mg/L | 0.020 | 09/30/21 00:00 | |
| EPA 6020B | Boron | 1.9J | mg/L | 2.5 | 09/30/21 18:38 | |
| EPA 6020B | Lithium | 0.089 | mg/L | 0.050 | 09/30/21 00:00 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 89.8 | mg/L | 5.0 | 10/05/21 23:48 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 89.8 | mg/L | 5.0 | 10/05/21 23:48 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 16600 | mg/L | 1250 | 09/28/21 17:36 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 7310 | mg/L | 90.0 | 09/28/21 11:27 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 90.0 | 09/28/21 11:27 | |
| 92563385036 | DUP-2 | | | | | |
| EPA 6010D | Calcium | 119 | mg/L | 2.0 | 10/05/21 07:15 | |
| EPA 6010D | Magnesium | 346 | mg/L | 2.0 | 10/05/21 07:15 | |
| EPA 6010D | Potassium | 116 | mg/L | 100 | 10/05/21 07:15 | |
| EPA 6010D | Sodium | 3030 | mg/L | 500 | 10/05/21 04:07 | |
| EPA 6020B | Arsenic | 0.0021J | mg/L | 0.020 | 09/30/21 00:03 | |
| EPA 6020B | Boron | 1.2 | mg/L | 1.0 | 09/30/21 18:45 | |
| EPA 6020B | Lithium | 0.056 | mg/L | 0.050 | 09/30/21 00:03 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 66.5 | mg/L | 5.0 | 10/07/21 14:48 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 66.5 | mg/L | 5.0 | 10/07/21 14:48 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 10600 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4780 | mg/L | 90.0 | 09/28/21 12:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 650 | mg/L | 90.0 | 09/28/21 12:14 | |
| 92563385037 | DUP-3 | | | | | |
| EPA 6010D | Calcium | 139 | mg/L | 2.0 | 10/05/21 07:25 | |
| EPA 6010D | Magnesium | 412 | mg/L | 2.0 | 10/05/21 07:25 | |
| EPA 6010D | Potassium | 138 | mg/L | 100 | 10/05/21 07:25 | |
| EPA 6010D | Sodium | 3640 | mg/L | 500 | 10/05/21 04:10 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385037 | DUP-3 | | | | | |
| EPA 6020B | Arsenic | 0.0024J | mg/L | 0.020 | 09/30/21 00:07 | |
| EPA 6020B | Boron | 1.5 | mg/L | 1.0 | 09/30/21 18:52 | |
| EPA 6020B | Lithium | 0.070 | mg/L | 0.050 | 09/30/21 00:07 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 80.0 | mg/L | 5.0 | 10/07/21 14:56 | v1 |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 80.0 | mg/L | 5.0 | 10/07/21 14:56 | v1 |
| SM 2540C-2011 | Total Dissolved Solids | 13600 | mg/L | 1250 | 09/29/21 11:34 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5890 | mg/L | 90.0 | 09/28/21 12:30 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 799 | mg/L | 90.0 | 09/28/21 12:30 | |
| 92563385040 | T1-1LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:41 | |
| | pH | 6.99 | Std. Units | | 10/01/21 13:41 | |
| EPA 6010D | Calcium | 141 | mg/L | 2.0 | 10/11/21 20:27 | M1 |
| EPA 6010D | Magnesium | 411 | mg/L | 2.0 | 10/11/21 20:27 | M1 |
| EPA 6010D | Potassium | 130 | mg/L | 100 | 10/11/21 20:27 | M1 |
| EPA 6010D | Sodium | 3530 | mg/L | 500 | 10/11/21 19:16 | M1 |
| EPA 6020B | Arsenic | 0.0014J | mg/L | 0.015 | 10/03/21 17:57 | |
| EPA 6020B | Boron | 1.1 | mg/L | 0.75 | 10/03/21 17:57 | |
| EPA 6020B | Lithium | 0.042 | mg/L | 0.038 | 10/03/21 17:57 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 76.2 | mg/L | 5.0 | 10/07/21 19:53 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 76.2 | mg/L | 5.0 | 10/07/21 19:53 | |
| SM 2540C-2011 | Total Dissolved Solids | 11600 | mg/L | 1250 | 10/04/21 17:58 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5160 | mg/L | 100 | 10/02/21 13:54 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 689 | mg/L | 100 | 10/02/21 13:54 | |
| 92563385041 | T1-2LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:42 | |
| | pH | 7.00 | Std. Units | | 10/01/21 13:42 | |
| EPA 6010D | Calcium | 132 | mg/L | 2.0 | 10/11/21 20:49 | |
| EPA 6010D | Magnesium | 388 | mg/L | 2.0 | 10/11/21 20:49 | |
| EPA 6010D | Potassium | 124 | mg/L | 100 | 10/11/21 20:49 | |
| EPA 6010D | Sodium | 3320 | mg/L | 500 | 10/11/21 19:29 | |
| EPA 6020B | Arsenic | 0.0014J | mg/L | 0.015 | 10/03/21 18:19 | |
| EPA 6020B | Boron | 1.1 | mg/L | 0.75 | 10/03/21 18:19 | |
| EPA 6020B | Lithium | 0.041 | mg/L | 0.038 | 10/03/21 18:19 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 67.5 | mg/L | 5.0 | 10/11/21 18:49 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 67.5 | mg/L | 5.0 | 10/11/21 18:49 | |
| SM 2540C-2011 | Total Dissolved Solids | 11200 | mg/L | 1250 | 10/04/21 17:58 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5110 | mg/L | 100 | 10/02/21 14:09 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 679 | mg/L | 100 | 10/02/21 14:09 | |
| 92563385042 | T1-3LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:42 | |
| | pH | 7.14 | Std. Units | | 10/01/21 13:42 | |
| EPA 6010D | Calcium | 125 | mg/L | 2.0 | 10/11/21 20:52 | |
| EPA 6010D | Magnesium | 360 | mg/L | 2.0 | 10/11/21 20:52 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385042 | T1-3LT | | | | | |
| EPA 6010D | Potassium | 116 | mg/L | 100 | 10/11/21 20:52 | |
| EPA 6010D | Sodium | 3110 | mg/L | 500 | 10/11/21 19:32 | |
| EPA 6020B | Arsenic | 0.0016J | mg/L | 0.015 | 10/03/21 18:28 | |
| EPA 6020B | Boron | 1.0 | mg/L | 0.75 | 10/03/21 18:28 | |
| EPA 6020B | Lithium | 0.038 | mg/L | 0.038 | 10/03/21 18:28 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 66.6 | mg/L | 5.0 | 10/11/21 18:57 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 66.6 | mg/L | 5.0 | 10/11/21 18:57 | |
| SM 2540C-2011 | Total Dissolved Solids | 11900 | mg/L | 1250 | 10/04/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4680 | mg/L | 100 | 10/02/21 14:25 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 614 | mg/L | 100 | 10/02/21 14:25 | |
| 92563385043 | T1-4LT | | | | | |
| | Performed by | CUSTOME | | | 10/01/21 13:42 | |
| | | R | | | | |
| | pH | 7.09 | Std. Units | | 10/01/21 13:42 | |
| EPA 6010D | Calcium | 101 | mg/L | 2.0 | 10/11/21 20:55 | |
| EPA 6010D | Magnesium | 288 | mg/L | 2.0 | 10/11/21 20:55 | |
| EPA 6010D | Potassium | 90.7J | mg/L | 100 | 10/11/21 20:55 | D3 |
| EPA 6010D | Sodium | 2410 | mg/L | 500 | 10/11/21 19:35 | |
| EPA 6020B | Arsenic | 0.0019J | mg/L | 0.015 | 10/03/21 19:00 | |
| EPA 6020B | Boron | 1.2 | mg/L | 0.75 | 10/03/21 19:00 | |
| EPA 6020B | Lithium | 0.046 | mg/L | 0.038 | 10/03/21 19:00 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 60.8 | mg/L | 5.0 | 10/11/21 19:05 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 60.8 | mg/L | 5.0 | 10/11/21 19:05 | |
| SM 2540C-2011 | Total Dissolved Solids | 8100 | mg/L | 833 | 10/04/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3850 | mg/L | 100 | 10/02/21 14:41 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 496 | mg/L | 100 | 10/02/21 14:41 | |
| 92563385044 | T2-2LT | | | | | |
| | Performed by | CUSTOME | | | 10/01/21 13:42 | |
| | | R | | | | |
| | pH | 7.16 | Std. Units | | 10/01/21 13:42 | |
| EPA 6010D | Calcium | 124 | mg/L | 2.0 | 10/11/21 20:59 | |
| EPA 6010D | Magnesium | 358 | mg/L | 2.0 | 10/11/21 20:59 | |
| EPA 6010D | Potassium | 115 | mg/L | 100 | 10/11/21 20:59 | |
| EPA 6010D | Sodium | 3080 | mg/L | 500 | 10/11/21 19:39 | |
| EPA 6020B | Arsenic | 0.0016J | mg/L | 0.015 | 10/03/21 19:07 | |
| EPA 6020B | Boron | 0.91 | mg/L | 0.75 | 10/03/21 19:07 | |
| EPA 6020B | Lithium | 0.036J | mg/L | 0.038 | 10/03/21 19:07 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 69.9 | mg/L | 5.0 | 10/11/21 19:12 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 69.9 | mg/L | 5.0 | 10/11/21 19:12 | |
| SM 2540C-2011 | Total Dissolved Solids | 10000 | mg/L | 1250 | 10/04/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4530 | mg/L | 100 | 10/02/21 14:56 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 586 | mg/L | 100 | 10/02/21 14:56 | |
| 92563385045 | T2-3LT | | | | | |
| | Performed by | CUSTOME | | | 10/01/21 13:43 | |
| | | R | | | | |
| | pH | 7.15 | Std. Units | | 10/01/21 13:43 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385045 | T2-3LT | | | | | |
| EPA 6010D | Calcium | 129 | mg/L | 2.0 | 10/11/21 21:02 | |
| EPA 6010D | Magnesium | 372 | mg/L | 2.0 | 10/11/21 21:02 | |
| EPA 6010D | Potassium | 119 | mg/L | 100 | 10/11/21 21:02 | |
| EPA 6010D | Sodium | 3200 | mg/L | 500 | 10/11/21 19:42 | |
| EPA 6020B | Arsenic | 0.0016J | mg/L | 0.015 | 10/03/21 19:19 | |
| EPA 6020B | Boron | 1.1 | mg/L | 0.75 | 10/03/21 19:19 | |
| EPA 6020B | Lithium | 0.041 | mg/L | 0.038 | 10/03/21 19:19 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 69.0 | mg/L | 5.0 | 10/11/21 19:20 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 69.0 | mg/L | 5.0 | 10/11/21 19:20 | |
| SM 2540C-2011 | Total Dissolved Solids | 11400 | mg/L | 1250 | 10/04/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5020 | mg/L | 100 | 10/02/21 15:44 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 664 | mg/L | 100 | 10/02/21 15:44 | |
| 92563385046 | T2-4LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:43 | |
| | pH | 6.97 | Std. Units | | 10/01/21 13:43 | |
| EPA 6010D | Calcium | 80.1 | mg/L | 2.0 | 10/11/21 21:05 | D3 |
| EPA 6010D | Magnesium | 222 | mg/L | 2.0 | 10/11/21 21:05 | |
| EPA 6010D | Potassium | 70.6J | mg/L | 100 | 10/11/21 21:05 | D3 |
| EPA 6010D | Sodium | 1880 | mg/L | 100 | 10/11/21 21:05 | |
| EPA 6020B | Boron | 0.58J | mg/L | 0.75 | 10/03/21 19:26 | |
| EPA 6020B | Lithium | 0.022J | mg/L | 0.038 | 10/03/21 19:26 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 54.1 | mg/L | 5.0 | 10/11/21 19:28 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 54.1 | mg/L | 5.0 | 10/11/21 19:28 | |
| SM 2540C-2011 | Total Dissolved Solids | 6770 | mg/L | 833 | 10/04/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 2870 | mg/L | 100 | 10/02/21 15:59 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 361 | mg/L | 100 | 10/02/21 15:59 | |
| 92563385047 | T3-2LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:44 | |
| | pH | 7.13 | Std. Units | | 10/01/21 13:44 | |
| EPA 6010D | Calcium | 107 | mg/L | 2.0 | 10/11/21 21:08 | |
| EPA 6010D | Magnesium | 301 | mg/L | 2.0 | 10/11/21 21:08 | |
| EPA 6010D | Potassium | 96.8J | mg/L | 100 | 10/11/21 21:08 | D3 |
| EPA 6010D | Sodium | 2600 | mg/L | 500 | 10/11/21 20:01 | |
| EPA 6020B | Arsenic | 0.0015J | mg/L | 0.015 | 10/03/21 19:33 | |
| EPA 6020B | Boron | 0.75J | mg/L | 0.75 | 10/03/21 19:33 | |
| EPA 6020B | Lithium | 0.029J | mg/L | 0.038 | 10/03/21 19:33 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 64.1 | mg/L | 5.0 | 10/11/21 19:35 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 64.1 | mg/L | 5.0 | 10/11/21 19:35 | |
| SM 2540C-2011 | Total Dissolved Solids | 9170 | mg/L | 833 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3960 | mg/L | 100 | 10/02/21 16:15 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 503 | mg/L | 100 | 10/02/21 16:15 | |
| 92563385048 | T3-3LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:44 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92563385048 | T3-3LT | | | | | |
| | pH | 6.89 | Std. Units | | 10/01/21 13:44 | |
| EPA 6010D | Calcium | 101 | mg/L | 2.0 | 10/11/21 21:12 | |
| EPA 6010D | Magnesium | 289 | mg/L | 2.0 | 10/11/21 21:12 | |
| EPA 6010D | Potassium | 90.0J | mg/L | 100 | 10/11/21 21:12 | D3 |
| EPA 6010D | Sodium | 2460 | mg/L | 500 | 10/11/21 20:05 | |
| EPA 6020B | Arsenic | 0.0015J | mg/L | 0.015 | 10/03/21 19:40 | |
| EPA 6020B | Boron | 0.75 | mg/L | 0.75 | 10/03/21 19:40 | |
| EPA 6020B | Lithium | 0.028J | mg/L | 0.038 | 10/03/21 19:40 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 62.5 | mg/L | 5.0 | 10/11/21 19:52 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 62.5 | mg/L | 5.0 | 10/11/21 19:52 | |
| SM 2540C-2011 | Total Dissolved Solids | 8670 | mg/L | 833 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3740 | mg/L | 100 | 10/02/21 16:31 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 475 | mg/L | 100 | 10/02/21 16:31 | |
| 92563385049 | T3-4LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:44 | |
| | pH | 6.90 | Std. Units | | 10/01/21 13:44 | |
| EPA 6010D | Calcium | 84.1 | mg/L | 2.0 | 10/11/21 21:21 | D3 |
| EPA 6010D | Magnesium | 232 | mg/L | 2.0 | 10/11/21 21:21 | |
| EPA 6010D | Potassium | 73.1J | mg/L | 100 | 10/11/21 21:21 | D3 |
| EPA 6010D | Sodium | 1990 | mg/L | 100 | 10/11/21 21:21 | |
| EPA 6020B | Boron | 0.65J | mg/L | 0.75 | 10/03/21 19:47 | |
| EPA 6020B | Lithium | 0.025J | mg/L | 0.038 | 10/03/21 19:47 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 56.2 | mg/L | 5.0 | 10/11/21 20:00 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 56.2 | mg/L | 5.0 | 10/11/21 20:00 | |
| SM 2540C-2011 | Total Dissolved Solids | 8070 | mg/L | 833 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3110 | mg/L | 100 | 10/02/21 16:46 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 396 | mg/L | 100 | 10/02/21 16:46 | M1 |
| 92563385050 | BG-1LT | | | | | |
| | Performed by | CUSTOMER | | | 10/01/21 13:44 | |
| | pH | 6.90 | Std. Units | | 10/01/21 13:44 | |
| EPA 6010D | Calcium | 147 | mg/L | 2.0 | 10/11/21 21:24 | |
| EPA 6010D | Magnesium | 434 | mg/L | 2.0 | 10/11/21 21:24 | |
| EPA 6010D | Potassium | 138 | mg/L | 100 | 10/11/21 21:24 | |
| EPA 6010D | Sodium | 3720 | mg/L | 500 | 10/11/21 20:11 | |
| EPA 6020B | Arsenic | 0.0027J | mg/L | 0.015 | 10/03/21 20:01 | |
| EPA 6020B | Boron | 1.3 | mg/L | 0.75 | 10/03/21 20:01 | |
| EPA 6020B | Lithium | 0.060 | mg/L | 0.038 | 10/03/21 20:01 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 78.2 | mg/L | 5.0 | 10/11/21 20:07 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 78.2 | mg/L | 5.0 | 10/11/21 20:07 | |
| SM 2540C-2011 | Total Dissolved Solids | 13400 | mg/L | 1250 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5520 | mg/L | 100 | 10/02/21 17:33 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 725 | mg/L | 100 | 10/02/21 17:33 | |
| 92563385051 | DUP-4 | | | | | |
| EPA 6010D | Calcium | 101 | mg/L | 2.0 | 10/11/21 21:28 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|-------------------------|--------------------------------|--------|-------|--------------|----------------|------------|
| 92563385051 | DUP-4 | | | | | |
| EPA 6010D | Magnesium | 283 | mg/L | 2.0 | 10/11/21 21:28 | |
| EPA 6010D | Potassium | 90.2J | mg/L | 100 | 10/11/21 21:28 | D3 |
| EPA 6010D | Sodium | 2400 | mg/L | 500 | 10/11/21 20:14 | |
| EPA 6020B | Boron | 0.74J | mg/L | 0.75 | 10/03/21 20:08 | |
| EPA 6020B | Lithium | 0.027J | mg/L | 0.038 | 10/03/21 20:08 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 61.2 | mg/L | 5.0 | 10/11/21 20:15 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 61.2 | mg/L | 5.0 | 10/11/21 20:15 | |
| SM 2540C-2011 | Total Dissolved Solids | 8300 | mg/L | 833 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3770 | mg/L | 100 | 10/02/21 17:49 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 478 | mg/L | 100 | 10/02/21 17:49 | |
| 92563385052 | DUP-5 | | | | | |
| EPA 6010D | Calcium | 129 | mg/L | 2.0 | 10/11/21 21:31 | |
| EPA 6010D | Magnesium | 370 | mg/L | 2.0 | 10/11/21 21:31 | |
| EPA 6010D | Potassium | 121 | mg/L | 100 | 10/11/21 21:31 | |
| EPA 6010D | Sodium | 3190 | mg/L | 500 | 10/11/21 20:18 | |
| EPA 6020B | Boron | 0.94 | mg/L | 0.75 | 10/03/21 20:15 | |
| EPA 6020B | Lithium | 0.036J | mg/L | 0.038 | 10/03/21 20:15 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 68.8 | mg/L | 5.0 | 10/11/21 20:23 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 68.8 | mg/L | 5.0 | 10/11/21 20:23 | |
| SM 2540C-2011 | Total Dissolved Solids | 11000 | mg/L | 1250 | 10/04/21 18:02 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 4920 | mg/L | 100 | 10/02/21 18:05 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 637 | mg/L | 100 | 10/02/21 18:05 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-1HT **Lab ID: 92563385001** Collected: 09/23/21 12:07 Received: 09/25/21 11:00 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 | | 09/27/21 11:42 | | |
| pH | 7.05 | Std. Units | | | 1 | | 09/27/21 11:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 126 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:28 | 7440-70-2 | M1 |
| Magnesium | 366 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:28 | 7439-95-4 | M1 |
| Potassium | 122 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:28 | 7440-09-7 | M1 |
| Sodium | 3230 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 20:47 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0027J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 21:49 | 7440-38-2 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/29/21 16:45 | 7440-42-8 | M1 |
| Lithium | 0.060 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 21:49 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 66.7 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:12 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:12 | | |
| Alkalinity, Total as CaCO3 | 66.7 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:12 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11800 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:29 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4790 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 13:17 | 16887-00-6 | |
| Fluoride | ND | mg/L | 2.0 | 1.0 | 20 | | 09/27/21 21:50 | 16984-48-8 | D3 |
| Sulfate | 668 | mg/L | 20.0 | 10.0 | 20 | | 09/27/21 21:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-2HT **Lab ID: 92563385002** Collected: 09/23/21 12:13 Received: 09/25/21 11:00 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 | | 09/27/21 11:42 | | |
| pH | 6.97 | Std. Units | | | 1 | | 09/27/21 11:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 185 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:41 | 7440-70-2 | |
| Magnesium | 538 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:41 | 7439-95-4 | |
| Potassium | 177 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:41 | 7440-09-7 | |
| Sodium | 4650 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:47 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0025J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:04 | 7440-38-2 | |
| Boron | 2.1J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:12 | 7440-42-8 | |
| Lithium | 0.076 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:04 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 87.9 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:18 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:18 | | |
| Alkalinity, Total as CaCO3 | 87.9 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:18 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 18300 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:29 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7100 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 13:33 | 16887-00-6 | |
| Fluoride | ND | mg/L | 2.0 | 1.0 | 20 | | 09/27/21 22:06 | 16984-48-8 | D3 |
| Sulfate | 982 | mg/L | 20.0 | 10.0 | 20 | | 09/27/21 22:06 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-2HTS **Lab ID: 92563385003** Collected: 09/23/21 12:17 Received: 09/25/21 11:00 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 | | 09/27/21 11:42 | | |
| pH | 7.15 | Std. Units | | | 1 | | 09/27/21 11:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 124 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:44 | 7440-70-2 | |
| Magnesium | 351 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:44 | 7439-95-4 | |
| Potassium | 118 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:44 | 7440-09-7 | |
| Sodium | 3060 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:50 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0025J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:07 | 7440-38-2 | |
| Boron | 1.5J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:15 | 7440-42-8 | |
| Lithium | 0.057 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:07 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 64.6 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:25 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:25 | | |
| Alkalinity, Total as CaCO3 | 64.6 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:25 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 12000 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:29 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4750 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 13:49 | 16887-00-6 | |
| Fluoride | ND | mg/L | 5.0 | 2.5 | 50 | | 09/27/21 22:21 | 16984-48-8 | D3 |
| Sulfate | 1670 | mg/L | 50.0 | 25.0 | 50 | | 09/27/21 22:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-3HT **Lab ID: 92563385004** Collected: 09/23/21 12:28 Received: 09/25/21 11:00 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 | | 09/27/21 11:42 | | |
| pH | 6.99 | Std. Units | | | 1 | | 09/27/21 11:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 173 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:48 | 7440-70-2 | |
| Magnesium | 499 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:48 | 7439-95-4 | |
| Potassium | 166 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:48 | 7440-09-7 | |
| Sodium | 4400 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:53 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0021J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:14 | 7440-38-2 | |
| Boron | 2.0J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:22 | 7440-42-8 | |
| Lithium | 0.073 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:14 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 90.2 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:31 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:31 | | |
| Alkalinity, Total as CaCO3 | 90.2 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:31 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15700 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6880 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 14:04 | 16887-00-6 | |
| Fluoride | ND | mg/L | 5.0 | 2.5 | 50 | | 09/27/21 22:37 | 16984-48-8 | D3 |
| Sulfate | 953 | mg/L | 50.0 | 25.0 | 50 | | 09/27/21 22:37 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Sample: T1-3HTS | | Lab ID: 92563385005 | | Collected: 09/23/21 12:23 | | Received: 09/25/21 11:00 | | 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 | | 09/27/21 11:43 | | |
| pH | 7.08 | Std. Units | | | 1 | | 09/27/21 11:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 131 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:51 | 7440-70-2 | |
| Magnesium | 375 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:51 | 7439-95-4 | |
| Potassium | 124 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:51 | 7440-09-7 | |
| Sodium | 3300 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:56 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0023J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:18 | 7440-38-2 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:26 | 7440-42-8 | |
| Lithium | 0.060 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:18 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 73.0 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:38 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:38 | | |
| Alkalinity, Total as CaCO3 | 73.0 | mg/L | 5.0 | 5.0 | 1 | | 10/06/21 16:38 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 12900 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5000 | mg/L | 50.0 | 30.0 | 50 | | 09/27/21 22:53 | 16887-00-6 | |
| Fluoride | ND | mg/L | 5.0 | 2.5 | 50 | | 09/27/21 22:53 | 16984-48-8 | D3 |
| Sulfate | 698 | mg/L | 50.0 | 25.0 | 50 | | 09/27/21 22:53 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Sample: T1-4HT | | Lab ID: 92563385006 | | Collected: 09/23/21 14:09 | | Received: 09/25/21 11:00 | | 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 | | 09/27/21 11:43 | | |
| pH | 6.98 | Std. Units | | | 1 | | 09/27/21 11:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 152 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:54 | 7440-70-2 | |
| Magnesium | 439 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:54 | 7439-95-4 | |
| Potassium | 144 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:54 | 7440-09-7 | |
| Sodium | 3900 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:00 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0022J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:22 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:29 | 7440-42-8 | |
| Lithium | 0.069 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:22 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 81.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:18 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:18 | | |
| Alkalinity, Total as CaCO3 | 81.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:18 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15400 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7960 | mg/L | 90.0 | 54.0 | 90 | | 09/27/21 23:40 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/27/21 23:40 | 16984-48-8 | D3 |
| Sulfate | 1110 | mg/L | 90.0 | 45.0 | 90 | | 09/27/21 23:40 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-4HTS **Lab ID: 92563385007** Collected: 09/23/21 14:02 Received: 09/25/21 11:00 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 | | 09/27/21 11:43 | | |
| pH | 7.14 | Std. Units | | | 1 | | 09/27/21 11:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 136 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:11 | 7440-70-2 | |
| Magnesium | 402 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:11 | 7439-95-4 | |
| Potassium | 130 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:11 | 7440-09-7 | |
| Sodium | 3450 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:03 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0021J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:29 | 7440-38-2 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:33 | 7440-42-8 | |
| Lithium | 0.066 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:29 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 74.9 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:28 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:28 | | |
| Alkalinity, Total as CaCO3 | 74.9 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:28 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 13000 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5270 | mg/L | 90.0 | 54.0 | 90 | | 09/27/21 23:56 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/27/21 23:56 | 16984-48-8 | D3 |
| Sulfate | 717 | mg/L | 90.0 | 45.0 | 90 | | 09/27/21 23:56 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-1HT **Lab ID:** 92563385008 **Collected:** 09/23/21 11:41 **Received:** 09/25/21 11:00 **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 | | 09/27/21 11:43 | | |
| pH | 6.89 | Std. Units | | | 1 | | 09/27/21 11:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 124 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:14 | 7440-70-2 | |
| Magnesium | 363 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:14 | 7439-95-4 | |
| Potassium | 118 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:14 | 7440-09-7 | |
| Sodium | 3100 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:06 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0020J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:32 | 7440-38-2 | |
| Boron | 1.4J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:40 | 7440-42-8 | |
| Lithium | 0.054 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:32 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 68.7 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:36 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:36 | | |
| Alkalinity, Total as CaCO3 | 68.7 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:36 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11700 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4750 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 00:12 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 00:12 | 16984-48-8 | D3 |
| Sulfate | 638 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 00:12 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-2HT **Lab ID:** 92563385009 **Collected:** 09/23/21 11:49 **Received:** 09/25/21 11:00 **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 | | 09/27/21 11:44 | | |
| pH | 6.87 | Std. Units | | | 1 | | 09/27/21 11:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 165 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:17 | 7440-70-2 | |
| Magnesium | 496 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:17 | 7439-95-4 | |
| Potassium | 160 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:17 | 7440-09-7 | |
| Sodium | 4250 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:10 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0032J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:43 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:44 | 7440-42-8 | |
| Lithium | 0.071 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:43 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | 83.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:43 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:43 | | |
| Alkalinity, Total as CaCO3 | 83.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:43 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16400 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6450 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 00:27 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 00:27 | 16984-48-8 | D3,M1 |
| Sulfate | 884 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 00:27 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-2HTS **Lab ID: 92563385010** Collected: 09/23/21 11:53 Received: 09/25/21 11:00 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 | | 09/27/21 11:44 | | |
| pH | 7.05 | Std. Units | | | 1 | | 09/27/21 11:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 113 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:20 | 7440-70-2 | |
| Magnesium | 330 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:20 | 7439-95-4 | |
| Potassium | 106 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:20 | 7440-09-7 | |
| Sodium | 2810 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:19 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0024J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:47 | 7440-38-2 | |
| Boron | 1.5J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:47 | 7440-42-8 | |
| Lithium | 0.048J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:47 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 65.2 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:51 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:51 | | |
| Alkalinity, Total as CaCO3 | 65.2 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:51 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10400 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4400 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 01:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 01:14 | 16984-48-8 | D3 |
| Sulfate | 585 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 01:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-3HT **Lab ID:** 92563385011 **Collected:** 09/23/21 12:52 **Received:** 09/25/21 11:00 **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 | | 09/27/21 11:44 | | |
| pH | 6.96 | Std. Units | | | 1 | | 09/27/21 11:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 172 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:24 | 7440-70-2 | |
| Magnesium | 516 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:24 | 7439-95-4 | |
| Potassium | 166 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:24 | 7440-09-7 | |
| Sodium | 4370 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:23 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0026J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:50 | 7440-38-2 | |
| Boron | 2.2J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 19:51 | 7440-42-8 | |
| Lithium | 0.078 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:50 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 84.0 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:59 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:59 | | |
| Alkalinity, Total as CaCO3 | 84.0 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 17:59 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16200 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6700 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 01:30 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 01:30 | 16984-48-8 | D3 |
| Sulfate | 918 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 01:30 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-3HTS **Lab ID:** 92563385012 Collected: 09/23/21 12:45 Received: 09/25/21 11:00 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 | | 09/27/21 11:45 | | |
| pH | 7.18 | Std. Units | | | 1 | | 09/27/21 11:45 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 104 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:27 | 7440-70-2 | |
| Magnesium | 303 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:27 | 7439-95-4 | |
| Potassium | 97.6J | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:27 | 7440-09-7 | |
| Sodium | 2570 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:26 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0023J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 20:22 | 7440-38-2 | |
| Boron | 1.4 | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 20:22 | 7440-42-8 | |
| Lithium | 0.048J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 20:22 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 61.5 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:22 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:22 | | |
| Alkalinity, Total as CaCO3 | 61.5 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:22 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10000 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4090 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 01:46 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 01:46 | 16984-48-8 | D3 |
| Sulfate | 540 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 01:46 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Sample: T2-4HT | | Lab ID: 92563385013 | | Collected: 09/23/21 13:47 | Received: 09/25/21 11:00 | 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 | | 09/27/21 11:45 | | |
| pH | 6.96 | Std. Units | | | 1 | | 09/27/21 11:45 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 154 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:30 | 7440-70-2 | |
| Magnesium | 460 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:30 | 7439-95-4 | |
| Potassium | 148 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:30 | 7440-09-7 | |
| Sodium | 3930 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:29 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0019J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 22:58 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 20:18 | 7440-42-8 | |
| Lithium | 0.064 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 22:58 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 77.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:29 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:29 | | |
| Alkalinity, Total as CaCO3 | 77.1 | mg/L | 5.0 | 5.0 | 1 | | 09/30/21 18:29 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 13600 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5670 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 02:01 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 02:01 | 16984-48-8 | D3 |
| Sulfate | 768 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 02:01 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-4HTS **Lab ID: 92563385014** Collected: 09/23/21 13:40 Received: 09/25/21 11:00 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 | | 09/27/21 11:47 | | |
| pH | 7.09 | Std. Units | | | 1 | | 09/27/21 11:47 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 130 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:33 | 7440-70-2 | |
| Magnesium | 381 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:33 | 7439-95-4 | |
| Potassium | 123 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:33 | 7440-09-7 | |
| Sodium | 3230 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:33 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0019J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 23:01 | 7440-38-2 | |
| Boron | 1.4J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 20:29 | 7440-42-8 | |
| Lithium | 0.053 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 23:01 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 54.5 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:27 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:27 | | |
| Alkalinity, Total as CaCO3 | 54.5 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:27 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 12000 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5130 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 02:49 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 02:49 | 16984-48-8 | D3 |
| Sulfate | 694 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 02:49 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Sample: T3-1HT | | Lab ID: 92563385015 | | Collected: 09/23/21 11:16 | | Received: 09/25/21 11:00 | | 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 | | 09/27/21 11:47 | | |
| pH | 7.12 | Std. Units | | | 1 | | 09/27/21 11:47 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 88.6 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:37 | 7440-70-2 | |
| Magnesium | 252 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:37 | 7439-95-4 | |
| Potassium | 81.1J | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:37 | 7440-09-7 | |
| Sodium | 2150 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:36 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0022J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 20:55 | 7440-38-2 | |
| Boron | 1.2 | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 20:55 | 7440-42-8 | |
| Lithium | 0.040J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 20:55 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 71.2 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:35 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:35 | | |
| Alkalinity, Total as CaCO3 | 71.2 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:35 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8300 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3230 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 03:04 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 03:04 | 16984-48-8 | D3 |
| Sulfate | 419 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 03:04 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

Sample: T3-2HT **Lab ID: 92563385016** Collected: 09/23/21 11:25 Received: 09/25/21 11:00 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 | | 09/27/21 11:47 | | |
| pH | 6.79 | Std. Units | | | 1 | | 09/27/21 11:47 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 138 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:40 | 7440-70-2 | |
| Magnesium | 402 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:40 | 7439-95-4 | |
| Potassium | 130 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:40 | 7440-09-7 | |
| Sodium | 3430 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:39 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0034J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 23:05 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 20:45 | 7440-42-8 | |
| Lithium | 0.071 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 23:05 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 75.0 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:43 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:43 | | |
| Alkalinity, Total as CaCO3 | 75.0 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:43 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 13400 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5520 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 03:20 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 03:20 | 16984-48-8 | D3 |
| Sulfate | 744 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 03:20 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-2HTS **Lab ID: 92563385017** Collected: 09/23/21 11:30 Received: 09/25/21 11:00 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 | | 09/27/21 11:47 | | |
| pH | 7.04 | Std. Units | | | 1 | | 09/27/21 11:47 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 83.7 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:50 | 7440-70-2 | |
| Magnesium | 234 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:50 | 7439-95-4 | |
| Potassium | 77.2J | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:50 | 7440-09-7 | |
| Sodium | 2050 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:42 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0021J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 20:59 | 7440-38-2 | |
| Boron | 1.1 | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 20:59 | 7440-42-8 | |
| Lithium | 0.034J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 20:59 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 55.6 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:50 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:50 | | |
| Alkalinity, Total as CaCO3 | 55.6 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:50 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 7450 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3180 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 03:36 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 03:36 | 16984-48-8 | D3 |
| Sulfate | 410 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 03:36 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-3HT **Lab ID: 92563385018** Collected: 09/23/21 13:13 Received: 09/25/21 11:00 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 | | 09/27/21 11:54 | | |
| pH | 6.92 | Std. Units | | | 1 | | 09/27/21 11:54 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 156 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:53 | 7440-70-2 | |
| Magnesium | 467 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:53 | 7439-95-4 | |
| Potassium | 152 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:53 | 7440-09-7 | |
| Sodium | 4160 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 05:46 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0024J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 23:12 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 20:52 | 7440-42-8 | |
| Lithium | 0.071 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 23:12 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 82.7 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:57 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:57 | | |
| Alkalinity, Total as CaCO3 | 82.7 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 20:57 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 14100 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6340 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 03:51 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 03:51 | 16984-48-8 | D3 |
| Sulfate | 862 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 03:51 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-3HTS **Lab ID: 92563385019** Collected: 09/23/21 13:07 Received: 09/25/21 11:00 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 | | 09/27/21 11:51 | | |
| pH | 7.24 | Std. Units | | | 1 | | 09/27/21 11:51 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 70.4 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 08:56 | 7440-70-2 | |
| Magnesium | 193 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 08:56 | 7439-95-4 | |
| Potassium | 64.3J | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 08:56 | 7440-09-7 | |
| Sodium | 1690 | mg/L | 100 | 12.2 | 20 | 09/28/21 12:46 | 10/05/21 08:56 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0020J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 21:17 | 7440-38-2 | |
| Boron | 0.83J | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 21:17 | 7440-42-8 | |
| Lithium | 0.027J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 21:17 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 45.4 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:05 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:05 | | |
| Alkalinity, Total as CaCO3 | 45.4 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:05 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 6600 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 2500 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 04:38 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 04:38 | 16984-48-8 | D3,M1 |
| Sulfate | 315 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 04:38 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-4HT **Lab ID: 92563385020** Collected: 09/23/21 13:29 Received: 09/25/21 11:00 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 | | 09/27/21 11:51 | | |
| pH | 6.94 | Std. Units | | | 1 | | 09/27/21 11:51 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 122 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 09:00 | 7440-70-2 | |
| Magnesium | 374 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 09:00 | 7439-95-4 | |
| Potassium | 121 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 09:00 | 7440-09-7 | |
| Sodium | 3860 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 06:06 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0022J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 23:15 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 21:21 | 7440-42-8 | |
| Lithium | 0.069 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 23:15 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 80.0 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:12 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:12 | | |
| Alkalinity, Total as CaCO3 | 80.0 | mg/L | 5.0 | 5.0 | 1 | | 10/04/21 21:12 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 14200 | mg/L | 2500 | 2500 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6020 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 05:57 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 05:57 | 16984-48-8 | D3 |
| Sulfate | 815 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 05:57 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-4HTS **Lab ID: 92563385021** Collected: 09/23/21 13:24 Received: 09/25/21 11:00 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 | | 09/27/21 11:51 | | |
| pH | 7.09 | Std. Units | | | 1 | | 09/27/21 11:51 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 107 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:09 | 7440-70-2 | M1 |
| Magnesium | 312 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:09 | 7439-95-4 | M1 |
| Potassium | 103 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:09 | 7440-09-7 | M1 |
| Sodium | 2640 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 02:48 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0023J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 22:45 | 7440-38-2 | M1 |
| Boron | 1.0J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 16:35 | 7440-42-8 | M1 |
| Lithium | 0.041J | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:16 | 7439-93-2 | M1 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 61.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 20:58 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 20:58 | | |
| Alkalinity, Total as CaCO3 | 61.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 20:58 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 9850 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4080 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 06:13 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 06:13 | 16984-48-8 | D3 |
| Sulfate | 538 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 06:13 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-1HB **Lab ID: 92563385022** Collected: 09/22/21 12:56 Received: 09/25/21 11:00 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 | | 09/27/21 11:51 | | |
| pH | 7.06 | Std. Units | | | 1 | | 09/27/21 11:51 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 174 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:22 | 7440-70-2 | |
| Magnesium | 530 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:22 | 7439-95-4 | |
| Potassium | 170 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:22 | 7440-09-7 | |
| Sodium | 4540 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:01 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0031J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 22:56 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 16:42 | 7440-42-8 | |
| Lithium | 0.077 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:23 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 90.4 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:20 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:20 | | |
| Alkalinity, Total as CaCO3 | 90.4 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:20 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15500 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7160 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 06:28 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 06:28 | 16984-48-8 | D3 |
| Sulfate | 983 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 06:28 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-1HS **Lab ID: 92563385023** Collected: 09/22/21 12:51 Received: 09/25/21 11:00 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 | | 09/27/21 11:54 | | |
| pH | 7.22 | Std. Units | | | 1 | | 09/27/21 11:54 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 172 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:25 | 7440-70-2 | |
| Magnesium | 513 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:25 | 7439-95-4 | |
| Potassium | 169 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:25 | 7440-09-7 | |
| Sodium | 4400 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:04 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0028J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 22:59 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 16:50 | 7440-42-8 | |
| Lithium | 0.067 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:27 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 88.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:37 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:37 | | v1 |
| Alkalinity, Total as CaCO3 | 88.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:37 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 12900 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6540 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 06:44 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 06:44 | 16984-48-8 | D3 |
| Sulfate | 891 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 06:44 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-2HB Lab ID: 92563385024 Collected: 09/22/21 13:08 Received: 09/25/21 11:00 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 | | 09/27/21 11:54 | | |
| pH | 7.04 | Std. Units | | | 1 | | 09/27/21 11:54 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 180 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:29 | 7440-70-2 | |
| Magnesium | 541 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:29 | 7439-95-4 | |
| Potassium | 179 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:29 | 7440-09-7 | |
| Sodium | 4870 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:14 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0025J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:03 | 7440-38-2 | |
| Boron | 2.0J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 16:57 | 7440-42-8 | |
| Lithium | 0.076 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:34 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 97.3 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:45 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:45 | | v1 |
| Alkalinity, Total as CaCO3 | 97.3 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:45 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15800 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7420 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 07:00 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 07:00 | 16984-48-8 | D3 |
| Sulfate | 1020 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 07:00 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-2HS **Lab ID: 92563385025** Collected: 09/22/21 13:03 Received: 09/25/21 11:00 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 | | 09/27/21 11:55 | | |
| pH | 7.13 | Std. Units | | | 1 | | 09/27/21 11:55 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 170 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:32 | 7440-70-2 | |
| Magnesium | 504 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:32 | 7439-95-4 | |
| Potassium | 166 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:32 | 7440-09-7 | |
| Sodium | 4440 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:17 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0028J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:06 | 7440-38-2 | |
| Boron | 1.8J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:04 | 7440-42-8 | |
| Lithium | 0.069 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:38 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 90.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:55 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:55 | | v1 |
| Alkalinity, Total as CaCO3 | 90.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 21:55 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 14800 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6730 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 07:15 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 07:15 | 16984-48-8 | D3 |
| Sulfate | 918 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 07:15 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-3HB **Lab ID: 92563385026** Collected: 09/22/21 13:23 Received: 09/25/21 11:00 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 | | 09/27/21 11:55 | | |
| pH | 7.04 | Std. Units | | | 1 | | 09/27/21 11:55 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 168 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:35 | 7440-70-2 | |
| Magnesium | 506 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:35 | 7439-95-4 | |
| Potassium | 168 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:35 | 7440-09-7 | |
| Sodium | 4800 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:21 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0025J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:10 | 7440-38-2 | |
| Boron | 2.1J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:24 | 7440-42-8 | |
| Lithium | 0.076 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 19:59 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 92.0 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:03 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:03 | | v1 |
| Alkalinity, Total as CaCO3 | 92.0 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:03 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16000 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7410 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 07:31 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 07:31 | 16984-48-8 | D3 |
| Sulfate | 1020 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 07:31 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-3HS **Lab ID: 92563385027** Collected: 09/22/21 13:15 Received: 09/25/21 11:00 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 | | 09/27/21 11:55 | | |
| pH | 7.16 | Std. Units | | | 1 | | 09/27/21 11:55 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 168 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:45 | 7440-70-2 | |
| Magnesium | 502 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:45 | 7439-95-4 | |
| Potassium | 165 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:45 | 7440-09-7 | |
| Sodium | 4600 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:24 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0027J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:13 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:31 | 7440-42-8 | |
| Lithium | 0.072 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 20:06 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 92.4 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:12 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:12 | | v1 |
| Alkalinity, Total as CaCO3 | 92.4 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:12 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15400 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6790 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 07:47 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 07:47 | 16984-48-8 | D3 |
| Sulfate | 928 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 07:47 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-4HB **Lab ID: 92563385028** Collected: 09/22/21 13:39 Received: 09/25/21 11:00 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 | | 09/27/21 11:56 | | |
| pH | 7.08 | Std. Units | | | 1 | | 09/27/21 11:56 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 167 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:48 | 7440-70-2 | |
| Magnesium | 499 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:48 | 7439-95-4 | |
| Potassium | 165 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:48 | 7440-09-7 | |
| Sodium | 4620 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:27 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0027J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:17 | 7440-38-2 | |
| Boron | 2.0J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:38 | 7440-42-8 | |
| Lithium | 0.081 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 20:09 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 92.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:21 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:21 | | v1 |
| Alkalinity, Total as CaCO3 | 92.5 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:21 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16400 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7310 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 08:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 08:02 | 16984-48-8 | D3 |
| Sulfate | 1090 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 08:02 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-4HS **Lab ID: 92563385029** Collected: 09/22/21 13:35 Received: 09/25/21 11:00 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 | | 09/27/21 11:56 | | |
| pH | 7.17 | Std. Units | | | 1 | | 09/27/21 11:56 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 186 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:52 | 7440-70-2 | |
| Magnesium | 547 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:52 | 7439-95-4 | |
| Potassium | 180 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:52 | 7440-09-7 | |
| Sodium | 4810 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:31 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0028J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:31 | 7440-38-2 | |
| Boron | 2.1J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:45 | 7440-42-8 | |
| Lithium | 0.087 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:31 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 88.9 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:29 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:29 | | v1 |
| Alkalinity, Total as CaCO3 | 88.9 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:29 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16200 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7220 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 08:18 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 08:18 | 16984-48-8 | D3,M1 |
| Sulfate | 994 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 08:18 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-1L **Lab ID: 92563385030** Collected: 09/22/21 19:24 Received: 09/25/21 11:00 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 | | 09/27/21 11:56 | | |
| pH | 7.35 | Std. Units | | | 1 | | 09/27/21 11:56 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 165 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:55 | 7440-70-2 | |
| Magnesium | 495 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:55 | 7439-95-4 | |
| Potassium | 165 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:55 | 7440-09-7 | |
| Sodium | 4650 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:34 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0042J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:34 | 7440-38-2 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 17:52 | 7440-42-8 | |
| Lithium | 0.088 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:34 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 90.3 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:38 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:38 | | v1 |
| Alkalinity, Total as CaCO3 | 90.3 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:38 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15600 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6920 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 10:09 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 10:09 | 16984-48-8 | D3 |
| Sulfate | 944 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 10:09 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-2L **Lab ID: 92563385031** Collected: 09/22/21 19:11 Received: 09/25/21 11:00 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 | | 09/27/21 11:56 | | |
| pH | 7.31 | Std. Units | | | 1 | | 09/27/21 11:56 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 174 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 06:58 | 7440-70-2 | |
| Magnesium | 512 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 06:58 | 7439-95-4 | |
| Potassium | 170 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 06:58 | 7440-09-7 | |
| Sodium | 4520 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:37 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0040J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:38 | 7440-38-2 | |
| Boron | 2.0J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 18:09 | 7440-42-8 | |
| Lithium | 0.090 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:38 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 94.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:46 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:46 | | v1 |
| Alkalinity, Total as CaCO3 | 94.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 22:46 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 14800 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:36 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6820 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 10:24 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 10:24 | 16984-48-8 | D3 |
| Sulfate | 933 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 10:24 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-3L **Lab ID: 92563385032** Collected: 09/22/21 19:05 Received: 09/25/21 11:00 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 | | 09/27/21 11:57 | | |
| pH | 7.38 | Std. Units | | | 1 | | 09/27/21 11:57 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 182 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 20:44 | 7440-70-2 | |
| Magnesium | 542 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 20:44 | 7439-95-4 | |
| Potassium | 178 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 20:44 | 7440-09-7 | |
| Sodium | ND | mg/L | 100 | 12.2 | 20 | 09/28/21 12:46 | 10/05/21 07:02 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0037J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:42 | 7440-38-2 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 18:16 | 7440-42-8 | |
| Lithium | 0.086 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:42 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 95.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:20 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:20 | | v1 |
| Alkalinity, Total as CaCO3 | 95.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:20 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15200 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:36 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7160 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 10:40 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 10:40 | 16984-48-8 | D3 |
| Sulfate | 966 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 10:40 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T4-4L **Lab ID: 92563385033** Collected: 09/22/21 18:17 Received: 09/25/21 11:00 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 | | 09/27/21 11:57 | | |
| pH | 7.32 | Std. Units | | | 1 | | 09/27/21 11:57 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 313 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:05 | 7440-70-2 | |
| Magnesium | 953 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:05 | 7439-95-4 | |
| Potassium | 307 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:05 | 7440-09-7 | |
| Sodium | 4500 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 03:44 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0035J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:53 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 18:24 | 7440-42-8 | |
| Lithium | 0.086 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:53 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 95.1 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:29 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:29 | | v1 |
| Alkalinity, Total as CaCO3 | 95.1 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:29 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 15200 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:36 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6830 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 10:56 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 10:56 | 16984-48-8 | D3 |
| Sulfate | 1250 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 10:56 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: BG-2HT **Lab ID: 92563385034** Collected: 09/22/21 10:21 Received: 09/25/21 11:00 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 | | 09/27/21 11:57 | | |
| pH | 7.13 | Std. Units | | | 1 | | 09/27/21 11:57 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 178 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:08 | 7440-70-2 | |
| Magnesium | 524 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:08 | 7439-95-4 | |
| Potassium | 171 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:08 | 7440-09-7 | |
| Sodium | 6380 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:00 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0040J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/29/21 23:56 | 7440-38-2 | |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 18:31 | 7440-42-8 | |
| Lithium | 0.14 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/29/21 23:56 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:38 | | v1 |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:38 | | v1 |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:38 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21100 | mg/L | 2500 | 2500 | 1 | | 09/28/21 17:36 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9780 | mg/L | 100 | 60.0 | 100 | | 09/28/21 13:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 11:11 | 16984-48-8 | D3 |
| Sulfate | 1710 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 11:11 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

Sample: DUP-1 Lab ID: 92563385035 Collected: 09/22/21 00:00 Received: 09/25/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|--|---------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 192 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:12 | 7440-70-2 | |
| Magnesium | 572 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:12 | 7439-95-4 | |
| Potassium | 185 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:12 | 7440-09-7 | |
| Sodium | 4880 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:04 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0027J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 00:00 | 7440-38-2 | |
| Boron | 1.9J | mg/L | 2.5 | 0.42 | 50 | 09/29/21 10:37 | 09/30/21 18:38 | 7440-42-8 | |
| Lithium | 0.089 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 00:00 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO ₃) | 89.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:48 | | v1 |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:48 | | v1 |
| Alkalinity, Total as CaCO ₃ | 89.8 | mg/L | 5.0 | 5.0 | 1 | | 10/05/21 23:48 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 16600 | mg/L | 1250 | 1250 | 1 | | 09/28/21 17:36 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 7310 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 11:27 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 11:27 | 16984-48-8 | |
| Sulfate | 1330 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 11:27 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: DUP-2 **Lab ID: 92563385036** Collected: 09/23/21 00:00 Received: 09/25/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|----------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 119 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:15 | 7440-70-2 | |
| Magnesium | 346 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:15 | 7439-95-4 | |
| Potassium | 116 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:15 | 7440-09-7 | |
| Sodium | 3030 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:07 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0021J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 00:03 | 7440-38-2 | |
| Boron | 1.2 | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 18:45 | 7440-42-8 | |
| Lithium | 0.056 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 00:03 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO ₃) | 66.5 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:48 | | v1 |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:48 | | v1 |
| Alkalinity, Total as CaCO ₃ | 66.5 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:48 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10600 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4780 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 12:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 12:14 | 16984-48-8 | D3 |
| Sulfate | 650 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 12:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: DUP-3 **Lab ID: 92563385037** Collected: 09/23/21 00:00 Received: 09/25/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|----------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 139 | mg/L | 2.0 | 1.9 | 20 | 09/28/21 12:46 | 10/05/21 07:25 | 7440-70-2 | |
| Magnesium | 412 | mg/L | 2.0 | 1.4 | 20 | 09/28/21 12:46 | 10/05/21 07:25 | 7439-95-4 | |
| Potassium | 138 | mg/L | 100 | 60.8 | 20 | 09/28/21 12:46 | 10/05/21 07:25 | 7440-09-7 | |
| Sodium | 3640 | mg/L | 500 | 61.1 | 100 | 09/28/21 12:46 | 10/05/21 04:10 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0024J | mg/L | 0.020 | 0.0017 | 20 | 09/29/21 10:37 | 09/30/21 00:07 | 7440-38-2 | |
| Boron | 1.5 | mg/L | 1.0 | 0.17 | 20 | 09/29/21 10:37 | 09/30/21 18:52 | 7440-42-8 | |
| Lithium | 0.070 | mg/L | 0.050 | 0.010 | 20 | 09/29/21 10:37 | 09/30/21 00:07 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO ₃) | 80.0 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:56 | | v1 |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:56 | | v1 |
| Alkalinity, Total as CaCO ₃ | 80.0 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 14:56 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 13600 | mg/L | 1250 | 1250 | 1 | | 09/29/21 11:34 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5890 | mg/L | 90.0 | 54.0 | 90 | | 09/28/21 12:30 | 16887-00-6 | |
| Fluoride | ND | mg/L | 9.0 | 4.5 | 90 | | 09/28/21 12:30 | 16984-48-8 | D3 |
| Sulfate | 799 | mg/L | 90.0 | 45.0 | 90 | | 09/28/21 12:30 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: FB-1 Lab ID: 92563385038 Collected: 09/23/21 15:10 Received: 09/25/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|--|---------|-------|--------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 09/28/21 12:46 | 10/05/21 04:13 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 09/28/21 12:46 | 10/05/21 04:13 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 09/28/21 12:46 | 10/05/21 04:13 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 09/28/21 12:46 | 10/05/21 04:13 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 09/29/21 10:37 | 09/30/21 16:46 | 7440-38-2 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 09/29/21 10:37 | 09/30/21 16:46 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 09/29/21 10:37 | 09/30/21 16:46 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:05 | | v1 |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:05 | | v1 |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:05 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/29/21 11:36 | | |
| 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 | | 09/28/21 12:46 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/28/21 12:46 | 16984-48-8 | D3 |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/28/21 12:46 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: EB-1 **Lab ID: 92563385039** Collected: 09/23/21 15:15 Received: 09/25/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 09/28/21 12:46 | 10/05/21 04:17 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 09/28/21 12:46 | 10/05/21 04:17 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 09/28/21 12:46 | 10/05/21 04:17 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 09/28/21 12:46 | 10/05/21 04:17 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 09/29/21 10:37 | 09/30/21 16:39 | 7440-38-2 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 09/29/21 10:37 | 09/30/21 16:39 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 09/29/21 10:37 | 09/30/21 16:39 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:09 | | v1 |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:09 | | v1 |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 15:09 | | v1 |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 09/29/21 11:36 | | |
| 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 | | 09/29/21 08:27 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 09/29/21 08:27 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 09/29/21 08:27 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-1LT **Lab ID: 92563385040** Collected: 09/30/21 14:10 Received: 10/01/21 11:10 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 | | 10/01/21 13:41 | | |
| pH | 6.99 | Std. Units | | | 1 | | 10/01/21 13:41 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 141 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 20:27 | 7440-70-2 | M1 |
| Magnesium | 411 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 20:27 | 7439-95-4 | M1 |
| Potassium | 130 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 20:27 | 7440-09-7 | M1 |
| Sodium | 3530 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:16 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0014J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 17:57 | 7440-38-2 | |
| Boron | 1.1 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 17:57 | 7440-42-8 | |
| Lithium | 0.042 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 17:57 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 76.2 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 19:53 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 19:53 | | |
| Alkalinity, Total as CaCO3 | 76.2 | mg/L | 5.0 | 5.0 | 1 | | 10/07/21 19:53 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11600 | mg/L | 1250 | 1250 | 1 | | 10/04/21 17:58 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5160 | mg/L | 100 | 60.0 | 100 | | 10/02/21 13:54 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 13:54 | 16984-48-8 | D3 |
| Sulfate | 689 | mg/L | 100 | 50.0 | 100 | | 10/02/21 13:54 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-2LT **Lab ID: 92563385041** Collected: 09/30/21 14:07 Received: 10/01/21 11:10 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 | | 10/01/21 13:42 | | |
| pH | 7.00 | Std. Units | | | 1 | | 10/01/21 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 132 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 20:49 | 7440-70-2 | |
| Magnesium | 388 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 20:49 | 7439-95-4 | |
| Potassium | 124 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 20:49 | 7440-09-7 | |
| Sodium | 3320 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:29 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0014J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 18:19 | 7440-38-2 | |
| Boron | 1.1 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 18:19 | 7440-42-8 | |
| Lithium | 0.041 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 18:19 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 67.5 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:49 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:49 | | |
| Alkalinity, Total as CaCO3 | 67.5 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:49 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11200 | mg/L | 1250 | 1250 | 1 | | 10/04/21 17:58 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5110 | mg/L | 100 | 60.0 | 100 | | 10/02/21 14:09 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 14:09 | 16984-48-8 | D3 |
| Sulfate | 679 | mg/L | 100 | 50.0 | 100 | | 10/02/21 14:09 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-3LT **Lab ID: 92563385042** Collected: 09/30/21 14:00 Received: 10/01/21 11:10 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 | | 10/01/21 13:42 | | |
| pH | 7.14 | Std. Units | | | 1 | | 10/01/21 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 125 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 20:52 | 7440-70-2 | |
| Magnesium | 360 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 20:52 | 7439-95-4 | |
| Potassium | 116 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 20:52 | 7440-09-7 | |
| Sodium | 3110 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:32 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0016J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 18:28 | 7440-38-2 | |
| Boron | 1.0 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 18:28 | 7440-42-8 | |
| Lithium | 0.038 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 18:28 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 66.6 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:57 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:57 | | |
| Alkalinity, Total as CaCO3 | 66.6 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 18:57 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11900 | mg/L | 1250 | 1250 | 1 | | 10/04/21 18:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4680 | mg/L | 100 | 60.0 | 100 | | 10/02/21 14:25 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 14:25 | 16984-48-8 | D3 |
| Sulfate | 614 | mg/L | 100 | 50.0 | 100 | | 10/02/21 14:25 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T1-4LT **Lab ID: 92563385043** Collected: 09/30/21 10:54 Received: 10/01/21 11:10 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 | | 10/01/21 13:42 | | |
| pH | 7.09 | Std. Units | | | 1 | | 10/01/21 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 101 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 20:55 | 7440-70-2 | |
| Magnesium | 288 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 20:55 | 7439-95-4 | |
| Potassium | 90.7J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 20:55 | 7440-09-7 | D3 |
| Sodium | 2410 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:35 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0019J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:00 | 7440-38-2 | |
| Boron | 1.2 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:00 | 7440-42-8 | |
| Lithium | 0.046 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:00 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 60.8 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:05 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:05 | | |
| Alkalinity, Total as CaCO3 | 60.8 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:05 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8100 | mg/L | 833 | 833 | 1 | | 10/04/21 18:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3850 | mg/L | 100 | 60.0 | 100 | | 10/02/21 14:41 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 14:41 | 16984-48-8 | D3 |
| Sulfate | 496 | mg/L | 100 | 50.0 | 100 | | 10/02/21 14:41 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-2LT **Lab ID: 92563385044** Collected: 09/30/21 13:45 Received: 10/01/21 11:10 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 | | 10/01/21 13:42 | | |
| pH | 7.16 | Std. Units | | | 1 | | 10/01/21 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 124 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 20:59 | 7440-70-2 | |
| Magnesium | 358 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 20:59 | 7439-95-4 | |
| Potassium | 115 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 20:59 | 7440-09-7 | |
| Sodium | 3080 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:39 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0016J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:07 | 7440-38-2 | |
| Boron | 0.91 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:07 | 7440-42-8 | |
| Lithium | 0.036J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:07 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 69.9 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:12 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:12 | | |
| Alkalinity, Total as CaCO3 | 69.9 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:12 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 10000 | mg/L | 1250 | 1250 | 1 | | 10/04/21 18:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4530 | mg/L | 100 | 60.0 | 100 | | 10/02/21 14:56 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 14:56 | 16984-48-8 | D3 |
| Sulfate | 586 | mg/L | 100 | 50.0 | 100 | | 10/02/21 14:56 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-3LT **Lab ID:** 92563385045 Collected: 09/30/21 13:33 Received: 10/01/21 11:10 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 | | 10/01/21 13:43 | | |
| pH | 7.15 | Std. Units | | | 1 | | 10/01/21 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 129 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:02 | 7440-70-2 | |
| Magnesium | 372 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:02 | 7439-95-4 | |
| Potassium | 119 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:02 | 7440-09-7 | |
| Sodium | 3200 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 19:42 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0016J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:19 | 7440-38-2 | |
| Boron | 1.1 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:19 | 7440-42-8 | |
| Lithium | 0.041 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:19 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 69.0 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:20 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:20 | | |
| Alkalinity, Total as CaCO3 | 69.0 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:20 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11400 | mg/L | 1250 | 1250 | 1 | | 10/04/21 18:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5020 | mg/L | 100 | 60.0 | 100 | | 10/02/21 15:44 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 15:44 | 16984-48-8 | D3 |
| Sulfate | 664 | mg/L | 100 | 50.0 | 100 | | 10/02/21 15:44 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T2-4LT **Lab ID: 92563385046** Collected: 09/30/21 11:09 Received: 10/01/21 11:10 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 | | 10/01/21 13:43 | | |
| pH | 6.97 | Std. Units | | | 1 | | 10/01/21 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 80.1 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:05 | 7440-70-2 | D3 |
| Magnesium | 222 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:05 | 7439-95-4 | |
| Potassium | 70.6J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:05 | 7440-09-7 | D3 |
| Sodium | 1880 | mg/L | 100 | 12.2 | 20 | 10/04/21 11:58 | 10/11/21 21:05 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:26 | 7440-38-2 | |
| Boron | 0.58J | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:26 | 7440-42-8 | |
| Lithium | 0.022J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:26 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 54.1 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:28 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:28 | | |
| Alkalinity, Total as CaCO3 | 54.1 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:28 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 6770 | mg/L | 833 | 833 | 1 | | 10/04/21 18:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 2870 | mg/L | 100 | 60.0 | 100 | | 10/02/21 15:59 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 15:59 | 16984-48-8 | D3 |
| Sulfate | 361 | mg/L | 100 | 50.0 | 100 | | 10/02/21 15:59 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-2LT **Lab ID: 92563385047** Collected: 09/30/21 12:53 Received: 10/01/21 11:10 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 | | 10/01/21 13:44 | | |
| pH | 7.13 | Std. Units | | | 1 | | 10/01/21 13:44 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|-----|------|-----|----------------|----------------|-----------|----|
| Calcium | 107 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:08 | 7440-70-2 | |
| Magnesium | 301 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:08 | 7439-95-4 | |
| Potassium | 96.8J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:08 | 7440-09-7 | D3 |
| Sodium | 2600 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 20:01 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----------------|------|-------|--------|---|----------------|----------------|-----------|--|
| Arsenic | 0.0015J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:33 | 7440-38-2 | |
| Boron | 0.75J | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:33 | 7440-42-8 | |
| Lithium | 0.029J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:33 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | 64.1 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:35 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:35 | | |
| Alkalinity, Total as CaCO3 | 64.1 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:35 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 9170 | mg/L | 833 | 833 | 1 | | 10/04/21 18:02 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 3960 | mg/L | 100 | 60.0 | 100 | | 10/02/21 16:15 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 16:15 | 16984-48-8 | D3 |
| Sulfate | 503 | mg/L | 100 | 50.0 | 100 | | 10/02/21 16:15 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Sample: T3-3LT | | Lab ID: 92563385048 | | Collected: 09/30/21 12:19 | Received: 10/01/21 11:10 | 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 | | 10/01/21 13:44 | | |
| pH | 6.89 | Std. Units | | | 1 | | 10/01/21 13:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 101 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:12 | 7440-70-2 | |
| Magnesium | 289 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:12 | 7439-95-4 | |
| Potassium | 90.0J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:12 | 7440-09-7 | D3 |
| Sodium | 2460 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 20:05 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0015J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:40 | 7440-38-2 | |
| Boron | 0.75 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:40 | 7440-42-8 | |
| Lithium | 0.028J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:40 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 62.5 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:52 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:52 | | |
| Alkalinity, Total as CaCO3 | 62.5 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 19:52 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8670 | mg/L | 833 | 833 | 1 | | 10/04/21 18:02 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3740 | mg/L | 100 | 60.0 | 100 | | 10/02/21 16:31 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 16:31 | 16984-48-8 | D3 |
| Sulfate | 475 | mg/L | 100 | 50.0 | 100 | | 10/02/21 16:31 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: T3-4LT **Lab ID: 92563385049** Collected: 09/30/21 11:25 Received: 10/01/21 11:10 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 | | 10/01/21 13:44 | | |
| pH | 6.90 | Std. Units | | | 1 | | 10/01/21 13:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 84.1 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:21 | 7440-70-2 | D3 |
| Magnesium | 232 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:21 | 7439-95-4 | |
| Potassium | 73.1J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:21 | 7440-09-7 | D3 |
| Sodium | 1990 | mg/L | 100 | 12.2 | 20 | 10/04/21 11:58 | 10/11/21 21:21 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 19:47 | 7440-38-2 | |
| Boron | 0.65J | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 19:47 | 7440-42-8 | |
| Lithium | 0.025J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 19:47 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 56.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:00 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:00 | | |
| Alkalinity, Total as CaCO3 | 56.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:00 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8070 | mg/L | 833 | 833 | 1 | | 10/04/21 18:02 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3110 | mg/L | 100 | 60.0 | 100 | | 10/02/21 16:46 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 16:46 | 16984-48-8 | D3,M1 |
| Sulfate | 396 | mg/L | 100 | 50.0 | 100 | | 10/02/21 16:46 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: BG-1LT **Lab ID: 92563385050** Collected: 09/30/21 10:27 Received: 10/01/21 11:10 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 | | 10/01/21 13:44 | | |
| pH | 6.90 | Std. Units | | | 1 | | 10/01/21 13:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 147 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:24 | 7440-70-2 | |
| Magnesium | 434 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:24 | 7439-95-4 | |
| Potassium | 138 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:24 | 7440-09-7 | |
| Sodium | 3720 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 20:11 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | 0.0027J | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 20:01 | 7440-38-2 | |
| Boron | 1.3 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 20:01 | 7440-42-8 | |
| Lithium | 0.060 | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 20:01 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO3) | 78.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:07 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:07 | | |
| Alkalinity, Total as CaCO3 | 78.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:07 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 13400 | mg/L | 1250 | 1250 | 1 | | 10/04/21 18:02 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5520 | mg/L | 100 | 60.0 | 100 | | 10/02/21 17:33 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 17:33 | 16984-48-8 | D3 |
| Sulfate | 725 | mg/L | 100 | 50.0 | 100 | | 10/02/21 17:33 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Sample: DUP-4 Lab ID: 92563385051 Collected: 09/30/21 00:00 Received: 10/01/21 11:10 Matrix: Water | | | | | | | | | |
|--|---------|-------|--------------|--------|-----|----------------|----------------|------------|------|
| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 101 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:28 | 7440-70-2 | |
| Magnesium | 283 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:28 | 7439-95-4 | |
| Potassium | 90.2J | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:28 | 7440-09-7 | D3 |
| Sodium | 2400 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 20:14 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 20:08 | 7440-38-2 | |
| Boron | 0.74J | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 20:08 | 7440-42-8 | |
| Lithium | 0.027J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 20:08 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | 61.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:15 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:15 | | |
| Alkalinity, Total as CaCO3 | 61.2 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:15 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 8300 | mg/L | 833 | 833 | 1 | | 10/04/21 18:02 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 3770 | mg/L | 100 | 60.0 | 100 | | 10/02/21 17:49 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 17:49 | 16984-48-8 | D3 |
| Sulfate | 478 | mg/L | 100 | 50.0 | 100 | | 10/02/21 17:49 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: DUP-5 **Lab ID:** 92563385052 Collected: 09/30/21 00:00 Received: 10/01/21 11:10 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 129 | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:31 | 7440-70-2 | |
| Magnesium | 370 | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:31 | 7439-95-4 | |
| Potassium | 121 | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:31 | 7440-09-7 | |
| Sodium | 3190 | mg/L | 500 | 61.1 | 100 | 10/04/21 11:58 | 10/11/21 20:18 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 20:15 | 7440-38-2 | |
| Boron | 0.94 | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 20:15 | 7440-42-8 | |
| Lithium | 0.036J | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 20:15 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | 68.8 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:23 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:23 | | |
| Alkalinity, Total as CaCO3 | 68.8 | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:23 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11000 | mg/L | 1250 | 1250 | 1 | | 10/04/21 18:02 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 4920 | mg/L | 100 | 60.0 | 100 | | 10/02/21 18:05 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 10/02/21 18:05 | 16984-48-8 | D3 |
| Sulfate | 637 | mg/L | 100 | 50.0 | 100 | | 10/02/21 18:05 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: FB-2 **Lab ID: 92563385053** Collected: 09/30/21 15:15 Received: 10/01/21 11:10 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:34 | 7440-70-2 | D3 |
| Magnesium | ND | mg/L | 2.0 | 1.4 | 20 | 10/04/21 11:58 | 10/11/21 21:34 | 7439-95-4 | D3 |
| Potassium | ND | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:34 | 7440-09-7 | D3 |
| Sodium | ND | mg/L | 100 | 12.2 | 20 | 10/04/21 11:58 | 10/11/21 21:34 | 7440-23-5 | D3 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 20:22 | 7440-38-2 | |
| Boron | ND | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 20:22 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 20:22 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity, Bicarbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:31 | | |
| Alkalinity, Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:31 | | |
| Alkalinity, Total as CaCO ₃ | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:31 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 10/05/21 17:37 | | |
| 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 | | 10/02/21 18:52 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 10/02/21 18:52 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 10/02/21 18:52 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

Sample: EB-2 **Lab ID: 92563385054** Collected: 09/30/21 15:20 Received: 10/01/21 11:10 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 2.0 | 1.9 | 20 | 10/04/21 11:58 | 10/11/21 21:37 | 7440-70-2 | D3 |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 10/04/21 11:58 | 10/11/21 08:06 | 7439-95-4 | |
| Potassium | ND | mg/L | 100 | 60.8 | 20 | 10/04/21 11:58 | 10/11/21 21:37 | 7440-09-7 | D3 |
| Sodium | ND | mg/L | 100 | 12.2 | 20 | 10/04/21 11:58 | 10/11/21 21:37 | 7440-23-5 | D3 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.015 | 0.0013 | 1 | 10/02/21 05:00 | 10/03/21 20:29 | 7440-38-2 | |
| Boron | ND | mg/L | 0.75 | 0.13 | 1 | 10/02/21 05:00 | 10/03/21 20:29 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.038 | 0.0075 | 1 | 10/02/21 05:00 | 10/03/21 20:29 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:36 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:36 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 10/11/21 20:36 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 10/05/21 17:39 | | |
| 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 | | 10/02/21 19:08 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 10/02/21 19:08 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 10/02/21 19:08 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 649649 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020

METHOD BLANK: 3407007 Matrix: Water
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 10/05/21 04:20 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 10/05/21 04:20 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 10/05/21 04:20 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 10/05/21 04:20 | |

LABORATORY CONTROL SAMPLE: 3407008

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 5.0 | 99 | 80-120 | |
| Magnesium | mg/L | 5 | 5.0 | 101 | 80-120 | |
| Potassium | mg/L | 5 | 5.2 | 103 | 80-120 | |
| Sodium | mg/L | 5 | 5.2 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407009 3407010

| Parameter | Units | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|--------|-------|-------|--------|--------------|-----|---------|------|
| | | 92563385001 Result | Spike Conc. | Spike Conc. | Result | Result | % Rec | % Rec | | | | | |
| Calcium | mg/L | 126 | 5 | 5 | 127 | 131 | 30 | 108 | 75-125 | 3 | 20 | M1 | |
| Magnesium | mg/L | 366 | 5 | 5 | 358 | 369 | -176 | 44 | 75-125 | 3 | 20 | M1 | |
| Potassium | mg/L | 122 | 5 | 5 | 122 | 126 | 11 | 80 | 75-125 | 3 | 20 | M1 | |
| Sodium | mg/L | 3230 | 5 | 5 | 3170 | 3270 | -1220 | 720 | 75-125 | 3 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 649653 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038, 92563385039

METHOD BLANK: 3407017 Matrix: Water
 Associated Lab Samples: 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038, 92563385039

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 10/05/21 02:41 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 10/05/21 02:41 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 10/05/21 02:41 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 10/05/21 02:41 | |

LABORATORY CONTROL SAMPLE: 3407018

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 95 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 95 | 80-120 | |
| Potassium | mg/L | 5 | 4.9J | 99 | 80-120 | |
| Sodium | mg/L | 5 | 5.0J | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407019 3407020

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92563385021 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Calcium | mg/L | 107 | 5 | 5 | ND | 107 | -2140 | -5 | 75-125 | | | 20 | M1 |
| Magnesium | mg/L | 312 | 5 | 5 | ND | 301 | -6230 | -216 | 75-125 | | | 20 | M1 |
| Potassium | mg/L | 103 | 5 | 5 | ND | 103 | -2060 | -17 | 75-125 | | | 20 | M1 |
| Sodium | mg/L | 2640 | 5 | 5 | 2660 | 2580 | 360 | -1140 | 75-125 | | 3 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 650616 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

METHOD BLANK: 3412259 Matrix: Water

Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 10/11/21 19:03 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 10/11/21 19:03 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 10/11/21 19:03 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 10/11/21 19:03 | |

LABORATORY CONTROL SAMPLE: 3412260

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 5.1 | 102 | 80-120 | |
| Magnesium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Potassium | mg/L | 5 | 4.9J | 98 | 80-120 | |
| Sodium | mg/L | 5 | 5.1 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412261 3412262

| Parameter | Units | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|-------------|-------------|--------|--------|-------|-------|--------|--------------|-----|---------|------|
| | | 92563385040 | Spike Conc. | Spike Conc. | Result | Result | % Rec | % Rec | | | | | |
| Calcium | mg/L | 141 | 5 | 5 | 145 | 142 | 92 | 31 | 75-125 | 2 | 20 | M1 | |
| Magnesium | mg/L | 411 | 5 | 5 | 415 | 411 | 64 | -16 | 75-125 | 1 | 20 | M1 | |
| Potassium | mg/L | 130 | 5 | 5 | 137 | 134 | 126 | 63 | 75-125 | 2 | 20 | M1 | |
| Sodium | mg/L | 3530 | 5 | 5 | 3560 | 3540 | 560 | 320 | 75-125 | 0 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 649881 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3408321 | Matrix: | Water |
| Associated Lab Samples: | 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 09/30/21 19:00 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 09/29/21 16:38 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 09/29/21 16:38 | |

| LABORATORY CONTROL SAMPLE: 3408322 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Arsenic | mg/L | 0.05 | 0.050 | 99 | 80-120 | |
| Boron | mg/L | 0.05 | 0.051 | 102 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408323 | | | | | | | | | | | | 3408324 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|-------|---------|--|
| Parameter | Units | 92563385001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | Max | | | |
| | | | | | | | | | | RPD | RPD | Qual | |
| Arsenic | mg/L | 0.0027J | 0.05 | 0.05 | 0.058 | 0.057 | 110 | 109 | 75-125 | 2 | 20 | | |
| Boron | mg/L | 1.7J | 0.05 | 0.05 | 1.9J | 1.9J | 245 | 327 | 75-125 | | 20 M1 | | |
| Lithium | mg/L | 0.060 | 0.05 | 0.05 | 0.11 | 0.10 | 103 | 89 | 75-125 | 7 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 649882 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038, 92563385039 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3408327 | Matrix: | Water |
| Associated Lab Samples: | 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038, 92563385039 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 09/29/21 20:17 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 09/29/21 20:17 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 09/29/21 20:17 | |

| LABORATORY CONTROL SAMPLE: | 3408328 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Arsenic | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Boron | mg/L | 0.05 | 0.055 | 109 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.051 | 102 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3408329 | | | 3408330 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92563385021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Arsenic | mg/L | 0.0023J | 0.05 | 0.05 | 0.064 | 0.067 | 124 | 130 | 75-125 | 5 | 20 | M1 |
| Boron | mg/L | 1.0J | 0.05 | 0.05 | 1.9J | 1.8J | 1650 | 1600 | 75-125 | | 20 | M1 |
| Lithium | mg/L | 0.041J | 0.05 | 0.05 | 0.10J | 0.091J | 126 | 99 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 650489

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

METHOD BLANK: 3411918

Matrix: Water

Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|--------|----------------|------------|
| Arsenic | mg/L | ND | 0.015 | 0.0013 | 10/03/21 16:30 | |
| Boron | mg/L | ND | 0.75 | 0.13 | 10/03/21 16:30 | |
| Lithium | mg/L | ND | 0.038 | 0.0075 | 10/03/21 16:30 | |

LABORATORY CONTROL SAMPLE: 3411919

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.75 | 0.72 | 96 | 80-120 | |
| Boron | mg/L | 0.75 | 0.65J | 86 | 80-120 | |
| Lithium | mg/L | 0.75 | 0.74 | 99 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3411920 3411921

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92563385040 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Arsenic | mg/L | 0.0014J | 0.75 | 0.75 | 0.74 | 0.76 | 99 | 101 | 75-125 | 2 | 20 |
| Boron | mg/L | 1.1 | 0.75 | 0.75 | 1.8 | 1.9 | 106 | 112 | 75-125 | 2 | 20 |
| Lithium | mg/L | 0.042 | 0.75 | 0.75 | 0.79 | 0.80 | 100 | 101 | 75-125 | 1 | 20 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 649659 | Analysis Method: | SM 2320B-2011 |
| QC Batch Method: | SM 2320B-2011 | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3407041 | Matrix: | Water |
| Associated Lab Samples: | 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 09/30/21 14:15 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/30/21 14:15 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 09/30/21 14:15 | |

| LABORATORY CONTROL SAMPLE: | 3407042 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.5 | 103 | 80-120 | |

| LABORATORY CONTROL SAMPLE: | 3407043 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 53.3 | 107 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3407046 | | | 3407047 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92563385011 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 | 84.0 | 50 | 50 | 132 | 132 | 96 | 96 | 80-120 | 0 | 25 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3410461 | | | 3410462 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92562300002 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 | 88.4 | 50 | 50 | 136 | 140 | 95 | 104 | 80-120 | 3 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 649661 | Analysis Method: | SM 2320B-2011 |
| QC Batch Method: | SM 2320B-2011 | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3407053 | Matrix: | Water |
| Associated Lab Samples: | 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 10/05/21 20:43 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/05/21 20:43 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/05/21 20:43 | |

| LABORATORY CONTROL SAMPLE: 3407054 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 53.6 | 107 | 80-120 | |

| LABORATORY CONTROL SAMPLE: 3407055 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 53.5 | 107 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407056 | | | | | | | | | | | | 3407057 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92563385021 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 | 61.5 | 50 | 50 | 119 | 111 | 115 | 99 | 80-120 | 7 | 25 | | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407058 | | | | | | | | | | | | 3407059 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92563385031 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 | 94.8 | 50 | 50 | 140 | 152 | 91 | 114 | 80-120 | 8 | 25 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

QC Batch: 651103 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005

METHOD BLANK: 3414517 Matrix: Water
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 10/06/21 11:52 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/06/21 11:52 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/06/21 11:52 | |

LABORATORY CONTROL SAMPLE: 3414518

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 50.4 | 101 | 80-120 | |

LABORATORY CONTROL SAMPLE: 3414519

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.8 | 104 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3414520 3414521

| Parameter | Units | 92563901001 | | 3414521 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|----------------------------|-------|-------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|------|------------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | MSD Result |
| Alkalinity, Total as CaCO3 | mg/L | 15.9 | 50 | 50 | 64.7 | 63.7 | 98 | 95 | 80-120 | 2 | 25 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3414522 3414523

| Parameter | Units | 92563901002 | | 3414523 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|----------------------------|-------|-------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|------|------------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | MSD Result |
| Alkalinity, Total as CaCO3 | mg/L | 16.5 | 50 | 50 | 68.6 | 68.5 | 104 | 104 | 80-120 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

QC Batch: 651424 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385036, 92563385037, 92563385038, 92563385039, 92563385040

METHOD BLANK: 3416272 Matrix: Water
 Associated Lab Samples: 92563385036, 92563385037, 92563385038, 92563385039, 92563385040

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 10/07/21 17:20 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/07/21 17:20 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/07/21 17:20 | |

LABORATORY CONTROL SAMPLE: 3416273

| 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: 3416274

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.2 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416275 3416276

| Parameter | Units | 92563915005 | | 3416275 | | 3416276 | | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|-----------------|-----------|-----------------|-----------|------------|--------------|-----|---------|------|
| | | MS Result | MSD Spike Conc. | MS Result | MSD Spike Conc. | MS Result | MSD Result | | | | |
| Alkalinity, Total as CaCO3 | mg/L | ND | 50 | 50 | 51.0 | 59.9 | 93 | 110 | 16 | 25 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416277 3416278

| Parameter | Units | 92563915006 | | 3416277 | | 3416278 | | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|-----------------|-----------|-----------------|-----------|------------|--------------|-----|---------|------|
| | | MS Result | MSD Spike Conc. | MS Result | MSD Spike Conc. | MS Result | MSD Result | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 25.0 | 50 | 50 | 72.9 | 73.7 | 96 | 97 | 1 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 651989 | Analysis Method: | SM 2320B-2011 |
| QC Batch Method: | SM 2320B-2011 | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3419006 | Matrix: | Water |
| Associated Lab Samples: | 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 10/11/21 17:07 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/11/21 17:07 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 10/11/21 17:07 | |

| LABORATORY CONTROL SAMPLE: 3419007 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 50.6 | 101 | 80-120 | |

| LABORATORY CONTROL SAMPLE: 3419008 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.9 | 104 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419009 | | | | | | | | | | | | 3419010 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92563695001 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 | 90.4 | 75.9 | 181 | 152 | 80-120 | 17 | 25 | M1 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419011 | | | | | | | | | | | | 3419012 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92563695004 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 | 103 | 50 | 50 | 153 | 174 | 101 | 143 | 80-120 | 13 | 25 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|------------------|---------------|-----------------------|--------------------------------------|
| QC Batch: | 649735 | Analysis Method: | SM 2540C-2011 |
| QC Batch Method: | SM 2540C-2011 | Analysis Description: | 2540C Total Dissolved Solids |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035

METHOD BLANK: 3407484 Matrix: Water

Associated Lab Samples: 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 09/28/21 17:32 | |

LABORATORY CONTROL SAMPLE: 3407485

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 250 | 100 | 90-110 | |

SAMPLE DUPLICATE: 3407486

| Parameter | Units | 92563385022 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 15500 | 15400 | 1 | 25 | |

SAMPLE DUPLICATE: 3407487

| Parameter | Units | 92563385032 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 15200 | 14900 | 2 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

QC Batch: 649877 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014

METHOD BLANK: 3408305 Matrix: Water
 Associated Lab Samples: 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 09/29/21 11:28 | |

LABORATORY CONTROL SAMPLE: 3408306

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 246 | 98 | 90-110 | |

SAMPLE DUPLICATE: 3408307

| Parameter | Units | 92563367001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 248 | 250 | 1 | 25 | |

SAMPLE DUPLICATE: 3408308

| Parameter | Units | 92563385005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 12900 | 12800 | 1 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

QC Batch: 649879 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020, 92563385021, 92563385036, 92563385037, 92563385038, 92563385039

METHOD BLANK: 3408313 Matrix: Water
 Associated Lab Samples: 92563385015, 92563385016, 92563385017, 92563385018, 92563385019, 92563385020, 92563385021, 92563385036, 92563385037, 92563385038, 92563385039

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 09/29/21 11:34 | |

LABORATORY CONTROL SAMPLE: 3408314

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 252 | 101 | 90-110 | |

SAMPLE DUPLICATE: 3408315

| Parameter | Units | 92563385015 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 8300 | 8300 | 0 | 25 | |

SAMPLE DUPLICATE: 3408316

| Parameter | Units | 92563385039 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | ND | ND | | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 650699 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052

METHOD BLANK: 3412630 Matrix: Water
 Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 10/04/21 17:55 | |

LABORATORY CONTROL SAMPLE: 3412631

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 251 | 264 | 105 | 90-110 | |

SAMPLE DUPLICATE: 3412632

| Parameter | Units | 92564521002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 269 | 267 | 1 | 25 | |

SAMPLE DUPLICATE: 3412633

| Parameter | Units | 92563385043 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 8100 | 8070 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 650950

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563385053, 92563385054

METHOD BLANK: 3413727

Matrix: Water

Associated Lab Samples: 92563385053, 92563385054

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 10/05/21 17:37 | |

LABORATORY CONTROL SAMPLE: 3413728

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 251 | 236 | 94 | 90-110 | |

SAMPLE DUPLICATE: 3413729

| Parameter | Units | 35666709002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 557 | 558 | 0 | 25 | |

SAMPLE DUPLICATE: 3413730

| Parameter | Units | 92564509004 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 194 | 192 | 1 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 649577 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3406750 | Matrix: | Water |
| Associated Lab Samples: | 92563385001, 92563385002, 92563385003, 92563385004, 92563385005, 92563385006, 92563385007, 92563385008, 92563385009, 92563385010, 92563385011, 92563385012, 92563385013, 92563385014, 92563385015, 92563385016, 92563385017, 92563385018 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 09/27/21 20:30 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 09/27/21 20:30 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 09/27/21 20:30 | |

| LABORATORY CONTROL SAMPLE: | 3406751 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 46.0 | 92 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.5 | 98 | 90-110 | |
| Sulfate | mg/L | 50 | 48.8 | 98 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3406752 | | | 3406753 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92555214003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Chloride | mg/L | 23.4 | 50 | 50 | 69.4 | 70.3 | 92 | 94 | 90-110 | 1 | 10 | H1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.4 | 2.5 | 94 | 96 | 90-110 | 2 | 10 | H1 |
| Sulfate | mg/L | 37.7 | 50 | 50 | 87.5 | 89.6 | 100 | 104 | 90-110 | 2 | 10 | H1 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3406754 | | | 3406755 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|-------|
| Parameter | Units | 92563385009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Chloride | mg/L | 6450 | 50 | 50 | 6400 | 6460 | -94 | 28 | 90-110 | 1 | 10 | M1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 76 | 79 | 90-110 | | 10 | D3,M1 |
| Sulfate | mg/L | 884 | 50 | 50 | 914 | 923 | 59 | 78 | 90-110 | 1 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 649578 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92563385019, 92563385020, 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3406756 | Matrix: | Water |
| Associated Lab Samples: | 92563385019, 92563385020, 92563385021, 92563385022, 92563385023, 92563385024, 92563385025, 92563385026, 92563385027, 92563385028, 92563385029, 92563385030, 92563385031, 92563385032, 92563385033, 92563385034, 92563385035, 92563385036, 92563385037, 92563385038 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 09/28/21 09:21 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 09/28/21 09:21 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 09/28/21 09:21 | |

| LABORATORY CONTROL SAMPLE: 3406757 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 46.2 | 92 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.5 | 98 | 90-110 | |
| Sulfate | mg/L | 50 | 48.6 | 97 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406758 | | | | | | | | | | | | 3406759 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|----------|
| Parameter | Units | 92563385019 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
| | | | | | | | | | | | | | Chloride |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 86 | 94 | 90-110 | | 10 | D3,M1 | |
| Sulfate | mg/L | 315 | 50 | 50 | 363 | 361 | 96 | 93 | 90-110 | 0 | 10 | | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406760 | | | | | | | | | | | | 3406761 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|----------|
| Parameter | Units | 92563385029 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
| | | | | | | | | | | | | | Chloride |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 94 | 86 | 90-110 | | 10 | D3,M1 | |
| Sulfate | mg/L | 994 | 50 | 50 | 1030 | 1020 | 82 | 61 | 90-110 | 1 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

QC Batch: 649791 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563385039

METHOD BLANK: 3408045 Matrix: Water
 Associated Lab Samples: 92563385039

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 09/29/21 01:25 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 09/29/21 01:25 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 09/29/21 01:25 | |

LABORATORY CONTROL SAMPLE: 3408046

| 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 | 2.4 | 94 | 90-110 | |
| Sulfate | mg/L | 50 | 51.4 | 103 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408047 3408048

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92563385039 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 50 | 52.0 | 52.6 | 104 | 105 | 90-110 | 1 | 10 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 101 | 100 | 90-110 | 1 | 10 | |
| Sulfate | mg/L | ND | 50 | 50 | 50 | 53.5 | 54.1 | 107 | 108 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

QC Batch: 650528 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

METHOD BLANK: 3412021 Matrix: Water
 Associated Lab Samples: 92563385040, 92563385041, 92563385042, 92563385043, 92563385044, 92563385045, 92563385046, 92563385047, 92563385048, 92563385049, 92563385050, 92563385051, 92563385052, 92563385053, 92563385054

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 10/02/21 12:34 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 10/02/21 12:34 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 10/02/21 12:34 | |

LABORATORY CONTROL SAMPLE: 3412022

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 46.6 | 93 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.4 | 98 | 90-110 | |
| Sulfate | mg/L | 50 | 48.8 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412023 3412024

| Parameter | Units | 92563801001 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|------------|-----|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 19.5 | 50 | 65.9 | 66.8 | 93 | 95 | 90-110 | 1 | 10 | | |
| Fluoride | mg/L | 0.47 | 2.5 | 3.1 | 3.1 | 105 | 107 | 90-110 | 1 | 10 | | |
| Sulfate | mg/L | 12.1 | 50 | 61.3 | 62.5 | 99 | 101 | 90-110 | 2 | 10 | | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412025 3412026

| Parameter | Units | 92563385049 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|------------|-----|----------|-----------|--------------|-----|---------|------|
| | | | Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 3110 | 50 | 3100 | 3080 | -25 | -70 | 90-110 | 1 | 10 | M1 | |
| Fluoride | mg/L | ND | 2.5 | ND | ND | 84 | 88 | 90-110 | | 10 | D3,M1 | |
| Sulfate | mg/L | 396 | 50 | 426 | 424 | 60 | 55 | 90-110 | 1 | 10 | 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

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



QUALIFIERS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

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.

H1 Analysis conducted outside the EPA method holding time.

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

v1 The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92563385001 | T1-1HT | | | | |
| 92563385002 | T1-2HT | | | | |
| 92563385003 | T1-2HTS | | | | |
| 92563385004 | T1-3HT | | | | |
| 92563385005 | T1-3HTS | | | | |
| 92563385006 | T1-4HT | | | | |
| 92563385007 | T1-4HTS | | | | |
| 92563385008 | T2-1HT | | | | |
| 92563385009 | T2-2HT | | | | |
| 92563385010 | T2-2HTS | | | | |
| 92563385011 | T2-3HT | | | | |
| 92563385012 | T2-3HTS | | | | |
| 92563385013 | T2-4HT | | | | |
| 92563385014 | T2-4HTS | | | | |
| 92563385015 | T3-1HT | | | | |
| 92563385016 | T3-2HT | | | | |
| 92563385017 | T3-2HTS | | | | |
| 92563385018 | T3-3HT | | | | |
| 92563385019 | T3-3HTS | | | | |
| 92563385020 | T3-4HT | | | | |
| 92563385021 | T3-4HTS | | | | |
| 92563385022 | T4-1HB | | | | |
| 92563385023 | T4-1HS | | | | |
| 92563385024 | T4-2HB | | | | |
| 92563385025 | T4-2HS | | | | |
| 92563385026 | T4-3HB | | | | |
| 92563385027 | T4-3HS | | | | |
| 92563385028 | T4-4HB | | | | |
| 92563385029 | T4-4HS | | | | |
| 92563385030 | T4-1L | | | | |
| 92563385031 | T4-2L | | | | |
| 92563385032 | T4-3L | | | | |
| 92563385033 | T4-4L | | | | |
| 92563385034 | BG-2HT | | | | |
| 92563385040 | T1-1LT | | | | |
| 92563385041 | T1-2LT | | | | |
| 92563385042 | T1-3LT | | | | |
| 92563385043 | T1-4LT | | | | |
| 92563385044 | T2-2LT | | | | |
| 92563385045 | T2-3LT | | | | |
| 92563385046 | T2-4LT | | | | |
| 92563385047 | T3-2LT | | | | |
| 92563385048 | T3-3LT | | | | |
| 92563385049 | T3-4LT | | | | |
| 92563385050 | BG-1LT | | | | |
| 92563385001 | T1-1HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385002 | T1-2HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385003 | T1-2HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92563385004 | T1-3HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385005 | T1-3HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385006 | T1-4HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385007 | T1-4HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385008 | T2-1HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385009 | T2-2HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385010 | T2-2HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385011 | T2-3HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385012 | T2-3HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385013 | T2-4HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385014 | T2-4HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385015 | T3-1HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385016 | T3-2HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385017 | T3-2HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385018 | T3-3HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385019 | T3-3HTS | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385020 | T3-4HT | EPA 3010A | 649649 | EPA 6010D | 649692 |
| 92563385021 | T3-4HTS | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385022 | T4-1HB | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385023 | T4-1HS | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385024 | T4-2HB | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385025 | T4-2HS | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385026 | T4-3HB | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385027 | T4-3HS | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385028 | T4-4HB | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385029 | T4-4HS | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385030 | T4-1L | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385031 | T4-2L | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385032 | T4-3L | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385033 | T4-4L | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385034 | BG-2HT | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385035 | DUP-1 | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385036 | DUP-2 | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385037 | DUP-3 | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385038 | FB-1 | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385039 | EB-1 | EPA 3010A | 649653 | EPA 6010D | 649690 |
| 92563385040 | T1-1LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385041 | T1-2LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385042 | T1-3LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385043 | T1-4LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385044 | T2-2LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385045 | T2-3LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385046 | T2-4LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385047 | T3-2LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385048 | T3-3LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385049 | T3-4LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385050 | BG-1LT | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385051 | DUP-4 | EPA 3010A | 650616 | EPA 6010D | 650714 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92563385052 | DUP-5 | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385053 | FB-2 | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385054 | EB-2 | EPA 3010A | 650616 | EPA 6010D | 650714 |
| 92563385001 | T1-1HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385002 | T1-2HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385003 | T1-2HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385004 | T1-3HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385005 | T1-3HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385006 | T1-4HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385007 | T1-4HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385008 | T2-1HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385009 | T2-2HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385010 | T2-2HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385011 | T2-3HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385012 | T2-3HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385013 | T2-4HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385014 | T2-4HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385015 | T3-1HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385016 | T3-2HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385017 | T3-2HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385018 | T3-3HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385019 | T3-3HTS | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385020 | T3-4HT | EPA 3010A | 649881 | EPA 6020B | 649965 |
| 92563385021 | T3-4HTS | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385022 | T4-1HB | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385023 | T4-1HS | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385024 | T4-2HB | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385025 | T4-2HS | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385026 | T4-3HB | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385027 | T4-3HS | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385028 | T4-4HB | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385029 | T4-4HS | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385030 | T4-1L | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385031 | T4-2L | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385032 | T4-3L | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385033 | T4-4L | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385034 | BG-2HT | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385035 | DUP-1 | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385036 | DUP-2 | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385037 | DUP-3 | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385038 | FB-1 | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385039 | EB-1 | EPA 3010A | 649882 | EPA 6020B | 649964 |
| 92563385040 | T1-1LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385041 | T1-2LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385042 | T1-3LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385043 | T1-4LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385044 | T2-2LT | EPA 3010A | 650489 | EPA 6020B | 650506 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92563385045 | T2-3LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385046 | T2-4LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385047 | T3-2LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385048 | T3-3LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385049 | T3-4LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385050 | BG-1LT | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385051 | DUP-4 | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385052 | DUP-5 | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385053 | FB-2 | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385054 | EB-2 | EPA 3010A | 650489 | EPA 6020B | 650506 |
| 92563385001 | T1-1HT | SM 2320B-2011 | 651103 | | |
| 92563385002 | T1-2HT | SM 2320B-2011 | 651103 | | |
| 92563385003 | T1-2HTS | SM 2320B-2011 | 651103 | | |
| 92563385004 | T1-3HT | SM 2320B-2011 | 651103 | | |
| 92563385005 | T1-3HTS | SM 2320B-2011 | 651103 | | |
| 92563385006 | T1-4HT | SM 2320B-2011 | 649659 | | |
| 92563385007 | T1-4HTS | SM 2320B-2011 | 649659 | | |
| 92563385008 | T2-1HT | SM 2320B-2011 | 649659 | | |
| 92563385009 | T2-2HT | SM 2320B-2011 | 649659 | | |
| 92563385010 | T2-2HTS | SM 2320B-2011 | 649659 | | |
| 92563385011 | T2-3HT | SM 2320B-2011 | 649659 | | |
| 92563385012 | T2-3HTS | SM 2320B-2011 | 649659 | | |
| 92563385013 | T2-4HT | SM 2320B-2011 | 649659 | | |
| 92563385014 | T2-4HTS | SM 2320B-2011 | 649659 | | |
| 92563385015 | T3-1HT | SM 2320B-2011 | 649659 | | |
| 92563385016 | T3-2HT | SM 2320B-2011 | 649659 | | |
| 92563385017 | T3-2HTS | SM 2320B-2011 | 649659 | | |
| 92563385018 | T3-3HT | SM 2320B-2011 | 649659 | | |
| 92563385019 | T3-3HTS | SM 2320B-2011 | 649659 | | |
| 92563385020 | T3-4HT | SM 2320B-2011 | 649659 | | |
| 92563385021 | T3-4HTS | SM 2320B-2011 | 649661 | | |
| 92563385022 | T4-1HB | SM 2320B-2011 | 649661 | | |
| 92563385023 | T4-1HS | SM 2320B-2011 | 649661 | | |
| 92563385024 | T4-2HB | SM 2320B-2011 | 649661 | | |
| 92563385025 | T4-2HS | SM 2320B-2011 | 649661 | | |
| 92563385026 | T4-3HB | SM 2320B-2011 | 649661 | | |
| 92563385027 | T4-3HS | SM 2320B-2011 | 649661 | | |
| 92563385028 | T4-4HB | SM 2320B-2011 | 649661 | | |
| 92563385029 | T4-4HS | SM 2320B-2011 | 649661 | | |
| 92563385030 | T4-1L | SM 2320B-2011 | 649661 | | |
| 92563385031 | T4-2L | SM 2320B-2011 | 649661 | | |
| 92563385032 | T4-3L | SM 2320B-2011 | 649661 | | |
| 92563385033 | T4-4L | SM 2320B-2011 | 649661 | | |
| 92563385034 | BG-2HT | SM 2320B-2011 | 649661 | | |
| 92563385035 | DUP-1 | SM 2320B-2011 | 649661 | | |
| 92563385036 | DUP-2 | SM 2320B-2011 | 651424 | | |
| 92563385037 | DUP-3 | SM 2320B-2011 | 651424 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER

Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92563385038 | FB-1 | SM 2320B-2011 | 651424 | | |
| 92563385039 | EB-1 | SM 2320B-2011 | 651424 | | |
| 92563385040 | T1-1LT | SM 2320B-2011 | 651424 | | |
| 92563385041 | T1-2LT | SM 2320B-2011 | 651989 | | |
| 92563385042 | T1-3LT | SM 2320B-2011 | 651989 | | |
| 92563385043 | T1-4LT | SM 2320B-2011 | 651989 | | |
| 92563385044 | T2-2LT | SM 2320B-2011 | 651989 | | |
| 92563385045 | T2-3LT | SM 2320B-2011 | 651989 | | |
| 92563385046 | T2-4LT | SM 2320B-2011 | 651989 | | |
| 92563385047 | T3-2LT | SM 2320B-2011 | 651989 | | |
| 92563385048 | T3-3LT | SM 2320B-2011 | 651989 | | |
| 92563385049 | T3-4LT | SM 2320B-2011 | 651989 | | |
| 92563385050 | BG-1LT | SM 2320B-2011 | 651989 | | |
| 92563385051 | DUP-4 | SM 2320B-2011 | 651989 | | |
| 92563385052 | DUP-5 | SM 2320B-2011 | 651989 | | |
| 92563385053 | FB-2 | SM 2320B-2011 | 651989 | | |
| 92563385054 | EB-2 | SM 2320B-2011 | 651989 | | |
| 92563385001 | T1-1HT | SM 2540C-2011 | 649877 | | |
| 92563385002 | T1-2HT | SM 2540C-2011 | 649877 | | |
| 92563385003 | T1-2HTS | SM 2540C-2011 | 649877 | | |
| 92563385004 | T1-3HT | SM 2540C-2011 | 649877 | | |
| 92563385005 | T1-3HTS | SM 2540C-2011 | 649877 | | |
| 92563385006 | T1-4HT | SM 2540C-2011 | 649877 | | |
| 92563385007 | T1-4HTS | SM 2540C-2011 | 649877 | | |
| 92563385008 | T2-1HT | SM 2540C-2011 | 649877 | | |
| 92563385009 | T2-2HT | SM 2540C-2011 | 649877 | | |
| 92563385010 | T2-2HTS | SM 2540C-2011 | 649877 | | |
| 92563385011 | T2-3HT | SM 2540C-2011 | 649877 | | |
| 92563385012 | T2-3HTS | SM 2540C-2011 | 649877 | | |
| 92563385013 | T2-4HT | SM 2540C-2011 | 649877 | | |
| 92563385014 | T2-4HTS | SM 2540C-2011 | 649877 | | |
| 92563385015 | T3-1HT | SM 2540C-2011 | 649879 | | |
| 92563385016 | T3-2HT | SM 2540C-2011 | 649879 | | |
| 92563385017 | T3-2HTS | SM 2540C-2011 | 649879 | | |
| 92563385018 | T3-3HT | SM 2540C-2011 | 649879 | | |
| 92563385019 | T3-3HTS | SM 2540C-2011 | 649879 | | |
| 92563385020 | T3-4HT | SM 2540C-2011 | 649879 | | |
| 92563385021 | T3-4HTS | SM 2540C-2011 | 649879 | | |
| 92563385022 | T4-1HB | SM 2540C-2011 | 649735 | | |
| 92563385023 | T4-1HS | SM 2540C-2011 | 649735 | | |
| 92563385024 | T4-2HB | SM 2540C-2011 | 649735 | | |
| 92563385025 | T4-2HS | SM 2540C-2011 | 649735 | | |
| 92563385026 | T4-3HB | SM 2540C-2011 | 649735 | | |
| 92563385027 | T4-3HS | SM 2540C-2011 | 649735 | | |
| 92563385028 | T4-4HB | SM 2540C-2011 | 649735 | | |
| 92563385029 | T4-4HS | SM 2540C-2011 | 649735 | | |
| 92563385030 | T4-1L | SM 2540C-2011 | 649735 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92563385031 | T4-2L | SM 2540C-2011 | 649735 | | |
| 92563385032 | T4-3L | SM 2540C-2011 | 649735 | | |
| 92563385033 | T4-4L | SM 2540C-2011 | 649735 | | |
| 92563385034 | BG-2HT | SM 2540C-2011 | 649735 | | |
| 92563385035 | DUP-1 | SM 2540C-2011 | 649735 | | |
| 92563385036 | DUP-2 | SM 2540C-2011 | 649879 | | |
| 92563385037 | DUP-3 | SM 2540C-2011 | 649879 | | |
| 92563385038 | FB-1 | SM 2540C-2011 | 649879 | | |
| 92563385039 | EB-1 | SM 2540C-2011 | 649879 | | |
| 92563385040 | T1-1LT | SM 2540C-2011 | 650699 | | |
| 92563385041 | T1-2LT | SM 2540C-2011 | 650699 | | |
| 92563385042 | T1-3LT | SM 2540C-2011 | 650699 | | |
| 92563385043 | T1-4LT | SM 2540C-2011 | 650699 | | |
| 92563385044 | T2-2LT | SM 2540C-2011 | 650699 | | |
| 92563385045 | T2-3LT | SM 2540C-2011 | 650699 | | |
| 92563385046 | T2-4LT | SM 2540C-2011 | 650699 | | |
| 92563385047 | T3-2LT | SM 2540C-2011 | 650699 | | |
| 92563385048 | T3-3LT | SM 2540C-2011 | 650699 | | |
| 92563385049 | T3-4LT | SM 2540C-2011 | 650699 | | |
| 92563385050 | BG-1LT | SM 2540C-2011 | 650699 | | |
| 92563385051 | DUP-4 | SM 2540C-2011 | 650699 | | |
| 92563385052 | DUP-5 | SM 2540C-2011 | 650699 | | |
| 92563385053 | FB-2 | SM 2540C-2011 | 650950 | | |
| 92563385054 | EB-2 | SM 2540C-2011 | 650950 | | |
| 92563385001 | T1-1HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385002 | T1-2HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385003 | T1-2HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385004 | T1-3HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385005 | T1-3HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385006 | T1-4HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385007 | T1-4HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385008 | T2-1HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385009 | T2-2HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385010 | T2-2HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385011 | T2-3HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385012 | T2-3HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385013 | T2-4HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385014 | T2-4HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385015 | T3-1HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385016 | T3-2HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385017 | T3-2HTS | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385018 | T3-3HT | EPA 300.0 Rev 2.1 1993 | 649577 | | |
| 92563385019 | T3-3HTS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385020 | T3-4HT | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385021 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385022 | T4-1HB | EPA 300.0 Rev 2.1 1993 | 649578 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
Pace Project No.: 92563385

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92563385023 | T4-1HS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385024 | T4-2HB | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385025 | T4-2HS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385026 | T4-3HB | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385027 | T4-3HS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385028 | T4-4HB | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385029 | T4-4HS | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385030 | T4-1L | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385031 | T4-2L | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385032 | T4-3L | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385033 | T4-4L | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385034 | BG-2HT | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385035 | DUP-1 | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385036 | DUP-2 | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385037 | DUP-3 | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385038 | FB-1 | EPA 300.0 Rev 2.1 1993 | 649578 | | |
| 92563385039 | EB-1 | EPA 300.0 Rev 2.1 1993 | 649791 | | |
| 92563385040 | T1-1LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385041 | T1-2LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385042 | T1-3LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385043 | T1-4LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385044 | T2-2LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385045 | T2-3LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385046 | T2-4LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385047 | T3-2LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385048 | T3-3LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385049 | T3-4LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385050 | BG-1LT | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385051 | DUP-4 | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385052 | DUP-5 | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385053 | FB-2 | EPA 300.0 Rev 2.1 1993 | 650528 | | |
| 92563385054 | EB-2 | EPA 300.0 Rev 2.1 1993 | 650528 | | |

REPORT OF LABORATORY ANALYSIS

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



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
P-CAR-01-083 Rev.07

Document Revised: October 28, 2020
Page 1 of 2
Issuing Authority:
Pace Carolina Quality Office

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Georgia Power

Project #:

WO#: 92563385



92563385

Counter: Floor Durs Durs Other

Custody Seal Present? Yes No Seals Intact? Yes No

Submittal Person Examining Contents: PM 9/27

Packing Material: Bubble Wrap Bubble Bags Other

Biological Toxins (Biosol)?

Yes No N/A

Thermometer:

Model No: 93071

Type of lot:

First Other None

Cooler Temp:

1.4-3.2

Correction Factor:
Add/Subtract (°C)

0

Temp should be above freezing to 5°C

Sample out of temp criteria. Samples on ice, cooling process not begin

Cooler Temp Corrected (°C)

1.4-3.2

OEQA Regulated Soil (i.e., water sample)

Did sample originate from a quarantine zone within the United States (CA, HI, or SC) (check one)?

Yes No

Did sample originate from a foreign source (Internationally, including Hawaii and Puerto Rico)?

Yes No

| | | | Comments/Discrepancy |
|--|--|----|----------------------|
| Chain of Custody Present? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1 | |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2 | |
| Short Hold Time Analysis (<2 hr)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 3 | |
| Each Turn Around Time Requested? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 4 | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5 | |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 6 | |
| - Free Containers (Lead)? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 7 | |
| (Discolor) analysis: Samples Field Filtered? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 8 | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9 | |
| - Includes Date/Time/ID/Analysis Matrix: <u>MT</u> | | | |
| Headgear in VOA Vial (>1 liter)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 10 | |
| Trip Mask Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11 | |
| Trip Mask Custody Seal Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | | |

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____

Date: _____

Project Manager IMF Review: _____

Date: _____



Document Number:
Sample Condition Upon Receipt (SCUR)
Document No.:
A-CAN-CS-033-Rev.07

Document Revised: October 28, 2010
Page 2 of 2
Issuing Authority:
North Carolina Quality Office

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

Project

WO# : 92563385

PR: NHG

Due Date: 10/04/21

CLIENT: GR-GR Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRB/DBP (water) DOC, SLNG

**Bottom half of box is lot number of bottles

| Sample | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| BP00-125 mL Plastic Unpreserved (N/A) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-250 mL Plastic Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-500 mL Plastic Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-1 liter Plastic Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-125 mL Plastic 0.020M (pH ± 0.1) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-250 mL Plastic 2x Surrogate & SurQns (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-125 mL Plastic SurQns (pH ± 0.1) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| W000-125 mL Multi-lit Plastic Jar Unpreserved | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A010-1 liter Amber Unpreserved (N/A) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A010-1 liter Amber (N/A) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A020-250 mL Amber Unpreserved (N/A) (21) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A020-1 liter Amber WFOA (pH ± 0.1) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A020-125 mL Amber WFOA (pH ± 0.1) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| A020-250 mL Amber WFOA (pH ± 0.1) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| D000-40 mL VOA HD (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| W000-40 mL VOA WFOA (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| W000-40 mL VOA (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| D000-40 mL VOA WFOA (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| V000 (2 vials per pack) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| V000 (2 vials per pack) (N/A) | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-125 mL Double Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-250 mL Double Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-500 mL Double Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-1 liter Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-125 mL Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-250 mL Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-500 mL Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| BP00-1 liter Plastic (N/A) - 100 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

| Sample ID | Type of Preservation | 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 Central Certification Office (i.e. Out of field, incorrect preservatives, out of temp, incorrect containers).



Document Name:
Sample Condition Upon Receipt (SCUR)
 Document No.:
P-CAR-03-003-Rev.07

Document Revised: October 26, 2020
 Page 1 of 1
 Issuing Authority:

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

Project #

WO# : 92563385

PR: NHD

Due Date: 10/04/21

CLIENT: GA-GA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRG/ROSD (water), DOC, HHG

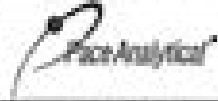
**Bottom half of box is to list number of bottles

| Brand | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| BB10-120 ml Plastic Unpreserved (MVA) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic Unpreserved (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-600 ml Plastic Unpreserved (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB1000 1 liter Plastic Unpreserved (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic (1500 µm + 1) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml plastic amber (per s 1) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic Amber & Amber (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic Amber (per s 1) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| WB10 1 liter Amber Glass Jar Unpreserved | / | / | / | / | / | / | / | / | / | / | / | / |
| MB10-1 liter Amber Unpreserved (MVA) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| MB10-1 liter Amber (C4) (per s 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| MB10-200 ml Amber Unpreserved (MVA) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| MB10-1 liter Amber (C4) (per s 1) | / | / | / | / | / | / | / | / | / | / | / | / |
| MB10-120 ml Amber (C4) (per s 2) | / | / | / | / | / | / | / | / | / | / | / | / |
| MB1000 (MVA) 1 liter Amber (MVA) (MVA) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-40 ml VOA (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| WB10-40 ml VOA (MVA) (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| WB10-40 ml VOA (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-40 ml VOA (MVA) (C4) | / | / | / | / | / | / | / | / | / | / | / | / |
| VOM 10 wash per MB-600 (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| VOM (10 wash per MB-600) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic (MVA) (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Plastic (MVA) (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Amber (MVA) (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |
| BB10-120 ml Amber (MVA) (C4) (MVA) | / | / | / | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

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

Note: Whenever there is a discrepancy affecting North Carolina compliance results, a copy of this form will be sent to the North Carolina (N.C.) Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect container).



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No. 1
 F-CAR-01-018-Rev.07

Document Revised: October 28, 2010
 Page 2 of 3
 Issuing Authority:
 Peace Carolinas Quality Office

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

Exceptions: VOA, Coliform, DOC, CH and Grease, DBP/DBP5 (water) DOC, UHC.

**Bottom half of box is to list number of bottles

Project

WO# : 92563385

PM: NRG

Due Date: 10/04/21

CLIENT: GA-GA Power

| Sample ID | Volume | Material | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|--------|----------|---|---|---|---|---|---|---|---|---|----|----|----|
| BP10-125 ml Plastic Unpreserved (N/A) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-250 ml Plastic Unpreserved (N/A) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 ml Plastic Unpreserved (N/A) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP11A-1 liter Plastic Unpreserved (N/A) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-125 ml Plastic 2500A (pH = 2) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-250 ml Plastic 2500A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 ml Plastic 2500A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-1 liter Plastic 2500A & Acacia (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-125 ml Plastic 2500A (pH = 12) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AC10-125 ml Acacia Unpreserved (N/A) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AC10-250 ml Acacia Unpreserved (N/A) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AC10-500 ml Acacia Unpreserved (N/A) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AC10-1 liter Acacia Unpreserved (N/A) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD10-1 liter Acacia 1250A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD10-250 ml Acacia 1250A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD10-500 ml Acacia 1250A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD10-1 liter Acacia 1250A (pH = 2) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| CG10-40 ml VOA 40C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-40 ml VOA 1000C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-80 ml VOA 1000C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-160 ml VOA 1000C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-320 ml VOA 1000C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-640 ml VOA 1000C (pH) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-125 ml Sealed Plastic (N/A - 120) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-250 ml Sealed Plastic (N/A - 120) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-250 ml Plastic 2500A (pH = 2) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 ml Plastic 2500A (pH = 2) (D) | | | / | / | / | / | / | / | / | / | / | / | / | / |

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 # |
|-----------|----------------------|-----------------|----------------------------|----------------------------|------------------------------|-------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

Notes: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina Central Certification Office (i.e. Out of Field, Incorrect preservation, out of temp, incorrect containers).



Occurrence Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
P-CAR-CS-088-Rev.07

Document Revised: October 28, 2010
Page 3 of 3
Issuing Authority:

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

Project # **WO# : 92563385**

PH: NMC

Due Date: 10/04/21

CLIENT: GA-GA Power

Exceptions: VOA, Cellform, TOC, Oil and Grease, DRO/DOC (water) DOC, Urag
 **Bottom half of box is to list number of bottles

| Bottle | Sample | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|--------|---|---|---|---|---|---|----|----|----|
| BP40-125 ml Plastic Impreserved (N/A) (D-1) | | / | / | / | / | / | / | / | / | / |
| BP70-250 ml Plastic Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |
| BP70-500 ml Plastic Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |
| BP70-1 Liter Plastic Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |
| BP40-125 ml Plastic Impres (lit = 10 (D-1) | | / | / | / | / | / | / | / | / | / |
| BP70-250 ml, plastic bottles (lit = 2) | | / | / | / | / | / | / | / | / | / |
| BP40-125 ml Plastic Impres & NaOH (only) | | / | / | / | / | / | / | / | / | / |
| BP40-125 ml Plastic Impres (lit = 12 (D-1) | | / | / | / | / | / | / | / | / | / |
| WSP-VOA/impreserved Glass jar Impreserved | | / | / | / | / | / | / | / | / | / |
| AD30-1 liter Amber Impreserved (N/A) (D-1) | | / | / | / | / | / | / | / | / | / |
| AD30-1 liter Amber (N/A) (lit = 2) | | / | / | / | / | / | / | / | / | / |
| AD30-250 ml Amber Impreserved (N/A) (D-1) | | / | / | / | / | / | / | / | / | / |
| AD30-1 liter Amber Impres (lit = 2) | | / | / | / | / | / | / | / | / | / |
| AD30-250 ml Amber Impres (lit = 2) | | / | / | / | / | / | / | / | / | / |
| AD30-500ml, 150 ml, Amber Impres (N/A) (D-1) | | / | / | / | / | / | / | / | / | / |
| DO30-40 ml VOA HCT (N/A) | | / | / | / | / | / | / | / | / | / |
| VIA30-40 ml VOA Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |
| VIA30-40 ml VOA Imp (N/A) | | / | / | / | / | / | / | / | / | / |
| DO30-40 ml VOA NUPCA (N/A) | | / | / | / | / | / | / | / | / | / |
| VIA30-40 ml VOA Imp-0015 (N/A) | | / | / | / | / | / | / | / | / | / |
| VIA30-1.00 ml, Impres/Impres (N/A) | | / | / | / | / | / | / | / | / | / |
| MP30-1.00 ml, Impres Plastic Impres = Imp | | / | / | / | / | / | / | / | / | / |
| MP30-1.00 ml, Impres Plastic Impres = Imp | | / | / | / | / | / | / | / | / | / |
| BP40-125 ml Plastic Impres (D-1) (D-1) | | / | / | / | / | / | / | / | / | / |
| AD30-250 ml, Amber Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |
| VIA30-40 ml, Impreserved (N/A) | | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

| Sample ID | Type of Preservative | per liter receipt | Date preservation adjusted | Time preservation adjusted | Amount of Preservative added | Lot # |
|-----------|----------------------|-------------------|----------------------------|----------------------------|------------------------------|-------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

Notes: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina Central Certification Office (i.e. Out of State, incorrect preservative, out of temp, incorrect volumes)



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

Section A: Requesting Agency Information
 Section B: Requesting Agency Information
 Section C: Requesting Agency Information
 Section D: Requesting Agency Information

| | |
|---|--|
| Section A
Requesting Agency Information
Agency Name: <u>Department of Public Safety</u>
Address: <u>3000 Court Street, Tallahassee, FL 32399</u>
Contact Person: <u>William Lockyer</u>
Phone: <u>904-438-4411</u>
Email: <u>lockyer.william@dps.fl.gov</u>
Requested On: <u>9/13/13</u> | Section B
Requesting Agency Information
Agency Name: <u>Florida Bureau of Criminal Investigation</u>
Address: <u>2000 South Gandy Blvd, Tallahassee, FL 32309</u>
Contact Person: <u>William Lockyer</u>
Phone: <u>904-438-4411</u>
Email: <u>lockyer.william@dps.fl.gov</u>
Requested On: <u>9/13/13</u> |
|---|--|

| ITEM # | SAMPLE ID
(See Chain of Custody per box, and box #)
(Sample box must be unique) | Date of Sample | Time of Sample | Location of Sample | COLLECTOR | | Collector 1 (Date, Time) | Collector 2 (Date, Time) | PRESERVERS | | | | | | | | | Requester (Date, Time) |
|--------|---|----------------|----------------|--------------------|-----------|--------|--------------------------|--------------------------|------------|----|------|----|------|----|------|----|------|------------------------|
| | | | | | Name | ID | | | Name | ID | Name | ID | Name | ID | Name | ID | Name | |
| 1 | T-1001 | 9/13/13 | 10:07 | State Prison | WT | 100101 | 10/07 | | 3.2 | 1 | | | | | | | | 09: 7: 05 |
| 2 | T-1002 | 9/13/13 | 10:13 | State Prison | WT | 100102 | 10/13 | | 3.2 | 1 | | | | | | | | 09: 6: 47 |
| 3 | T-1003 | 9/13/13 | 10:17 | State Prison | WT | 100103 | 10/17 | | 3.2 | 1 | | | | | | | | 09: 7: 15 |
| 4 | T-1004 | 9/13/13 | 10:23 | State Prison | WT | 100104 | 10/23 | | 3.2 | 1 | | | | | | | | 09: 6: 49 |
| 5 | T-1005 | 9/13/13 | 10:25 | State Prison | WT | 100105 | 10/25 | | 3.2 | 1 | | | | | | | | 09: 6: 48 |
| 6 | T-1006 | 9/13/13 | 10:42 | State Prison | WT | 100106 | 10/42 | | 3.2 | 1 | | | | | | | | 09: 7: 14 |
| 7 | T-1007 | 9/13/13 | 11:44 | State Prison | WT | 100107 | 11/44 | | 3.2 | 1 | | | | | | | | 09: 6: 89 |
| 8 | T-1008 | 9/13/13 | 11:53 | State Prison | WT | 100108 | 11/53 | | 3.2 | 1 | | | | | | | | 09: 7: 05 |
| 9 | T-1009 | 9/13/13 | 05:12 | State Prison | WT | 100109 | 05/12 | | 3.2 | 1 | | | | | | | | 09: 6: 46 |
| 10 | T-1010 | 9/13/13 | 12:45 | State Prison | WT | 100110 | 12/45 | | 3.2 | 1 | | | | | | | | 09: 7: 18 |

| | |
|---|--|
| Section D
Requesting Agency Information
Agency Name: <u>Department of Public Safety</u>
Address: <u>3000 Court Street, Tallahassee, FL 32399</u>
Contact Person: <u>William Lockyer</u>
Phone: <u>904-438-4411</u>
Email: <u>lockyer.william@dps.fl.gov</u>
Requested On: <u>9/13/13</u> | Section E
Requesting Agency Information
Agency Name: <u>Florida Bureau of Criminal Investigation</u>
Address: <u>2000 South Gandy Blvd, Tallahassee, FL 32309</u>
Contact Person: <u>William Lockyer</u>
Phone: <u>904-438-4411</u>
Email: <u>lockyer.william@dps.fl.gov</u>
Requested On: <u>9/13/13</u> |
|---|--|



CHAIN-OF-CUSTODY / Analytical Request Document

This Chain-of-Custody is a FORMAL DOCUMENT. All relevant fields must be completed accurately.

Section 1: Analytical Chain Information
 Section 2: Requested Project Information
 Section 3: Project Information
 Section 4: Project Location
 Section 5: Project Schedule

Section 6: Analytical Information
 Section 7: Project Location
 Section 8: Project Schedule
 Section 9: Project Information
 Section 10: Project Location
 Section 11: Project Schedule

| DATE | SAMPLE ID | CLIENT | PROJECT | LOCATION | TIME | COLLECTOR | | SAMPLE TYPE AT COLLECTION | ANALYSIS | REMARKS | ANALYST |
|---------|-----------|--------|----------------|----------|------|----------------|-------|---------------------------|----------|---------|---------|
| | | | | | | INITIAL | NAME | | | | |
| 9/24/21 | 1030 | Foley | William Leiber | 9/24/21 | 1030 | William Leiber | Foley | ... | ... | ... | ... |
| 9/24/21 | 1030 | Foley | William Leiber | 9/24/21 | 1030 | William Leiber | Foley | ... | ... | ... | ... |

Project Name: William Leiber
 Project Location: William Leiber
 Project Schedule: 9/23/21



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a UFGAL GOVERNMENT. All relevant fields must be completed accurately. The Chain-of-Custody is a UFGAL GOVERNMENT. All relevant fields must be completed accurately.

Section A
 National Criminal Laboratory
 Laboratory Report Information
 Report To: State Department
 Report To: State Department
 Report To: State Department

Section B
 Analytical Request Information
 Requester: William Leeber
 Requester Title: William Leeber
 Requester Address: William Leeber
 Requester Phone: William Leeber
 Requester Email: William Leeber

Section C
 Sample Information
 Sample Name: William Leeber
 Sample ID: William Leeber
 Sample Description: William Leeber
 Sample Quantity: William Leeber
 Sample Date: William Leeber

Section D
 Laboratory Information
 Laboratory Name: William Leeber
 Laboratory Address: William Leeber
 Laboratory Phone: William Leeber
 Laboratory Email: William Leeber

| SAMPLE ID | Date (Month/Day/Year) | Time | Location | Collector | Type | Quantity | Container | Collection | | Preservation | Storage | Transfer | Analysis | Remarks |
|-----------|-----------------------|-------|----------|----------------|------|----------|-----------|------------|------|--------------|---------|----------|----------|---------|
| | | | | | | | | DATE | TIME | | | | | |
| 1 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 9 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 13 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 16 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 17 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 18 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 19 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 20 | 9/12/11 | 10:30 | Federal | William Leeber | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Signature of William Leeber: William Leeber
 Date: 9/12/11
 Signature of William Leeber: William Leeber
 Date: 9/12/11



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A - Requester/Client Information

Requester Name: [Blank] Agency: [Blank] Contact Person: [Blank]
 Address: [Blank] City: [Blank] State: [Blank] Zip: [Blank]
 Phone: [Blank] Fax: [Blank] Email: [Blank]

Section B - Requested Analysis Information

Request For: [Blank] Analysis: [Blank]
 Quantity: [Blank] Priority: [Blank]

Section C - Specimen Information

Specimen Name: [Blank] Container: [Blank]
 Date Collected: [Blank] Location: [Blank]

Section D - Analyst Information

Analyst Name: [Blank] Analyst ID: [Blank]
 Date Analyzed: [Blank]

| ITEM # | Description | Quantity | Containers | | Preservatives | | | | | | | | | | Comments | | Residual Volume (mL) | | | |
|--------|---|----------|------------|-------|---------------|------|------|------|------|------|------|------|------|------|----------|------|----------------------|------|--|--|
| | | | Original | Aliot | None | None | None | None | None | None | None | None | None | None | None | None | | None | | |
| 1 | SAMPLE ID
See description for box
Date: 9/17/11 | | | | | | | | | | | | | | | | | | | |
| 2 | Box 1 | 1 | | | | | | | | | | | | | | | | | | |
| 3 | Box 2 | 1 | | | | | | | | | | | | | | | | | | |
| 4 | Box 3 | 1 | | | | | | | | | | | | | | | | | | |
| 5 | Box 4 | 1 | | | | | | | | | | | | | | | | | | |
| 6 | Box 5 | 1 | | | | | | | | | | | | | | | | | | |
| 7 | Box 6 | 1 | | | | | | | | | | | | | | | | | | |
| 8 | Box 7 | 1 | | | | | | | | | | | | | | | | | | |
| 9 | Box 8 | 1 | | | | | | | | | | | | | | | | | | |
| 10 | Box 9 | 1 | | | | | | | | | | | | | | | | | | |
| 11 | Box 10 | 1 | | | | | | | | | | | | | | | | | | |
| 12 | Box 11 | 1 | | | | | | | | | | | | | | | | | | |
| 13 | Box 12 | 1 | | | | | | | | | | | | | | | | | | |
| 14 | Box 13 | 1 | | | | | | | | | | | | | | | | | | |
| 15 | Box 14 | 1 | | | | | | | | | | | | | | | | | | |
| 16 | Box 15 | 1 | | | | | | | | | | | | | | | | | | |
| 17 | Box 16 | 1 | | | | | | | | | | | | | | | | | | |
| 18 | Box 17 | 1 | | | | | | | | | | | | | | | | | | |
| 19 | Box 18 | 1 | | | | | | | | | | | | | | | | | | |
| 20 | Box 19 | 1 | | | | | | | | | | | | | | | | | | |
| 21 | Box 20 | 1 | | | | | | | | | | | | | | | | | | |
| 22 | Box 21 | 1 | | | | | | | | | | | | | | | | | | |
| 23 | Box 22 | 1 | | | | | | | | | | | | | | | | | | |
| 24 | Box 23 | 1 | | | | | | | | | | | | | | | | | | |
| 25 | Box 24 | 1 | | | | | | | | | | | | | | | | | | |
| 26 | Box 25 | 1 | | | | | | | | | | | | | | | | | | |
| 27 | Box 26 | 1 | | | | | | | | | | | | | | | | | | |
| 28 | Box 27 | 1 | | | | | | | | | | | | | | | | | | |
| 29 | Box 28 | 1 | | | | | | | | | | | | | | | | | | |
| 30 | Box 29 | 1 | | | | | | | | | | | | | | | | | | |
| 31 | Box 30 | 1 | | | | | | | | | | | | | | | | | | |
| 32 | Box 31 | 1 | | | | | | | | | | | | | | | | | | |
| 33 | Box 32 | 1 | | | | | | | | | | | | | | | | | | |
| 34 | Box 33 | 1 | | | | | | | | | | | | | | | | | | |
| 35 | Box 34 | 1 | | | | | | | | | | | | | | | | | | |
| 36 | Box 35 | 1 | | | | | | | | | | | | | | | | | | |
| 37 | Box 36 | 1 | | | | | | | | | | | | | | | | | | |
| 38 | Box 37 | 1 | | | | | | | | | | | | | | | | | | |
| 39 | Box 38 | 1 | | | | | | | | | | | | | | | | | | |
| 40 | Box 39 | 1 | | | | | | | | | | | | | | | | | | |
| 41 | Box 40 | 1 | | | | | | | | | | | | | | | | | | |
| 42 | Box 41 | 1 | | | | | | | | | | | | | | | | | | |
| 43 | Box 42 | 1 | | | | | | | | | | | | | | | | | | |
| 44 | Box 43 | 1 | | | | | | | | | | | | | | | | | | |
| 45 | Box 44 | 1 | | | | | | | | | | | | | | | | | | |
| 46 | Box 45 | 1 | | | | | | | | | | | | | | | | | | |
| 47 | Box 46 | 1 | | | | | | | | | | | | | | | | | | |
| 48 | Box 47 | 1 | | | | | | | | | | | | | | | | | | |
| 49 | Box 48 | 1 | | | | | | | | | | | | | | | | | | |
| 50 | Box 49 | 1 | | | | | | | | | | | | | | | | | | |
| 51 | Box 50 | 1 | | | | | | | | | | | | | | | | | | |

Section E - Custodian Information

Name: [Blank] Title: [Blank] Agency: [Blank]
 Signature: [Blank] Date: [Blank]
 Analyst Name: [Blank] Analyst ID: [Blank]

Section F - Chain of Custody Log

| Item # | Received at | Quantity | Received by | Signature | Date | Residual Volume (mL) |
|--------|----------------|----------|-------------|-------------|--------------|----------------------|
| 1 | William Leuber | 1030 | Feder | [Signature] | 9/24/11 1030 | 1.2 |
| 2 | | | | | 9/24/11 1030 | 1.4 |
| 3 | | | | | 9/25/11 1130 | 1.6 |
| 4 | | | | | | 1.8 |



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

Section A
 Analytical Request Information

Requester: William Leuter
 Project Name: William Leuter
 Location: 9/29/21
 Date: 10/30
 Requester Signature: [Signature]
 Date: 9/29/21

Section B
 Analytical Request Information

Requester: William Leuter
 Project Name: William Leuter
 Location: 9/29/21
 Date: 10/30
 Requester Signature: [Signature]
 Date: 9/29/21

| ITEM # | Description | Quantity | Unit | Date | Time | Location | Collector | Witness | Remarks | Analysis | |
|--------|---|----------|------|---------|-------|----------|-------------------|---------|---------|-----------|----------|
| | | | | | | | | | | Requested | Received |
| 1 | SAMPLE ID
One (Number per bag)
142, 941, 1
Sample to send to analyst | 1 | bag | 9/29/21 | 10:30 | Feder | A. RUDY/PRICE/MLC | 9/29/21 | 10:30 | Y | Y |
| 2 | | 1 | bag | | | | | | | Y | Y |
| 3 | | 1 | bag | | | | | | | Y | Y |
| 4 | | 1 | bag | | | | | | | Y | Y |
| 5 | | 1 | bag | | | | | | | Y | Y |
| 6 | | 1 | bag | | | | | | | Y | Y |
| 7 | | 1 | bag | | | | | | | Y | Y |
| 8 | | 1 | bag | | | | | | | Y | Y |
| 9 | | 1 | bag | | | | | | | Y | Y |
| 10 | | 1 | bag | | | | | | | Y | Y |
| 11 | | 1 | bag | | | | | | | Y | Y |
| 12 | | 1 | bag | | | | | | | Y | Y |
| 13 | | 1 | bag | | | | | | | Y | Y |
| 14 | | 1 | bag | | | | | | | Y | Y |
| 15 | | 1 | bag | | | | | | | Y | Y |
| 16 | | 1 | bag | | | | | | | Y | Y |
| 17 | | 1 | bag | | | | | | | Y | Y |
| 18 | | 1 | bag | | | | | | | Y | Y |
| 19 | | 1 | bag | | | | | | | Y | Y |
| 20 | | 1 | bag | | | | | | | Y | Y |

Requester Signature: [Signature]
 Date: 9/29/21



January 13, 2022

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

RE: Project: MCMANUS SURFACE WATER
Pace Project No.: 92578470

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2021. 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 - Green Bay

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
 Anna Bottum, ERM
 Andrea Brazell, ERM
 Trent Godwin, Resolute Environmental & Water Resources
 Kristen Jurinko
 Ms. Lauren Petty, Southern Company
 Lacy Smith, ERM
 Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
 Caitlin Tillema, ERM
 Christine Weaver, ERM

Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS SURFACE WATER
Pace Project No.: 92578470

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150

Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey 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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92578470001 | T1-4HT | Water | 12/15/21 09:50 | 12/16/21 11:00 |
| 92578470002 | T1-4HTS | Water | 12/15/21 09:54 | 12/16/21 11:00 |
| 92578470003 | T2-1HT | Water | 12/15/21 09:05 | 12/16/21 11:00 |
| 92578470004 | T2-2HT | Water | 12/15/21 09:16 | 12/16/21 11:00 |
| 92578470005 | T2-2HTS | Water | 12/15/21 09:20 | 12/16/21 11:00 |
| 92578470006 | T2-3HT | Water | 12/15/21 09:28 | 12/16/21 11:00 |
| 92578470007 | T2-3HTS | Water | 12/15/21 09:34 | 12/16/21 11:00 |
| 92578470008 | T2-4HT | Water | 12/15/21 10:16 | 12/16/21 11:00 |
| 92578470009 | T2-4HTS | Water | 12/15/21 10:20 | 12/16/21 11:00 |
| 92578470010 | T3-4HT | Water | 12/15/21 10:36 | 12/16/21 11:00 |
| 92578470011 | T3-4HTS | Water | 12/15/21 10:42 | 12/16/21 11:00 |
| 92578470012 | T4-1HB | Water | 12/15/21 07:06 | 12/16/21 11:00 |
| 92578470013 | T4-1HS | Water | 12/15/21 07:00 | 12/16/21 11:00 |
| 92578470014 | T4-2HB | Water | 12/15/21 07:22 | 12/16/21 11:00 |
| 92578470015 | T4-2HS | Water | 12/15/21 07:25 | 12/16/21 11:00 |
| 92578470016 | T4-3HB | Water | 12/15/21 07:40 | 12/16/21 11:00 |
| 92578470017 | T4-3HS | Water | 12/15/21 07:44 | 12/16/21 11:00 |
| 92578470018 | T4-4HB | Water | 12/15/21 08:04 | 12/16/21 11:00 |
| 92578470019 | T4-4HS | Water | 12/15/21 08:08 | 12/16/21 11:00 |
| 92578470020 | T1-4LT | Water | 12/15/21 14:48 | 12/16/21 11:00 |
| 92578470021 | T2-4LT | Water | 12/15/21 15:00 | 12/16/21 11:00 |
| 92578470022 | T3-4LT | Water | 12/15/21 15:10 | 12/16/21 11:00 |
| 92578470023 | T4-4L | Water | 12/15/21 13:48 | 12/16/21 11:00 |
| 92578470024 | BG-1LT | Water | 12/15/21 12:50 | 12/16/21 11:00 |
| 92578470025 | BG-2HT | Water | 12/15/21 08:41 | 12/16/21 11:00 |
| 92578470026 | DUP-1 | Water | 12/15/21 00:00 | 12/16/21 11:00 |
| 92578470027 | DUP-2 | Water | 12/15/21 00:00 | 12/16/21 11:00 |
| 92578470028 | DUP-3 | Water | 12/15/21 00:00 | 12/16/21 11:00 |
| 92578470029 | FB-1 | Water | 12/15/21 16:12 | 12/16/21 11:00 |
| 92578470030 | EB-1 | Water | 12/15/21 16:20 | 12/16/21 11:00 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92578470001 | T1-4HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470002 | T1-4HTS | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470003 | T2-1HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470004 | T2-2HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470005 | T2-2HTS | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470006 | T2-3HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470007 | T2-3HTS | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470008 | T2-4HT | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92578470009 | T2-4HTS | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470010 | T3-4HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470011 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470012 | T4-1HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470013 | T4-1HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470014 | T4-2HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470015 | T4-2HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92578470016 | T4-3HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470017 | T4-3HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470018 | T4-4HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470019 | T4-4HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470020 | T1-4LT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, DS | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470021 | T2-4LT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470022 | T3-4LT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470023 | T4-4L | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92578470024 | BG-1LT | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| 92578470025 | BG-2HT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92578470026 | DUP-1 | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| 92578470027 | DUP-2 | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92578470028 | DUP-3 | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | DS, RDT | 4 | PASI-A |
| 92578470029 | FB-1 | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| 92578470030 | EB-1 | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | TMK | 3 | PASI-G |
| | | EPA 6010D | RDT | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|--------|-----------|------------------------|----------|-------------------|------------|
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470001 | T1-4HT | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:41 | |
| | pH | 7.47 | Std. Units | | 12/20/21 11:41 | |
| EPA 6010D | Calcium | 254 | mg/L | 2.0 | 01/10/22 12:33 | M1 |
| EPA 6010D | Magnesium | 748 | mg/L | 2.0 | 01/10/22 12:33 | M1 |
| EPA 6010D | Potassium | 245 | mg/L | 100 | 01/10/22 12:33 | M1 |
| EPA 6010D | Sodium | 6160 | mg/L | 1000 | 01/11/22 02:16 | M1 |
| EPA 6020B | Boron | 2.2J | mg/L | 2.5 | 12/27/21 12:56 | D3,M1 |
| EPA 6020B | Lithium | 0.091J | mg/L | 0.12 | 12/27/21 12:56 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 103 | mg/L | 10.0 | 12/20/21 21:09 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 103 | mg/L | 10.0 | 12/20/21 21:09 | |
| SM 2540C-2015 | Total Dissolved Solids | 21000 | mg/L | 1250 | 12/20/21 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9760 | mg/L | 100 | 12/17/21 18:57 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1350 | mg/L | 100 | 12/17/21 18:57 | |
| 92578470002 | T1-4HTS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:42 | |
| | pH | 7.44 | Std. Units | | 12/20/21 11:42 | |
| EPA 6010D | Calcium | 241 | mg/L | 2.0 | 01/10/22 12:53 | |
| EPA 6010D | Magnesium | 712 | mg/L | 2.0 | 01/10/22 12:53 | |
| EPA 6010D | Potassium | 234 | mg/L | 100 | 01/10/22 12:53 | |
| EPA 6010D | Sodium | 5800 | mg/L | 1000 | 01/11/22 02:41 | |
| EPA 6020B | Boron | 2.2J | mg/L | 2.5 | 12/27/21 13:27 | D3 |
| EPA 6020B | Lithium | 0.091J | mg/L | 0.12 | 12/27/21 13:27 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 99.3 | mg/L | 10.0 | 12/20/21 21:35 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 99.3 | mg/L | 10.0 | 12/20/21 21:35 | |
| SM 2540C-2015 | Total Dissolved Solids | 21300 | mg/L | 1250 | 12/20/21 11:53 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9680 | mg/L | 100 | 12/17/21 19:11 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1340 | mg/L | 100 | 12/17/21 19:11 | |
| 92578470003 | T2-1HT | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:42 | |
| | pH | 7.58 | Std. Units | | 12/20/21 11:42 | |
| EPA 6010D | Calcium | 252 | mg/L | 2.0 | 01/10/22 12:57 | |
| EPA 6010D | Magnesium | 739 | mg/L | 2.0 | 01/10/22 12:57 | |
| EPA 6010D | Potassium | 242 | mg/L | 100 | 01/10/22 12:57 | |
| EPA 6010D | Sodium | 5900 | mg/L | 1000 | 01/11/22 02:45 | |
| EPA 6020B | Boron | 2.2J | mg/L | 2.5 | 12/27/21 13:30 | D3 |
| EPA 6020B | Lithium | 0.092J | mg/L | 0.12 | 12/27/21 13:30 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 97.7 | mg/L | 10.0 | 12/20/21 21:41 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 97.7 | mg/L | 10.0 | 12/20/21 21:41 | |
| SM 2540C-2015 | Total Dissolved Solids | 18800 | mg/L | 1250 | 12/21/21 10:27 | D6 |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9670 | mg/L | 100 | 12/17/21 19:25 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1340 | mg/L | 100 | 12/17/21 19:25 | |
| 92578470004 | T2-2HT | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:42 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470004 | T2-2HT | | | | | |
| | pH | 7.48 | Std. Units | | 12/20/21 11:42 | |
| EPA 6010D | Calcium | 258 | mg/L | 2.0 | 01/10/22 13:00 | |
| EPA 6010D | Magnesium | 755 | mg/L | 2.0 | 01/10/22 13:00 | |
| EPA 6010D | Potassium | 248 | mg/L | 100 | 01/10/22 13:00 | |
| EPA 6010D | Sodium | 6050 | mg/L | 1000 | 01/11/22 02:48 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 13:34 | D3 |
| EPA 6020B | Lithium | 0.094J | mg/L | 0.12 | 12/27/21 13:34 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 12/20/21 21:47 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 12/20/21 21:47 | |
| SM 2540C-2015 | Total Dissolved Solids | 17200 | mg/L | 1250 | 12/21/21 10:27 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9630 | mg/L | 100 | 12/17/21 19:39 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/17/21 19:39 | |
| 92578470005 | T2-2HTS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:43 | |
| | pH | 7.46 | Std. Units | | 12/20/21 11:43 | |
| EPA 6010D | Calcium | 260 | mg/L | 2.0 | 01/10/22 13:03 | |
| EPA 6010D | Magnesium | 760 | mg/L | 2.0 | 01/10/22 13:03 | |
| EPA 6010D | Potassium | 248 | mg/L | 100 | 01/10/22 13:03 | |
| EPA 6010D | Sodium | 5840 | mg/L | 1000 | 01/11/22 02:51 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 13:38 | D3 |
| EPA 6020B | Lithium | 0.096J | mg/L | 0.12 | 12/27/21 13:38 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 99.4 | mg/L | 10.0 | 12/20/21 21:53 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 99.4 | mg/L | 10.0 | 12/20/21 21:53 | |
| SM 2540C-2015 | Total Dissolved Solids | 18600 | mg/L | 1250 | 12/21/21 10:27 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9700 | mg/L | 100 | 12/18/21 00:00 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1340 | mg/L | 100 | 12/18/21 00:00 | |
| 92578470006 | T2-3HT | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:43 | |
| | pH | 7.45 | Std. Units | | 12/20/21 11:43 | |
| EPA 6010D | Calcium | 239 | mg/L | 2.0 | 01/10/22 13:07 | |
| EPA 6010D | Magnesium | 699 | mg/L | 2.0 | 01/10/22 13:07 | |
| EPA 6010D | Potassium | 231 | mg/L | 100 | 01/10/22 13:07 | |
| EPA 6010D | Sodium | 5920 | mg/L | 1000 | 01/11/22 02:54 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 13:41 | D3 |
| EPA 6020B | Lithium | 0.095J | mg/L | 0.12 | 12/27/21 13:41 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 96.6 | mg/L | 10.0 | 12/20/21 21:59 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 96.6 | mg/L | 10.0 | 12/20/21 21:59 | |
| SM 2540C-2015 | Total Dissolved Solids | 19400 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9700 | mg/L | 100 | 12/18/21 00:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 00:14 | |
| 92578470007 | T2-3HTS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:43 | |
| | pH | 7.45 | Std. Units | | 12/20/21 11:43 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470007 | T2-3HTS | | | | | |
| EPA 6010D | Calcium | 248 | mg/L | 2.0 | 01/10/22 13:10 | |
| EPA 6010D | Magnesium | 733 | mg/L | 2.0 | 01/10/22 13:10 | |
| EPA 6010D | Potassium | 242 | mg/L | 100 | 01/10/22 13:10 | |
| EPA 6010D | Sodium | 6260 | mg/L | 1000 | 01/11/22 02:57 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 17:14 | D3 |
| EPA 6020B | Lithium | 0.093J | mg/L | 0.12 | 12/27/21 17:14 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 12/20/21 22:21 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 12/20/21 22:21 | |
| SM 2540C-2015 | Total Dissolved Solids | 19200 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9750 | mg/L | 100 | 12/18/21 00:28 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 00:28 | |
| 92578470008 | T2-4HT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:43 | |
| | | R | | | | |
| | pH | 7.49 | Std. Units | | 12/20/21 11:43 | |
| EPA 6010D | Calcium | 251 | mg/L | 2.0 | 01/10/22 13:13 | |
| EPA 6010D | Magnesium | 734 | mg/L | 2.0 | 01/10/22 13:13 | |
| EPA 6010D | Potassium | 240 | mg/L | 100 | 01/10/22 13:13 | |
| EPA 6010D | Sodium | 5840 | mg/L | 1000 | 01/11/22 03:00 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 17:18 | D3 |
| EPA 6020B | Lithium | 0.092J | mg/L | 0.12 | 12/27/21 17:18 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 100 | mg/L | 10.0 | 12/20/21 22:27 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 100 | mg/L | 10.0 | 12/20/21 22:27 | |
| SM 2540C-2015 | Total Dissolved Solids | 19100 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9480 | mg/L | 100 | 12/18/21 00:42 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1290 | mg/L | 100 | 12/18/21 00:42 | |
| 92578470009 | T2-4HTS | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:43 | |
| | | R | | | | |
| | pH | 7.50 | Std. Units | | 12/20/21 11:43 | |
| EPA 6010D | Calcium | 243 | mg/L | 2.0 | 01/10/22 13:17 | |
| EPA 6010D | Magnesium | 711 | mg/L | 2.0 | 01/10/22 13:17 | |
| EPA 6010D | Potassium | 235 | mg/L | 100 | 01/10/22 13:17 | |
| EPA 6010D | Sodium | 6000 | mg/L | 1000 | 01/11/22 03:10 | |
| EPA 6020B | Boron | 2.3J | mg/L | 2.5 | 12/27/21 17:21 | D3 |
| EPA 6020B | Lithium | 0.089J | mg/L | 0.12 | 12/27/21 17:21 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 12/20/21 22:33 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 12/20/21 22:33 | |
| SM 2540C-2015 | Total Dissolved Solids | 20000 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9540 | mg/L | 100 | 12/18/21 00:56 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1300 | mg/L | 100 | 12/18/21 00:56 | M1 |
| 92578470010 | T3-4HT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:44 | |
| | | R | | | | |
| | pH | 7.45 | Std. Units | | 12/20/21 11:44 | |
| EPA 6010D | Calcium | 248 | mg/L | 2.0 | 01/10/22 13:27 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470010 | T3-4HT | | | | | |
| EPA 6010D | Magnesium | 732 | mg/L | 2.0 | 01/10/22 13:27 | |
| EPA 6010D | Potassium | 241 | mg/L | 100 | 01/10/22 13:27 | |
| EPA 6010D | Sodium | 6200 | mg/L | 1000 | 01/11/22 03:13 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 17:25 | D3 |
| EPA 6020B | Lithium | 0.091J | mg/L | 0.12 | 12/27/21 17:25 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 12/20/21 22:39 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 12/20/21 22:39 | |
| SM 2540C-2015 | Total Dissolved Solids | 19800 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9440 | mg/L | 100 | 12/18/21 01:39 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1290 | mg/L | 100 | 12/18/21 01:39 | |
| 92578470011 | T3-4HTS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:44 | |
| | pH | 7.46 | Std. Units | | 12/20/21 11:44 | |
| EPA 6010D | Calcium | 246 | mg/L | 2.0 | 01/10/22 13:30 | |
| EPA 6010D | Magnesium | 730 | mg/L | 2.0 | 01/10/22 13:30 | |
| EPA 6010D | Potassium | 243 | mg/L | 100 | 01/10/22 13:30 | |
| EPA 6010D | Sodium | 6180 | mg/L | 1000 | 01/11/22 03:16 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 17:29 | D3 |
| EPA 6020B | Lithium | 0.089J | mg/L | 0.12 | 12/27/21 17:29 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 99.0 | mg/L | 10.0 | 12/20/21 22:45 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 99.0 | mg/L | 10.0 | 12/20/21 22:45 | |
| SM 2540C-2015 | Total Dissolved Solids | 19000 | mg/L | 1250 | 12/21/21 10:29 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9740 | mg/L | 100 | 12/18/21 01:53 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 01:53 | |
| 92578470012 | T4-1HB | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:44 | |
| | pH | 7.35 | Std. Units | | 12/20/21 11:44 | |
| EPA 6010D | Calcium | 263 | mg/L | 2.0 | 01/10/22 13:33 | |
| EPA 6010D | Magnesium | 774 | mg/L | 2.0 | 01/10/22 13:33 | |
| EPA 6010D | Potassium | 257 | mg/L | 100 | 01/10/22 13:33 | |
| EPA 6010D | Sodium | 6190 | mg/L | 1000 | 01/11/22 03:19 | |
| EPA 6020B | Boron | 2.5 | mg/L | 2.5 | 12/27/21 17:32 | D3 |
| EPA 6020B | Lithium | 0.094J | mg/L | 0.12 | 12/27/21 17:32 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 10.0 | 12/20/21 22:51 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 10.0 | 12/20/21 22:51 | |
| SM 2540C-2015 | Total Dissolved Solids | 20800 | mg/L | 1250 | 12/21/21 10:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 11300 | mg/L | 200 | 12/18/21 14:05 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1410 | mg/L | 100 | 12/18/21 02:08 | |
| 92578470013 | T4-1HS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:44 | |
| | pH | 7.40 | Std. Units | | 12/20/21 11:44 | |
| EPA 6010D | Calcium | 276 | mg/L | 2.0 | 01/10/22 13:37 | |
| EPA 6010D | Magnesium | 814 | mg/L | 2.0 | 01/10/22 13:37 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470013 | T4-1HS | | | | | |
| EPA 6010D | Potassium | 268 | mg/L | 100 | 01/10/22 13:37 | |
| EPA 6010D | Sodium | 6430 | mg/L | 1000 | 01/11/22 03:23 | |
| EPA 6020B | Boron | 2.5J | mg/L | 2.5 | 12/27/21 17:36 | D3 |
| EPA 6020B | Lithium | 0.095J | mg/L | 0.12 | 12/27/21 17:36 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 12/20/21 22:57 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 12/20/21 22:57 | |
| SM 2540C-2015 | Total Dissolved Solids | 21200 | mg/L | 1250 | 12/21/21 10:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10400 | mg/L | 200 | 12/18/21 14:19 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1430 | mg/L | 100 | 12/18/21 03:34 | |
| 92578470014 | T4-2HB | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:44 | |
| | | R | | | | |
| | pH | 7.44 | Std. Units | | 12/20/21 11:44 | |
| EPA 6010D | Calcium | 273 | mg/L | 2.0 | 01/10/22 13:40 | |
| EPA 6010D | Magnesium | 808 | mg/L | 2.0 | 01/10/22 13:40 | |
| EPA 6010D | Potassium | 269 | mg/L | 100 | 01/10/22 13:40 | |
| EPA 6010D | Sodium | 6730 | mg/L | 1000 | 01/11/22 03:26 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 17:50 | D3 |
| EPA 6020B | Lithium | 0.096J | mg/L | 0.12 | 12/27/21 17:50 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 12/20/21 23:03 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 12/20/21 23:03 | |
| SM 2540C-2015 | Total Dissolved Solids | 21100 | mg/L | 1250 | 12/21/21 10:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10100 | mg/L | 200 | 12/18/21 14:33 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1440 | mg/L | 100 | 12/18/21 03:48 | |
| 92578470015 | T4-2HS | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:45 | |
| | | R | | | | |
| | pH | 7.45 | Std. Units | | 12/20/21 11:45 | |
| EPA 6010D | Calcium | 294 | mg/L | 2.0 | 01/10/22 13:44 | |
| EPA 6010D | Magnesium | 868 | mg/L | 2.0 | 01/10/22 13:44 | |
| EPA 6010D | Potassium | 284 | mg/L | 100 | 01/10/22 13:44 | |
| EPA 6010D | Sodium | 6710 | mg/L | 1000 | 01/11/22 03:29 | |
| EPA 6020B | Boron | 2.6 | mg/L | 2.5 | 12/27/21 17:54 | D3 |
| EPA 6020B | Lithium | 0.10J | mg/L | 0.12 | 12/27/21 17:54 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 10.0 | 12/20/21 23:10 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 10.0 | 12/20/21 23:10 | |
| SM 2540C-2015 | Total Dissolved Solids | 21100 | mg/L | 1250 | 12/21/21 10:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 11300 | mg/L | 200 | 12/18/21 14:48 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1410 | mg/L | 100 | 12/18/21 04:03 | |
| 92578470016 | T4-3HB | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:45 | |
| | | R | | | | |
| | pH | 7.49 | Std. Units | | 12/20/21 11:45 | |
| EPA 6010D | Calcium | 284 | mg/L | 2.0 | 01/10/22 13:47 | |
| EPA 6010D | Magnesium | 838 | mg/L | 2.0 | 01/10/22 13:47 | |
| EPA 6010D | Potassium | 278 | mg/L | 100 | 01/10/22 13:47 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470016 | T4-3HB | | | | | |
| EPA 6010D | Sodium | 6790 | mg/L | 1000 | 01/11/22 03:32 | |
| EPA 6020B | Boron | 2.6 | mg/L | 2.5 | 12/27/21 17:58 | D3 |
| EPA 6020B | Lithium | 0.098J | mg/L | 0.12 | 12/27/21 17:58 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 12/20/21 23:16 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 12/20/21 23:16 | |
| SM 2540C-2015 | Total Dissolved Solids | 21800 | mg/L | 1250 | 12/21/21 10:31 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9880 | mg/L | 200 | 12/18/21 15:02 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1420 | mg/L | 100 | 12/18/21 04:17 | |
| 92578470017 | T4-3HS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:45 | |
| | pH | 7.55 | Std. Units | | 12/20/21 11:45 | |
| EPA 6010D | Calcium | 281 | mg/L | 2.0 | 01/10/22 13:50 | |
| EPA 6010D | Magnesium | 832 | mg/L | 2.0 | 01/10/22 13:50 | |
| EPA 6010D | Potassium | 274 | mg/L | 100 | 01/10/22 13:50 | |
| EPA 6010D | Sodium | 6570 | mg/L | 1000 | 01/11/22 03:35 | |
| EPA 6020B | Boron | 2.6 | mg/L | 2.5 | 12/27/21 18:01 | D3 |
| EPA 6020B | Lithium | 0.10J | mg/L | 0.12 | 12/27/21 18:01 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 10.0 | 12/20/21 23:37 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 10.0 | 12/20/21 23:37 | |
| SM 2540C-2015 | Total Dissolved Solids | 22200 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 11800 | mg/L | 200 | 12/18/21 15:16 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1410 | mg/L | 100 | 12/18/21 04:31 | |
| 92578470018 | T4-4HB | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:45 | |
| | pH | 7.52 | Std. Units | | 12/20/21 11:45 | |
| EPA 6010D | Calcium | 281 | mg/L | 2.0 | 01/10/22 13:54 | |
| EPA 6010D | Magnesium | 830 | mg/L | 2.0 | 01/10/22 13:54 | |
| EPA 6010D | Potassium | 275 | mg/L | 100 | 01/10/22 13:54 | |
| EPA 6010D | Sodium | 6300 | mg/L | 1000 | 01/11/22 03:38 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 12/27/21 18:05 | D3 |
| EPA 6020B | Lithium | 0.10J | mg/L | 0.12 | 12/27/21 18:05 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 12/20/21 23:43 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 12/20/21 23:43 | |
| SM 2540C-2015 | Total Dissolved Solids | 21400 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10800 | mg/L | 200 | 12/18/21 15:30 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1420 | mg/L | 100 | 12/18/21 04:45 | |
| 92578470019 | T4-4HS | | | | | |
| | Performed by | CUSTOMER | | | 12/20/21 11:46 | |
| | pH | 7.50 | Std. Units | | 12/20/21 11:46 | |
| EPA 6010D | Calcium | 252 | mg/L | 2.0 | 01/10/22 13:57 | |
| EPA 6010D | Magnesium | 752 | mg/L | 2.0 | 01/10/22 13:57 | |
| EPA 6010D | Potassium | 251 | mg/L | 100 | 01/10/22 13:57 | |
| EPA 6010D | Sodium | 6180 | mg/L | 1000 | 01/11/22 03:48 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470019 | T4-4HS | | | | | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 12/27/21 18:08 | D3 |
| EPA 6020B | Lithium | 0.10J | mg/L | 0.12 | 12/27/21 18:08 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 104 | mg/L | 10.0 | 12/20/21 23:49 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 104 | mg/L | 10.0 | 12/20/21 23:49 | |
| SM 2540C-2015 | Total Dissolved Solids | 21500 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 11300 | mg/L | 200 | 12/18/21 16:28 | M1,R1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1430 | mg/L | 100 | 12/18/21 05:28 | M1 |
| 92578470020 | T1-4LT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:46 | |
| | | R | | | | |
| | pH | 7.67 | Std. Units | | 12/20/21 11:46 | |
| EPA 6010D | Calcium | 245 | mg/L | 2.0 | 01/10/22 14:13 | |
| EPA 6010D | Magnesium | 725 | mg/L | 2.0 | 01/10/22 14:13 | |
| EPA 6010D | Potassium | 240 | mg/L | 100 | 01/10/22 14:13 | |
| EPA 6010D | Sodium | 6000 | mg/L | 1000 | 01/11/22 03:51 | |
| EPA 6020B | Boron | 2.6 | mg/L | 2.5 | 12/27/21 18:12 | D3 |
| EPA 6020B | Lithium | 0.099J | mg/L | 0.12 | 12/27/21 18:12 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 99.0 | mg/L | 10.0 | 12/20/21 23:55 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 99.0 | mg/L | 10.0 | 12/20/21 23:55 | |
| SM 2540C-2015 | Total Dissolved Solids | 20400 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9790 | mg/L | 100 | 12/18/21 07:23 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 07:23 | |
| 92578470021 | T2-4LT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:46 | |
| | | R | | | | |
| | pH | 7.68 | Std. Units | | 12/20/21 11:46 | |
| EPA 6010D | Calcium | 224 | mg/L | 1.0 | 01/07/22 14:43 | |
| EPA 6010D | Magnesium | 675 | mg/L | 1.0 | 01/07/22 14:43 | |
| EPA 6010D | Potassium | 221 | mg/L | 50.0 | 01/07/22 14:43 | |
| EPA 6010D | Sodium | 5760 | mg/L | 500 | 01/10/22 00:35 | |
| EPA 6020B | Boron | 2.4J | mg/L | 2.5 | 12/27/21 18:47 | D3,M1 |
| EPA 6020B | Lithium | 0.085J | mg/L | 0.12 | 12/27/21 18:47 | D3 |
| SM 2320B | Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 12/21/21 00:13 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 12/21/21 00:13 | |
| SM 2540C-2015 | Total Dissolved Solids | 19200 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9780 | mg/L | 100 | 12/18/21 07:38 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 07:38 | |
| 92578470022 | T3-4LT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:46 | |
| | | R | | | | |
| | pH | 7.62 | Std. Units | | 12/20/21 11:46 | |
| EPA 6010D | Calcium | 247 | mg/L | 2.0 | 01/12/22 07:13 | M1 |
| EPA 6010D | Magnesium | 744 | mg/L | 2.0 | 01/12/22 07:13 | M1 |
| EPA 6010D | Potassium | 251 | mg/L | 100 | 01/12/22 07:13 | M1 |
| EPA 6010D | Sodium | 6390 | mg/L | 1000 | 01/13/22 02:35 | M1 |
| EPA 6020B | Boron | 0.24J | mg/L | 1.0 | 12/27/21 11:12 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470022 | T3-4LT | | | | | |
| SM 2320B | Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 12/21/21 00:38 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 12/21/21 00:38 | |
| SM 2540C-2015 | Total Dissolved Solids | 20800 | mg/L | 1250 | 12/21/21 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9790 | mg/L | 100 | 12/18/21 07:52 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 07:52 | |
| 92578470023 | T4-4L | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:47 | |
| | | R | | | | |
| | pH | 7.60 | Std. Units | | 12/20/21 11:47 | |
| EPA 6010D | Calcium | 249 | mg/L | 2.0 | 01/12/22 07:32 | |
| EPA 6010D | Magnesium | 751 | mg/L | 2.0 | 01/12/22 07:32 | |
| EPA 6010D | Potassium | 251 | mg/L | 100 | 01/12/22 07:32 | |
| EPA 6010D | Sodium | 6270 | mg/L | 1000 | 01/13/22 03:00 | |
| EPA 6020B | Boron | 0.26J | mg/L | 1.0 | 12/27/21 11:38 | |
| EPA 6020B | Lithium | 0.010J | mg/L | 0.050 | 12/27/21 11:38 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 10.0 | 12/21/21 00:59 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 10.0 | 12/21/21 00:59 | |
| SM 2540C-2015 | Total Dissolved Solids | 20700 | mg/L | 1250 | 12/21/21 10:37 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10600 | mg/L | 200 | 12/18/21 17:11 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1410 | mg/L | 100 | 12/18/21 08:06 | |
| 92578470024 | BG-1LT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:47 | |
| | | R | | | | |
| | pH | 7.50 | Std. Units | | 12/20/21 11:47 | |
| EPA 6010D | Calcium | 235 | mg/L | 2.0 | 01/12/22 07:52 | |
| EPA 6010D | Magnesium | 706 | mg/L | 2.0 | 01/12/22 07:52 | |
| EPA 6010D | Potassium | 238 | mg/L | 100 | 01/12/22 07:52 | |
| EPA 6010D | Sodium | 5730 | mg/L | 1000 | 01/13/22 03:04 | |
| EPA 6020B | Boron | 0.25J | mg/L | 1.0 | 12/27/21 11:41 | |
| EPA 6020B | Lithium | 0.010J | mg/L | 0.050 | 12/27/21 11:41 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 103 | mg/L | 10.0 | 12/21/21 01:05 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 103 | mg/L | 10.0 | 12/21/21 01:05 | |
| SM 2540C-2015 | Total Dissolved Solids | 19800 | mg/L | 833 | 12/21/21 10:37 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9830 | mg/L | 100 | 12/18/21 08:20 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 08:20 | |
| 92578470025 | BG-2HT | | | | | |
| | Performed by | CUSTOME | | | 12/20/21 11:47 | |
| | | R | | | | |
| | pH | 7.62 | Std. Units | | 12/20/21 11:47 | |
| EPA 6010D | Calcium | 259 | mg/L | 2.0 | 01/12/22 07:56 | |
| EPA 6010D | Magnesium | 796 | mg/L | 2.0 | 01/12/22 07:56 | |
| EPA 6010D | Potassium | 268 | mg/L | 100 | 01/12/22 07:56 | |
| EPA 6010D | Sodium | 7240 | mg/L | 1000 | 01/13/22 03:07 | |
| EPA 6020B | Boron | 0.28J | mg/L | 1.0 | 12/27/21 11:45 | |
| EPA 6020B | Lithium | 0.011J | mg/L | 0.050 | 12/27/21 11:45 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 10.0 | 12/21/21 01:11 | |

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|--------|-------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92578470025 | BG-2HT | | | | | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 10.0 | 12/21/21 01:11 | |
| SM 2540C-2015 | Total Dissolved Solids | 22600 | mg/L | 1250 | 12/21/21 10:37 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10600 | mg/L | 200 | 12/18/21 17:25 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1540 | mg/L | 100 | 12/18/21 08:34 | |
| 92578470026 | DUP-1 | | | | | |
| EPA 6010D | Calcium | 231 | mg/L | 2.0 | 01/12/22 07:36 | |
| EPA 6010D | Magnesium | 697 | mg/L | 2.0 | 01/12/22 07:36 | |
| EPA 6010D | Potassium | 234 | mg/L | 100 | 01/12/22 07:36 | |
| EPA 6010D | Sodium | 5850 | mg/L | 1000 | 01/13/22 03:10 | |
| EPA 6020B | Boron | 0.25J | mg/L | 1.0 | 12/27/21 11:49 | |
| EPA 6020B | Lithium | 0.010J | mg/L | 0.050 | 12/27/21 11:49 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 12/21/21 01:17 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 12/21/21 01:17 | |
| SM 2540C-2015 | Total Dissolved Solids | 20000 | mg/L | 833 | 12/21/21 10:39 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9860 | mg/L | 100 | 12/18/21 08:49 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1340 | mg/L | 100 | 12/18/21 08:49 | |
| 92578470027 | DUP-2 | | | | | |
| EPA 6010D | Calcium | 260 | mg/L | 2.0 | 01/12/22 07:39 | |
| EPA 6010D | Magnesium | 766 | mg/L | 2.0 | 01/12/22 07:39 | |
| EPA 6010D | Potassium | 264 | mg/L | 100 | 01/12/22 07:39 | |
| EPA 6010D | Sodium | 6510 | mg/L | 1000 | 01/13/22 03:13 | |
| EPA 6020B | Boron | 0.27J | mg/L | 1.0 | 12/27/21 11:52 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 10.0 | 12/21/21 01:23 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 10.0 | 12/21/21 01:23 | |
| SM 2540C-2015 | Total Dissolved Solids | 20800 | mg/L | 833 | 12/21/21 10:39 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6830 | mg/L | 200 | 12/18/21 17:39 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1420 | mg/L | 100 | 12/18/21 09:03 | |
| 92578470028 | DUP-3 | | | | | |
| EPA 6010D | Calcium | 234 | mg/L | 2.0 | 01/12/22 07:43 | |
| EPA 6010D | Magnesium | 698 | mg/L | 2.0 | 01/12/22 07:43 | |
| EPA 6010D | Potassium | 237 | mg/L | 100 | 01/12/22 07:43 | |
| EPA 6010D | Sodium | 5970 | mg/L | 1000 | 01/13/22 03:17 | |
| EPA 6020B | Boron | 0.24J | mg/L | 1.0 | 12/27/21 12:14 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 99.1 | mg/L | 10.0 | 12/21/21 01:29 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 99.1 | mg/L | 10.0 | 12/21/21 01:29 | |
| SM 2540C-2015 | Total Dissolved Solids | 19800 | mg/L | 833 | 12/21/21 10:39 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9750 | mg/L | 100 | 12/18/21 09:17 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 12/18/21 09:17 | |
| 92578470029 | FB-1 | | | | | |
| SM 2320B | Alkalinity, Total as CaCO3 | 8.2J | mg/L | 10.0 | 12/21/21 01:35 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 8.2J | mg/L | 10.0 | 12/21/21 01:35 | |
| 92578470030 | EB-1 | | | | | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 11.6 | mg/L | 1.0 | 12/18/21 13:21 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1.5 | mg/L | 1.0 | 12/18/21 13:21 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T1-4HT **Lab ID: 92578470001** Collected: 12/15/21 09:50 Received: 12/16/21 11:00 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 | | 12/20/21 11:41 | | |
| pH | 7.47 | Std. Units | | | 1 | | 12/20/21 11:41 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 254 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 12:33 | 7440-70-2 | M1 |
| Magnesium | 748 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 12:33 | 7439-95-4 | M1 |
| Potassium | 245 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 12:33 | 7440-09-7 | M1 |
| Sodium | 6160 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:16 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 12:56 | 7440-38-2 | D3 |
| Boron | 2.2J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 12:56 | 7440-42-8 | D3,M1 |
| Lithium | 0.091J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 12:56 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 103 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:09 | | |
| Alkalinity,Bicarbonate (CaCO3) | 103 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:09 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:09 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21000 | mg/L | 1250 | 1250 | 1 | | 12/20/21 11:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9760 | mg/L | 100 | 60.0 | 100 | | 12/17/21 18:57 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/17/21 18:57 | 16984-48-8 | D3 |
| Sulfate | 1350 | mg/L | 100 | 50.0 | 100 | | 12/17/21 18:57 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T1-4HTS **Lab ID: 92578470002** Collected: 12/15/21 09:54 Received: 12/16/21 11:00 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 | | 12/20/21 11:42 | | |
| pH | 7.44 | Std. Units | | | 1 | | 12/20/21 11:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 241 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 12:53 | 7440-70-2 | |
| Magnesium | 712 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 12:53 | 7439-95-4 | |
| Potassium | 234 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 12:53 | 7440-09-7 | |
| Sodium | 5800 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:41 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 13:27 | 7440-38-2 | D3 |
| Boron | 2.2J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 13:27 | 7440-42-8 | D3 |
| Lithium | 0.091J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 13:27 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 99.3 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:35 | | |
| Alkalinity,Bicarbonate (CaCO3) | 99.3 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:35 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:35 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21300 | mg/L | 1250 | 1250 | 1 | | 12/20/21 11:53 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9680 | mg/L | 100 | 60.0 | 100 | | 12/17/21 19:11 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/17/21 19:11 | 16984-48-8 | D3 |
| Sulfate | 1340 | mg/L | 100 | 50.0 | 100 | | 12/17/21 19:11 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-1HT **Lab ID:** 92578470003 Collected: 12/15/21 09:05 Received: 12/16/21 11:00 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 | | 12/20/21 11:42 | | |
| pH | 7.58 | Std. Units | | | 1 | | 12/20/21 11:42 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 252 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 12:57 | 7440-70-2 | |
| Magnesium | 739 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 12:57 | 7439-95-4 | |
| Potassium | 242 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 12:57 | 7440-09-7 | |
| Sodium | 5900 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:45 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 13:30 | 7440-38-2 | D3 |
| Boron | 2.2J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 13:30 | 7440-42-8 | D3 |
| Lithium | 0.092J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 13:30 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|-------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 97.7 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:41 | | |
| Alkalinity,Bicarbonate (CaCO3) | 97.7 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:41 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:41 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|----|
| Total Dissolved Solids | 18800 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:27 | | D6 |
|------------------------|--------------|------|------|------|---|--|----------------|--|----|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9670 | mg/L | 100 | 60.0 | 100 | | 12/17/21 19:25 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/17/21 19:25 | 16984-48-8 | D3 |
| Sulfate | 1340 | mg/L | 100 | 50.0 | 100 | | 12/17/21 19:25 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-2HT **Lab ID: 92578470004** Collected: 12/15/21 09:16 Received: 12/16/21 11:00 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 | | 12/20/21 11:42 | | |
| pH | 7.48 | Std. Units | | | 1 | | 12/20/21 11:42 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 258 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:00 | 7440-70-2 | |
| Magnesium | 755 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:00 | 7439-95-4 | |
| Potassium | 248 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:00 | 7440-09-7 | |
| Sodium | 6050 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:48 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 13:34 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 13:34 | 7440-42-8 | D3 |
| Lithium | 0.094J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 13:34 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:47 | | |
| Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:47 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:47 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 17200 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:27 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9630 | mg/L | 100 | 60.0 | 100 | | 12/17/21 19:39 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/17/21 19:39 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/17/21 19:39 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-2HTS **Lab ID: 92578470005** Collected: 12/15/21 09:20 Received: 12/16/21 11:00 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 | | 12/20/21 11:43 | | |
| pH | 7.46 | Std. Units | | | 1 | | 12/20/21 11:43 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 260 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:03 | 7440-70-2 | |
| Magnesium | 760 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:03 | 7439-95-4 | |
| Potassium | 248 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:03 | 7440-09-7 | |
| Sodium | 5840 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:51 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 13:38 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 13:38 | 7440-42-8 | D3 |
| Lithium | 0.096J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 13:38 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|-------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 99.4 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:53 | | |
| Alkalinity,Bicarbonate (CaCO3) | 99.4 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:53 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:53 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 18600 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:27 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9700 | mg/L | 100 | 60.0 | 100 | | 12/18/21 00:00 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 00:00 | 16984-48-8 | D3 |
| Sulfate | 1340 | mg/L | 100 | 50.0 | 100 | | 12/18/21 00:00 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-3HT **Lab ID: 92578470006** Collected: 12/15/21 09:28 Received: 12/16/21 11:00 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 | | 12/20/21 11:43 | | |
| pH | 7.45 | Std. Units | | | 1 | | 12/20/21 11:43 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 239 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:07 | 7440-70-2 | |
| Magnesium | 699 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:07 | 7439-95-4 | |
| Potassium | 231 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:07 | 7440-09-7 | |
| Sodium | 5920 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:54 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 13:41 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 13:41 | 7440-42-8 | D3 |
| Lithium | 0.095J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 13:41 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|-------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 96.6 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:59 | | |
| Alkalinity,Bicarbonate (CaCO3) | 96.6 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:59 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 21:59 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19400 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9700 | mg/L | 100 | 60.0 | 100 | | 12/18/21 00:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 00:14 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 00:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-3HTS **Lab ID:** 92578470007 Collected: 12/15/21 09:34 Received: 12/16/21 11:00 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 | | 12/20/21 11:43 | | |
| pH | 7.45 | Std. Units | | | 1 | | 12/20/21 11:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 248 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:10 | 7440-70-2 | |
| Magnesium | 733 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:10 | 7439-95-4 | |
| Potassium | 242 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:10 | 7440-09-7 | |
| Sodium | 6260 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 02:57 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:14 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:14 | 7440-42-8 | D3 |
| Lithium | 0.093J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:14 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:21 | | |
| Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:21 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:21 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 19200 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9750 | mg/L | 100 | 60.0 | 100 | | 12/18/21 00:28 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 00:28 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 00:28 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-4HT **Lab ID: 92578470008** Collected: 12/15/21 10:16 Received: 12/16/21 11:00 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 | | 12/20/21 11:43 | | |
| pH | 7.49 | Std. Units | | | 1 | | 12/20/21 11:43 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 251 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:13 | 7440-70-2 | |
| Magnesium | 734 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:13 | 7439-95-4 | |
| Potassium | 240 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:13 | 7440-09-7 | |
| Sodium | 5840 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:00 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:18 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:18 | 7440-42-8 | D3 |
| Lithium | 0.092J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:18 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 100 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:27 | | |
| Alkalinity,Bicarbonate (CaCO3) | 100 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:27 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:27 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19100 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9480 | mg/L | 100 | 60.0 | 100 | | 12/18/21 00:42 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 00:42 | 16984-48-8 | D3 |
| Sulfate | 1290 | mg/L | 100 | 50.0 | 100 | | 12/18/21 00:42 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-4HTS **Lab ID: 92578470009** Collected: 12/15/21 10:20 Received: 12/16/21 11:00 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 | | 12/20/21 11:43 | | |
| pH | 7.50 | Std. Units | | | 1 | | 12/20/21 11:43 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 243 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:17 | 7440-70-2 | |
| Magnesium | 711 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:17 | 7439-95-4 | |
| Potassium | 235 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:17 | 7440-09-7 | |
| Sodium | 6000 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:10 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:21 | 7440-38-2 | D3 |
| Boron | 2.3J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:21 | 7440-42-8 | D3 |
| Lithium | 0.089J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:21 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:33 | | |
| Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:33 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:33 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 20000 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|-------|
| Chloride | 9540 | mg/L | 100 | 60.0 | 100 | | 12/18/21 00:56 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 00:56 | 16984-48-8 | D3,M1 |
| Sulfate | 1300 | mg/L | 100 | 50.0 | 100 | | 12/18/21 00:56 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T3-4HT **Lab ID: 92578470010** Collected: 12/15/21 10:36 Received: 12/16/21 11:00 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 | | 12/20/21 11:44 | | |
| pH | 7.45 | Std. Units | | | 1 | | 12/20/21 11:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 248 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:27 | 7440-70-2 | |
| Magnesium | 732 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:27 | 7439-95-4 | |
| Potassium | 241 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:27 | 7440-09-7 | |
| Sodium | 6200 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:13 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:25 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:25 | 7440-42-8 | D3 |
| Lithium | 0.091J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:25 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:39 | | |
| Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:39 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:39 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 19800 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9440 | mg/L | 100 | 60.0 | 100 | | 12/18/21 01:39 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 01:39 | 16984-48-8 | D3 |
| Sulfate | 1290 | mg/L | 100 | 50.0 | 100 | | 12/18/21 01:39 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T3-4HTS **Lab ID: 92578470011** Collected: 12/15/21 10:42 Received: 12/16/21 11:00 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 | | 12/20/21 11:44 | | |
| pH | 7.46 | Std. Units | | | 1 | | 12/20/21 11:44 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 246 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:30 | 7440-70-2 | |
| Magnesium | 730 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:30 | 7439-95-4 | |
| Potassium | 243 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:30 | 7440-09-7 | |
| Sodium | 6180 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:16 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:29 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:29 | 7440-42-8 | D3 |
| Lithium | 0.089J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:29 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|-------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 99.0 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:45 | | |
| Alkalinity,Bicarbonate (CaCO3) | 99.0 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:45 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:45 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19000 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:29 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9740 | mg/L | 100 | 60.0 | 100 | | 12/18/21 01:53 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 01:53 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 01:53 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-1HB **Lab ID: 92578470012** Collected: 12/15/21 07:06 Received: 12/16/21 11:00 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 | | 12/20/21 11:44 | | |
| pH | 7.35 | Std. Units | | | 1 | | 12/20/21 11:44 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 263 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:33 | 7440-70-2 | |
| Magnesium | 774 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:33 | 7439-95-4 | |
| Potassium | 257 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:33 | 7440-09-7 | |
| Sodium | 6190 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:19 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:32 | 7440-38-2 | D3 |
| Boron | 2.5 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:32 | 7440-42-8 | D3 |
| Lithium | 0.094J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:32 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 106 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:51 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:51 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:51 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 20800 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:31 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 11300 | mg/L | 200 | 120 | 200 | | 12/18/21 14:05 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 02:08 | 16984-48-8 | D3 |
| Sulfate | 1410 | mg/L | 100 | 50.0 | 100 | | 12/18/21 02:08 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-1HS **Lab ID: 92578470013** Collected: 12/15/21 07:00 Received: 12/16/21 11:00 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 | | 12/20/21 11:44 | | |
| pH | 7.40 | Std. Units | | | 1 | | 12/20/21 11:44 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 276 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:37 | 7440-70-2 | |
| Magnesium | 814 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:37 | 7439-95-4 | |
| Potassium | 268 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:37 | 7440-09-7 | |
| Sodium | 6430 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:23 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:36 | 7440-38-2 | D3 |
| Boron | 2.5J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:36 | 7440-42-8 | D3 |
| Lithium | 0.095J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:36 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:57 | | |
| Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:57 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 22:57 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21200 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:31 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 10400 | mg/L | 200 | 120 | 200 | | 12/18/21 14:19 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 03:34 | 16984-48-8 | D3 |
| Sulfate | 1430 | mg/L | 100 | 50.0 | 100 | | 12/18/21 03:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-2HB **Lab ID: 92578470014** Collected: 12/15/21 07:22 Received: 12/16/21 11:00 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 | | 12/20/21 11:44 | | |
| pH | 7.44 | Std. Units | | | 1 | | 12/20/21 11:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 273 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:40 | 7440-70-2 | |
| Magnesium | 808 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:40 | 7439-95-4 | |
| Potassium | 269 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:40 | 7440-09-7 | |
| Sodium | 6730 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:26 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:50 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:50 | 7440-42-8 | D3 |
| Lithium | 0.096J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:50 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:03 | | |
| Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:03 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:03 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21100 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 10100 | mg/L | 200 | 120 | 200 | | 12/18/21 14:33 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 03:48 | 16984-48-8 | D3 |
| Sulfate | 1440 | mg/L | 100 | 50.0 | 100 | | 12/18/21 03:48 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Sample: T4-2HS | | Lab ID: 92578470015 | | Collected: 12/15/21 07:25 | Received: 12/16/21 11:00 | 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 | | 12/20/21 11:45 | | |
| pH | 7.45 | Std. Units | | | 1 | | 12/20/21 11:45 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 294 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:44 | 7440-70-2 | |
| Magnesium | 868 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:44 | 7439-95-4 | |
| Potassium | 284 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:44 | 7440-09-7 | |
| Sodium | 6710 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:29 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:54 | 7440-38-2 | D3 |
| Boron | 2.6 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:54 | 7440-42-8 | D3 |
| Lithium | 0.10J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:54 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:10 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:10 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:10 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21100 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:31 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 11300 | mg/L | 200 | 120 | 200 | | 12/18/21 14:48 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 04:03 | 16984-48-8 | D3 |
| Sulfate | 1410 | mg/L | 100 | 50.0 | 100 | | 12/18/21 04:03 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-3HB **Lab ID: 92578470016** Collected: 12/15/21 07:40 Received: 12/16/21 11:00 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 | | 12/20/21 11:45 | | |
| pH | 7.49 | Std. Units | | | 1 | | 12/20/21 11:45 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 284 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:47 | 7440-70-2 | |
| Magnesium | 838 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:47 | 7439-95-4 | |
| Potassium | 278 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:47 | 7440-09-7 | |
| Sodium | 6790 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:32 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 17:58 | 7440-38-2 | D3 |
| Boron | 2.6 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 17:58 | 7440-42-8 | D3 |
| Lithium | 0.098J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 17:58 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:16 | | |
| Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:16 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:16 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21800 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:31 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9880 | mg/L | 200 | 120 | 200 | | 12/18/21 15:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 04:17 | 16984-48-8 | D3 |
| Sulfate | 1420 | mg/L | 100 | 50.0 | 100 | | 12/18/21 04:17 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-3HS **Lab ID: 92578470017** Collected: 12/15/21 07:44 Received: 12/16/21 11:00 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 | | 12/20/21 11:45 | | |
| pH | 7.55 | Std. Units | | | 1 | | 12/20/21 11:45 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 281 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:50 | 7440-70-2 | |
| Magnesium | 832 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:50 | 7439-95-4 | |
| Potassium | 274 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:50 | 7440-09-7 | |
| Sodium | 6570 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:35 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 18:01 | 7440-38-2 | D3 |
| Boron | 2.6 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 18:01 | 7440-42-8 | D3 |
| Lithium | 0.10J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 18:01 | 7439-93-2 | D3 |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:37 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:37 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:37 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 22200 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 11800 | mg/L | 200 | 120 | 200 | | 12/18/21 15:16 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 04:31 | 16984-48-8 | D3 |
| Sulfate | 1410 | mg/L | 100 | 50.0 | 100 | | 12/18/21 04:31 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-4HB **Lab ID: 92578470018** Collected: 12/15/21 08:04 Received: 12/16/21 11:00 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 | | 12/20/21 11:45 | | |
| pH | 7.52 | Std. Units | | | 1 | | 12/20/21 11:45 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 281 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:54 | 7440-70-2 | |
| Magnesium | 830 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:54 | 7439-95-4 | |
| Potassium | 275 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:54 | 7440-09-7 | |
| Sodium | 6300 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:38 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|--------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 18:05 | 7440-38-2 | D3 |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 18:05 | 7440-42-8 | D3 |
| Lithium | 0.10J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 18:05 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:43 | | |
| Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:43 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:43 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21400 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 10800 | mg/L | 200 | 120 | 200 | | 12/18/21 15:30 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 04:45 | 16984-48-8 | D3 |
| Sulfate | 1420 | mg/L | 100 | 50.0 | 100 | | 12/18/21 04:45 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-4HS **Lab ID: 92578470019** Collected: 12/15/21 08:08 Received: 12/16/21 11:00 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 | | 12/20/21 11:46 | | |
| pH | 7.50 | Std. Units | | | 1 | | 12/20/21 11:46 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 252 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 13:57 | 7440-70-2 | |
| Magnesium | 752 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 13:57 | 7439-95-4 | |
| Potassium | 251 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 13:57 | 7440-09-7 | |
| Sodium | 6180 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:48 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|--------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 18:08 | 7440-38-2 | D3 |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 18:08 | 7440-42-8 | D3 |
| Lithium | 0.10J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 18:08 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 104 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:49 | | |
| Alkalinity,Bicarbonate (CaCO3) | 104 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:49 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:49 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21500 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|-------|
| Chloride | 11300 | mg/L | 200 | 120 | 200 | | 12/18/21 16:28 | 16887-00-6 | M1,R1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 05:28 | 16984-48-8 | D3,M1 |
| Sulfate | 1430 | mg/L | 100 | 50.0 | 100 | | 12/18/21 05:28 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T1-4LT **Lab ID: 92578470020** Collected: 12/15/21 14:48 Received: 12/16/21 11:00 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 | | 12/20/21 11:46 | | |
| pH | 7.67 | Std. Units | | | 1 | | 12/20/21 11:46 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 245 | mg/L | 2.0 | 1.9 | 20 | 12/20/21 11:19 | 01/10/22 14:13 | 7440-70-2 | |
| Magnesium | 725 | mg/L | 2.0 | 1.4 | 20 | 12/20/21 11:19 | 01/10/22 14:13 | 7439-95-4 | |
| Potassium | 240 | mg/L | 100 | 60.8 | 20 | 12/20/21 11:19 | 01/10/22 14:13 | 7440-09-7 | |
| Sodium | 6000 | mg/L | 1000 | 122 | 200 | 12/20/21 11:19 | 01/11/22 03:51 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 18:12 | 7440-38-2 | D3 |
| Boron | 2.6 | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 18:12 | 7440-42-8 | D3 |
| Lithium | 0.099J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 18:12 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|-------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 99.0 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:55 | | |
| Alkalinity,Bicarbonate (CaCO3) | 99.0 | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:55 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/20/21 23:55 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 20400 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9790 | mg/L | 100 | 60.0 | 100 | | 12/18/21 07:23 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 07:23 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 07:23 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T2-4LT **Lab ID: 92578470021** Collected: 12/15/21 15:00 Received: 12/16/21 11:00 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 | | 12/20/21 11:46 | | |
| pH | 7.68 | Std. Units | | | 1 | | 12/20/21 11:46 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 224 | mg/L | 1.0 | 0.94 | 10 | 12/20/21 11:19 | 01/07/22 14:43 | 7440-70-2 | |
| Magnesium | 675 | mg/L | 1.0 | 0.68 | 10 | 12/20/21 11:19 | 01/07/22 14:43 | 7439-95-4 | |
| Potassium | 221 | mg/L | 50.0 | 30.4 | 10 | 12/20/21 11:19 | 01/07/22 14:43 | 7440-09-7 | |
| Sodium | 5760 | mg/L | 500 | 61.1 | 100 | 12/20/21 11:19 | 01/10/22 00:35 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|----|----------------|----------------|-----------|-------|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 12/22/21 15:57 | 12/27/21 18:47 | 7440-38-2 | D3 |
| Boron | 2.4J | mg/L | 2.5 | 0.42 | 50 | 12/22/21 15:57 | 12/27/21 18:47 | 7440-42-8 | D3,M1 |
| Lithium | 0.085J | mg/L | 0.12 | 0.025 | 50 | 12/22/21 15:57 | 12/27/21 18:47 | 7439-93-2 | D3 |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:13 | | |
| Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:13 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:13 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19200 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9780 | mg/L | 100 | 60.0 | 100 | | 12/18/21 07:38 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 07:38 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 07:38 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T3-4LT **Lab ID: 92578470022** Collected: 12/15/21 15:10 Received: 12/16/21 11:00 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 | | 12/20/21 11:46 | | |
| pH | 7.62 | Std. Units | | | 1 | | 12/20/21 11:46 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 247 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:13 | 7440-70-2 | M1 |
| Magnesium | 744 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:13 | 7439-95-4 | M1 |
| Potassium | 251 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:13 | 7440-09-7 | M1 |
| Sodium | 6390 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 02:35 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:12 | 7440-38-2 | |
| Boron | 0.24J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:12 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:12 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:38 | | |
| Alkalinity,Bicarbonate (CaCO3) | 102 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:38 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:38 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20800 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9790 | mg/L | 100 | 60.0 | 100 | | 12/18/21 07:52 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 07:52 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 07:52 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: T4-4L **Lab ID: 92578470023** Collected: 12/15/21 13:48 Received: 12/16/21 11:00 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 | | 12/20/21 11:47 | | |
| pH | 7.60 | Std. Units | | | 1 | | 12/20/21 11:47 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 249 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:32 | 7440-70-2 | |
| Magnesium | 751 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:32 | 7439-95-4 | |
| Potassium | 251 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:32 | 7440-09-7 | |
| Sodium | 6270 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:00 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:38 | 7440-38-2 | |
| Boron | 0.26J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:38 | 7440-42-8 | |
| Lithium | 0.010J | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:38 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 109 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:59 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:59 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 00:59 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20700 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:37 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 10600 | mg/L | 200 | 120 | 200 | | 12/18/21 17:11 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 08:06 | 16984-48-8 | D3 |
| Sulfate | 1410 | mg/L | 100 | 50.0 | 100 | | 12/18/21 08:06 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: BG-1LT **Lab ID: 92578470024** Collected: 12/15/21 12:50 Received: 12/16/21 11:00 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 | | 12/20/21 11:47 | | |
| pH | 7.50 | Std. Units | | | 1 | | 12/20/21 11:47 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 235 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:52 | 7440-70-2 | |
| Magnesium | 706 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:52 | 7439-95-4 | |
| Potassium | 238 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:52 | 7440-09-7 | |
| Sodium | 5730 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:04 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|---|----------------|----------------|-----------|--|
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:41 | 7440-38-2 | |
| Boron | 0.25J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:41 | 7440-42-8 | |
| Lithium | 0.010J | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:41 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 103 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:05 | | |
| Alkalinity,Bicarbonate (CaCO3) | 103 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:05 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:05 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 19800 | mg/L | 833 | 833 | 1 | | 12/21/21 10:37 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9830 | mg/L | 100 | 60.0 | 100 | | 12/18/21 08:20 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 08:20 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 08:20 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: BG-2HT **Lab ID: 92578470025** Collected: 12/15/21 08:41 Received: 12/16/21 11:00 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 | | 12/20/21 11:47 | | |
| pH | 7.62 | Std. Units | | | 1 | | 12/20/21 11:47 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 259 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:56 | 7440-70-2 | |
| Magnesium | 796 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:56 | 7439-95-4 | |
| Potassium | 268 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:56 | 7440-09-7 | |
| Sodium | 7240 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:07 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|---------------|------|-------|--------|---|----------------|----------------|-----------|--|
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:45 | 7440-38-2 | |
| Boron | 0.28J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:45 | 7440-42-8 | |
| Lithium | 0.011J | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:45 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Green Bay

| | | | | | | | | | |
|--------------------------------|------------|------|------|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 109 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:11 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:11 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:11 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 22600 | mg/L | 1250 | 1250 | 1 | | 12/21/21 10:37 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 10600 | mg/L | 200 | 120 | 200 | | 12/18/21 17:25 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 08:34 | 16984-48-8 | D3 |
| Sulfate | 1540 | mg/L | 100 | 50.0 | 100 | | 12/18/21 08:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: DUP-1 **Lab ID: 92578470026** Collected: 12/15/21 00:00 Received: 12/16/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 231 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:36 | 7440-70-2 | |
| Magnesium | 697 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:36 | 7439-95-4 | |
| Potassium | 234 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:36 | 7440-09-7 | |
| Sodium | 5850 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:10 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:49 | 7440-38-2 | |
| Boron | 0.25J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:49 | 7440-42-8 | |
| Lithium | 0.010J | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:49 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:17 | | |
| Alkalinity,Bicarbonate (CaCO3) | 101 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:17 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:17 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20000 | mg/L | 833 | 833 | 1 | | 12/21/21 10:39 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9860 | mg/L | 100 | 60.0 | 100 | | 12/18/21 08:49 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 08:49 | 16984-48-8 | D3 |
| Sulfate | 1340 | mg/L | 100 | 50.0 | 100 | | 12/18/21 08:49 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: DUP-2 **Lab ID: 92578470027** Collected: 12/15/21 00:00 Received: 12/16/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 260 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:39 | 7440-70-2 | |
| Magnesium | 766 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:39 | 7439-95-4 | |
| Potassium | 264 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:39 | 7440-09-7 | |
| Sodium | 6510 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:13 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 11:52 | 7440-38-2 | |
| Boron | 0.27J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 11:52 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 11:52 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:23 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:23 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:23 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20800 | mg/L | 833 | 833 | 1 | | 12/21/21 10:39 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 6830 | mg/L | 200 | 120 | 200 | | 12/18/21 17:39 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 09:03 | 16984-48-8 | D3 |
| Sulfate | 1420 | mg/L | 100 | 50.0 | 100 | | 12/18/21 09:03 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: DUP-3 **Lab ID: 92578470028** Collected: 12/15/21 00:00 Received: 12/16/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 234 | mg/L | 2.0 | 1.9 | 20 | 01/03/22 10:29 | 01/12/22 07:43 | 7440-70-2 | |
| Magnesium | 698 | mg/L | 2.0 | 1.4 | 20 | 01/03/22 10:29 | 01/12/22 07:43 | 7439-95-4 | |
| Potassium | 237 | mg/L | 100 | 60.8 | 20 | 01/03/22 10:29 | 01/12/22 07:43 | 7440-09-7 | |
| Sodium | 5970 | mg/L | 1000 | 122 | 200 | 01/03/22 10:29 | 01/13/22 03:17 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 12:14 | 7440-38-2 | |
| Boron | 0.24J | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 12:14 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 12:14 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 99.1 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:29 | | |
| Alkalinity,Bicarbonate (CaCO3) | 99.1 | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:29 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:29 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 19800 | mg/L | 833 | 833 | 1 | | 12/21/21 10:39 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9750 | mg/L | 100 | 60.0 | 100 | | 12/18/21 09:17 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 12/18/21 09:17 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 12/18/21 09:17 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: FB-1 **Lab ID:** 92578470029 Collected: 12/15/21 16:12 Received: 12/16/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-------------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 01/03/22 10:29 | 01/13/22 03:20 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 01/03/22 10:29 | 01/13/22 03:20 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 01/03/22 10:29 | 01/13/22 03:20 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 01/03/22 10:29 | 01/13/22 03:20 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 12:18 | 7440-38-2 | |
| Boron | ND | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 12:18 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 12:18 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 8.2J | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:35 | | |
| Alkalinity,Bicarbonate (CaCO3) | 8.2J | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:35 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:35 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 12/21/21 10:39 | | |
| 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 | | 12/18/21 10:27 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 12/18/21 10:27 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 12/18/21 10:27 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

Sample: EB-1 **Lab ID: 92578470030** Collected: 12/15/21 16:20 Received: 12/16/21 11:00 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|-------------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 01/03/22 10:29 | 01/13/22 03:23 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 01/03/22 10:29 | 01/13/22 03:23 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 01/03/22 10:29 | 01/13/22 03:23 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 01/03/22 10:29 | 01/13/22 03:23 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 12/22/21 05:34 | 12/27/21 12:32 | 7440-38-2 | |
| Boron | ND | mg/L | 1.0 | 0.17 | 1 | 12/22/21 05:34 | 12/27/21 12:32 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 12/22/21 05:34 | 12/27/21 12:32 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Green Bay | | | | | | | | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:41 | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:41 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 10.0 | 5.0 | 1 | | 12/21/21 01:41 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 12/21/21 10:39 | | |
| 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 | | 12/18/21 13:21 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 12/18/21 13:21 | 16984-48-8 | |
| Sulfate | 1.5 | mg/L | 1.0 | 0.50 | 1 | | 12/18/21 13:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

QC Batch: 667169 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020

METHOD BLANK: 3495122 Matrix: Water
 Associated Lab Samples: 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 01/10/22 12:27 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 01/10/22 12:27 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 01/10/22 12:27 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 01/10/22 12:27 | |

LABORATORY CONTROL SAMPLE: 3495123

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Magnesium | mg/L | 5 | 5.0 | 99 | 80-120 | |
| Potassium | mg/L | 5 | 4.9J | 99 | 80-120 | |
| Sodium | mg/L | 5 | 5.1 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495124 3495125

| Parameter | Units | MS | | MSD | | MS | | MSD | | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|--------|-------|-------|--------|--------------|-----|---------|------|
| | | 92578470001 Result | Spike Conc. | Spike Conc. | Result | Result | % Rec | % Rec | | | | | |
| Calcium | mg/L | 254 | 5 | 5 | 260 | 263 | 116 | 172 | 75-125 | 1 | 20 | M1 | |
| Magnesium | mg/L | 748 | 5 | 5 | 755 | 759 | 140 | 220 | 75-125 | 1 | 20 | M1 | |
| Potassium | mg/L | 245 | 5 | 5 | 252 | 252 | 152 | 156 | 75-125 | 0 | 20 | M1 | |
| Sodium | mg/L | 6160 | 5 | 5 | 6230 | 6160 | 1240 | -160 | 75-125 | 1 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 667170 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92578470021

METHOD BLANK: 3495126 Matrix: Water

Associated Lab Samples: 92578470021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 01/06/22 00:54 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 01/06/22 00:54 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 01/06/22 00:54 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 01/06/22 00:54 | |

LABORATORY CONTROL SAMPLE: 3495127

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Magnesium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Potassium | mg/L | 5 | 5.0 | 100 | 80-120 | |
| Sodium | mg/L | 5 | 5.0 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3495128 3495129

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92578199034 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 77100 ug/L | 5 | 5 | 84.9 | 83.2 | 157 | 122 | 75-125 | 2 | 20 |
| Magnesium | mg/L | 12000 ug/L | 5 | 5 | 18.3 | 18.0 | 127 | 119 | 75-125 | 2 | 20 |
| Potassium | mg/L | 15200 ug/L | 5 | 5 | 21.4 | 21.0 | 124 | 116 | 75-125 | 2 | 20 |
| Sodium | mg/L | 12300 ug/L | 5 | 5 | 17.8 | 17.5 | 110 | 105 | 75-125 | 1 | 20 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

QC Batch: 669366

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

METHOD BLANK: 3505218

Matrix: Water

Associated Lab Samples: 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 01/12/22 07:06 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 01/12/22 07:06 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 01/12/22 07:06 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 01/12/22 07:06 | |

LABORATORY CONTROL SAMPLE: 3505219

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.6 | 93 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 95 | 80-120 | |
| Potassium | mg/L | 5 | 4.8J | 96 | 80-120 | |
| Sodium | mg/L | 5 | 5.0 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505220 3505221

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | 92578470022 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 247 | 5 | 5 | 243 | 243 | -80 | -80 | 75-125 | 0 | 20 M1 |
| Magnesium | mg/L | 744 | 5 | 5 | 714 | 713 | -604 | -628 | 75-125 | 0 | 20 M1 |
| Potassium | mg/L | 251 | 5 | 5 | 246 | 246 | -104 | -108 | 75-125 | 0 | 20 M1 |
| Sodium | mg/L | 6390 | 5 | 5 | 6110 | 6090 | -5560 | -6040 | 75-125 | 0 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

QC Batch: 667751 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020

METHOD BLANK: 3498318 Matrix: Water
 Associated Lab Samples: 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 12/27/21 12:25 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 12/27/21 12:25 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 12/27/21 12:25 | |

LABORATORY CONTROL SAMPLE: 3498319

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.05 | 0.052 | 103 | 80-120 | |
| Boron | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.048 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498320 3498321

| Parameter | Units | 92578470001 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|-------------|------------|----------|-----------|--------------|---------|------|
| | | | Spike Conc. | MS Result | Spike Conc. | MSD Result | | | | | |
| Arsenic | mg/L | ND | 0.05 | 0.05 | 0.055 | 0.055 | 107 | 108 | 75-125 | 0 | 20 |
| Boron | mg/L | 2.2J | 0.05 | 0.05 | 2.3J | 2.3J | 168 | 132 | 75-125 | 20 | M1 |
| Lithium | mg/L | 0.091J | 0.05 | 0.05 | 0.14 | 0.14 | 90 | 104 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 667752 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3498322 | Matrix: | Water |
| Associated Lab Samples: | 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 12/22/21 15:16 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 12/22/21 15:16 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 12/22/21 15:16 | |

| LABORATORY CONTROL SAMPLE: | 3498323 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Arsenic | mg/L | 0.05 | 0.051 | 102 | 80-120 | |
| Boron | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3498334 | | | 3498335 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92578470022 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 | 1 | 1 | 1.0 | 1.0 | 103 | 102 | 75-125 | 1 | 20 | |
| Boron | mg/L | 0.24J | 1 | 1 | 1.1 | 1.1 | 84 | 86 | 75-125 | 2 | 20 | |
| Lithium | mg/L | ND | 1 | 1 | 0.93 | 0.92 | 92 | 91 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

QC Batch: 667969 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92578470021

METHOD BLANK: 3499273 Matrix: Water
 Associated Lab Samples: 92578470021

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 12/27/21 18:39 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 12/27/21 18:39 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 12/27/21 18:39 | |

LABORATORY CONTROL SAMPLE: 3499274

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Boron | mg/L | 0.05 | 0.048J | 96 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.044 | 88 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3499275 3499276

| Parameter | Units | 92578470021 | | 3499276 | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|----------------|-----------------|-----------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | | |
| Arsenic | mg/L | ND | 0.05 | 0.05 | 0.055 | 0.055 | 106 | 106 | 75-125 | 0 | 20 | | |
| Boron | mg/L | 2.4J | 0.05 | 0.05 | 2.4J | 2.6 | -7 | 383 | 75-125 | | 20 | M1 | |
| Lithium | mg/L | 0.085J | 0.05 | 0.05 | 0.14 | 0.14 | 103 | 108 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 404651 | Analysis Method: | SM 2320B |
| QC Batch Method: | SM 2320B | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Green Bay |
| Associated Lab Samples: | 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 2335903 | Matrix: | Water |
| Associated Lab Samples: | 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|----------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 10.0 | 5.0 | 12/20/21 20:56 | |

| LABORATORY CONTROL SAMPLE: | 2335904 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 200 | 213 | 107 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 2335905 | | | 2335906 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92578470001 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 | 103 | 200 | 200 | 303 | 303 | 100 | 100 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

QC Batch: 404652 Analysis Method: SM 2320B
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Green Bay
 Associated Lab Samples: 92578470021, 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

METHOD BLANK: 2335909 Matrix: Water
 Associated Lab Samples: 92578470021, 92578470022, 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|----------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 10.0 | 5.0 | 12/21/21 00:01 | |

LABORATORY CONTROL SAMPLE: 2335910

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 200 | 211 | 106 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2335911 2335912

| Parameter | Units | 92578470021 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 | 102 | 200 | 200 | 303 | 303 | 101 | 100 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

QC Batch: 667219 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92578470001, 92578470002

METHOD BLANK: 3495276 Matrix: Water
 Associated Lab Samples: 92578470001, 92578470002

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 12/20/21 11:47 | |

LABORATORY CONTROL SAMPLE: 3495277

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 248 | 99 | 90-110 | |

SAMPLE DUPLICATE: 3495278

| Parameter | Units | 92578448012 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 464 | 460 | 1 | 25 | |

SAMPLE DUPLICATE: 3495279

| Parameter | Units | 92578448022 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 1640 | 1650 | 1 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

QC Batch: 667487 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020, 92578470021, 92578470022

METHOD BLANK: 3496783 Matrix: Water
 Associated Lab Samples: 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018, 92578470019, 92578470020, 92578470021, 92578470022

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 12/21/21 10:26 | |

LABORATORY CONTROL SAMPLE: 3496784

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 240 | 96 | 90-110 | |

SAMPLE DUPLICATE: 3496785

| Parameter | Units | 92578470003 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 18800 | 43000 | 78 | 25 | D6 |

SAMPLE DUPLICATE: 3496786

| Parameter | Units | 92578470013 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 21200 | 21200 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

QC Batch: 667490 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

METHOD BLANK: 3496791 Matrix: Water
 Associated Lab Samples: 92578470023, 92578470024, 92578470025, 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 12/21/21 10:37 | |

LABORATORY CONTROL SAMPLE: 3496792

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 240 | 96 | 90-110 | |

SAMPLE DUPLICATE: 3496793

| Parameter | Units | 92578470023 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 20700 | 20800 | 1 | 25 | |

SAMPLE DUPLICATE: 3496794

| Parameter | Units | 92578650001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 1260 | 1260 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 667029 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3494332 | Matrix: | Water |
| Associated Lab Samples: | 92578470001, 92578470002, 92578470003, 92578470004, 92578470005, 92578470006, 92578470007, 92578470008, 92578470009, 92578470010, 92578470011, 92578470012, 92578470013, 92578470014, 92578470015, 92578470016, 92578470017, 92578470018 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 12/17/21 17:30 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 12/17/21 17:30 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 12/17/21 17:30 | |

| LABORATORY CONTROL SAMPLE: | 3494333 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 50.5 | 101 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.7 | 107 | 90-110 | |
| Sulfate | mg/L | 50 | 50.0 | 100 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3494334 | | | 3494335 | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|-------|
| Parameter | Units | 92577887004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | Max | |
| | | | | | | | | | | RPD | RPD |
| Chloride | mg/L | 15.7 | 50 | 50 | 66.0 | 67.2 | 100 | 103 | 90-110 | 2 | 10 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.9 | 3.0 | 116 | 119 | 90-110 | 3 | 10 M1 |
| Sulfate | mg/L | 18.4 | 50 | 50 | 68.8 | 70.0 | 101 | 103 | 90-110 | 2 | 10 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3494336 | | | 3494337 | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|-------|
| Parameter | Units | 92578470009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | Max | |
| | | | | | | | | | | RPD | RPD |
| Chloride | mg/L | 9540 | 50 | 50 | 9380 | 9390 | -331 | -297 | 90-110 | 0 | 10 M1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 76 | 80 | 90-110 | 10 | D3,M1 |
| Sulfate | mg/L | 1300 | 50 | 50 | 1320 | 1330 | 46 | 52 | 90-110 | 0 | 10 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

QC Batch: 667030 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92578470019, 92578470020, 92578470021, 92578470022, 92578470023, 92578470024, 92578470025,
 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

METHOD BLANK: 3494342 Matrix: Water
 Associated Lab Samples: 92578470019, 92578470020, 92578470021, 92578470022, 92578470023, 92578470024, 92578470025,
 92578470026, 92578470027, 92578470028, 92578470029, 92578470030

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 12/18/21 04:59 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 12/18/21 04:59 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 12/18/21 04:59 | |

LABORATORY CONTROL SAMPLE: 3494343

| 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 | 2.7 | 109 | 90-110 | |
| Sulfate | mg/L | 50 | 52.4 | 105 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494344 3494345

| Parameter | Units | 92578470019 | | 3494345 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|-------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | 11300 | 50 | 50 | 11300 | 10100 | 55 | -2340 | 11 | 10 | M1,R1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 68 | 76 | | 10 | D3,M1 |
| Sulfate | mg/L | 1430 | 50 | 50 | 1460 | 1480 | 53 | 102 | 2 | 10 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3494346 3494347

| Parameter | Units | 92578470029 | | 3494347 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 51.8 | 53.1 | 104 | 106 | 2 | 10 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.7 | 2.7 | 108 | 107 | 1 | 10 | |
| Sulfate | mg/L | ND | 50 | 50 | 51.5 | 52.7 | 103 | 105 | 2 | 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

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



QUALIFIERS

Project: MCMANUS SURFACE WATER
Pace Project No.: 92578470

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.

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

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

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92578470001 | T1-4HT | | | | |
| 92578470002 | T1-4HTS | | | | |
| 92578470003 | T2-1HT | | | | |
| 92578470004 | T2-2HT | | | | |
| 92578470005 | T2-2HTS | | | | |
| 92578470006 | T2-3HT | | | | |
| 92578470007 | T2-3HTS | | | | |
| 92578470008 | T2-4HT | | | | |
| 92578470009 | T2-4HTS | | | | |
| 92578470010 | T3-4HT | | | | |
| 92578470011 | T3-4HTS | | | | |
| 92578470012 | T4-1HB | | | | |
| 92578470013 | T4-1HS | | | | |
| 92578470014 | T4-2HB | | | | |
| 92578470015 | T4-2HS | | | | |
| 92578470016 | T4-3HB | | | | |
| 92578470017 | T4-3HS | | | | |
| 92578470018 | T4-4HB | | | | |
| 92578470019 | T4-4HS | | | | |
| 92578470020 | T1-4LT | | | | |
| 92578470021 | T2-4LT | | | | |
| 92578470022 | T3-4LT | | | | |
| 92578470023 | T4-4L | | | | |
| 92578470024 | BG-1LT | | | | |
| 92578470025 | BG-2HT | | | | |
| 92578470001 | T1-4HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470002 | T1-4HTS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470003 | T2-1HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470004 | T2-2HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470005 | T2-2HTS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470006 | T2-3HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470007 | T2-3HTS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470008 | T2-4HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470009 | T2-4HTS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470010 | T3-4HT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470011 | T3-4HTS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470012 | T4-1HB | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470013 | T4-1HS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470014 | T4-2HB | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470015 | T4-2HS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470016 | T4-3HB | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470017 | T4-3HS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470018 | T4-4HB | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470019 | T4-4HS | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470020 | T1-4LT | EPA 3010A | 667169 | EPA 6010D | 667347 |
| 92578470021 | T2-4LT | EPA 3010A | 667170 | EPA 6010D | 667350 |
| 92578470022 | T3-4LT | EPA 3010A | 669366 | EPA 6010D | 669475 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER

Pace Project No.: 92578470

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92578470023 | T4-4L | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470024 | BG-1LT | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470025 | BG-2HT | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470026 | DUP-1 | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470027 | DUP-2 | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470028 | DUP-3 | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470029 | FB-1 | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470030 | EB-1 | EPA 3010A | 669366 | EPA 6010D | 669475 |
| 92578470001 | T1-4HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470002 | T1-4HTS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470003 | T2-1HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470004 | T2-2HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470005 | T2-2HTS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470006 | T2-3HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470007 | T2-3HTS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470008 | T2-4HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470009 | T2-4HTS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470010 | T3-4HT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470011 | T3-4HTS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470012 | T4-1HB | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470013 | T4-1HS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470014 | T4-2HB | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470015 | T4-2HS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470016 | T4-3HB | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470017 | T4-3HS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470018 | T4-4HB | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470019 | T4-4HS | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470020 | T1-4LT | EPA 3010A | 667751 | EPA 6020B | 668069 |
| 92578470021 | T2-4LT | EPA 3010A | 667969 | EPA 6020B | 668074 |
| 92578470022 | T3-4LT | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470023 | T4-4L | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470024 | BG-1LT | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470025 | BG-2HT | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470026 | DUP-1 | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470027 | DUP-2 | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470028 | DUP-3 | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470029 | FB-1 | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470030 | EB-1 | EPA 3010A | 667752 | EPA 6020B | 667778 |
| 92578470001 | T1-4HT | SM 2320B | 404651 | | |
| 92578470002 | T1-4HTS | SM 2320B | 404651 | | |
| 92578470003 | T2-1HT | SM 2320B | 404651 | | |
| 92578470004 | T2-2HT | SM 2320B | 404651 | | |
| 92578470005 | T2-2HTS | SM 2320B | 404651 | | |
| 92578470006 | T2-3HT | SM 2320B | 404651 | | |
| 92578470007 | T2-3HTS | SM 2320B | 404651 | | |
| 92578470008 | T2-4HT | SM 2320B | 404651 | | |
| 92578470009 | T2-4HTS | SM 2320B | 404651 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92578470010 | T3-4HT | SM 2320B | 404651 | | |
| 92578470011 | T3-4HTS | SM 2320B | 404651 | | |
| 92578470012 | T4-1HB | SM 2320B | 404651 | | |
| 92578470013 | T4-1HS | SM 2320B | 404651 | | |
| 92578470014 | T4-2HB | SM 2320B | 404651 | | |
| 92578470015 | T4-2HS | SM 2320B | 404651 | | |
| 92578470016 | T4-3HB | SM 2320B | 404651 | | |
| 92578470017 | T4-3HS | SM 2320B | 404651 | | |
| 92578470018 | T4-4HB | SM 2320B | 404651 | | |
| 92578470019 | T4-4HS | SM 2320B | 404651 | | |
| 92578470020 | T1-4LT | SM 2320B | 404651 | | |
| 92578470021 | T2-4LT | SM 2320B | 404652 | | |
| 92578470022 | T3-4LT | SM 2320B | 404652 | | |
| 92578470023 | T4-4L | SM 2320B | 404652 | | |
| 92578470024 | BG-1LT | SM 2320B | 404652 | | |
| 92578470025 | BG-2HT | SM 2320B | 404652 | | |
| 92578470026 | DUP-1 | SM 2320B | 404652 | | |
| 92578470027 | DUP-2 | SM 2320B | 404652 | | |
| 92578470028 | DUP-3 | SM 2320B | 404652 | | |
| 92578470029 | FB-1 | SM 2320B | 404652 | | |
| 92578470030 | EB-1 | SM 2320B | 404652 | | |
| 92578470001 | T1-4HT | SM 2540C-2015 | 667219 | | |
| 92578470002 | T1-4HTS | SM 2540C-2015 | 667219 | | |
| 92578470003 | T2-1HT | SM 2540C-2015 | 667487 | | |
| 92578470004 | T2-2HT | SM 2540C-2015 | 667487 | | |
| 92578470005 | T2-2HTS | SM 2540C-2015 | 667487 | | |
| 92578470006 | T2-3HT | SM 2540C-2015 | 667487 | | |
| 92578470007 | T2-3HTS | SM 2540C-2015 | 667487 | | |
| 92578470008 | T2-4HT | SM 2540C-2015 | 667487 | | |
| 92578470009 | T2-4HTS | SM 2540C-2015 | 667487 | | |
| 92578470010 | T3-4HT | SM 2540C-2015 | 667487 | | |
| 92578470011 | T3-4HTS | SM 2540C-2015 | 667487 | | |
| 92578470012 | T4-1HB | SM 2540C-2015 | 667487 | | |
| 92578470013 | T4-1HS | SM 2540C-2015 | 667487 | | |
| 92578470014 | T4-2HB | SM 2540C-2015 | 667487 | | |
| 92578470015 | T4-2HS | SM 2540C-2015 | 667487 | | |
| 92578470016 | T4-3HB | SM 2540C-2015 | 667487 | | |
| 92578470017 | T4-3HS | SM 2540C-2015 | 667487 | | |
| 92578470018 | T4-4HB | SM 2540C-2015 | 667487 | | |
| 92578470019 | T4-4HS | SM 2540C-2015 | 667487 | | |
| 92578470020 | T1-4LT | SM 2540C-2015 | 667487 | | |
| 92578470021 | T2-4LT | SM 2540C-2015 | 667487 | | |
| 92578470022 | T3-4LT | SM 2540C-2015 | 667487 | | |
| 92578470023 | T4-4L | SM 2540C-2015 | 667490 | | |
| 92578470024 | BG-1LT | SM 2540C-2015 | 667490 | | |
| 92578470025 | BG-2HT | SM 2540C-2015 | 667490 | | |
| 92578470026 | DUP-1 | SM 2540C-2015 | 667490 | | |

REPORT OF LABORATORY ANALYSIS

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



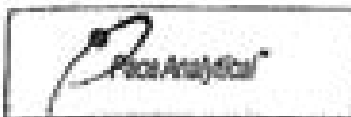
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER
 Pace Project No.: 92578470

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92578470027 | DUP-2 | SM 2540C-2015 | 667490 | | |
| 92578470028 | DUP-3 | SM 2540C-2015 | 667490 | | |
| 92578470029 | FB-1 | SM 2540C-2015 | 667490 | | |
| 92578470030 | EB-1 | SM 2540C-2015 | 667490 | | |
| 92578470001 | T1-4HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470002 | T1-4HTS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470003 | T2-1HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470004 | T2-2HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470005 | T2-2HTS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470006 | T2-3HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470007 | T2-3HTS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470008 | T2-4HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470009 | T2-4HTS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470010 | T3-4HT | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470011 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470012 | T4-1HB | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470013 | T4-1HS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470014 | T4-2HB | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470015 | T4-2HS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470016 | T4-3HB | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470017 | T4-3HS | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470018 | T4-4HB | EPA 300.0 Rev 2.1 1993 | 667029 | | |
| 92578470019 | T4-4HS | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470020 | T1-4LT | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470021 | T2-4LT | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470022 | T3-4LT | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470023 | T4-4L | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470024 | BG-1LT | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470025 | BG-2HT | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470026 | DUP-1 | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470027 | DUP-2 | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470028 | DUP-3 | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470029 | FB-1 | EPA 300.0 Rev 2.1 1993 | 667030 | | |
| 92578470030 | EB-1 | EPA 300.0 Rev 2.1 1993 | 667030 | | |

REPORT OF LABORATORY ANALYSIS

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



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No:
P-CAR-03-033-Rev.07

Document Revised: October 28, 2020
Page 1 of 1
Issuing Authority:
Pace Carolina Quality Office

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition
Upon Receipt

Client Name:

Project #:

WO#: 92578470



Courier:

Commercial

Carolina Power
 Fed Ex UPS Other _____
 Direct Other _____

Date/Initial Person Examining Contents: *5/2/14/CS*

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer:

52/40/11 *431071*

Type of Ice: Dry Clear None

Biological Tissue Present?

Yes No N/A

Cooler Temp:

5.2/4.0/5.5

Correction Factor:
Add/Subtract (°C)

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)

5.2/4.0/5.5

USDA Regulated Soil N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, HI, 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? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 1. | |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 2. | |
| Show Hold Time Analysis (CFL hr:LT) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | 3. | |
| Batch Turn Around Time Requested? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | 4. | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 5. | |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 6. | |
| -Free Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 7. | |
| Discussed analysis: Samples Field Filtered? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 8. | |
| Sample labels Match COC? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 9. | |
| -Includes Date/Time/ID/Analysis Metric | <i>KT</i> | | | | |
| Headspace in VOA Vials (x3-6mm)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 10. | |
| Trip Blank Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 11. | |
| Trip Blank Custody Seals Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | | |

COMMENTS/SAMPLE DISCREPANCY

Field Use Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCUR Review:

Date:

Project Manager SRP Review:

Date:



Document Number
 Sample Condition Upon Receipt (SCUR)
 Document No. /
 P-CAR-C5-018-Rev.27

Document Revised: October 21, 2003

Page 1 of 2

Issuing Authority:
 Pace Analytical Quality Office

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

Project #

WO#: 92578470

PH: NRD

Due Date: 12/23/21

CLIENT: GA-GA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRD/ROD (enter) DOC, UAG

**Bottom half of box is to list number of bottles

| Sample | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| BPH1-123 mL Plastic Unpreserved (N/A) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH2-230 mL Plastic Unpreserved (N/A) | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH3-500 mL Plastic Unpreserved (N/A) | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH4-1 (See Plastic Unpreserved (N/A)) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH5-123 mL Plastic (N3204 (pH < 7) (C-1) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH6-230 mL Plastic (N301 (pH < 7) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BPH7-123 mL Plastic (N3204 (pH < 7) (C-1) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 Division Certification Office (i.e. Out of Field, Incorrect preservative, size of temp, incorrect containers)



| | |
|--|--|
| Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: October 28, 2020
Page 1 of 1 |
| Document No.:
P-CAR-CS-033-Rev.07 | Issuing Authority:
Pace Carolina Quality Office |

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

Project #

WO# : 92578470

PR: NMC

Due Date: 12/23/21

Exception: VOA, Coliform, TOC, Oil and Grease, DRG/RES (water) DOC, UMG

CLIENT: GR-GR Power

**Bottom half of box is list number of bottles

| Sample | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| SP00-125 ml Plastic Unpreserved (N/A) (D-) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic Unpreserved (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic Unpreserved (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic Unpreserved (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic Preservative (pH = 7) (D-) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic Preservative (pH = 7) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic Preservative (pH = 7) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic Preservative (pH = 7) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 2% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 2% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 2% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 2% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 10% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 10% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 10% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 10% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 20% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 20% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 20% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 20% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 50% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 50% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 50% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 50% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-125 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-200 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-500 ml Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |
| SP00-1 liter Plastic 100% Acetic Acid Preservative (N/A) | | ✓ | | | | | | | | | | |

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).



*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TSC, Oil and Grease, DR/9015 (water) DOC, LUM

**Bottom half of box is to list number of bottles

Proj#

WO#: **92578470**

PH: NRC

Due Date: 12/23/21

CLIENT: GR-QR Power

| Method | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|----|----|----|
| BR10-125 ml. Plastic Unpreserved (pH) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BR10-200 ml. Plastic Unpreserved (pH) | 3 | 2 | | | | | | | | | | | |
| BR10-500 ml. Plastic Unpreserved (pH) | 1 | | | | | | | | | | | | |
| BR10-1, liter Plastic Unpreserved (pH) | | | | | | | | | | | | | |
| BR10-125 ml. Plastic (250M) (pH = 12) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BR10-200 ml. Plastic (250M) (pH = 12) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BR10-500 ml. Plastic (250M) (pH = 12) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BR10-1, liter Plastic (250M) (pH = 12) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| Volumetric method Glass Jar Unpreserved | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1 liter Amber Unpreserved (pH) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1 liter Amber (2) (pH = 12) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-250 ml. Amber Unpreserved (pH) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1 liter Amber (250M) (pH = 12) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-250 ml. Amber (250M) (pH = 12) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101(100M)-200 ml. Amber (250M) (250M) (2-1) | | / | / | / | / | / | / | / | / | / | / | / | / |
| ED101-40 ml. VOA (2) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VD101-40 ml. VOA (250M) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VD101-40 ml. VOA (250M) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VD101-40 ml. VOA (250M) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| VD101-40 ml. VOA (250M) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| V101 (3 vials per 100-200L) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| V101 (3 vials per 100-200L) (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP101-125 ml. Baffle Plastic (pH - 10) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP101-200 ml. Baffle Plastic (pH - 10) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP101-500 ml. Baffle Plastic (pH - 10) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP101-1, liter Baffle Plastic (pH - 10) | | / | / | / | / | / | / | / | / | / | / | / | / |
| BR10-125 ml. Plastic (250M) (pH = 12) | | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1, liter Amber Unpreserved vials (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| V101-20 ml. Sediment vials (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |
| ED101-40 ml. Amber Unpreserved vials (pH) | | / | / | / | / | / | / | / | / | / | / | / | / |

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 Official Certification Office (i.e. Out of State, incorrect preservatives, out of temp, incorrect containers).



Submitting a sample for the chain of custody constitutes acknowledgment and acceptance of the procedures and conditions found at www.prestige.com/products/standardforms.pdf

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 1

Analytical Request Information: **Company Name:** George P. Jones **Request No.:** 123456789
Address: 1234 Main Street, Anytown, CA 90101 **City:** Anytown
State: CA **Country:** USA
Phone: (555) 555-5555 **Fax:** (555) 555-5555
Requester Name: John Doe

Analytical Request Information: **Product Name:** Medical Device 1234
Part Number: 123456789 **Lot Number:** 123456789
Material: Stainless Steel **Quantity:** 10
Requester Name: John Doe

ITEM #

SAMPLE ID
 Date: 12/12/2023
 Time: 10:00 AM
 Location: 1234 Main St

COLLECTOR: John Doe **DATE:** 12/12/2023 **TIME:** 10:00 AM

SAMPLE TYPE: Medical Device 1234

SAMPLE TEMP AT COLLECTION: 25°C

FOR ANALYSIS: As Received

ANALYSIS TEST: As Requested

RESIDUAL CHARGE (RC): None

| ITEM # | DESCRIPTION | WT | DATE | TIME | TEMP | INITIALS | ANALYSIS TEST | RESIDUAL CHARGE (RC) |
|--------|---------------------|-----|------------|----------|------|----------|---------------|----------------------|
| 1 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 2 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 3 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 4 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 5 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 6 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 7 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 8 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 9 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |
| 10 | Medical Device 1234 | 10g | 12/12/2023 | 10:00 AM | 25°C | JD | As Requested | None |

Requested By: John Doe **Signature:** [Signature] **Date:** 12/12/2023

Received By: John Doe **Signature:** [Signature] **Date:** 12/12/2023

Temp in C: 25

Received on: 12/12/2023

Quantity: 10

Material: Stainless Steel

Requester Name: John Doe

Print Name of User: John Doe

Signature: [Signature]

Date: 12/12/2023

Temp in C: 25

Received on: 12/12/2023

Quantity: 10

Material: Stainless Steel

Requester Name: John Doe



Submitting a sample via this chain of custody requires acknowledgment and acceptance of the Terms and Conditions listed at the bottom of this document.

CHAIN-OF-CUSTODY / Analytical Request Document

Client Information:
 Client Name: Georgia Power
 Client Address: 500 Peachtree Parkway
 Client City/State/Zip: Atlanta, GA 30328
 Client Contact: John Smith
 Client Phone: 404.555.1234

Project Information:
 Project Name: Environmental Project
 Project Location: Site A
 Project Start Date: 01/15/2024
 Project End Date: 03/31/2024

Requesting Party Information:
 Requesting Party Name: Georgia Power
 Requesting Party Address: 500 Peachtree Parkway
 Requesting Party City/State/Zip: Atlanta, GA 30328
 Requesting Party Contact: John Smith
 Requesting Party Phone: 404.555.1234

Analyst Information:
 Analyst Name: John Doe
 Analyst Address: 123 Main St
 Analyst City/State/Zip: Atlanta, GA 30301
 Analyst Phone: 404.555.5678

| ITEM # | SAMPLE ID | MATRIX CODE (See note below to left) | SAMPLE TYPE (S-COMM, C-COMM) | COLLECTION | | SAMPLE TEMP AT COLLECTION | PRESERVATION | | | | | | | ANALYSIS TECH | Y/N | 40°C/80°C | Ability | TDR | Cl. P. 804 | Residual Chlorine (mg) |
|--------|-----------|--------------------------------------|------------------------------|------------|----------|---------------------------|--------------|------|------|------|--------|-------|--|---------------|-----|-----------|---------|-----|------------|------------------------|
| | | | | START DATE | END DATE | | Unpreserved | PHOS | PHOS | PHOS | Method | Color | | | | | | | | |
| 1 | 17-001 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 2 | 17-002 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 3 | 17-003 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 4 | 17-004 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 5 | 17-005 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 6 | 17-006 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 7 | 17-007 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 8 | 17-008 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 9 | 17-009 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 10 | 17-010 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 11 | 17-011 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 12 | 17-012 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 13 | 17-013 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 14 | 17-014 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 15 | 17-015 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 16 | 17-016 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 17 | 17-017 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 18 | 17-018 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 19 | 17-019 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |
| 20 | 17-020 | WT | SOLID-COMM | | | 4/5 | | | | | | | | | | | | | | |

Notes:
 17-001 - 17-010: Water samples from Site A
 17-011 - 17-020: Water samples from Site B

Prepared by: John Doe
Date: 01/15/2024

Received by: John Smith
Date: 01/15/2024

Analyst: John Doe
Date: 01/15/2024

Client: Georgia Power
Date: 01/15/2024



Section A
 Analytical Request Information

Section B
 Analytical Request Information

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
 Analytical Request Information

Section B
 Analytical Request Information

Section C
 Analytical Request Information

Section D
 Analytical Request Information

Section E
 Analytical Request Information

SAMPLE ID
 One Character per line.
 (A-Z, 0-9), *
 Samples are listed in order

Empty
 Sample
 Control
 Reference
 Other

| ITEM # | MATRIX CODE (see code table in IAP) | SAMPLE TYPE (see table in IAP) | COLLECTED | | | | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives | | | | | | | | | | | Analytes Test | | | | Residual Chlorine (TMS) | | | | | |
|--------|-------------------------------------|--------------------------------|-----------|------|------|------|---------------------------|-----------------|---------------|-------|-------|-----|------|----------|----------|-------|-----------|---------|-----|---------------|--|--|--|-------------------------|--|--|--|--|--|
| | | | DATE | TIME | POST | TIME | | | Unpreserved | HOB04 | HOB05 | HCl | NaOH | NaOH/020 | Methanol | Other | Screening | Acidity | TSS | CL P. 804 | | | | | | | | | |
| 001-01 | WT | solid | | | | | 4 5 | 1 | | | | | | | | | | | | | | | | | | | | | |
| 001-02 | WT | solid | | | | | 4 5 | 1 | | | | | | | | | | | | | | | | | | | | | |
| 001-03 | WT | solid | | | | | 4 5 | 1 | | | | | | | | | | | | | | | | | | | | | |
| 001-04 | WT | solid | | | | | 4 5 | 1 | | | | | | | | | | | | | | | | | | | | | |
| 001-05 | WT | solid | | | | | 4 5 | 1 | | | | | | | | | | | | | | | | | | | | | |

| TEMP in C | Received on ice (Y/N) | Cooling bucket cooler (Y/N) | Sample in ice (Y/N) |
|-----------|-----------------------|-----------------------------|---------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Vanhusdycaan with rad residue K
ap/h and SS

Empty
 Sample
 Control
 Reference
 Other



April 12, 2022

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

RE: Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92591489

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 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 - Minneapolis

Revision 1: This revision was issued on 4/12/22 to report the 6020 reanalyses results of all samples, per client request.

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01*

1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009*

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014*

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605*

Georgia Certification #: 959

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086*

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064*

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137*

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240*

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081*

New Jersey Certification #: MN002

New York Certification #: 11647*

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Ohio VAP Certification (1800) #: CL110*

Oklahoma Certification #: 9507*

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001*

Pennsylvania Certification #: 68-00563*

Puerto Rico Certification #: MN00064

South Carolina Certification #:74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192*

Utah Certification #: MN00064*

Vermont Certification #: VT-027053137

Virginia Certification #: 460163*

Washington Certification #: C486*

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

Please Note: Applicable air certifications are denoted with an asterisk ().

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinney 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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92591489001 | T1-1HT | Water | 03/02/22 09:25 | 03/04/22 10:45 |
| 92591489002 | T1-2HT | Water | 03/02/22 09:44 | 03/04/22 10:45 |
| 92591489003 | T1-2HTS | Water | 03/02/22 09:33 | 03/04/22 10:45 |
| 92591489004 | T1-3HT | Water | 03/02/22 11:37 | 03/04/22 10:45 |
| 92591489005 | T1-3HTS | Water | 03/02/22 11:26 | 03/04/22 10:45 |
| 92591489006 | T1-4HT | Water | 03/02/22 12:11 | 03/04/22 10:45 |
| 92591489007 | T1-4HTS | Water | 03/02/22 12:05 | 03/04/22 10:45 |
| 92591489008 | T2-1HT | Water | 03/02/22 10:04 | 03/04/22 10:45 |
| 92591489009 | T2-2HT | Water | 03/02/22 10:17 | 03/04/22 10:45 |
| 92591489010 | T2-2HTS | Water | 03/02/22 10:08 | 03/04/22 10:45 |
| 92591489011 | T2-3HT | Water | 03/02/22 11:55 | 03/04/22 10:45 |
| 92591489012 | T2-3HTS | Water | 03/02/22 11:51 | 03/04/22 10:45 |
| 92591489013 | T2-4HT | Water | 03/02/22 12:43 | 03/04/22 10:45 |
| 92591489014 | T2-4HTS | Water | 03/02/22 12:37 | 03/04/22 10:45 |
| 92591489015 | T3-1HT | Water | 03/02/22 10:36 | 03/04/22 10:45 |
| 92591489016 | T3-2HT | Water | 03/02/22 10:49 | 03/04/22 10:45 |
| 92591489017 | T3-2HTS | Water | 03/02/22 10:40 | 03/04/22 10:45 |
| 92591489018 | T3-3HT | Water | 03/02/22 11:10 | 03/04/22 10:45 |
| 92591489019 | T3-3HTS | Water | 03/02/22 11:00 | 03/04/22 10:45 |
| 92591489020 | T3-4HT | Water | 03/02/22 12:27 | 03/04/22 10:45 |
| 92591489021 | T3-4HTS | Water | 03/02/22 12:22 | 03/04/22 10:45 |
| 92591489022 | T4-1HB | Water | 03/03/22 10:19 | 03/04/22 10:45 |
| 92591489023 | T4-1HS | Water | 03/03/22 10:11 | 03/04/22 10:45 |
| 92591489024 | T4-2HB | Water | 03/03/22 10:38 | 03/04/22 10:45 |
| 92591489025 | T4-2HS | Water | 03/03/22 10:31 | 03/04/22 10:45 |
| 92591489026 | T4-3HB | Water | 03/03/22 10:59 | 03/04/22 10:45 |
| 92591489027 | T4-3HS | Water | 03/03/22 10:49 | 03/04/22 10:45 |
| 92591489028 | T4-4HB | Water | 03/03/22 11:18 | 03/04/22 10:45 |
| 92591489029 | T4-4HS | Water | 03/03/22 11:10 | 03/04/22 10:45 |
| 92591489030 | T1-4LT | Water | 03/01/22 14:47 | 03/04/22 10:45 |
| 92591489031 | T2-4LT | Water | 03/01/22 15:10 | 03/04/22 10:45 |
| 92591489032 | T3-4LT | Water | 03/01/22 15:42 | 03/04/22 10:45 |
| 92591489033 | T4-4L | Water | 03/01/22 13:25 | 03/04/22 10:45 |
| 92591489034 | BG-1LT | Water | 03/01/22 14:25 | 03/04/22 10:45 |
| 92591489035 | BG-2HT | Water | 03/03/22 09:52 | 03/04/22 10:45 |
| 92591489036 | DUP-1 | Water | 03/01/22 00:00 | 03/04/22 10:45 |
| 92591489037 | DUP-2 | Water | 03/02/22 00:00 | 03/04/22 10:45 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92591489

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92591489038 | DUP-3 | Water | 03/02/22 00:00 | 03/04/22 10:45 |
| 92591489039 | DUP-4 | Water | 03/03/22 00:00 | 03/04/22 10:45 |
| 92591489040 | FB-1 | Water | 03/03/22 14:35 | 03/04/22 10:45 |
| 92591489041 | EB-1 | Water | 03/03/22 14:40 | 03/04/22 10:45 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489001 | T1-1HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489002 | T1-2HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489003 | T1-2HTS | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489004 | T1-3HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489005 | T1-3HTS | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489006 | T1-4HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489007 | T1-4HTS | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489008 | T2-1HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489009 | T2-2HT | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489010 | T2-2HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| 92591489011 | T2-3HT | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489012 | T2-3HTS | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489013 | T2-4HT | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| 92591489014 | T2-4HTS | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489015 | T3-1HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489016 | T3-2HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489017 | T3-2HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489018 | T3-3HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489019 | T3-3HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489020 | T3-4HT | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489021 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489022 | T4-1HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489023 | T4-1HS | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489024 | T4-2HB | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489025 | T4-2HS | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489026 | T4-3HB | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| 92591489027 | T4-3HS | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| 92591489028 | T4-4HB | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| 92591489029 | T4-4HS | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489030 | T1-4LT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | | | | |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489031 | T2-4LT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489032 | T3-4LT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489033 | T4-4L | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489034 | BG-1LT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489035 | BG-2HT | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489036 | DUP-1 | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| 92591489037 | DUP-2 | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| | | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92591489038 | DUP-3 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489039 | DUP-4 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |
| 92591489040 | FB-1 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |
| 92591489041 | EB-1 | EPA 6010D | CBV | 4 | PASI-A |
| | | EPA 6020B | JOR | 3 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2015 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |

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

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489001 | T1-1HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:37 | |
| | | R | | | | |
| | pH | 7.02 | Std. Units | | 03/04/22 13:37 | |
| EPA 6010D | Calcium | 253 | mg/L | 2.0 | 03/16/22 06:09 | |
| EPA 6010D | Magnesium | 765 | mg/L | 2.0 | 03/16/22 06:09 | M1 |
| EPA 6010D | Potassium | 302 | mg/L | 100 | 03/16/22 06:09 | |
| EPA 6010D | Sodium | 5950 | mg/L | 2000 | 03/15/22 13:54 | M1 |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 16:02 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 19:39 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 09:08 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 09:08 | |
| SM 2540C-2015 | Total Dissolved Solids | 18300 | mg/L | 2500 | 03/06/22 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9300 | mg/L | 100 | 03/06/22 19:53 | M1 |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 8.6J | mg/L | 10.0 | 03/06/22 19:53 | D3,M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1230 | mg/L | 100 | 03/06/22 19:53 | M1 |
| 92591489002 | T1-2HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:37 | |
| | | R | | | | |
| | pH | 7.45 | Std. Units | | 03/04/22 13:37 | |
| EPA 6010D | Calcium | 250 | mg/L | 2.0 | 03/16/22 06:37 | |
| EPA 6010D | Magnesium | 746 | mg/L | 2.0 | 03/16/22 06:37 | |
| EPA 6010D | Potassium | 295 | mg/L | 100 | 03/16/22 06:37 | |
| EPA 6010D | Sodium | 5840 | mg/L | 2000 | 03/15/22 14:08 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 16:06 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 19:43 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 09:30 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 09:30 | |
| SM 2540C-2015 | Total Dissolved Solids | 19700 | mg/L | 2500 | 03/06/22 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9270 | mg/L | 100 | 03/06/22 20:48 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/06/22 20:48 | |
| 92591489003 | T1-2HTS | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:37 | |
| | | R | | | | |
| | pH | 7.35 | Std. Units | | 03/04/22 13:37 | |
| EPA 6010D | Calcium | 246 | mg/L | 2.0 | 03/16/22 06:40 | |
| EPA 6010D | Magnesium | 736 | mg/L | 2.0 | 03/16/22 06:40 | |
| EPA 6010D | Potassium | 292 | mg/L | 100 | 03/16/22 06:40 | |
| EPA 6010D | Sodium | 5940 | mg/L | 2000 | 03/15/22 14:12 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 16:09 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 19:46 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 09:38 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 09:38 | |
| SM 2540C-2015 | Total Dissolved Solids | 20500 | mg/L | 2500 | 03/06/22 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9090 | mg/L | 100 | 03/06/22 21:02 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1190 | mg/L | 100 | 03/06/22 21:02 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489004 | T1-3HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:37 | |
| | | R | | | | |
| | pH | 7.04 | Std. Units | | 03/04/22 13:37 | |
| EPA 6010D | Calcium | 235 | mg/L | 2.0 | 03/16/22 06:44 | |
| EPA 6010D | Magnesium | 702 | mg/L | 2.0 | 03/16/22 06:44 | |
| EPA 6010D | Potassium | 276 | mg/L | 100 | 03/16/22 06:44 | |
| EPA 6010D | Sodium | 5820 | mg/L | 2000 | 03/15/22 14:15 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 16:13 | |
| EPA 6020B | Lithium | 0.098 | mg/L | 0.075 | 03/31/22 19:50 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/09/22 09:44 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/09/22 09:44 | |
| SM 2540C-2015 | Total Dissolved Solids | 23300 | mg/L | 2500 | 03/06/22 10:33 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9050 | mg/L | 100 | 03/06/22 21:16 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/06/22 21:16 | |
| 92591489005 | T1-3HTS | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:37 | |
| | | R | | | | |
| | pH | 7.17 | Std. Units | | 03/04/22 13:37 | |
| EPA 6010D | Calcium | 252 | mg/L | 2.0 | 03/16/22 06:47 | |
| EPA 6010D | Magnesium | 763 | mg/L | 2.0 | 03/16/22 06:47 | |
| EPA 6010D | Potassium | 303 | mg/L | 100 | 03/16/22 06:47 | |
| EPA 6010D | Sodium | 5900 | mg/L | 2000 | 03/15/22 14:19 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 16:24 | M1 |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 19:54 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 09:51 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 09:51 | |
| SM 2540C-2015 | Total Dissolved Solids | 21900 | mg/L | 2500 | 03/07/22 10:40 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 18300 | mg/L | 200 | 03/06/22 22:57 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1330 | mg/L | 100 | 03/06/22 22:29 | |
| 92591489006 | T1-4HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:38 | |
| | | R | | | | |
| | pH | 7.14 | Std. Units | | 03/04/22 13:38 | |
| EPA 6010D | Calcium | 248 | mg/L | 2.0 | 03/16/22 06:51 | |
| EPA 6010D | Magnesium | 751 | mg/L | 2.0 | 03/16/22 06:51 | |
| EPA 6010D | Potassium | 297 | mg/L | 100 | 03/16/22 06:51 | |
| EPA 6010D | Sodium | 5890 | mg/L | 2000 | 03/15/22 14:22 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 16:42 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:19 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 13:11 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 13:11 | |
| SM 2540C-2015 | Total Dissolved Solids | 21100 | mg/L | 2500 | 03/07/22 10:40 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9220 | mg/L | 100 | 03/06/22 22:43 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/06/22 22:43 | |
| 92591489007 | T1-4HTS | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:38 | |
| | | R | | | | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489007 | T1-4HTS | | | | | |
| | pH | 7.17 | Std. Units | | 03/04/22 13:38 | |
| EPA 6010D | Calcium | 250 | mg/L | 2.0 | 03/16/22 06:54 | |
| EPA 6010D | Magnesium | 750 | mg/L | 2.0 | 03/16/22 06:54 | |
| EPA 6010D | Potassium | 298 | mg/L | 100 | 03/16/22 06:54 | |
| EPA 6010D | Sodium | 5830 | mg/L | 2000 | 03/15/22 14:33 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 16:46 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:23 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 03/09/22 10:42 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 03/09/22 10:42 | |
| SM 2540C-2015 | Total Dissolved Solids | 20100 | mg/L | 2500 | 03/07/22 10:40 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9180 | mg/L | 100 | 03/06/22 23:10 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/06/22 23:10 | |
| 92591489008 | T2-1HT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:38 | |
| | pH | 7.54 | Std. Units | | 03/04/22 13:38 | |
| EPA 6010D | Calcium | 243 | mg/L | 2.0 | 03/16/22 06:58 | |
| EPA 6010D | Magnesium | 722 | mg/L | 2.0 | 03/16/22 06:58 | |
| EPA 6010D | Potassium | 290 | mg/L | 100 | 03/16/22 06:58 | |
| EPA 6010D | Sodium | 5780 | mg/L | 2000 | 03/15/22 14:37 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 03/31/22 16:49 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 20:26 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 03/09/22 10:51 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 03/09/22 10:51 | |
| SM 2540C-2015 | Total Dissolved Solids | 21900 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9210 | mg/L | 100 | 03/06/22 23:24 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1190 | mg/L | 100 | 03/06/22 23:24 | |
| 92591489009 | T2-2HT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:38 | |
| | pH | 7.49 | Std. Units | | 03/04/22 13:38 | |
| EPA 6010D | Calcium | 251 | mg/L | 2.0 | 03/16/22 07:09 | |
| EPA 6010D | Magnesium | 761 | mg/L | 2.0 | 03/16/22 07:09 | |
| EPA 6010D | Potassium | 300 | mg/L | 100 | 03/16/22 07:09 | |
| EPA 6010D | Sodium | 5850 | mg/L | 2000 | 03/15/22 14:40 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 16:53 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 20:30 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 03/09/22 11:02 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 03/09/22 11:02 | |
| SM 2540C-2015 | Total Dissolved Solids | 21300 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9190 | mg/L | 100 | 03/06/22 23:38 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/06/22 23:38 | |
| 92591489010 | T2-2HTS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:38 | |
| | pH | 7.50 | Std. Units | | 03/04/22 13:38 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489010 | T2-2HTS | | | | | |
| EPA 6010D | Calcium | 262 | mg/L | 2.0 | 03/16/22 07:12 | |
| EPA 6010D | Magnesium | 783 | mg/L | 2.0 | 03/16/22 07:12 | |
| EPA 6010D | Potassium | 302 | mg/L | 100 | 03/16/22 07:12 | |
| EPA 6010D | Sodium | 5830 | mg/L | 2000 | 03/15/22 14:44 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 16:57 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:33 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 11:11 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 11:11 | |
| SM 2540C-2015 | Total Dissolved Solids | 20500 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9140 | mg/L | 100 | 03/06/22 23:51 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/06/22 23:51 | M1 |
| 92591489011 | T2-3HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:39 | |
| | | R | | | | |
| | pH | 7.03 | Std. Units | | 03/04/22 13:39 | |
| EPA 6010D | Calcium | 248 | mg/L | 2.0 | 03/16/22 07:16 | |
| EPA 6010D | Magnesium | 730 | mg/L | 2.0 | 03/16/22 07:16 | |
| EPA 6010D | Potassium | 290 | mg/L | 100 | 03/16/22 07:16 | |
| EPA 6010D | Sodium | 5940 | mg/L | 2000 | 03/15/22 14:47 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 17:08 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:37 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/09/22 11:21 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/09/22 11:21 | |
| SM 2540C-2015 | Total Dissolved Solids | 19800 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9450 | mg/L | 100 | 03/07/22 01:01 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1220 | mg/L | 100 | 03/07/22 01:01 | |
| 92591489012 | T2-3HTS | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:39 | |
| | | R | | | | |
| | pH | 7.05 | Std. Units | | 03/04/22 13:39 | |
| EPA 6010D | Calcium | 242 | mg/L | 2.0 | 03/16/22 07:19 | |
| EPA 6010D | Magnesium | 710 | mg/L | 2.0 | 03/16/22 07:19 | |
| EPA 6010D | Potassium | 281 | mg/L | 100 | 03/16/22 07:19 | |
| EPA 6010D | Sodium | 5920 | mg/L | 2000 | 03/15/22 14:51 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 17:12 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:41 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 11:30 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 11:30 | |
| SM 2540C-2015 | Total Dissolved Solids | 20500 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9080 | mg/L | 100 | 03/07/22 01:14 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 01:14 | |
| 92591489013 | T2-4HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:39 | |
| | | R | | | | |
| | pH | 7.09 | Std. Units | | 03/04/22 13:39 | |
| EPA 6010D | Calcium | 239 | mg/L | 2.0 | 03/16/22 07:23 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489013 | T2-4HT | | | | | |
| EPA 6010D | Magnesium | 701 | mg/L | 2.0 | 03/16/22 07:23 | |
| EPA 6010D | Potassium | 277 | mg/L | 100 | 03/16/22 07:23 | |
| EPA 6010D | Sodium | 5760 | mg/L | 2000 | 03/15/22 14:54 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 17:15 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:52 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/09/22 11:39 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/09/22 11:39 | |
| SM 2540C-2015 | Total Dissolved Solids | 20900 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9150 | mg/L | 100 | 03/07/22 04:00 | M1, R1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 04:00 | M1 |
| 92591489014 | T2-4HTS | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:39 | |
| | | R | | | | |
| | pH | 7.05 | Std. Units | | 03/04/22 13:39 | |
| EPA 6010D | Calcium | 240 | mg/L | 2.0 | 03/16/22 07:26 | |
| EPA 6010D | Magnesium | 701 | mg/L | 2.0 | 03/16/22 07:26 | |
| EPA 6010D | Potassium | 278 | mg/L | 100 | 03/16/22 07:26 | |
| EPA 6010D | Sodium | 5840 | mg/L | 2000 | 03/15/22 14:58 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 17:19 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 20:55 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 12:19 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 12:19 | |
| SM 2540C-2015 | Total Dissolved Solids | 22200 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9030 | mg/L | 100 | 03/07/22 01:28 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1170 | mg/L | 100 | 03/07/22 01:28 | |
| 92591489015 | T3-1HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:39 | |
| | | R | | | | |
| | pH | 7.55 | Std. Units | | 03/04/22 13:39 | |
| EPA 6010D | Calcium | 237 | mg/L | 2.0 | 03/16/22 07:30 | |
| EPA 6010D | Magnesium | 694 | mg/L | 2.0 | 03/16/22 07:30 | |
| EPA 6010D | Potassium | 280 | mg/L | 100 | 03/16/22 07:30 | |
| EPA 6010D | Sodium | 5790 | mg/L | 2000 | 03/15/22 15:01 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 17:23 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 20:59 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 12:29 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 12:29 | |
| SM 2540C-2015 | Total Dissolved Solids | 22100 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8970 | mg/L | 100 | 03/07/22 01:42 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1160 | mg/L | 100 | 03/07/22 01:42 | |
| 92591489016 | T3-2HT | | | | | |
| | Performed by | CUSTOME | | | 03/04/22 13:40 | |
| | | R | | | | |
| | pH | 7.10 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 247 | mg/L | 2.0 | 03/16/22 07:33 | |
| EPA 6010D | Magnesium | 722 | mg/L | 2.0 | 03/16/22 07:33 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489016 | T3-2HT | | | | | |
| EPA 6010D | Potassium | 287 | mg/L | 100 | 03/16/22 07:33 | |
| EPA 6010D | Sodium | 5880 | mg/L | 2000 | 03/15/22 15:05 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 17:26 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:03 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 12:37 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 12:37 | |
| SM 2540C-2015 | Total Dissolved Solids | 23600 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9040 | mg/L | 100 | 03/07/22 01:55 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1170 | mg/L | 100 | 03/07/22 01:55 | |
| 92591489017 | T3-2HTS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:40 | |
| | pH | 7.52 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 246 | mg/L | 2.0 | 03/16/22 07:37 | |
| EPA 6010D | Magnesium | 717 | mg/L | 2.0 | 03/16/22 07:37 | |
| EPA 6010D | Potassium | 287 | mg/L | 100 | 03/16/22 07:37 | |
| EPA 6010D | Sodium | 5910 | mg/L | 2000 | 03/15/22 15:15 | |
| EPA 6020B | Boron | 3.3 | mg/L | 2.5 | 03/31/22 17:30 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 21:06 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 12:45 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 12:45 | |
| SM 2540C-2015 | Total Dissolved Solids | 21400 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9130 | mg/L | 100 | 03/07/22 02:09 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 02:09 | |
| 92591489018 | T3-3HT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:40 | |
| | pH | 7.09 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 254 | mg/L | 2.0 | 03/16/22 07:40 | |
| EPA 6010D | Magnesium | 731 | mg/L | 2.0 | 03/16/22 07:40 | |
| EPA 6010D | Potassium | 289 | mg/L | 100 | 03/16/22 07:40 | |
| EPA 6010D | Sodium | 5720 | mg/L | 2000 | 03/15/22 15:19 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 17:34 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:10 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 12:54 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 12:54 | |
| SM 2540C-2015 | Total Dissolved Solids | 22100 | mg/L | 2500 | 03/07/22 10:41 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9160 | mg/L | 100 | 03/07/22 02:23 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 02:23 | |
| 92591489019 | T3-3HTS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:40 | |
| | pH | 7.14 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 251 | mg/L | 2.0 | 03/16/22 07:51 | |
| EPA 6010D | Magnesium | 731 | mg/L | 2.0 | 03/16/22 07:51 | |
| EPA 6010D | Potassium | 282 | mg/L | 100 | 03/16/22 07:51 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489019 | T3-3HTS | | | | | |
| EPA 6010D | Sodium | 5650 | mg/L | 2000 | 03/15/22 15:23 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 17:38 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:13 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/09/22 13:00 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/09/22 13:00 | |
| SM 2540C-2015 | Total Dissolved Solids | 20000 | mg/L | 2500 | 03/07/22 10:42 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9030 | mg/L | 100 | 03/07/22 02:36 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1170 | mg/L | 100 | 03/07/22 02:36 | |
| 92591489020 | T3-4HT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:40 | |
| | pH | 7.07 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 246 | mg/L | 2.0 | 03/16/22 07:54 | |
| EPA 6010D | Magnesium | 733 | mg/L | 2.0 | 03/16/22 07:54 | |
| EPA 6010D | Potassium | 289 | mg/L | 100 | 03/16/22 07:54 | |
| EPA 6010D | Sodium | 5730 | mg/L | 2000 | 03/15/22 15:26 | |
| EPA 6020B | Boron | 3.2 | mg/L | 2.5 | 03/31/22 17:41 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:17 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/09/22 13:06 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/09/22 13:06 | |
| SM 2540C-2015 | Total Dissolved Solids | 22900 | mg/L | 2500 | 03/07/22 10:42 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9180 | mg/L | 100 | 03/07/22 02:50 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1190 | mg/L | 100 | 03/07/22 02:50 | |
| 92591489021 | T3-4HTS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:40 | |
| | pH | 7.14 | Std. Units | | 03/04/22 13:40 | |
| EPA 6010D | Calcium | 245 | mg/L | 2.0 | 03/16/22 04:37 | |
| EPA 6010D | Magnesium | 729 | mg/L | 2.0 | 03/16/22 04:37 | M1 |
| EPA 6010D | Potassium | 284 | mg/L | 100 | 03/16/22 04:37 | |
| EPA 6010D | Sodium | 6190 | mg/L | 2000 | 03/15/22 10:08 | M1 |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 18:11 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:21 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/10/22 13:48 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/10/22 13:48 | |
| SM 2540C-2015 | Total Dissolved Solids | 21600 | mg/L | 2500 | 03/07/22 10:42 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8970 | mg/L | 100 | 03/07/22 04:41 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1150 | mg/L | 100 | 03/07/22 04:41 | |
| 92591489022 | T4-1HB | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:41 | |
| | pH | 7.45 | Std. Units | | 03/04/22 13:41 | |
| EPA 6010D | Calcium | 252 | mg/L | 2.0 | 03/16/22 04:58 | |
| EPA 6010D | Magnesium | 746 | mg/L | 2.0 | 03/16/22 04:58 | |
| EPA 6010D | Potassium | 292 | mg/L | 100 | 03/16/22 04:58 | |
| EPA 6010D | Sodium | 6270 | mg/L | 2000 | 03/15/22 10:36 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489022 | T4-1HB | | | | | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 18:14 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:43 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 113 | mg/L | 5.0 | 03/10/22 14:01 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 113 | mg/L | 5.0 | 03/10/22 14:01 | |
| SM 2540C-2015 | Total Dissolved Solids | 22700 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9360 | mg/L | 100 | 03/07/22 04:55 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/07/22 04:55 | |
| 92591489023 | T4-1HS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:41 | |
| | pH | 7.51 | Std. Units | | 03/04/22 13:41 | |
| EPA 6010D | Calcium | 253 | mg/L | 2.0 | 03/16/22 05:02 | |
| EPA 6010D | Magnesium | 749 | mg/L | 2.0 | 03/16/22 05:02 | |
| EPA 6010D | Potassium | 295 | mg/L | 100 | 03/16/22 05:02 | |
| EPA 6010D | Sodium | 6100 | mg/L | 2000 | 03/15/22 10:40 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 18:18 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:46 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 110 | mg/L | 5.0 | 03/10/22 14:06 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 110 | mg/L | 5.0 | 03/10/22 14:06 | |
| SM 2540C-2015 | Total Dissolved Solids | 24300 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9510 | mg/L | 100 | 03/07/22 05:09 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1230 | mg/L | 100 | 03/07/22 05:09 | |
| 92591489024 | T4-2HB | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:42 | |
| | pH | 7.47 | Std. Units | | 03/04/22 13:42 | |
| EPA 6010D | Calcium | 253 | mg/L | 2.0 | 03/16/22 05:05 | |
| EPA 6010D | Magnesium | 752 | mg/L | 2.0 | 03/16/22 05:05 | |
| EPA 6010D | Potassium | 296 | mg/L | 100 | 03/16/22 05:05 | |
| EPA 6010D | Sodium | 6190 | mg/L | 2000 | 03/15/22 10:43 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 18:22 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:50 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 111 | mg/L | 5.0 | 03/10/22 14:11 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 111 | mg/L | 5.0 | 03/10/22 14:11 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9390 | mg/L | 100 | 03/07/22 05:22 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1220 | mg/L | 100 | 03/07/22 05:22 | |
| 92591489025 | T4-2HS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:42 | |
| | pH | 7.47 | Std. Units | | 03/04/22 13:42 | |
| EPA 6010D | Calcium | 251 | mg/L | 2.0 | 03/16/22 05:09 | |
| EPA 6010D | Magnesium | 750 | mg/L | 2.0 | 03/16/22 05:09 | |
| EPA 6010D | Potassium | 297 | mg/L | 100 | 03/16/22 05:09 | |
| EPA 6010D | Sodium | 6220 | mg/L | 2000 | 03/15/22 10:47 | |
| EPA 6020B | Boron | 3.2 | mg/L | 2.5 | 03/31/22 18:25 | |
| EPA 6020B | Lithium | 0.12 | mg/L | 0.075 | 03/31/22 21:53 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489025 | T4-2HS | | | | | |
| SM 2320B | Alkalinity, Total as CaCO3 | 110 | mg/L | 5.0 | 03/10/22 14:15 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 110 | mg/L | 5.0 | 03/10/22 14:15 | |
| SM 2540C-2015 | Total Dissolved Solids | 24000 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9420 | mg/L | 100 | 03/07/22 05:36 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1210 | mg/L | 100 | 03/07/22 05:36 | |
| 92591489026 | T4-3HB | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:42 | |
| | pH | 7.47 | Std. Units | | 03/04/22 13:42 | |
| EPA 6010D | Calcium | 254 | mg/L | 2.0 | 03/16/22 05:12 | |
| EPA 6010D | Magnesium | 751 | mg/L | 2.0 | 03/16/22 05:12 | |
| EPA 6010D | Potassium | 297 | mg/L | 100 | 03/16/22 05:12 | |
| EPA 6010D | Sodium | 6210 | mg/L | 2000 | 03/15/22 10:50 | |
| EPA 6020B | Boron | 3.2 | mg/L | 2.5 | 03/31/22 18:29 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 21:57 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 112 | mg/L | 5.0 | 03/10/22 14:33 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 112 | mg/L | 5.0 | 03/10/22 14:33 | |
| SM 2540C-2015 | Total Dissolved Solids | 23100 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9350 | mg/L | 100 | 03/07/22 05:50 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1210 | mg/L | 100 | 03/07/22 05:50 | |
| 92591489027 | T4-3HS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:42 | |
| | pH | 7.49 | Std. Units | | 03/04/22 13:42 | |
| EPA 6010D | Calcium | 261 | mg/L | 2.0 | 03/16/22 05:16 | |
| EPA 6010D | Magnesium | 773 | mg/L | 2.0 | 03/16/22 05:16 | |
| EPA 6010D | Potassium | 308 | mg/L | 100 | 03/16/22 05:16 | |
| EPA 6010D | Sodium | 6220 | mg/L | 2000 | 03/15/22 10:54 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 18:33 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 22:01 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 03/10/22 14:38 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 03/10/22 14:38 | |
| SM 2540C-2015 | Total Dissolved Solids | 24500 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9680 | mg/L | 100 | 03/07/22 06:31 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1240 | mg/L | 100 | 03/07/22 06:31 | |
| 92591489028 | T4-4HB | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:42 | |
| | pH | 7.52 | Std. Units | | 03/04/22 13:42 | |
| EPA 6010D | Calcium | 258 | mg/L | 2.0 | 03/16/22 05:19 | |
| EPA 6010D | Magnesium | 765 | mg/L | 2.0 | 03/16/22 05:19 | |
| EPA 6010D | Potassium | 304 | mg/L | 100 | 03/16/22 05:19 | |
| EPA 6010D | Sodium | 6130 | mg/L | 2000 | 03/15/22 10:57 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.5 | 03/31/22 18:37 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 22:04 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 03/10/22 14:43 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489028 | T4-4HB | | | | | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 03/10/22 14:43 | |
| SM 2540C-2015 | Total Dissolved Solids | 25700 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9370 | mg/L | 100 | 03/07/22 06:45 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1210 | mg/L | 100 | 03/07/22 06:45 | |
| 92591489029 | T4-4HS | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:43 | |
| | pH | 7.47 | Std. Units | | 03/04/22 13:43 | |
| EPA 6010D | Calcium | 260 | mg/L | 2.0 | 03/16/22 05:23 | |
| EPA 6010D | Magnesium | 775 | mg/L | 2.0 | 03/16/22 05:23 | |
| EPA 6010D | Potassium | 306 | mg/L | 100 | 03/16/22 05:23 | |
| EPA 6010D | Sodium | 6270 | mg/L | 2000 | 03/15/22 11:01 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 18:48 | |
| EPA 6020B | Lithium | 0.099 | mg/L | 0.075 | 03/31/22 22:08 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 03/10/22 14:47 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 03/10/22 14:47 | |
| SM 2540C-2015 | Total Dissolved Solids | 23800 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9380 | mg/L | 100 | 03/07/22 06:58 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1210 | mg/L | 100 | 03/07/22 06:58 | |
| 92591489030 | T1-4LT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:43 | |
| | pH | 7.27 | Std. Units | | 03/04/22 13:43 | |
| EPA 6010D | Calcium | 247 | mg/L | 2.0 | 03/16/22 05:26 | |
| EPA 6010D | Magnesium | 721 | mg/L | 2.0 | 03/16/22 05:26 | |
| EPA 6010D | Potassium | 283 | mg/L | 100 | 03/16/22 05:26 | |
| EPA 6010D | Sodium | 5700 | mg/L | 2000 | 03/15/22 11:11 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 03/31/22 18:51 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 22:12 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/10/22 14:52 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/10/22 14:52 | |
| SM 2540C-2015 | Total Dissolved Solids | 23000 | mg/L | 2500 | 03/05/22 11:57 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8910 | mg/L | 100 | 03/07/22 07:12 | M1 |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1140 | mg/L | 100 | 03/07/22 07:12 | M1 |
| 92591489031 | T2-4LT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:43 | |
| | pH | 7.27 | Std. Units | | 03/04/22 13:43 | |
| EPA 6010D | Calcium | 246 | mg/L | 2.0 | 03/16/22 05:37 | |
| EPA 6010D | Magnesium | 718 | mg/L | 2.0 | 03/16/22 05:37 | |
| EPA 6010D | Potassium | 279 | mg/L | 100 | 03/16/22 05:37 | |
| EPA 6010D | Sodium | 5710 | mg/L | 2000 | 03/15/22 11:15 | |
| EPA 6020B | Boron | 2.7 | mg/L | 2.5 | 03/31/22 18:55 | |
| EPA 6020B | Lithium | 0.089 | mg/L | 0.075 | 03/31/22 22:15 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/10/22 14:56 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/10/22 14:56 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489031 | T2-4LT | | | | | |
| SM 2540C-2015 | Total Dissolved Solids | 21900 | mg/L | 2500 | 03/05/22 11:57 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8640 | mg/L | 100 | 03/07/22 07:53 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1100 | mg/L | 100 | 03/07/22 07:53 | |
| 92591489032 | T3-4LT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:43 | |
| | pH | 7.43 | Std. Units | | 03/04/22 13:43 | |
| EPA 6010D | Calcium | 236 | mg/L | 2.0 | 03/16/22 05:40 | |
| EPA 6010D | Magnesium | 701 | mg/L | 2.0 | 03/16/22 05:40 | |
| EPA 6010D | Potassium | 273 | mg/L | 100 | 03/16/22 05:40 | |
| EPA 6010D | Sodium | 5750 | mg/L | 2000 | 03/15/22 11:18 | |
| EPA 6020B | Boron | 3.0 | mg/L | 2.5 | 03/31/22 18:59 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 03/31/22 22:26 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/10/22 15:01 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/10/22 15:01 | |
| SM 2540C-2015 | Total Dissolved Solids | 21000 | mg/L | 2500 | 03/05/22 11:57 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8830 | mg/L | 100 | 03/07/22 08:07 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 08:07 | |
| 92591489033 | T4-4L | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:43 | |
| | pH | 6.78 | Std. Units | | 03/04/22 13:43 | |
| EPA 6010D | Calcium | 267 | mg/L | 2.0 | 03/16/22 05:44 | |
| EPA 6010D | Magnesium | 792 | mg/L | 2.0 | 03/16/22 05:44 | |
| EPA 6010D | Potassium | 313 | mg/L | 100 | 03/16/22 05:44 | |
| EPA 6010D | Sodium | 6240 | mg/L | 2000 | 03/15/22 11:22 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 03/31/22 19:02 | M1 |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 03/31/22 22:30 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 03/10/22 15:05 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 03/10/22 15:05 | |
| SM 2540C-2015 | Total Dissolved Solids | 21600 | mg/L | 2500 | 03/05/22 11:57 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9390 | mg/L | 100 | 03/07/22 08:21 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1210 | mg/L | 100 | 03/07/22 08:21 | |
| 92591489034 | BG-1LT | | | | | |
| | Performed by | CUSTOMER | | | 03/04/22 13:44 | |
| | pH | 7.32 | Std. Units | | 03/04/22 13:44 | |
| EPA 6010D | Calcium | 245 | mg/L | 2.0 | 03/16/22 05:47 | |
| EPA 6010D | Magnesium | 732 | mg/L | 2.0 | 03/16/22 05:47 | |
| EPA 6010D | Potassium | 286 | mg/L | 100 | 03/16/22 05:47 | |
| EPA 6010D | Sodium | 5680 | mg/L | 2000 | 03/15/22 11:25 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.5 | 04/01/22 14:30 | M1 |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.075 | 04/01/22 18:00 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/10/22 15:26 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/10/22 15:26 | |
| SM 2540C-2015 | Total Dissolved Solids | 20800 | mg/L | 2500 | 03/05/22 11:57 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92591489034 | BG-1LT | | | | | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9150 | mg/L | 100 | 03/07/22 08:34 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1180 | mg/L | 100 | 03/07/22 08:34 | |
| 92591489035 | BG-2HT | | | | | |
| | Performed by | CUSTOMER | | | 03/13/22 10:36 | |
| | pH | 7.34 | Std. Units | | 03/13/22 10:36 | |
| EPA 6010D | Calcium | 274 | mg/L | 2.0 | 03/16/22 05:51 | |
| EPA 6010D | Magnesium | 821 | mg/L | 2.0 | 03/16/22 05:51 | |
| EPA 6010D | Potassium | 325 | mg/L | 100 | 03/16/22 05:51 | |
| EPA 6010D | Sodium | 6530 | mg/L | 2000 | 03/15/22 11:29 | |
| EPA 6020B | Boron | 3.1 | mg/L | 2.5 | 04/01/22 14:57 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.075 | 04/01/22 18:25 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 03/10/22 15:30 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 03/10/22 15:30 | |
| SM 2540C-2015 | Total Dissolved Solids | 29000 | mg/L | 2500 | 03/08/22 12:00 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 10400 | mg/L | 200 | 03/07/22 17:02 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1310 | mg/L | 100 | 03/07/22 09:16 | |
| 92591489036 | DUP-1 | | | | | |
| EPA 6010D | Calcium | 235 | mg/L | 2.0 | 03/16/22 05:55 | |
| EPA 6010D | Magnesium | 697 | mg/L | 2.0 | 03/16/22 05:55 | |
| EPA 6010D | Potassium | 274 | mg/L | 100 | 03/16/22 05:55 | |
| EPA 6010D | Sodium | 5890 | mg/L | 2000 | 03/15/22 11:32 | |
| EPA 6020B | Boron | 2.7 | mg/L | 2.0 | 03/16/22 12:27 | |
| EPA 6020B | Lithium | 0.098J | mg/L | 0.10 | 03/15/22 19:00 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 105 | mg/L | 5.0 | 03/10/22 15:35 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 5.0 | 03/10/22 15:35 | |
| SM 2540C-2015 | Total Dissolved Solids | 20300 | mg/L | 2500 | 03/05/22 11:57 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 8560 | mg/L | 100 | 03/07/22 09:30 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1100 | mg/L | 100 | 03/07/22 09:30 | |
| 92591489037 | DUP-2 | | | | | |
| EPA 6010D | Calcium | 242 | mg/L | 2.0 | 03/16/22 05:58 | |
| EPA 6010D | Magnesium | 717 | mg/L | 2.0 | 03/16/22 05:58 | |
| EPA 6010D | Potassium | 282 | mg/L | 100 | 03/16/22 05:58 | |
| EPA 6010D | Sodium | 5770 | mg/L | 2000 | 03/15/22 11:36 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.0 | 03/16/22 12:31 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.10 | 03/15/22 19:04 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 03/10/22 15:39 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 03/10/22 15:39 | |
| SM 2540C-2015 | Total Dissolved Solids | 21600 | mg/L | 2500 | 03/07/22 10:42 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9220 | mg/L | 100 | 03/07/22 09:43 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1190 | mg/L | 100 | 03/07/22 09:43 | |
| 92591489038 | DUP-3 | | | | | |
| EPA 6010D | Calcium | 256 | mg/L | 2.0 | 03/16/22 06:02 | |
| EPA 6010D | Magnesium | 765 | mg/L | 2.0 | 03/16/22 06:02 | |
| EPA 6010D | Potassium | 300 | mg/L | 100 | 03/16/22 06:02 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|-------------------------|--------------------------------|--------|-------|--------------|----------------|------------|
| 92591489038 | DUP-3 | | | | | |
| EPA 6010D | Sodium | 6090 | mg/L | 2000 | 03/15/22 11:39 | |
| EPA 6020B | Boron | 2.8 | mg/L | 2.0 | 03/16/22 12:35 | |
| EPA 6020B | Lithium | 0.10 | mg/L | 0.10 | 03/15/22 19:08 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 03/10/22 15:44 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 03/10/22 15:44 | |
| SM 2540C-2015 | Total Dissolved Solids | 20800 | mg/L | 2500 | 03/07/22 10:42 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9090 | mg/L | 100 | 03/07/22 09:57 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1170 | mg/L | 100 | 03/07/22 09:57 | |
| 92591489039 | DUP-4 | | | | | |
| EPA 6010D | Calcium | 260 | mg/L | 2.0 | 03/16/22 06:05 | |
| EPA 6010D | Magnesium | 762 | mg/L | 2.0 | 03/16/22 06:05 | |
| EPA 6010D | Potassium | 301 | mg/L | 100 | 03/16/22 06:05 | |
| EPA 6010D | Sodium | 6180 | mg/L | 2000 | 03/15/22 11:43 | |
| EPA 6020B | Boron | 2.9 | mg/L | 2.0 | 03/16/22 12:38 | |
| EPA 6020B | Lithium | 0.11 | mg/L | 0.10 | 03/15/22 19:11 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 03/10/22 15:48 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 03/10/22 15:48 | |
| SM 2540C-2015 | Total Dissolved Solids | 23500 | mg/L | 2500 | 03/08/22 12:01 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9290 | mg/L | 100 | 03/07/22 10:11 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 1200 | mg/L | 100 | 03/07/22 10:11 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-1HT **Lab ID: 92591489001** Collected: 03/02/22 09:25 Received: 03/04/22 10:45 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 | | 03/04/22 13:37 | | |
| pH | 7.02 | Std. Units | | | 1 | | 03/04/22 13:37 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|----|
| Calcium | 253 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:09 | 7440-70-2 | |
| Magnesium | 765 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:09 | 7439-95-4 | M1 |
| Potassium | 302 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:09 | 7440-09-7 | |
| Sodium | 5950 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 13:54 | 7440-23-5 | M1 |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 19:39 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:02 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 19:39 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:08 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:08 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:08 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 18300 | mg/L | 2500 | 2500 | 1 | | 03/06/22 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|-------|
| Chloride | 9300 | mg/L | 100 | 60.0 | 100 | | 03/06/22 19:53 | 16887-00-6 | M1 |
| Fluoride | 8.6J | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 19:53 | 16984-48-8 | D3,M1 |
| Sulfate | 1230 | mg/L | 100 | 50.0 | 100 | | 03/06/22 19:53 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-2HT **Lab ID: 92591489002** Collected: 03/02/22 09:44 Received: 03/04/22 10:45 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 | | 03/04/22 13:37 | | |
| pH | 7.45 | Std. Units | | | 1 | | 03/04/22 13:37 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 250 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:37 | 7440-70-2 | |
| Magnesium | 746 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:37 | 7439-95-4 | |
| Potassium | 295 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:37 | 7440-09-7 | |
| Sodium | 5840 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:08 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 19:43 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:06 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 19:43 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:30 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:30 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:30 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19700 | mg/L | 2500 | 2500 | 1 | | 03/06/22 10:33 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9270 | mg/L | 100 | 60.0 | 100 | | 03/06/22 20:48 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 20:48 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/06/22 20:48 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-2HTS **Lab ID: 92591489003** Collected: 03/02/22 09:33 Received: 03/04/22 10:45 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 | | 03/04/22 13:37 | | |
| pH | 7.35 | Std. Units | | | 1 | | 03/04/22 13:37 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 246 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:40 | 7440-70-2 | |
| Magnesium | 736 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:40 | 7439-95-4 | |
| Potassium | 292 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:40 | 7440-09-7 | |
| Sodium | 5940 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:12 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 19:46 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:09 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 19:46 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:38 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:38 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:38 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20500 | mg/L | 2500 | 2500 | 1 | | 03/06/22 10:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9090 | mg/L | 100 | 60.0 | 100 | | 03/06/22 21:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 21:02 | 16984-48-8 | D3 |
| Sulfate | 1190 | mg/L | 100 | 50.0 | 100 | | 03/06/22 21:02 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-3HT **Lab ID: 92591489004** Collected: 03/02/22 11:37 Received: 03/04/22 10:45 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 | | 03/04/22 13:37 | | |
| pH | 7.04 | Std. Units | | | 1 | | 03/04/22 13:37 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 235 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:44 | 7440-70-2 | |
| Magnesium | 702 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:44 | 7439-95-4 | |
| Potassium | 276 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:44 | 7440-09-7 | |
| Sodium | 5820 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:15 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 19:50 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:13 | 7440-42-8 | |
| Lithium | 0.098 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 19:50 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:44 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:44 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:44 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23300 | mg/L | 2500 | 2500 | 1 | | 03/06/22 10:33 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9050 | mg/L | 100 | 60.0 | 100 | | 03/06/22 21:16 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 21:16 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/06/22 21:16 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-3HTS **Lab ID: 92591489005** Collected: 03/02/22 11:26 Received: 03/04/22 10:45 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 | | 03/04/22 13:37 | | |
| pH | 7.17 | Std. Units | | | 1 | | 03/04/22 13:37 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 252 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:47 | 7440-70-2 | |
| Magnesium | 763 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:47 | 7439-95-4 | |
| Potassium | 303 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:47 | 7440-09-7 | |
| Sodium | 5900 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:19 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 19:54 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:24 | 7440-42-8 | M1 |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 19:54 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:51 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:51 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 09:51 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21900 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:40 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 18300 | mg/L | 200 | 120 | 200 | | 03/06/22 22:57 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 22:29 | 16984-48-8 | D3 |
| Sulfate | 1330 | mg/L | 100 | 50.0 | 100 | | 03/06/22 22:29 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-4HT Lab ID: 92591489006 Collected: 03/02/22 12:11 Received: 03/04/22 10:45 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 | | 03/04/22 13:38 | | |
| pH | 7.14 | Std. Units | | | 1 | | 03/04/22 13:38 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 248 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:51 | 7440-70-2 | |
| Magnesium | 751 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:51 | 7439-95-4 | |
| Potassium | 297 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:51 | 7440-09-7 | |
| Sodium | 5890 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:22 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:19 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:42 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:19 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:11 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:11 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:11 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21100 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:40 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9220 | mg/L | 100 | 60.0 | 100 | | 03/06/22 22:43 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 22:43 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/06/22 22:43 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-4HTS **Lab ID: 92591489007** Collected: 03/02/22 12:05 Received: 03/04/22 10:45 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 | | 03/04/22 13:38 | | |
| pH | 7.17 | Std. Units | | | 1 | | 03/04/22 13:38 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 250 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:54 | 7440-70-2 | |
| Magnesium | 750 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:54 | 7439-95-4 | |
| Potassium | 298 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:54 | 7440-09-7 | |
| Sodium | 5830 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:33 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:23 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:46 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:23 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:42 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:42 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:42 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20100 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:40 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9180 | mg/L | 100 | 60.0 | 100 | | 03/06/22 23:10 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 23:10 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/06/22 23:10 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-1HT Lab ID: 92591489008 Collected: 03/02/22 10:04 Received: 03/04/22 10:45 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 | | 03/04/22 13:38 | | |
| pH | 7.54 | Std. Units | | | 1 | | 03/04/22 13:38 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 243 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:58 | 7440-70-2 | |
| Magnesium | 722 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:58 | 7439-95-4 | |
| Potassium | 290 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:58 | 7440-09-7 | |
| Sodium | 5780 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:37 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:26 | 7440-38-2 | D3 |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:49 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:26 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:51 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:51 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 10:51 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21900 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9210 | mg/L | 100 | 60.0 | 100 | | 03/06/22 23:24 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 23:24 | 16984-48-8 | D3 |
| Sulfate | 1190 | mg/L | 100 | 50.0 | 100 | | 03/06/22 23:24 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-2HT **Lab ID: 92591489009** Collected: 03/02/22 10:17 Received: 03/04/22 10:45 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 | | 03/04/22 13:38 | | |
| pH | 7.49 | Std. Units | | | 1 | | 03/04/22 13:38 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 251 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:09 | 7440-70-2 | |
| Magnesium | 761 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:09 | 7439-95-4 | |
| Potassium | 300 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:09 | 7440-09-7 | |
| Sodium | 5850 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:40 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:30 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:53 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:30 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:02 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:02 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:02 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 21300 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9190 | mg/L | 100 | 60.0 | 100 | | 03/06/22 23:38 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 23:38 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/06/22 23:38 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-2HTS **Lab ID:** 92591489010 Collected: 03/02/22 10:08 Received: 03/04/22 10:45 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 | | 03/04/22 13:38 | | |
| pH | 7.50 | Std. Units | | | 1 | | 03/04/22 13:38 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 262 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:12 | 7440-70-2 | |
| Magnesium | 783 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:12 | 7439-95-4 | |
| Potassium | 302 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:12 | 7440-09-7 | |
| Sodium | 5830 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:44 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:33 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 16:57 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:33 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:11 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:11 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:11 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20500 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9140 | mg/L | 100 | 60.0 | 100 | | 03/06/22 23:51 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/06/22 23:51 | 16984-48-8 | D3,M1 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/06/22 23:51 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-3HT **Lab ID: 92591489011** Collected: 03/02/22 11:55 Received: 03/04/22 10:45 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 | | 03/04/22 13:39 | | |
| pH | 7.03 | Std. Units | | | 1 | | 03/04/22 13:39 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 248 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:16 | 7440-70-2 | |
| Magnesium | 730 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:16 | 7439-95-4 | |
| Potassium | 290 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:16 | 7440-09-7 | |
| Sodium | 5940 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:47 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:37 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:08 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:37 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:21 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:21 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:21 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 19800 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9450 | mg/L | 100 | 60.0 | 100 | | 03/07/22 01:01 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 01:01 | 16984-48-8 | D3 |
| Sulfate | 1220 | mg/L | 100 | 50.0 | 100 | | 03/07/22 01:01 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-3HTS **Lab ID: 92591489012** Collected: 03/02/22 11:51 Received: 03/04/22 10:45 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 | | 03/04/22 13:39 | | |
| pH | 7.05 | Std. Units | | | 1 | | 03/04/22 13:39 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 242 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:19 | 7440-70-2 | |
| Magnesium | 710 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:19 | 7439-95-4 | |
| Potassium | 281 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:19 | 7440-09-7 | |
| Sodium | 5920 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:51 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:41 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:12 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:41 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:30 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:30 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:30 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20500 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9080 | mg/L | 100 | 60.0 | 100 | | 03/07/22 01:14 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 01:14 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 01:14 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-4HT **Lab ID: 92591489013** Collected: 03/02/22 12:43 Received: 03/04/22 10:45 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 | | 03/04/22 13:39 | | |
| pH | 7.09 | Std. Units | | | 1 | | 03/04/22 13:39 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 239 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:23 | 7440-70-2 | |
| Magnesium | 701 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:23 | 7439-95-4 | |
| Potassium | 277 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:23 | 7440-09-7 | |
| Sodium | 5760 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:54 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:52 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:15 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:52 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:39 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:39 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:39 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 20900 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|-------|
| Chloride | 9150 | mg/L | 100 | 60.0 | 100 | | 03/07/22 04:00 | 16887-00-6 | M1,R1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 04:00 | 16984-48-8 | D3,M1 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 04:00 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-4HTS **Lab ID: 92591489014** Collected: 03/02/22 12:37 Received: 03/04/22 10:45 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 | | 03/04/22 13:39 | | |
| pH | 7.05 | Std. Units | | | 1 | | 03/04/22 13:39 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 240 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:26 | 7440-70-2 | |
| Magnesium | 701 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:26 | 7439-95-4 | |
| Potassium | 278 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:26 | 7440-09-7 | |
| Sodium | 5840 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 14:58 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:55 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:19 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:55 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:19 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:19 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:19 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 22200 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9030 | mg/L | 100 | 60.0 | 100 | | 03/07/22 01:28 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 01:28 | 16984-48-8 | D3 |
| Sulfate | 1170 | mg/L | 100 | 50.0 | 100 | | 03/07/22 01:28 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-1HT **Lab ID: 92591489015** Collected: 03/02/22 10:36 Received: 03/04/22 10:45 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 | | 03/04/22 13:39 | | |
| pH | 7.55 | Std. Units | | | 1 | | 03/04/22 13:39 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 237 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:30 | 7440-70-2 | |
| Magnesium | 694 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:30 | 7439-95-4 | |
| Potassium | 280 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:30 | 7440-09-7 | |
| Sodium | 5790 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:01 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 20:59 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:23 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 20:59 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:29 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:29 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:29 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 22100 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8970 | mg/L | 100 | 60.0 | 100 | | 03/07/22 01:42 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 01:42 | 16984-48-8 | D3 |
| Sulfate | 1160 | mg/L | 100 | 50.0 | 100 | | 03/07/22 01:42 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-2HT **Lab ID: 92591489016** Collected: 03/02/22 10:49 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.10 | Std. Units | | | 1 | | 03/04/22 13:40 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 247 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:33 | 7440-70-2 | |
| Magnesium | 722 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:33 | 7439-95-4 | |
| Potassium | 287 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:33 | 7440-09-7 | |
| Sodium | 5880 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:05 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:03 | 7440-38-2 | D3 |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:26 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:03 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:37 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:37 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:37 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23600 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9040 | mg/L | 100 | 60.0 | 100 | | 03/07/22 01:55 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 01:55 | 16984-48-8 | D3 |
| Sulfate | 1170 | mg/L | 100 | 50.0 | 100 | | 03/07/22 01:55 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-2HTS **Lab ID: 92591489017** Collected: 03/02/22 10:40 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.52 | Std. Units | | | 1 | | 03/04/22 13:40 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 246 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:37 | 7440-70-2 | |
| Magnesium | 717 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:37 | 7439-95-4 | |
| Potassium | 287 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:37 | 7440-09-7 | |
| Sodium | 5910 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:15 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:06 | 7440-38-2 | D3 |
| Boron | 3.3 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:30 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:06 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:45 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:45 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:45 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21400 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9130 | mg/L | 100 | 60.0 | 100 | | 03/07/22 02:09 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 02:09 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 02:09 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-3HT **Lab ID: 92591489018** Collected: 03/02/22 11:10 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.09 | Std. Units | | | 1 | | 03/04/22 13:40 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 254 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:40 | 7440-70-2 | |
| Magnesium | 731 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:40 | 7439-95-4 | |
| Potassium | 289 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:40 | 7440-09-7 | |
| Sodium | 5720 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:19 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:10 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:34 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:10 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:54 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:54 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 12:54 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 22100 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:41 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9160 | mg/L | 100 | 60.0 | 100 | | 03/07/22 02:23 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 02:23 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 02:23 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-3HTS **Lab ID: 92591489019** Collected: 03/02/22 11:00 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.14 | Std. Units | | | 1 | | 03/04/22 13:40 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 251 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:51 | 7440-70-2 | |
| Magnesium | 731 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:51 | 7439-95-4 | |
| Potassium | 282 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:51 | 7440-09-7 | |
| Sodium | 5650 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:23 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|----|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:13 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:38 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:13 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:00 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:00 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:00 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 20000 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:42 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9030 | mg/L | 100 | 60.0 | 100 | | 03/07/22 02:36 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 02:36 | 16984-48-8 | D3 |
| Sulfate | 1170 | mg/L | 100 | 50.0 | 100 | | 03/07/22 02:36 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-4HT **Lab ID: 92591489020** Collected: 03/02/22 12:27 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.07 | Std. Units | | | 1 | | 03/04/22 13:40 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 246 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 07:54 | 7440-70-2 | |
| Magnesium | 733 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 07:54 | 7439-95-4 | |
| Potassium | 289 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 07:54 | 7440-09-7 | |
| Sodium | 5730 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 15:26 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:17 | 7440-38-2 | D3 |
| Boron | 3.2 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 17:41 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:17 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:06 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:06 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 13:06 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 22900 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:42 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9180 | mg/L | 100 | 60.0 | 100 | | 03/07/22 02:50 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 02:50 | 16984-48-8 | D3 |
| Sulfate | 1190 | mg/L | 100 | 50.0 | 100 | | 03/07/22 02:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-4HTS **Lab ID: 92591489021** Collected: 03/02/22 12:22 Received: 03/04/22 10:45 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 | | 03/04/22 13:40 | | |
| pH | 7.14 | Std. Units | | | 1 | | 03/04/22 13:40 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 245 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 04:37 | 7440-70-2 | |
| Magnesium | 729 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 04:37 | 7439-95-4 | M1 |
| Potassium | 284 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 04:37 | 7440-09-7 | |
| Sodium | 6190 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:08 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:21 | 7440-38-2 | |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:11 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:21 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 13:48 | | |
| Alkalinity,Bicarbonate (CaCO3) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 13:48 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 13:48 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21600 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:42 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8970 | mg/L | 100 | 60.0 | 100 | | 03/07/22 04:41 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 04:41 | 16984-48-8 | D3 |
| Sulfate | 1150 | mg/L | 100 | 50.0 | 100 | | 03/07/22 04:41 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-1HB **Lab ID: 92591489022** Collected: 03/03/22 10:19 Received: 03/04/22 10:45 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 | | 03/04/22 13:41 | | |
| pH | 7.45 | Std. Units | | | 1 | | 03/04/22 13:41 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 252 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 04:58 | 7440-70-2 | |
| Magnesium | 746 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 04:58 | 7439-95-4 | |
| Potassium | 292 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 04:58 | 7440-09-7 | |
| Sodium | 6270 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:36 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:43 | 7440-38-2 | |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:14 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:43 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 113 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:01 | | |
| Alkalinity,Bicarbonate (CaCO3) | 113 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:01 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:01 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 22700 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9360 | mg/L | 100 | 60.0 | 100 | | 03/07/22 04:55 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 04:55 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/07/22 04:55 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-1HS **Lab ID: 92591489023** Collected: 03/03/22 10:11 Received: 03/04/22 10:45 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 | | 03/04/22 13:41 | | |
| pH | 7.51 | Std. Units | | | 1 | | 03/04/22 13:41 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 253 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:02 | 7440-70-2 | |
| Magnesium | 749 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:02 | 7439-95-4 | |
| Potassium | 295 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:02 | 7440-09-7 | |
| Sodium | 6100 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:40 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:46 | 7440-38-2 | |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:18 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:46 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 110 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:06 | | |
| Alkalinity,Bicarbonate (CaCO3) | 110 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:06 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:06 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 24300 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9510 | mg/L | 100 | 60.0 | 100 | | 03/07/22 05:09 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 05:09 | 16984-48-8 | D3 |
| Sulfate | 1230 | mg/L | 100 | 50.0 | 100 | | 03/07/22 05:09 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-2HB **Lab ID: 92591489024** Collected: 03/03/22 10:38 Received: 03/04/22 10:45 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 | | 03/04/22 13:42 | | |
| pH | 7.47 | Std. Units | | | 1 | | 03/04/22 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 253 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:05 | 7440-70-2 | |
| Magnesium | 752 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:05 | 7439-95-4 | |
| Potassium | 296 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:05 | 7440-09-7 | |
| Sodium | 6190 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:43 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:50 | 7440-38-2 | |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:22 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:50 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 111 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:11 | | |
| Alkalinity,Bicarbonate (CaCO3) | 111 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:11 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:11 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9390 | mg/L | 100 | 60.0 | 100 | | 03/07/22 05:22 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 05:22 | 16984-48-8 | D3 |
| Sulfate | 1220 | mg/L | 100 | 50.0 | 100 | | 03/07/22 05:22 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-2HS **Lab ID: 92591489025** Collected: 03/03/22 10:31 Received: 03/04/22 10:45 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 | | 03/04/22 13:42 | | |
| pH | 7.47 | Std. Units | | | 1 | | 03/04/22 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 251 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:09 | 7440-70-2 | |
| Magnesium | 750 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:09 | 7439-95-4 | |
| Potassium | 297 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:09 | 7440-09-7 | |
| Sodium | 6220 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:47 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:53 | 7440-38-2 | |
| Boron | 3.2 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:25 | 7440-42-8 | |
| Lithium | 0.12 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:53 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 110 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:15 | | |
| Alkalinity,Bicarbonate (CaCO3) | 110 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:15 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:15 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 24000 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9420 | mg/L | 100 | 60.0 | 100 | | 03/07/22 05:36 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 05:36 | 16984-48-8 | D3 |
| Sulfate | 1210 | mg/L | 100 | 50.0 | 100 | | 03/07/22 05:36 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-3HB **Lab ID: 92591489026** Collected: 03/03/22 10:59 Received: 03/04/22 10:45 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 | | 03/04/22 13:42 | | |
| pH | 7.47 | Std. Units | | | 1 | | 03/04/22 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 254 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:12 | 7440-70-2 | |
| Magnesium | 751 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:12 | 7439-95-4 | |
| Potassium | 297 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:12 | 7440-09-7 | |
| Sodium | 6210 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:50 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 21:57 | 7440-38-2 | |
| Boron | 3.2 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:29 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 21:57 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 112 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:33 | | |
| Alkalinity,Bicarbonate (CaCO3) | 112 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:33 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:33 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23100 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9350 | mg/L | 100 | 60.0 | 100 | | 03/07/22 05:50 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 05:50 | 16984-48-8 | D3 |
| Sulfate | 1210 | mg/L | 100 | 50.0 | 100 | | 03/07/22 05:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-3HS **Lab ID: 92591489027** Collected: 03/03/22 10:49 Received: 03/04/22 10:45 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 | | 03/04/22 13:42 | | |
| pH | 7.49 | Std. Units | | | 1 | | 03/04/22 13:42 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 261 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:16 | 7440-70-2 | |
| Magnesium | 773 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:16 | 7439-95-4 | |
| Potassium | 308 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:16 | 7440-09-7 | |
| Sodium | 6220 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:54 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|-------------|------|-------|--------|----|----------------|----------------|-----------|--|
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 22:01 | 7440-38-2 | |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:33 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:01 | 7439-93-2 | |

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:38 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:38 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:38 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 24500 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|----|
| Chloride | 9680 | mg/L | 100 | 60.0 | 100 | | 03/07/22 06:31 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 06:31 | 16984-48-8 | D3 |
| Sulfate | 1240 | mg/L | 100 | 50.0 | 100 | | 03/07/22 06:31 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-4HB **Lab ID: 92591489028** Collected: 03/03/22 11:18 Received: 03/04/22 10:45 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 | | 03/04/22 13:42 | | |
| pH | 7.52 | Std. Units | | | 1 | | 03/04/22 13:42 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 258 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:19 | 7440-70-2 | |
| Magnesium | 765 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:19 | 7439-95-4 | |
| Potassium | 304 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:19 | 7440-09-7 | |
| Sodium | 6130 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 10:57 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 22:04 | 7440-38-2 | |
| Boron | 2.9 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:37 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:04 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:43 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:43 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:43 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 25700 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9370 | mg/L | 100 | 60.0 | 100 | | 03/07/22 06:45 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 06:45 | 16984-48-8 | D3 |
| Sulfate | 1210 | mg/L | 100 | 50.0 | 100 | | 03/07/22 06:45 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-4HS **Lab ID: 92591489029** Collected: 03/03/22 11:10 Received: 03/04/22 10:45 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 | | 03/04/22 13:43 | | |
| pH | 7.47 | Std. Units | | | 1 | | 03/04/22 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 260 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:23 | 7440-70-2 | |
| Magnesium | 775 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:23 | 7439-95-4 | |
| Potassium | 306 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:23 | 7440-09-7 | |
| Sodium | 6270 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:01 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 22:08 | 7440-38-2 | |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:48 | 7440-42-8 | |
| Lithium | 0.099 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:08 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:47 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:47 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:47 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23800 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9380 | mg/L | 100 | 60.0 | 100 | | 03/07/22 06:58 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 06:58 | 16984-48-8 | D3 |
| Sulfate | 1210 | mg/L | 100 | 50.0 | 100 | | 03/07/22 06:58 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T1-4LT **Lab ID: 92591489030** Collected: 03/01/22 14:47 Received: 03/04/22 10:45 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 | | 03/04/22 13:43 | | |
| pH | 7.27 | Std. Units | | | 1 | | 03/04/22 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 247 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:26 | 7440-70-2 | |
| Magnesium | 721 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:26 | 7439-95-4 | |
| Potassium | 283 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:26 | 7440-09-7 | |
| Sodium | 5700 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:11 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 22:12 | 7440-38-2 | |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:51 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:12 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:52 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:52 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:52 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23000 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8910 | mg/L | 100 | 60.0 | 100 | | 03/07/22 07:12 | 16887-00-6 | M1 |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 07:12 | 16984-48-8 | D3,M1 |
| Sulfate | 1140 | mg/L | 100 | 50.0 | 100 | | 03/07/22 07:12 | 14808-79-8 | M1 |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T2-4LT **Lab ID: 92591489031** Collected: 03/01/22 15:10 Received: 03/04/22 10:45 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 | | 03/04/22 13:43 | | |
| pH | 7.27 | Std. Units | | | 1 | | 03/04/22 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 246 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:37 | 7440-70-2 | |
| Magnesium | 718 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:37 | 7439-95-4 | |
| Potassium | 279 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:37 | 7440-09-7 | |
| Sodium | 5710 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:15 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 03/31/22 22:15 | 7440-38-2 | |
| Boron | 2.7 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:55 | 7440-42-8 | |
| Lithium | 0.089 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:15 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:56 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:56 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 14:56 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21900 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8640 | mg/L | 100 | 60.0 | 100 | | 03/07/22 07:53 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 07:53 | 16984-48-8 | D3 |
| Sulfate | 1100 | mg/L | 100 | 50.0 | 100 | | 03/07/22 07:53 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T3-4LT **Lab ID: 92591489032** Collected: 03/01/22 15:42 Received: 03/04/22 10:45 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 | | 03/04/22 13:43 | | |
| pH | 7.43 | Std. Units | | | 1 | | 03/04/22 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 236 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:40 | 7440-70-2 | |
| Magnesium | 701 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:40 | 7439-95-4 | |
| Potassium | 273 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:40 | 7440-09-7 | |
| Sodium | 5750 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:18 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 04/01/22 15:52 | 7440-38-2 | |
| Boron | 3.0 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 18:59 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:26 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:01 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:01 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:01 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21000 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8830 | mg/L | 100 | 60.0 | 100 | | 03/07/22 08:07 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 08:07 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 08:07 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: T4-4L **Lab ID: 92591489033** Collected: 03/01/22 13:25 Received: 03/04/22 10:45 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 | | 03/04/22 13:43 | | |
| pH | 6.78 | Std. Units | | | 1 | | 03/04/22 13:43 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 267 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:44 | 7440-70-2 | |
| Magnesium | 792 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:44 | 7439-95-4 | |
| Potassium | 313 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:44 | 7440-09-7 | |
| Sodium | 6240 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:22 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 03/31/22 11:03 | 04/01/22 15:56 | 7440-38-2 | |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 03/31/22 11:03 | 03/31/22 19:02 | 7440-42-8 | M1 |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 03/31/22 11:03 | 03/31/22 22:30 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:05 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:05 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:05 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21600 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9390 | mg/L | 100 | 60.0 | 100 | | 03/07/22 08:21 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 08:21 | 16984-48-8 | D3 |
| Sulfate | 1210 | mg/L | 100 | 50.0 | 100 | | 03/07/22 08:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: BG-1LT **Lab ID: 92591489034** Collected: 03/01/22 14:25 Received: 03/04/22 10:45 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 | | 03/04/22 13:44 | | |
| pH | 7.32 | Std. Units | | | 1 | | 03/04/22 13:44 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 245 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:47 | 7440-70-2 | |
| Magnesium | 732 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:47 | 7439-95-4 | |
| Potassium | 286 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:47 | 7440-09-7 | |
| Sodium | 5680 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:25 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 04/01/22 09:29 | 04/01/22 18:00 | 7440-38-2 | D3 |
| Boron | 2.8 | mg/L | 2.5 | 0.42 | 50 | 04/01/22 09:29 | 04/01/22 14:30 | 7440-42-8 | M1 |
| Lithium | 0.10 | mg/L | 0.075 | 0.015 | 30 | 04/01/22 09:29 | 04/01/22 18:00 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:26 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:26 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:26 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20800 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9150 | mg/L | 100 | 60.0 | 100 | | 03/07/22 08:34 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 08:34 | 16984-48-8 | D3 |
| Sulfate | 1180 | mg/L | 100 | 50.0 | 100 | | 03/07/22 08:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: **BG-2HT** Lab ID: **92591489035** Collected: 03/03/22 09:52 Received: 03/04/22 10:45 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 | | 03/13/22 10:36 | | |
| pH | 7.34 | Std. Units | | | 1 | | 03/13/22 10:36 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 274 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:51 | 7440-70-2 | |
| Magnesium | 821 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:51 | 7439-95-4 | |
| Potassium | 325 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:51 | 7440-09-7 | |
| Sodium | 6530 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:29 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.030 | 0.0026 | 30 | 04/01/22 09:29 | 04/01/22 18:25 | 7440-38-2 | D3 |
| Boron | 3.1 | mg/L | 2.5 | 0.42 | 50 | 04/01/22 09:29 | 04/01/22 14:57 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.075 | 0.015 | 30 | 04/01/22 09:29 | 04/01/22 18:25 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:30 | | |
| Alkalinity,Bicarbonate (CaCO3) | 109 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:30 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:30 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 29000 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:00 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 10400 | mg/L | 200 | 120 | 200 | | 03/07/22 17:02 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 09:16 | 16984-48-8 | D3 |
| Sulfate | 1310 | mg/L | 100 | 50.0 | 100 | | 03/07/22 09:16 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

Sample: DUP-1 Lab ID: 92591489036 Collected: 03/01/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|--|---------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 235 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:55 | 7440-70-2 | |
| Magnesium | 697 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:55 | 7439-95-4 | |
| Potassium | 274 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:55 | 7440-09-7 | |
| Sodium | 5890 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:32 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.040 | 0.0035 | 2 | 03/11/22 02:43 | 03/15/22 19:00 | 7440-38-2 | D3 |
| Boron | 2.7 | mg/L | 2.0 | 0.34 | 2 | 03/11/22 02:43 | 03/16/22 12:27 | 7440-42-8 | |
| Lithium | 0.098J | mg/L | 0.10 | 0.020 | 2 | 03/11/22 02:43 | 03/15/22 19:00 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 105 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:35 | | |
| Alkalinity,Bicarbonate (CaCO3) | 105 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:35 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:35 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20300 | mg/L | 2500 | 2500 | 1 | | 03/05/22 11:57 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 8560 | mg/L | 100 | 60.0 | 100 | | 03/07/22 09:30 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 09:30 | 16984-48-8 | D3 |
| Sulfate | 1100 | mg/L | 100 | 50.0 | 100 | | 03/07/22 09:30 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

Sample: DUP-2 **Lab ID: 92591489037** Collected: 03/02/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 242 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 05:58 | 7440-70-2 | |
| Magnesium | 717 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 05:58 | 7439-95-4 | |
| Potassium | 282 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 05:58 | 7440-09-7 | |
| Sodium | 5770 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:36 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.040 | 0.0035 | 2 | 03/11/22 02:43 | 03/15/22 19:04 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.0 | 0.34 | 2 | 03/11/22 02:43 | 03/16/22 12:31 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.10 | 0.020 | 2 | 03/11/22 02:43 | 03/15/22 19:04 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO ₃ | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:39 | | |
| Alkalinity,Bicarbonate (CaCO ₃) | 107 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:39 | | |
| Alkalinity,Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:39 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 21600 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:42 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9220 | mg/L | 100 | 60.0 | 100 | | 03/07/22 09:43 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 09:43 | 16984-48-8 | D3 |
| Sulfate | 1190 | mg/L | 100 | 50.0 | 100 | | 03/07/22 09:43 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

Sample: DUP-3 **Lab ID: 92591489038** Collected: 03/02/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 256 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:02 | 7440-70-2 | |
| Magnesium | 765 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:02 | 7439-95-4 | |
| Potassium | 300 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:02 | 7440-09-7 | |
| Sodium | 6090 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:39 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.040 | 0.0035 | 2 | 03/11/22 02:43 | 03/15/22 19:08 | 7440-38-2 | D3 |
| Boron | 2.8 | mg/L | 2.0 | 0.34 | 2 | 03/11/22 02:43 | 03/16/22 12:35 | 7440-42-8 | |
| Lithium | 0.10 | mg/L | 0.10 | 0.020 | 2 | 03/11/22 02:43 | 03/15/22 19:08 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:44 | | |
| Alkalinity,Bicarbonate (CaCO3) | 106 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:44 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:44 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 20800 | mg/L | 2500 | 2500 | 1 | | 03/07/22 10:42 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9090 | mg/L | 100 | 60.0 | 100 | | 03/07/22 09:57 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 09:57 | 16984-48-8 | D3 |
| Sulfate | 1170 | mg/L | 100 | 50.0 | 100 | | 03/07/22 09:57 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: DUP-4 **Lab ID: 92591489039** Collected: 03/03/22 00:00 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|--------|-----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 260 | mg/L | 2.0 | 1.9 | 1 | 03/12/22 04:00 | 03/16/22 06:05 | 7440-70-2 | |
| Magnesium | 762 | mg/L | 2.0 | 1.4 | 1 | 03/12/22 04:00 | 03/16/22 06:05 | 7439-95-4 | |
| Potassium | 301 | mg/L | 100 | 60.8 | 1 | 03/12/22 04:00 | 03/16/22 06:05 | 7440-09-7 | |
| Sodium | 6180 | mg/L | 2000 | 244 | 20 | 03/12/22 04:00 | 03/15/22 11:43 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.040 | 0.0035 | 2 | 03/11/22 02:43 | 03/15/22 19:11 | 7440-38-2 | D3 |
| Boron | 2.9 | mg/L | 2.0 | 0.34 | 2 | 03/11/22 02:43 | 03/16/22 12:38 | 7440-42-8 | |
| Lithium | 0.11 | mg/L | 0.10 | 0.020 | 2 | 03/11/22 02:43 | 03/15/22 19:11 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:48 | | |
| Alkalinity,Bicarbonate (CaCO3) | 108 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:48 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:48 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 23500 | mg/L | 2500 | 2500 | 1 | | 03/08/22 12:01 | | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 9290 | mg/L | 100 | 60.0 | 100 | | 03/07/22 10:11 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 03/07/22 10:11 | 16984-48-8 | D3 |
| Sulfate | 1200 | mg/L | 100 | 50.0 | 100 | | 03/07/22 10:11 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Sample: FB-1 | | Lab ID: 92591489040 | | Collected: 03/03/22 14:35 | Received: 03/04/22 10:45 | Matrix: Water | | | | |
|---|---------|--|--------|---------------------------|--------------------------|----------------|----------------|------------|------|--|
| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual | |
| | | | Limit | MDL | DF | | | | | |
| 6010 MET ICP | | Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/17/22 03:10 | 03/17/22 12:19 | 7440-70-2 | | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/17/22 03:10 | 03/17/22 12:19 | 7439-95-4 | | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/17/22 03:10 | 03/17/22 12:19 | 7440-09-7 | | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/17/22 03:10 | 03/17/22 12:19 | 7440-23-5 | | |
| 6020 MET ICPMS | | Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 03/16/22 00:43 | 03/16/22 11:37 | 7440-38-2 | | |
| Boron | ND | mg/L | 1.0 | 0.17 | 1 | 03/16/22 00:43 | 03/16/22 11:37 | 7440-42-8 | | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 03/16/22 00:43 | 03/16/22 11:37 | 7439-93-2 | | |
| 2320B Alkalinity | | Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis | | | | | | | | |
| Alkalinity, Total as CaCO ₃ | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:57 | | | |
| Alkalinity,Bicarbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:57 | | | |
| Alkalinity,Carbonate (CaCO ₃) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 15:57 | | | |
| 2540C Total Dissolved Solids | | Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/08/22 12:01 | | | |
| 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 | | 03/07/22 19:54 | 16887-00-6 | M1 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 19:54 | 16984-48-8 | M1 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 19:54 | 14808-79-8 | M1 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

Sample: EB-1 **Lab ID: 92591489041** Collected: 03/03/22 14:40 Received: 03/04/22 10:45 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|--------|--------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/15/22 12:20 | 03/16/22 02:55 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/15/22 12:20 | 03/16/22 02:55 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/15/22 12:20 | 03/16/22 02:55 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/15/22 12:20 | 03/16/22 02:55 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.020 | 0.0017 | 1 | 03/16/22 00:43 | 03/16/22 11:41 | 7440-38-2 | |
| Boron | ND | mg/L | 1.0 | 0.17 | 1 | 03/16/22 00:43 | 03/16/22 11:41 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 03/16/22 00:43 | 03/16/22 11:41 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B | | | | | | | | | |
| Pace Analytical Services - Minneapolis | | | | | | | | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:56 | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:56 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/09/22 11:56 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2015 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/08/22 12:01 | | |
| 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 | | 03/07/22 21:12 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/07/22 21:12 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/07/22 21:12 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 683541 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3575413 | Matrix: | Water |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/15/22 13:33 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/15/22 13:33 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/15/22 13:33 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/15/22 13:33 | |

| LABORATORY CONTROL SAMPLE: 3575414 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Calcium | mg/L | 5 | 5.1 | 101 | 80-120 | |
| Magnesium | mg/L | 5 | 5.1 | 101 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 93 | 80-120 | |
| Sodium | mg/L | 5 | 4.8J | 95 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575415 | | | | | | | | | | | | 3575416 | |
|--|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| | | 92591489001 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Calcium | mg/L | 253 | 100 | 100 | 341 | 340 | 88 | 86 | 75-125 | 0 | 20 | | |
| Magnesium | mg/L | 765 | 100 | 100 | 846 | 828 | 82 | 63 | 75-125 | 2 | 20 | M1 | |
| Potassium | mg/L | 302 | 100 | 100 | 412 | 408 | 110 | 106 | 75-125 | 1 | 20 | | |
| Sodium | mg/L | 5950 | 100 | 100 | 5880 | 5600 | -74 | -351 | 75-125 | 5 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|---|-----------------------|--------------------------------------|
| QC Batch: | 683542 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039 | | |

| | | | |
|-------------------------|---|---------|-------|
| METHOD BLANK: | 3575420 | Matrix: | Water |
| Associated Lab Samples: | 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/15/22 10:01 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/15/22 10:01 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/15/22 10:01 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/15/22 10:01 | |

| LABORATORY CONTROL SAMPLE: 3575421 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Calcium | mg/L | 5 | 4.8 | 95 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 97 | 80-120 | |
| Potassium | mg/L | 5 | 4.5J | 91 | 80-120 | |
| Sodium | mg/L | 5 | 4.7J | 93 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575422 | | | | | | | | | | | | 3575423 | |
|--|-------|--------------------|-------------|-------------|-------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| | | 92591489021 Result | Spike Conc. | Spike Conc. | Conc. | | | | | | | | |
| Calcium | mg/L | 245 | 100 | 100 | 341 | 326 | 97 | 82 | 75-125 | 5 | 20 | | |
| Magnesium | mg/L | 729 | 100 | 100 | 827 | 797 | 98 | 68 | 75-125 | 4 | 20 | M1 | |
| Potassium | mg/L | 284 | 100 | 100 | 405 | 389 | 121 | 105 | 75-125 | 4 | 20 | | |
| Sodium | mg/L | 6190 | 100 | 100 | 6310 | 5940 | 127 | -251 | 75-125 | 6 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 684772 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92591489041

METHOD BLANK: 3580835 Matrix: Water

Associated Lab Samples: 92591489041

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/16/22 02:48 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/16/22 02:48 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/16/22 02:48 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/16/22 02:48 | |

LABORATORY CONTROL SAMPLE: 3580836

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Magnesium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 92 | 80-120 | |
| Sodium | mg/L | 5 | 4.8J | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3580837 3580838

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92591489041 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | ND | 5 | 5 | 4.9 | 4.9 | 97 | 97 | 75-125 | 0 | 20 |
| Magnesium | mg/L | ND | 5 | 5 | 4.9 | 4.9 | 98 | 98 | 75-125 | 0 | 20 |
| Potassium | mg/L | ND | 5 | 5 | 4.8J | 4.8J | 96 | 95 | 75-125 | | 20 |
| Sodium | mg/L | ND | 5 | 5 | 4.9J | 4.8J | 97 | 95 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

QC Batch: 685205 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92591489040

METHOD BLANK: 3583032 Matrix: Water
 Associated Lab Samples: 92591489040

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/17/22 12:11 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/17/22 12:11 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/17/22 12:11 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/17/22 12:11 | |

LABORATORY CONTROL SAMPLE: 3583033

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 96 | 80-120 | |
| Magnesium | mg/L | 5 | 5.0 | 99 | 80-120 | |
| Potassium | mg/L | 5 | 4.8J | 95 | 80-120 | |
| Sodium | mg/L | 5 | 5.3 | 105 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3583034 3583035

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92591489040 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | ND | 5 | 5 | 4.9 | 5.0 | 97 | 99 | 75-125 | 2 | 20 |
| Magnesium | mg/L | ND | 5 | 5 | 5.1 | 5.2 | 102 | 103 | 75-125 | 2 | 20 |
| Potassium | mg/L | ND | 5 | 5 | 4.9J | 5.0J | 98 | 100 | 75-125 | | 20 |
| Sodium | mg/L | ND | 5 | 5 | 5.1 | 5.2 | 99 | 101 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

QC Batch: 683556 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92591489036, 92591489037, 92591489038, 92591489039

METHOD BLANK: 3575474 Matrix: Water

Associated Lab Samples: 92591489035, 92591489036, 92591489037, 92591489038, 92591489039

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|--------|----------------|------------|
| Arsenic | mg/L | ND | 0.020 | 0.0017 | 03/11/22 14:29 | |
| Boron | mg/L | ND | 1.0 | 0.17 | 03/11/22 14:29 | |
| Lithium | mg/L | ND | 0.050 | 0.010 | 03/11/22 14:29 | |

LABORATORY CONTROL SAMPLE: 3575475

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 1 | 0.94 | 94 | 80-120 | |
| Boron | mg/L | 1 | 0.90J | 90 | 80-120 | |
| Lithium | mg/L | 1 | 0.98 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575476 3575477

| Parameter | Units | 92591489035 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 | 1 | 1 | 0.91 | 0.94 | 91 | 94 | 75-125 | 4 | 20 | |
| Boron | mg/L | 3.1 | 1 | 1 | 4.1 | 4.1 | 98 | 102 | 75-125 | 1 | 20 | |
| Lithium | mg/L | 0.11 | 1 | 1 | 1.0 | 1.1 | 92 | 94 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | |
|----------------------------|--|
| QC Batch: 684981 | Analysis Method: EPA 6020B |
| QC Batch Method: EPA 3010A | Analysis Description: 6020 MET |
| | Laboratory: Pace Analytical Services - Asheville |

Associated Lab Samples: 92591489040, 92591489041

METHOD BLANK: 3582019 Matrix: Water

Associated Lab Samples: 92591489040, 92591489041

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/16/22 11:13 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/16/22 11:13 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/16/22 11:13 | |

LABORATORY CONTROL SAMPLE: 3582020

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Boron | mg/L | 0.05 | 0.050J | 99 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.048 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3582021 3582022

| Parameter | Units | 92591489041 | | 3582022 | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|----------------|-----------------|-----------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | | |
| Arsenic | mg/L | ND | 1 | 1 | 0.94 | 0.97 | 94 | 97 | 75-125 | 3 | 20 | | |
| Boron | mg/L | ND | 1 | 1 | 0.95J | 0.97J | 93 | 96 | 75-125 | | 20 | | |
| Lithium | mg/L | ND | 1 | 1 | 0.96 | 1.0 | 96 | 100 | 75-125 | 4 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 688509 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3598120 | Matrix: | Water |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/31/22 15:55 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/31/22 15:55 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/31/22 15:55 | |

| LABORATORY CONTROL SAMPLE: | 3598121 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Arsenic | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Boron | mg/L | 0.05 | 0.054 | 107 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3598122 | | | 3598123 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92591489005 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 | 0.05 | 0.05 | 0.053 | 0.055 | 102 | 108 | 75-125 | 5 | 20 | |
| Boron | mg/L | 2.9 | 0.05 | 0.05 | 3.2 | 3.2 | 557 | 690 | 75-125 | 2 | 20 | M1 |
| Lithium | mg/L | 0.11 | 0.05 | 0.05 | 0.16 | 0.16 | 101 | 107 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 688510 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033

| | | | |
|---------------|---------|---------|-------|
| METHOD BLANK: | 3598125 | Matrix: | Water |
|---------------|---------|---------|-------|

Associated Lab Samples: 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/31/22 18:04 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/31/22 18:04 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/31/22 18:04 | |

| LABORATORY CONTROL SAMPLE: 3598126 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Arsenic | mg/L | 0.05 | 0.043 | 87 | 80-120 | |
| Boron | mg/L | 0.05 | 0.049J | 99 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.046 | 92 | 80-120 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3598127 | | | | | | | | | | | | 3598128 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92591489033 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 | 0.05 | 0.05 | 0.054 | 0.051 | 104 | 99 | 75-125 | 5 | 20 | | |
| Boron | mg/L | 3.1 | 0.05 | 0.05 | 3.1 | 3.3 | -26 | 436 | 75-125 | 7 | 20 | M1 | |
| Lithium | mg/L | 0.11 | 0.05 | 0.05 | 0.15 | 0.15 | 90 | 92 | 75-125 | 0 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | |
|----------------------------|--|
| QC Batch: 688790 | Analysis Method: EPA 6020B |
| QC Batch Method: EPA 3010A | Analysis Description: 6020 MET |
| | Laboratory: Pace Analytical Services - Asheville |

Associated Lab Samples: 92591489034, 92591489035

METHOD BLANK: 3599525 Matrix: Water

Associated Lab Samples: 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 04/01/22 14:23 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 04/01/22 14:23 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 04/01/22 14:23 | |

LABORATORY CONTROL SAMPLE: 3599526

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.05 | 0.047 | 94 | 80-120 | |
| Boron | mg/L | 0.05 | 0.050J | 100 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3599527 3599528

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92591489034 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Arsenic | mg/L | ND | ND | 0.05 | 0.05 | 0.056 | 0.053 | 108 | 102 | 75-125 | 5 | 20 | |
| Boron | mg/L | 2.8 | 2.8 | 0.05 | 0.05 | 2.9 | 3.1 | 149 | 421 | 75-125 | 5 | 20 | M1 |
| Lithium | mg/L | 0.10 | 0.10 | 0.05 | 0.05 | 0.16 | 0.16 | 107 | 122 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

QC Batch: 802592 Analysis Method: SM 2320B
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92591489041

METHOD BLANK: 4261973 Matrix: Water
 Associated Lab Samples: 92591489041

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 1.8 | 03/09/22 09:01 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/09/22 09:01 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/09/22 09:01 | |

LABORATORY CONTROL SAMPLE & LCSD: 4261974 4261975

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|----------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 40 | 42.4 | 42.2 | 106 | 105 | 90-110 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4261976 4261977

| Parameter | Units | 10599132001 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 | 338 | 40 | 40 | 378 | 379 | 102 | 103 | 80-120 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4261978 4261979

| Parameter | Units | 10599168003 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 | 152 | 40 | 40 | 193 | 194 | 102 | 104 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|--|-----------------------|--|
| QC Batch: | 802595 | Analysis Method: | SM 2320B |
| QC Batch Method: | SM 2320B | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Minneapolis |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 4261984 | Matrix: | Water |
| Associated Lab Samples: | 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 1.8 | 03/09/22 08:58 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/09/22 08:58 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/09/22 08:58 | |

| LABORATORY CONTROL SAMPLE & LCSD: | | 4261985 | 4261986 | | | | | | | |
|-----------------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 40 | 41.9 | 41.9 | 105 | 105 | 90-110 | 0 | 20 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4261987 | 4261988 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92591489001 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 | 107 | 40 | 40 | 146 | 149 | 98 | 104 | 80-120 | 2 | 20 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4261989 | 4261990 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92591489013 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 | 106 | 40 | 40 | 148 | 148 | 104 | 105 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|--|-----------------------|--|
| QC Batch: | 802969 | Analysis Method: | SM 2320B |
| QC Batch Method: | SM 2320B | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Minneapolis |
| Associated Lab Samples: | 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039, 92591489040 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 4263582 | Matrix: | Water |
| Associated Lab Samples: | 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039, 92591489040 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 1.8 | 03/10/22 13:33 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/10/22 13:33 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/10/22 13:33 | |

| LABORATORY CONTROL SAMPLE & LCSD: | | 4263583 | 4263584 | | | | | | | |
|-----------------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
| Alkalinity, Total as CaCO3 | mg/L | 40 | 43.4 | 43.0 | 108 | 107 | 90-110 | 1 | 20 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4263585 | 4263586 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92591489021 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 | 107 | 40 | 40 | 148 | 146 | 103 | 97 | 80-120 | 2 | 20 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | | 4263587 | 4263588 | | | | | | | | | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| Parameter | Units | 92591489033 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 | 109 | 40 | 40 | 150 | 151 | 100 | 103 | 80-120 | 1 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

QC Batch: 682614 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489036

METHOD BLANK: 3570744 Matrix: Water
 Associated Lab Samples: 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489036

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/05/22 11:56 | |

LABORATORY CONTROL SAMPLE: 3570745

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 254 | 102 | 90-110 | |

SAMPLE DUPLICATE: 3570746

| Parameter | Units | 92590783001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 1950 | 1970 | 1 | 25 | |

SAMPLE DUPLICATE: 3570747

| Parameter | Units | 92591489033 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 21600 | 20600 | 5 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

QC Batch: 682726 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591489001, 92591489002, 92591489003, 92591489004

METHOD BLANK: 3571244 Matrix: Water
 Associated Lab Samples: 92591489001, 92591489002, 92591489003, 92591489004

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/06/22 10:31 | |

LABORATORY CONTROL SAMPLE: 3571245

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 230 | 92 | 90-110 | |

SAMPLE DUPLICATE: 3571246

| Parameter | Units | 92590742001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 71.0 | 71.0 | 0 | 25 | |

SAMPLE DUPLICATE: 3571247

| Parameter | Units | 92590932006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 41.0 | 49.0 | 18 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

QC Batch: 682741 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011,
 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018,
 92591489019, 92591489020, 92591489021, 92591489037, 92591489038

METHOD BLANK: 3571262 Matrix: Water
 Associated Lab Samples: 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011,
 92591489012, 92591489013, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018,
 92591489019, 92591489020, 92591489021, 92591489037, 92591489038

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/07/22 10:40 | |

LABORATORY CONTROL SAMPLE: 3571263

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 258 | 103 | 90-110 | |

SAMPLE DUPLICATE: 3571264

| Parameter | Units | 92591489005 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 21900 | 21500 | 2 | 25 | |

SAMPLE DUPLICATE: 3571265

| Parameter | Units | 92591489015 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 22100 | 21000 | 5 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

QC Batch: 682945 Analysis Method: SM 2540C-2015
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489035, 92591489039, 92591489040, 92591489041

METHOD BLANK: 3572381 Matrix: Water
 Associated Lab Samples: 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489035, 92591489039, 92591489040, 92591489041

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/08/22 11:59 | |

LABORATORY CONTROL SAMPLE: 3572382

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 262 | 105 | 90-110 | |

SAMPLE DUPLICATE: 3572383

| Parameter | Units | 92591542003 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 89.0 | 96.0 | 8 | 25 | |

SAMPLE DUPLICATE: 3572384

| Parameter | Units | 92591489027 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 24500 | 24200 | 1 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|------------------|------------------------|-----------------------|--------------------------------------|
| QC Batch: | 682744 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020

METHOD BLANK: 3571277 Matrix: Water

Associated Lab Samples: 92591489001, 92591489002, 92591489003, 92591489004, 92591489005, 92591489006, 92591489007, 92591489008, 92591489009, 92591489010, 92591489011, 92591489012, 92591489014, 92591489015, 92591489016, 92591489017, 92591489018, 92591489019, 92591489020

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/06/22 19:11 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/06/22 19:11 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/06/22 19:11 | |

LABORATORY CONTROL SAMPLE: 3571278

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 50.3 | 101 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.4 | 96 | 90-110 | |
| Sulfate | mg/L | 50 | 49.7 | 99 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571279 3571280

| Parameter | Units | 92591489001 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|------------|-------|----------|-----------|--------------|-----|---------|-------|
| | | | Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 9300 | 50 | 50 | 10000 | 10300 | 1470 | 1990 | 90-110 | 3 | 10 | M1 |
| Fluoride | mg/L | 8.6J | 2.5 | 2.5 | ND | ND | -252 | -268 | 90-110 | | 10 | D3,M1 |
| Sulfate | mg/L | 1230 | 50 | 50 | 1650 | 1620 | 848 | 793 | 90-110 | 2 | 10 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571281 3571282

| Parameter | Units | 92591489010 Result | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-----------|------------|------|----------|-----------|--------------|-----|---------|-------|
| | | | Spike Conc. | MS Result | MSD Result | | | | | | | |
| Chloride | mg/L | 9140 | 50 | 50 | 9870 | 9860 | 1460 | 1440 | 90-110 | 0 | 10 | M1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 40 | 40 | 90-110 | | 10 | D3,M1 |
| Sulfate | mg/L | 1200 | 50 | 50 | 1650 | 1680 | 909 | 966 | 90-110 | 2 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 682745 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92591489013, 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3571283 | Matrix: | Water |
| Associated Lab Samples: | 92591489013, 92591489021, 92591489022, 92591489023, 92591489024, 92591489025, 92591489026, 92591489027, 92591489028, 92591489029, 92591489030, 92591489031, 92591489032, 92591489033, 92591489034, 92591489035, 92591489036, 92591489037, 92591489038, 92591489039 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/07/22 03:04 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/07/22 03:04 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/07/22 03:04 | |

| LABORATORY CONTROL SAMPLE: | 3571284 | | | | | |
|----------------------------|---------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 50.3 | 101 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.4 | 96 | 90-110 | |
| Sulfate | mg/L | 50 | 49.6 | 99 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3571285 | | | 3571286 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|-------|
| Parameter | Units | 92591489013 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Chloride | mg/L | 9150 | 50 | 50 | 5520 | 9300 | -7280 | 295 | 90-110 | 51 | 10 | M1,R1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 24 | 20 | 90-110 | | 10 | D3,M1 |
| Sulfate | mg/L | 1180 | 50 | 50 | 1630 | 1620 | 897 | 887 | 90-110 | 0 | 10 | M1 |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: | 3571287 | | | 3571288 | | | | | | | | |
|--|---------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|-------|
| Parameter | Units | 92591489030 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
| Chloride | mg/L | 8910 | 50 | 50 | 9350 | 9310 | 875 | 800 | 90-110 | 0 | 10 | M1 |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 40 | 40 | 90-110 | | 10 | D3,M1 |
| Sulfate | mg/L | 1140 | 50 | 50 | 1580 | 1570 | 872 | 848 | 90-110 | 1 | 10 | 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

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



QUALITY CONTROL DATA

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

QC Batch: 682746 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92591489040, 92591489041

METHOD BLANK: 3571289 Matrix: Water

Associated Lab Samples: 92591489040, 92591489041

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/06/22 22:48 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/06/22 22:48 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/06/22 22:48 | |

LABORATORY CONTROL SAMPLE: 3571290

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 49.3 | 99 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 103 | 90-110 | |
| Sulfate | mg/L | 50 | 48.3 | 97 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571291 3571292

| Parameter | Units | 92591489040 | | 3571291 | | 3571292 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|------------|----------------|-----------------|-----------|------------|-------|-------|--------------|-----|---------|------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | ND | ND | 50 | 50 | 55.4 | 54.5 | 111 | 109 | 90-110 | 2 | 10 | M1 |
| Fluoride | mg/L | ND | ND | 2.5 | 2.5 | 3.1 | 2.9 | 122 | 117 | 90-110 | 4 | 10 | M1 |
| Sulfate | mg/L | ND | ND | 50 | 50 | 55.4 | 54.4 | 111 | 109 | 90-110 | 2 | 10 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571293 3571294

| Parameter | Units | 92591380002 | | 3571293 | | 3571294 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|------------|----------------|-----------------|-----------|------------|-------|-------|--------------|-----|---------|-------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Chloride | mg/L | 10.0 | 10.0 | 50 | 50 | 65.6 | 9.7 | 111 | -1 | 90-110 | 148 | 10 | M1,R1 |
| Fluoride | mg/L | ND | ND | 2.5 | 2.5 | 3.1 | ND | 124 | 0 | 90-110 | | 10 | M1 |
| Sulfate | mg/L | 20.3 | 20.3 | 50 | 50 | 75.6 | 20.0 | 111 | -1 | 90-110 | 116 | 10 | M1,R1 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALIFIERS

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

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.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591489001 | T1-1HT | | | | |
| 92591489002 | T1-2HT | | | | |
| 92591489003 | T1-2HTS | | | | |
| 92591489004 | T1-3HT | | | | |
| 92591489005 | T1-3HTS | | | | |
| 92591489006 | T1-4HT | | | | |
| 92591489007 | T1-4HTS | | | | |
| 92591489008 | T2-1HT | | | | |
| 92591489009 | T2-2HT | | | | |
| 92591489010 | T2-2HTS | | | | |
| 92591489011 | T2-3HT | | | | |
| 92591489012 | T2-3HTS | | | | |
| 92591489013 | T2-4HT | | | | |
| 92591489014 | T2-4HTS | | | | |
| 92591489015 | T3-1HT | | | | |
| 92591489016 | T3-2HT | | | | |
| 92591489017 | T3-2HTS | | | | |
| 92591489018 | T3-3HT | | | | |
| 92591489019 | T3-3HTS | | | | |
| 92591489020 | T3-4HT | | | | |
| 92591489021 | T3-4HTS | | | | |
| 92591489022 | T4-1HB | | | | |
| 92591489023 | T4-1HS | | | | |
| 92591489024 | T4-2HB | | | | |
| 92591489025 | T4-2HS | | | | |
| 92591489026 | T4-3HB | | | | |
| 92591489027 | T4-3HS | | | | |
| 92591489028 | T4-4HB | | | | |
| 92591489029 | T4-4HS | | | | |
| 92591489030 | T1-4LT | | | | |
| 92591489031 | T2-4LT | | | | |
| 92591489032 | T3-4LT | | | | |
| 92591489033 | T4-4L | | | | |
| 92591489034 | BG-1LT | | | | |
| 92591489035 | BG-2HT | | | | |
| 92591489001 | T1-1HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489002 | T1-2HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489003 | T1-2HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489004 | T1-3HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489005 | T1-3HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489006 | T1-4HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489007 | T1-4HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489008 | T2-1HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489009 | T2-2HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489010 | T2-2HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489011 | T2-3HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489012 | T2-3HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489013 | T2-4HT | EPA 3010A | 683541 | EPA 6010D | 684309 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591489014 | T2-4HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489015 | T3-1HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489016 | T3-2HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489017 | T3-2HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489018 | T3-3HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489019 | T3-3HTS | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489020 | T3-4HT | EPA 3010A | 683541 | EPA 6010D | 684309 |
| 92591489021 | T3-4HTS | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489022 | T4-1HB | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489023 | T4-1HS | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489024 | T4-2HB | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489025 | T4-2HS | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489026 | T4-3HB | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489027 | T4-3HS | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489028 | T4-4HB | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489029 | T4-4HS | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489030 | T1-4LT | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489031 | T2-4LT | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489032 | T3-4LT | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489033 | T4-4L | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489034 | BG-1LT | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489035 | BG-2HT | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489036 | DUP-1 | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489037 | DUP-2 | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489038 | DUP-3 | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489039 | DUP-4 | EPA 3010A | 683542 | EPA 6010D | 684310 |
| 92591489040 | FB-1 | EPA 3010A | 685205 | EPA 6010D | 685332 |
| 92591489041 | EB-1 | EPA 3010A | 684772 | EPA 6010D | 684886 |
| 92591489001 | T1-1HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489002 | T1-2HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489003 | T1-2HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489004 | T1-3HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489005 | T1-3HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489006 | T1-4HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489007 | T1-4HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489008 | T2-1HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489009 | T2-2HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489010 | T2-2HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489011 | T2-3HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489012 | T2-3HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489013 | T2-4HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489014 | T2-4HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489015 | T3-1HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489016 | T3-2HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489017 | T3-2HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489018 | T3-3HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489019 | T3-3HTS | EPA 3010A | 688509 | EPA 6020B | 688627 |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591489020 | T3-4HT | EPA 3010A | 688509 | EPA 6020B | 688627 |
| 92591489021 | T3-4HTS | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489022 | T4-1HB | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489023 | T4-1HS | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489024 | T4-2HB | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489025 | T4-2HS | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489026 | T4-3HB | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489027 | T4-3HS | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489028 | T4-4HB | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489029 | T4-4HS | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489030 | T1-4LT | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489031 | T2-4LT | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489032 | T3-4LT | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489033 | T4-4L | EPA 3010A | 688510 | EPA 6020B | 688628 |
| 92591489034 | BG-1LT | EPA 3010A | 688790 | EPA 6020B | 688876 |
| 92591489035 | BG-2HT | EPA 3010A | 688790 | EPA 6020B | 688876 |
| 92591489036 | DUP-1 | EPA 3010A | 683556 | EPA 6020B | 684032 |
| 92591489037 | DUP-2 | EPA 3010A | 683556 | EPA 6020B | 684032 |
| 92591489038 | DUP-3 | EPA 3010A | 683556 | EPA 6020B | 684032 |
| 92591489039 | DUP-4 | EPA 3010A | 683556 | EPA 6020B | 684032 |
| 92591489040 | FB-1 | EPA 3010A | 684981 | EPA 6020B | 684992 |
| 92591489041 | EB-1 | EPA 3010A | 684981 | EPA 6020B | 684992 |
| 92591489001 | T1-1HT | SM 2320B | 802595 | | |
| 92591489002 | T1-2HT | SM 2320B | 802595 | | |
| 92591489003 | T1-2HTS | SM 2320B | 802595 | | |
| 92591489004 | T1-3HT | SM 2320B | 802595 | | |
| 92591489005 | T1-3HTS | SM 2320B | 802595 | | |
| 92591489006 | T1-4HT | SM 2320B | 802595 | | |
| 92591489007 | T1-4HTS | SM 2320B | 802595 | | |
| 92591489008 | T2-1HT | SM 2320B | 802595 | | |
| 92591489009 | T2-2HT | SM 2320B | 802595 | | |
| 92591489010 | T2-2HTS | SM 2320B | 802595 | | |
| 92591489011 | T2-3HT | SM 2320B | 802595 | | |
| 92591489012 | T2-3HTS | SM 2320B | 802595 | | |
| 92591489013 | T2-4HT | SM 2320B | 802595 | | |
| 92591489014 | T2-4HTS | SM 2320B | 802595 | | |
| 92591489015 | T3-1HT | SM 2320B | 802595 | | |
| 92591489016 | T3-2HT | SM 2320B | 802595 | | |
| 92591489017 | T3-2HTS | SM 2320B | 802595 | | |
| 92591489018 | T3-3HT | SM 2320B | 802595 | | |
| 92591489019 | T3-3HTS | SM 2320B | 802595 | | |
| 92591489020 | T3-4HT | SM 2320B | 802595 | | |
| 92591489021 | T3-4HTS | SM 2320B | 802969 | | |
| 92591489022 | T4-1HB | SM 2320B | 802969 | | |
| 92591489023 | T4-1HS | SM 2320B | 802969 | | |
| 92591489024 | T4-2HB | SM 2320B | 802969 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92591489025 | T4-2HS | SM 2320B | 802969 | | |
| 92591489026 | T4-3HB | SM 2320B | 802969 | | |
| 92591489027 | T4-3HS | SM 2320B | 802969 | | |
| 92591489028 | T4-4HB | SM 2320B | 802969 | | |
| 92591489029 | T4-4HS | SM 2320B | 802969 | | |
| 92591489030 | T1-4LT | SM 2320B | 802969 | | |
| 92591489031 | T2-4LT | SM 2320B | 802969 | | |
| 92591489032 | T3-4LT | SM 2320B | 802969 | | |
| 92591489033 | T4-4L | SM 2320B | 802969 | | |
| 92591489034 | BG-1LT | SM 2320B | 802969 | | |
| 92591489035 | BG-2HT | SM 2320B | 802969 | | |
| 92591489036 | DUP-1 | SM 2320B | 802969 | | |
| 92591489037 | DUP-2 | SM 2320B | 802969 | | |
| 92591489038 | DUP-3 | SM 2320B | 802969 | | |
| 92591489039 | DUP-4 | SM 2320B | 802969 | | |
| 92591489040 | FB-1 | SM 2320B | 802969 | | |
| 92591489041 | EB-1 | SM 2320B | 802592 | | |
| 92591489001 | T1-1HT | SM 2540C-2015 | 682726 | | |
| 92591489002 | T1-2HT | SM 2540C-2015 | 682726 | | |
| 92591489003 | T1-2HTS | SM 2540C-2015 | 682726 | | |
| 92591489004 | T1-3HT | SM 2540C-2015 | 682726 | | |
| 92591489005 | T1-3HTS | SM 2540C-2015 | 682741 | | |
| 92591489006 | T1-4HT | SM 2540C-2015 | 682741 | | |
| 92591489007 | T1-4HTS | SM 2540C-2015 | 682741 | | |
| 92591489008 | T2-1HT | SM 2540C-2015 | 682741 | | |
| 92591489009 | T2-2HT | SM 2540C-2015 | 682741 | | |
| 92591489010 | T2-2HTS | SM 2540C-2015 | 682741 | | |
| 92591489011 | T2-3HT | SM 2540C-2015 | 682741 | | |
| 92591489012 | T2-3HTS | SM 2540C-2015 | 682741 | | |
| 92591489013 | T2-4HT | SM 2540C-2015 | 682741 | | |
| 92591489014 | T2-4HTS | SM 2540C-2015 | 682741 | | |
| 92591489015 | T3-1HT | SM 2540C-2015 | 682741 | | |
| 92591489016 | T3-2HT | SM 2540C-2015 | 682741 | | |
| 92591489017 | T3-2HTS | SM 2540C-2015 | 682741 | | |
| 92591489018 | T3-3HT | SM 2540C-2015 | 682741 | | |
| 92591489019 | T3-3HTS | SM 2540C-2015 | 682741 | | |
| 92591489020 | T3-4HT | SM 2540C-2015 | 682741 | | |
| 92591489021 | T3-4HTS | SM 2540C-2015 | 682741 | | |
| 92591489022 | T4-1HB | SM 2540C-2015 | 682945 | | |
| 92591489023 | T4-1HS | SM 2540C-2015 | 682945 | | |
| 92591489024 | T4-2HB | SM 2540C-2015 | 682945 | | |
| 92591489025 | T4-2HS | SM 2540C-2015 | 682945 | | |
| 92591489026 | T4-3HB | SM 2540C-2015 | 682945 | | |
| 92591489027 | T4-3HS | SM 2540C-2015 | 682945 | | |
| 92591489028 | T4-4HB | SM 2540C-2015 | 682945 | | |
| 92591489029 | T4-4HS | SM 2540C-2015 | 682945 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MCMANUS SURFACE WATER SAMPLING-Revised Report
 Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92591489030 | T1-4LT | SM 2540C-2015 | 682614 | | |
| 92591489031 | T2-4LT | SM 2540C-2015 | 682614 | | |
| 92591489032 | T3-4LT | SM 2540C-2015 | 682614 | | |
| 92591489033 | T4-4L | SM 2540C-2015 | 682614 | | |
| 92591489034 | BG-1LT | SM 2540C-2015 | 682614 | | |
| 92591489035 | BG-2HT | SM 2540C-2015 | 682945 | | |
| 92591489036 | DUP-1 | SM 2540C-2015 | 682614 | | |
| 92591489037 | DUP-2 | SM 2540C-2015 | 682741 | | |
| 92591489038 | DUP-3 | SM 2540C-2015 | 682741 | | |
| 92591489039 | DUP-4 | SM 2540C-2015 | 682945 | | |
| 92591489040 | FB-1 | SM 2540C-2015 | 682945 | | |
| 92591489041 | EB-1 | SM 2540C-2015 | 682945 | | |
| 92591489001 | T1-1HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489002 | T1-2HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489003 | T1-2HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489004 | T1-3HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489005 | T1-3HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489006 | T1-4HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489007 | T1-4HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489008 | T2-1HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489009 | T2-2HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489010 | T2-2HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489011 | T2-3HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489012 | T2-3HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489013 | T2-4HT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489014 | T2-4HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489015 | T3-1HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489016 | T3-2HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489017 | T3-2HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489018 | T3-3HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489019 | T3-3HTS | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489020 | T3-4HT | EPA 300.0 Rev 2.1 1993 | 682744 | | |
| 92591489021 | T3-4HTS | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489022 | T4-1HB | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489023 | T4-1HS | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489024 | T4-2HB | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489025 | T4-2HS | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489026 | T4-3HB | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489027 | T4-3HS | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489028 | T4-4HB | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489029 | T4-4HS | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489030 | T1-4LT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489031 | T2-4LT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489032 | T3-4LT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489033 | T4-4L | EPA 300.0 Rev 2.1 1993 | 682745 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: MCMANUS SURFACE WATER SAMPLING-Revised Report

Pace Project No.: 92591489

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92591489034 | BG-1LT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489035 | BG-2HT | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489036 | DUP-1 | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489037 | DUP-2 | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489038 | DUP-3 | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489039 | DUP-4 | EPA 300.0 Rev 2.1 1993 | 682745 | | |
| 92591489040 | FB-1 | EPA 300.0 Rev 2.1 1993 | 682746 | | |
| 92591489041 | EB-1 | EPA 300.0 Rev 2.1 1993 | 682746 | | |

REPORT OF LABORATORY ANALYSIS

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

| | | |
|---|---|--|
|  | Document Name:
Sample Condition Logon Receipt (SCLR) | Document Revised: November 15, 2021
Page 1 of 2 |
| | Document No.:
P-CAA-CS-016-Rev 08 | Issuing Authority:
Pace Carolina Quality Office |

Laboratory receiving samples:

Ashville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample to Local Test
Upon Receipt

Client Name:

Project #

WO#: 92591489

Container:

Commercial

Wegis Wegis Wegis Other Other



Date/Label Person Entering Contact: 6/3/12

Container Seal Present?

Yes

No

Seal Intact?

Yes

No

Packing Material:

Bubble Wrap

Bubble Bag

None

Other

Biological Tissue Present?

Yes

No

N/A

Thermometer:

In Use to: 447071

Type of Use:

Pre

Post

None

Cooler Temp:

5.0/24/12/12

Correction Factor:

Add/Subtract (°C)

0

Temp should be above freezing to 6°C

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

Cooler Temp Corrected (°C):

5.0/24/12/12

USDA Bag labeled Soil N/A, water sample

Do all samples originate in a geographic area within the United States: CA, NY, or SC (check map)?

Yes No

Do all samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?

Yes No

| Chain of Custody Process? | Yes | No | NA | Comments/Discrepancy |
|---|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|
| Chain of Custody Process? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. |
| Sample has Arrived with/without Seal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. |
| Short: Hold Time Analyte (172 N.P) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. |
| Both: Turn Around Time Requested? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. |
| Sufficient Volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. |
| Correct Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. |
| Wrong Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Container Seals Intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. |
| Glove/Hand analysis: Samples Held Filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. |
| -Includes Date/Time/ID/Analyte Matrix | | | <u>N/A</u> | |
| Insufficient to YDA Work (20-60mg)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. |
| Tip Blank Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 11. |
| Tip Blank Outside Seals Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |

COMMENTS/SAMPLING DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCLR Review:

Date:

Project Manager SW Review:

Date:



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-CE-003-Rev.08

Document Revised: November 23, 2021
 Page 2 of 2
 Issuing Authority:
 Pace Analytical Quality Office

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

Project #

W0# : 92591489

PR: NRG

Due Date: 03/11/22

CLIENT: GR-GR Power

Significance: VOA, Coliform, TDC, Oil and Grease, DRO/SOLIS (vector) DDC, URG

**Bottom half of box is to list number of bottles

| Sample ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| 8849-125 ml. Plastic Unpreserved (N/A) (D-) | / | / | / | / | / | / | / | / | / | / | / | / |
| 8850-200 ml. Plastic Unpreserved (N/A) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8851-500 ml. Plastic Unpreserved (N/A) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 8852-1 liter Plastic Unpreserved (N/A) | | | | | | | | | | | | |
| 8853-125 ml. Plastic VOA+ (pH + 2) (D-) | | | | | | | | | | | | |
| 8854-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8855-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8856-125 ml. Plastic TDC+ (pH + 2) (D-) | | | | | | | | | | | | |
| 8857-200 ml. Plastic TDC+ (pH + 2) | | | | | | | | | | | | |
| 8858-500 ml. Plastic TDC+ (pH + 2) | | | | | | | | | | | | |
| 8859-1 liter Plastic TDC+ (pH + 2) | | | | | | | | | | | | |
| 8860-125 ml. Plastic Unpreserved (N/A) (D-) | | | | | | | | | | | | |
| 8861-200 ml. Plastic Unpreserved (N/A) (D-) | | | | | | | | | | | | |
| 8862-500 ml. Plastic Unpreserved (N/A) (D-) | | | | | | | | | | | | |
| 8863-1 liter Plastic Unpreserved (N/A) (D-) | | | | | | | | | | | | |
| 8864-125 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8865-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8866-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8867-1 liter Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8868-125 ml. VOA (D) | | | | | | | | | | | | |
| 8869-200 ml. VOA (D) | | | | | | | | | | | | |
| 8870-500 ml. VOA Unpreserved (N/A) | | | | | | | | | | | | |
| 8871-1 liter VOA Unpreserved (N/A) | | | | | | | | | | | | |
| 8872-125 ml. VOA (D) | | | | | | | | | | | | |
| 8873-200 ml. VOA (D) | | | | | | | | | | | | |
| 8874-500 ml. VOA (D) | | | | | | | | | | | | |
| 8875-1 liter VOA (D) | | | | | | | | | | | | |
| 8876-125 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8877-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8878-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8879-1 liter Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8880-125 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8881-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8882-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8883-1 liter Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8884-125 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8885-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8886-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8887-1 liter Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8888-125 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8889-200 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8890-500 ml. Plastic VOA+ (pH + 2) | | | | | | | | | | | | |
| 8891-1 liter Plastic VOA+ (pH + 2) | | | | | | | | | | | | |

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 ODMR Certification Office (i.e. Out of State, Incorrect preservative, out of temp, incorrect containers).



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-CAR-CA-033-Rev.08

Document Revised: November 15, 2021
Page 3 of 3
Issuing Authority:
Pace Carolina Quality Filter

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

Project #

W0# : 92591489

PH: NMC

Due Date: 03/11/22

CLIENT: CA-CA Power

Locations: VOA, Coliforms, TOC, DR and Grease, DRO/ROSI (water) DOC, HMF

**See top half of box to list number of bottles

| Sample | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| BP10-120 mL Plastic Unpreserved (N/A) (CH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-200 mL Plastic Unpreserved (N/A) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| BP10-500 mL Plastic Unpreserved (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-1 Liter Plastic Unpreserved (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-120 mL Plastic HDPE (pH = 12) (CH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-200 mL Plastic HDPE (pH = 12) (CH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 mL Plastic HDPE (pH = 12) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-1 Liter Plastic HDPE (pH = 12) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-120 mL Plastic 20 Acetate B. media (pH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-200 mL Plastic media (pH = 12) (CH) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 mL Plastic media (pH = 12) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-1 Liter Amber Unpreserved (N/A) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-1 Liter Amber HD (pH = 12) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-120 mL Amber Unpreserved (N/A) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-200 mL Amber Unpreserved (N/A) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-500 mL Amber Unpreserved (N/A) (CH) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-1 Liter Amber HDPE (pH = 12) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-120 mL Amber HDPE (pH = 12) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-200 mL Amber HDPE (pH = 12) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-500 mL Amber HDPE (pH = 12) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-120 mL VOA HD (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| VO10-200 mL VOA HDPE (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| VO10-500 mL VOA Unpreserved (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| VO10-1 Liter VOA HDPE (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| VO10 (3 vials per 100-1500 ml) (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| V100 (3 vials per 100-1500 ml) (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-120 mL Media Plastic (N/A = 100) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-200 mL Media Plastic (N/A = 100) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-500 mL Media Plastic (N/A = 100) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-1 Liter Media Plastic (N/A = 100) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-120 mL Media (N/A) (D, L, S, T) | - | - | - | - | - | - | - | - | - | - | - | - |
| AP10-200 mL Amber Unpreserved vials (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| VO10-200 mL Scintillation vials (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |
| BP10-40 mL Amber Unpreserved vials (N/A) | - | - | - | - | - | - | - | - | - | - | - | - |

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 DEQ/OST Certification Office (i.e. Our office), incorrect preservative, out of range, incorrect container.



| | |
|---|--|
| Document Name:
Sample Collection Upon Receipt (SCUR) | Document Revised: November 15, 2021
Page 2 of 2 |
| Document No.:
F-CAS-05-001-Rev.08 | Issuing Authority:
Pace Carolina Quality Office |

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

Project #

WO# : 92591489

PR: HRC

Due Date: 03/11/22

CLIENT: CR-CR Power

Regulances: VOA, Coliform, TOC, Oil and Grease, DRO/MS (water) DOC, UTM

**Bot tom half of box is to list number of bottles

| Lot # | Sample Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| SP10-125 ml, Plastic Unpreserved (N/A) | | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-100 ml, Plastic Unpreserved (N/A) | | / | 2 | / | / | / | / | 2 | 2 | 2 | 2 | 2 | 2 |
| SP10-500 ml, Plastic Unpreserved (N/A) | | / | 1 | / | / | / | / | 1 | 1 | 1 | 1 | 1 | 1 |
| SP10-1 liter Amber Unpreserved (N/A) | | / | | / | / | / | / | | | | | | |
| SP10-125 ml, Plastic HDPE (Lot # 2) (D-1) | | / | | / | / | / | / | | | | | | |
| SP10-100 ml, Plastic HDPE (Lot # 2) | | / | | / | / | / | / | | | | | | |
| SP10-125 ml, Plastic 20 Acetone & Acids (D-1) | | / | | / | / | / | / | | | | | | |
| SP10-175 ml, Plastic Acids (Lot # 12) (D-1) | | / | | / | / | / | / | | | | | | |
| Water White-Insulated Glass Jar Unpreserved | | / | | / | / | / | / | | | | | | |
| AM10-1 liter Amber Unpreserved (N/A) (D-1) | | / | | / | / | / | / | | | | | | |
| AM10-1 liter Amber HD (Lot # 2) | | / | | / | / | / | / | | | | | | |
| AM10-500 ml, Amber Unpreserved (N/A) (D-1) | | / | | / | / | / | / | | | | | | |
| AM10-1 liter Amber HDPE (Lot # 2) | | / | | / | / | / | / | | | | | | |
| AM10-500 ml, Amber HDPE (Lot # 2) | | / | | / | / | / | / | | | | | | |
| AM10-1000 ml, Amber HDPE (Lot # 2) (D-1) | | / | | / | / | / | / | | | | | | |
| DO10-40 ml, VOA HD (N/A) | | / | | / | / | / | / | | | | | | |
| VO10-40 ml, VOA HD (D-1) (N/A) | | / | | / | / | / | / | | | | | | |
| VO10-40 ml, VOA Unpreserved (N/A) | | / | | / | / | / | / | | | | | | |
| DO10-40 ml, VOA (N/A) | | / | | / | / | / | / | | | | | | |
| VO10-100 ml, VOA (Lot # 12) (N/A) | | / | | / | / | / | / | | | | | | |
| VO10-100 ml, VOA (Lot # 12) (N/A) | | / | | / | / | / | / | | | | | | |
| SP10-100 ml, Sterile Plastic (N/A) - lot | | / | | / | / | / | / | | | | | | |
| SP10-100 ml, Sterile Plastic (N/A) - lot | | / | | / | / | / | / | | | | | | |
| SP10-100 ml, Plastic HDPE (Lot # 12) (D-1) | | / | | / | / | / | / | | | | | | |
| AM10-100 ml, Amber Unpreserved (N/A) | | / | | / | / | / | / | | | | | | |
| DO10-40 ml, Amber Unpreserved (N/A) | | / | | / | / | / | / | | | | | | |

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 DEHHS Certification Office (i.e. Out of field, incorrect preservative, out of range, incorrect containers).



Document Master
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-03-031-Rev.28

Document Revised: November 15, 2021
 Page 2 of 3
 Issuing Authority:
 Pace Carolina Quality Office

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

Exceptions: VOA, Coliform, TOC, OR and Grease, DRD/SDS (water) DOC, UMG

*Bot tom half of box is to list number of bottles

Project #

WO# : 92591489

PR: NMG

Due Date: 03/11/22

CLIENT: CR-CR Power

| Sample ID | Type of Preservative | pH upon receipt | Date preservation adjusted | Time preservation adjusted | Amount of Preservation added | Lot # |
|--|----------------------|-----------------|----------------------------|----------------------------|------------------------------|-------|
| BP01-100 ml, Plastic Unpreserved (N/A) (C1) | | | | | | |
| BP01-200 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP01-500 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP11-1 liter Plastic Unpreserved (N/A) | | | | | | |
| BP42-120 ml, Plastic, H2SO4 (pH = 2) (B1-) | | | | | | |
| BP42-250 ml, plastic bottles (pH = 2) | | | | | | |
| BP42-120 ml, Plastic (24 Acetate/24 Acetic) (pH) | | | | | | |
| BP42-120 ml, Plastic, H2SO4 (pH = 2) (B1-) | | | | | | |
| W001-1 liter un-preserved (pH for Unpreserved) | | | | | | |
| AD01-1 liter Amber Unpreserved (N/A) (C1) | | | | | | |
| AD01-1 liter Amber HCl (pH = 2) | | | | | | |
| AD01-200 ml, Amber Unpreserved (N/A) (B1-) | | | | | | |
| AD01-1 liter Amber H2SO4 (pH = 2) | | | | | | |
| AD01-200 ml, Amber H2SO4 (pH = 2) | | | | | | |
| AD11-1000ml/200 ml, Amber H2SO4 (pH=2) (B1-) | | | | | | |
| DO01-40 ml, VOA HCl (N/A) | | | | | | |
| VO01-40 ml, VOA H2SO4 (N/A) | | | | | | |
| VO01-40 ml, VOA Unpreserved (N/A) | | | | | | |
| DO01-40 ml, VOA H2SO4 (N/A) | | | | | | |
| VO01 (3 vials per lot)-H2SO4 (pH = 2) (N/A) | | | | | | |
| VO01 (3 vials per lot)-H2SO4 (pH = 2) (N/A) | | | | | | |
| SP01-120 ml, Sterile Plastic (N/A = 100) | | | | | | |
| SP01-250 ml, Sterile Plastic (N/A = 100) | | | | | | |
| BP11-200 ml, Plastic (H2O) (B1-1-7) | | | | | | |
| AD01-100 ml, Amber Unpreserved vials (N/A) | | | | | | |
| VO01-20 ml, Sterilization vials (N/A) | | | | | | |
| DO01-40 ml, Amber Unpreserved vials (N/A) | | | | | | |

pH Adjustment Log for Preserved Samples

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

Note: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina SDWA Certification Office (i.e. Our of field, incorrect preservative, out of time, incorrect containers).



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LOGS DOCUMENT. All requests must be completed accurately.

Section A: Standard Chain Information
 Section B: Requested Region Information
 Section C: Analytical Information
 Section D: Other Information

| | | | |
|---------------|-------------------------|------------------|-----------------|
| Company: | George Tyson | Region: | South |
| Address: | 300 Westborough Parkway | City: | Northborough |
| State: | MA 01545 | Country: | USA |
| Phone: | 508-651-1000 | Fax: | 508-651-1001 |
| Request Date: | 9/3/22 | Requester: | William Leebler |
| | | Requestor Title: | Team Leader |

| ITEM # | SAMPLE ID | DATE | COLLECTOR | | METHOD | ANALYSIS | LAB # | REMARKS | START DATE | END DATE | TIME | STATUS | PRESERVATION | | | | | | | | | | |
|---|-------------|------------------------|-----------|------|--------|----------|------------|---------|------------|----------|-------|-----------------|--------------|---------|-------|------------------------|--|------------------------|--|-----------|--|-----------|--|
| | | | First | Last | | | | | | | | | Freeze | Shake | Other | | | | | | | | |
| 1 | 11/11/2018 | 11/11/2018 | | | GC/MS | GC/MS | 11/11/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 2 | 11/12/2018 | 11/12/2018 | | | GC/MS | GC/MS | 11/12/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 3 | 11/13/2018 | 11/13/2018 | | | GC/MS | GC/MS | 11/13/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 4 | 11/14/2018 | 11/14/2018 | | | GC/MS | GC/MS | 11/14/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 5 | 11/15/2018 | 11/15/2018 | | | GC/MS | GC/MS | 11/15/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 6 | 11/16/2018 | 11/16/2018 | | | GC/MS | GC/MS | 11/16/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 7 | 11/17/2018 | 11/17/2018 | | | GC/MS | GC/MS | 11/17/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 8 | 11/18/2018 | 11/18/2018 | | | GC/MS | GC/MS | 11/18/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 9 | 11/19/2018 | 11/19/2018 | | | GC/MS | GC/MS | 11/19/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 10 | 11/20/2018 | 11/20/2018 | | | GC/MS | GC/MS | 11/20/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 11 | 11/21/2018 | 11/21/2018 | | | GC/MS | GC/MS | 11/21/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 12 | 11/22/2018 | 11/22/2018 | | | GC/MS | GC/MS | 11/22/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 13 | 11/23/2018 | 11/23/2018 | | | GC/MS | GC/MS | 11/23/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 14 | 11/24/2018 | 11/24/2018 | | | GC/MS | GC/MS | 11/24/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 15 | 11/25/2018 | 11/25/2018 | | | GC/MS | GC/MS | 11/25/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 16 | 11/26/2018 | 11/26/2018 | | | GC/MS | GC/MS | 11/26/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 17 | 11/27/2018 | 11/27/2018 | | | GC/MS | GC/MS | 11/27/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 18 | 11/28/2018 | 11/28/2018 | | | GC/MS | GC/MS | 11/28/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 19 | 11/29/2018 | 11/29/2018 | | | GC/MS | GC/MS | 11/29/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| 20 | 11/30/2018 | 11/30/2018 | | | GC/MS | GC/MS | 11/30/2018 | | | 11:00 | 11:30 | Freeze | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">William Leebler</td> <td style="width: 30%;">9/3/22 1630</td> <td style="width: 30%;">Federal</td> <td style="width: 10%;"></td> </tr> <tr> <td colspan="2" style="text-align: center;"><i>William Leebler</i></td> <td style="text-align: center;"><i>William Leebler</i></td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">Signature</td> <td style="text-align: center;">Signature</td> <td></td> </tr> </table> | | | | | | | | | | | | William Leebler | 9/3/22 1630 | Federal | | <i>William Leebler</i> | | <i>William Leebler</i> | | Signature | | Signature | |
| William Leebler | 9/3/22 1630 | Federal | | | | | | | | | | | | | | | | | | | | | |
| <i>William Leebler</i> | | <i>William Leebler</i> | | | | | | | | | | | | | | | | | | | | | |
| Signature | | Signature | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|----------------------|------------------------|--------|-------|
| Requester: | Name: | Date: | Time: |
| | William Leebler | 9/3/22 | 1630 |
| Requestor Title: | Team Leader | | |
| Requester Signature: | <i>William Leebler</i> | | |
| Request Date: | 9/3/22 | | |
| Request Time: | 1630 | | |
| Requester Initials: | WL | | |
| Requester Signature: | <i>William Leebler</i> | | |
| Request Date: | 9/3/22 | | |
| Request Time: | 1630 | | |
| Requester Initials: | WL | | |
| Requester Signature: | <i>William Leebler</i> | | |
| Request Date: | 9/3/22 | | |
| Request Time: | 1630 | | |
| Requester Initials: | WL | | |



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A: Requester Information
 Property: [Blank] Address: 500 Southwestern Parkway
 City: [Blank] State: NJ Zip: 07054
 Contact: [Blank] Phone: [Blank]

Section B: Requested Project Information
 Request To: [Blank] Project Name: [Blank]
 Requested On: [Blank]

Section C: Sample Information
 Sample ID: [Blank] Sample Description: [Blank]
 Quantity: [Blank] Units: [Blank]

| ITEM # | SAMPLE ID | QTY | UNIT | COLLECTED | | DATE | TIME | LOCATION | INITIALS | PRESERVATION | | | | | | | | ANALYSIS | DATE | | |
|--------|-----------|-----|------|-----------|-----|---------|-------|----------|-------------|--------------|---|---|---|---|---|---|---|----------|------|---|------|
| | | | | START | END | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 9 | 10 |
| 1 | 1031 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 2 | 1032 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 3 | 1033 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 4 | 1034 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 5 | 1035 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 6 | 1036 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 7 | 1037 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 8 | 1038 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 9 | 1039 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 10 | 1040 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 11 | 1041 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 12 | 1042 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 13 | 1043 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 14 | 1044 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 15 | 1045 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 16 | 1046 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 17 | 1047 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 18 | 1048 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 19 | 1049 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |
| 20 | 1050 | 4 | 3 | | | 3/12/22 | 16:30 | Field | [Signature] | X | X | X | X | X | X | X | X | X | X | X | 7.47 |

Section D: Summary
 Total number of samples: [Blank]
 Date of collection: 3/12/22
 Date of analysis: 3/15/22
 Requested by: [Signature]
 Requested on: [Blank]
 Requested by: [Blank]
 Requested on: [Blank]
 Requested by: [Blank]
 Requested on: [Blank]
 Requested by: [Blank]



CHAIN-OF-CUSTODY / Analytical Request Document

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

Subpart A

Requesting Office Information:

Agency Name: San Diego Police
 Address: 1501 Westpointe Parkway
San Diego, CA 92108
 Case Name: 1574-0350-0000000000
 Request Number: 1574-0350-0000000000
 Request Date: 03/21/22

Subpart B

Requesting Party Information:

Request To: Police Department
 Case No:
 Request Date:
 Request Number:
 Request Date:

Subpart C

Requester Information:

Requester Name: William Lueder
 Title:
 Phone:
 Email:

| # | FIELD | SAMPLE ID
(See Description per box, Q10, Q11, & Q12)
Samples do not be unique | Q10
Requester Name
Q11
Requester Title
Q12
Requester Agency | Q13
Requester Date | Q14
Requester Agency | COLLECTOR | | | Q18
Requester Type of Collection | Q19
of containers | PRESERVATION | | | | | | | ANALYTICAL SYN | | Residual Volume (ml) | | | | | | | | |
|----|-------|---|--|-----------------------|-------------------------|-------------|--------------|---------------|-------------------------------------|------------------------|--------------|-----|-----|-----|-----|-----|-----|----------------|-----|----------------------|-----|-----|--|------|------|--|--|--|
| | | | | | | Q15
Name | Q16
Title | Q17
Agency | | | Q20 | Q21 | Q22 | Q23 | Q24 | Q25 | Q26 | Q27 | Q28 | | Q29 | Q30 | | | | | | |
| 01 | TRAIL | | WILLIAM LUEDER | 3/19/22 | 16930 | Feder | | | 4 | 3 | 1 | | | | | | | | | | | | | 6.78 | | | | |
| 02 | TRAIL | | WILLIAM LUEDER | 3/19/22 | 16930 | Feder | | | 4 | 3 | 1 | | | | | | | | | | | | | | 7.43 | | | |
| 03 | TRAIL | | WILLIAM LUEDER | 3/19/22 | 16930 | Feder | | | 4 | 3 | 1 | | | | | | | | | | | | | | 7.32 | | | |

| Q31 | Q32 | Q33 | Q34 | Q35 | Q36 | Q37 | Q38 | Q39 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Requester Name of LADR, ISL: William Lueder

Requester Date of Signature: 3/21/22

Requester Title: Feder

Requester Agency: San Diego Police

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000

Requester Date of Collection: 3/19/22

Requester Case Name: 1574-0350-0000000000

Requester Case Number: 1574-0350-0000000000



CHAIN-OF-CUSTODY / Analytical Request Document

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

Identifying a sample as this chain of custody constitutes acknowledgment and acceptance of the Role, Terms and Conditions listed at the bottom of this document.

Section A: Requested Chain of Custody

Requesting Agency: Department of Justice
 Requesting Agency Address: 1000 Independence Avenue, SW
 Requesting Agency City: Washington, DC
 Requesting Agency State: DC
 Requesting Agency Zip: 20535

Section B: Requested Project Information

Project Name: Operation Crossroads
 Project Number: 10000000000000000000
 Project Start Date: 3/9/22
 Project End Date: 3/9/22

Section C: Requested Sample Information

Sample ID: 10000000000000000000
 Sample Description: 10000000000000000000
 Sample Quantity: 10000000000000000000

Section D: Requested Analysis Information

Analysis Method: 10000000000000000000
 Analysis Location: 10000000000000000000
 Analysis Date: 10000000000000000000

| ITEM # | SAMPLE ID | DATE COLLECTED | TIME COLLECTED | LOCATION COLLECTED | COLLECTOR | ANALYSIS METHOD | ANALYSIS LOCATION | ANALYSIS DATE | PRESERVATION | | ANALYSIS RESULT | REMARKS |
|--------|----------------------|----------------|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|--------------|----------|----------------------|---------|
| | | | | | | | | | TEMPERATURE | HUMIDITY | | |
| 1 | 10000000000000000000 | 3/9/22 | 14:30 | Federal | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | X | X | 10000000000000000000 | |
| 2 | 10000000000000000000 | 3/9/22 | 16:30 | Federal | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | X | X | 10000000000000000000 | |
| 3 | 10000000000000000000 | 3/9/22 | 18:30 | Federal | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | X | X | 10000000000000000000 | |
| 4 | 10000000000000000000 | 3/9/22 | 20:30 | Federal | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | X | X | 10000000000000000000 | |
| 5 | 10000000000000000000 | 3/9/22 | 22:30 | Federal | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | 10000000000000000000 | X | X | 10000000000000000000 | |

Requester Information

Name: 10000000000000000000
 Title: 10000000000000000000
 Signature: 10000000000000000000
 Date: 10000000000000000000

Requestee Information

Name: 10000000000000000000
 Title: 10000000000000000000
 Signature: 10000000000000000000
 Date: 10000000000000000000

Location: Robert Mull Date: 9/22/21 Operator: OTC
 ID: 89301 Manufacturer: LaMotte 2020t Calibration Due: 10/23/21
 Description: Motion Control Link Temperature: 58°F

Calibration Log

| Item | Manufacturer / Part # | Serial # | Level of Standard | Manufacturer's Reading at Calibration | Comments |
|------|-----------------------|----------|-------------------|---------------------------------------|----------|
| 100% | | | | 100.74 | |
| 100% | JIMMERS 622 | 2596 | 400 | 4561.5 | |
| 100% | JIMMERS RTI | 2592 | 4 | 4.02 | |
| 100% | JIMMERS RTI | 2624 | 3 | 7.04 | |
| 100% | STANBROS WFF | 2654 | 10 | 9.97 | |
| 100% | STANBROS WFF | 2653 | 320 | 230.6 | |

| Temperature | Manufacturer's Reading | Manufacturer's Range | Pass | | Comments |
|-------------|------------------------|----------------------|------|----|----------|
| | | | Yes | No | |
| 100% | 0.05 | 0.05% | Yes | No | |
| 100% | 1.11 | 0.05% | Yes | No | |
| 100% | 10.08 | 0.05% | Yes | No | |

| Item | Manufacturer / Part # | Serial # | Level of Standard | Manufacturer's Reading at Calibration | Manufacturer's Range | Pass | Comments |
|------|-----------------------|----------|-------------------|---------------------------------------|----------------------|------|----------|
| 100% | | | | | | Yes | No |
| 100% | | | | | | Yes | No |
| 100% | | | | | | Yes | No |

Calibration Report

Instrument Aqua TROLL 400
Serial Number 789301
Created 9/22/2021

Sensor **RDO**

Serial Number 789986
Last Calibrated 9/22/2021

Calibration Details

Slope 0.9757509
Offset 0.00 mg/L

Calibration point 100%

Concentration 8.29 mg/L
Temperature 26.06 °C
Barometric Pressure 1,017.5 mbar

Sensor **Conductivity**

Serial Number 789301
Last Calibrated 9/22/2021

Calibration Details

Cell Constant 0.999
Reference Temperature 25.00 °C
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

Serial Number 787061
Last Calibrated Factory Defaults

| Sensor | pH/ORP |
|-----------------|-----------|
| Serial Number | 21177 |
| Last Calibrated | 9/22/2021 |

Calibration Details

| | |
|--------------------------|---|
| Total Calibration Points | 3 |
|--------------------------|---|

Calibration Point 1

| | |
|--------------|----------|
| pH of Buffer | 4.00 pH |
| pH mV | 116.4 mV |
| Temperature | 25.92 °C |

Calibration Point 2

| | |
|--------------|----------|
| pH of Buffer | 7.00 pH |
| pH mV | -58.2 mV |
| Temperature | 26.30 °C |

Calibration Point 3

| | |
|--------------|-----------|
| pH of Buffer | 10.00 pH |
| pH mV | -222.1 mV |
| Temperature | 26.56 °C |

Slope and Offset 1

| | |
|--------|--------------|
| Slope | -58.19 mV/pH |
| Offset | -58.2 mV |

Slope and Offset 2

| | |
|--------|--------------|
| Slope | -54.64 mV/pH |
| Offset | -58.2 mV |

ORP

| | |
|--------------|--------------|
| ORP Solution | ORP Standard |
| Offset | 65.5 mV |
| Temperature | 26.64 °C |

Date: 11/11/19 Time: 9:31 AM Location: IC 19
 Operator: 184301 Equipment: LaMotte 2610C ID: 2063-0323
 Site: Sept 25 01 San Diego Bay Area Weather: 82°F - Sunny

Reference Log

| Point # | Sample ID | Time of Day | Depth of Sample | Reference Reading of Calibration |
|---------|--------------|-------------|-----------------|----------------------------------|
| 1 | 21979193 803 | 12:02 | 3000 | 90.43 |
| 2 | 21979191 803 | 12:04 | 4 | 4.07 |
| 3 | 21910066 803 | 2:39 | 7 | 7.08 |
| 4 | 21889137 803 | 2:47 | 19 | 19.10 |
| 5 | 21889131 803 | 2:47 | 338 | 334.4 |

| Type of Sample | Sample ID | Time of Day | Reference Reading | Point # | | Comments |
|----------------|--------------|-------------|-------------------|---------|---|----------|
| | | | | 1 | 2 | |
| 1 | 21979193 803 | 12:02 | 90.43 | 1 | 2 | |
| 2 | 21979191 803 | 12:04 | 4.07 | 1 | 2 | |
| 3 | 21910066 803 | 2:39 | 7.08 | 1 | 2 | |

| Sample ID | Time of Day | Reference Reading | Reference Range | Point # | | Comments |
|-----------|-------------|-------------------|-----------------|---------|---|----------|
| | | | | 1 | 2 | |
| 1 | 12:02 | 90.43 | 100-150 | 1 | 2 | |
| 2 | 12:04 | 4.07 | 100-150 | 1 | 2 | |
| 3 | 2:39 | 7.08 | 100-150 | 1 | 2 | |

Calibration Report

| | |
|---------------|----------------|
| Instrument | Aqua TROLL 400 |
| Serial Number | 789301 |
| Created | 9/23/2021 |

| | |
|--------|------------|
| Sensor | RDO |
|--------|------------|

| | |
|-----------------|-----------|
| Serial Number | 789986 |
| Last Calibrated | 9/23/2021 |

Calibration Details

| | |
|--------|-----------|
| Slope | 0.9833372 |
| Offset | 0.00 mg/L |

Calibration point 100%

| | |
|---------------------|--------------|
| Concentration | 8.90 mg/L |
| Temperature | 22.13 °C |
| Barometric Pressure | 1,016.8 mbar |

| | |
|--------|---------------------|
| Sensor | Conductivity |
|--------|---------------------|

| | |
|-----------------|-----------|
| Serial Number | 789301 |
| Last Calibrated | 9/23/2021 |

Calibration Details

| | |
|-----------------------------|----------|
| Cell Constant | 0.98 |
| Reference Temperature | 25.00 °C |
| TDS Conversion Factor (ppm) | 0.65 |

| | |
|--------|--------------|
| Sensor | Level |
|--------|--------------|

| | |
|-----------------|------------------|
| Serial Number | 787061 |
| Last Calibrated | Factory Defaults |

| Sensor | pH/ORP |
|-----------------|-----------|
| Serial Number | 21177 |
| Last Calibrated | 9/23/2021 |

Calibration Details

| | |
|--------------------------|---|
| Total Calibration Points | 3 |
|--------------------------|---|

Calibration Point 1

| | |
|--------------|----------|
| pH of Buffer | 4.00 pH |
| pH mV | 111.0 mV |
| Temperature | 22.04 °C |

Calibration Point 2

| | |
|--------------|----------|
| pH of Buffer | 7.02 pH |
| pH mV | -61.9 mV |
| Temperature | 21.97 °C |

Calibration Point 3

| | |
|--------------|-----------|
| pH of Buffer | 10.04 pH |
| pH mV | -228.3 mV |
| Temperature | 21.97 °C |

Slope and Offset 1

| | |
|--------|--------------|
| Slope | -57.24 mV/pH |
| Offset | -60.8 mV |

Slope and Offset 2

| | |
|--------|-------------|
| Slope | -55.1 mV/pH |
| Offset | -60.8 mV |

ORP

| | |
|--------------|--------------|
| ORP Solution | ORP Standard |
| Offset | 58.6 mV |
| Temperature | 21.93 °C |

Customer: City of Los Angeles Date: 4/30/24 Location: 6150 Job Number:

Reference: 724321 Job Name: 20196 Job Code: C 328

Job Title: 3621 Surface Water Job Number: 637657 Job Start Date:

4/30/2024

| Item Description | Quantity | Unit Price | Total Price | Notes |
|--------------------|--------------|------------|-------------|-------|
| 3621 Surface Water | 43 | 10.28 | 443.96 | |
| 3621 Surface Water | 21001145 477 | 21.75 | 4575.00 | |
| 3621 Surface Water | 11471145 873 | 23.70 | 270.00 | |
| 3621 Surface Water | 11411444 871 | 24.75 | 247.50 | |
| 3621 Surface Water | 11411444 873 | 22.25 | 222.50 | |
| 3621 Surface Water | 11411444 871 | 17.34 | 298.14 | |

| Item Description | Quantity | Unit Price | Total Price | Notes |
|--------------------|----------|------------|-------------|-------|
| 3621 Surface Water | 4 | 3.01 | 12.04 | |
| 3621 Surface Water | 1 | 1.57 | 1.57 | |
| 3621 Surface Water | 10 | 2.97 | 29.70 | |

| Item Description | Quantity | Unit Price | Total Price | Notes |
|--------------------|----------|------------|-------------|-------|
| 3621 Surface Water | 4 | 1.17 | 4.68 | |
| 3621 Surface Water | 7 | 1.17 | 8.19 | |
| 3621 Surface Water | 10 | 1.17 | 11.70 | |

Calibration Report

| | |
|---------------|----------------|
| Instrument | Aqua TROLL 400 |
| Serial Number | 789301 |
| Created | 9/30/2021 |

| | |
|--------|------------|
| Sensor | RDO |
|--------|------------|

| | |
|-----------------|-----------|
| Serial Number | 789986 |
| Last Calibrated | 9/30/2021 |

Calibration Details

| | |
|--------|-----------|
| Slope | 0.9910781 |
| Offset | 0.00 mg/L |

Calibration point 100%

| | |
|---------------------|--------------|
| Concentration | 8.55 mg/L |
| Temperature | 24.05 °C |
| Barometric Pressure | 1,020.4 mbar |

| | |
|--------|---------------------|
| Sensor | Conductivity |
|--------|---------------------|

| | |
|-----------------|-----------|
| Serial Number | 789301 |
| Last Calibrated | 9/30/2021 |

Calibration Details

| | |
|-----------------------------|----------|
| Cell Constant | 1.015 |
| Reference Temperature | 25.00 °C |
| TDS Conversion Factor (ppm) | 0.65 |

| | |
|--------|--------------|
| Sensor | Level |
|--------|--------------|

| | |
|-----------------|------------------|
| Serial Number | 787061 |
| Last Calibrated | Factory Defaults |

| Sensor | pH/ORP |
|-----------------|-----------|
| Serial Number | 21177 |
| Last Calibrated | 9/30/2021 |

Calibration Details

| | |
|--------------------------|---|
| Total Calibration Points | 3 |
|--------------------------|---|

Calibration Point 1

| | |
|--------------|----------|
| pH of Buffer | 4.00 pH |
| pH mV | 112.5 mV |
| Temperature | 23.70 °C |

Calibration Point 2

| | |
|--------------|----------|
| pH of Buffer | 7.00 pH |
| pH mV | -60.8 mV |
| Temperature | 23.35 °C |

Calibration Point 3

| | |
|--------------|-----------|
| pH of Buffer | 10.00 pH |
| pH mV | -225.2 mV |
| Temperature | 22.89 °C |

Slope and Offset 1

| | |
|--------|--------------|
| Slope | -57.79 mV/pH |
| Offset | -60.8 mV |

Slope and Offset 2

| | |
|--------|-------------|
| Slope | -54.8 mV/pH |
| Offset | -60.8 mV |

ORP

| | |
|--------------|--------------|
| ORP Solution | ORP Standard |
| Offset | 64.0 mV |
| Temperature | 23.84 °C |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 12:52:01
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.444385 | 65.36024 | 102.0149 | 26838.94 | 31.71767 | 23786.9 | 14.64469 | 15.46148 | 37.2593 | 1.005987 | -0.1118 | 0.378596 | 7.264474 | -73.9429 | 113.8138 | 1016.17 | 33.78 | |
| ##### | 4.444385 | 65.36024 | 102.0149 | 26838.94 | 31.71767 | 23786.9 | 14.64469 | 15.46148 | 37.2593 | 1.005987 | -0.1118 | 0.378596 | 7.264474 | -73.9429 | 113.8138 | 1016.17 | 33.78 | |
| ##### | 4.298727 | 63.17741 | 98.61517 | 26820.07 | 31.67583 | 23787.03 | 14.64478 | 15.46157 | 37.28551 | 1.006001 | -0.11261 | 0.376737 | 7.247595 | -72.9971 | 119.5897 | 1016.131 | 33.79959 | |
| ##### | 4.289797 | 63.04359 | 98.40675 | 26818.91 | 31.67327 | 23787.03 | 14.64479 | 15.46157 | 37.28712 | 1.006002 | -0.11266 | 0.376623 | 7.24656 | -72.9391 | 119.9437 | 1016.128 | 33.80079 | |
| ##### | 4.280868 | 62.90978 | 98.19834 | 26817.75 | 31.6707 | 23787.04 | 14.64479 | 15.46158 | 37.28873 | 1.006003 | -0.11271 | 0.376509 | 7.245525 | -72.8812 | 120.2978 | 1016.126 | 33.80199 | |
| ##### | 4.223534 | 62.0218 | 96.82749 | 26812.43 | 31.65084 | 23790.32 | 14.64701 | 15.46371 | 37.29614 | 1.006011 | -0.10311 | 0.398635 | 7.235951 | -72.3441 | 121.0145 | 1016.165 | 33.83354 | |
| ##### | 4.217433 | 61.92908 | 96.68363 | 26811.73 | 31.64894 | 23790.47 | 14.64711 | 15.46381 | 37.29711 | 1.006012 | -0.1027 | 0.399582 | 7.235113 | -72.2971 | 121.1866 | 1016.166 | 33.83543 | |
| ##### | 4.211332 | 61.83637 | 96.53978 | 26811.04 | 31.64703 | 23790.62 | 14.64721 | 15.4639 | 37.29808 | 1.006012 | -0.10229 | 0.40053 | 7.234274 | -72.2501 | 121.3587 | 1016.167 | 33.83732 | |
| ##### | 4.205232 | 61.74366 | 96.39592 | 26810.34 | 31.64513 | 23790.77 | 14.64731 | 15.464 | 37.29904 | 1.006013 | -0.10188 | 0.401477 | 7.233436 | -72.203 | 121.5308 | 1016.167 | 33.83921 | |
| ##### | 4.153194 | 60.96124 | 95.1799 | 26852.79 | 31.58724 | 23851.85 | 14.68854 | 15.5037 | 37.24009 | 1.006063 | -0.0887 | 0.431875 | 7.223432 | -71.6309 | 122.1258 | 1016.134 | 33.85615 | |
| ##### | 4.149272 | 60.90181 | 95.08768 | 26854.49 | 31.58415 | 23854.61 | 14.6904 | 15.5055 | 37.23772 | 1.006065 | -0.08794 | 0.433632 | 7.222746 | -71.5919 | 122.1868 | 1016.133 | 33.85757 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 12:55:10
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 2.289848 | 32.98264 | 51.67804 | 27544.64 | 30.20447 | 25054.14 | 15.50152 | 16.28519 | 36.30471 | 1.007117 | -0.0886 | 0.432114 | 7.074696 | -63.071 | 109.1977 | 1015.941 | 34.32718 | | |
| ##### | 2.28737 | 32.94488 | 51.61935 | 27546.05 | 30.20145 | 25056.73 | 15.50327 | 16.28688 | 36.30285 | 1.007119 | -0.08821 | 0.433009 | 7.074266 | -63.0467 | 109.184 | 1015.938 | 34.32782 | | |
| ##### | 2.284892 | 32.90712 | 51.56067 | 27547.46 | 30.19843 | 25059.32 | 15.50503 | 16.28856 | 36.301 | 1.007121 | -0.08782 | 0.433904 | 7.073835 | -63.0224 | 109.1704 | 1015.936 | 34.32847 | | |
| ##### | 2.282414 | 32.86937 | 51.50198 | 27548.86 | 30.19541 | 25061.91 | 15.50678 | 16.29024 | 36.29914 | 1.007124 | -0.08744 | 0.434799 | 7.073405 | -62.9981 | 109.1568 | 1015.934 | 34.32912 | | |
| ##### | 2.258865 | 32.49474 | 50.92729 | 27545.85 | 30.0818 | 25108.75 | 15.53842 | 16.32069 | 36.30311 | 1.007184 | -0.08978 | 0.429402 | 7.066729 | -62.6067 | 108.9678 | 1015.993 | 34.3557 | | |
| ##### | 2.257228 | 32.46886 | 50.88746 | 27546.1 | 30.07572 | 25111.63 | 15.54036 | 16.32256 | 36.30278 | 1.007187 | -0.08971 | 0.429548 | 7.066306 | -62.5822 | 108.9545 | 1015.995 | 34.35711 | | |
| ##### | 2.255591 | 32.44298 | 50.84763 | 27546.35 | 30.06965 | 25114.51 | 15.54231 | 16.32443 | 36.30245 | 1.00719 | -0.08965 | 0.429695 | 7.065884 | -62.5576 | 108.9413 | 1015.997 | 34.35852 | | |
| ##### | 2.253954 | 32.4171 | 50.8078 | 27546.6 | 30.06357 | 25117.39 | 15.54425 | 16.3263 | 36.30212 | 1.007194 | -0.08959 | 0.429841 | 7.065461 | -62.533 | 108.928 | 1015.999 | 34.35993 | | |
| ##### | 2.242536 | 32.23869 | 50.53313 | 27566.7 | 30.03154 | 25149.76 | 15.56618 | 16.34734 | 36.27565 | 1.00722 | -0.08707 | 0.435646 | 7.060338 | -62.2409 | 108.736 | 1016.015 | 34.37639 | | |
| ##### | 2.241566 | 32.22337 | 50.50961 | 27567.48 | 30.02773 | 25152.13 | 15.56779 | 16.34889 | 36.27463 | 1.007223 | -0.08702 | 0.435764 | 7.059978 | -62.2202 | 108.7238 | 1016.017 | 34.37767 | | |
| ##### | 2.240596 | 32.20806 | 50.48608 | 27568.26 | 30.02393 | 25154.51 | 15.5694 | 16.35043 | 36.2736 | 1.007225 | -0.08697 | 0.435882 | 7.059619 | -62.1995 | 108.7116 | 1016.019 | 34.37894 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 13:04:26
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatt | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.646955 | 68.23161 | 106.4935 | 26873.93 | 31.57677 | 23874.86 | 14.70408 | 15.51866 | 37.21078 | 1.006078 | -0.09589 | 0.415288 | 7.164677 | -68.3699 | 103.6756 | 1015.77 | 34.61 | |
| ##### | 4.646955 | 68.23161 | 106.4935 | 26873.93 | 31.57677 | 23874.86 | 14.70408 | 15.51866 | 37.21078 | 1.006078 | -0.09589 | 0.415288 | 7.164677 | -68.3699 | 103.6756 | 1015.77 | 34.61 | |
| ##### | 4.441735 | 65.21997 | 101.8021 | 26912.35 | 31.57586 | 23909.36 | 14.72736 | 15.54108 | 37.15767 | 1.006095 | -0.09029 | 0.428205 | 7.151603 | -67.6372 | 106.9292 | 1015.854 | 34.61936 | |
| ##### | 4.428623 | 65.02754 | 101.5024 | 26914.8 | 31.5758 | 23911.56 | 14.72885 | 15.54251 | 37.15428 | 1.006096 | -0.08994 | 0.429031 | 7.150767 | -67.5904 | 107.1371 | 1015.859 | 34.61995 | |
| ##### | 4.415511 | 64.83511 | 101.2026 | 26917.25 | 31.57574 | 23913.76 | 14.73034 | 15.54395 | 37.15089 | 1.006098 | -0.08958 | 0.429856 | 7.149932 | -67.5436 | 107.345 | 1015.865 | 34.62055 | |
| ##### | 4.402398 | 64.64268 | 100.9029 | 26919.71 | 31.57569 | 23915.97 | 14.73182 | 15.54538 | 37.14749 | 1.006099 | -0.08922 | 0.430681 | 7.149096 | -67.4968 | 107.5529 | 1015.87 | 34.62115 | |
| ##### | 4.317328 | 63.33993 | 98.87846 | 26911.13 | 31.55195 | 23917.98 | 14.73318 | 15.54669 | 37.15935 | 1.006108 | -0.08273 | 0.445663 | 7.142263 | -67.1107 | 107.9058 | 1015.815 | 34.62838 | |
| ##### | 4.308308 | 63.20517 | 98.66876 | 26911.74 | 31.55088 | 23918.96 | 14.73384 | 15.54732 | 37.15851 | 1.006108 | -0.0823 | 0.446655 | 7.141626 | -67.0749 | 108.005 | 1015.814 | 34.62893 | |
| ##### | 4.299288 | 63.07041 | 98.45905 | 26912.35 | 31.54982 | 23919.93 | 14.7345 | 15.54795 | 37.15767 | 1.006109 | -0.08187 | 0.447646 | 7.14099 | -67.0391 | 108.1042 | 1015.814 | 34.62949 | |
| ##### | 4.290268 | 62.93565 | 98.24935 | 26912.96 | 31.54875 | 23920.9 | 14.73516 | 15.54859 | 37.15682 | 1.00611 | -0.08144 | 0.448638 | 7.140353 | -67.0032 | 108.2033 | 1015.814 | 34.63005 | |
| ##### | 4.218062 | 61.85281 | 96.56467 | 26899.02 | 31.48916 | 23932.73 | 14.74315 | 15.55627 | 37.17608 | 1.006136 | -0.10169 | 0.401925 | 7.133023 | -66.585 | 108.5274 | 1015.802 | 34.64749 | |

Location Properties
Location Name = Device Location

T4-2HB

Report Properties
Start Time = 2021-09-22 13:07:34
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|----------|----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 2.413416 | 35.03063 | 54.82521 | 28296.35 | 30.76854 | 25488.12 | 15.79703 | 16.56728 | 35.3404 | 1.007154 | -0.09757 | 0.411431 | 7.054513 | -62.0272 | 103.8512 | 1015.717 | 34.88879 | | |
| ##### | 2.410995 | 34.99006 | 54.76317 | 28303.13 | 30.76612 | 25495.28 | 15.8019 | 16.57193 | 35.33188 | 1.007158 | -0.09784 | 0.410792 | 7.054222 | -62.0089 | 103.8497 | 1015.715 | 34.88913 | | |
| ##### | 2.408574 | 34.94949 | 54.70113 | 28309.91 | 30.76369 | 25502.44 | 15.80677 | 16.57659 | 35.32336 | 1.007163 | -0.09812 | 0.410153 | 7.05393 | -61.9907 | 103.8483 | 1015.713 | 34.88947 | | |
| ##### | 2.386639 | 34.5809 | 54.14225 | 28338.2 | 30.38648 | 25694.89 | 15.93733 | 16.70168 | 35.28811 | 1.007382 | -0.10674 | 0.390265 | 7.050556 | -61.7516 | 103.7657 | 1015.712 | 34.89846 | | |
| ##### | 2.385219 | 34.55589 | 54.10446 | 28341.61 | 30.36954 | 25705.46 | 15.9445 | 16.70855 | 35.28384 | 1.007393 | -0.10726 | 0.38906 | 7.050342 | -61.7366 | 103.7611 | 1015.711 | 34.899 | | |
| ##### | 2.383799 | 34.53087 | 54.06666 | 28345.01 | 30.3526 | 25716.02 | 15.95167 | 16.71541 | 35.27958 | 1.007404 | -0.10779 | 0.387855 | 7.050127 | -61.7216 | 103.7565 | 1015.71 | 34.89953 | | |
| ##### | 2.375076 | 34.34868 | 53.79785 | 28409.97 | 30.22662 | 25831.41 | 16.03009 | 16.79042 | 35.19895 | 1.007503 | -0.08281 | 0.445464 | 7.047345 | -61.5655 | 103.7091 | 1015.701 | 34.89114 | | |
| ##### | 2.374294 | 34.33399 | 53.7759 | 28413.33 | 30.21403 | 25840.07 | 16.03597 | 16.79605 | 35.19477 | 1.007511 | -0.08184 | 0.447699 | 7.04716 | -61.5543 | 103.7054 | 1015.701 | 34.89093 | | |
| ##### | 2.373512 | 34.3193 | 53.75394 | 28416.69 | 30.20143 | 25848.72 | 16.04185 | 16.80167 | 35.1906 | 1.007519 | -0.08087 | 0.449934 | 7.046975 | -61.543 | 103.7018 | 1015.7 | 34.89071 | | |
| ##### | 2.37273 | 34.3046 | 53.73199 | 28420.06 | 30.18883 | 25857.38 | 16.04772 | 16.8073 | 35.18642 | 1.007528 | -0.07991 | 0.452169 | 7.04679 | -61.5318 | 103.6982 | 1015.7 | 34.8905 | | |
| ##### | 2.360999 | 34.13511 | 53.4674 | 28424.14 | 30.18795 | 25861.54 | 16.05056 | 16.81 | 35.18137 | 1.00753 | -0.09516 | 0.416978 | 7.044178 | -61.3892 | 103.6023 | 1015.717 | 34.89029 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 13:16:35
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.670783 | 97.10411 | 151.781 | 27081.64 | 30.93816 | 24322.96 | 15.00674 | 15.80992 | 36.92538 | 1.006512 | -0.10616 | 0.391608 | 7.193274 | -69.811 | 98.11588 | 1015.55 | 34.42 | |
| ##### | 6.691919 | 97.40909 | 152.2622 | 27123.8 | 30.92701 | 24365.49 | 15.03551 | 15.83757 | 36.86799 | 1.006537 | -0.0995 | 0.406966 | 7.179985 | -69.0713 | 100.7019 | 1015.55 | 34.42992 | |
| ##### | 6.693222 | 97.42789 | 152.2919 | 27126.4 | 30.92632 | 24368.11 | 15.03728 | 15.83927 | 36.86445 | 1.006539 | -0.09909 | 0.407913 | 7.179166 | -69.0257 | 100.8613 | 1015.55 | 34.43053 | |
| ##### | 6.694524 | 97.44669 | 152.3215 | 27129 | 30.92563 | 24370.73 | 15.03905 | 15.84097 | 36.86091 | 1.00654 | -0.09868 | 0.408859 | 7.178347 | -68.9801 | 101.0207 | 1015.55 | 34.43114 | |
| ##### | 6.730474 | 97.94141 | 153.1009 | 27113.18 | 30.91833 | 24359.57 | 15.0315 | 15.83372 | 36.88243 | 1.006537 | -0.10751 | 0.388505 | 7.171573 | -68.6029 | 101.3813 | 1015.55 | 34.42973 | |
| ##### | 6.732557 | 97.97043 | 153.1467 | 27113.54 | 30.91773 | 24360.14 | 15.03189 | 15.83409 | 36.88195 | 1.006537 | -0.10772 | 0.388 | 7.170951 | -68.5682 | 101.4608 | 1015.55 | 34.42991 | |
| ##### | 6.734641 | 97.99944 | 153.1924 | 27113.89 | 30.91714 | 24360.71 | 15.03227 | 15.83446 | 36.88147 | 1.006538 | -0.10794 | 0.387495 | 7.170329 | -68.5336 | 101.5403 | 1015.55 | 34.4301 | |
| ##### | 6.736724 | 98.02847 | 153.2381 | 27114.24 | 30.91655 | 24361.27 | 15.03265 | 15.83483 | 36.88098 | 1.006538 | -0.10816 | 0.38699 | 7.169706 | -68.4989 | 101.6199 | 1015.55 | 34.43028 | |
| ##### | 6.750787 | 98.23856 | 153.5644 | 27116.01 | 30.91045 | 24365.41 | 15.03545 | 15.83752 | 36.87858 | 1.006542 | -0.11064 | 0.38127 | 7.162035 | -68.077 | 102.0501 | 1015.541 | 34.43874 | |
| ##### | 6.752145 | 98.25804 | 153.5949 | 27115.97 | 30.91 | 24365.56 | 15.03555 | 15.83762 | 36.87864 | 1.006543 | -0.11089 | 0.380706 | 7.161517 | -68.0484 | 102.0858 | 1015.54 | 34.43913 | |
| ##### | 6.753502 | 98.27753 | 153.6254 | 27115.93 | 30.90955 | 24365.71 | 15.03565 | 15.83771 | 36.87869 | 1.006543 | -0.11113 | 0.380143 | 7.160999 | -68.0198 | 102.1215 | 1015.54 | 34.43953 | |

Location Properties
Location Name = Device Location

T4-3HB

Report Properties
Start Time = 2021-09-22 13:22:19
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 2.468574 | 35.26333 | 55.3159 | 27860.66 | 29.51032 | 25650.9 | 15.90588 | 16.67309 | 35.89295 | 1.007639 | -0.10474 | 0.394877 | 7.045309 | -61.3091 | 100.9124 | 1015.489 | 34.77914 | |
| ##### | 2.465341 | 35.19946 | 55.21819 | 27822.65 | 29.48943 | 25625.32 | 15.88843 | 16.65646 | 35.94198 | 1.007632 | -0.10602 | 0.391927 | 7.042973 | -61.1787 | 100.9371 | 1015.473 | 34.77129 | |
| ##### | 2.465278 | 35.19762 | 55.21545 | 27820.07 | 29.48769 | 25623.73 | 15.88734 | 16.65543 | 35.9453 | 1.007632 | -0.10616 | 0.391604 | 7.04284 | -61.1713 | 100.9388 | 1015.472 | 34.77109 | |
| ##### | 2.465215 | 35.19578 | 55.2127 | 27817.5 | 29.48595 | 25622.15 | 15.88626 | 16.6544 | 35.94862 | 1.007632 | -0.1063 | 0.391282 | 7.042708 | -61.1639 | 100.9406 | 1015.472 | 34.77088 | |
| ##### | 2.465153 | 35.19394 | 55.20996 | 27814.92 | 29.48421 | 25620.56 | 15.88518 | 16.65336 | 35.95193 | 1.007632 | -0.10644 | 0.390959 | 7.042576 | -61.1564 | 100.9423 | 1015.471 | 34.77067 | |
| ##### | 2.454856 | 35.04445 | 54.97521 | 27784.08 | 29.47948 | 25594.28 | 15.86729 | 16.63628 | 35.99185 | 1.00762 | -0.1025 | 0.400041 | 7.040411 | -61.0317 | 101.002 | 1015.47 | 34.77037 | |
| ##### | 2.45429 | 35.03598 | 54.96195 | 27782.04 | 29.47898 | 25592.63 | 15.86617 | 16.63521 | 35.99448 | 1.007619 | -0.10233 | 0.400449 | 7.04027 | -61.0236 | 101.0053 | 1015.47 | 34.77022 | |
| ##### | 2.453723 | 35.02752 | 54.94869 | 27780.02 | 29.47848 | 25590.99 | 15.86505 | 16.63414 | 35.9971 | 1.007618 | -0.10215 | 0.400858 | 7.040128 | -61.0155 | 101.0086 | 1015.47 | 34.77007 | |
| ##### | 2.453157 | 35.01905 | 54.93543 | 27777.99 | 29.47798 | 25589.35 | 15.86393 | 16.63308 | 35.99973 | 1.007618 | -0.10197 | 0.401267 | 7.039987 | -61.0074 | 101.0118 | 1015.469 | 34.76992 | |
| ##### | 2.448393 | 34.94046 | 54.81583 | 27811.56 | 29.45038 | 25632.73 | 15.89338 | 16.66127 | 35.95627 | 1.007648 | -0.11098 | 0.380494 | 7.037624 | -60.875 | 101.0767 | 1015.47 | 34.77 | |
| ##### | 2.447957 | 34.93373 | 54.80543 | 27812.36 | 29.44911 | 25634.03 | 15.89427 | 16.66212 | 35.95525 | 1.007649 | -0.11128 | 0.379807 | 7.037476 | -60.8666 | 101.0808 | 1015.47 | 34.77 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 13:36:04
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|----------|----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 6.560426 | 96.96524 | 151.249 | 28451.49 | 31.64622 | 25246.61 | 15.63323 | 16.4103 | 35.14755 | 1.006744 | -0.09961 | 0.406711 | 7.22538 | -71.7454 | 98.6732 | 1015.37 | 34.75 | | |
| ##### | 6.593752 | 97.38777 | 151.9357 | 28534.26 | 31.57929 | 25348.82 | 15.70271 | 16.47673 | 35.0456 | 1.006817 | -0.10902 | 0.385011 | 7.204915 | -70.5807 | 101.764 | 1015.37 | 34.75 | | |
| ##### | 6.595748 | 97.41307 | 151.9768 | 28539.22 | 31.57528 | 25354.95 | 15.70687 | 16.48071 | 35.03949 | 1.006822 | -0.10958 | 0.383711 | 7.203689 | -70.511 | 101.9491 | 1015.37 | 34.75 | | |
| ##### | 6.597744 | 97.43838 | 152.0179 | 28544.18 | 31.57128 | 25361.07 | 15.71103 | 16.48469 | 35.03339 | 1.006826 | -0.11015 | 0.382412 | 7.202464 | -70.4412 | 102.1342 | 1015.37 | 34.75 | | |
| ##### | 6.648561 | 97.9515 | 152.8873 | 28566.61 | 31.47628 | 25422.02 | 15.75248 | 16.52431 | 35.00592 | 1.006888 | -0.09765 | 0.411231 | 7.189685 | -69.7192 | 102.7417 | 1015.387 | 34.75855 | | |
| ##### | 6.651653 | 97.98471 | 152.9429 | 28569.56 | 31.47039 | 25427.17 | 15.75598 | 16.52766 | 35.00231 | 1.006893 | -0.0973 | 0.412043 | 7.188627 | -69.6593 | 102.841 | 1015.388 | 34.75895 | | |
| ##### | 6.654745 | 98.01792 | 152.9985 | 28572.5 | 31.46451 | 25432.33 | 15.75948 | 16.53101 | 34.99869 | 1.006897 | -0.09695 | 0.412855 | 7.18757 | -69.5994 | 102.9404 | 1015.388 | 34.75933 | | |
| ##### | 6.657836 | 98.05113 | 153.0541 | 28575.44 | 31.45862 | 25437.48 | 15.76298 | 16.53436 | 34.99508 | 1.006902 | -0.0966 | 0.413667 | 7.186512 | -69.5394 | 103.0398 | 1015.389 | 34.75972 | | |
| ##### | 6.698403 | 98.5369 | 153.8441 | 28558.08 | 31.31229 | 25485.46 | 15.79558 | 16.56555 | 35.01637 | 1.006975 | -0.09594 | 0.415187 | 7.174029 | -68.8168 | 103.5102 | 1015.38 | 34.75974 | | |
| ##### | 6.701327 | 98.57012 | 153.8988 | 28558 | 31.30363 | 25489.14 | 15.79807 | 16.56794 | 35.01646 | 1.006979 | -0.0957 | 0.415747 | 7.173152 | -68.7665 | 103.5531 | 1015.38 | 34.75991 | | |
| ##### | 6.70425 | 98.60335 | 153.9535 | 28557.92 | 31.29498 | 25492.82 | 15.80057 | 16.57033 | 35.01656 | 1.006984 | -0.09545 | 0.416307 | 7.172276 | -68.7161 | 103.596 | 1015.38 | 34.76007 | | |

Location Properties
Location Name = Device Location

T4-4HB

Report Properties
Start Time = 2021-09-22 13:38:42
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.298031 | 48.12013 | 75.23423 | 28520.55 | 30.83429 | 25661.02 | 15.91475 | 16.67966 | 35.06244 | 1.00722 | -0.09714 | 0.412409 | 7.096114 | -64.386 | 99.17928 | 1015.359 | 34.90942 | | |
| ##### | 3.286356 | 47.9456 | 74.96239 | 28519.64 | 30.83229 | 25661.08 | 15.91479 | 16.6797 | 35.06356 | 1.007221 | -0.09737 | 0.41189 | 7.095593 | -64.3564 | 99.19048 | 1015.359 | 34.90982 | | |
| ##### | 3.177827 | 46.29325 | 72.39676 | 28451.5 | 30.67712 | 25668.22 | 15.9195 | 16.68434 | 35.14757 | 1.007275 | -0.1167 | 0.367306 | 7.091019 | -64.0765 | 99.38011 | 1015.368 | 34.901 | | |
| ##### | 3.169626 | 46.16908 | 72.20379 | 28448.13 | 30.66977 | 25668.44 | 15.91964 | 16.68448 | 35.15171 | 1.007277 | -0.11765 | 0.365098 | 7.090678 | -64.0562 | 99.39148 | 1015.369 | 34.90078 | | |
| ##### | 3.161424 | 46.04491 | 72.01081 | 28444.77 | 30.66242 | 25668.65 | 15.91979 | 16.68463 | 35.15585 | 1.00728 | -0.11861 | 0.36289 | 7.090336 | -64.0358 | 99.40285 | 1015.369 | 34.90056 | | |
| ##### | 3.083583 | 44.89988 | 70.22551 | 28502.31 | 30.63057 | 25734.71 | 15.96474 | 16.72756 | 35.0849 | 1.007323 | -0.10799 | 0.38739 | 7.084518 | -63.6962 | 99.59015 | 1015.369 | 34.90879 | | |
| ##### | 3.077934 | 44.8157 | 70.09447 | 28503.59 | 30.62624 | 25737.79 | 15.96683 | 16.72956 | 35.08332 | 1.007326 | -0.10788 | 0.387645 | 7.084167 | -63.6754 | 99.60217 | 1015.369 | 34.909 | | |
| ##### | 3.072284 | 44.73152 | 69.96342 | 28504.87 | 30.62191 | 25740.86 | 15.96891 | 16.73156 | 35.08174 | 1.007329 | -0.10777 | 0.387899 | 7.083816 | -63.6547 | 99.61418 | 1015.37 | 34.90921 | | |
| ##### | 3.066635 | 44.64734 | 69.83237 | 28506.15 | 30.61759 | 25743.93 | 15.971 | 16.73355 | 35.08016 | 1.007332 | -0.10766 | 0.388154 | 7.083465 | -63.634 | 99.6262 | 1015.37 | 34.90942 | | |
| ##### | 3.035427 | 44.08033 | 68.97383 | 28509.29 | 30.53587 | 25783.12 | 15.9976 | 16.75903 | 35.0763 | 1.007379 | -0.08208 | 0.447155 | 7.077357 | -63.2788 | 99.78486 | 1015.361 | 34.91833 | | |
| ##### | 3.032493 | 44.03225 | 68.90002 | 28510.45 | 30.53151 | 25786.11 | 15.99963 | 16.76097 | 35.07486 | 1.007381 | -0.08074 | 0.450243 | 7.07697 | -63.2563 | 99.79559 | 1015.361 | 34.91888 | | |

Location Properties
Location Name = Device Location

T4-4L

Report Properties
Start Time = 2021-09-22 18:18:02
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.710764 | 82.6538 | 128.9862 | 27441.58 | 30.25023 | 24940.56 | 15.42451 | 16.21136 | 36.44106 | 1.007045 | -0.07423 | 0.465264 | 7.348273 | -78.2451 | 127.2653 | 1012.26 | 35.09069 | |
| ##### | 5.696252 | 82.44466 | 128.6598 | 27446.38 | 30.24974 | 24945.13 | 15.4276 | 16.21433 | 36.43467 | 1.007047 | -0.07405 | 0.465669 | 7.347235 | -78.1881 | 127.0589 | 1012.259 | 35.08953 | |
| ##### | 5.681741 | 82.23551 | 128.3334 | 27451.18 | 30.24926 | 24949.69 | 15.4307 | 16.2173 | 36.42828 | 1.00705 | -0.07388 | 0.466073 | 7.346196 | -78.1311 | 126.8525 | 1012.258 | 35.08838 | |
| ##### | 5.584392 | 80.86086 | 126.1817 | 27445.95 | 30.28011 | 24931.59 | 15.41846 | 16.20554 | 36.43526 | 1.007031 | -0.07416 | 0.465411 | 7.337295 | -77.6374 | 124.8435 | 1012.286 | 35.08204 | |
| ##### | 5.574307 | 80.71681 | 125.9566 | 27447.57 | 30.28133 | 24932.54 | 15.4191 | 16.20615 | 36.43311 | 1.007031 | -0.07411 | 0.465538 | 7.336485 | -77.5927 | 124.6715 | 1012.287 | 35.0813 | |
| ##### | 5.564223 | 80.57278 | 125.7316 | 27449.19 | 30.28255 | 24933.48 | 15.41975 | 16.20676 | 36.43095 | 1.007031 | -0.07405 | 0.465664 | 7.335675 | -77.548 | 124.4995 | 1012.288 | 35.08055 | |
| ##### | 5.554139 | 80.42873 | 125.5065 | 27450.81 | 30.28378 | 24934.43 | 15.42039 | 16.20738 | 36.42878 | 1.007031 | -0.074 | 0.465791 | 7.334864 | -77.5034 | 124.3275 | 1012.288 | 35.07981 | |
| ##### | 5.524741 | 80.03948 | 124.8816 | 27406.28 | 30.32197 | 24877.5 | 15.38182 | 16.17038 | 36.488 | 1.00699 | -0.06834 | 0.478842 | 7.326556 | -77.0536 | 122.5415 | 1012.245 | 35.06294 | |
| ##### | 5.520734 | 79.98381 | 124.7939 | 27404.47 | 30.32424 | 24874.88 | 15.38005 | 16.16867 | 36.4904 | 1.006988 | -0.06809 | 0.479427 | 7.325958 | -77.0209 | 122.4118 | 1012.244 | 35.06201 | |
| ##### | 5.516727 | 79.92815 | 124.7061 | 27402.67 | 30.32651 | 24872.26 | 15.37827 | 16.16697 | 36.49281 | 1.006986 | -0.06783 | 0.480013 | 7.325359 | -76.9882 | 122.2822 | 1012.243 | 35.06108 | |
| ##### | 5.51272 | 79.87247 | 124.6183 | 27400.86 | 30.32877 | 24869.64 | 15.3765 | 16.16527 | 36.49521 | 1.006984 | -0.06758 | 0.480598 | 7.32476 | -76.9555 | 122.1525 | 1012.241 | 35.06014 | |

Location Properties
Location Name = Device Location

T4-3L

Report Properties
Start Time = 2021-09-22 19:05:35
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.433889 | 77.28403 | 120.942 | 27371.78 | 29.10726 | 25380.7 | 15.72121 | 16.49746 | 36.53397 | 1.007628 | -0.06866 | 0.478111 | 7.418358 | -81.818 | 97.11602 | 1012.22 | 31.01 | |
| ##### | 5.419385 | 77.08278 | 120.6263 | 27377.4 | 29.11009 | 25384.64 | 15.7239 | 16.50002 | 36.52644 | 1.007629 | -0.06897 | 0.477399 | 7.417186 | -81.7539 | 97.22993 | 1012.22 | 31.01 | |
| ##### | 5.294097 | 75.34816 | 117.9036 | 27374.21 | 29.13981 | 25368.32 | 15.71288 | 16.48941 | 36.53075 | 1.007612 | -0.07572 | 0.461818 | 7.405624 | -81.1187 | 97.39538 | 1012.254 | 31.01 | |
| ##### | 5.282727 | 75.19057 | 117.6563 | 27376.24 | 29.14227 | 25369.1 | 15.71342 | 16.48992 | 36.52803 | 1.007611 | -0.07615 | 0.460828 | 7.404639 | -81.0648 | 97.44717 | 1012.256 | 31.01 | |
| ##### | 5.271357 | 75.03298 | 117.409 | 27378.28 | 29.14473 | 25369.89 | 15.71396 | 16.49043 | 36.5253 | 1.007611 | -0.07658 | 0.459837 | 7.403654 | -81.0108 | 97.49898 | 1012.258 | 31.01 | |
| ##### | 5.259987 | 74.87539 | 117.1617 | 27380.32 | 29.14719 | 25370.67 | 15.71449 | 16.49094 | 36.52258 | 1.00761 | -0.07701 | 0.458847 | 7.402669 | -80.9569 | 97.55078 | 1012.259 | 31.01 | |
| ##### | 5.146904 | 73.28579 | 114.6599 | 27319.45 | 29.19186 | 25294.28 | 15.66271 | 16.44128 | 36.60399 | 1.007558 | -0.07713 | 0.458564 | 7.390799 | -80.3165 | 97.60213 | 1012.206 | 31.0012 | |
| ##### | 5.138569 | 73.16932 | 114.4767 | 27316.99 | 29.19459 | 25290.79 | 15.66034 | 16.43901 | 36.60727 | 1.007555 | -0.07729 | 0.4582 | 7.389976 | -80.2718 | 97.61409 | 1012.204 | 31.0008 | |
| ##### | 5.130235 | 73.05284 | 114.2936 | 27314.54 | 29.19733 | 25287.29 | 15.65797 | 16.43674 | 36.61054 | 1.007553 | -0.07745 | 0.457836 | 7.389152 | -80.2271 | 97.62605 | 1012.203 | 31.00041 | |
| ##### | 5.040935 | 71.81901 | 112.3572 | 27369.41 | 29.21992 | 25327.96 | 15.68565 | 16.46317 | 36.53717 | 1.007566 | -0.07741 | 0.457921 | 7.378756 | -79.658 | 97.5813 | 1012.202 | 31.00035 | |
| ##### | 5.034643 | 71.73157 | 112.2198 | 27370.74 | 29.22181 | 25328.35 | 15.68592 | 16.46343 | 36.53538 | 1.007566 | -0.07742 | 0.4579 | 7.378054 | -79.6198 | 97.58142 | 1012.201 | 31.00019 | |

Location Properties
Location Name = Device Location

T4-2L

Report Properties
Start Time = 2021-09-22 19:11:51
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.710643 | 81.59027 | 127.6033 | 27301.09 | 29.43537 | 25168.89 | 15.5781 | 16.35978 | 36.62857 | 1.007419 | -0.00801 | 0.618007 | 7.34551 | -77.8737 | 95.54601 | 1012.4 | 30.72 | | |
| ##### | 5.257196 | 75.16092 | 117.5504 | 27499.19 | 29.43493 | 25351.72 | 15.70228 | 16.47861 | 36.36485 | 1.007511 | -0.05912 | 0.500119 | 7.3308 | -77.0609 | 96.01699 | 1012.418 | 30.72 | | |
| ##### | 5.228316 | 74.75143 | 116.9102 | 27511.81 | 29.4349 | 25363.36 | 15.71019 | 16.48618 | 36.34805 | 1.007517 | -0.06237 | 0.492611 | 7.329863 | -77.0091 | 96.04698 | 1012.419 | 30.72 | | |
| ##### | 5.199436 | 74.34195 | 116.2699 | 27524.42 | 29.43488 | 25375.01 | 15.7181 | 16.49375 | 36.33125 | 1.007523 | -0.06563 | 0.485102 | 7.328926 | -76.9573 | 96.07698 | 1012.421 | 30.72 | | |
| ##### | 5.170557 | 73.93247 | 115.6296 | 27537.04 | 29.43485 | 25386.65 | 15.72601 | 16.50132 | 36.31446 | 1.007529 | -0.06888 | 0.477594 | 7.327989 | -76.9056 | 96.10698 | 1012.422 | 30.72 | | |
| ##### | 5.010431 | 71.64133 | 112.0452 | 27533.63 | 29.43268 | 25384.47 | 15.72453 | 16.49991 | 36.31929 | 1.007528 | -0.07285 | 0.46844 | 7.320364 | -76.485 | 95.97649 | 1012.411 | 30.71139 | | |
| ##### | 4.991792 | 71.37613 | 111.6304 | 27538.53 | 29.43258 | 25389.04 | 15.72763 | 16.50287 | 36.31278 | 1.007531 | -0.07433 | 0.465031 | 7.319652 | -76.4457 | 95.98272 | 1012.41 | 30.71101 | | |
| ##### | 4.973154 | 71.11093 | 111.2157 | 27543.42 | 29.43247 | 25393.6 | 15.73073 | 16.50584 | 36.30628 | 1.007533 | -0.07581 | 0.461622 | 7.31894 | -76.4064 | 95.98895 | 1012.41 | 30.71063 | | |
| ##### | 4.954515 | 70.84574 | 110.8009 | 27548.32 | 29.43236 | 25398.16 | 15.73383 | 16.5088 | 36.29977 | 1.007535 | -0.07728 | 0.458214 | 7.318228 | -76.3671 | 95.99518 | 1012.41 | 30.71025 | | |
| ##### | 4.826149 | 69.01805 | 107.935 | 27459.21 | 29.46203 | 25302.79 | 15.66909 | 16.44681 | 36.4177 | 1.007478 | -0.06703 | 0.481875 | 7.310025 | -75.9245 | 95.80195 | 1012.41 | 30.71024 | | |
| ##### | 4.815575 | 68.8674 | 107.6991 | 27456 | 29.4633 | 25299.27 | 15.6667 | 16.44452 | 36.42194 | 1.007476 | -0.06686 | 0.482268 | 7.309457 | -75.8936 | 95.79284 | 1012.41 | 30.71008 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-22 19:25:08
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.716438 | 81.27164 | 127.2183 | 27338.65 | 29.10889 | 25349.24 | 15.69984 | 16.47701 | 36.57825 | 1.007612 | -0.03907 | 0.546353 | 7.399565 | -80.777 | 95.28262 | 1012.5 | 30.25 | |
| ##### | 5.340703 | 75.96295 | 118.9008 | 27364.66 | 29.13105 | 25363.41 | 15.70952 | 16.48622 | 36.54348 | 1.007612 | -0.05147 | 0.517766 | 7.380719 | -79.7426 | 95.9487 | 1012.49 | 30.25 | |
| ##### | 5.317578 | 75.63622 | 118.3889 | 27366.26 | 29.13241 | 25364.29 | 15.71012 | 16.48679 | 36.54134 | 1.007612 | -0.05223 | 0.516007 | 7.379559 | -79.6789 | 95.98969 | 1012.489 | 30.25 | |
| ##### | 5.294453 | 75.30949 | 117.877 | 27367.87 | 29.13378 | 25365.16 | 15.71072 | 16.48735 | 36.5392 | 1.007612 | -0.05299 | 0.514248 | 7.378399 | -79.6152 | 96.03069 | 1012.489 | 30.25 | |
| ##### | 5.1472 | 73.23721 | 114.6256 | 27351.45 | 29.14709 | 25343.96 | 15.69635 | 16.47358 | 36.56114 | 1.007597 | -0.04722 | 0.527566 | 7.369259 | -79.1127 | 95.89009 | 1012.473 | 30.24152 | |
| ##### | 5.131504 | 73.01582 | 114.2786 | 27351.36 | 29.14822 | 25343.38 | 15.69595 | 16.47319 | 36.56126 | 1.007596 | -0.04727 | 0.527455 | 7.368394 | -79.0652 | 95.90016 | 1012.472 | 30.24114 | |
| ##### | 5.115809 | 72.79443 | 113.9315 | 27351.27 | 29.14935 | 25342.78 | 15.69555 | 16.47281 | 36.56138 | 1.007596 | -0.04731 | 0.527345 | 7.367529 | -79.0177 | 95.91024 | 1012.471 | 30.24077 | |
| ##### | 5.100114 | 72.57304 | 113.5844 | 27351.18 | 29.15048 | 25342.19 | 15.69516 | 16.47243 | 36.5615 | 1.007595 | -0.04736 | 0.527235 | 7.366664 | -78.9701 | 95.92031 | 1012.47 | 30.24039 | |
| ##### | 4.964965 | 70.66378 | 110.5882 | 27293.25 | 29.18643 | 25272.46 | 15.64787 | 16.4271 | 36.63912 | 1.007549 | -0.08981 | 0.429321 | 7.356264 | -78.4047 | 95.74393 | 1012.462 | 30.249 | |
| ##### | 4.954799 | 70.52031 | 110.3631 | 27290.45 | 29.18836 | 25268.99 | 15.64552 | 16.42484 | 36.64288 | 1.007546 | -0.09165 | 0.425071 | 7.355559 | -78.3663 | 95.7359 | 1012.461 | 30.24923 | |
| ##### | 4.944633 | 70.37683 | 110.138 | 27287.64 | 29.1903 | 25265.52 | 15.64317 | 16.42259 | 36.64663 | 1.007544 | -0.0935 | 0.420821 | 7.354855 | -78.3278 | 95.72786 | 1012.46 | 30.24946 | |

Location Properties
Location Name = Device Location

T3-1HT

Report Properties
Start Time = 2021-09-23 11:17:40
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.931833 | 75.63413 | 118.9382 | 12800.85 | 25.82735 | 12601.71 | 7.333736 | 8.191112 | 78.11982 | 1.002335 | -0.08595 | 0.438217 | 7.161674 | -70.631 | 179.4586 | 1017.53 | 22.84 | |
| ##### | 5.814015 | 74.19511 | 116.6636 | 12841.54 | 25.86792 | 12632.13 | 7.352934 | 8.210885 | 77.87234 | 1.002338 | -0.05261 | 0.515125 | 7.147182 | -69.8245 | 191.3808 | 1017.511 | 22.84 | |
| ##### | 5.806494 | 74.10325 | 116.5184 | 12844.14 | 25.87051 | 12634.07 | 7.35416 | 8.212148 | 77.85654 | 1.002338 | -0.05048 | 0.520034 | 7.146257 | -69.773 | 192.1419 | 1017.51 | 22.84 | |
| ##### | 5.798973 | 74.01138 | 116.3732 | 12846.74 | 25.8731 | 12636.01 | 7.355386 | 8.213409 | 77.84074 | 1.002339 | -0.04836 | 0.524944 | 7.145331 | -69.7215 | 192.903 | 1017.509 | 22.84 | |
| ##### | 5.791451 | 73.91952 | 116.228 | 12849.33 | 25.87569 | 12637.96 | 7.356611 | 8.214672 | 77.82494 | 1.002339 | -0.04623 | 0.529854 | 7.144406 | -69.6701 | 193.6642 | 1017.508 | 22.84 | |
| ##### | 5.729869 | 73.18272 | 115.0592 | 12868.86 | 25.88074 | 12655.95 | 7.367942 | 8.22637 | 77.70708 | 1.002346 | -0.05299 | 0.51425 | 7.135231 | -69.1639 | 192.6118 | 1017.484 | 22.84 | |
| ##### | 5.724079 | 73.11269 | 114.9483 | 12870.78 | 25.88201 | 12657.54 | 7.368944 | 8.227404 | 77.69543 | 1.002346 | -0.05245 | 0.5155 | 7.134447 | -69.1204 | 192.8676 | 1017.483 | 22.84 | |
| ##### | 5.718288 | 73.04266 | 114.8374 | 12872.7 | 25.88327 | 12659.13 | 7.369946 | 8.228437 | 77.68379 | 1.002347 | -0.05191 | 0.516751 | 7.133662 | -69.0769 | 193.1234 | 1017.481 | 22.84 | |
| ##### | 5.712497 | 72.97263 | 114.7265 | 12874.62 | 25.88453 | 12660.72 | 7.370949 | 8.229471 | 77.67215 | 1.002347 | -0.05137 | 0.518001 | 7.132877 | -69.0334 | 193.3792 | 1017.479 | 22.84 | |
| ##### | 5.651922 | 72.20242 | 113.5209 | 12834.7 | 25.93045 | 12610.59 | 7.339483 | 8.196885 | 77.91388 | 1.002311 | -0.00151 | 0.633009 | 7.121686 | -68.4174 | 192.5028 | 1017.56 | 22.8488 | |
| ##### | 5.647555 | 72.14806 | 113.4354 | 12833.5 | 25.93274 | 12608.88 | 7.338408 | 8.195771 | 77.92111 | 1.00231 | 0.000684 | 0.638061 | 7.120952 | -68.377 | 192.493 | 1017.562 | 22.84918 | |

Location Properties
Location Name = Device Location

T3-2HT

Report Properties
Start Time = 2021-09-23 11:24:27
Time Offset = -04:00:00
Duration = 00:00:22
Readings = 12

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.7762 | 49.99272 | 78.52581 | 20634.52 | 26.41065 | 20093.09 | 12.16983 | 13.06051 | 48.46382 | 1.005787 | -0.08717 | 0.435408 | 6.779156 | -49.3774 | 128.1546 | 1017.573 | 23.03858 | |
| ##### | 3.755198 | 49.72105 | 78.09834 | 20649.73 | 26.41541 | 20106.15 | 12.17846 | 13.069 | 48.42741 | 1.005792 | -0.08706 | 0.43566 | 6.779244 | -49.3833 | 128.0443 | 1017.572 | 23.0393 | |
| ##### | 3.734195 | 49.44939 | 77.67088 | 20664.94 | 26.42017 | 20119.21 | 12.18709 | 13.07748 | 48.39101 | 1.005797 | -0.08695 | 0.435913 | 6.779332 | -49.3893 | 127.934 | 1017.57 | 23.04002 | |
| ##### | 3.571622 | 47.35198 | 74.36294 | 20645 | 26.49621 | 20071.41 | 12.15579 | 13.04642 | 48.438 | 1.005752 | -0.07752 | 0.457661 | 6.782211 | -49.556 | 126.3295 | 1017.545 | 23.04834 | |
| ##### | 3.558238 | 47.17879 | 74.09009 | 20648.57 | 26.50125 | 20073.01 | 12.15686 | 13.04745 | 48.42954 | 1.005751 | -0.07703 | 0.45879 | 6.782373 | -49.5657 | 126.2225 | 1017.543 | 23.04889 | |
| ##### | 3.544854 | 47.00561 | 73.81725 | 20652.14 | 26.50629 | 20074.6 | 12.15793 | 13.04849 | 48.42108 | 1.005751 | -0.07655 | 0.459919 | 6.782535 | -49.5755 | 126.1155 | 1017.541 | 23.04945 | |
| ##### | 3.53147 | 46.83242 | 73.5444 | 20655.71 | 26.51133 | 20076.2 | 12.159 | 13.04953 | 48.41261 | 1.00575 | -0.07606 | 0.461048 | 6.782697 | -49.5852 | 126.0085 | 1017.539 | 23.05 | |
| ##### | 3.401081 | 45.18248 | 70.94123 | 20698.66 | 26.54607 | 20104.96 | 12.17812 | 13.06822 | 48.31233 | 1.005754 | -0.07763 | 0.457406 | 6.785412 | -49.7466 | 124.2732 | 1017.567 | 23.05851 | |
| ##### | 3.391757 | 45.06357 | 70.75368 | 20700.59 | 26.54916 | 20105.68 | 12.1786 | 13.06869 | 48.30783 | 1.005754 | -0.07752 | 0.457663 | 6.785588 | -49.757 | 124.1639 | 1017.567 | 23.05905 | |
| ##### | 3.382434 | 44.94466 | 70.56613 | 20702.51 | 26.55225 | 20106.4 | 12.17909 | 13.06916 | 48.30333 | 1.005753 | -0.07741 | 0.457921 | 6.785764 | -49.7674 | 124.0545 | 1017.568 | 23.0596 | |
| ##### | 3.28894 | 43.76119 | 68.6956 | 20791.03 | 26.67689 | 20145.77 | 12.20551 | 13.09475 | 48.09787 | 1.005737 | -0.09962 | 0.406697 | 6.78757 | -49.8918 | 122.564 | 1017.526 | 23.05965 | |
| ##### | 3.282139 | 43.67505 | 68.55956 | 20795.91 | 26.68319 | 20148.15 | 12.2071 | 13.0963 | 48.08652 | 1.005736 | -0.10064 | 0.404343 | 6.787703 | -49.9005 | 122.4639 | 1017.525 | 23.05981 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 11:31:44
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.423526 | 96.85529 | 151.8479 | 12339.84 | 27.27474 | 11826.01 | 6.848828 | 7.686909 | 81.03786 | 1.001567 | -0.0813 | 0.448958 | 7.071095 | -65.8722 | 124.7898 | 1017.507 | 23.71097 | |
| ##### | 7.496119 | 97.69604 | 153.188 | 12349.18 | 27.24441 | 11841.56 | 6.858536 | 7.697015 | 80.97726 | 1.001583 | -0.06818 | 0.479212 | 7.061724 | -65.3404 | 124.9093 | 1017.51 | 23.71824 | |
| ##### | 7.501833 | 97.76452 | 153.2966 | 12351.73 | 27.24174 | 11844.58 | 6.860425 | 7.69898 | 80.9604 | 1.001585 | -0.06734 | 0.481163 | 7.060912 | -65.2943 | 125.072 | 1017.51 | 23.71879 | |
| ##### | 7.507549 | 97.833 | 153.4053 | 12354.29 | 27.23907 | 11847.61 | 6.862313 | 7.700945 | 80.94355 | 1.001587 | -0.06649 | 0.483113 | 7.060101 | -65.2483 | 125.2347 | 1017.509 | 23.71934 | |
| ##### | 7.513264 | 97.90148 | 153.5139 | 12356.84 | 27.2364 | 11850.63 | 6.864202 | 7.70291 | 80.92669 | 1.00159 | -0.06564 | 0.485064 | 7.059289 | -65.2023 | 125.3975 | 1017.509 | 23.7199 | |
| ##### | 7.556967 | 98.39216 | 154.2899 | 12282.18 | 27.1653 | 11794.39 | 6.828988 | 7.666353 | 81.4191 | 1.001583 | -0.08505 | 0.440292 | 7.048178 | -64.5699 | 125.3819 | 1017.474 | 23.72853 | |
| ##### | 7.560667 | 98.43464 | 154.3573 | 12279.29 | 27.16132 | 11792.48 | 6.827789 | 7.665109 | 81.43819 | 1.001584 | -0.08565 | 0.438917 | 7.047442 | -64.528 | 125.4067 | 1017.473 | 23.72909 | |
| ##### | 7.564366 | 98.47713 | 154.4247 | 12276.4 | 27.15734 | 11790.56 | 6.82659 | 7.663866 | 81.45727 | 1.001584 | -0.08625 | 0.437541 | 7.046706 | -64.4862 | 125.4315 | 1017.471 | 23.72965 | |
| ##### | 7.604712 | 99.01512 | 155.2719 | 12351.19 | 27.15015 | 11863.96 | 6.872486 | 7.711577 | 80.96433 | 1.00162 | -0.07506 | 0.463356 | 7.036734 | -63.9245 | 125.1262 | 1017.479 | 23.76313 | |
| ##### | 7.60739 | 99.049 | 155.3253 | 12353.09 | 27.14844 | 11866.17 | 6.873862 | 7.713009 | 80.95179 | 1.001622 | -0.07493 | 0.463648 | 7.036072 | -63.8871 | 125.1157 | 1017.479 | 23.76477 | |
| ##### | 7.610069 | 99.08289 | 155.3787 | 12355 | 27.14672 | 11868.37 | 6.875238 | 7.71444 | 80.93924 | 1.001623 | -0.0748 | 0.463941 | 7.03541 | -63.8497 | 125.1052 | 1017.479 | 23.76642 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 11:42:49
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.324113 | 97.97456 | 153.4478 | 17521.34 | 27.71869 | 16656.42 | 9.925191 | 10.82667 | 57.07327 | 1.003733 | -0.07836 | 0.455728 | 6.892673 | -55.956 | 91.47803 | 1017.472 | 25.41667 | |
| ##### | 7.325107 | 97.99038 | 153.4721 | 17521.58 | 27.72034 | 16656.15 | 9.925017 | 10.8265 | 57.07249 | 1.003732 | -0.07782 | 0.456986 | 6.89249 | -55.9459 | 91.54534 | 1017.471 | 25.41782 | |
| ##### | 7.326101 | 98.0062 | 153.4963 | 17521.82 | 27.72199 | 16655.88 | 9.924845 | 10.82632 | 57.07171 | 1.003731 | -0.07727 | 0.458244 | 6.892306 | -55.9357 | 91.61266 | 1017.471 | 25.41897 | |
| ##### | 7.327095 | 98.02203 | 153.5205 | 17522.06 | 27.72364 | 16655.61 | 9.924671 | 10.82614 | 57.07093 | 1.003731 | -0.07673 | 0.459502 | 6.892122 | -55.9255 | 91.67999 | 1017.471 | 25.42012 | |
| ##### | 7.348434 | 98.31386 | 153.9725 | 17537.51 | 27.72231 | 16670.7 | 9.934443 | 10.83596 | 57.02064 | 1.003739 | -0.08762 | 0.434371 | 6.890022 | -55.8058 | 92.33421 | 1017.436 | 25.41944 | |
| ##### | 7.349629 | 98.33064 | 153.9985 | 17538.28 | 27.72264 | 16671.32 | 9.934848 | 10.83636 | 57.01816 | 1.003739 | -0.08789 | 0.433747 | 6.889873 | -55.7974 | 92.38263 | 1017.434 | 25.41978 | |
| ##### | 7.350823 | 98.34743 | 154.0244 | 17539.04 | 27.72297 | 16671.95 | 9.935252 | 10.83677 | 57.01568 | 1.003739 | -0.08816 | 0.433122 | 6.889724 | -55.789 | 92.43105 | 1017.432 | 25.42011 | |
| ##### | 7.374124 | 98.63805 | 154.4875 | 17541.52 | 27.71407 | 16677.01 | 9.938515 | 10.84005 | 57.00761 | 1.003744 | -0.09992 | 0.406006 | 6.887483 | -55.6624 | 93.0274 | 1017.457 | 25.43691 | |
| ##### | 7.375587 | 98.65681 | 154.5172 | 17541.9 | 27.71367 | 16677.49 | 9.938829 | 10.84037 | 57.00636 | 1.003744 | -0.10064 | 0.404332 | 6.887341 | -55.6544 | 93.06734 | 1017.457 | 25.4377 | |
| ##### | 7.377051 | 98.67558 | 154.5468 | 17542.29 | 27.71326 | 16677.98 | 9.939144 | 10.84069 | 57.00511 | 1.003745 | -0.10137 | 0.402659 | 6.887198 | -55.6463 | 93.10728 | 1017.458 | 25.43848 | |
| ##### | 7.378514 | 98.69434 | 154.5765 | 17542.67 | 27.71286 | 16678.46 | 9.939458 | 10.841 | 57.00386 | 1.003745 | -0.10209 | 0.400985 | 6.887055 | -55.6382 | 93.14721 | 1017.458 | 25.43926 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 11:48:12
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|-----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 3.895005 | 52.92105 | 82.96081 | 23862.23 | 27.29978 | 22858.17 | 14.01299 | 14.85781 | 41.90723 | 1.006905 | -0.08802 | 0.433446 | 6.855854 | -53.8182 | 103.2992 | 1017.47 | 25.79054 | |
| ##### | 3.790184 | 51.5147 | 80.75431 | 23851.03 | 27.32695 | 22836.09 | 13.99828 | 14.84346 | 41.92692 | 1.006886 | -0.07907 | 0.454106 | 6.85924 | -54.0087 | 103.1955 | 1017.505 | 25.81608 | |
| ##### | 3.782301 | 51.40891 | 80.5883 | 23852.22 | 27.32908 | 22836.34 | 13.99846 | 14.84362 | 41.92482 | 1.006885 | -0.07877 | 0.454791 | 6.859461 | -54.0213 | 103.1906 | 1017.506 | 25.817 | |
| ##### | 3.774419 | 51.30313 | 80.4223 | 23853.41 | 27.33122 | 22836.58 | 13.99863 | 14.84378 | 41.92272 | 1.006885 | -0.07847 | 0.455476 | 6.859683 | -54.0339 | 103.1858 | 1017.507 | 25.81792 | |
| ##### | 3.693991 | 50.21174 | 78.70658 | 23825.61 | 27.3359 | 22808.01 | 13.9795 | 14.82521 | 41.97166 | 1.006869 | -0.06159 | 0.494411 | 6.863397 | -54.2423 | 103.0876 | 1017.457 | 25.81885 | |
| ##### | 3.688288 | 50.13466 | 78.58548 | 23824.2 | 27.33662 | 22806.37 | 13.97839 | 14.82414 | 41.97413 | 1.006868 | -0.06066 | 0.496569 | 6.863631 | -54.2554 | 103.0813 | 1017.455 | 25.81931 | |
| ##### | 3.682585 | 50.05758 | 78.46439 | 23822.8 | 27.33734 | 22804.72 | 13.97729 | 14.82307 | 41.97661 | 1.006867 | -0.05972 | 0.498727 | 6.863865 | -54.2685 | 103.075 | 1017.453 | 25.81978 | |
| ##### | 3.676882 | 49.9805 | 78.34328 | 23821.39 | 27.33806 | 22803.07 | 13.97619 | 14.822 | 41.97908 | 1.006866 | -0.05879 | 0.500885 | 6.864099 | -54.2817 | 103.0686 | 1017.451 | 25.82025 | |
| ##### | 3.617677 | 49.20719 | 77.12933 | 23922.41 | 27.35718 | 22891.77 | 14.03572 | 14.87965 | 41.80193 | 1.006905 | -0.08157 | 0.448319 | 6.867244 | -54.4635 | 102.9554 | 1017.468 | 25.82 | |
| ##### | 3.613437 | 49.15097 | 77.04102 | 23926.29 | 27.35811 | 22895.09 | 14.03796 | 14.88181 | 41.79512 | 1.006906 | -0.08223 | 0.446801 | 6.867457 | -54.4757 | 102.9484 | 1017.468 | 25.82 | |
| ##### | 3.609197 | 49.09476 | 76.95273 | 23930.17 | 27.35905 | 22898.41 | 14.04019 | 14.88397 | 41.78832 | 1.006907 | -0.08289 | 0.445283 | 6.867671 | -54.4879 | 102.9415 | 1017.468 | 25.82 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 11:54:57
Time Offset = -04:00:00
Duration = 00:00:22
Readings = 12

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.855206 | 78.07014 | 122.2692 | 16526.15 | 27.72746 | 15708.03 | 9.330382 | 10.21022 | 268.084 | 1.003286 | -0.1017 | 0.401899 | 7.090173 | -67.0574 | 96.3744 | 1017.478 | 26.10978 | |
| ##### | 5.816904 | 77.63265 | 121.584 | 16769.32 | 27.7314 | 15937.9 | 9.467083 | 10.35964 | 130.8317 | 1.003387 | -0.10187 | 0.401512 | 7.089164 | -67.0014 | 96.40661 | 1017.479 | 26.10992 | |
| ##### | 5.489761 | 73.33749 | 114.8479 | 16906.04 | 27.74616 | 16063.48 | 9.542063 | 10.44127 | 59.15047 | 1.003439 | -0.0908 | 0.427049 | 7.074453 | -66.1781 | 96.63353 | 1017.453 | 26.11867 | |
| ##### | 5.464664 | 73.00477 | 114.3262 | 16906.92 | 27.74959 | 16063.32 | 9.541964 | 10.44116 | 59.14737 | 1.003438 | -0.09039 | 0.427978 | 7.073509 | -66.1252 | 96.64931 | 1017.452 | 26.11909 | |
| ##### | 5.439565 | 72.67204 | 113.8045 | 16907.81 | 27.75302 | 16063.16 | 9.541864 | 10.44106 | 59.14427 | 1.003437 | -0.08999 | 0.428908 | 7.072564 | -66.0723 | 96.66511 | 1017.451 | 26.1195 | |
| ##### | 5.414467 | 72.33932 | 113.2828 | 16908.69 | 27.75645 | 16063 | 9.541765 | 10.44095 | 59.14117 | 1.003436 | -0.08959 | 0.429837 | 7.071619 | -66.0194 | 96.68089 | 1017.45 | 26.11992 | |
| ##### | 5.251748 | 70.14572 | 109.8539 | 16903.31 | 27.75423 | 16058.54 | 9.538879 | 10.43805 | 59.16002 | 1.003434 | -0.08458 | 0.441396 | 7.060447 | -65.3843 | 96.7589 | 1017.476 | 26.1284 | |
| ##### | 5.237828 | 69.95968 | 109.5626 | 16903.29 | 27.75447 | 16058.45 | 9.538823 | 10.43799 | 59.16008 | 1.003434 | -0.08412 | 0.44244 | 7.059649 | -65.3393 | 96.76693 | 1017.477 | 26.12895 | |
| ##### | 5.223907 | 69.77364 | 109.2713 | 16903.27 | 27.75472 | 16058.36 | 9.538767 | 10.43793 | 59.16014 | 1.003434 | -0.08367 | 0.443485 | 7.058852 | -65.2942 | 96.77496 | 1017.477 | 26.12951 | |
| ##### | 5.111368 | 68.25274 | 106.8928 | 16925.44 | 27.73369 | 16085.56 | 9.556287 | 10.45561 | 59.08268 | 1.003453 | -0.09624 | 0.414485 | 7.047908 | -64.6749 | 96.88902 | 1017.462 | 26.12961 | |
| ##### | 5.102827 | 68.13752 | 106.7126 | 16926.4 | 27.73272 | 16086.75 | 9.557055 | 10.45639 | 59.07933 | 1.003454 | -0.09673 | 0.413354 | 7.047184 | -64.6339 | 96.896 | 1017.461 | 26.12978 | |
| ##### | 5.094285 | 68.0223 | 106.5325 | 16927.35 | 27.73175 | 16087.94 | 9.557821 | 10.45716 | 59.076 | 1.003455 | -0.09722 | 0.412224 | 7.04646 | -64.5929 | 96.90297 | 1017.461 | 26.12994 | |

Location Properties
Location Name = Device Location

T1-1HT

Report Properties
Start Time = 2021-09-23 12:09:03
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.838647 | 79.78851 | 124.654 | 18812.6 | 28.72744 | 17561.6 | 10.51012 | 11.41504 | 0 | 1.003867 | -0.06694 | 0.482077 | 7.068193 | -66.0436 | 97.53876 | 1017.35 | 27.96008 | |
| ##### | 5.670804 | 77.49244 | 121.0667 | 18756.14 | 28.77173 | 17495.74 | 10.47127 | 11.37223 | 53.3159 | 1.003825 | -0.10166 | 0.401978 | 7.061475 | -65.6698 | 97.27528 | 1017.385 | 27.97758 | |
| ##### | 5.655813 | 77.28931 | 120.7493 | 18757.82 | 28.7735 | 17496.76 | 10.47193 | 11.37289 | 53.31111 | 1.003825 | -0.10277 | 0.399438 | 7.061017 | -65.6443 | 97.25468 | 1017.387 | 27.97855 | |
| ##### | 5.640821 | 77.08617 | 120.4318 | 18759.5 | 28.77528 | 17497.77 | 10.47259 | 11.37355 | 53.30632 | 1.003825 | -0.10387 | 0.396899 | 7.060558 | -65.6188 | 97.23407 | 1017.389 | 27.97952 | |
| ##### | 5.561273 | 76.01006 | 118.7445 | 18758.87 | 28.78295 | 17494.8 | 10.47066 | 11.37162 | 53.30811 | 1.003821 | -0.10922 | 0.384555 | 7.054611 | -65.2844 | 97.06839 | 1017.354 | 27.9963 | |
| ##### | 5.554057 | 75.91237 | 118.5916 | 18759.36 | 28.78409 | 17494.9 | 10.47073 | 11.37168 | 53.30673 | 1.003821 | -0.11009 | 0.382551 | 7.054211 | -65.262 | 97.05552 | 1017.354 | 27.99738 | |
| ##### | 5.546842 | 75.81467 | 118.4387 | 18759.84 | 28.78522 | 17495 | 10.47079 | 11.37175 | 53.30535 | 1.00382 | -0.11095 | 0.380548 | 7.053812 | -65.2396 | 97.04264 | 1017.353 | 27.99846 | |
| ##### | 5.539626 | 75.71699 | 118.2859 | 18760.33 | 28.78635 | 17495.1 | 10.47086 | 11.37181 | 53.30396 | 1.00382 | -0.11182 | 0.378544 | 7.053412 | -65.2172 | 97.02977 | 1017.352 | 27.99954 | |
| ##### | 5.486488 | 74.99167 | 117.1541 | 18775.24 | 28.79004 | 17507.85 | 10.47917 | 11.3801 | 53.26164 | 1.003825 | -0.11108 | 0.380261 | 7.048205 | -64.9223 | 96.89188 | 1017.36 | 28.0167 | |
| ##### | 5.482383 | 74.93583 | 117.0668 | 18775.92 | 28.79037 | 17508.38 | 10.47951 | 11.38045 | 53.2597 | 1.003825 | -0.11117 | 0.38006 | 7.047856 | -64.9026 | 96.88232 | 1017.359 | 28.01779 | |
| ##### | 5.478277 | 74.88 | 116.9795 | 18776.61 | 28.79071 | 17508.91 | 10.47986 | 11.38079 | 53.25776 | 1.003825 | -0.11125 | 0.37986 | 7.047507 | -64.8829 | 96.87278 | 1017.359 | 28.01888 | |

Location Properties
Location Name = Device Location

T1-2HT

Report Properties
Start Time = 2021-09-23 12:12:21
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|----------|----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 3.994991 | 55.49566 | 86.82417 | 26538.1 | 28.09427 | 25057.2 | 15.4986 | 16.28718 | 37.68178 | 1.007774 | -0.1244 | 0.349525 | 6.96341 | -60.0062 | 98.56883 | 1017.242 | 28.16 | | |
| ##### | 3.982878 | 55.33055 | 86.56527 | 26544.19 | 28.09669 | 25061.86 | 15.50177 | 16.29021 | 37.67308 | 1.007776 | -0.12511 | 0.347887 | 6.96355 | -60.0144 | 98.57111 | 1017.241 | 28.16 | | |
| ##### | 3.970766 | 55.16544 | 86.30637 | 26550.28 | 28.0991 | 25066.53 | 15.50494 | 16.29324 | 37.66439 | 1.007778 | -0.12582 | 0.346248 | 6.96369 | -60.0226 | 98.57337 | 1017.239 | 28.16 | | |
| ##### | 3.866437 | 53.73497 | 84.07175 | 26575.09 | 28.1043 | 25087.59 | 15.51925 | 16.30694 | 37.62926 | 1.007787 | -0.10292 | 0.399074 | 6.965407 | -60.1221 | 98.471 | 1017.325 | 28.17708 | | |
| ##### | 3.85867 | 53.62865 | 83.90546 | 26578.08 | 28.10494 | 25090.13 | 15.52096 | 16.30858 | 37.62502 | 1.007788 | -0.10209 | 0.400992 | 6.965524 | -60.1288 | 98.46662 | 1017.329 | 28.17784 | | |
| ##### | 3.850902 | 53.52232 | 83.73917 | 26581.06 | 28.10558 | 25092.65 | 15.52268 | 16.31022 | 37.62077 | 1.007789 | -0.10126 | 0.40291 | 6.965641 | -60.1355 | 98.46223 | 1017.333 | 28.1786 | | |
| ##### | 3.843134 | 53.416 | 83.57288 | 26584.05 | 28.10622 | 25095.18 | 15.5244 | 16.31187 | 37.61652 | 1.00779 | -0.10043 | 0.404829 | 6.965757 | -60.1423 | 98.45786 | 1017.336 | 28.17936 | | |
| ##### | 3.766789 | 52.36255 | 81.91947 | 26612.03 | 28.12328 | 25113.87 | 15.53714 | 16.32402 | 37.577 | 1.007794 | -0.11887 | 0.362299 | 6.967349 | -60.2318 | 98.27569 | 1017.276 | 28.17943 | | |
| ##### | 3.761304 | 52.28707 | 81.8012 | 26613.8 | 28.12416 | 25115.14 | 15.538 | 16.32484 | 37.57449 | 1.007795 | -0.11925 | 0.361404 | 6.967453 | -60.2377 | 98.2658 | 1017.275 | 28.17975 | | |
| ##### | 3.755819 | 52.21158 | 81.68292 | 26615.57 | 28.12505 | 25116.42 | 15.53887 | 16.32567 | 37.57199 | 1.007795 | -0.11964 | 0.36051 | 6.967556 | -60.2436 | 98.25591 | 1017.274 | 28.18008 | | |
| ##### | 3.709024 | 51.56861 | 80.67712 | 26661.77 | 28.12422 | 25160.39 | 15.56869 | 16.35425 | 37.50692 | 1.007818 | -0.10669 | 0.390393 | 6.969787 | -60.3682 | 98.0331 | 1017.272 | 28.18 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 12:18:05
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.796251 | 79.49783 | 124.1036 | 18604.97 | 29.02141 | 17277.88 | 10.32969 | 11.23062 | 53.74908 | 1.003643 | -0.09539 | 0.416441 | 7.168039 | -71.7414 | 92.67604 | 1017.202 | 28.25 | |
| ##### | 5.793082 | 79.4575 | 124.0398 | 18605.46 | 29.02488 | 17277.27 | 10.32929 | 11.23023 | 53.74766 | 1.003642 | -0.09531 | 0.416632 | 7.167372 | -71.7045 | 92.69043 | 1017.201 | 28.25 | |
| ##### | 5.789914 | 79.41718 | 123.9761 | 18605.95 | 29.02836 | 17276.66 | 10.32889 | 11.22983 | 53.74624 | 1.003641 | -0.09523 | 0.416822 | 7.166705 | -71.6676 | 92.70482 | 1017.201 | 28.25 | |
| ##### | 5.786745 | 79.37685 | 123.9124 | 18606.44 | 29.03184 | 17276.05 | 10.3285 | 11.22943 | 53.74482 | 1.003639 | -0.09515 | 0.417013 | 7.166039 | -71.6307 | 92.71922 | 1017.2 | 28.25 | |
| ##### | 5.733936 | 78.73655 | 122.8986 | 18621 | 29.05622 | 17282.09 | 10.33244 | 11.23336 | 53.7028 | 1.003635 | -0.09685 | 0.413076 | 7.156839 | -71.1205 | 92.85203 | 1017.234 | 28.25 | |
| ##### | 5.730779 | 78.69762 | 122.8371 | 18621.58 | 29.05779 | 17282.15 | 10.33248 | 11.2334 | 53.70114 | 1.003634 | -0.09684 | 0.413117 | 7.156229 | -71.0866 | 92.86184 | 1017.236 | 28.25 | |
| ##### | 5.727622 | 78.65869 | 122.7755 | 18622.15 | 29.05936 | 17282.2 | 10.33251 | 11.23343 | 53.69948 | 1.003634 | -0.09682 | 0.413158 | 7.155621 | -71.0528 | 92.87166 | 1017.237 | 28.25 | |
| ##### | 5.724465 | 78.61976 | 122.7139 | 18622.73 | 29.06093 | 17282.25 | 10.33255 | 11.23347 | 53.69782 | 1.003633 | -0.0968 | 0.413199 | 7.155012 | -71.0189 | 92.88147 | 1017.239 | 28.25 | |
| ##### | 5.693918 | 78.25729 | 122.137 | 18672.01 | 29.13831 | 17304.25 | 10.3469 | 11.24776 | 53.55616 | 1.00362 | -0.1 | 0.405818 | 7.146275 | -70.5433 | 93.0041 | 1017.239 | 28.26745 | |
| ##### | 5.691488 | 78.22816 | 122.0908 | 18674.5 | 29.14228 | 17305.35 | 10.34761 | 11.24847 | 53.54899 | 1.00362 | -0.10018 | 0.405408 | 7.1457 | -70.5117 | 93.01231 | 1017.239 | 28.26823 | |
| ##### | 5.689057 | 78.19904 | 122.0445 | 18677 | 29.14624 | 17306.44 | 10.34833 | 11.24919 | 53.54182 | 1.003619 | -0.10035 | 0.404999 | 7.145123 | -70.4802 | 93.02051 | 1017.24 | 28.26901 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 12:24:04
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|-----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 5.291531 | 72.67603 | 113.5021 | 19838.54 | 28.85249 | 18478.82 | 11.11332 | 12.01123 | 50.40694 | 1.004278 | -0.09268 | 0.422708 | 7.102408 | -67.9877 | 93.70167 | 1017.22 | 28.11 | |
| ##### | 5.291531 | 72.67603 | 113.5021 | 19838.54 | 28.85249 | 18478.82 | 11.11332 | 12.01123 | 50.40694 | 1.004278 | -0.09268 | 0.422708 | 7.102408 | -67.9877 | 93.70167 | 1017.22 | 28.11 | |
| ##### | 5.218292 | 71.63276 | 111.8797 | 19792.3 | 28.83006 | 18443.11 | 11.08991 | 11.98802 | 50.52472 | 1.004267 | -0.09304 | 0.42187 | 7.092558 | -67.43 | 96.03951 | 1017.229 | 28.10086 | |
| ##### | 5.213605 | 71.566 | 111.7759 | 19789.34 | 28.82862 | 18440.82 | 11.08841 | 11.98654 | 50.53226 | 1.004267 | -0.09306 | 0.421817 | 7.091928 | -67.3943 | 96.18911 | 1017.229 | 28.10028 | |
| ##### | 5.208919 | 71.49924 | 111.6721 | 19786.38 | 28.82719 | 18438.54 | 11.08691 | 11.98505 | 50.53979 | 1.004266 | -0.09309 | 0.421763 | 7.091298 | -67.3586 | 96.33871 | 1017.23 | 28.09969 | |
| ##### | 5.204233 | 71.43249 | 111.5683 | 19783.43 | 28.82576 | 18436.25 | 11.08542 | 11.98357 | 50.54733 | 1.004265 | -0.09311 | 0.421709 | 7.090668 | -67.3229 | 96.4883 | 1017.231 | 28.09911 | |
| ##### | 5.17398 | 70.97128 | 110.8612 | 19800.06 | 28.81855 | 18454.13 | 11.09711 | 11.99518 | 50.50489 | 1.004276 | -0.10234 | 0.400425 | 7.084993 | -66.9959 | 96.89986 | 1017.255 | 28.10028 | |
| ##### | 5.170763 | 70.92406 | 110.7882 | 19799.67 | 28.81766 | 18454.05 | 11.09706 | 11.99513 | 50.50591 | 1.004276 | -0.10277 | 0.399431 | 7.084487 | -66.967 | 96.97726 | 1017.257 | 28.10011 | |
| ##### | 5.167544 | 70.87683 | 110.7152 | 19799.27 | 28.81677 | 18453.97 | 11.09701 | 11.99508 | 50.50692 | 1.004277 | -0.1032 | 0.398437 | 7.083981 | -66.9381 | 97.05466 | 1017.258 | 28.09993 | |
| ##### | 5.164327 | 70.82961 | 110.6423 | 19798.87 | 28.81588 | 18453.89 | 11.09696 | 11.99503 | 50.50793 | 1.004277 | -0.10363 | 0.397443 | 7.083475 | -66.9092 | 97.13205 | 1017.259 | 28.09976 | |
| ##### | 5.174507 | 70.96078 | 110.8527 | 19866.8 | 28.757 | 18536.65 | 11.15111 | 12.04883 | 50.33531 | 1.004335 | -0.10241 | 0.400257 | 7.077138 | -66.5428 | 97.45112 | 1017.25 | 28.1 | |

Location Properties
Location Name = Device Location

T1-3HT

Report Properties
Start Time = 2021-09-23 12:27:40
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.265737 | 59.28408 | 92.68353 | 25275.54 | 28.41235 | 23728.98 | 14.60178 | 15.42384 | 39.56398 | 1.007009 | -0.0861 | 0.437873 | 6.99484 | -61.838 | 99.60942 | 1017.239 | 28.03 | |
| ##### | 4.246345 | 59.01635 | 92.2647 | 25278.98 | 28.41319 | 23731.85 | 14.60371 | 15.4257 | 39.55859 | 1.00701 | -0.08596 | 0.438201 | 6.994718 | -61.8312 | 99.66918 | 1017.239 | 28.03 | |
| ##### | 4.226953 | 58.74862 | 91.84588 | 25282.41 | 28.41403 | 23734.71 | 14.60564 | 15.42757 | 39.55319 | 1.007012 | -0.08582 | 0.438529 | 6.994596 | -61.8244 | 99.72895 | 1017.239 | 28.03 | |
| ##### | 4.207561 | 58.48088 | 91.42706 | 25285.84 | 28.41487 | 23737.58 | 14.60758 | 15.42943 | 39.54779 | 1.007013 | -0.08568 | 0.438856 | 6.994474 | -61.8176 | 99.78872 | 1017.238 | 28.03 | |
| ##### | 4.027894 | 56.0001 | 87.5499 | 25279.55 | 28.44224 | 23720.04 | 14.59583 | 15.41803 | 39.55766 | 1.006996 | -0.08621 | 0.437636 | 6.994959 | -61.8509 | 99.898 | 1017.31 | 28.03 | |
| ##### | 4.014437 | 55.81416 | 87.25922 | 25279.97 | 28.44365 | 23719.82 | 14.59569 | 15.41789 | 39.55701 | 1.006995 | -0.08611 | 0.437848 | 6.994949 | -61.8506 | 99.91349 | 1017.313 | 28.03 | |
| ##### | 4.000979 | 55.62822 | 86.96855 | 25280.38 | 28.44506 | 23719.61 | 14.59555 | 15.41775 | 39.55637 | 1.006995 | -0.08602 | 0.43806 | 6.994939 | -61.8503 | 99.92899 | 1017.316 | 28.03 | |
| ##### | 3.893501 | 54.14851 | 84.65174 | 25334.63 | 28.44823 | 23769.16 | 14.62895 | 15.44996 | 39.4717 | 1.007018 | -0.10024 | 0.405255 | 6.99428 | -61.8091 | 100.0138 | 1017.283 | 28.02154 | |
| ##### | 3.884996 | 54.03129 | 84.46833 | 25337.02 | 28.4489 | 23771.12 | 14.63027 | 15.45123 | 39.46797 | 1.007019 | -0.1009 | 0.40374 | 6.994258 | -61.8078 | 100.0208 | 1017.283 | 28.02116 | |
| ##### | 3.876491 | 53.91406 | 84.28492 | 25339.41 | 28.44958 | 23773.08 | 14.63159 | 15.4525 | 39.46424 | 1.00702 | -0.10156 | 0.402225 | 6.994236 | -61.8065 | 100.0279 | 1017.283 | 28.02078 | |
| ##### | 3.867986 | 53.79683 | 84.10151 | 25341.8 | 28.45025 | 23775.03 | 14.63291 | 15.45377 | 39.4605 | 1.007021 | -0.10221 | 0.40071 | 6.994214 | -61.8052 | 100.0349 | 1017.283 | 28.02039 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 12:45:04
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.187123 | 98.40781 | 153.487 | 16518.38 | 29.33989 | 15253.95 | 9.022161 | 9.915067 | 60.53863 | 1.002573 | -0.11487 | 0.371515 | 7.240378 | -75.8957 | 105.6453 | 1017.07 | 28.24 | |
| ##### | 7.19746 | 98.54955 | 153.7079 | 16516.92 | 29.34033 | 15252.49 | 9.021221 | 9.914116 | 60.54397 | 1.002573 | -0.11514 | 0.3709 | 7.219871 | -74.7369 | 110.4534 | 1017.07 | 28.24931 | |
| ##### | 7.198118 | 98.55856 | 153.722 | 16516.83 | 29.34036 | 15252.39 | 9.021162 | 9.914056 | 60.54431 | 1.002573 | -0.11515 | 0.370861 | 7.218566 | -74.6632 | 110.7593 | 1017.07 | 28.2499 | |
| ##### | 7.198775 | 98.56758 | 153.736 | 16516.74 | 29.34039 | 15252.3 | 9.021102 | 9.913995 | 60.54465 | 1.002573 | -0.11517 | 0.370822 | 7.217261 | -74.5894 | 111.0653 | 1017.07 | 28.25049 | |
| ##### | 7.199433 | 98.5766 | 153.7501 | 16516.64 | 29.34041 | 15252.21 | 9.021042 | 9.913935 | 60.54499 | 1.002572 | -0.11519 | 0.370783 | 7.215956 | -74.5157 | 111.3712 | 1017.07 | 28.25108 | |
| ##### | 7.215475 | 98.76149 | 154.0392 | 16517.58 | 29.33852 | 15253.58 | 9.021923 | 9.914826 | 60.54156 | 1.002574 | -0.08405 | 0.442618 | 7.202657 | -73.7592 | 111.7347 | 1017.018 | 28.24976 | |
| ##### | 7.216454 | 98.77334 | 154.0577 | 16517.58 | 29.33845 | 15253.6 | 9.021938 | 9.914842 | 60.54155 | 1.002574 | -0.08266 | 0.445806 | 7.201542 | -73.696 | 111.8732 | 1017.016 | 28.24994 | |
| ##### | 7.217432 | 98.78519 | 154.0762 | 16517.59 | 29.33838 | 15253.63 | 9.021954 | 9.914857 | 60.54153 | 1.002574 | -0.08128 | 0.448994 | 7.200427 | -73.6328 | 112.0118 | 1017.013 | 28.25011 | |
| ##### | 7.21841 | 98.79705 | 154.0948 | 16517.59 | 29.3383 | 15253.65 | 9.021969 | 9.914873 | 60.54151 | 1.002574 | -0.0799 | 0.452183 | 7.199312 | -73.5696 | 112.1504 | 1017.011 | 28.25029 | |
| ##### | 7.231945 | 98.95422 | 154.3459 | 16503.17 | 29.2998 | 15250.69 | 9.020066 | 9.912949 | 60.59442 | 1.002584 | -0.0315 | 0.563831 | 7.185744 | -72.7906 | 112.2421 | 1017.011 | 28.25876 | |
| ##### | 7.232888 | 98.96524 | 154.3633 | 16502.55 | 29.29809 | 15250.58 | 9.019997 | 9.912878 | 60.59668 | 1.002585 | -0.02878 | 0.570091 | 7.18481 | -72.7372 | 112.273 | 1017.01 | 28.25915 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 12:51:42
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.348327 | 46.47563 | 72.63766 | 24867.96 | 28.40424 | 23349.74 | 14.34647 | 15.17733 | 40.21238 | 1.006821 | -0.142 | 0.308941 | 6.953232 | -59.4835 | 100.8967 | 1016.93 | 28.19 | |
| ##### | 3.353142 | 46.51165 | 72.70465 | 24897.54 | 28.35744 | 23397.15 | 14.37823 | 15.20815 | 40.16461 | 1.006859 | -0.03001 | 0.567259 | 6.953897 | -59.5169 | 104.773 | 1016.969 | 28.18024 | |
| ##### | 3.353435 | 46.51384 | 72.70872 | 24899.34 | 28.3546 | 23400.03 | 14.38016 | 15.21002 | 40.16171 | 1.006862 | -0.02321 | 0.582939 | 6.953937 | -59.5189 | 105.0083 | 1016.971 | 28.17965 | |
| ##### | 3.353727 | 46.51603 | 72.71278 | 24901.13 | 28.35176 | 23402.9 | 14.38209 | 15.21189 | 40.15881 | 1.006864 | -0.01641 | 0.59862 | 6.953977 | -59.5209 | 105.2436 | 1016.973 | 28.17906 | |
| ##### | 3.351501 | 46.48018 | 72.65611 | 24856.08 | 28.34002 | 23365.49 | 14.3569 | 15.18757 | 40.23162 | 1.006849 | -0.11393 | 0.373691 | 6.955357 | -59.6017 | 105.655 | 1016.968 | 28.18882 | |
| ##### | 3.351516 | 46.47943 | 72.65517 | 24854.77 | 28.33837 | 23364.95 | 14.35652 | 15.18722 | 40.23375 | 1.006849 | -0.11563 | 0.369772 | 6.955434 | -59.6061 | 105.766 | 1016.969 | 28.18902 | |
| ##### | 3.351531 | 46.47868 | 72.65424 | 24853.45 | 28.33673 | 23364.4 | 14.35615 | 15.18686 | 40.23587 | 1.006849 | -0.11733 | 0.365853 | 6.955512 | -59.6106 | 105.877 | 1016.97 | 28.18923 | |
| ##### | 3.351546 | 46.47794 | 72.65329 | 24852.14 | 28.33508 | 23363.86 | 14.35578 | 15.18651 | 40.238 | 1.006849 | -0.11902 | 0.361934 | 6.95559 | -59.615 | 105.988 | 1016.971 | 28.18943 | |
| ##### | 3.351846 | 46.44824 | 72.61208 | 24820.57 | 28.30908 | 23345.08 | 14.34308 | 15.1743 | 40.28918 | 1.006848 | -0.10829 | 0.386686 | 6.957056 | -59.6872 | 106.3612 | 1016.952 | 28.19854 | |
| ##### | 3.351834 | 46.44634 | 72.60938 | 24818.38 | 28.30751 | 23343.68 | 14.34214 | 15.17339 | 40.29272 | 1.006848 | -0.10925 | 0.384474 | 6.95715 | -59.6921 | 106.3996 | 1016.951 | 28.19911 | |
| ##### | 3.351823 | 46.44444 | 72.60667 | 24816.2 | 28.30594 | 23342.29 | 14.3412 | 15.17249 | 40.29626 | 1.006848 | -0.11021 | 0.382261 | 6.957246 | -59.697 | 106.438 | 1016.951 | 28.19967 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 13:07:28
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.856956 | 92.16605 | 143.8281 | 12206.13 | 29.04962 | 11329.79 | 6.539394 | 7.364366 | 81.92593 | 1.000815 | -0.08054 | 0.450701 | 7.311881 | -79.8472 | 107.1915 | 1016.909 | 28.90057 | |
| ##### | 6.86134 | 92.22894 | 143.9256 | 12211.63 | 29.05115 | 11334.59 | 6.542384 | 7.367486 | 81.88873 | 1.000817 | -0.08499 | 0.440441 | 7.309908 | -79.7353 | 107.443 | 1016.909 | 28.90177 | |
| ##### | 6.951144 | 93.31645 | 145.6471 | 12216.68 | 29.01734 | 11346.08 | 6.549553 | 7.374954 | 81.85551 | 1.000832 | -0.09606 | 0.414897 | 7.291573 | -78.6907 | 107.4827 | 1016.893 | 28.89938 | |
| ##### | 6.956911 | 93.39011 | 145.763 | 12219.05 | 29.01641 | 11348.48 | 6.551044 | 7.37651 | 81.83949 | 1.000834 | -0.0983 | 0.409738 | 7.289974 | -78.5999 | 107.5827 | 1016.892 | 28.89973 | |
| ##### | 6.962677 | 93.46377 | 145.8788 | 12221.43 | 29.01548 | 11350.87 | 6.552535 | 7.378065 | 81.82346 | 1.000835 | -0.10054 | 0.404579 | 7.288376 | -78.509 | 107.6828 | 1016.891 | 28.90009 | |
| ##### | 6.968444 | 93.53743 | 145.9946 | 12223.81 | 29.01455 | 11353.26 | 6.554025 | 7.379621 | 81.80744 | 1.000836 | -0.10277 | 0.39942 | 7.286778 | -78.4182 | 107.7828 | 1016.89 | 28.90045 | |
| ##### | 7.062456 | 94.6593 | 147.7809 | 12141.82 | 28.89923 | 11300.22 | 6.521003 | 7.34514 | 82.36047 | 1.000846 | -0.09492 | 0.417545 | 7.265038 | -77.1617 | 107.7113 | 1016.96 | 28.92618 | |
| ##### | 7.068686 | 94.73454 | 147.9004 | 12138.47 | 28.8934 | 11298.27 | 6.519794 | 7.343877 | 82.38307 | 1.000847 | -0.09501 | 0.417328 | 7.263591 | -77.0785 | 107.7226 | 1016.963 | 28.92738 | |
| ##### | 7.074917 | 94.80976 | 148.0199 | 12135.12 | 28.88758 | 11296.33 | 6.518584 | 7.342613 | 82.40567 | 1.000848 | -0.0951 | 0.41711 | 7.262143 | -76.9952 | 107.7339 | 1016.966 | 28.92857 | |
| ##### | 7.081148 | 94.88499 | 148.1393 | 12131.77 | 28.88176 | 11294.38 | 6.517374 | 7.34135 | 82.42828 | 1.000849 | -0.0952 | 0.416893 | 7.260695 | -76.9119 | 107.7453 | 1016.969 | 28.92977 | |
| ##### | 7.151625 | 95.78435 | 149.5542 | 12210.76 | 28.83576 | 11377.24 | 6.569005 | 7.395208 | 81.89542 | 1.000901 | -0.09043 | 0.427896 | 7.241765 | -75.8344 | 107.4554 | 1016.933 | 28.92931 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 13:12:50
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 2.965115 | 40.63742 | 63.58846 | 23533.62 | 27.89412 | 22300.88 | 13.64172 | 14.49557 | 42.49235 | 1.006451 | -0.09095 | 0.426688 | 6.919739 | -57.5067 | 102.3763 | 1016.959 | 29.36956 | |
| ##### | 2.948996 | 40.39551 | 63.21395 | 23452.37 | 27.88131 | 22229.04 | 13.59366 | 14.44888 | 42.6397 | 1.006419 | -0.08479 | 0.440912 | 6.919915 | -57.5162 | 102.1043 | 1016.994 | 29.378 | |
| ##### | 2.947748 | 40.37797 | 63.1867 | 23452.2 | 27.88046 | 22229.22 | 13.59377 | 14.44899 | 42.63998 | 1.006419 | -0.08469 | 0.44114 | 6.919895 | -57.5151 | 102.0881 | 1016.996 | 29.37871 | |
| ##### | 2.9465 | 40.36044 | 63.15944 | 23452.03 | 27.87961 | 22229.4 | 13.59389 | 14.44911 | 42.64027 | 1.006419 | -0.08459 | 0.441367 | 6.919875 | -57.5139 | 102.0719 | 1016.997 | 29.37942 | |
| ##### | 2.945252 | 40.3429 | 63.13218 | 23451.86 | 27.87876 | 22229.58 | 13.594 | 14.44922 | 42.64056 | 1.00642 | -0.08449 | 0.441594 | 6.919855 | -57.5127 | 102.0557 | 1016.999 | 29.38013 | |
| ##### | 2.926247 | 40.08321 | 62.72472 | 23486.35 | 27.8768 | 22263.06 | 13.61639 | 14.47099 | 42.57794 | 1.006437 | -0.08981 | 0.429322 | 6.920191 | -57.5304 | 101.8265 | 1016.963 | 29.38857 | |
| ##### | 2.92507 | 40.06675 | 62.69898 | 23486.6 | 27.87646 | 22263.44 | 13.61664 | 14.47124 | 42.57748 | 1.006437 | -0.08994 | 0.429032 | 6.920207 | -57.5313 | 101.811 | 1016.963 | 29.38912 | |
| ##### | 2.923892 | 40.05028 | 62.67324 | 23486.86 | 27.87611 | 22263.82 | 13.61689 | 14.47148 | 42.57701 | 1.006438 | -0.09006 | 0.428742 | 6.920223 | -57.5321 | 101.7954 | 1016.962 | 29.38968 | |
| ##### | 2.914926 | 39.91953 | 62.4716 | 23509.16 | 27.85248 | 22294.5 | 13.63734 | 14.49143 | 42.53663 | 1.00646 | -0.09078 | 0.42709 | 6.920869 | -57.5659 | 101.5828 | 1016.969 | 29.39821 | |
| ##### | 2.91415 | 39.90855 | 62.45454 | 23510.86 | 27.85137 | 22296.56 | 13.63871 | 14.49277 | 42.53355 | 1.006461 | -0.09091 | 0.426781 | 6.920904 | -57.5678 | 101.5688 | 1016.969 | 29.39876 | |
| ##### | 2.913373 | 39.89758 | 62.43748 | 23512.56 | 27.85026 | 22298.62 | 13.64009 | 14.49411 | 42.53046 | 1.006463 | -0.09105 | 0.426471 | 6.920939 | -57.5696 | 101.5548 | 1016.969 | 29.39931 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 13:25:11
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.178733 | 70.59386 | 110.1473 | 16239.75 | 29.10959 | 15057.82 | 8.896345 | 9.787581 | 61.5773 | 1.00255 | -0.09101 | 0.426542 | 7.134466 | -69.8649 | 100.8159 | 1016.902 | 30.2098 | |
| ##### | 5.172832 | 70.51466 | 110.0235 | 16240.68 | 29.11102 | 15058.3 | 8.896652 | 9.787892 | 61.57379 | 1.00255 | -0.09007 | 0.428714 | 7.133276 | -69.7981 | 100.8191 | 1016.902 | 30.20997 | |
| ##### | 5.166932 | 70.43546 | 109.8997 | 16241.61 | 29.11246 | 15058.77 | 8.896958 | 9.788202 | 61.57027 | 1.00255 | -0.08913 | 0.430885 | 7.132085 | -69.7313 | 100.8223 | 1016.902 | 30.21014 | |
| ##### | 5.085879 | 69.37122 | 108.2258 | 16255.22 | 29.12965 | 15066.8 | 8.902107 | 9.793424 | 61.51873 | 1.002549 | -0.10975 | 0.383328 | 7.115817 | -68.8157 | 100.6877 | 1016.85 | 30.227 | |
| ##### | 5.080669 | 69.30228 | 108.1175 | 16256.27 | 29.13054 | 15067.54 | 8.902578 | 9.793901 | 61.51474 | 1.002549 | -0.11011 | 0.382506 | 7.114758 | -68.7561 | 100.6814 | 1016.847 | 30.22776 | |
| ##### | 5.075459 | 69.23332 | 108.0093 | 16257.32 | 29.13144 | 15068.28 | 8.90305 | 9.794379 | 61.51076 | 1.002549 | -0.11046 | 0.381685 | 7.113698 | -68.6965 | 100.6751 | 1016.844 | 30.22852 | |
| ##### | 5.07025 | 69.16438 | 107.901 | 16258.37 | 29.13233 | 15069.01 | 8.903522 | 9.794857 | 61.50678 | 1.002549 | -0.11082 | 0.380863 | 7.112638 | -68.6369 | 100.6688 | 1016.842 | 30.22928 | |
| ##### | 5.001972 | 68.22436 | 106.4394 | 16240.01 | 29.14381 | 15048.93 | 8.890656 | 9.781807 | 61.57633 | 1.002536 | -0.08414 | 0.442394 | 7.097838 | -67.8029 | 100.5034 | 1016.885 | 30.25543 | |
| ##### | 4.997354 | 68.16177 | 106.3417 | 16239.44 | 29.14467 | 15048.18 | 8.890175 | 9.781319 | 61.57847 | 1.002535 | -0.08335 | 0.444231 | 7.096862 | -67.7479 | 100.4936 | 1016.886 | 30.25692 | |
| ##### | 4.992735 | 68.09917 | 106.244 | 16238.88 | 29.14553 | 15047.43 | 8.889693 | 9.78083 | 61.58061 | 1.002534 | -0.08255 | 0.446068 | 7.095887 | -67.693 | 100.4837 | 1016.887 | 30.25841 | |
| ##### | 4.988117 | 68.03658 | 106.1463 | 16238.32 | 29.14639 | 15046.68 | 8.889212 | 9.780342 | 61.58274 | 1.002534 | -0.08175 | 0.447905 | 7.094912 | -67.638 | 100.4738 | 1016.888 | 30.25989 | |

Location Properties
Location Name = Device Location

T3-4HT

Report Properties
Start Time = 2021-09-23 13:28:37
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|----------|----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 3.374007 | 46.52682 | 72.71429 | 23062.36 | 28.38609 | 21661.42 | 13.21597 | 14.07992 | 43.36071 | 1.005985 | -0.08747 | 0.434726 | 6.940132 | -58.7542 | 101.1238 | 1016.837 | 30.58565 | | |
| ##### | 3.37244 | 46.50464 | 72.67982 | 23062.65 | 28.38462 | 21662.27 | 13.21653 | 14.08048 | 43.36015 | 1.005986 | -0.08805 | 0.43339 | 6.940251 | -58.761 | 101.1354 | 1016.838 | 30.58698 | | |
| ##### | 3.370873 | 46.48247 | 72.64536 | 23062.95 | 28.38314 | 21663.13 | 13.2171 | 14.08103 | 43.35958 | 1.005987 | -0.08863 | 0.432053 | 6.94037 | -58.7678 | 101.1471 | 1016.839 | 30.5883 | | |
| ##### | 3.369307 | 46.4603 | 72.6109 | 23063.25 | 28.38167 | 21663.98 | 13.21766 | 14.08159 | 43.35902 | 1.005988 | -0.08921 | 0.430717 | 6.940489 | -58.7746 | 101.1588 | 1016.839 | 30.58963 | | |
| ##### | 3.355607 | 46.26004 | 72.29243 | 22902.48 | 28.39907 | 21506.25 | 13.1126 | 13.97906 | 43.66372 | 1.005904 | -0.09988 | 0.4061 | 6.942059 | -58.8553 | 101.151 | 1016.804 | 30.59796 | | |
| ##### | 3.354529 | 46.24468 | 72.2682 | 22895.29 | 28.3994 | 21499.38 | 13.10802 | 13.97459 | 43.67734 | 1.005901 | -0.10098 | 0.403559 | 6.942163 | -58.8609 | 101.1525 | 1016.803 | 30.59883 | | |
| ##### | 3.353451 | 46.22932 | 72.24399 | 22888.11 | 28.39973 | 21492.5 | 13.10344 | 13.97012 | 43.69096 | 1.005897 | -0.10208 | 0.401019 | 6.942268 | -58.8665 | 101.1541 | 1016.802 | 30.5997 | | |
| ##### | 3.354994 | 46.17242 | 72.17078 | 22823.6 | 28.36097 | 21446.83 | 13.07294 | 13.94044 | 43.81452 | 1.005886 | -0.11124 | 0.379902 | 6.941137 | -58.7931 | 101.1563 | 1016.818 | 30.60816 | | |
| ##### | 3.354801 | 46.16599 | 72.16135 | 22817.86 | 28.35948 | 21442 | 13.06973 | 13.9373 | 43.82547 | 1.005884 | -0.11184 | 0.378507 | 6.941115 | -58.7913 | 101.1565 | 1016.818 | 30.60871 | | |
| ##### | 3.354608 | 46.15955 | 72.15192 | 22812.11 | 28.35799 | 21437.18 | 13.06651 | 13.93417 | 43.83641 | 1.005882 | -0.11244 | 0.377112 | 6.941092 | -58.7894 | 101.1566 | 1016.818 | 30.60926 | | |
| ##### | 3.354415 | 46.15312 | 72.14249 | 22806.37 | 28.35651 | 21432.35 | 13.06329 | 13.93103 | 43.84736 | 1.00588 | -0.11305 | 0.375717 | 6.94107 | -58.7876 | 101.1568 | 1016.819 | 30.60981 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 13:41:34
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.324621 | 75.11339 | 116.707 | 18654.4 | 30.76559 | 16803.91 | 10.02189 | 10.92254 | 53.60666 | 1.00287 | -0.09071 | 0.427244 | 7.141996 | -70.68 | 100.5156 | 1016.82 | 31.84 | |
| ##### | 5.092172 | 71.88145 | 111.6711 | 18663.61 | 30.80385 | 16801.15 | 10.02008 | 10.92075 | 53.5802 | 1.002856 | -0.09152 | 0.425368 | 7.122987 | -69.5958 | 104.4675 | 1016.792 | 31.84 | |
| ##### | 5.077387 | 71.67587 | 111.3508 | 18664.2 | 30.80628 | 16800.97 | 10.01996 | 10.92063 | 53.57851 | 1.002855 | -0.09158 | 0.425249 | 7.121778 | -69.5268 | 104.7189 | 1016.79 | 31.84 | |
| ##### | 5.062602 | 71.4703 | 111.0305 | 18664.79 | 30.80871 | 16800.8 | 10.01985 | 10.92052 | 53.57683 | 1.002854 | -0.09163 | 0.425129 | 7.120569 | -69.4578 | 104.9703 | 1016.788 | 31.84 | |
| ##### | 5.047816 | 71.26472 | 110.7102 | 18665.37 | 30.81115 | 16800.62 | 10.01973 | 10.9204 | 53.57515 | 1.002853 | -0.09168 | 0.42501 | 7.119359 | -69.3889 | 105.2216 | 1016.786 | 31.84 | |
| ##### | 4.960103 | 69.96722 | 108.7092 | 18686.72 | 30.78385 | 16827.73 | 10.03733 | 10.93803 | 53.51397 | 1.002875 | -0.09801 | 0.410413 | 7.107656 | -68.7188 | 105.3967 | 1016.773 | 31.84861 | |
| ##### | 4.95031 | 69.82761 | 108.4925 | 18687.89 | 30.78362 | 16828.86 | 10.03807 | 10.93876 | 53.51059 | 1.002876 | -0.09831 | 0.409719 | 7.106655 | -68.6616 | 105.505 | 1016.772 | 31.84899 | |
| ##### | 4.940517 | 69.688 | 108.2759 | 18689.07 | 30.78338 | 16829.99 | 10.0388 | 10.93949 | 53.50721 | 1.002877 | -0.09861 | 0.409026 | 7.105654 | -68.6044 | 105.6133 | 1016.771 | 31.84937 | |
| ##### | 4.930724 | 69.54839 | 108.0593 | 18690.25 | 30.78315 | 16831.12 | 10.03953 | 10.94023 | 53.50383 | 1.002877 | -0.09891 | 0.408332 | 7.104653 | -68.5472 | 105.7215 | 1016.769 | 31.84975 | |
| ##### | 4.854417 | 68.45404 | 106.3661 | 18751.8 | 30.72033 | 16904.82 | 10.08739 | 10.98814 | 53.32829 | 1.002933 | -0.09202 | 0.42423 | 7.091814 | -67.8028 | 105.7757 | 1016.753 | 31.84976 | |
| ##### | 4.848412 | 68.36758 | 106.2323 | 18754.99 | 30.71717 | 16908.61 | 10.08984 | 10.9906 | 53.31921 | 1.002936 | -0.09183 | 0.424654 | 7.090943 | -67.7526 | 105.7975 | 1016.751 | 31.84993 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 13:46:08
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.513196 | 48.85102 | 76.20287 | 21847.91 | 29.17868 | 20233.04 | 12.26853 | 13.15148 | 45.77109 | 1.005037 | -0.06964 | 0.475855 | 6.963655 | -60.2201 | 99.09628 | 1016.816 | 31.95898 | |
| ##### | 3.511131 | 48.81941 | 76.15433 | 21845.61 | 29.17429 | 20232.48 | 12.26816 | 13.15112 | 45.77587 | 1.005038 | -0.0693 | 0.476629 | 6.963409 | -60.2054 | 99.09802 | 1016.818 | 31.95969 | |
| ##### | 3.499028 | 48.54799 | 75.75044 | 21864.47 | 29.11456 | 20271.39 | 12.29383 | 13.1764 | 45.73634 | 1.005076 | -0.08891 | 0.431388 | 6.961026 | -60.0556 | 99.07262 | 1016.75 | 31.95112 | |
| ##### | 3.497986 | 48.5276 | 75.7198 | 21863.52 | 29.11066 | 20271.9 | 12.29416 | 13.17674 | 45.73832 | 1.005077 | -0.0896 | 0.429808 | 6.960842 | -60.0442 | 99.07188 | 1016.748 | 31.9509 | |
| ##### | 3.496943 | 48.50723 | 75.68916 | 21862.56 | 29.10676 | 20272.41 | 12.2945 | 13.17707 | 45.74031 | 1.005079 | -0.09028 | 0.428229 | 6.960657 | -60.0329 | 99.07113 | 1016.745 | 31.95067 | |
| ##### | 3.495901 | 48.48685 | 75.65852 | 21861.6 | 29.10286 | 20272.93 | 12.29484 | 13.1774 | 45.74229 | 1.00508 | -0.09097 | 0.42665 | 6.960473 | -60.0216 | 99.07037 | 1016.743 | 31.95045 | |
| ##### | 3.49218 | 48.42082 | 75.56688 | 21951.46 | 28.98331 | 20399.5 | 12.37849 | 13.25967 | 45.55518 | 1.005179 | -0.08435 | 0.441923 | 6.95807 | -59.8654 | 99.05208 | 1016.794 | 31.96764 | |
| ##### | 3.491765 | 48.41244 | 75.55468 | 21955.84 | 28.9768 | 20405.91 | 12.38272 | 13.26384 | 45.54607 | 1.005184 | -0.08443 | 0.441743 | 6.957915 | -59.8555 | 99.0508 | 1016.795 | 31.96825 | |
| ##### | 3.491351 | 48.40405 | 75.54248 | 21960.21 | 28.97028 | 20412.32 | 12.38696 | 13.26801 | 45.53695 | 1.005189 | -0.0845 | 0.441562 | 6.95776 | -59.8456 | 99.04951 | 1016.796 | 31.96885 | |
| ##### | 3.494457 | 48.38867 | 75.52811 | 21880.09 | 28.90767 | 20360.46 | 12.35254 | 13.2343 | 45.70375 | 1.005183 | -0.1011 | 0.403283 | 6.955229 | -59.691 | 99.00802 | 1016.781 | 31.96922 | |
| ##### | 3.494523 | 48.38662 | 75.52557 | 21878.05 | 28.90261 | 20360.39 | 12.35248 | 13.23425 | 45.70799 | 1.005184 | -0.10173 | 0.401816 | 6.955068 | -59.681 | 99.00579 | 1016.781 | 31.96955 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-23 14:02:55
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.538544 | 77.51719 | 120.7158 | 20714.13 | 29.83006 | 18964.57 | 11.43259 | 12.32697 | 48.27622 | 1.004213 | -0.08554 | 0.439167 | 7.192565 | -73.3202 | 103.6207 | 1016.72 | 31.9 | |
| ##### | 5.207351 | 72.9052 | 113.5238 | 20678.95 | 29.85666 | 18923.56 | 11.40566 | 12.30031 | 48.35835 | 1.004185 | -0.09215 | 0.423917 | 7.169672 | -72.0255 | 108.4054 | 1016.7 | 31.9 | |
| ##### | 5.187133 | 72.62366 | 113.0848 | 20676.8 | 29.85829 | 18921.06 | 11.40401 | 12.29869 | 48.36337 | 1.004183 | -0.09256 | 0.422986 | 7.168274 | -71.9465 | 108.6974 | 1016.699 | 31.9 | |
| ##### | 5.166915 | 72.34212 | 112.6458 | 20674.66 | 29.85991 | 18918.55 | 11.40237 | 12.29706 | 48.36838 | 1.004181 | -0.09296 | 0.422056 | 7.166876 | -71.8674 | 108.9895 | 1016.698 | 31.9 | |
| ##### | 5.061043 | 70.86195 | 110.3398 | 20686.56 | 29.85825 | 18930 | 11.40989 | 12.3045 | 48.34057 | 1.004187 | -0.08121 | 0.449151 | 7.154853 | -71.1872 | 109.225 | 1016.683 | 31.90847 | |
| ##### | 5.048366 | 70.68517 | 110.0642 | 20686.22 | 29.85882 | 18929.5 | 11.40956 | 12.30417 | 48.34136 | 1.004187 | -0.08086 | 0.449962 | 7.153772 | -71.126 | 109.3517 | 1016.682 | 31.90884 | |
| ##### | 5.035689 | 70.50838 | 109.7887 | 20685.88 | 29.85939 | 18929 | 11.40923 | 12.30385 | 48.34214 | 1.004186 | -0.08051 | 0.450773 | 7.15269 | -71.0649 | 109.4784 | 1016.681 | 31.90921 | |
| ##### | 5.023013 | 70.3316 | 109.5131 | 20685.55 | 29.85997 | 18928.5 | 11.40891 | 12.30353 | 48.34293 | 1.004186 | -0.08016 | 0.451584 | 7.151609 | -71.0037 | 109.605 | 1016.68 | 31.90958 | |
| ##### | 4.928477 | 69.01772 | 107.4684 | 20763.34 | 29.85269 | 19002.11 | 11.45727 | 12.35137 | 48.16191 | 1.004224 | -0.09197 | 0.424337 | 7.138858 | -70.2726 | 109.6958 | 1016.672 | 31.91841 | |
| ##### | 4.921112 | 68.91517 | 107.3087 | 20766.9 | 29.85243 | 19005.45 | 11.45947 | 12.35354 | 48.15361 | 1.004226 | -0.09231 | 0.423552 | 7.137986 | -70.2228 | 109.7218 | 1016.671 | 31.91895 | |
| ##### | 4.913747 | 68.81261 | 107.149 | 20770.47 | 29.85217 | 19008.8 | 11.46167 | 12.35572 | 48.14532 | 1.004228 | -0.09265 | 0.422767 | 7.137114 | -70.173 | 109.7478 | 1016.67 | 31.9195 | |

Location Properties
Location Name = Device Location

T1-4HT

Report Properties
Start Time = 2021-09-23 14:08:20
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.472642 | 47.87261 | 74.78374 | 22524.41 | 28.4672 | 21125.35 | 12.85934 | 13.73148 | 44.40028 | 1.005695 | -0.07806 | 0.456422 | 6.987962 | -61.4592 | 100.8495 | 1016.582 | 32.23849 | | |
| ##### | 3.473874 | 47.884 | 74.80183 | 22499.09 | 28.46511 | 21102.41 | 12.84407 | 13.71657 | 44.44901 | 1.005684 | -0.07757 | 0.457546 | 6.987785 | -61.4489 | 100.8318 | 1016.582 | 32.23888 | | |
| ##### | 3.475106 | 47.89539 | 74.81993 | 22473.77 | 28.46302 | 21079.48 | 12.8288 | 13.70166 | 44.49773 | 1.005673 | -0.07709 | 0.458671 | 6.987607 | -61.4385 | 100.8141 | 1016.581 | 32.23927 | | |
| ##### | 3.476337 | 47.90678 | 74.83803 | 22448.46 | 28.46094 | 21056.54 | 12.81353 | 13.68675 | 44.54646 | 1.005662 | -0.0766 | 0.459795 | 6.98743 | -61.4282 | 100.7965 | 1016.581 | 32.23965 | | |
| ##### | 3.496489 | 48.10932 | 75.16166 | 22054.34 | 28.45312 | 20689.73 | 12.57008 | 13.44832 | 45.3466 | 1.005484 | -0.07992 | 0.452127 | 6.982853 | -61.169 | 100.6467 | 1016.658 | 32.25686 | | |
| ##### | 3.497801 | 48.12236 | 75.18243 | 22028.87 | 28.45212 | 20666.21 | 12.55446 | 13.43304 | 45.39762 | 1.005472 | -0.07992 | 0.452136 | 6.982586 | -61.1537 | 100.6356 | 1016.661 | 32.25778 | | |
| ##### | 3.499113 | 48.13541 | 75.20319 | 22003.39 | 28.45112 | 20642.69 | 12.53884 | 13.41775 | 45.44864 | 1.005461 | -0.07992 | 0.452145 | 6.98232 | -61.1385 | 100.6245 | 1016.664 | 32.25871 | | |
| ##### | 3.500426 | 48.14845 | 75.22396 | 21977.91 | 28.45013 | 20619.17 | 12.52322 | 13.40246 | 45.49966 | 1.00545 | -0.07991 | 0.452154 | 6.982053 | -61.1233 | 100.6135 | 1016.667 | 32.25963 | | |
| ##### | 3.505829 | 48.19582 | 75.2984 | 21891.97 | 28.44345 | 20540.99 | 12.47141 | 13.35164 | 45.67965 | 1.005413 | -0.08496 | 0.440513 | 6.978232 | -60.906 | 100.4507 | 1016.632 | 32.25949 | | |
| ##### | 3.506472 | 48.20196 | 75.30816 | 21880.24 | 28.44296 | 20530.17 | 12.46423 | 13.34461 | 45.70366 | 1.005408 | -0.08524 | 0.439871 | 6.977972 | -60.8913 | 100.4403 | 1016.632 | 32.25982 | | |
| ##### | 3.507116 | 48.2081 | 75.31792 | 21868.52 | 28.44248 | 20519.34 | 12.45705 | 13.33757 | 45.72766 | 1.005403 | -0.08552 | 0.439229 | 6.977712 | -60.8765 | 100.4299 | 1016.632 | 32.26015 | | |

Location Properties
BG-1LT
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 10:25:40
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.407098 | 45.67834 | 71.40068 | 21714.51 | 27.2494 | 20820 | 12.65359 | 13.533 | 46.05217 | 1.005905 | -0.10351 | 0.397725 | 6.890922 | -55.5836 | 128.7168 | 1022.24 | 29.46 | |
| ##### | 3.407098 | 45.67834 | 71.40068 | 21714.51 | 27.2494 | 20820 | 12.65359 | 13.533 | 46.05217 | 1.005905 | -0.10351 | 0.397725 | 6.890922 | -55.5836 | 128.7168 | 1022.24 | 29.46 | |
| ##### | 3.31658 | 44.46582 | 69.50278 | 21714.88 | 27.24828 | 20820.8 | 12.65412 | 13.53352 | 46.05136 | 1.005906 | -0.10378 | 0.397095 | 6.893027 | -55.7007 | 142.0105 | 1022.2 | 29.46 | |
| ##### | 3.311051 | 44.39175 | 69.38685 | 21714.91 | 27.24821 | 20820.85 | 12.65415 | 13.53355 | 46.05131 | 1.005906 | -0.1038 | 0.397057 | 6.893156 | -55.7078 | 142.8225 | 1022.198 | 29.46 | |
| ##### | 3.305521 | 44.31768 | 69.27091 | 21714.93 | 27.24814 | 20820.9 | 12.65418 | 13.53358 | 46.05126 | 1.005906 | -0.10381 | 0.397018 | 6.893285 | -55.715 | 143.6346 | 1022.196 | 29.46 | |
| ##### | 3.258607 | 43.69351 | 68.29523 | 21733.56 | 27.24907 | 20838.4 | 12.6658 | 13.54496 | 46.01179 | 1.005914 | -0.09663 | 0.413586 | 6.895086 | -55.8153 | 145.3801 | 1022.201 | 29.4685 | |
| ##### | 3.254337 | 43.6365 | 68.20605 | 21734.4 | 27.24908 | 20839.2 | 12.66633 | 13.54548 | 46.01002 | 1.005915 | -0.09632 | 0.414306 | 6.895216 | -55.8226 | 145.7789 | 1022.2 | 29.46888 | |
| ##### | 3.250067 | 43.57949 | 68.11688 | 21735.23 | 27.2491 | 20840 | 12.66685 | 13.546 | 46.00825 | 1.005915 | -0.09601 | 0.415026 | 6.895347 | -55.8299 | 146.1777 | 1022.199 | 29.46925 | |
| ##### | 3.245798 | 43.52249 | 68.02771 | 21736.07 | 27.24911 | 20840.79 | 12.66738 | 13.54652 | 46.00647 | 1.005916 | -0.0957 | 0.415746 | 6.895478 | -55.8372 | 146.5764 | 1022.199 | 29.46963 | |
| ##### | 3.207192 | 42.99927 | 67.21184 | 21695.14 | 27.25456 | 20799.47 | 12.63999 | 13.51966 | 46.09329 | 1.005893 | -0.08321 | 0.444455 | 6.897486 | -55.9508 | 147.863 | 1022.234 | 29.48713 | |
| ##### | 3.204265 | 42.95986 | 67.15031 | 21693.66 | 27.25482 | 20797.95 | 12.63898 | 13.51867 | 46.09644 | 1.005893 | -0.08252 | 0.446145 | 6.897616 | -55.9582 | 148.001 | 1022.236 | 29.48807 | |

Location Properties
Location Name = Device Location

T1-4LT

Report Properties
Start Time = 2021-09-30 10:54:01
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.141962 | 96.04711 | 149.5859 | 15019.42 | 28.85538 | 13989.28 | 8.214035 | 9.093033 | 66.58051 | 1.00212 | -0.08099 | 0.449656 | 7.138058 | -69.6695 | 138.3076 | 1022.191 | 32.05769 | | |
| ##### | 7.151413 | 96.17335 | 149.7825 | 15018.29 | 28.855 | 13988.32 | 8.213421 | 9.092406 | 66.58553 | 1.002119 | -0.08066 | 0.450434 | 7.136895 | -69.6042 | 138.1396 | 1022.19 | 32.05866 | | |
| ##### | 7.160865 | 96.29958 | 149.9791 | 15017.15 | 28.85463 | 13987.35 | 8.212808 | 9.091779 | 66.59056 | 1.002119 | -0.08032 | 0.451212 | 7.135732 | -69.5389 | 137.9716 | 1022.189 | 32.05962 | | |
| ##### | 7.226924 | 97.15903 | 151.3305 | 15059.33 | 28.8296 | 14032.89 | 8.241774 | 9.121377 | 66.40411 | 1.002148 | -0.08051 | 0.450768 | 7.121087 | -68.7128 | 136.2518 | 1022.215 | 32.07633 | | |
| ##### | 7.232374 | 97.23045 | 151.4424 | 15060.46 | 28.82825 | 14034.28 | 8.242661 | 9.122283 | 66.3991 | 1.002149 | -0.08056 | 0.450663 | 7.120093 | -68.6568 | 136.1283 | 1022.216 | 32.0774 | | |
| ##### | 7.237823 | 97.30187 | 151.5542 | 15061.59 | 28.8269 | 14035.68 | 8.243546 | 9.123189 | 66.39409 | 1.00215 | -0.0806 | 0.450558 | 7.119099 | -68.6008 | 136.0049 | 1022.217 | 32.07847 | | |
| ##### | 7.243273 | 97.3733 | 151.6661 | 15062.73 | 28.82555 | 14037.07 | 8.244433 | 9.124095 | 66.38908 | 1.002151 | -0.08065 | 0.450453 | 7.118106 | -68.5448 | 135.8815 | 1022.218 | 32.07954 | | |
| ##### | 7.31874 | 98.28226 | 153.1047 | 15076.75 | 28.78596 | 14060.05 | 8.259047 | 9.13903 | 66.32733 | 1.002174 | -0.08793 | 0.433657 | 7.103264 | -67.7104 | 134.3561 | 1022.21 | 32.08818 | | |
| ##### | 7.323531 | 98.34138 | 153.1981 | 15078.12 | 28.78372 | 14061.88 | 8.260212 | 9.140222 | 66.32131 | 1.002176 | -0.08825 | 0.432917 | 7.102309 | -67.6566 | 134.253 | 1022.21 | 32.08889 | | |
| ##### | 7.328321 | 98.40051 | 153.2914 | 15079.48 | 28.78149 | 14063.71 | 8.261376 | 9.141412 | 66.31528 | 1.002177 | -0.08857 | 0.432177 | 7.101354 | -67.6029 | 134.1498 | 1022.21 | 32.0896 | | |
| ##### | 7.367832 | 98.88641 | 154.0549 | 15040.91 | 28.73316 | 14039.82 | 8.246167 | 9.125886 | 66.4854 | 1.00218 | -0.10144 | 0.402498 | 7.089324 | -66.9195 | 132.8363 | 1022.202 | 32.10642 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 11:10:22
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.688448 | 62.17469 | 96.90263 | 12517.81 | 28.49298 | 11734.9 | 6.792253 | 7.63353 | 79.88802 | 1.001187 | -0.08689 | 0.436052 | 7.004452 | -62.1342 | 111.1738 | 1022.15 | 33.45 | |
| ##### | 4.688448 | 62.17469 | 96.90263 | 12517.81 | 28.49298 | 11734.9 | 6.792253 | 7.63353 | 79.88802 | 1.001187 | -0.08689 | 0.436052 | 7.004452 | -62.1342 | 111.1738 | 1022.15 | 33.45 | |
| ##### | 4.688448 | 62.17469 | 96.90263 | 12517.81 | 28.49298 | 11734.9 | 6.792253 | 7.63353 | 79.88802 | 1.001187 | -0.08689 | 0.436052 | 7.004452 | -62.1342 | 111.1738 | 1022.15 | 33.45 | |
| ##### | 4.62878 | 61.30049 | 95.5584 | 12519.12 | 28.41366 | 11752.82 | 6.803452 | 7.639524 | 79.87791 | 1.001202 | -0.08095 | 0.449751 | 6.993217 | -61.4954 | 110.9194 | 1022.092 | 33.45 | |
| ##### | 4.624629 | 61.23967 | 95.46489 | 12519.21 | 28.40814 | 11754.07 | 6.804231 | 7.639942 | 79.8772 | 1.001203 | -0.08054 | 0.450704 | 6.992435 | -61.4509 | 110.9017 | 1022.088 | 33.45 | |
| ##### | 4.620479 | 61.17886 | 95.37138 | 12519.3 | 28.40262 | 11755.32 | 6.80501 | 7.640358 | 79.8765 | 1.001204 | -0.08013 | 0.451657 | 6.991653 | -61.4065 | 110.884 | 1022.084 | 33.45 | |
| ##### | 4.616328 | 61.11805 | 95.27787 | 12519.39 | 28.3971 | 11756.56 | 6.805789 | 7.640776 | 79.87579 | 1.001205 | -0.07971 | 0.45261 | 6.990872 | -61.3621 | 110.8662 | 1022.08 | 33.45 | |
| ##### | 4.587892 | 60.6198 | 94.50685 | 12516.31 | 28.38919 | 11755.34 | 6.805025 | 7.641027 | 79.89578 | 1.00121 | -0.09516 | 0.416988 | 6.981519 | -60.8381 | 110.815 | 1022.134 | 33.46762 | |
| ##### | 4.584845 | 60.57143 | 94.43224 | 12516.21 | 28.38651 | 11755.81 | 6.805318 | 7.641214 | 79.8964 | 1.001211 | -0.09569 | 0.415763 | 6.980763 | -60.7955 | 110.8052 | 1022.135 | 33.46842 | |
| ##### | 4.581797 | 60.52305 | 94.35764 | 12516.1 | 28.38382 | 11756.28 | 6.805612 | 7.641401 | 79.89702 | 1.001211 | -0.09622 | 0.414537 | 6.980006 | -60.7528 | 110.7954 | 1022.136 | 33.46923 | |
| ##### | 4.550121 | 60.18985 | 93.84149 | 12521.58 | 28.36268 | 11765.9 | 6.81162 | 7.647833 | 79.86209 | 1.001223 | -0.11622 | 0.368403 | 6.971376 | -60.2719 | 110.6086 | 1022.121 | 33.47767 | |

Location Properties
Location Name = Device Location

T3-4LT

Report Properties
Start Time = 2021-09-30 11:26:20
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.682456 | 77.14165 | 119.9068 | 14115.27 | 29.67681 | 12965.98 | 7.582951 | 8.427887 | 517.4885 | 1.001399 | -0.09542 | 0.416386 | 6.923414 | -57.8163 | 110.5689 | 1022.077 | 35.40694 | |
| ##### | 5.63814 | 76.54024 | 118.9858 | 14321.72 | 29.63763 | 13160.74 | 7.697341 | 8.554482 | 292.7635 | 1.001497 | -0.0955 | 0.41619 | 6.924951 | -57.8993 | 110.0767 | 1022.078 | 35.40791 | |
| ##### | 5.175958 | 70.14607 | 109.0852 | 14535.37 | 29.41085 | 13406.33 | 7.84399 | 8.714111 | 68.79794 | 1.001676 | -0.09016 | 0.428509 | 6.917401 | -57.4387 | 108.5945 | 1022.053 | 35.41784 | |
| ##### | 5.142302 | 69.66149 | 108.3385 | 14537.61 | 29.38699 | 13413.9 | 7.848795 | 8.719038 | 68.78728 | 1.001686 | -0.09014 | 0.428571 | 6.916795 | -57.4027 | 108.518 | 1022.052 | 35.41857 | |
| ##### | 5.108645 | 69.1769 | 107.5918 | 14539.84 | 29.36312 | 13421.48 | 7.8536 | 8.723964 | 68.77663 | 1.001697 | -0.09011 | 0.428633 | 6.916189 | -57.3668 | 108.4415 | 1022.051 | 35.4193 | |
| ##### | 5.074988 | 68.69232 | 106.8451 | 14542.07 | 29.33926 | 13429.06 | 7.858405 | 8.728889 | 68.76597 | 1.001708 | -0.09008 | 0.428696 | 6.915582 | -57.3309 | 108.365 | 1022.05 | 35.42003 | |
| ##### | 4.868656 | 65.81896 | 102.3957 | 14555.85 | 29.26233 | 13460.08 | 7.878071 | 8.749054 | 68.7009 | 1.001746 | -0.07139 | 0.471808 | 6.907448 | -56.8646 | 107.7519 | 1022.059 | 35.42828 | |
| ##### | 4.850456 | 65.56642 | 102.0043 | 14556.6 | 29.25499 | 13462.51 | 7.879608 | 8.750629 | 68.69737 | 1.00175 | -0.07045 | 0.47397 | 6.906892 | -56.8322 | 107.7033 | 1022.059 | 35.42883 | |
| ##### | 4.832256 | 65.31387 | 101.613 | 14557.34 | 29.24765 | 13464.93 | 7.881145 | 8.752206 | 68.69386 | 1.001753 | -0.06952 | 0.476132 | 6.906336 | -56.7998 | 107.6547 | 1022.059 | 35.42939 | |
| ##### | 4.814056 | 65.06133 | 101.2216 | 14558.09 | 29.24031 | 13467.36 | 7.882683 | 8.753781 | 68.69034 | 1.001757 | -0.06858 | 0.478294 | 6.905781 | -56.7674 | 107.6061 | 1022.058 | 35.42995 | |
| ##### | 4.705593 | 63.43214 | 98.72245 | 14563.47 | 29.17618 | 13487.64 | 7.895544 | 8.766967 | 68.66494 | 1.001786 | -0.08558 | 0.439079 | 6.897846 | -56.3086 | 107.1564 | 1022.051 | 35.43848 | |

Location Properties
Location Name = Device Location

T3-3LT

Report Properties
Start Time = 2021-09-30 12:20:01
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.798573 | 70.30615 | 107.9664 | 16162.89 | 34.02525 | 13786.36 | 8.079852 | 8.961135 | 61.87014 | 1.000352 | -0.08516 | 0.440058 | 6.895512 | -57.0438 | 94.84888 | 1022.01 | 39.13 | |
| ##### | 4.700458 | 68.56713 | 105.3868 | 16180.51 | 33.73791 | 13866.31 | 8.131212 | 9.013101 | 61.80276 | 1.000488 | -0.08378 | 0.443228 | 6.891493 | -56.7697 | 97.31843 | 1022 | 39.14966 | |
| ##### | 4.694384 | 68.45948 | 105.2271 | 16181.6 | 33.72012 | 13871.26 | 8.134392 | 9.016318 | 61.79859 | 1.000496 | -0.0837 | 0.443425 | 6.891245 | -56.7527 | 97.4713 | 1021.999 | 39.15088 | |
| ##### | 4.68831 | 68.35184 | 105.0674 | 16182.69 | 33.70234 | 13876.21 | 8.137571 | 9.019535 | 61.79442 | 1.000505 | -0.08361 | 0.443621 | 6.890996 | -56.7358 | 97.62417 | 1021.999 | 39.1521 | |
| ##### | 4.693197 | 68.10805 | 104.7845 | 16213.5 | 33.52744 | 13942.69 | 8.18017 | 9.062749 | 61.67706 | 1.000596 | -0.07651 | 0.459994 | 6.889181 | -56.6164 | 97.733 | 1021.992 | 39.15785 | |
| ##### | 4.691001 | 68.05463 | 104.7087 | 16215.28 | 33.5127 | 13947.57 | 8.183302 | 9.065923 | 61.67025 | 1.000603 | -0.07617 | 0.460791 | 6.889002 | -56.6044 | 97.79843 | 1021.991 | 39.15858 | |
| ##### | 4.688807 | 68.00122 | 104.6329 | 16217.07 | 33.49797 | 13952.46 | 8.186434 | 9.069097 | 61.66345 | 1.00061 | -0.07582 | 0.461588 | 6.888824 | -56.5924 | 97.86386 | 1021.99 | 39.15932 | |
| ##### | 4.686611 | 67.94781 | 104.5571 | 16218.86 | 33.48323 | 13957.34 | 8.189566 | 9.07227 | 61.65664 | 1.000618 | -0.07548 | 0.462385 | 6.888646 | -56.5804 | 97.92929 | 1021.99 | 39.16005 | |
| ##### | 4.673241 | 67.61037 | 104.0784 | 16189.89 | 33.21749 | 13993.6 | 8.213098 | 9.095837 | 61.76697 | 1.000725 | -0.07494 | 0.463622 | 6.886838 | -56.4355 | 98.16616 | 1021.972 | 39.17726 | |
| ##### | 4.672356 | 67.58412 | 104.0419 | 16189.17 | 33.20107 | 13996.75 | 8.215133 | 9.097887 | 61.76969 | 1.000732 | -0.07478 | 0.463984 | 6.886708 | -56.4257 | 98.188 | 1021.971 | 39.17823 | |
| ##### | 4.671471 | 67.55788 | 104.0054 | 16188.46 | 33.18465 | 13999.9 | 8.217169 | 9.099937 | 61.77242 | 1.000739 | -0.07463 | 0.464347 | 6.886577 | -56.4159 | 98.20985 | 1021.97 | 39.17919 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 12:55:02
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.873027 | 85.63022 | 131.6928 | 17452.8 | 33.4481 | 15027.93 | 8.873325 | 9.768153 | 57.29741 | 1.001135 | -0.07905 | 0.454148 | 7.136284 | -70.6198 | 97.90482 | 1021.75 | 38.86839 | |
| ##### | 5.869266 | 85.56454 | 131.5951 | 17454.85 | 33.43959 | 15031.79 | 8.875816 | 9.770663 | 57.29066 | 1.00114 | -0.07861 | 0.455166 | 7.13588 | -70.5961 | 98.06066 | 1021.75 | 38.86958 | |
| ##### | 5.865504 | 85.49887 | 131.4975 | 17456.9 | 33.43107 | 15035.65 | 8.878307 | 9.773174 | 57.28392 | 1.001145 | -0.07817 | 0.456183 | 7.135474 | -70.5724 | 98.21651 | 1021.75 | 38.87077 | |
| ##### | 5.861743 | 85.43319 | 131.3999 | 17458.96 | 33.42256 | 15039.51 | 8.880798 | 9.775684 | 57.27718 | 1.001149 | -0.07772 | 0.4572 | 7.135069 | -70.5486 | 98.37237 | 1021.75 | 38.87196 | |
| ##### | 5.851213 | 85.12274 | 130.9677 | 17459.01 | 33.39148 | 15047.28 | 8.885834 | 9.780733 | 57.27703 | 1.001163 | -0.07633 | 0.460424 | 7.131821 | -70.3471 | 98.48208 | 1021.758 | 38.87809 | |
| ##### | 5.849247 | 85.08265 | 130.9094 | 17459.82 | 33.3867 | 15049.16 | 8.887048 | 9.781956 | 57.27435 | 1.001166 | -0.07609 | 0.460973 | 7.131513 | -70.3286 | 98.54868 | 1021.759 | 38.87884 | |
| ##### | 5.847281 | 85.04255 | 130.8512 | 17460.63 | 33.38192 | 15051.04 | 8.888261 | 9.783178 | 57.27168 | 1.001168 | -0.07585 | 0.461522 | 7.131205 | -70.31 | 98.6153 | 1021.759 | 38.87959 | |
| ##### | 5.845314 | 85.00246 | 130.7929 | 17461.45 | 33.37714 | 15052.92 | 8.889475 | 9.7844 | 57.26901 | 1.001171 | -0.07561 | 0.462071 | 7.130897 | -70.2915 | 98.6819 | 1021.76 | 38.88034 | |
| ##### | 5.839057 | 84.80733 | 130.5262 | 17452.96 | 33.21049 | 15087.03 | 8.911634 | 9.806567 | 57.29688 | 1.001244 | -0.08156 | 0.448359 | 7.127133 | -70.0485 | 98.82771 | 1021.777 | 38.89735 | |
| ##### | 5.83834 | 84.78848 | 130.4998 | 17452.71 | 33.2019 | 15088.94 | 8.912877 | 9.807811 | 57.2977 | 1.001248 | -0.08177 | 0.447872 | 7.126876 | -70.0322 | 98.84597 | 1021.778 | 38.89831 | |
| ##### | 5.837622 | 84.76962 | 130.4733 | 17452.46 | 33.19332 | 15090.85 | 8.914119 | 9.809055 | 57.29853 | 1.001251 | -0.08198 | 0.447385 | 7.126619 | -70.0159 | 98.86423 | 1021.779 | 38.89926 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 13:34:29
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.70093 | 81.5027 | 125.8261 | 18750.33 | 32.63993 | 16361.56 | 9.805519 | 10.63501 | 643.8376 | 1.002095 | -0.08775 | 0.434063 | 7.193872 | -73.5339 | 103.8798 | 1021.31 | 39.42816 | |
| ##### | 5.660858 | 81.08542 | 125.1973 | 19578.54 | 32.63358 | 17084.24 | 10.23936 | 11.10476 | 303.1438 | 1.002419 | -0.08699 | 0.43582 | 7.193173 | -73.4883 | 103.7592 | 1021.31 | 39.42913 | |
| ##### | 5.620785 | 80.66814 | 124.5685 | 20406.75 | 32.62724 | 17806.93 | 10.6732 | 11.5745 | 0 | 1.002743 | -0.08623 | 0.437576 | 7.192474 | -73.4427 | 103.6386 | 1021.31 | 39.4301 | |
| ##### | 5.138184 | 73.72113 | 113.8367 | 20097.34 | 31.95417 | 17743.17 | 10.65093 | 11.53306 | 157.8369 | 1.002949 | -0.07706 | 0.458723 | 7.17623 | -72.5066 | 103.5812 | 1021.301 | 39.43827 | |
| ##### | 5.102993 | 73.29848 | 113.1867 | 20455.41 | 31.93199 | 18064.39 | 10.84452 | 11.74185 | 64.30594 | 1.003101 | -0.07643 | 0.460189 | 7.175185 | -72.4434 | 103.5611 | 1021.301 | 39.439 | |
| ##### | 5.067801 | 72.87582 | 112.5367 | 20813.47 | 31.9098 | 18385.61 | 11.03812 | 11.95065 | 0 | 1.003251 | -0.07579 | 0.461655 | 7.174139 | -72.3803 | 103.541 | 1021.3 | 39.43972 | |
| ##### | 4.855428 | 69.66741 | 107.6028 | 20464.38 | 31.81627 | 18107.18 | 10.86987 | 11.76966 | 48.86546 | 1.003157 | -0.08397 | 0.4428 | 7.16046 | -71.5912 | 103.5058 | 1021.308 | 39.45641 | |
| ##### | 4.83677 | 69.39632 | 107.1853 | 20463.56 | 31.80054 | 18111.21 | 10.87252 | 11.77228 | 48.86739 | 1.003165 | -0.08415 | 0.44237 | 7.159554 | -71.5388 | 103.5014 | 1021.309 | 39.45731 | |
| ##### | 4.81811 | 69.12523 | 106.7677 | 20462.75 | 31.7848 | 18115.24 | 10.87518 | 11.77491 | 48.86933 | 1.003172 | -0.08434 | 0.44194 | 7.158649 | -71.4865 | 103.4969 | 1021.309 | 39.45821 | |
| ##### | 4.799452 | 68.85413 | 106.3502 | 20461.94 | 31.76907 | 18119.27 | 10.87783 | 11.77753 | 48.87126 | 1.003179 | -0.08453 | 0.44151 | 7.157744 | -71.4341 | 103.4924 | 1021.309 | 39.45912 | |
| ##### | 4.685668 | 67.0183 | 103.5647 | 20464.84 | 31.68394 | 18148.02 | 10.89671 | 11.79621 | 48.8643 | 1.003221 | -0.08648 | 0.437006 | 7.145723 | -70.7332 | 103.4422 | 1021.275 | 39.46801 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 13:46:17
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.911281 | 69.58338 | 107.6266 | 19234.29 | 31.21136 | 17194.4 | 10.27519 | 11.17636 | 51.99048 | 1.002914 | -0.07863 | 0.455121 | 7.198843 | -73.6342 | 99.56694 | 1021.192 | 39.93111 | |
| ##### | 4.828892 | 68.3793 | 105.7757 | 19245.46 | 31.19808 | 17208.29 | 10.28423 | 11.18539 | 51.9603 | 1.002925 | -0.08949 | 0.430053 | 7.186415 | -72.9306 | 99.6791 | 1021.21 | 39.9298 | |
| ##### | 4.819013 | 68.23777 | 105.5572 | 19246.22 | 31.19742 | 17209.16 | 10.2848 | 11.18596 | 51.95825 | 1.002926 | -0.08968 | 0.429624 | 7.185386 | -72.8724 | 99.74517 | 1021.209 | 39.92998 | |
| ##### | 4.809134 | 68.09624 | 105.3386 | 19246.98 | 31.19675 | 17210.04 | 10.28537 | 11.18652 | 51.9562 | 1.002926 | -0.08987 | 0.429194 | 7.184356 | -72.8142 | 99.81123 | 1021.208 | 39.93015 | |
| ##### | 4.799255 | 67.95471 | 105.1201 | 19247.74 | 31.19609 | 17210.91 | 10.28593 | 11.18709 | 51.95415 | 1.002927 | -0.09005 | 0.428765 | 7.183327 | -72.756 | 99.8773 | 1021.207 | 39.93033 | |
| ##### | 4.745484 | 67.12786 | 103.8593 | 19258.32 | 31.10847 | 17246.19 | 10.30894 | 11.21002 | 51.9256 | 1.002972 | -0.10573 | 0.39261 | 7.171181 | -72.0474 | 99.96848 | 1021.209 | 39.93882 | |
| ##### | 4.740409 | 67.05244 | 103.7436 | 19259.05 | 31.10442 | 17248.03 | 10.31014 | 11.21122 | 51.92364 | 1.002975 | -0.10657 | 0.390665 | 7.170323 | -71.9979 | 99.98531 | 1021.21 | 39.9392 | |
| ##### | 4.735335 | 66.97701 | 103.6279 | 19259.78 | 31.10038 | 17249.88 | 10.31134 | 11.21242 | 51.92167 | 1.002977 | -0.10741 | 0.388719 | 7.169464 | -71.9484 | 100.0021 | 1021.21 | 39.93958 | |
| ##### | 4.686952 | 66.24962 | 102.5149 | 19253.71 | 31.0602 | 17256.3 | 10.31555 | 11.21659 | 51.93805 | 1.002993 | -0.06735 | 0.481135 | 7.159234 | -71.3661 | 100.0481 | 1021.227 | 39.95645 | |
| ##### | 4.683602 | 66.19914 | 102.4377 | 19253.66 | 31.05688 | 17257.24 | 10.31616 | 11.21721 | 51.93817 | 1.002994 | -0.06592 | 0.484421 | 7.158545 | -71.3266 | 100.0538 | 1021.227 | 39.95733 | |
| ##### | 4.680252 | 66.14866 | 102.3604 | 19253.62 | 31.05355 | 17258.18 | 10.31677 | 11.21782 | 51.93829 | 1.002996 | -0.0645 | 0.487707 | 7.157856 | -71.2871 | 100.0596 | 1021.228 | 39.95821 | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 14:01:10
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.172728 | 73.95926 | 114.2345 | 19801.84 | 31.67278 | 17563.38 | 10.515 | 11.4162 | 50.50036 | 1.002942 | -0.08795 | 0.433613 | 7.184824 | -72.9481 | 96.27061 | 1021.03 | 39.91 | | |
| ##### | 4.933352 | 70.4888 | 108.8921 | 19817.03 | 31.62593 | 17590.82 | 10.53293 | 11.43403 | 50.46166 | 1.00297 | -0.09238 | 0.423383 | 7.168053 | -71.9935 | 98.48795 | 1021.067 | 39.90062 | | |
| ##### | 4.918347 | 70.26868 | 108.5533 | 19817.99 | 31.62295 | 17592.56 | 10.53406 | 11.43516 | 50.45921 | 1.002972 | -0.09267 | 0.422734 | 7.16699 | -71.9329 | 98.62859 | 1021.07 | 39.90003 | | |
| ##### | 4.903175 | 70.04856 | 108.2144 | 19818.95 | 31.61998 | 17594.3 | 10.5352 | 11.43629 | 50.45675 | 1.002974 | -0.09295 | 0.422085 | 7.165926 | -71.8723 | 98.76922 | 1021.072 | 39.89943 | | |
| ##### | 4.888003 | 69.82845 | 107.8755 | 19819.92 | 31.61701 | 17596.04 | 10.53634 | 11.43743 | 50.4543 | 1.002976 | -0.09323 | 0.421437 | 7.164862 | -71.8118 | 98.90986 | 1021.074 | 39.89884 | | |
| ##### | 4.809348 | 68.57379 | 105.964 | 19792.9 | 31.58411 | 17581.87 | 10.52713 | 11.42822 | 50.52317 | 1.00298 | -0.1195 | 0.360833 | 7.154457 | -71.2077 | 99.00108 | 1021.016 | 39.90897 | | |
| ##### | 4.799672 | 68.42829 | 105.7409 | 19792.07 | 31.58142 | 17581.93 | 10.52717 | 11.42826 | 50.52529 | 1.002981 | -0.1208 | 0.357836 | 7.153558 | -71.156 | 99.06198 | 1021.015 | 39.90918 | | |
| ##### | 4.789996 | 68.28279 | 105.5179 | 19791.24 | 31.57874 | 17581.99 | 10.52722 | 11.4283 | 50.52741 | 1.002982 | -0.1221 | 0.354839 | 7.152658 | -71.1043 | 99.12289 | 1021.013 | 39.9094 | | |
| ##### | 4.713038 | 67.10975 | 103.7315 | 19821.67 | 31.41616 | 17657.79 | 10.57677 | 11.47756 | 50.44984 | 1.003071 | -0.06268 | 0.491894 | 7.142463 | -70.4932 | 99.26088 | 1021.045 | 39.91804 | | |
| ##### | 4.707268 | 67.02135 | 103.5967 | 19822.58 | 31.40809 | 17661 | 10.57887 | 11.47965 | 50.44754 | 1.003075 | -0.06054 | 0.496846 | 7.141751 | -70.4511 | 99.27653 | 1021.046 | 39.91859 | | |
| ##### | 4.701499 | 66.93297 | 103.4618 | 19823.48 | 31.40003 | 17664.22 | 10.58098 | 11.48175 | 50.44524 | 1.00308 | -0.05839 | 0.501798 | 7.141039 | -70.4089 | 99.29217 | 1021.046 | 39.91913 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 14:08:47
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.847707 | 68.26707 | 105.8037 | 21511.77 | 30.3333 | 19523.03 | 11.80025 | 12.68997 | 46.48619 | 1.004327 | -0.09067 | 0.427348 | 7.014511 | -63.0729 | 101.375 | 1020.94 | 39.92 | | |
| ##### | 4.847707 | 68.26707 | 105.8037 | 21511.77 | 30.3333 | 19523.03 | 11.80025 | 12.68997 | 46.48619 | 1.004327 | -0.09067 | 0.427348 | 7.014511 | -63.0729 | 101.375 | 1020.94 | 39.92 | | |
| ##### | 4.591126 | 64.56591 | 100.083 | 21385.86 | 30.27186 | 19429.45 | 11.73856 | 12.62914 | 46.75999 | 1.004301 | -0.09263 | 0.422822 | 7.008328 | -62.7133 | 103.9418 | 1020.94 | 39.92 | | |
| ##### | 4.574709 | 64.32909 | 99.71692 | 21377.8 | 30.26793 | 19423.46 | 11.73462 | 12.62525 | 46.77751 | 1.004299 | -0.09275 | 0.422533 | 7.007933 | -62.6903 | 104.106 | 1020.94 | 39.92 | | |
| ##### | 4.558291 | 64.09227 | 99.35087 | 21369.74 | 30.264 | 19417.47 | 11.73067 | 12.62136 | 46.79503 | 1.004297 | -0.09288 | 0.422243 | 7.007537 | -62.6673 | 104.2703 | 1020.94 | 39.92 | | |
| ##### | 4.541874 | 63.85545 | 98.98483 | 21361.69 | 30.26007 | 19411.48 | 11.72672 | 12.61746 | 46.81255 | 1.004296 | -0.093 | 0.421954 | 7.007142 | -62.6443 | 104.4345 | 1020.94 | 39.92 | | |
| ##### | 4.443325 | 62.35197 | 96.68066 | 21353.82 | 30.21061 | 19420.98 | 11.73298 | 12.62364 | 46.8301 | 1.004316 | -0.06726 | 0.481343 | 7.003967 | -62.4542 | 104.2294 | 1020.922 | 39.92871 | | |
| ##### | 4.432272 | 62.18884 | 96.42938 | 21350.22 | 30.20679 | 19419.01 | 11.73167 | 12.62235 | 46.83794 | 1.004316 | -0.06614 | 0.483909 | 7.003665 | -62.4364 | 104.2862 | 1020.921 | 39.92911 | | |
| ##### | 4.421219 | 62.02569 | 96.17812 | 21346.63 | 30.20298 | 19417.03 | 11.73037 | 12.62107 | 46.84577 | 1.004316 | -0.06503 | 0.486476 | 7.003362 | -62.4185 | 104.3429 | 1020.921 | 39.9295 | | |
| ##### | 4.410166 | 61.86255 | 95.92684 | 21343.03 | 30.19916 | 19415.05 | 11.72906 | 12.61978 | 46.85361 | 1.004317 | -0.06392 | 0.489043 | 7.00306 | -62.4007 | 104.3997 | 1020.92 | 39.9299 | | |
| ##### | 4.327993 | 60.65734 | 94.07576 | 21440.14 | 30.04588 | 19555.51 | 11.8216 | 12.71108 | 46.64158 | 1.004434 | -0.08647 | 0.437034 | 6.999901 | -62.1933 | 104.2993 | 1020.902 | 39.9298 | | |

Location Properties
Location Name = Device Location

Report Properties
Start Time = 2021-09-30 14:11:37
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 4.618147 | 63.83192 | 99.21838 | 21451.02 | 29.15134 | 19875.11 | 12.03191 | 12.91882 | 46.61783 | 1.004869 | -0.06412 | 0.488588 | 7.001626 | -62.1213 | 99.94706 | 1020.95 | 39.98 | | |
| ##### | 4.618147 | 63.83192 | 99.21838 | 21451.02 | 29.15134 | 19875.11 | 12.03191 | 12.91882 | 46.61783 | 1.004869 | -0.06412 | 0.488588 | 7.001626 | -62.1213 | 99.94706 | 1020.95 | 39.98 | | |
| ##### | 4.395014 | 60.74245 | 94.4132 | 21411.07 | 29.15246 | 19837.71 | 12.00721 | 12.89451 | 46.70481 | 1.004851 | -0.07866 | 0.455043 | 6.997941 | -61.9152 | 101.9742 | 1020.921 | 39.98 | | |
| ##### | 4.380414 | 60.54029 | 94.09879 | 21408.46 | 29.15253 | 19835.26 | 12.00559 | 12.89292 | 46.7105 | 1.004849 | -0.07961 | 0.452848 | 6.9977 | -61.9017 | 102.1069 | 1020.919 | 39.98 | | |
| ##### | 4.365814 | 60.33815 | 93.78438 | 21405.85 | 29.15261 | 19832.81 | 12.00398 | 12.89133 | 46.71619 | 1.004848 | -0.08056 | 0.450653 | 6.997459 | -61.8882 | 102.2395 | 1020.918 | 39.98 | | |
| ##### | 4.351214 | 60.136 | 93.46997 | 21403.23 | 29.15268 | 19830.37 | 12.00236 | 12.88974 | 46.72189 | 1.004847 | -0.08151 | 0.448458 | 6.997218 | -61.8747 | 102.3721 | 1020.916 | 39.98 | | |
| ##### | 4.259874 | 58.86754 | 91.50182 | 21394.19 | 29.15169 | 19822.33 | 11.99706 | 12.88452 | 46.74168 | 1.004843 | -0.09546 | 0.416298 | 6.995835 | -61.7972 | 102.2364 | 1020.946 | 39.99725 | | |
| ##### | 4.249901 | 58.72929 | 91.287 | 21392.72 | 29.15167 | 19820.98 | 11.99617 | 12.88364 | 46.74487 | 1.004843 | -0.09646 | 0.413985 | 6.995676 | -61.7883 | 102.2844 | 1020.947 | 39.99801 | | |
| ##### | 4.239928 | 58.59105 | 91.07219 | 21391.26 | 29.15166 | 19819.63 | 11.99528 | 12.88276 | 46.74805 | 1.004842 | -0.09746 | 0.411672 | 6.995517 | -61.7794 | 102.3323 | 1020.947 | 39.99877 | | |
| ##### | 4.229955 | 58.45279 | 90.85738 | 21389.8 | 29.15164 | 19818.28 | 11.99439 | 12.88188 | 46.75124 | 1.004841 | -0.09846 | 0.409358 | 6.995358 | -61.7704 | 102.3802 | 1020.948 | 39.99953 | | |
| ##### | 4.15623 | 57.42876 | 89.27219 | 21488.33 | 29.12331 | 19919.57 | 12.06124 | 12.94772 | 46.537 | 1.0049 | -0.0951 | 0.417118 | 6.993349 | -61.6501 | 102.3487 | 1020.958 | 39.99954 | | |

Location Properties
Location Name = Device Location

BG-2HT

Report Properties
Start Time = 2021-09-22 10:20:16
Time Offset = -04:00:00
Duration = 00:00:20
Readings = 11

Instrument Properties
Device Model = Aqua TROLL 400
Device SN = 789301

Instrument Properties
Device Model = PowerPack
Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 3.731902 | 54.55735 | 85.82183 | 36277.93 | 29.19809 | 33584.97 | 21.40185 | 21.83023 | 27.56499 | 1.01183 | -0.09673 | 0.413362 | 7.133463 | -66.1144 | 95.77642 | 1017.499 | 29.50966 | | |
| ##### | 3.730672 | 54.54322 | 85.79946 | 36292.02 | 29.19957 | 33597.14 | 21.41043 | 21.83814 | 27.55422 | 1.011836 | -0.09518 | 0.416934 | 7.133426 | -66.1123 | 95.9445 | 1017.501 | 29.51086 | | |
| ##### | 3.729441 | 54.52909 | 85.77708 | 36306.11 | 29.20105 | 33609.3 | 21.41901 | 21.84605 | 27.54345 | 1.011842 | -0.09363 | 0.420505 | 7.133389 | -66.1102 | 96.11259 | 1017.503 | 29.51206 | | |
| ##### | 3.725478 | 54.48133 | 85.69855 | 36300.68 | 29.19704 | 33606.66 | 21.41713 | 21.84433 | 27.54773 | 1.011842 | -0.1014 | 0.402585 | 7.133374 | -66.1128 | 97.17669 | 1017.49 | 29.51801 | | |
| ##### | 3.724812 | 54.47359 | 85.68616 | 36306.03 | 29.19745 | 33611.37 | 21.42045 | 21.84739 | 27.54365 | 1.011845 | -0.10113 | 0.403201 | 7.133359 | -66.1121 | 97.29099 | 1017.49 | 29.51875 | | |
| ##### | 3.724147 | 54.46585 | 85.67377 | 36311.38 | 29.19786 | 33616.08 | 21.42378 | 21.85045 | 27.53956 | 1.011847 | -0.10087 | 0.403818 | 7.133343 | -66.1114 | 97.40528 | 1017.491 | 29.51949 | | |
| ##### | 3.723481 | 54.4581 | 85.66138 | 36316.73 | 29.19827 | 33620.79 | 21.4271 | 21.85351 | 27.53548 | 1.011849 | -0.1006 | 0.404434 | 7.133328 | -66.1107 | 97.51958 | 1017.491 | 29.52024 | | |
| ##### | 3.727218 | 54.52085 | 85.75478 | 36279.17 | 29.23553 | 33563.9 | 21.38721 | 21.81654 | 27.56403 | 1.011807 | -0.08594 | 0.438242 | 7.133457 | -66.1236 | 98.8939 | 1017.481 | 29.53731 | | |
| ##### | 3.727236 | 54.5219 | 85.75612 | 36278.24 | 29.23722 | 33562.04 | 21.3859 | 21.81532 | 27.56474 | 1.011806 | -0.08534 | 0.439643 | 7.13346 | -66.1242 | 98.98621 | 1017.481 | 29.53826 | | |
| ##### | 3.727253 | 54.52296 | 85.75747 | 36277.31 | 29.23891 | 33560.17 | 21.38459 | 21.81411 | 27.56544 | 1.011804 | -0.08473 | 0.441044 | 7.133463 | -66.1247 | 99.07852 | 1017.48 | 29.53922 | | |
| ##### | 3.729106 | 54.56068 | 85.81589 | 36313.59 | 29.24355 | 33590.98 | 21.40633 | 21.83414 | 27.53791 | 1.011819 | -0.07806 | 0.456422 | 7.134017 | -66.1555 | 100.3591 | 1017.48 | 29.5477 | | |

CALVIN LAMONG

12/15/21

6101

16755

792310

LA 00012

9429-4417

MEMORANDUM SUPERIOR WATER DEL. 2021

72°/54°

MEMORANDUM

| Item | Quantity | Unit Price | Total Price | Notes |
|--------------|----------|------------|-------------|-------|
| 101.75 | | | 101.75 | |
| 20110000 100 | 13.84 | 3000 | 41521.4 | |
| 20110000 100 | 13.93 | 1 | 3.94 | |
| 20110000 100 | 24.16 | 1 | 7.02 | |
| 20110000 100 | 14.38 | 18 | 10.09 | |
| 20110000 100 | 24.45 | 100 | 242.0 | |

| Item | Quantity | Unit Price | Total Price | Notes |
|--------------|----------|------------|-------------|-------|
| 20110000 100 | 0 | 0.00 | 0.00 | |
| 20110000 100 | 1 | 1.38 | 1.38 | |
| 20110000 100 | 12 | 9.71 | 9.71 | |

| Item | Quantity | Unit Price | Total Price | Notes |
|--------------|----------|------------|-------------|-------|
| 20110000 100 | 21.15 | 4.12 | 4.12 | |
| 20110000 100 | 20.41 | 7.33 | 7.33 | |
| 20110000 100 | 24.03 | 20.37 | 20.37 | |

Calibration Report

| | |
|---------------|----------------|
| Instrument | Aqua TROLL 400 |
| Serial Number | 789310 |
| Created | 12/15/2021 |

| | |
|--------|------------|
| Sensor | RDO |
|--------|------------|

| | |
|-----------------|------------|
| Serial Number | 878616 |
| Last Calibrated | 12/15/2021 |

Calibration Details

| | |
|--------|-----------|
| Slope | 1.024078 |
| Offset | 0.00 mg/L |

Calibration point 100%

| | |
|---------------------|--------------|
| Concentration | 10.14 mg/L |
| Temperature | 13.75 °C |
| Barometric Pressure | 1,030.7 mbar |

| | |
|--------|---------------------|
| Sensor | Conductivity |
|--------|---------------------|

| | |
|-----------------|------------|
| Serial Number | 789310 |
| Last Calibrated | 12/15/2021 |

Calibration Details

| | |
|-----------------------------|----------|
| Cell Constant | 0.991 |
| Reference Temperature | 25.00 °C |
| TDS Conversion Factor (ppm) | 0.65 |

| | |
|--------|--------------|
| Sensor | Level |
|--------|--------------|

| | |
|-----------------|------------------|
| Serial Number | 787063 |
| Last Calibrated | Factory Defaults |

| Sensor | pH/ORP |
|-----------------|------------|
| Serial Number | 21174 |
| Last Calibrated | 12/15/2021 |

Calibration Details

| | |
|--------------------------|---|
| Total Calibration Points | 3 |
|--------------------------|---|

Calibration Point 1

| | |
|--------------|----------|
| pH of Buffer | 4.00 pH |
| pH mV | 158.0 mV |
| Temperature | 13.94 °C |

Calibration Point 2

| | |
|--------------|----------|
| pH of Buffer | 7.06 pH |
| pH mV | -11.4 mV |
| Temperature | 14.16 °C |

Calibration Point 3

| | |
|--------------|-----------|
| pH of Buffer | 10.08 pH |
| pH mV | -179.5 mV |
| Temperature | 14.38 °C |

Slope and Offset 1

| | |
|--------|--------------|
| Slope | -55.35 mV/pH |
| Offset | -8.1 mV |

Slope and Offset 2

| | |
|--------|--------------|
| Slope | -55.66 mV/pH |
| Offset | -8.1 mV |

ORP

| | |
|--------------|----------|
| ORP Solution | ZoBell's |
| Offset | 11.9 mV |
| Temperature | 14.45 °C |

Location Properties

Location Name = T4-1HB

Report Properties

Start Time = 2021-12-15 07:02:21

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.387952 | 60.59576 | 94.17616 | 27720.61 | 15.64288 | 33752.98 | 21.24063 | 21.93943 | 36.07424 | 1.015268 | -0.17696 | 0.228299 | 7.356972 | -28.0873 | 141.3088 | 1030.84 | 14.09 | | |
| ##### | 5.387952 | 60.59576 | 94.17616 | 27720.61 | 15.64288 | 33752.98 | 21.24063 | 21.93943 | 36.07424 | 1.015268 | -0.17696 | 0.228299 | 7.356972 | -28.0873 | 141.3088 | 1030.84 | 14.09 | | |
| ##### | 5.387952 | 60.59576 | 94.17616 | 27720.61 | 15.64288 | 33752.98 | 21.24063 | 21.93943 | 36.07424 | 1.015268 | -0.17696 | 0.228299 | 7.356972 | -28.0873 | 141.3088 | 1030.84 | 14.09 | | |
| ##### | 5.387952 | 60.59576 | 94.17616 | 27720.61 | 15.64288 | 33752.98 | 21.24063 | 21.93943 | 36.07424 | 1.015268 | -0.17696 | 0.228299 | 7.356972 | -28.0873 | 141.3088 | 1030.84 | 14.09 | | |
| ##### | 5.357088 | 60.2983 | 93.71021 | 27739.83 | 15.68564 | 33742.82 | 21.23541 | 21.93284 | 36.04924 | 1.015255 | -0.18989 | 0.198483 | 7.356194 | -28.0477 | 150.6724 | 1030.849 | 14.09 | | |
| ##### | 5.355116 | 60.2793 | 93.68045 | 27741.06 | 15.68837 | 33742.18 | 21.23508 | 21.93242 | 36.04765 | 1.015255 | -0.19071 | 0.196578 | 7.356144 | -28.0452 | 151.2706 | 1030.849 | 14.09 | | |
| ##### | 5.353144 | 60.2603 | 93.65069 | 27742.29 | 15.69111 | 33741.53 | 21.23474 | 21.93199 | 36.04605 | 1.015254 | -0.19154 | 0.194673 | 7.356095 | -28.0426 | 151.8687 | 1030.85 | 14.09 | | |
| ##### | 5.351172 | 60.24129 | 93.62092 | 27743.52 | 15.69384 | 33740.88 | 21.23441 | 21.93157 | 36.04446 | 1.015253 | -0.19236 | 0.192768 | 7.356045 | -28.0401 | 152.4669 | 1030.851 | 14.09 | | |
| ##### | 5.327957 | 60.05579 | 93.3276 | 27740.69 | 15.72647 | 33711.89 | 21.21572 | 21.91273 | 36.04813 | 1.015232 | -0.16705 | 0.251159 | 7.358016 | -28.1535 | 153.8346 | 1030.875 | 14.10725 | | |
| ##### | 5.326123 | 60.03987 | 93.30253 | 27741.04 | 15.72903 | 33710.31 | 21.21474 | 21.91117 | 36.04767 | 1.015231 | -0.16622 | 0.253078 | 7.358087 | -28.1576 | 154.1318 | 1030.877 | 14.10804 | | |

Location Properties

Location Name = T4-1HS

Report Properties

Start Time = 2021-12-15 07:12:50

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (| Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.41439 | 72.67506 | 112.8912 | 27633.86 | 16.09839 | 33294.64 | 20.94222 | 21.64151 | 36.18749 | 1.014947 | -0.18372 | 0.212697 | 7.399719 | -30.5226 | 172.3491 | 1030.843 | 14.4793 | |
| ##### | 6.411372 | 72.64101 | 112.8382 | 27633.42 | 16.09853 | 33294 | 20.94179 | 21.6411 | 36.18806 | 1.014947 | -0.18116 | 0.218604 | 7.39973 | -30.5232 | 172.7174 | 1030.841 | 14.47912 | |
| ##### | 6.408355 | 72.60696 | 112.7851 | 27632.98 | 16.09867 | 33293.38 | 20.94136 | 21.64069 | 36.18863 | 1.014947 | -0.1786 | 0.22451 | 7.399742 | -30.5239 | 173.0856 | 1030.84 | 14.47894 | |
| ##### | 6.405337 | 72.57292 | 112.732 | 27632.55 | 16.0988 | 33292.74 | 20.94093 | 21.64028 | 36.18921 | 1.014946 | -0.17604 | 0.230416 | 7.399753 | -30.5245 | 173.4539 | 1030.839 | 14.47876 | |
| ##### | 6.369405 | 72.16419 | 112.0989 | 27624.17 | 16.10152 | 33280.57 | 20.93262 | 21.63237 | 36.20018 | 1.014939 | -0.15335 | 0.282765 | 7.40038 | -30.5601 | 174.0732 | 1030.857 | 14.49699 | |
| ##### | 6.366923 | 72.13606 | 112.0553 | 27623.73 | 16.10169 | 33279.91 | 20.93217 | 21.63194 | 36.20076 | 1.014939 | -0.15165 | 0.286675 | 7.400419 | -30.5623 | 174.162 | 1030.858 | 14.49793 | |
| ##### | 6.364442 | 72.10794 | 112.0116 | 27623.29 | 16.10186 | 33279.25 | 20.93172 | 21.63152 | 36.20133 | 1.014939 | -0.14996 | 0.290584 | 7.400459 | -30.5646 | 174.2509 | 1030.859 | 14.49887 | |
| ##### | 6.36196 | 72.07981 | 111.968 | 27622.86 | 16.10203 | 33278.6 | 20.93127 | 21.63109 | 36.2019 | 1.014938 | -0.14826 | 0.294494 | 7.400498 | -30.5668 | 174.3397 | 1030.859 | 14.4998 | |
| ##### | 6.324841 | 71.67007 | 111.3322 | 27647.76 | 16.10391 | 33307.16 | 20.9511 | 21.64965 | 36.1693 | 1.014953 | -0.1743 | 0.234431 | 7.401121 | -30.6018 | 174.5701 | 1030.868 | 14.49952 | |
| ##### | 6.322477 | 71.64372 | 111.2913 | 27648.66 | 16.10405 | 33308.14 | 20.95179 | 21.65029 | 36.16812 | 1.014954 | -0.17494 | 0.232963 | 7.40116 | -30.604 | 174.6007 | 1030.869 | 14.49985 | |

Location Properties

Location Name = T4-2HB

Report Properties

Start Time = 2021-12-15 07:22:53

Time Offset = -05:00:00

Duration = 00:00:25

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.615914 | 74.62859 | 115.9946 | 28231.09 | 15.67007 | 34352.83 | 21.65736 | 22.32934 | 35.42194 | 1.015582 | -0.18365 | 0.212858 | 7.443605 | -32.9402 | 148.0983 | 1030.95 | 14.47 | |
| ##### | 6.615914 | 74.62859 | 115.9946 | 28231.09 | 15.67007 | 34352.83 | 21.65736 | 22.32934 | 35.42194 | 1.015582 | -0.18365 | 0.212858 | 7.443605 | -32.9402 | 148.0983 | 1030.95 | 14.47 | |
| ##### | 6.615914 | 74.62859 | 115.9946 | 28231.09 | 15.67007 | 34352.83 | 21.65736 | 22.32934 | 35.42194 | 1.015582 | -0.18365 | 0.212858 | 7.443605 | -32.9402 | 148.0983 | 1030.95 | 14.47 | |
| ##### | 6.615914 | 74.62859 | 115.9946 | 28231.09 | 15.67007 | 34352.83 | 21.65736 | 22.32934 | 35.42194 | 1.015582 | -0.18365 | 0.212858 | 7.443605 | -32.9402 | 148.0983 | 1030.95 | 14.47 | |
| ##### | 6.455869 | 72.91128 | 113.3158 | 28264.95 | 15.72941 | 34346.64 | 21.65563 | 22.32532 | 35.37952 | 1.015568 | -0.1848 | 0.210218 | 7.445369 | -33.0441 | 160.0766 | 1030.931 | 14.46063 | |
| ##### | 6.445427 | 72.79922 | 113.141 | 28267.15 | 15.73328 | 34346.24 | 21.65551 | 22.32506 | 35.37675 | 1.015567 | -0.18487 | 0.210046 | 7.445484 | -33.0509 | 160.8582 | 1030.93 | 14.46002 | |
| ##### | 6.434985 | 72.68718 | 112.9662 | 28269.36 | 15.73716 | 34345.84 | 21.6554 | 22.32479 | 35.37398 | 1.015566 | -0.18495 | 0.209873 | 7.4456 | -33.0577 | 161.6397 | 1030.928 | 14.45941 | |
| ##### | 6.424542 | 72.57513 | 112.7914 | 28271.57 | 15.74103 | 34345.43 | 21.65529 | 22.32453 | 35.37122 | 1.015566 | -0.18502 | 0.209701 | 7.445714 | -33.0644 | 162.4213 | 1030.927 | 14.4588 | |
| ##### | 6.334795 | 71.65774 | 111.3581 | 28281.52 | 15.77323 | 34331.86 | 21.64725 | 22.31571 | 35.35879 | 1.015553 | -0.18723 | 0.204616 | 7.447772 | -33.1832 | 162.1744 | 1030.939 | 14.46024 | |
| ##### | 6.326637 | 71.5722 | 111.2246 | 28282.85 | 15.77621 | 34331.11 | 21.64685 | 22.31522 | 35.35712 | 1.015552 | -0.18735 | 0.204323 | 7.447909 | -33.1911 | 162.479 | 1030.939 | 14.46005 | |

Location Properties

Location Name = T4-2HT

Report Properties

Start Time = 2021-12-15 07:33:11

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.862652 | 78.31073 | 121.6181 | 27890.21 | 16.45085 | 33333.14 | 20.98256 | 21.66654 | 35.85487 | 1.014906 | -0.13643 | 0.321779 | 7.464406 | -34.1895 | 137.4624 | 1031.03 | 14.6 | |
| ##### | 6.862652 | 78.31073 | 121.6181 | 27890.21 | 16.45085 | 33333.14 | 20.98256 | 21.66654 | 35.85487 | 1.014906 | -0.13643 | 0.321779 | 7.464406 | -34.1895 | 137.4624 | 1031.03 | 14.6 | |
| ##### | 6.862652 | 78.31073 | 121.6181 | 27890.21 | 16.45085 | 33333.14 | 20.98256 | 21.66654 | 35.85487 | 1.014906 | -0.13643 | 0.321779 | 7.464406 | -34.1895 | 137.4624 | 1031.03 | 14.6 | |
| ##### | 6.862652 | 78.31073 | 121.6181 | 27890.21 | 16.45085 | 33333.14 | 20.98256 | 21.66654 | 35.85487 | 1.014906 | -0.13643 | 0.321779 | 7.464406 | -34.1895 | 137.4624 | 1031.03 | 14.6 | |
| ##### | 6.648658 | 75.89248 | 117.853 | 27926.11 | 16.45411 | 33373.56 | 21.01067 | 21.69281 | 35.80878 | 1.014926 | -0.19282 | 0.191707 | 7.460742 | -33.9886 | 146.6542 | 1030.952 | 14.58061 | |
| ##### | 6.635469 | 75.74344 | 117.6209 | 27928.32 | 16.45432 | 33376.05 | 21.01241 | 21.69444 | 35.80594 | 1.014928 | -0.1963 | 0.18369 | 7.460515 | -33.9763 | 147.2207 | 1030.947 | 14.57942 | |
| ##### | 6.62228 | 75.5944 | 117.3889 | 27930.54 | 16.45452 | 33378.54 | 21.01414 | 21.69605 | 35.8031 | 1.014929 | -0.19977 | 0.175673 | 7.46029 | -33.9639 | 147.7872 | 1030.943 | 14.57822 | |
| ##### | 6.461797 | 73.82727 | 114.6397 | 27919.11 | 16.48952 | 33338.25 | 20.98758 | 21.66986 | 35.81776 | 1.014901 | -0.17678 | 0.228713 | 7.45835 | -33.8566 | 147.9142 | 1030.961 | 14.58909 | |
| ##### | 6.449419 | 73.68949 | 114.4253 | 27919.46 | 16.49118 | 33337.41 | 20.98706 | 21.66932 | 35.81731 | 1.014901 | -0.1771 | 0.22797 | 7.458175 | -33.8469 | 148.1412 | 1030.959 | 14.58911 | |

Location Properties

Location Name = T4-3HB

Report Properties

Start Time = 2021-12-15 07:41:09

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.065628 | 69.04128 | 107.256 | 28322.5 | 16.17443 | 34064.74 | 21.47865 | 22.14208 | 35.30762 | 1.015342 | -0.17311 | 0.23717 | 7.495185 | -35.8843 | 129.331 | 1031.02 | 14.8 | |
| ##### | 6.065628 | 69.04128 | 107.256 | 28322.5 | 16.17443 | 34064.74 | 21.47865 | 22.14208 | 35.30762 | 1.015342 | -0.17311 | 0.23717 | 7.495185 | -35.8843 | 129.331 | 1031.02 | 14.8 | |
| ##### | 6.065628 | 69.04128 | 107.256 | 28322.5 | 16.17443 | 34064.74 | 21.47865 | 22.14208 | 35.30762 | 1.015342 | -0.17311 | 0.23717 | 7.495185 | -35.8843 | 129.331 | 1031.02 | 14.8 | |
| ##### | 6.065628 | 69.04128 | 107.256 | 28322.5 | 16.17443 | 34064.74 | 21.47865 | 22.14208 | 35.30762 | 1.015342 | -0.17311 | 0.23717 | 7.495185 | -35.8843 | 129.331 | 1031.02 | 14.8 | |
| ##### | 6.060027 | 69.02079 | 107.2217 | 28380.57 | 16.19394 | 34119.28 | 21.51729 | 22.17753 | 35.23539 | 1.015368 | -0.16614 | 0.25325 | 7.494011 | -35.824 | 136.9484 | 1031.02 | 14.79074 | |
| ##### | 6.059664 | 69.01945 | 107.2195 | 28384.33 | 16.1952 | 34122.82 | 21.51979 | 22.17983 | 35.23071 | 1.015369 | -0.16569 | 0.254292 | 7.493936 | -35.8201 | 137.4424 | 1031.02 | 14.79014 | |
| ##### | 6.0593 | 69.01813 | 107.2173 | 28388.1 | 16.19647 | 34126.36 | 21.5223 | 22.18213 | 35.22602 | 1.015371 | -0.16524 | 0.255335 | 7.493859 | -35.8162 | 137.9364 | 1031.02 | 14.78954 | |
| ##### | 6.058937 | 69.0168 | 107.215 | 28391.86 | 16.19773 | 34129.89 | 21.5248 | 22.18443 | 35.22134 | 1.015373 | -0.16479 | 0.256378 | 7.493783 | -35.8123 | 138.4304 | 1031.02 | 14.78894 | |
| ##### | 6.040041 | 68.89072 | 107.0098 | 28399.75 | 16.2361 | 34109.32 | 21.51208 | 22.17106 | 35.21159 | 1.015355 | -0.16782 | 0.249389 | 7.494551 | -35.8582 | 138.5875 | 1031.011 | 14.80742 | |
| ##### | 6.039051 | 68.88455 | 106.9998 | 28401.6 | 16.23833 | 34109.81 | 21.51251 | 22.17138 | 35.20929 | 1.015355 | -0.16777 | 0.249491 | 7.494555 | -35.8587 | 138.7912 | 1031.011 | 14.80801 | |

Location Properties

Location Name = T4-3HS

Report Properties

Start Time = 2021-12-15 07:51:01

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 8.007293 | 91.41475 | 141.9775 | 27972.97 | 16.45779 | 33426.76 | 21.04765 | 21.7274 | 35.74879 | 1.014954 | -0.18115 | 0.218626 | 7.591008 | -41.3025 | 124.7794 | 1031.1 | 15.05 | |
| ##### | 8.007293 | 91.41475 | 141.9775 | 27972.97 | 16.45779 | 33426.76 | 21.04765 | 21.7274 | 35.74879 | 1.014954 | -0.18115 | 0.218626 | 7.591008 | -41.3025 | 124.7794 | 1031.1 | 15.05 | |
| ##### | 8.007293 | 91.41475 | 141.9775 | 27972.97 | 16.45779 | 33426.76 | 21.04765 | 21.7274 | 35.74879 | 1.014954 | -0.18115 | 0.218626 | 7.591008 | -41.3025 | 124.7794 | 1031.1 | 15.05 | |
| ##### | 8.007293 | 91.41475 | 141.9775 | 27972.97 | 16.45779 | 33426.76 | 21.04765 | 21.7274 | 35.74879 | 1.014954 | -0.18115 | 0.218626 | 7.591008 | -41.3025 | 124.7794 | 1031.1 | 15.05 | |
| ##### | 8.007293 | 91.41475 | 141.9775 | 27972.97 | 16.45779 | 33426.76 | 21.04765 | 21.7274 | 35.74879 | 1.014954 | -0.18115 | 0.218626 | 7.591008 | -41.3025 | 124.7794 | 1031.1 | 15.05 | |
| ##### | 7.430084 | 84.9128 | 131.859 | 27945.54 | 16.52191 | 33345.18 | 20.99361 | 21.67437 | 35.78388 | 1.014899 | -0.17782 | 0.226304 | 7.567799 | -40.0028 | 132.0547 | 1031.021 | 15.04012 | |
| ##### | 7.394029 | 84.50665 | 131.2269 | 27943.83 | 16.52592 | 33340.08 | 20.99023 | 21.67105 | 35.78608 | 1.014896 | -0.17762 | 0.226783 | 7.566635 | -39.9216 | 132.5091 | 1031.016 | 15.0395 | |
| ##### | 7.357974 | 84.10051 | 130.5949 | 27942.12 | 16.52992 | 33334.98 | 20.98685 | 21.66774 | 35.78827 | 1.014892 | -0.17741 | 0.227263 | 7.564899 | -39.8404 | 132.9636 | 1031.011 | 15.03889 | |
| ##### | 7.040707 | 80.49648 | 125.003 | 27931.42 | 16.53768 | 33316.36 | 20.97425 | 21.65563 | 35.80198 | 1.014881 | -0.16012 | 0.267141 | 7.556065 | -39.346 | 133.0968 | 1031.073 | 15.04872 | |
| ##### | 7.012395 | 80.17625 | 124.5054 | 27930.27 | 16.53962 | 33313.5 | 20.97235 | 21.65378 | 35.80346 | 1.014879 | -0.15928 | 0.269082 | 7.555099 | -39.2919 | 133.2841 | 1031.073 | 15.0489 | |
| ##### | 6.984083 | 79.856 | 124.0078 | 27929.11 | 16.54156 | 33310.65 | 20.97045 | 21.65193 | 35.80494 | 1.014877 | -0.15844 | 0.271023 | 7.554132 | -39.2378 | 133.4713 | 1031.074 | 15.04909 | |

Location Properties

Location Name = T4-4HB

Report Properties

Start Time = 2021-12-15 08:05:14

Time Offset = -05:00:00

Duration = 00:00:21

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.976108 | 68.64707 | 106.582 | 28296.68 | 16.72385 | 33609.48 | 21.18435 | 21.84616 | 35.33984 | 1.015002 | -0.18155 | 0.217709 | 7.524747 | -37.61 | 120.7816 | 1031.09 | 15.51 | |
| ##### | 5.976108 | 68.64707 | 106.582 | 28296.68 | 16.72385 | 33609.48 | 21.18435 | 21.84616 | 35.33984 | 1.015002 | -0.18155 | 0.217709 | 7.524747 | -37.61 | 120.7816 | 1031.09 | 15.51 | |
| ##### | 5.976108 | 68.64707 | 106.582 | 28296.68 | 16.72385 | 33609.48 | 21.18435 | 21.84616 | 35.33984 | 1.015002 | -0.18155 | 0.217709 | 7.524747 | -37.61 | 120.7816 | 1031.09 | 15.51 | |
| ##### | 5.976108 | 68.64707 | 106.582 | 28296.68 | 16.72385 | 33609.48 | 21.18435 | 21.84616 | 35.33984 | 1.015002 | -0.18155 | 0.217709 | 7.524747 | -37.61 | 120.7816 | 1031.09 | 15.51 | |
| ##### | 5.976108 | 68.64707 | 106.582 | 28296.68 | 16.72385 | 33609.48 | 21.18435 | 21.84616 | 35.33984 | 1.015002 | -0.18155 | 0.217709 | 7.524747 | -37.61 | 120.7816 | 1031.09 | 15.51 | |
| ##### | 5.950242 | 68.35976 | 106.1309 | 28317.31 | 16.72341 | 33634.32 | 21.20156 | 21.86231 | 35.31409 | 1.015016 | -0.17673 | 0.228829 | 7.52121 | -37.411 | 127.1187 | 1031.041 | 15.51 | |
| ##### | 5.948653 | 68.34211 | 106.1032 | 28318.58 | 16.72338 | 33635.85 | 21.20262 | 21.8633 | 35.3125 | 1.015017 | -0.17643 | 0.229512 | 7.520993 | -37.3987 | 127.5079 | 1031.038 | 15.51 | |
| ##### | 5.947064 | 68.32446 | 106.0755 | 28319.85 | 16.72336 | 33637.38 | 21.20367 | 21.86429 | 35.31092 | 1.015017 | -0.17614 | 0.230195 | 7.520775 | -37.3865 | 127.8972 | 1031.035 | 15.51 | |
| ##### | 5.925859 | 68.07572 | 105.6892 | 28307.12 | 16.72073 | 33624.25 | 21.19448 | 21.85576 | 35.32681 | 1.015011 | -0.17486 | 0.233134 | 7.519622 | -37.322 | 128.0714 | 1031.033 | 15.51 | |
| ##### | 5.924269 | 68.05745 | 105.6607 | 28307.03 | 16.7206 | 33624.25 | 21.19447 | 21.85576 | 35.32692 | 1.015011 | -0.17469 | 0.233535 | 7.519485 | -37.3142 | 128.2314 | 1031.031 | 15.51 | |

Location Properties

Location Name = T4-4HS

Report Properties

Start Time = 2021-12-15 08:13:33

Time Offset = -05:00:00

Duration = 00:00:23

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.430409 | 85.35516 | 132.5163 | 28156.2 | 16.76701 | 33409.91 | 21.04763 | 21.71644 | 35.51615 | 1.014889 | -0.18954 | 0.199279 | 7.508512 | -36.7036 | 117.7759 | 1031.09 | 16.04 | |
| ##### | 7.430409 | 85.35516 | 132.5163 | 28156.2 | 16.76701 | 33409.91 | 21.04763 | 21.71644 | 35.51615 | 1.014889 | -0.18954 | 0.199279 | 7.508512 | -36.7036 | 117.7759 | 1031.09 | 16.04 | |
| ##### | 7.430409 | 85.35516 | 132.5163 | 28156.2 | 16.76701 | 33409.91 | 21.04763 | 21.71644 | 35.51615 | 1.014889 | -0.18954 | 0.199279 | 7.508512 | -36.7036 | 117.7759 | 1031.09 | 16.04 | |
| ##### | 7.430409 | 85.35516 | 132.5163 | 28156.2 | 16.76701 | 33409.91 | 21.04763 | 21.71644 | 35.51615 | 1.014889 | -0.18954 | 0.199279 | 7.508512 | -36.7036 | 117.7759 | 1031.09 | 16.04 | |
| ##### | 7.430409 | 85.35516 | 132.5163 | 28156.2 | 16.76701 | 33409.91 | 21.04763 | 21.71644 | 35.51615 | 1.014889 | -0.18954 | 0.199279 | 7.508512 | -36.7036 | 117.7759 | 1031.09 | 16.04 | |
| ##### | 7.072737 | 81.24565 | 126.1314 | 28148.24 | 16.76636 | 33400.96 | 21.0414 | 21.71063 | 35.5262 | 1.014884 | -0.18245 | 0.21563 | 7.503948 | -36.4474 | 123.5994 | 1031.051 | 16.04978 | |
| ##### | 7.050487 | 80.99 | 125.7342 | 28147.75 | 16.76632 | 33400.41 | 21.04101 | 21.71026 | 35.52682 | 1.014884 | -0.18201 | 0.216647 | 7.503664 | -36.4315 | 123.9617 | 1031.048 | 16.05039 | |
| ##### | 7.028235 | 80.73434 | 125.337 | 28147.25 | 16.76628 | 33399.85 | 21.04062 | 21.7099 | 35.52745 | 1.014884 | -0.18157 | 0.217664 | 7.50338 | -36.4155 | 124.324 | 1031.046 | 16.051 | |
| ##### | 6.775294 | 77.83846 | 120.8418 | 28170.65 | 16.76711 | 33426.98 | 21.05946 | 21.72754 | 35.49794 | 1.014898 | -0.18162 | 0.217546 | 7.50176 | -36.3245 | 124.3455 | 1031.051 | 16.0497 | |
| ##### | 6.755305 | 77.60925 | 120.4858 | 28171.49 | 16.76714 | 33427.96 | 21.06014 | 21.72818 | 35.49688 | 1.014899 | -0.18145 | 0.217942 | 7.501575 | -36.3142 | 124.4894 | 1031.05 | 16.04988 | |

Location Properties

Location Name = HT BACKGROUND

Report Properties

Start Time = 2021-12-15 08:41:21

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.949773 | 81.94556 | 127.0838 | 30234.46 | 17.71986 | 35117.59 | 22.27082 | 22.82643 | 33.07484 | 1.015615 | -0.17638 | 0.22963 | 7.625024 | -43.3876 | 113.8648 | 1031.17 | 17.22 | |
| ##### | 6.949773 | 81.94556 | 127.0838 | 30234.46 | 17.71986 | 35117.59 | 22.27082 | 22.82643 | 33.07484 | 1.015615 | -0.17638 | 0.22963 | 7.625024 | -43.3876 | 113.8648 | 1031.17 | 17.22 | |
| ##### | 6.949773 | 81.94556 | 127.0838 | 30234.46 | 17.71986 | 35117.59 | 22.27082 | 22.82643 | 33.07484 | 1.015615 | -0.17638 | 0.22963 | 7.625024 | -43.3876 | 113.8648 | 1031.17 | 17.22 | |
| ##### | 6.949773 | 81.94556 | 127.0838 | 30234.46 | 17.71986 | 35117.59 | 22.27082 | 22.82643 | 33.07484 | 1.015615 | -0.17638 | 0.22963 | 7.625024 | -43.3876 | 113.8648 | 1031.17 | 17.22 | |
| ##### | 6.94167 | 81.82223 | 126.8973 | 30220.89 | 17.70429 | 35113.95 | 22.26772 | 22.82407 | 33.08969 | 1.015616 | -0.1774 | 0.22728 | 7.623336 | -43.2927 | 118.7099 | 1031.188 | 17.22919 | |
| ##### | 6.94114 | 81.81417 | 126.8851 | 30220.01 | 17.70328 | 35113.72 | 22.26752 | 22.82392 | 33.09066 | 1.015617 | -0.17747 | 0.227126 | 7.623226 | -43.2865 | 119.0266 | 1031.189 | 17.22978 | |
| ##### | 6.940611 | 81.80611 | 126.8729 | 30219.12 | 17.70226 | 35113.48 | 22.26732 | 22.82376 | 33.09163 | 1.015617 | -0.17753 | 0.226973 | 7.623115 | -43.2803 | 119.3432 | 1031.19 | 17.23038 | |
| ##### | 6.940081 | 81.79805 | 126.8607 | 30218.23 | 17.70124 | 35113.24 | 22.26711 | 22.82361 | 33.0926 | 1.015617 | -0.1776 | 0.226819 | 7.623005 | -43.2741 | 119.6599 | 1031.192 | 17.23099 | |
| ##### | 6.936832 | 81.777 | 126.8311 | 30271.69 | 17.70489 | 35172.51 | 22.30867 | 22.86213 | 33.03418 | 1.015648 | -0.19062 | 0.196777 | 7.623908 | -43.3243 | 119.6611 | 1031.215 | 17.23828 | |
| ##### | 6.936476 | 81.77287 | 126.825 | 30273.76 | 17.70465 | 35175.1 | 22.31047 | 22.86382 | 33.03192 | 1.015649 | -0.19124 | 0.195357 | 7.623905 | -43.3241 | 119.7862 | 1031.216 | 17.23885 | |

Location Properties

Location Name = T2-1HTS

Report Properties

Start Time = 2021-12-15 09:05:32

Time Offset = -05:00:00

Duration = 00:00:25

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.268449 | 83.65679 | 129.8173 | 26271.19 | 17.44276 | 30702.95 | 19.20322 | 19.95692 | 38.06451 | 1.013338 | -0.00359 | 0.628212 | 7.620588 | -43.0875 | 109.0513 | 1031.44 | 17.67 | |
| ##### | 7.268449 | 83.65679 | 129.8173 | 26271.19 | 17.44276 | 30702.95 | 19.20322 | 19.95692 | 38.06451 | 1.013338 | -0.00359 | 0.628212 | 7.620588 | -43.0875 | 109.0513 | 1031.44 | 17.67 | |
| ##### | 7.268449 | 83.65679 | 129.8173 | 26271.19 | 17.44276 | 30702.95 | 19.20322 | 19.95692 | 38.06451 | 1.013338 | -0.00359 | 0.628212 | 7.620588 | -43.0875 | 109.0513 | 1031.44 | 17.67 | |
| ##### | 7.268449 | 83.65679 | 129.8173 | 26271.19 | 17.44276 | 30702.95 | 19.20322 | 19.95692 | 38.06451 | 1.013338 | -0.00359 | 0.628212 | 7.620588 | -43.0875 | 109.0513 | 1031.44 | 17.67 | |
| ##### | 6.875275 | 79.04569 | 122.6727 | 26299.97 | 17.37107 | 30785.87 | 19.25796 | 20.01082 | 38.02286 | 1.013396 | -0.01671 | 0.597936 | 7.596581 | -41.7303 | 112.9341 | 1031.44 | 17.67 | |
| ##### | 6.850264 | 78.75237 | 122.2183 | 26301.8 | 17.36651 | 30791.14 | 19.26144 | 20.01424 | 38.02021 | 1.013399 | -0.01755 | 0.59601 | 7.595053 | -41.644 | 113.1811 | 1031.44 | 17.67 | |
| ##### | 6.825253 | 78.45905 | 121.7638 | 26303.63 | 17.36195 | 30796.42 | 19.26492 | 20.01767 | 38.01756 | 1.013403 | -0.01838 | 0.594085 | 7.593526 | -41.5576 | 113.4281 | 1031.44 | 17.67 | |
| ##### | 6.800243 | 78.16573 | 121.3093 | 26305.46 | 17.35739 | 30801.69 | 19.2684 | 20.0211 | 38.01491 | 1.013406 | -0.01922 | 0.592159 | 7.591999 | -41.4713 | 113.6751 | 1031.44 | 17.67 | |
| ##### | 6.606348 | 75.87004 | 117.752 | 26289.34 | 17.32816 | 30802.97 | 19.26837 | 20.02193 | 38.03823 | 1.013413 | -0.01983 | 0.590739 | 7.583187 | -40.9739 | 113.6722 | 1031.431 | 17.67 | |
| ##### | 6.587758 | 75.65105 | 117.4127 | 26289.34 | 17.32505 | 30805.12 | 19.26975 | 20.02333 | 38.03823 | 1.013414 | -0.02019 | 0.589913 | 7.582188 | -40.9174 | 113.7699 | 1031.431 | 17.67 | |

Location Properties

Location Name = T2-2HT

Report Properties

Start Time = 2021-12-15 09:20:13

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.055233 | 69.84554 | 108.3954 | 26470.45 | 17.52578 | 30878.61 | 19.3264 | 20.07109 | 37.77797 | 1.013414 | -0.18431 | 0.21134 | 7.48786 | -35.6309 | 104.7337 | 1031.64 | 18.41 | |
| ##### | 6.055233 | 69.84554 | 108.3954 | 26470.45 | 17.52578 | 30878.61 | 19.3264 | 20.07109 | 37.77797 | 1.013414 | -0.18431 | 0.21134 | 7.48786 | -35.6309 | 104.7337 | 1031.64 | 18.41 | |
| ##### | 6.055233 | 69.84554 | 108.3954 | 26470.45 | 17.52578 | 30878.61 | 19.3264 | 20.07109 | 37.77797 | 1.013414 | -0.18431 | 0.21134 | 7.48786 | -35.6309 | 104.7337 | 1031.64 | 18.41 | |
| ##### | 6.055233 | 69.84554 | 108.3954 | 26470.45 | 17.52578 | 30878.61 | 19.3264 | 20.07109 | 37.77797 | 1.013414 | -0.18431 | 0.21134 | 7.48786 | -35.6309 | 104.7337 | 1031.64 | 18.41 | |
| ##### | 6.046276 | 69.68872 | 108.1541 | 26461.55 | 17.48114 | 30898.95 | 19.33902 | 20.08432 | 37.79068 | 1.013434 | -0.19111 | 0.195646 | 7.483654 | -35.392 | 108.3685 | 1031.602 | 18.39139 | |
| ##### | 6.045684 | 69.67837 | 108.1381 | 26460.96 | 17.4782 | 30900.29 | 19.33985 | 20.08519 | 37.79152 | 1.013435 | -0.19156 | 0.19461 | 7.483377 | -35.3762 | 108.6083 | 1031.6 | 18.39017 | |
| ##### | 6.045094 | 69.66802 | 108.1222 | 26460.37 | 17.47525 | 30901.64 | 19.34068 | 20.08607 | 37.79236 | 1.013436 | -0.19201 | 0.193574 | 7.483099 | -35.3605 | 108.8482 | 1031.598 | 18.38894 | |
| ##### | 6.044502 | 69.65767 | 108.1063 | 26459.79 | 17.47231 | 30902.98 | 19.34152 | 20.08694 | 37.7932 | 1.013437 | -0.19246 | 0.192538 | 7.482821 | -35.3447 | 109.0881 | 1031.595 | 18.38771 | |
| ##### | 6.02795 | 69.43135 | 107.7658 | 26477.48 | 17.4632 | 30929.93 | 19.35975 | 20.10445 | 37.76795 | 1.013453 | -0.20403 | 0.165859 | 7.480963 | -35.2381 | 109.0769 | 1031.661 | 18.41628 | |
| ##### | 6.026968 | 69.41701 | 107.7441 | 26478.04 | 17.46161 | 30931.68 | 19.36091 | 20.10559 | 37.76715 | 1.013455 | -0.20473 | 0.164242 | 7.480767 | -35.2269 | 109.1727 | 1031.663 | 18.41707 | |

Location Properties

Location Name = T2-2HTS

Report Properties

Start Time = 2021-12-15 09:24:51

Time Offset = -05:00:00

Duration = 00:00:22

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|-----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 6.701995 | 76.83915 | 119.3046 | 26236.22 | 17.24543 | 30797.74 | 19.26221 | 20.01853 | 38.11525 | 1.013426 | -0.20307 | 0.168079 | 7.462844 | -34.1829 | 103.7879 | 1031.76 | 18.77 | |
| ##### | 6.701995 | 76.83915 | 119.3046 | 26236.22 | 17.24543 | 30797.74 | 19.26221 | 20.01853 | 38.11525 | 1.013426 | -0.20307 | 0.168079 | 7.462844 | -34.1829 | 103.7879 | 1031.76 | 18.77 | |
| ##### | 6.701995 | 76.83915 | 119.3046 | 26236.22 | 17.24543 | 30797.74 | 19.26221 | 20.01853 | 38.11525 | 1.013426 | -0.20307 | 0.168079 | 7.462844 | -34.1829 | 103.7879 | 1031.76 | 18.77 | |
| ##### | 6.701995 | 76.83915 | 119.3046 | 26236.22 | 17.24543 | 30797.74 | 19.26221 | 20.01853 | 38.11525 | 1.013426 | -0.20307 | 0.168079 | 7.462844 | -34.1829 | 103.7879 | 1031.76 | 18.77 | |
| ##### | 6.461981 | 73.97429 | 114.8485 | 26238.13 | 17.14478 | 30869.65 | 19.30841 | 20.06528 | 38.11247 | 1.013482 | -0.20547 | 0.162539 | 7.458583 | -33.9393 | 107.2666 | 1031.564 | 18.77 | |
| ##### | 6.446902 | 73.7943 | 114.5685 | 26238.25 | 17.13846 | 30874.17 | 19.31131 | 20.06821 | 38.11229 | 1.013486 | -0.20562 | 0.162191 | 7.458315 | -33.924 | 107.4851 | 1031.552 | 18.77 | |
| ##### | 6.431823 | 73.61432 | 114.2886 | 26238.38 | 17.13214 | 30878.69 | 19.31421 | 20.07115 | 38.11212 | 1.013489 | -0.20577 | 0.161843 | 7.458047 | -33.9087 | 107.7037 | 1031.54 | 18.77 | |
| ##### | 6.301094 | 72.05296 | 111.8932 | 26247.88 | 17.11663 | 30900.68 | 19.32881 | 20.08544 | 38.09832 | 1.013504 | -0.20811 | 0.156452 | 7.457013 | -33.8482 | 107.543 | 1031.751 | 18.78684 | |
| ##### | 6.28932 | 71.91239 | 111.676 | 26248.35 | 17.11345 | 30903.44 | 19.3306 | 20.08724 | 38.09764 | 1.013506 | -0.20827 | 0.156074 | 7.456861 | -33.8394 | 107.6222 | 1031.755 | 18.78759 | |

Location Properties

Location Name = T2-3HT

Report Properties

Start Time = 2021-12-15 09:33:32

Time Offset = -05:00:00

Duration = 00:00:34

Readings = 18

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.732779 | 65.83234 | 102.2104 | 26547.39 | 17.24832 | 31160.99 | 19.51186 | 20.25465 | 37.66849 | 1.013615 | -0.23188 | 0.101625 | 7.454039 | -33.6976 | 79.41988 | 1031.72 | 18.97 | |
| ##### | 5.732779 | 65.83234 | 102.2104 | 26547.39 | 17.24832 | 31160.99 | 19.51186 | 20.25465 | 37.66849 | 1.013615 | -0.23188 | 0.101625 | 7.454039 | -33.6976 | 79.41988 | 1031.72 | 18.97 | |
| ##### | 5.732779 | 65.83234 | 102.2104 | 26547.39 | 17.24832 | 31160.99 | 19.51186 | 20.25465 | 37.66849 | 1.013615 | -0.23188 | 0.101625 | 7.454039 | -33.6976 | 79.41988 | 1031.72 | 18.97 | |
| ##### | 5.731486 | 65.79432 | 102.1528 | 26540.08 | 17.22934 | 31165.68 | 19.51448 | 20.25769 | 37.67886 | 1.013621 | -0.20544 | 0.162611 | 7.452206 | -33.5929 | 81.82133 | 1031.71 | 18.96065 | |
| ##### | 5.731402 | 65.79185 | 102.1491 | 26539.61 | 17.22811 | 31165.98 | 19.51465 | 20.25789 | 37.67953 | 1.013622 | -0.20372 | 0.166562 | 7.452087 | -33.5861 | 81.97693 | 1031.71 | 18.96004 | |
| ##### | 5.731319 | 65.78939 | 102.1454 | 26539.13 | 17.22688 | 31166.29 | 19.51482 | 20.25809 | 37.68021 | 1.013622 | -0.20201 | 0.170514 | 7.451968 | -33.5793 | 82.13252 | 1031.709 | 18.95944 | |
| ##### | 5.731235 | 65.78693 | 102.1416 | 26538.66 | 17.22565 | 31166.59 | 19.51499 | 20.25828 | 37.68088 | 1.013622 | -0.2003 | 0.174465 | 7.451849 | -33.5725 | 82.28812 | 1031.708 | 18.95883 | |
| ##### | 5.723104 | 65.69051 | 101.99 | 26562.27 | 17.2156 | 31201.35 | 19.53857 | 20.28088 | 37.64739 | 1.013643 | -0.19056 | 0.196933 | 7.451827 | -33.5714 | 82.5349 | 1031.675 | 18.96021 | |
| ##### | 5.722701 | 65.68514 | 101.9816 | 26563.15 | 17.21464 | 31203.05 | 19.5397 | 20.28198 | 37.64614 | 1.013644 | -0.18942 | 0.199546 | 7.451778 | -33.5686 | 82.60883 | 1031.673 | 18.96003 | |
| ##### | 5.722298 | 65.67977 | 101.9732 | 26564.03 | 17.21369 | 31204.75 | 19.54084 | 20.28309 | 37.64489 | 1.013645 | -0.18829 | 0.202159 | 7.451729 | -33.5658 | 82.68276 | 1031.672 | 18.95985 | |
| ##### | 5.721895 | 65.6744 | 101.9648 | 26564.91 | 17.21274 | 31206.45 | 19.54198 | 20.28419 | 37.64365 | 1.013646 | -0.18716 | 0.204772 | 7.451681 | -33.563 | 82.7567 | 1031.67 | 18.95967 | |
| ##### | 5.726099 | 65.69581 | 102.0056 | 26526.8 | 17.20193 | 31169.25 | 19.51606 | 20.26001 | 37.69773 | 1.013628 | -0.2076 | 0.157626 | 7.451057 | -33.526 | 83.13662 | 1031.732 | 18.96883 | |
| ##### | 5.726115 | 65.69465 | 102.0041 | 26525.57 | 17.20117 | 31168.33 | 19.5154 | 20.25941 | 37.69948 | 1.013628 | -0.20818 | 0.156281 | 7.451022 | -33.5239 | 83.16902 | 1031.734 | 18.96922 | |
| ##### | 5.726131 | 65.6935 | 102.0026 | 26524.34 | 17.20041 | 31167.41 | 19.51475 | 20.25882 | 37.70123 | 1.013628 | -0.20876 | 0.154936 | 7.450985 | -33.5218 | 83.20143 | 1031.736 | 18.9696 | |
| ##### | 5.722672 | 65.64952 | 101.9369 | 26537.4 | 17.19398 | 31187.27 | 19.52819 | 20.27172 | 37.68267 | 1.013639 | -0.20266 | 0.169022 | 7.450681 | -33.5028 | 83.55057 | 1031.754 | 18.9865 | |
| ##### | 5.722592 | 65.6479 | 101.9346 | 26537.28 | 17.19347 | 31187.47 | 19.52832 | 20.27186 | 37.68284 | 1.01364 | -0.20274 | 0.168827 | 7.450655 | -33.5012 | 83.57494 | 1031.756 | 18.9874 | |
| ##### | 5.722511 | 65.64626 | 101.9323 | 26537.15 | 17.19297 | 31187.68 | 19.52844 | 20.27199 | 37.68302 | 1.01364 | -0.20283 | 0.168632 | 7.450628 | -33.4996 | 83.5993 | 1031.758 | 18.98829 | |
| ##### | 5.722431 | 65.64463 | 101.93 | 26537.03 | 17.19246 | 31187.89 | 19.52857 | 20.27213 | 37.6832 | 1.01364 | -0.20291 | 0.168436 | 7.450602 | -33.498 | 83.62366 | 1031.76 | 18.98919 | |

Location Properties

Location Name = T1-4HT

Report Properties

Start Time = 2021-12-15 09:54:25

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.159812 | 72.22734 | 112.0044 | 27228.1 | 18.291 | 31229.96 | 19.59067 | 20.29947 | 36.72679 | 1.013448 | -0.21692 | 0.136126 | 7.469309 | -34.6723 | 81.94846 | 1031.839 | 20.03939 | |
| ##### | 6.158809 | 72.20988 | 111.9778 | 27224.9 | 18.28593 | 31229.76 | 19.59039 | 20.29935 | 36.73109 | 1.013449 | -0.21697 | 0.136016 | 7.469244 | -34.6679 | 81.94208 | 1031.838 | 20.03995 | |
| ##### | 6.148142 | 71.96943 | 111.6231 | 27329.86 | 18.20819 | 31403.7 | 19.70807 | 20.41241 | 36.59008 | 1.013555 | -0.21974 | 0.129622 | 7.466978 | -34.5357 | 82.00364 | 1031.848 | 20.05714 | |
| ##### | 6.147304 | 71.95238 | 111.5976 | 27332.95 | 18.20339 | 31410.54 | 19.71265 | 20.41685 | 36.58594 | 1.01356 | -0.21964 | 0.129857 | 7.466861 | -34.5288 | 82.00432 | 1031.849 | 20.05807 | |
| ##### | 6.146465 | 71.93534 | 111.5722 | 27336.04 | 18.1986 | 31417.39 | 19.71723 | 20.4213 | 36.58179 | 1.013564 | -0.21953 | 0.130091 | 7.466744 | -34.5218 | 82.005 | 1031.849 | 20.059 | |
| ##### | 6.144482 | 71.83544 | 111.4291 | 27339.75 | 18.09221 | 31495.26 | 19.76783 | 20.47192 | 36.5768 | 1.013627 | -0.2178 | 0.134092 | 7.466554 | -34.4975 | 81.81265 | 1031.866 | 20.07625 | |
| ##### | 6.144187 | 71.82635 | 111.4159 | 27341.78 | 18.08587 | 31501.96 | 19.77227 | 20.47628 | 36.57407 | 1.013631 | -0.21778 | 0.134144 | 7.466504 | -34.4939 | 81.80487 | 1031.867 | 20.07735 | |
| ##### | 6.143894 | 71.81726 | 111.4026 | 27343.81 | 18.07953 | 31508.67 | 19.77671 | 20.48064 | 36.57135 | 1.013636 | -0.21775 | 0.134197 | 7.466453 | -34.4904 | 81.7971 | 1031.868 | 20.07846 | |
| ##### | 6.1436 | 71.80817 | 111.3894 | 27345.84 | 18.07319 | 31515.38 | 19.78115 | 20.485 | 36.56862 | 1.013641 | -0.21773 | 0.134249 | 7.466403 | -34.4868 | 81.78931 | 1031.869 | 20.07956 | |
| ##### | 6.129238 | 71.58115 | 111.041 | 27329.09 | 18.02661 | 31528.43 | 19.78877 | 20.49348 | 36.59105 | 1.013657 | -0.22943 | 0.107263 | 7.465333 | -34.4217 | 81.49076 | 1031.843 | 20.08798 | |

Location Properties

Location Name = T1-4HTS

Report Properties

Start Time = 2021-12-15 10:01:12

Time Offset = -05:00:00

Duration = 00:00:23

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.91451 | 80.53747 | 124.9272 | 26665.86 | 18.05293 | 30745.44 | 19.25039 | 19.98453 | 37.50114 | 1.013242 | -0.24586 | 0.069372 | 7.432143 | -32.5386 | 75.21432 | 1031.82 | 20.29 | |
| ##### | 6.91451 | 80.53747 | 124.9272 | 26665.86 | 18.05293 | 30745.44 | 19.25039 | 19.98453 | 37.50114 | 1.013242 | -0.24586 | 0.069372 | 7.432143 | -32.5386 | 75.21432 | 1031.82 | 20.29 | |
| ##### | 6.91451 | 80.53747 | 124.9272 | 26665.86 | 18.05293 | 30745.44 | 19.25039 | 19.98453 | 37.50114 | 1.013242 | -0.24586 | 0.069372 | 7.432143 | -32.5386 | 75.21432 | 1031.82 | 20.29 | |
| ##### | 6.91451 | 80.53747 | 124.9272 | 26665.86 | 18.05293 | 30745.44 | 19.25039 | 19.98453 | 37.50114 | 1.013242 | -0.24586 | 0.069372 | 7.432143 | -32.5386 | 75.21432 | 1031.82 | 20.29 | |
| ##### | 6.574099 | 76.34604 | 118.4484 | 26602.69 | 17.8949 | 30779.74 | 19.26942 | 20.00683 | 37.5902 | 1.013291 | -0.22635 | 0.114368 | 7.435857 | -32.737 | 75.36377 | 1031.811 | 20.29911 | |
| ##### | 6.552544 | 76.08064 | 118.0382 | 26598.69 | 17.88489 | 30781.91 | 19.27063 | 20.00824 | 37.59584 | 1.013294 | -0.22512 | 0.117217 | 7.436092 | -32.7496 | 75.37323 | 1031.81 | 20.29969 | |
| ##### | 6.530988 | 75.81522 | 117.6279 | 26594.69 | 17.87488 | 30784.09 | 19.27183 | 20.00965 | 37.60148 | 1.013297 | -0.22388 | 0.120066 | 7.436327 | -32.7622 | 75.3827 | 1031.809 | 20.30027 | |
| ##### | 6.509433 | 75.54982 | 117.2177 | 26590.69 | 17.86487 | 30786.26 | 19.27304 | 20.01107 | 37.60712 | 1.0133 | -0.22265 | 0.122915 | 7.436563 | -32.7747 | 75.39216 | 1031.809 | 20.30084 | |
| ##### | 6.341879 | 73.42889 | 113.9555 | 26600.71 | 17.79118 | 30848.18 | 19.31343 | 20.05132 | 37.59298 | 1.013347 | -0.22223 | 0.123869 | 7.438654 | -32.8873 | 75.49796 | 1031.897 | 20.31706 | |
| ##### | 6.325733 | 73.22742 | 113.6448 | 26599.62 | 17.78387 | 30851.89 | 19.31577 | 20.05373 | 37.59453 | 1.01335 | -0.22173 | 0.125024 | 7.438843 | -32.8974 | 75.50653 | 1031.901 | 20.31803 | |

Location Properties

Location Name = T2-4HT

Report Properties

Start Time = 2021-12-15 10:21:25

Time Offset = -05:00:00

Duration = 00:00:26

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperat | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperat | Marked |
|-----------|----------|----------|-----------|-----------|------------|----------|-------------|-------------|-------------|-------------|------------|-------------|------------|------------|-----------|----------|-----------|----------|--------|
| ##### | 5.481465 | 67.13309 | 103.6745 | 26508.15 | 21.09016 | 28647.48 | 17.87954 | 18.62086 | 37.72425 | 1.011493 | -0.19653 | 0.183146 | 7.50376 | -36.9559 | 76.3664 | 1031.65 | 22.17 | | |
| ##### | 5.481465 | 67.13309 | 103.6745 | 26508.15 | 21.09016 | 28647.48 | 17.87954 | 18.62086 | 37.72425 | 1.011493 | -0.19653 | 0.183146 | 7.50376 | -36.9559 | 76.3664 | 1031.65 | 22.17 | | |
| ##### | 5.481465 | 67.13309 | 103.6745 | 26508.15 | 21.09016 | 28647.48 | 17.87954 | 18.62086 | 37.72425 | 1.011493 | -0.19653 | 0.183146 | 7.50376 | -36.9559 | 76.3664 | 1031.65 | 22.17 | | |
| ##### | 5.481465 | 67.13309 | 103.6745 | 26508.15 | 21.09016 | 28647.48 | 17.87954 | 18.62086 | 37.72425 | 1.011493 | -0.19653 | 0.183146 | 7.50376 | -36.9559 | 76.3664 | 1031.65 | 22.17 | | |
| ##### | 5.491169 | 67.06168 | 103.5866 | 26520.53 | 20.91161 | 28766.92 | 17.95817 | 18.6985 | 37.70664 | 1.011596 | -0.20687 | 0.159315 | 7.498535 | -36.642 | 77.76691 | 1031.594 | 22.17 | | |
| ##### | 5.491786 | 67.05714 | 103.581 | 26521.31 | 20.90027 | 28774.5 | 17.96316 | 18.70343 | 37.70552 | 1.011603 | -0.20752 | 0.157801 | 7.498203 | -36.622 | 77.85588 | 1031.591 | 22.17 | | |
| ##### | 5.492403 | 67.05261 | 103.5754 | 26522.1 | 20.88893 | 28782.09 | 17.96815 | 18.70836 | 37.7044 | 1.011609 | -0.20818 | 0.156287 | 7.497871 | -36.6021 | 77.94485 | 1031.587 | 22.17 | | |
| ##### | 5.493019 | 67.04807 | 103.5698 | 26522.89 | 20.87759 | 28789.68 | 17.97315 | 18.71329 | 37.70329 | 1.011616 | -0.20883 | 0.154773 | 7.497539 | -36.5822 | 78.03381 | 1031.584 | 22.17 | | |
| ##### | 5.51299 | 67.05471 | 103.6189 | 26538.59 | 20.77771 | 28866.62 | 18.02402 | 18.7633 | 37.68098 | 1.011679 | -0.22006 | 0.128881 | 7.494538 | -36.4012 | 78.05656 | 1031.661 | 22.18755 | | |
| ##### | 5.514159 | 67.05322 | 103.619 | 26539.63 | 20.76859 | 28873.19 | 18.02835 | 18.76757 | 37.6795 | 1.011684 | -0.22084 | 0.127082 | 7.494267 | -36.3849 | 78.09295 | 1031.663 | 22.18836 | | |
| ##### | 5.515327 | 67.05172 | 103.619 | 26540.67 | 20.75946 | 28879.76 | 18.03269 | 18.77184 | 37.67802 | 1.01169 | -0.22162 | 0.125283 | 7.493997 | -36.3686 | 78.12934 | 1031.666 | 22.18917 | | |

Location Properties

Location Name = T2-4HTS

Report Properties

Start Time = 2021-12-15 10:26:48

Time Offset = -05:00:00

Duration = 00:00:24

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 7.864553 | 91.59842 | 142.0217 | 26083.69 | 18.19688 | 29979.17 | 18.72833 | 19.48646 | 38.33813 | 1.012813 | -0.24339 | 0.075074 | 7.524765 | -37.795 | 78.63027 | 1031.56 | 22.6 | |
| ##### | 7.864553 | 91.59842 | 142.0217 | 26083.69 | 18.19688 | 29979.17 | 18.72833 | 19.48646 | 38.33813 | 1.012813 | -0.24339 | 0.075074 | 7.524765 | -37.795 | 78.63027 | 1031.56 | 22.6 | |
| ##### | 7.864553 | 91.59842 | 142.0217 | 26083.69 | 18.19688 | 29979.17 | 18.72833 | 19.48646 | 38.33813 | 1.012813 | -0.24339 | 0.075074 | 7.524765 | -37.795 | 78.63027 | 1031.56 | 22.6 | |
| ##### | 7.864553 | 91.59842 | 142.0217 | 26083.69 | 18.19688 | 29979.17 | 18.72833 | 19.48646 | 38.33813 | 1.012813 | -0.24339 | 0.075074 | 7.524765 | -37.795 | 78.63027 | 1031.56 | 22.6 | |
| ##### | 7.864553 | 91.59842 | 142.0217 | 26083.69 | 18.19688 | 29979.17 | 18.72833 | 19.48646 | 38.33813 | 1.012813 | -0.24339 | 0.075074 | 7.524765 | -37.795 | 78.63027 | 1031.56 | 22.6 | |
| ##### | 7.222996 | 84.06419 | 130.349 | 26119.25 | 18.14353 | 30055.24 | 18.77904 | 19.53591 | 38.28594 | 1.012863 | -0.24049 | 0.081765 | 7.511118 | -37.0148 | 79.95148 | 1031.56 | 22.6 | |
| ##### | 7.183052 | 83.5951 | 129.6222 | 26121.46 | 18.14021 | 30059.98 | 18.78219 | 19.53899 | 38.28269 | 1.012866 | -0.2403 | 0.082182 | 7.510269 | -36.9662 | 80.03374 | 1031.56 | 22.6 | |
| ##### | 7.143108 | 83.12601 | 128.8955 | 26123.68 | 18.13689 | 30064.72 | 18.78535 | 19.54207 | 38.27944 | 1.012869 | -0.24012 | 0.082598 | 7.509419 | -36.9176 | 80.116 | 1031.56 | 22.6 | |
| ##### | 6.879769 | 79.92744 | 123.9454 | 26109.74 | 18.07479 | 30089.78 | 18.80083 | 19.55836 | 38.29988 | 1.012895 | -0.23716 | 0.089438 | 7.503918 | -36.6046 | 80.03446 | 1031.518 | 22.59159 | |
| ##### | 6.852363 | 79.60087 | 123.4397 | 26109.99 | 18.07072 | 30092.76 | 18.80276 | 19.56029 | 38.29951 | 1.012897 | -0.23696 | 0.089906 | 7.503339 | -36.5716 | 80.06311 | 1031.516 | 22.59121 | |

Location Properties

Location Name = T3-4HT

Report Properties

Start Time = 2021-12-15 10:45:55

Time Offset = -05:00:00

Duration = 00:00:25

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.763672 | 68.84091 | 106.5455 | 27131.45 | 19.3914 | 30386.59 | 19.03855 | 19.75128 | 36.8576 | 1.012777 | -0.23379 | 0.097199 | 7.453434 | -33.9153 | 78.39117 | 1031.37 | 23.58 | |
| ##### | 5.763672 | 68.84091 | 106.5455 | 27131.45 | 19.3914 | 30386.59 | 19.03855 | 19.75128 | 36.8576 | 1.012777 | -0.23379 | 0.097199 | 7.453434 | -33.9153 | 78.39117 | 1031.37 | 23.58 | |
| ##### | 5.763672 | 68.84091 | 106.5455 | 27131.45 | 19.3914 | 30386.59 | 19.03855 | 19.75128 | 36.8576 | 1.012777 | -0.23379 | 0.097199 | 7.453434 | -33.9153 | 78.39117 | 1031.37 | 23.58 | |
| ##### | 5.763672 | 68.84091 | 106.5455 | 27131.45 | 19.3914 | 30386.59 | 19.03855 | 19.75128 | 36.8576 | 1.012777 | -0.23379 | 0.097199 | 7.453434 | -33.9153 | 78.39117 | 1031.37 | 23.58 | |
| ##### | 5.759974 | 68.82048 | 106.5108 | 27175.04 | 19.39911 | 30430.4 | 19.06889 | 19.77976 | 36.79848 | 1.012799 | -0.21507 | 0.140399 | 7.451771 | -33.8236 | 79.54946 | 1031.351 | 23.60807 | |
| ##### | 5.759734 | 68.81916 | 106.5085 | 27177.87 | 19.3996 | 30433.23 | 19.07085 | 19.7816 | 36.79465 | 1.0128 | -0.21385 | 0.143195 | 7.451663 | -33.8177 | 79.62442 | 1031.35 | 23.60989 | |
| ##### | 5.759495 | 68.81783 | 106.5063 | 27180.69 | 19.4001 | 30436.07 | 19.07281 | 19.78345 | 36.79082 | 1.012801 | -0.21264 | 0.145991 | 7.451556 | -33.8118 | 79.69939 | 1031.349 | 23.61171 | |
| ##### | 5.759255 | 68.81651 | 106.504 | 27183.51 | 19.4006 | 30438.9 | 19.07478 | 19.78529 | 36.78699 | 1.012803 | -0.21143 | 0.148787 | 7.451448 | -33.8058 | 79.77435 | 1031.347 | 23.61352 | |
| ##### | 5.759563 | 68.81376 | 106.5042 | 27196.12 | 19.41967 | 30440.61 | 19.0764 | 19.7864 | 36.76996 | 1.012799 | -0.23563 | 0.092968 | 7.451599 | -33.8114 | 79.69724 | 1031.385 | 23.61785 | |
| ##### | 5.759481 | 68.8131 | 106.5033 | 27197.81 | 19.42071 | 30441.83 | 19.07727 | 19.78719 | 36.76767 | 1.0128 | -0.2362 | 0.091642 | 7.451562 | -33.8092 | 79.72404 | 1031.386 | 23.61877 | |

Location Properties

Location Name = T3-4HTS

Report Properties

Start Time = 2021-12-15 10:51:32

Time Offset = -05:00:00

Duration = 00:00:25

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.016187 | 71.27209 | 110.3277 | 25978.72 | 19.21402 | 29206.38 | 18.22433 | 18.98415 | 38.49304 | 1.012201 | -0.24081 | 0.081006 | 7.461897 | -34.355 | 79.41399 | 1031.3 | 24.65 | |
| ##### | 6.016187 | 71.27209 | 110.3277 | 25978.72 | 19.21402 | 29206.38 | 18.22433 | 18.98415 | 38.49304 | 1.012201 | -0.24081 | 0.081006 | 7.461897 | -34.355 | 79.41399 | 1031.3 | 24.65 | |
| ##### | 6.016187 | 71.27209 | 110.3277 | 25978.72 | 19.21402 | 29206.38 | 18.22433 | 18.98415 | 38.49304 | 1.012201 | -0.24081 | 0.081006 | 7.461897 | -34.355 | 79.41399 | 1031.3 | 24.65 | |
| ##### | 6.016187 | 71.27209 | 110.3277 | 25978.72 | 19.21402 | 29206.38 | 18.22433 | 18.98415 | 38.49304 | 1.012201 | -0.24081 | 0.081006 | 7.461897 | -34.355 | 79.41399 | 1031.3 | 24.65 | |
| ##### | 5.929185 | 70.36323 | 108.9454 | 26895.05 | 19.06858 | 30331.51 | 18.9929 | 19.71548 | 37.18433 | 1.012817 | -0.24941 | 0.061189 | 7.457528 | -34.1011 | 80.37194 | 1031.328 | 24.66883 | |
| ##### | 5.923536 | 70.30421 | 108.8557 | 26954.56 | 19.05914 | 30404.57 | 19.04281 | 19.76297 | 37.09934 | 1.012857 | -0.24996 | 0.059903 | 7.457244 | -34.0846 | 80.43415 | 1031.33 | 24.67005 | |
| ##### | 5.917886 | 70.24519 | 108.7659 | 27014.06 | 19.04969 | 30477.63 | 19.09272 | 19.81046 | 37.01436 | 1.012897 | -0.25052 | 0.058616 | 7.45696 | -34.0681 | 80.49635 | 1031.332 | 24.67128 | |
| ##### | 5.912237 | 70.18617 | 108.6762 | 27073.56 | 19.04025 | 30550.69 | 19.14263 | 19.85795 | 36.92937 | 1.012937 | -0.25108 | 0.057329 | 7.456676 | -34.0516 | 80.55856 | 1031.333 | 24.6725 | |
| ##### | 5.888365 | 69.76219 | 108.0337 | 26915.49 | 19.0115 | 30391.82 | 19.0329 | 19.75468 | 37.15442 | 1.012861 | -0.25858 | 0.040017 | 7.456984 | -34.0654 | 80.39141 | 1031.372 | 24.68671 | |
| ##### | 5.885032 | 69.71974 | 107.9693 | 26932.71 | 19.00641 | 30414.51 | 19.04834 | 19.76943 | 37.12978 | 1.012874 | -0.25914 | 0.038739 | 7.456882 | -34.0593 | 80.40934 | 1031.374 | 24.68782 | |

Location Properties

Location Name = LT BACKGROUND

Report Properties

Start Time = 2021-12-15 12:57:08

Time Offset = -05:00:00

Duration = 00:00:22

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 5.538951 | 69.064 | 106.3129 | 27395.59 | 21.82686 | 29163.07 | 18.24573 | 18.956 | 36.50223 | 1.011585 | -0.20857 | 0.155391 | 7.504241 | -37.0763 | 36.46436 | 1029.56 | 30.21 | | |
| ##### | 5.538951 | 69.064 | 106.3129 | 27395.59 | 21.82686 | 29163.07 | 18.24573 | 18.956 | 36.50223 | 1.011585 | -0.20857 | 0.155391 | 7.504241 | -37.0763 | 36.46436 | 1029.56 | 30.21 | | |
| ##### | 5.538951 | 69.064 | 106.3129 | 27395.59 | 21.82686 | 29163.07 | 18.24573 | 18.956 | 36.50223 | 1.011585 | -0.20857 | 0.155391 | 7.504241 | -37.0763 | 36.46436 | 1029.56 | 30.21 | | |
| ##### | 5.538951 | 69.064 | 106.3129 | 27395.59 | 21.82686 | 29163.07 | 18.24573 | 18.956 | 36.50223 | 1.011585 | -0.20857 | 0.155391 | 7.504241 | -37.0763 | 36.46436 | 1029.56 | 30.21 | | |
| ##### | 5.538951 | 69.064 | 106.3129 | 27395.59 | 21.82686 | 29163.07 | 18.24573 | 18.956 | 36.50223 | 1.011585 | -0.20857 | 0.155391 | 7.504241 | -37.0763 | 36.46436 | 1029.56 | 30.21 | | |
| ##### | 5.574921 | 69.29337 | 106.6994 | 27366.57 | 21.64129 | 29242.52 | 18.29725 | 19.00764 | 36.54094 | 1.01167 | -0.22873 | 0.108872 | 7.501811 | -36.9147 | 36.67051 | 1029.579 | 30.21 | | |
| ##### | 5.577117 | 69.30737 | 106.723 | 27364.79 | 21.62997 | 29247.37 | 18.30039 | 19.01079 | 36.5433 | 1.011676 | -0.22996 | 0.106033 | 7.501663 | -36.9048 | 36.68309 | 1029.58 | 30.21 | | |
| ##### | 5.579312 | 69.32137 | 106.7466 | 27363.02 | 21.61864 | 29252.22 | 18.30353 | 19.01394 | 36.54567 | 1.011681 | -0.2312 | 0.103193 | 7.501514 | -36.8949 | 36.69567 | 1029.581 | 30.21 | | |
| ##### | 5.634331 | 69.71544 | 107.3894 | 27348.18 | 21.48329 | 29317.47 | 18.34605 | 19.05635 | 36.56552 | 1.011747 | -0.21236 | 0.14663 | 7.49971 | -36.7821 | 36.7814 | 1029.545 | 30.21 | | |
| ##### | 5.637652 | 69.73855 | 107.4274 | 27346.82 | 21.4728 | 29322.29 | 18.34918 | 19.05949 | 36.56733 | 1.011752 | -0.21201 | 0.147455 | 7.499571 | -36.7732 | 36.79018 | 1029.544 | 30.21 | | |

Location Properties

Location Name = T4-4L

Report Properties

Start Time = 2021-12-15 13:53:27

Time Offset = -05:00:00

Duration = 00:00:25

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.332381 | 81.98575 | 125.7449 | 29647.52 | 23.54926 | 30492.44 | 19.18851 | 19.82009 | 33.72963 | 1.011843 | -0.18702 | 0.205091 | 7.640213 | -45.0931 | 71.71249 | 1028.79 | 24.03 | |
| ##### | 6.332381 | 81.98575 | 125.7449 | 29647.52 | 23.54926 | 30492.44 | 19.18851 | 19.82009 | 33.72963 | 1.011843 | -0.18702 | 0.205091 | 7.640213 | -45.0931 | 71.71249 | 1028.79 | 24.03 | |
| ##### | 6.332381 | 81.98575 | 125.7449 | 29647.52 | 23.54926 | 30492.44 | 19.18851 | 19.82009 | 33.72963 | 1.011843 | -0.18702 | 0.205091 | 7.640213 | -45.0931 | 71.71249 | 1028.79 | 24.03 | |
| ##### | 6.332381 | 81.98575 | 125.7449 | 29647.52 | 23.54926 | 30492.44 | 19.18851 | 19.82009 | 33.72963 | 1.011843 | -0.18702 | 0.205091 | 7.640213 | -45.0931 | 71.71249 | 1028.79 | 24.03 | |
| ##### | 6.332381 | 81.98575 | 125.7449 | 29647.52 | 23.54926 | 30492.44 | 19.18851 | 19.82009 | 33.72963 | 1.011843 | -0.18702 | 0.205091 | 7.640213 | -45.0931 | 71.71249 | 1028.79 | 24.03 | |
| ##### | 6.175674 | 79.59072 | 122.124 | 29496.06 | 23.29599 | 30488.35 | 19.18215 | 19.81743 | 33.90287 | 1.011907 | -0.1799 | 0.221504 | 7.612327 | -43.4494 | 72.13621 | 1028.78 | 24.03 | |
| ##### | 6.166048 | 79.4436 | 121.9016 | 29486.75 | 23.28043 | 30488.1 | 19.18176 | 19.81726 | 33.91351 | 1.011911 | -0.17947 | 0.222512 | 7.610613 | -43.3484 | 72.16224 | 1028.779 | 24.03 | |
| ##### | 6.156422 | 79.29647 | 121.6792 | 29477.45 | 23.26487 | 30487.85 | 19.18137 | 19.8171 | 33.92415 | 1.011914 | -0.17903 | 0.223521 | 7.608901 | -43.2475 | 72.18827 | 1028.779 | 24.03 | |
| ##### | 6.174029 | 78.88564 | 121.1463 | 29453.54 | 23.04656 | 30595.18 | 19.25248 | 19.88687 | 33.95184 | 1.012026 | -0.20273 | 0.168855 | 7.594635 | -42.399 | 72.26727 | 1028.797 | 24.03 | |
| ##### | 6.17106 | 78.80991 | 121.0358 | 29448.84 | 23.03074 | 30599.87 | 19.2555 | 19.88992 | 33.95722 | 1.012033 | -0.20362 | 0.166808 | 7.59333 | -42.3217 | 72.28096 | 1028.797 | 24.03 | |

Location Properties

Location Name = T1-4LT

Report Properties

Start Time = 2021-12-15 14:49:28

Time Offset = -05:00:00

Duration = 00:00:23

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 6.360045 | 81.34225 | 124.769 | 27182.81 | 23.40079 | 28039.27 | 17.49697 | 18.22552 | 36.78796 | 1.010611 | -0.17056 | 0.243064 | 7.759721 | -51.8068 | 69.44081 | 1028.62 | 22.39 | |
| ##### | 6.360045 | 81.34225 | 124.769 | 27182.81 | 23.40079 | 28039.27 | 17.49697 | 18.22552 | 36.78796 | 1.010611 | -0.17056 | 0.243064 | 7.759721 | -51.8068 | 69.44081 | 1028.62 | 22.39 | |
| ##### | 6.360045 | 81.34225 | 124.769 | 27182.81 | 23.40079 | 28039.27 | 17.49697 | 18.22552 | 36.78796 | 1.010611 | -0.17056 | 0.243064 | 7.759721 | -51.8068 | 69.44081 | 1028.62 | 22.39 | |
| ##### | 6.360045 | 81.34225 | 124.769 | 27182.81 | 23.40079 | 28039.27 | 17.49697 | 18.22552 | 36.78796 | 1.010611 | -0.17056 | 0.243064 | 7.759721 | -51.8068 | 69.44081 | 1028.62 | 22.39 | |
| ##### | 6.216711 | 78.28915 | 120.2723 | 27109.56 | 22.45396 | 28495.46 | 17.79708 | 18.52205 | 36.88736 | 1.011086 | -0.19244 | 0.192596 | 7.702606 | -48.4551 | 69.77504 | 1028.571 | 22.39 | |
| ##### | 6.207961 | 78.10278 | 119.9978 | 27105.09 | 22.39616 | 28523.3 | 17.8154 | 18.54015 | 36.89342 | 1.011115 | -0.19377 | 0.189515 | 7.69912 | -48.2505 | 69.79544 | 1028.568 | 22.39 | |
| ##### | 6.199211 | 77.9164 | 119.7233 | 27100.62 | 22.33837 | 28551.15 | 17.83372 | 18.55825 | 36.89949 | 1.011144 | -0.19511 | 0.186435 | 7.695633 | -48.0459 | 69.81584 | 1028.565 | 22.39 | |
| ##### | 6.148678 | 76.64988 | 117.867 | 27063.87 | 22.03401 | 28689.92 | 17.9241 | 18.64845 | 36.94967 | 1.011289 | -0.19667 | 0.182829 | 7.674843 | -46.8415 | 69.88289 | 1028.58 | 22.39 | |
| ##### | 6.142983 | 76.52014 | 117.6764 | 27060.48 | 21.9977 | 28707.06 | 17.93534 | 18.65959 | 36.95428 | 1.011307 | -0.19727 | 0.181454 | 7.672545 | -46.7073 | 69.89391 | 1028.579 | 22.39 | |

Location Properties

Location Name = T2-4LT

Report Properties

Start Time = 2021-12-15 15:01:58

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 8.111484 | 94.67448 | 145.1045 | 226.6598 | 23.85026 | 231.7206 | 0.110744 | 0.150618 | 4267.992 | 0.99742 | -0.19039 | 0.197308 | 6.998269 | -8.23372 | 117.6737 | 1028.62 | 22.2889 | |
| ##### | 8.227412 | 95.2765 | 146.1285 | 148.9055 | 23.71192 | 152.637 | 0.072311 | 0.099214 | 6845.117 | 0.997425 | -0.17005 | 0.244231 | 7.690642 | -48.0057 | 77.44965 | 1028.597 | 22.29889 | |
| ##### | 8.221458 | 95.1679 | 145.9672 | 147.4926 | 23.70247 | 151.2188 | 0.071622 | 0.098292 | 6887.221 | 0.997427 | -0.16965 | 0.245166 | 7.709708 | -49.0995 | 76.25878 | 1028.594 | 22.2991 | |
| ##### | 8.215506 | 95.0593 | 145.8059 | 146.0797 | 23.69302 | 149.8007 | 0.070933 | 0.09737 | 6929.326 | 0.997429 | -0.16924 | 0.246102 | 7.728773 | -50.1933 | 75.06791 | 1028.591 | 22.2993 | |
| ##### | 8.209552 | 94.95069 | 145.6445 | 144.6667 | 23.68357 | 148.3825 | 0.070243 | 0.096449 | 6971.43 | 0.99743 | -0.16884 | 0.247037 | 7.747838 | -51.2871 | 73.87704 | 1028.588 | 22.29951 | |
| ##### | 7.165391 | 87.6195 | 134.7971 | 23361.6 | 21.6011 | 25149.75 | 15.71458 | 16.34734 | 916.71 | 1.009735 | -0.15304 | 0.283465 | 7.69711 | -48.0078 | 73.04539 | 1028.625 | 22.29975 | |
| ##### | 7.120954 | 87.29398 | 134.317 | 24358.57 | 21.50832 | 26223.43 | 16.38659 | 17.04523 | 694.9859 | 1.010265 | -0.15205 | 0.285761 | 7.706562 | -48.5348 | 72.32021 | 1028.626 | 22.29991 | |
| ##### | 7.076517 | 86.96847 | 133.8369 | 25355.55 | 21.41554 | 27297.11 | 17.05861 | 17.74312 | 473.2619 | 1.010794 | -0.15105 | 0.288058 | 7.716014 | -49.0618 | 71.59505 | 1028.627 | 22.30008 | |
| ##### | 6.8258 | 83.40179 | 128.431 | 25649.7 | 20.98611 | 27848.07 | 17.40096 | 18.10125 | 337.5923 | 1.011158 | -0.14591 | 0.299915 | 7.670299 | -46.4157 | 71.9586 | 1028.636 | 22.31661 | |
| ##### | 6.796278 | 83.11425 | 127.9998 | 26071.25 | 20.93058 | 28312.22 | 17.69129 | 18.40294 | 224.6499 | 1.01139 | -0.14541 | 0.301069 | 7.667491 | -46.2471 | 71.95323 | 1028.637 | 22.31733 | |

Location Properties

Location Name = T3-4LT

Report Properties

Start Time = 2021-12-15 15:12:21

Time Offset = -05:00:00

Duration = 00:00:18

Readings = 10

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789310

Instrument Properties

Device Model = PowerPack

Device SN = 784034

| Date Time | RDO Concr | RDO Satur | Oxygen Pa | Actual Cor | Temperatu | Specific Cc | Salinity (P | Total Dissc | Resistivity | Density (g, | Pressure (f | Depth (ft) | pH (pH) (2 | pH mV (m\ | ORP (mV) | Barometri | Temperatu | Marked |
|-----------|-----------|-----------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|--------|
| ##### | 8.459426 | 95.7757 | 147.1882 | 88.651 | 22.26212 | 93.54204 | 0.043662 | 0.060802 | 11281.78 | 0.997747 | -0.20239 | 0.169635 | 6.803296 | 2.960281 | 152.6633 | 1028.606 | 22.61831 | |
| ##### | 8.458356 | 95.7494 | 147.1498 | 88.55612 | 22.25125 | 93.46249 | 0.043623 | 0.060751 | 11293.46 | 0.997749 | -0.20358 | 0.166902 | 6.802186 | 3.023733 | 152.6538 | 1028.607 | 22.61906 | |
| ##### | 8.420677 | 94.98178 | 146.0074 | 118.7508 | 22.12125 | 125.6754 | 0.059242 | 0.081689 | 8524.777 | 0.997791 | -0.17824 | 0.225336 | 7.551212 | -39.811 | 84.19871 | 1028.547 | 22.61935 | |
| ##### | 8.417695 | 94.92892 | 145.9285 | 120.0645 | 22.11336 | 127.0815 | 0.059924 | 0.082603 | 8406.178 | 0.997793 | -0.17757 | 0.226886 | 7.584985 | -41.7425 | 81.20049 | 1028.546 | 22.61967 | |
| ##### | 8.414713 | 94.87606 | 145.8495 | 121.3783 | 22.10546 | 128.4876 | 0.060606 | 0.083517 | 8287.577 | 0.997795 | -0.1769 | 0.228435 | 7.618759 | -43.6739 | 78.20228 | 1028.544 | 22.61999 | |
| ##### | 8.411731 | 94.8232 | 145.7706 | 122.692 | 22.09757 | 129.8936 | 0.061288 | 0.084431 | 8168.978 | 0.997798 | -0.17623 | 0.229984 | 7.652532 | -45.6053 | 75.20406 | 1028.542 | 22.62031 | |
| ##### | 7.372268 | 88.67873 | 136.636 | 23675.85 | 20.5216 | 26012.96 | 16.27516 | 16.90843 | 1109.788 | 1.010421 | -0.19338 | 0.190427 | 7.623383 | -43.6831 | 75.50183 | 1028.524 | 22.62876 | |
| ##### | 7.325753 | 88.39275 | 136.2109 | 24713.31 | 20.44952 | 27153.04 | 16.98924 | 17.64947 | 744.2661 | 1.010978 | -0.19364 | 0.189815 | 7.636934 | -44.4468 | 74.15761 | 1028.522 | 22.62915 | |
| ##### | 7.279237 | 88.10678 | 135.7857 | 25750.78 | 20.37744 | 28293.11 | 17.70333 | 18.39052 | 378.7437 | 1.011534 | -0.19391 | 0.189202 | 7.650485 | -45.2105 | 72.81339 | 1028.52 | 22.62953 | |
| ##### | 6.979312 | 84.26578 | 129.9014 | 25854.76 | 20.20852 | 28504.51 | 17.83102 | 18.52794 | 348.8524 | 1.011671 | -0.19005 | 0.198113 | 7.619761 | -43.432 | 73.76653 | 1028.554 | 22.63796 | |

Customer: William Lopez Date: 3/1/22 Station: # 42

Equipment: 789301 Calibration: LeMing 2020 ID: 1068 0320

Date: March 2022 Site: Sui Conditions: 73°/46° Partly Cloudy

Cell phone log

| Item | Inspected by / Date of Inspection | Temp. (mmHg / °F) | Volume of Sample | Volume of Gas, in 100 ml Gas |
|----------------------------|-----------------------------------|-------------------|------------------|------------------------------|
| 100% O ₂ | | | | 100.05 |
| Standard (continued) 4.00% | 31179017 04/11 | 14.12 | 800 | 4.242 |
| 100% | 31179027 04/11 | 14.12 | 4 | 3.51 |
| 100% | 11100112 04/13 | 14.04 | 7 | 7.33 |
| 100% | 11100104 04/13 | 14.08 | 10 | 10.08 |
| 100% O ₂ | 21149143 04/23 | 14.13 | 200 | 2.159 |

| Transfer (L / ml) | Volume (L / ml) | Sample Temp | Temp | |
|-------------------|-----------------|-------------|------|----|
| | | | °F | °C |
| Transfer 4.00 | 4.00 | 14.12 | 57 | 14 |
| Transfer 10.00 | 10.00 | 14.12 | 57 | 14 |
| Transfer 10.00 | 10.00 | 14.12 | 57 | 14 |

| Transfer (L / ml) | Volume (L / ml) | Sample Temp | Temp | |
|------------------------|-----------------|-------------|------|----|
| | | | °F | °C |
| Transfer 4.00 - check | 4.00 | 14.12 | 57 | 14 |
| 100% for 10.00 - check | 10.00 | 14.12 | 57 | 14 |
| Transfer 10.00 - check | 10.00 | 14.12 | 57 | 14 |

Customer: William Lopez Date: 3/1/20 Price: 7.56 Qty: 1

Asset ID: 789501 Description: Leathe 2020 No: 2020-5330

Model: 2020 SW Serial: 80140° 5234

Calibration Log

| Item | Item ID / Description | Year of Calibration | Calibration Type | Calibration Reading | Calibration Range |
|--------|-----------------------|---------------------|------------------|---------------------|-------------------|
| Item 1 | [REDACTED] | | | 100.13 | |
| Item 2 | 1147822 04-20 | 4-20 | 4-20 | 4553.9 | |
| Item 3 | 1117893 04-20 | 4-20 | 4 | 4.84 | |
| Item 4 | 1118810 04-20 | 10-20 | 4 | 7.07 | |
| Item 5 | 1118810 04-20 | 10-20 | 10 | 10.01 | |
| Item 6 | 1118810 04-20 | 10-20 | 20 | 251.4 | |

| Item | Item ID / Description | Year of Calibration | Calibration Type | Pass | | Comments |
|--------|-----------------------|---------------------|------------------|------|-----|----------|
| | | | | Yes | No | |
| Item 1 | [REDACTED] | 4 | 0.00 | Yes | Yes | |
| Item 2 | [REDACTED] | 1 | 1.10 | Yes | Yes | |
| Item 3 | [REDACTED] | 10 | 10.07 | Yes | Yes | |

| Item | Item ID / Description | Year of Calibration | Calibration Type | Pass | | Comments |
|--------|-----------------------|---------------------|------------------|------|-----|----------|
| | | | | Yes | No | |
| Item 1 | [REDACTED] | 4 | 0.00 | Yes | Yes | |
| Item 2 | [REDACTED] | 1 | 1.10 | Yes | Yes | |
| Item 3 | [REDACTED] | 10 | 10.07 | Yes | Yes | |

Unit Number: 10110309 Location: 3/3/21 Date: 3/20 Page: 1 of 1
 Unit ID: 789301 Manufacturer: JaMatic 2020 Part #: 2068 0320
 Date: March 2021 SW Serial #: 86143*

Calibration Log

| Item | Serial No. / Lot # | Temp. (degrees F) | Value of Standard | Reading (to 0.01) | Remarks |
|----------|--------------------|-------------------|-------------------|-------------------|---------|
| 10110309 | | | | 99.95 | |
| 10110309 | 31478047 04-21 | 18.49 | 499 | 4530.3 | |
| 10110309 | 31478052 04-21 | 11.09 | 4 | 4.81 | |
| 10110309 | 31789182 04-21 | 11.18 | 7 | 7.06 | |
| 10110309 | 20889034 04-21 | 11.52 | 18 | 18.13 | |
| 10110309 | 21146141 04-21 | 14.57 | 74 | 72.74 | |

| Temperature | Temperature | Temperature | Temp | Temp |
|-------------|-------------|-------------|------|------|
| 0 | 0.01 | -0.00% | Yes | Yes |
| 1 | 1.02 | -0.00% | Yes | Yes |
| 18 | 9.97 | -0.00% | Yes | Yes |

| Temp. (degrees F) | Value of Standard | Temp. Calibration | Temp. Range | Temp | Temp |
|-------------------|-------------------|-------------------|-------------|------|------|
| 4 | | | 0.00% | Yes | Yes |
| 7 | | | 0.00% | Yes | Yes |
| 18 | | | 0.00% | Yes | Yes |

Location Properties

BG-1LT

Location Name = Device Location

Report Properties

Start Time = 2022-03-01 14:24:50

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 784036

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.722314 | 78.14169 | 119.9437 | 31388.16 | 26.00433 | 30797.81 | 19.42807 | 20.01858 | 31.85917 | |
| ##### | 5.725632 | 78.1641 | 119.9827 | 31386.62 | 25.97801 | 30811.31 | 19.43723 | 20.02735 | 31.86072 | |
| ##### | 5.72895 | 78.18652 | 120.0218 | 31385.08 | 25.95169 | 30824.81 | 19.44638 | 20.03613 | 31.86227 | |
| ##### | 5.845366 | 78.98125 | 121.3896 | 31341.73 | 25.62985 | 30969.46 | 19.54384 | 20.13015 | 31.90635 | |
| ##### | 5.851745 | 79.02464 | 121.4644 | 31340.06 | 25.60925 | 30979.76 | 19.5508 | 20.13684 | 31.90805 | |
| ##### | 5.858122 | 79.06803 | 121.5392 | 31338.38 | 25.58865 | 30990.05 | 19.55776 | 20.14353 | 31.90976 | |
| ##### | 5.864501 | 79.11142 | 121.614 | 31336.7 | 25.56805 | 31000.35 | 19.56473 | 20.15023 | 31.91147 | |
| ##### | 5.91734 | 79.46552 | 122.228 | 31222.02 | 24.98207 | 31233.29 | 19.72043 | 20.30164 | 32.02877 | |
| ##### | 5.92209 | 79.49763 | 122.2835 | 31215.95 | 24.94904 | 31246.75 | 19.72945 | 20.31039 | 32.03497 | |
| ##### | 5.926838 | 79.52976 | 122.339 | 31209.88 | 24.91601 | 31260.22 | 19.73846 | 20.31914 | 32.04117 | |
| ##### | 5.931588 | 79.56188 | 122.3945 | 31203.82 | 24.88298 | 31273.69 | 19.74748 | 20.3279 | 32.04737 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011333 | -0.05964 | 0.498916 | 7.300085 | -26.2569 | 90.02259 | 1020.137 | 27.0011 | |
| 1.011347 | -0.0605 | 0.496931 | 7.300404 | -26.2732 | 89.98782 | 1020.135 | 27.00088 | |
| 1.011362 | -0.06136 | 0.494947 | 7.300722 | -26.2894 | 89.95305 | 1020.133 | 27.00067 | |
| 1.011528 | -0.03613 | 0.553141 | 7.307573 | -26.6648 | 89.46918 | 1020.166 | 26.98341 | |
| 1.011539 | -0.03522 | 0.555244 | 7.307976 | -26.6866 | 89.43641 | 1020.166 | 26.98244 | |
| 1.01155 | -0.03431 | 0.557346 | 7.308379 | -26.7085 | 89.40365 | 1020.167 | 26.98147 | |
| 1.011562 | -0.0334 | 0.559448 | 7.308781 | -26.7303 | 89.37088 | 1020.168 | 26.9805 | |
| 1.011846 | -0.03776 | 0.549375 | 7.314433 | -27.0093 | 89.03332 | 1020.151 | 26.98059 | |
| 1.011862 | -0.03745 | 0.550099 | 7.314827 | -27.0295 | 89.00823 | 1020.151 | 26.98025 | |
| 1.011878 | -0.03714 | 0.550822 | 7.315222 | -27.0497 | 88.98315 | 1020.151 | 26.9799 | |
| 1.011894 | -0.03682 | 0.551545 | 7.315616 | -27.07 | 88.95806 | 1020.151 | 26.97956 | |

Location Properties

T1-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-03-01 14:47:46

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 784036

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.407877 | 86.69038 | 133.1878 | 30921.34 | 25.49202 | 30633.46 | 19.30907 | 19.91175 | 32.34012 |
| ##### | 6.407877 | 86.69038 | 133.1878 | 30921.34 | 25.49202 | 30633.46 | 19.30907 | 19.91175 | 32.34012 |
| ##### | 6.463579 | 87.25912 | 134.1021 | 31003.22 | 25.33215 | 30807.79 | 19.42851 | 20.02506 | 32.25472 |
| ##### | 6.466997 | 87.29402 | 134.1583 | 31008.24 | 25.32233 | 30818.49 | 19.43584 | 20.03202 | 32.24948 |
| ##### | 6.470416 | 87.32893 | 134.2144 | 31013.27 | 25.31252 | 30829.19 | 19.44317 | 20.03897 | 32.24424 |
| ##### | 6.514885 | 87.63248 | 134.7411 | 31045.59 | 25.21868 | 30916.54 | 19.50287 | 20.09575 | 32.21072 |
| ##### | 6.518252 | 87.66 | 134.7871 | 31049.04 | 25.21056 | 30924.71 | 19.50847 | 20.10106 | 32.20713 |
| ##### | 6.521618 | 87.68752 | 134.8331 | 31052.48 | 25.20243 | 30932.89 | 19.51406 | 20.10638 | 32.20355 |
| ##### | 6.524984 | 87.71504 | 134.8791 | 31055.93 | 25.19431 | 30941.07 | 19.51966 | 20.11169 | 32.19996 |
| ##### | 6.557401 | 88.02682 | 135.3787 | 31075.57 | 24.95826 | 31100.51 | 19.62789 | 20.21533 | 32.17962 |
| ##### | 6.559921 | 88.04877 | 135.4146 | 31077.38 | 24.94525 | 31110 | 19.63434 | 20.2215 | 32.17775 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011392 | -0.04773 | 0.526383 | 7.278844 | -24.9888 | 82.43703 | 1020.06 | 26.11 | |
| 1.011392 | -0.04773 | 0.526383 | 7.278844 | -24.9888 | 82.43703 | 1020.06 | 26.11 | |
| 1.011527 | -0.04869 | 0.524162 | 7.276891 | -24.8639 | 95.3314 | 1020.05 | 26.10026 | |
| 1.011536 | -0.04875 | 0.524025 | 7.276771 | -24.8562 | 96.1228 | 1020.049 | 26.09967 | |
| 1.011544 | -0.04881 | 0.523889 | 7.276651 | -24.8485 | 96.91422 | 1020.049 | 26.09907 | |
| 1.011615 | -0.06288 | 0.491451 | 7.274926 | -24.7396 | 97.53213 | 1020.093 | 26.10029 | |
| 1.011622 | -0.06354 | 0.489922 | 7.2748 | -24.7317 | 97.87108 | 1020.094 | 26.10011 | |
| 1.011628 | -0.0642 | 0.488392 | 7.274674 | -24.7237 | 98.21004 | 1020.096 | 26.09993 | |
| 1.011635 | -0.06486 | 0.486863 | 7.274549 | -24.7157 | 98.54899 | 1020.098 | 26.09975 | |
| 1.011783 | -0.07448 | 0.464693 | 7.270715 | -24.4755 | 98.98519 | 1020.02 | 26.09126 | |
| 1.011792 | -0.07518 | 0.463059 | 7.270502 | -24.4622 | 99.06304 | 1020.017 | 26.09087 | |

Location Properties

T2-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-03-01 15:09:25

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 784036

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.442472 | 77.36321 | 117.9471 | 30223.56 | 29.25862 | 27962.69 | 17.49739 | 18.17575 | 70.4758 | |
| ##### | 5.445724 | 77.41979 | 118.0579 | 30703.58 | 29.18815 | 28410.04 | 17.77837 | 18.46653 | 0 | |
| ##### | 5.506119 | 77.68296 | 118.5972 | 30407.47 | 28.42208 | 28543.14 | 17.88338 | 18.55304 | 32.8868 | |
| ##### | 5.509947 | 77.70209 | 118.6356 | 30413.28 | 28.38267 | 28568.38 | 17.9006 | 18.56944 | 32.88044 | |
| ##### | 5.513775 | 77.72121 | 118.6739 | 30419.09 | 28.34326 | 28593.62 | 17.91783 | 18.58585 | 32.87408 | |
| ##### | 5.583901 | 78.28445 | 119.6301 | 30477.39 | 27.95652 | 28849.26 | 18.0923 | 18.75202 | 32.81123 | |
| ##### | 5.588172 | 78.3152 | 119.684 | 30479.87 | 27.92474 | 28867.9 | 18.10501 | 18.76414 | 32.80856 | |
| ##### | 5.592444 | 78.34595 | 119.738 | 30482.34 | 27.89296 | 28886.54 | 18.11772 | 18.77625 | 32.80589 | |
| ##### | 5.596715 | 78.3767 | 119.792 | 30484.81 | 27.86118 | 28905.18 | 18.13043 | 18.78836 | 32.80323 | |
| ##### | 5.703415 | 79.26313 | 121.2837 | 30554.25 | 27.57951 | 29119.91 | 18.27713 | 18.92794 | 32.72871 | |
| ##### | 5.709685 | 79.31486 | 121.3709 | 30558.6 | 27.55923 | 29134.68 | 18.28722 | 18.93754 | 32.72404 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.008903 | -0.05331 | 0.513516 | 7.230528 | -22.4319 | 93.96181 | 1019.831 | 26.02982 | |
| 1.009134 | -0.05313 | 0.513927 | 7.229698 | -22.3814 | 93.77068 | 1019.831 | 26.03028 | |
| 1.009451 | -0.06849 | 0.478493 | 7.243524 | -23.1297 | 92.62579 | 1019.882 | 26.04725 | |
| 1.009476 | -0.06912 | 0.477045 | 7.244063 | -23.1582 | 92.53371 | 1019.884 | 26.04801 | |
| 1.009501 | -0.06975 | 0.475597 | 7.244603 | -23.1867 | 92.44162 | 1019.886 | 26.04876 | |
| 1.00975 | -0.06435 | 0.488057 | 7.26371 | -24.2889 | 91.6199 | 1019.837 | 26.04918 | |
| 1.00977 | -0.06437 | 0.488002 | 7.264813 | -24.3517 | 91.56081 | 1019.836 | 26.0495 | |
| 1.009789 | -0.06439 | 0.487946 | 7.265916 | -24.4144 | 91.50172 | 1019.834 | 26.04982 | |
| 1.009808 | -0.06442 | 0.48789 | 7.26702 | -24.4772 | 91.44263 | 1019.833 | 26.05015 | |
| 1.010003 | -0.04694 | 0.52821 | 7.272524 | -24.7842 | 90.82748 | 1019.884 | 26.05 | |
| 1.010017 | -0.04603 | 0.530319 | 7.273135 | -24.819 | 90.78342 | 1019.885 | 26.05 | |

Location Properties

T3-4LT

Location Name = Device Location

Report Properties

Start Time = 2022-03-01 15:40:55

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 784036

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 5.743756 | 80.2736 | 122.7782 | 31294.61 | 27.55363 | 29839.55 | 18.77483 | 19.39571 | 31.95439 | |
| ##### 5.748276 | 80.31078 | 122.8412 | 31296.74 | 27.52408 | 29857.42 | 18.78704 | 19.40732 | 31.95221 | |
| ##### 5.803782 | 80.82693 | 123.6895 | 31362.17 | 27.28674 | 30050.1 | 18.91908 | 19.53256 | 31.88558 | |
| ##### 5.807422 | 80.86014 | 123.7445 | 31366.07 | 27.26581 | 30065.18 | 18.92941 | 19.54237 | 31.88161 | |
| ##### 5.811062 | 80.89334 | 123.7994 | 31369.96 | 27.24488 | 30080.27 | 18.93973 | 19.55217 | 31.87764 | |
| ##### 5.814702 | 80.92654 | 123.8544 | 31373.86 | 27.22395 | 30095.35 | 18.95006 | 19.56198 | 31.87367 | |
| ##### 5.907253 | 81.68074 | 125.1215 | 31427.22 | 27.0096 | 30265.71 | 19.06674 | 19.67271 | 31.81958 | |
| ##### 5.912488 | 81.72462 | 125.1948 | 31430.87 | 26.99507 | 30277.24 | 19.07464 | 19.6802 | 31.81587 | |
| ##### 5.917722 | 81.7685 | 125.2682 | 31434.51 | 26.98054 | 30288.76 | 19.08254 | 19.6877 | 31.81217 | |
| ##### 5.969519 | 82.26253 | 126.085 | 31468.56 | 26.58124 | 30546.47 | 19.25839 | 19.85521 | 31.77776 | |
| ##### 5.973628 | 82.29935 | 126.1463 | 31471.14 | 26.55871 | 30561.6 | 19.26873 | 19.86504 | 31.77515 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.010383 | -0.05609 | 0.507105 | 7.377188 | -30.936 | 81.66074 | 1019.813 | 26.52921 | |
| 1.010401 | -0.05595 | 0.507416 | 7.377422 | -30.9468 | 81.62659 | 1019.811 | 26.52977 | |
| 1.010571 | -0.0732 | 0.467629 | 7.385602 | -31.4047 | 81.25037 | 1019.785 | 26.52968 | |
| 1.010586 | -0.07388 | 0.466067 | 7.386026 | -31.4276 | 81.22367 | 1019.783 | 26.52985 | |
| 1.0106 | -0.07456 | 0.464506 | 7.386451 | -31.4505 | 81.19696 | 1019.782 | 26.53001 | |
| 1.010614 | -0.07523 | 0.462944 | 7.386876 | -31.4734 | 81.17026 | 1019.78 | 26.53018 | |
| 1.010765 | -0.06619 | 0.48381 | 7.405734 | -32.5611 | 80.81122 | 1019.798 | 26.53874 | |
| 1.010775 | -0.06611 | 0.483983 | 7.406729 | -32.6182 | 80.78756 | 1019.798 | 26.53913 | |
| 1.010786 | -0.06604 | 0.484156 | 7.407724 | -32.6753 | 80.7639 | 1019.799 | 26.53952 | |
| 1.011036 | -0.06375 | 0.489437 | 7.433031 | -34.1154 | 80.46691 | 1019.833 | 26.53965 | |
| 1.01105 | -0.06348 | 0.490052 | 7.434541 | -34.2016 | 80.4464 | 1019.835 | 26.53982 | |

Location Properties

T4-4L

Location Name = Device Location

Report Properties

Start Time = 2022-03-01 13:26:28

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 784036

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.972383 | 93.20945 | 143.6289 | 32287.66 | 24.41708 | 32651.19 | 20.70253 | 21.22327 | 30.97159 |
| ##### | 7.022277 | 93.88473 | 144.6783 | 32450.34 | 24.37917 | 32839.77 | 20.83395 | 21.34585 | 30.81639 |
| ##### | 7.025468 | 93.92792 | 144.7454 | 32460.75 | 24.37675 | 32851.83 | 20.84235 | 21.35369 | 30.80646 |
| ##### | 7.028659 | 93.9711 | 144.8125 | 32471.15 | 24.37432 | 32863.89 | 20.85076 | 21.36153 | 30.79653 |
| ##### | 7.03185 | 94.01429 | 144.8796 | 32481.56 | 24.3719 | 32875.95 | 20.85916 | 21.36937 | 30.78661 |
| ##### | 7.106287 | 94.59786 | 145.8481 | 32487.96 | 24.27896 | 32941.68 | 20.9039 | 21.41209 | 30.78067 |
| ##### | 7.110909 | 94.64125 | 145.9183 | 32492.35 | 24.2738 | 32949.4 | 20.90924 | 21.41711 | 30.77649 |
| ##### | 7.115531 | 94.68465 | 145.9885 | 32496.74 | 24.26864 | 32957.12 | 20.91457 | 21.42213 | 30.77231 |
| ##### | 7.120154 | 94.72804 | 146.0588 | 32501.12 | 24.26348 | 32964.84 | 20.9199 | 21.42715 | 30.76814 |
| ##### | 7.189483 | 95.32858 | 147.0486 | 32461.55 | 23.85867 | 33185.25 | 21.06836 | 21.57042 | 30.80568 |
| ##### | 7.194207 | 95.36924 | 147.1155 | 32460.53 | 23.83868 | 33197.06 | 21.07634 | 21.57809 | 30.80665 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.012743 | -0.05845 | 0.501648 | 6.749194 | 5.941879 | 214.4562 | 1020.97 | 26.36 | |
| 1.012852 | -0.05125 | 0.518274 | 6.761633 | 5.215516 | 213.243 | 1020.961 | 26.36 | |
| 1.012859 | -0.05079 | 0.519337 | 6.762428 | 5.169063 | 213.1655 | 1020.96 | 26.36 | |
| 1.012866 | -0.05032 | 0.5204 | 6.763224 | 5.122609 | 213.0879 | 1020.959 | 26.36 | |
| 1.012873 | -0.04986 | 0.521464 | 6.764019 | 5.076156 | 213.0103 | 1020.959 | 26.36 | |
| 1.012932 | -0.06357 | 0.48984 | 6.766854 | 4.908683 | 211.5625 | 1020.96 | 26.36 | |
| 1.012938 | -0.06401 | 0.488828 | 6.767295 | 4.882822 | 211.4665 | 1020.96 | 26.36 | |
| 1.012943 | -0.06445 | 0.487816 | 6.767736 | 4.856961 | 211.3704 | 1020.96 | 26.36 | |
| 1.012949 | -0.06489 | 0.486805 | 6.768178 | 4.8311 | 211.2744 | 1020.959 | 26.36 | |
| 1.013173 | -0.05968 | 0.498816 | 6.778284 | 4.23764 | 209.6501 | 1020.968 | 26.36877 | |
| 1.013184 | -0.05969 | 0.4988 | 6.778836 | 4.205193 | 209.5449 | 1020.969 | 26.36916 | |

Location Properties

T1-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 09:26:28

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 7.979555 | 90.73675 | 142.3637 | 28909.55 | 15.5429 | 35282.68 | 22.29768 | 22.93374 | 34.59064 |
| ##### | 7.979555 | 90.73675 | 142.3637 | 28909.55 | 15.5429 | 35282.68 | 22.29768 | 22.93374 | 34.59064 |
| ##### | 7.979555 | 90.73675 | 142.3637 | 28909.55 | 15.5429 | 35282.68 | 22.29768 | 22.93374 | 34.59064 |
| ##### | 7.824436 | 89.08778 | 139.7675 | 28946.43 | 15.60811 | 35274.08 | 22.29465 | 22.92815 | 34.54657 |
| ##### | 7.814314 | 88.98018 | 139.5981 | 28948.84 | 15.61237 | 35273.52 | 22.29445 | 22.92778 | 34.5437 |
| ##### | 7.804193 | 88.87258 | 139.4287 | 28951.25 | 15.61662 | 35272.95 | 22.29425 | 22.92742 | 34.54082 |
| ##### | 7.794071 | 88.76498 | 139.2593 | 28953.65 | 15.62088 | 35272.39 | 22.29405 | 22.92706 | 34.53795 |
| ##### | 7.691523 | 87.75597 | 137.6589 | 28950.63 | 15.66126 | 35235.61 | 22.27027 | 22.90314 | 34.54157 |
| ##### | 7.682979 | 87.66868 | 137.5209 | 28951.46 | 15.66473 | 35233.77 | 22.26915 | 22.90195 | 34.54057 |
| ##### | 7.674435 | 87.5814 | 137.383 | 28952.3 | 15.66821 | 35231.94 | 22.26803 | 22.90076 | 34.53957 |
| ##### | 7.665891 | 87.49411 | 137.245 | 28953.13 | 15.67168 | 35230.11 | 22.26691 | 22.89957 | 34.53858 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.016098 | -0.16671 | 0.25194 | 6.986648 | -8.14825 | 140.5256 | 1024.18 | 14.35 | |
| 1.016098 | -0.16671 | 0.25194 | 6.986648 | -8.14825 | 140.5256 | 1024.18 | 14.35 | |
| 1.016098 | -0.16671 | 0.25194 | 6.986648 | -8.14825 | 140.5256 | 1024.18 | 14.35 | |
| 1.016082 | -0.12907 | 0.338771 | 7.001858 | -8.97725 | 152.8842 | 1024.189 | 14.33134 | |
| 1.016081 | -0.12661 | 0.344437 | 7.002851 | -9.03134 | 153.6907 | 1024.19 | 14.33012 | |
| 1.01608 | -0.12415 | 0.350103 | 7.003843 | -9.08543 | 154.4971 | 1024.19 | 14.3289 | |
| 1.016079 | -0.1217 | 0.355768 | 7.004836 | -9.13953 | 155.3035 | 1024.191 | 14.32768 | |
| 1.016053 | -0.12705 | 0.343417 | 7.01516 | -9.70283 | 155.7941 | 1024.172 | 14.33051 | |
| 1.016051 | -0.1263 | 0.345153 | 7.016009 | -9.74916 | 156.1395 | 1024.172 | 14.33015 | |
| 1.01605 | -0.12555 | 0.346889 | 7.016859 | -9.79549 | 156.4847 | 1024.171 | 14.32978 | |
| 1.016048 | -0.12479 | 0.348625 | 7.017708 | -9.84182 | 156.83 | 1024.171 | 14.32942 | |

Location Properties

T1-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 09:42:53

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.399578 | 76.21233 | 119.2185 | 29942.91 | 17.99128 | 34570.79 | 21.89841 | 22.47101 | 33.39688 |
| ##### | 6.396156 | 76.16994 | 119.1524 | 29943.65 | 17.99 | 34572.61 | 21.89964 | 22.4722 | 33.39606 |
| ##### | 6.362253 | 75.70768 | 118.4285 | 29887.33 | 17.95132 | 34537.04 | 21.8735 | 22.44908 | 33.45901 |
| ##### | 6.359454 | 75.67091 | 118.371 | 29884.52 | 17.9491 | 34535.48 | 21.87234 | 22.44806 | 33.46216 |
| ##### | 6.356656 | 75.63414 | 118.3135 | 29881.7 | 17.94688 | 34533.92 | 21.87117 | 22.44705 | 33.46531 |
| ##### | 6.353857 | 75.59737 | 118.256 | 29878.89 | 17.94467 | 34532.36 | 21.87001 | 22.44604 | 33.46845 |
| ##### | 6.336748 | 75.37686 | 117.9236 | 29927.62 | 17.92142 | 34606.45 | 21.92091 | 22.49419 | 33.41396 |
| ##### | 6.335331 | 75.35809 | 117.8948 | 29928.64 | 17.91963 | 34609 | 21.92262 | 22.49585 | 33.41282 |
| ##### | 6.333915 | 75.33932 | 117.8659 | 29929.66 | 17.91784 | 34611.54 | 21.92434 | 22.4975 | 33.41167 |
| ##### | 6.332498 | 75.32056 | 117.8371 | 29930.69 | 17.91606 | 34614.09 | 21.92605 | 22.49916 | 33.41053 |
| ##### | 6.316311 | 75.11202 | 117.5115 | 29939.35 | 17.9009 | 34635.71 | 21.94062 | 22.51321 | 33.40086 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.015271 | -0.06387 | 0.48916 | 7.44877 | -33.556 | 100.5283 | 1024.14 | 16.58786 | |
| 1.015272 | -0.06394 | 0.488992 | 7.448811 | -33.5582 | 100.52 | 1024.14 | 16.58877 | |
| 1.015261 | -0.0799 | 0.452184 | 7.449262 | -33.5763 | 100.3199 | 1024.089 | 16.6062 | |
| 1.015261 | -0.08058 | 0.450621 | 7.449295 | -33.5778 | 100.3068 | 1024.086 | 16.60732 | |
| 1.01526 | -0.08125 | 0.449057 | 7.449327 | -33.5792 | 100.2938 | 1024.084 | 16.60843 | |
| 1.01526 | -0.08193 | 0.447494 | 7.44936 | -33.5807 | 100.2808 | 1024.081 | 16.60954 | |
| 1.015304 | -0.066 | 0.484242 | 7.449672 | -33.5961 | 99.98254 | 1024.158 | 16.62636 | |
| 1.015306 | -0.06563 | 0.485108 | 7.449695 | -33.5971 | 99.96554 | 1024.16 | 16.62744 | |
| 1.015307 | -0.06525 | 0.485974 | 7.449718 | -33.5982 | 99.94853 | 1024.163 | 16.62852 | |
| 1.015309 | -0.06487 | 0.48684 | 7.44974 | -33.5992 | 99.93153 | 1024.165 | 16.6296 | |
| 1.015323 | -0.0748 | 0.463952 | 7.45007 | -33.6173 | 99.62125 | 1024.15 | 16.63826 | |

Location Properties

T1-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 09:33:30

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 7.332627 | 87.74768 | 137.1185 | 28280.97 | 18.75092 | 32140.78 | 20.33557 | 20.8915 | 503.9486 | |
| ##### 7.304752 | 87.568 | 136.84 | 28705.76 | 18.73746 | 32625.42 | 20.64262 | 21.20653 | 370.3107 | |
| ##### 7.276876 | 87.38831 | 136.5616 | 29130.55 | 18.72399 | 33110.07 | 20.94966 | 21.52155 | 236.6727 | |
| ##### 7.249001 | 87.20863 | 136.2831 | 29555.34 | 18.71053 | 33594.72 | 21.25671 | 21.83657 | 103.0347 | |
| ##### 7.087249 | 85.22111 | 133.1921 | 29743.46 | 18.62649 | 33866.14 | 21.42755 | 22.01299 | 33.62084 | |
| ##### 7.075191 | 85.06807 | 132.9538 | 29742.56 | 18.62119 | 33869.01 | 21.42939 | 22.01486 | 33.62186 | |
| ##### 7.063132 | 84.91503 | 132.7155 | 29741.66 | 18.61588 | 33871.89 | 21.43123 | 22.01673 | 33.62287 | |
| ##### 7.051073 | 84.76199 | 132.4772 | 29740.76 | 18.61058 | 33874.76 | 21.43307 | 22.01859 | 33.62389 | |
| ##### 6.980089 | 83.85952 | 131.0742 | 29765.16 | 18.56754 | 33934.34 | 21.47326 | 22.05732 | 33.59633 | |
| ##### 6.973602 | 83.77663 | 130.9453 | 29765.55 | 18.56393 | 33937.45 | 21.47532 | 22.05935 | 33.59588 | |
| ##### 6.967116 | 83.69376 | 130.8164 | 29765.95 | 18.56033 | 33940.57 | 21.47738 | 22.06137 | 33.59543 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013911 | -0.09671 | 0.413396 | 7.346279 | -28.0051 | 125.0907 | 1024.095 | 14.77514 | |
| 1.014147 | -0.09711 | 0.41249 | 7.346303 | -28.0062 | 124.9839 | 1024.094 | 14.77633 | |
| 1.014383 | -0.0975 | 0.411584 | 7.346327 | -28.0074 | 124.8772 | 1024.093 | 14.77752 | |
| 1.014619 | -0.09789 | 0.410678 | 7.346351 | -28.0086 | 124.7704 | 1024.092 | 14.77872 | |
| 1.014768 | -0.08923 | 0.430667 | 7.348722 | -28.1269 | 123.3635 | 1024.091 | 14.80554 | |
| 1.014771 | -0.08905 | 0.431066 | 7.348853 | -28.1335 | 123.2676 | 1024.09 | 14.80712 | |
| 1.014774 | -0.08888 | 0.431465 | 7.348983 | -28.1402 | 123.1718 | 1024.09 | 14.8087 | |
| 1.014776 | -0.08871 | 0.431864 | 7.349114 | -28.1468 | 123.076 | 1024.089 | 14.81028 | |
| 1.014817 | -0.08658 | 0.436778 | 7.350772 | -28.235 | 121.9702 | 1024.09 | 14.8355 | |
| 1.014819 | -0.0863 | 0.437407 | 7.350896 | -28.2414 | 121.8914 | 1024.09 | 14.83718 | |
| 1.014822 | -0.08603 | 0.438036 | 7.35102 | -28.2479 | 121.8126 | 1024.09 | 14.83886 | |

Location Properties

T1-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 11:36:17

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.294516 | 79.59048 | 123.8519 | 30084.18 | 21.64705 | 32142.63 | 20.30248 | 20.89271 | 33.24007 | |
| ##### 6.305709 | 79.59328 | 123.8797 | 30103.14 | 21.53106 | 32239.26 | 20.3674 | 20.95552 | 33.21914 | |
| ##### 6.306038 | 79.58803 | 123.873 | 30102.34 | 21.5222 | 32244.23 | 20.37069 | 20.95875 | 33.22002 | |
| ##### 6.306367 | 79.58278 | 123.8664 | 30101.54 | 21.51333 | 32249.2 | 20.37397 | 20.96198 | 33.22089 | |
| ##### 6.306696 | 79.57752 | 123.8597 | 30100.74 | 21.50447 | 32254.17 | 20.37725 | 20.96521 | 33.22178 | |
| ##### 6.334942 | 79.62789 | 123.9802 | 30123.74 | 21.39186 | 32353.45 | 20.44405 | 21.02974 | 33.19641 | |
| ##### 6.336404 | 79.62991 | 123.9857 | 30125.04 | 21.38446 | 32359.74 | 20.44827 | 21.03383 | 33.19498 | |
| ##### 6.337865 | 79.63194 | 123.9912 | 30126.34 | 21.37705 | 32366.02 | 20.4525 | 21.03791 | 33.19354 | |
| ##### 6.356993 | 79.74717 | 124.1933 | 30118.75 | 21.15407 | 32506.75 | 20.54578 | 21.12938 | 33.20191 | |
| ##### 6.358379 | 79.75319 | 124.2045 | 30118.81 | 21.14181 | 32514.99 | 20.55126 | 21.13474 | 33.20185 | |
| ##### 6.359765 | 79.75921 | 124.2157 | 30118.87 | 21.12954 | 32523.23 | 20.55674 | 21.1401 | 33.20178 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|----------|
| 1.013183 | -0.06256 | 0.492184 | 7.02435 | -10.4073 | 58.76471 | 1024.139 | | 30.7 |
| 1.013262 | -0.07161 | 0.471305 | 7.025798 | -10.4835 | 58.67303 | 1024.148 | | 30.70861 |
| 1.013266 | -0.07185 | 0.470761 | 7.025847 | -10.4859 | 58.66597 | 1024.149 | | 30.70899 |
| 1.013271 | -0.07208 | 0.470217 | 7.025896 | -10.4883 | 58.65892 | 1024.149 | | 30.70938 |
| 1.013276 | -0.07232 | 0.469673 | 7.025945 | -10.4907 | 58.65186 | 1024.15 | | 30.70976 |
| 1.013355 | -0.07923 | 0.453736 | 7.029227 | -10.6688 | 58.56444 | 1024.132 | | 30.69219 |
| 1.01336 | -0.0797 | 0.452637 | 7.029399 | -10.6781 | 58.55865 | 1024.131 | | 30.69157 |
| 1.013365 | -0.08018 | 0.451538 | 7.029572 | -10.6874 | 58.55287 | 1024.131 | | 30.69096 |
| 1.013492 | -0.07582 | 0.461587 | 7.035552 | -11.0103 | 58.43318 | 1024.139 | | 30.69069 |
| 1.013499 | -0.07575 | 0.461745 | 7.035883 | -11.0282 | 58.42606 | 1024.139 | | 30.69035 |
| 1.013506 | -0.07569 | 0.461902 | 7.036214 | -11.046 | 58.41895 | 1024.139 | | 30.69002 |

Location Properties

T1-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 11:26:19

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 7.153524 | 95.97422 | 148.4413 | 31046.45 | 25.19191 | 30933.06 | 19.51407 | 20.10649 | 32.2098 |
| ##### | 7.153524 | 95.97422 | 148.4413 | 31046.45 | 25.19191 | 30933.06 | 19.51407 | 20.10649 | 32.2098 |
| ##### | 7.153524 | 95.97422 | 148.4413 | 31046.45 | 25.19191 | 30933.06 | 19.51407 | 20.10649 | 32.2098 |
| ##### | 7.148197 | 95.66198 | 148.004 | 31153.49 | 24.99588 | 31155.99 | 19.66689 | 20.25139 | 32.09916 |
| ##### | 7.147849 | 95.64159 | 147.9754 | 31160.48 | 24.98308 | 31170.55 | 19.67688 | 20.26086 | 32.09193 |
| ##### | 7.147501 | 95.62119 | 147.9468 | 31167.47 | 24.97027 | 31185.11 | 19.68686 | 20.27032 | 32.08471 |
| ##### | 7.147153 | 95.6008 | 147.9183 | 31174.46 | 24.95747 | 31199.67 | 19.69684 | 20.27979 | 32.07748 |
| ##### | 7.218766 | 95.93438 | 148.5498 | 31132.03 | 24.77591 | 31265.97 | 19.74086 | 20.32288 | 32.12127 |
| ##### | 7.221792 | 95.94086 | 148.5661 | 31132.99 | 24.76269 | 31274.8 | 19.74685 | 20.32862 | 32.12027 |
| ##### | 7.224818 | 95.94735 | 148.5825 | 31133.95 | 24.74948 | 31283.64 | 19.75285 | 20.33436 | 32.11928 |
| ##### | 7.227844 | 95.95383 | 148.5988 | 31134.9 | 24.73626 | 31292.47 | 19.75884 | 20.34011 | 32.11829 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011631 | -0.07366 | 0.466564 | 7.183459 | -19.4644 | 56.01263 | 1024.26 | 30.79 | |
| 1.011631 | -0.07366 | 0.466564 | 7.183459 | -19.4644 | 56.01263 | 1024.26 | 30.79 | |
| 1.011631 | -0.07366 | 0.466564 | 7.183459 | -19.4644 | 56.01263 | 1024.26 | 30.79 | |
| 1.011802 | -0.06891 | 0.477531 | 7.170715 | -18.7343 | 64.58812 | 1024.194 | 30.7806 | |
| 1.011813 | -0.0686 | 0.478248 | 7.169883 | -18.6866 | 65.1482 | 1024.189 | 30.77999 | |
| 1.011824 | -0.06829 | 0.478964 | 7.169051 | -18.639 | 65.70828 | 1024.185 | 30.77937 | |
| 1.011835 | -0.06798 | 0.47968 | 7.168219 | -18.5913 | 66.26836 | 1024.181 | 30.77876 | |
| 1.011919 | -0.0831 | 0.444801 | 7.171496 | -18.7652 | 67.20023 | 1024.251 | 30.78883 | |
| 1.011928 | -0.08364 | 0.443548 | 7.171303 | -18.7535 | 67.46849 | 1024.253 | 30.78903 | |
| 1.011936 | -0.08419 | 0.442296 | 7.171111 | -18.7419 | 67.73676 | 1024.254 | 30.78923 | |
| 1.011944 | -0.08473 | 0.441044 | 7.170918 | -18.7303 | 68.00504 | 1024.256 | 30.78942 | |

Location Properties

T1-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 12:10:24

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.392291 | 80.68414 | 125.5301 | 30182.3 | 21.47899 | 32358.51 | 20.44934 | 21.03304 | 33.13202 | |
| ##### 6.393414 | 80.68776 | 125.5374 | 30181.9 | 21.46762 | 32365.58 | 20.45403 | 21.03763 | 33.13245 | |
| ##### 6.394537 | 80.69138 | 125.5448 | 30181.5 | 21.45625 | 32372.64 | 20.45872 | 21.04222 | 33.13288 | |
| ##### 6.425214 | 80.81557 | 125.7714 | 30164.67 | 21.35137 | 32424.33 | 20.49255 | 21.07581 | 33.15137 | |
| ##### 6.426888 | 80.82213 | 125.7836 | 30164.54 | 21.3442 | 32428.94 | 20.49561 | 21.07881 | 33.15151 | |
| ##### 6.428562 | 80.82868 | 125.7958 | 30164.4 | 21.33703 | 32433.55 | 20.49867 | 21.08181 | 33.15166 | |
| ##### 6.430236 | 80.83524 | 125.808 | 30164.27 | 21.32986 | 32438.16 | 20.50174 | 21.0848 | 33.15181 | |
| ##### 6.425909 | 80.65484 | 125.5424 | 30103.51 | 21.15215 | 32491.46 | 20.53511 | 21.11945 | 33.21873 | |
| ##### 6.426327 | 80.64917 | 125.535 | 30100.43 | 21.14191 | 32494.98 | 20.53735 | 21.12174 | 33.22213 | |
| ##### 6.426745 | 80.64351 | 125.5275 | 30097.34 | 21.13166 | 32498.5 | 20.53958 | 21.12402 | 33.22553 | |
| ##### 6.431586 | 80.63847 | 125.5322 | 30146.82 | 21.06619 | 32595.99 | 20.60604 | 21.18739 | 33.17101 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013337 | -0.06861 | 0.478224 | 7.128537 | -16.1807 | 50.80315 | 1023.688 | 30.57 | |
| 1.013343 | -0.06811 | 0.479377 | 7.128712 | -16.1898 | 50.80147 | 1023.689 | 30.57 | |
| 1.01335 | -0.06761 | 0.480529 | 7.128886 | -16.1989 | 50.79979 | 1023.689 | 30.57 | |
| 1.013402 | -0.09584 | 0.41542 | 7.132187 | -16.3779 | 50.77076 | 1023.663 | 30.57 | |
| 1.013406 | -0.09686 | 0.413065 | 7.132392 | -16.3889 | 50.76908 | 1023.662 | 30.57 | |
| 1.01341 | -0.09788 | 0.41071 | 7.132596 | -16.4 | 50.7674 | 1023.661 | 30.57 | |
| 1.013414 | -0.0989 | 0.408355 | 7.132802 | -16.411 | 50.76572 | 1023.66 | 30.57 | |
| 1.013484 | -0.07839 | 0.455665 | 7.136823 | -16.6245 | 50.75248 | 1023.634 | 30.57 | |
| 1.013489 | -0.07801 | 0.45655 | 7.137071 | -16.6377 | 50.75129 | 1023.632 | 30.57 | |
| 1.013493 | -0.07762 | 0.457436 | 7.137319 | -16.6509 | 50.7501 | 1023.63 | 30.57 | |
| 1.013559 | -0.08239 | 0.446444 | 7.140425 | -16.8175 | 50.73959 | 1023.631 | 30.57843 | |

Location Properties

T1-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 12:06:08

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.003706 | 80.44111 | 124.3395 | 30525.44 | 25.42634 | 30331.42 | 19.14468 | 19.71542 | 725.7712 | |
| ##### 5.984156 | 80.25524 | 124.0685 | 30998.88 | 25.29802 | 30846.81 | 19.47281 | 20.05042 | 296.4777 | |
| ##### 5.964606 | 80.06938 | 123.7975 | 31472.32 | 25.16969 | 31362.2 | 19.80094 | 20.38543 | 0 | |
| ##### 5.926086 | 79.342 | 122.7089 | 31366.82 | 25.01516 | 31361.02 | 19.80962 | 20.38466 | 31.88097 | |
| ##### 5.922063 | 79.28472 | 122.6232 | 31375.9 | 24.95452 | 31404.11 | 19.83902 | 20.41267 | 31.87164 | |
| ##### 5.918039 | 79.22745 | 122.5375 | 31384.99 | 24.89387 | 31447.2 | 19.86843 | 20.44068 | 31.86231 | |
| ##### 5.933426 | 78.97781 | 122.2263 | 31353.4 | 24.7361 | 31512.37 | 19.91187 | 20.48304 | 31.89447 | |
| ##### 5.93321 | 78.95139 | 122.1896 | 31353.53 | 24.72443 | 31519.51 | 19.9167 | 20.48768 | 31.89434 | |
| ##### 5.932994 | 78.92498 | 122.1529 | 31353.66 | 24.71277 | 31526.66 | 19.92154 | 20.49233 | 31.89421 | |
| ##### 5.932777 | 78.89857 | 122.1162 | 31353.79 | 24.70111 | 31533.8 | 19.92638 | 20.49697 | 31.89408 | |
| ##### 5.948016 | 78.89548 | 122.155 | 31277.22 | 24.37459 | 31655.51 | 20.00707 | 20.57608 | 31.97218 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011286 | -0.07048 | 0.473899 | 7.193863 | -20.0539 | 59.53749 | 1023.722 | 30.44976 | |
| 1.011569 | -0.07005 | 0.474904 | 7.191184 | -19.8983 | 59.29203 | 1023.721 | 30.44991 | |
| 1.011852 | -0.06961 | 0.475908 | 7.188506 | -19.7427 | 59.04657 | 1023.72 | 30.45006 | |
| 1.011903 | -0.07295 | 0.468222 | 7.168917 | -18.6323 | 58.00501 | 1023.738 | 30.45878 | |
| 1.011943 | -0.07295 | 0.468211 | 7.167394 | -18.5457 | 57.91251 | 1023.738 | 30.45917 | |
| 1.011982 | -0.07296 | 0.4682 | 7.165872 | -18.4591 | 57.82001 | 1023.738 | 30.45956 | |
| 1.012059 | -0.08056 | 0.450654 | 7.164288 | -18.3612 | 57.20356 | 1023.714 | 30.45963 | |
| 1.012066 | -0.08096 | 0.449745 | 7.163821 | -18.3343 | 57.15425 | 1023.713 | 30.4598 | |
| 1.012073 | -0.08135 | 0.448837 | 7.163353 | -18.3074 | 57.10494 | 1023.712 | 30.45997 | |
| 1.01208 | -0.08174 | 0.447928 | 7.162886 | -18.2805 | 57.05563 | 1023.711 | 30.46014 | |
| 1.012232 | -0.08358 | 0.443701 | 7.169203 | -18.6147 | 56.63355 | 1023.755 | 30.4688 | |

Location Properties

T2-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:16:23

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.1237 | 74.71873 | 116.6415 | 29689.59 | 19.60943 | 33097.29 | 20.92014 | 21.51324 | 33.68185 | |
| ##### | 6.117752 | 74.6366 | 116.5146 | 29687.74 | 19.60463 | 33098.61 | 20.92093 | 21.5141 | 33.68395 | |
| ##### | 6.111804 | 74.55448 | 116.3877 | 29685.89 | 19.59982 | 33099.94 | 20.92173 | 21.51496 | 33.68605 | |
| ##### | 6.105855 | 74.47236 | 116.2608 | 29684.04 | 19.59501 | 33101.26 | 20.92252 | 21.51582 | 33.68814 | |
| ##### | 6.062638 | 73.81905 | 115.2552 | 29588.94 | 19.44852 | 33098.48 | 20.91666 | 21.51401 | 33.79646 | |
| ##### | 6.059145 | 73.76721 | 115.1754 | 29584.14 | 19.4403 | 33098.92 | 20.91675 | 21.5143 | 33.80193 | |
| ##### | 6.055653 | 73.71537 | 115.0956 | 29579.34 | 19.43208 | 33099.37 | 20.91684 | 21.51459 | 33.8074 | |
| ##### | 6.025374 | 73.29498 | 114.4444 | 29617.21 | 19.37582 | 33181.66 | 20.97258 | 21.56808 | 33.76417 | |
| ##### | 6.023177 | 73.2634 | 114.3956 | 29616.97 | 19.37039 | 33185.25 | 20.97493 | 21.57041 | 33.76444 | |
| ##### | 6.02098 | 73.23182 | 114.3468 | 29616.72 | 19.36495 | 33188.83 | 20.97728 | 21.57274 | 33.76471 | |
| ##### | 6.018783 | 73.20023 | 114.298 | 29616.48 | 19.35951 | 33192.41 | 20.97962 | 21.57507 | 33.76498 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014153 | -0.08603 | 0.43804 | 7.502334 | -36.688 | 68.27993 | 1024.194 | 22.99911 | |
| 1.014155 | -0.08598 | 0.438154 | 7.502126 | -36.6761 | 68.26633 | 1024.196 | 23.00198 | |
| 1.014157 | -0.08593 | 0.438268 | 7.501918 | -36.6642 | 68.25273 | 1024.197 | 23.00486 | |
| 1.014158 | -0.08588 | 0.438382 | 7.501709 | -36.6522 | 68.23914 | 1024.198 | 23.00773 | |
| 1.014189 | -0.08747 | 0.434731 | 7.498887 | -36.4783 | 68.11046 | 1024.199 | 23.04407 | |
| 1.014191 | -0.08746 | 0.434734 | 7.498699 | -36.4669 | 68.09957 | 1024.199 | 23.04653 | |
| 1.014193 | -0.08746 | 0.434737 | 7.49851 | -36.4555 | 68.08868 | 1024.2 | 23.049 | |
| 1.014248 | -0.07748 | 0.45776 | 7.495545 | -36.2862 | 67.97404 | 1024.166 | 23.10725 | |
| 1.014251 | -0.07707 | 0.458705 | 7.495358 | -36.2753 | 67.96639 | 1024.165 | 23.11055 | |
| 1.014255 | -0.07666 | 0.45965 | 7.49517 | -36.2643 | 67.95876 | 1024.163 | 23.11386 | |
| 1.014258 | -0.07625 | 0.460594 | 7.494983 | -36.2533 | 67.95111 | 1024.162 | 23.11716 | |

Location Properties

T2-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:08:29

Time Offset = -05:00:00

Duration = 00:00:22

Readings = 12

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.599646 | 80.88931 | 126.229 | 29863.06 | 19.76596 | 33180.08 | 20.9819 | 21.56705 | 33.48618 |
| ##### | 6.538843 | 80.05883 | 124.9516 | 29917.5 | 19.68729 | 33296.17 | 21.06069 | 21.64251 | 33.42527 |
| ##### | 6.534931 | 80.00541 | 124.8695 | 29921 | 19.68223 | 33303.64 | 21.06576 | 21.64736 | 33.42135 |
| ##### | 6.53102 | 79.95199 | 124.7873 | 29924.5 | 19.67717 | 33311.1 | 21.07083 | 21.65222 | 33.41743 |
| ##### | 6.527109 | 79.89857 | 124.7051 | 29928 | 19.6721 | 33318.57 | 21.07589 | 21.65707 | 33.41351 |
| ##### | 6.514576 | 79.55795 | 124.1939 | 29917.23 | 19.60344 | 33355.34 | 21.09968 | 21.68097 | 33.42556 |
| ##### | 6.512453 | 79.52116 | 124.1379 | 29918.12 | 19.59828 | 33359.98 | 21.10277 | 21.68399 | 33.42456 |
| ##### | 6.510329 | 79.48438 | 124.0819 | 29919.01 | 19.59312 | 33364.62 | 21.10587 | 21.687 | 33.42356 |
| ##### | 6.508206 | 79.44759 | 124.0259 | 29919.9 | 19.58797 | 33369.27 | 21.10897 | 21.69002 | 33.42257 |
| ##### | 6.486715 | 79.11324 | 123.52 | 29893.07 | 19.46651 | 33425.87 | 21.14511 | 21.72681 | 33.45257 |
| ##### | 6.485266 | 79.08823 | 123.4822 | 29891.89 | 19.45944 | 33429.58 | 21.1475 | 21.72923 | 33.45389 |
| ##### | 6.483817 | 79.06321 | 123.4443 | 29890.71 | 19.45237 | 33433.3 | 21.1499 | 21.73164 | 33.45522 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014163 | -0.06594 | 0.484391 | 7.506437 | -36.9322 | 68.68369 | 1024.14 | 20.5 | |
| 1.014241 | -0.07948 | 0.453151 | 7.501841 | -36.6682 | 76.09399 | 1024.177 | 20.52762 | |
| 1.014246 | -0.08035 | 0.451141 | 7.501545 | -36.6512 | 76.57066 | 1024.179 | 20.52939 | |
| 1.014251 | -0.08122 | 0.449132 | 7.501249 | -36.6342 | 77.04733 | 1024.181 | 20.53117 | |
| 1.014256 | -0.08209 | 0.447122 | 7.500954 | -36.6172 | 77.524 | 1024.184 | 20.53295 | |
| 1.014291 | -0.07438 | 0.464912 | 7.499245 | -36.5165 | 78.46016 | 1024.161 | 20.53793 | |
| 1.014295 | -0.07437 | 0.464934 | 7.49905 | -36.5051 | 78.69179 | 1024.161 | 20.53886 | |
| 1.014298 | -0.07436 | 0.464956 | 7.498854 | -36.4938 | 78.92342 | 1024.161 | 20.53979 | |
| 1.014302 | -0.07435 | 0.464978 | 7.498659 | -36.4824 | 79.15504 | 1024.161 | 20.54072 | |
| 1.014358 | -0.08539 | 0.439517 | 7.496581 | -36.3539 | 79.86954 | 1024.213 | 20.57497 | |
| 1.014361 | -0.08578 | 0.438623 | 7.496436 | -36.3451 | 79.95 | 1024.215 | 20.57669 | |
| 1.014365 | -0.08617 | 0.437729 | 7.496291 | -36.3364 | 80.03048 | 1024.217 | 20.57842 | |

Location Properties

T2-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 11:54:51

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.368386 | 81.36369 | 126.4458 | 30112.5 | 22.2683 | 31770.13 | 20.055 | 20.65058 | 33.2088 | |
| ##### | 6.404687 | 81.56518 | 126.7979 | 30085.3 | 22.19319 | 31789.55 | 20.06717 | 20.66321 | 33.23883 | |
| ##### | 6.406019 | 81.56879 | 126.8054 | 30084.28 | 22.18855 | 31791.44 | 20.0684 | 20.66444 | 33.23996 | |
| ##### | 6.407351 | 81.5724 | 126.813 | 30083.25 | 22.1839 | 31793.34 | 20.06964 | 20.66567 | 33.24109 | |
| ##### | 6.408682 | 81.57602 | 126.8206 | 30082.23 | 22.17926 | 31795.23 | 20.07087 | 20.6669 | 33.24222 | |
| ##### | 6.380756 | 81.06132 | 126.046 | 30011.7 | 21.95568 | 31864.58 | 20.115 | 20.71198 | 33.32037 | |
| ##### | 6.380201 | 81.04213 | 126.018 | 30008.04 | 21.94426 | 31868.05 | 20.1172 | 20.71423 | 33.32443 | |
| ##### | 6.379646 | 81.02293 | 125.9901 | 30004.37 | 21.93285 | 31871.52 | 20.1194 | 20.71649 | 33.32849 | |
| ##### | 6.379091 | 81.00375 | 125.9621 | 30000.71 | 21.92143 | 31874.98 | 20.12161 | 20.71874 | 33.33255 | |
| ##### | 6.367859 | 80.77141 | 125.6185 | 30047.87 | 21.83649 | 31980.26 | 20.1932 | 20.78717 | 33.28025 | |
| ##### | 6.366855 | 80.75141 | 125.5887 | 30048.61 | 21.82841 | 31986.29 | 20.19724 | 20.79109 | 33.27942 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.012836 | -0.08741 | 0.434867 | 7.009121 | -9.58369 | 52.03732 | 1023.841 | 30.09 | |
| 1.012865 | -0.06576 | 0.484788 | 7.008355 | -9.53775 | 51.96284 | 1023.858 | 30.08154 | |
| 1.012867 | -0.06437 | 0.488014 | 7.008265 | -9.53253 | 51.9567 | 1023.858 | 30.08115 | |
| 1.012869 | -0.06297 | 0.49124 | 7.008174 | -9.5273 | 51.95056 | 1023.858 | 30.08076 | |
| 1.012871 | -0.06157 | 0.494466 | 7.008084 | -9.52207 | 51.94442 | 1023.859 | 30.08038 | |
| 1.012962 | -0.13227 | 0.331373 | 7.015093 | -9.90491 | 51.83727 | 1023.868 | 30.08889 | |
| 1.012967 | -0.135 | 0.325084 | 7.015388 | -9.92093 | 51.83102 | 1023.868 | 30.08911 | |
| 1.012972 | -0.13773 | 0.318794 | 7.015682 | -9.93694 | 51.82476 | 1023.869 | 30.08932 | |
| 1.012976 | -0.14045 | 0.312504 | 7.015977 | -9.95296 | 51.8185 | 1023.87 | 30.08954 | |
| 1.013052 | -0.12616 | 0.345477 | 7.024796 | -10.4374 | 51.80406 | 1023.878 | 30.08974 | |
| 1.013057 | -0.12684 | 0.343915 | 7.02532 | -10.4661 | 51.80129 | 1023.879 | 30.0899 | |

Location Properties

T2-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 11:51:48

Time Offset = -05:00:00

Duration = 00:00:22

Readings = 12

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.115339 | 81.10904 | 125.4989 | 29780.72 | 25.00819 | 29829.14 | 18.81936 | 19.38894 | 1033.219 | |
| ##### 6.094611 | 80.90214 | 125.1946 | 30252.29 | 24.95834 | 30309.41 | 19.12336 | 19.70112 | 640.5045 | |
| ##### 6.073883 | 80.69524 | 124.8903 | 30723.86 | 24.90848 | 30789.69 | 19.42735 | 20.0133 | 247.7896 | |
| ##### 6.053154 | 80.48833 | 124.586 | 31195.43 | 24.85863 | 31269.96 | 19.73134 | 20.32547 | 0 | |
| ##### 6.061387 | 80.31942 | 124.3683 | 30981.47 | 24.40802 | 31336.38 | 19.78537 | 20.36865 | 32.2774 | |
| ##### 6.061429 | 80.29305 | 124.333 | 30986.56 | 24.37841 | 31359.13 | 19.80083 | 20.38343 | 32.27206 | |
| ##### 6.061471 | 80.26667 | 124.2976 | 30991.65 | 24.3488 | 31381.87 | 19.81629 | 20.39822 | 32.26671 | |
| ##### 6.141402 | 81.1625 | 125.7195 | 31039.64 | 24.20032 | 31521.4 | 19.91146 | 20.48891 | 32.21688 | |
| ##### 6.144885 | 81.19619 | 125.7742 | 31041.94 | 24.1846 | 31533.24 | 19.9195 | 20.4966 | 32.2145 | |
| ##### 6.148367 | 81.22989 | 125.829 | 31044.23 | 24.16888 | 31545.07 | 19.92754 | 20.5043 | 32.21211 | |
| ##### 6.151849 | 81.26358 | 125.8838 | 31046.53 | 24.15316 | 31556.91 | 19.93558 | 20.51199 | 32.20973 | |
| ##### 6.269112 | 82.32559 | 127.615 | 31032.97 | 23.95771 | 31663.43 | 20.0071 | 20.58123 | 32.2238 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011164 | -0.08744 | 0.434778 | 7.073504 | -13.276 | 56.45676 | 1023.89 | 30.05962 | |
| 1.011405 | -0.08719 | 0.435359 | 7.071046 | -13.1371 | 56.23807 | 1023.89 | 30.05977 | |
| 1.011647 | -0.08694 | 0.43594 | 7.068588 | -12.9982 | 56.01938 | 1023.89 | 30.05992 | |
| 1.011889 | -0.08669 | 0.436522 | 7.066131 | -12.8593 | 55.8007 | 1023.89 | 30.06007 | |
| 1.012056 | -0.09019 | 0.428435 | 7.053963 | -12.1613 | 54.99516 | 1023.863 | 30.06877 | |
| 1.012076 | -0.09035 | 0.428076 | 7.05277 | -12.0934 | 54.91586 | 1023.862 | 30.06916 | |
| 1.012096 | -0.09051 | 0.427717 | 7.051577 | -12.0256 | 54.83656 | 1023.861 | 30.06955 | |
| 1.012208 | -0.13507 | 0.324924 | 7.054388 | -12.1753 | 54.31106 | 1023.878 | 30.06126 | |
| 1.012219 | -0.13708 | 0.320276 | 7.054237 | -12.1662 | 54.26948 | 1023.878 | 30.06106 | |
| 1.012229 | -0.1391 | 0.315629 | 7.054086 | -12.1571 | 54.2279 | 1023.878 | 30.06087 | |
| 1.01224 | -0.14111 | 0.310981 | 7.053936 | -12.148 | 54.18632 | 1023.878 | 30.06067 | |
| 1.012347 | -0.13282 | 0.330112 | 7.063108 | -12.6548 | 53.8073 | 1023.922 | 30.07769 | |

Location Properties

T2-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 12:37:04

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.465353 | 84.26302 | 130.2834 | 26016.47 | 27.00755 | 25058.16 | 15.75858 | 16.2878 | 2420.647 |
| ##### | 6.403299 | 83.65332 | 129.3679 | 27095.29 | 27.00684 | 26097.25 | 16.41249 | 16.96321 | 1871.977 |
| ##### | 6.341245 | 83.04362 | 128.4523 | 28174.12 | 27.00612 | 27136.35 | 17.0664 | 17.63862 | 1323.307 |
| ##### | 6.279191 | 82.43391 | 127.5368 | 29252.95 | 27.00541 | 28175.44 | 17.72032 | 18.31403 | 774.637 |
| ##### | 6.162683 | 81.16448 | 125.6645 | 30319.24 | 24.32794 | 30770.93 | 19.44873 | 20.00111 | 440.3156 |
| ##### | 6.135264 | 80.89532 | 125.2633 | 30795.95 | 24.20179 | 31303.52 | 19.78836 | 20.34729 | 233.154 |
| ##### | 6.107844 | 80.62617 | 124.862 | 31272.66 | 24.07565 | 31836.12 | 20.12799 | 20.69348 | 25.99252 |
| ##### | 6.061992 | 79.88686 | 123.7411 | 31303.48 | 23.98831 | 31924.05 | 20.18887 | 20.75063 | 31.94549 |
| ##### | 6.058333 | 79.8354 | 123.664 | 31311.78 | 23.92938 | 31966.9 | 20.21803 | 20.77848 | 31.93692 |
| ##### | 6.054676 | 79.78392 | 123.5869 | 31320.09 | 23.87045 | 32009.75 | 20.2472 | 20.80634 | 31.92836 |
| ##### | 6.051017 | 79.73244 | 123.5097 | 31328.4 | 23.81153 | 32052.6 | 20.27636 | 20.83419 | 31.9198 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.008293 | -0.08975 | 0.429467 | 7.112316 | -15.4649 | 58.42395 | 1023.369 | 31.13874 | |
| 1.008782 | -0.08961 | 0.429784 | 7.109192 | -15.2837 | 58.56191 | 1023.369 | 31.13917 | |
| 1.009271 | -0.08947 | 0.430102 | 7.106068 | -15.1025 | 58.69987 | 1023.37 | 31.1396 | |
| 1.00976 | -0.08933 | 0.43042 | 7.102944 | -14.9213 | 58.83783 | 1023.37 | 31.14004 | |
| 1.011825 | -0.08224 | 0.446772 | 7.073785 | -13.2639 | 57.45395 | 1023.37 | 31.14898 | |
| 1.012115 | -0.08181 | 0.447778 | 7.071684 | -13.1429 | 57.31849 | 1023.37 | 31.1494 | |
| 1.012405 | -0.08137 | 0.448783 | 7.069584 | -13.0219 | 57.18301 | 1023.37 | 31.14982 | |
| 1.012475 | -0.08355 | 0.443756 | 7.054007 | -12.1446 | 56.67491 | 1023.361 | 31.15819 | |
| 1.012513 | -0.08351 | 0.443863 | 7.052744 | -12.0732 | 56.62711 | 1023.361 | 31.15874 | |
| 1.012552 | -0.08346 | 0.443969 | 7.051481 | -12.0018 | 56.57932 | 1023.36 | 31.1593 | |
| 1.012591 | -0.08341 | 0.444075 | 7.050218 | -11.9305 | 56.53152 | 1023.36 | 31.15985 | |

Location Properties

T3-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:36:35

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.536248 | 82.33522 | 128.169 | 30175.25 | 21.41128 | 32396.37 | 20.47432 | 21.05764 | 33.14002 | |
| ##### 6.525936 | 82.1888 | 127.9441 | 30183.6 | 21.39876 | 32413.48 | 20.48598 | 21.06876 | 33.13078 | |
| ##### 6.515623 | 82.0424 | 127.7191 | 30191.94 | 21.38624 | 32430.59 | 20.49763 | 21.07989 | 33.12153 | |
| ##### 6.505311 | 81.89598 | 127.4942 | 30200.29 | 21.37372 | 32447.7 | 20.50929 | 21.09101 | 33.11229 | |
| ##### 6.431108 | 80.89912 | 125.9469 | 30162.81 | 21.29636 | 32458.95 | 20.51552 | 21.09832 | 33.15342 | |
| ##### 6.424797 | 80.81422 | 125.8154 | 30162.79 | 21.29134 | 32462.27 | 20.51772 | 21.10048 | 33.15344 | |
| ##### 6.418485 | 80.72932 | 125.684 | 30162.77 | 21.28633 | 32465.59 | 20.51993 | 21.10263 | 33.15345 | |
| ##### 6.412172 | 80.64442 | 125.5525 | 30162.76 | 21.28131 | 32468.91 | 20.52214 | 21.10479 | 33.15347 | |
| ##### 6.368572 | 80.02181 | 124.5969 | 30210.81 | 21.20822 | 32569.63 | 20.59072 | 21.17026 | 33.10074 | |
| ##### 6.365028 | 79.97259 | 124.521 | 30212.37 | 21.20345 | 32574.49 | 20.59401 | 21.17342 | 33.09904 | |
| ##### 6.361484 | 79.92336 | 124.4451 | 30213.92 | 21.19869 | 32579.35 | 20.59729 | 21.17658 | 33.09734 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013373 | -0.0366 | 0.55206 | 7.569953 | -40.6652 | 63.54664 | 1024.09 | 29.2982 | |
| 1.013385 | -0.03391 | 0.558258 | 7.569469 | -40.638 | 63.4372 | 1024.09 | 29.29877 | |
| 1.013397 | -0.03123 | 0.564455 | 7.568985 | -40.6107 | 63.32775 | 1024.09 | 29.29934 | |
| 1.013409 | -0.02854 | 0.570652 | 7.568501 | -40.5835 | 63.21831 | 1024.09 | 29.2999 | |
| 1.013433 | -0.08944 | 0.430168 | 7.562915 | -40.2573 | 62.44255 | 1024.055 | 29.3083 | |
| 1.013436 | -0.09106 | 0.426438 | 7.562518 | -40.2344 | 62.38001 | 1024.054 | 29.30886 | |
| 1.013439 | -0.09268 | 0.422707 | 7.562121 | -40.2116 | 62.31748 | 1024.053 | 29.30941 | |
| 1.013442 | -0.09429 | 0.418977 | 7.561724 | -40.1887 | 62.25494 | 1024.052 | 29.30997 | |
| 1.013512 | -0.05128 | 0.518206 | 7.55523 | -39.8215 | 61.75811 | 1024.051 | 29.31845 | |
| 1.013516 | -0.05042 | 0.520186 | 7.554828 | -39.7986 | 61.71957 | 1024.05 | 29.31899 | |
| 1.01352 | -0.04956 | 0.522166 | 7.554427 | -39.7757 | 61.68103 | 1024.05 | 29.31954 | |

Location Properties

T3-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:46:36

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.528914 | 67.48231 | 105.3237 | 29344.13 | 19.72379 | 32632.74 | 20.60004 | 21.21128 | 34.07837 | |
| ##### | 5.525191 | 67.42721 | 105.2388 | 29343.38 | 19.71853 | 32635.55 | 20.60186 | 21.21311 | 34.07924 | |
| ##### | 5.521468 | 67.3721 | 105.154 | 29342.64 | 19.71327 | 32638.35 | 20.60368 | 21.21493 | 34.0801 | |
| ##### | 5.517745 | 67.317 | 105.0692 | 29341.89 | 19.70801 | 32641.16 | 20.60549 | 21.21675 | 34.08097 | |
| ##### | 5.4891 | 66.86938 | 104.3799 | 29275.26 | 19.56545 | 32666.01 | 20.61907 | 21.23291 | 34.15857 | |
| ##### | 5.486827 | 66.83388 | 104.3253 | 29271.76 | 19.55744 | 32667.68 | 20.62002 | 21.23399 | 34.16264 | |
| ##### | 5.484555 | 66.79838 | 104.2707 | 29268.27 | 19.54943 | 32669.34 | 20.62097 | 21.23507 | 34.16671 | |
| ##### | 5.482283 | 66.76288 | 104.216 | 29264.77 | 19.54142 | 32671.01 | 20.62192 | 21.23615 | 34.17079 | |
| ##### | 5.450452 | 66.31686 | 103.5301 | 29320.94 | 19.47041 | 32783.4 | 20.69815 | 21.30921 | 34.10534 | |
| ##### | 5.448442 | 66.28773 | 103.4852 | 29322.07 | 19.46442 | 32788.84 | 20.70178 | 21.31275 | 34.10402 | |
| ##### | 5.446432 | 66.2586 | 103.4404 | 29323.21 | 19.45844 | 32794.29 | 20.7054 | 21.31629 | 34.1027 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013883 | -0.05395 | 0.51205 | 7.104647 | -14.7698 | 59.85353 | 1024.153 | 28.39196 | |
| 1.013886 | -0.05291 | 0.514436 | 7.104348 | -14.7531 | 59.84414 | 1024.152 | 28.3914 | |
| 1.013889 | -0.05188 | 0.516822 | 7.10405 | -14.7364 | 59.83475 | 1024.152 | 28.39085 | |
| 1.013891 | -0.05084 | 0.519208 | 7.103751 | -14.7197 | 59.82537 | 1024.151 | 28.3903 | |
| 1.013935 | -0.06237 | 0.492608 | 7.102141 | -14.6232 | 59.69486 | 1024.125 | 28.37311 | |
| 1.013938 | -0.06237 | 0.492607 | 7.101993 | -14.6147 | 59.68594 | 1024.123 | 28.37216 | |
| 1.013941 | -0.06237 | 0.492606 | 7.101845 | -14.6061 | 59.67701 | 1024.121 | 28.37121 | |
| 1.013943 | -0.06238 | 0.492605 | 7.101697 | -14.5975 | 59.66808 | 1024.12 | 28.37026 | |
| 1.014018 | -0.06043 | 0.497089 | 7.100929 | -14.5515 | 59.55978 | 1024.12 | 28.37053 | |
| 1.014022 | -0.06055 | 0.49681 | 7.10086 | -14.5473 | 59.55233 | 1024.12 | 28.37019 | |
| 1.014026 | -0.06067 | 0.496532 | 7.10079 | -14.5432 | 59.54488 | 1024.119 | 28.36986 | |

Location Properties

T3-2HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:40:35

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.83048 | 84.06837 | 131.1421 | 29964.64 | 19.99209 | 33133.94 | 20.95556 | 21.53706 | 33.37267 |
| ##### | 6.76612 | 83.24136 | 129.8638 | 30033.49 | 19.94854 | 33240.65 | 21.0288 | 21.60643 | 33.29617 |
| ##### | 6.761989 | 83.18828 | 129.7817 | 30037.91 | 19.94575 | 33247.5 | 21.0335 | 21.61088 | 33.29126 |
| ##### | 6.757858 | 83.1352 | 129.6997 | 30042.33 | 19.94295 | 33254.35 | 21.0382 | 21.61533 | 33.28635 |
| ##### | 6.753727 | 83.08212 | 129.6176 | 30046.75 | 19.94016 | 33261.2 | 21.04291 | 21.61978 | 33.28144 |
| ##### | 6.754794 | 82.96493 | 129.451 | 30042.06 | 19.8842 | 33295.43 | 21.06532 | 21.64203 | 33.28667 |
| ##### | 6.753204 | 82.93867 | 129.4111 | 30043.6 | 19.8806 | 33299.67 | 21.06818 | 21.64479 | 33.28496 |
| ##### | 6.751616 | 82.91241 | 129.3711 | 30045.14 | 19.877 | 33303.91 | 21.07104 | 21.64754 | 33.28325 |
| ##### | 6.750027 | 82.88615 | 129.3312 | 30046.69 | 19.87339 | 33308.16 | 21.07391 | 21.6503 | 33.28153 |
| ##### | 6.758978 | 82.9197 | 129.3947 | 29999.83 | 19.78973 | 33315.24 | 21.07667 | 21.65491 | 33.33353 |
| ##### | 6.759153 | 82.91578 | 129.3895 | 29997.89 | 19.78471 | 33316.63 | 21.07751 | 21.65581 | 33.33569 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014088 | -0.10515 | 0.393937 | 7.529438 | -38.2353 | 52.31039 | 1024.1 | 29.09 | |
| 1.014154 | -0.10453 | 0.395362 | 7.523688 | -37.9093 | 58.17897 | 1024.127 | 29.09 | |
| 1.014159 | -0.10449 | 0.395454 | 7.523319 | -37.8883 | 58.55564 | 1024.129 | 29.09 | |
| 1.014163 | -0.10445 | 0.395545 | 7.52295 | -37.8674 | 58.93231 | 1024.131 | 29.09 | |
| 1.014167 | -0.10441 | 0.395637 | 7.522581 | -37.8465 | 59.30898 | 1024.133 | 29.09 | |
| 1.014198 | -0.10197 | 0.401281 | 7.520003 | -37.701 | 59.78699 | 1024.129 | 29.07286 | |
| 1.014201 | -0.10184 | 0.401569 | 7.519742 | -37.6862 | 59.95757 | 1024.129 | 29.0721 | |
| 1.014204 | -0.10172 | 0.401857 | 7.51948 | -37.6714 | 60.12814 | 1024.13 | 29.07133 | |
| 1.014207 | -0.10159 | 0.402146 | 7.519219 | -37.6566 | 60.29871 | 1024.13 | 29.07057 | |
| 1.014229 | -0.08618 | 0.437691 | 7.515734 | -37.4561 | 60.77247 | 1024.147 | 29.07048 | |
| 1.014231 | -0.08543 | 0.439417 | 7.515504 | -37.443 | 60.82594 | 1024.148 | 29.07016 | |

Location Properties

T3-3HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 11:09:29

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.075537 | 74.51582 | 116.2681 | 29586.97 | 19.9602 | 32738.39 | 20.67945 | 21.27995 | 33.79867 | |
| ##### 6.076281 | 74.51544 | 116.2686 | 29586.58 | 19.95552 | 32741.19 | 20.68129 | 21.28178 | 33.79911 | |
| ##### 6.077024 | 74.51506 | 116.2692 | 29586.2 | 19.95084 | 32743.99 | 20.68312 | 21.2836 | 33.79955 | |
| ##### 6.077768 | 74.51469 | 116.2698 | 29585.81 | 19.94617 | 32746.79 | 20.68495 | 21.28542 | 33.79999 | |
| ##### 6.082923 | 74.47403 | 116.2257 | 29577.81 | 19.79185 | 32845.15 | 20.74945 | 21.34935 | 33.80913 | |
| ##### 6.083425 | 74.47217 | 116.2241 | 29577.05 | 19.78358 | 32850.05 | 20.75265 | 21.35253 | 33.80999 | |
| ##### 6.083925 | 74.47031 | 116.2224 | 29576.3 | 19.77532 | 32854.95 | 20.75585 | 21.35572 | 33.81086 | |
| ##### 6.094537 | 74.52098 | 116.3134 | 29617.43 | 19.69724 | 32955.29 | 20.82363 | 21.42094 | 33.76391 | |
| ##### 6.095109 | 74.52243 | 116.3166 | 29619.1 | 19.6908 | 32961.63 | 20.82788 | 21.42506 | 33.76201 | |
| ##### 6.095681 | 74.52387 | 116.3197 | 29620.76 | 19.68437 | 32967.97 | 20.83212 | 21.42918 | 33.76011 | |
| ##### 6.096252 | 74.52532 | 116.3229 | 29622.43 | 19.67793 | 32974.31 | 20.83636 | 21.4333 | 33.75821 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013887 | -0.06874 | 0.477928 | 7.078441 | -13.3353 | 66.99313 | 1024.202 | 29.328 | |
| 1.013889 | -0.06823 | 0.479107 | 7.078714 | -13.3502 | 66.99239 | 1024.201 | 29.32872 | |
| 1.013892 | -0.06772 | 0.480286 | 7.078987 | -13.3651 | 66.99166 | 1024.2 | 29.32943 | |
| 1.013894 | -0.0672 | 0.481465 | 7.07926 | -13.38 | 66.99093 | 1024.199 | 29.33015 | |
| 1.01398 | -0.04664 | 0.528901 | 7.084122 | -13.6402 | 66.90386 | 1024.235 | 29.36514 | |
| 1.013985 | -0.0454 | 0.531758 | 7.084423 | -13.6564 | 66.89909 | 1024.237 | 29.36689 | |
| 1.013989 | -0.04416 | 0.534614 | 7.084723 | -13.6726 | 66.89433 | 1024.238 | 29.36863 | |
| 1.014059 | -0.05291 | 0.514428 | 7.088634 | -13.8849 | 66.82222 | 1024.23 | 29.3771 | |
| 1.014064 | -0.05291 | 0.514438 | 7.088902 | -13.8993 | 66.81741 | 1024.23 | 29.37815 | |
| 1.014069 | -0.05291 | 0.514449 | 7.08917 | -13.9138 | 66.81261 | 1024.231 | 29.3792 | |
| 1.014073 | -0.0529 | 0.514459 | 7.089438 | -13.9283 | 66.80781 | 1024.231 | 29.38025 | |

Location Properties

T3-3HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:59:44

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 7.842993 | 100.0623 | 155.5738 | 30171.15 | 22.18265 | 31887.06 | 20.13477 | 20.72659 | 33.14427 | |
| ##### 7.844236 | 100.0736 | 155.5921 | 30177.47 | 22.1779 | 31896.78 | 20.14144 | 20.73291 | 33.13731 | |
| ##### 7.84548 | 100.0848 | 155.6105 | 30183.8 | 22.17316 | 31906.5 | 20.14812 | 20.73923 | 33.13034 | |
| ##### 7.846724 | 100.096 | 155.6289 | 30190.12 | 22.16841 | 31916.23 | 20.15479 | 20.74555 | 33.12337 | |
| ##### 7.889686 | 100.3949 | 156.1322 | 30197.63 | 22.10486 | 31965.25 | 20.18774 | 20.77741 | 33.1152 | |
| ##### 7.892122 | 100.4129 | 156.1623 | 30200.46 | 22.10011 | 31971.3 | 20.19186 | 20.78135 | 33.11208 | |
| ##### 7.894559 | 100.4308 | 156.1924 | 30203.3 | 22.09536 | 31977.37 | 20.19599 | 20.78529 | 33.10896 | |
| ##### 7.896996 | 100.4488 | 156.2224 | 30206.14 | 22.09061 | 31983.42 | 20.20012 | 20.78922 | 33.10584 | |
| ##### 7.939517 | 100.8142 | 156.8287 | 30181.21 | 21.89562 | 32083.63 | 20.2662 | 20.85436 | 33.1332 | |
| ##### 7.942333 | 100.8371 | 156.8668 | 30180.62 | 21.88535 | 32089.67 | 20.27021 | 20.85828 | 33.13385 | |
| ##### 7.945149 | 100.8599 | 156.9048 | 30180.03 | 21.87509 | 32095.7 | 20.27421 | 20.8622 | 33.1345 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.012918 | -0.06363 | 0.489711 | 7.150889 | -17.4649 | 65.57694 | 1024.142 | 27.84 | |
| 1.012925 | -0.06293 | 0.491328 | 7.149645 | -17.3953 | 65.99843 | 1024.14 | 27.84 | |
| 1.012931 | -0.06223 | 0.492946 | 7.148401 | -17.3258 | 66.41991 | 1024.139 | 27.84 | |
| 1.012937 | -0.06153 | 0.494563 | 7.147157 | -17.2563 | 66.8414 | 1024.137 | 27.84 | |
| 1.012979 | -0.06469 | 0.487271 | 7.143385 | -17.0426 | 67.05806 | 1024.149 | 27.85717 | |
| 1.012983 | -0.06455 | 0.487579 | 7.142723 | -17.0054 | 67.23428 | 1024.149 | 27.85795 | |
| 1.012987 | -0.06442 | 0.487888 | 7.14206 | -16.9683 | 67.41051 | 1024.149 | 27.85873 | |
| 1.012992 | -0.06429 | 0.488196 | 7.141398 | -16.9312 | 67.58674 | 1024.149 | 27.85951 | |
| 1.013092 | -0.06894 | 0.477452 | 7.1393 | -16.8045 | 67.81449 | 1024.211 | 27.88585 | |
| 1.013098 | -0.06917 | 0.476927 | 7.139057 | -16.7905 | 67.8544 | 1024.214 | 27.88737 | |
| 1.013103 | -0.0694 | 0.476401 | 7.138814 | -16.7765 | 67.89431 | 1024.217 | 27.88888 | |

Location Properties

T2-1HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 10:04:16

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.68237 | 82.92648 | 129.2524 | 29850.35 | 20.49491 | 32664.63 | 20.65301 | 21.23201 | 85.52563 |
| ##### | 6.566168 | 81.56744 | 127.1329 | 30093.32 | 20.51947 | 32909.68 | 20.81221 | 21.39129 | 33.23012 |
| ##### | 6.558233 | 81.46942 | 126.9802 | 30098.91 | 20.51936 | 32915.88 | 20.81652 | 21.39532 | 33.2239 |
| ##### | 6.550298 | 81.37141 | 126.8276 | 30104.51 | 20.51925 | 32922.07 | 20.82083 | 21.39934 | 33.21769 |
| ##### | 6.542364 | 81.27338 | 126.6749 | 30110.11 | 20.51913 | 32928.26 | 20.82514 | 21.40337 | 33.21147 |
| ##### | 6.493764 | 80.65717 | 125.716 | 30146.97 | 20.5028 | 32979.82 | 20.86067 | 21.43688 | 33.17085 |
| ##### | 6.489975 | 80.60974 | 125.6421 | 30149.71 | 20.5026 | 32982.96 | 20.86285 | 21.43892 | 33.16783 |
| ##### | 6.486186 | 80.56232 | 125.5682 | 30152.46 | 20.50241 | 32986.09 | 20.86503 | 21.44096 | 33.1648 |
| ##### | 6.482398 | 80.51489 | 125.4943 | 30155.2 | 20.50221 | 32989.23 | 20.86721 | 21.443 | 33.16177 |
| ##### | 6.468907 | 80.31926 | 125.1932 | 30128.47 | 20.48463 | 32972.1 | 20.85486 | 21.43187 | 33.1912 |
| ##### | 6.467333 | 80.29817 | 125.1606 | 30128.01 | 20.48349 | 32972.38 | 20.85504 | 21.43205 | 33.1917 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013737 | -0.0909 | 0.426813 | 7.556749 | -39.8207 | 92.79947 | 1024.057 | 19.74807 | |
| 1.013851 | -0.08385 | 0.443062 | 7.551236 | -39.5138 | 91.12488 | 1024.034 | 19.76539 | |
| 1.013855 | -0.08357 | 0.443706 | 7.550868 | -39.4934 | 91.01888 | 1024.033 | 19.76639 | |
| 1.013858 | -0.08329 | 0.444351 | 7.550499 | -39.473 | 90.9129 | 1024.032 | 19.7674 | |
| 1.013861 | -0.08302 | 0.444995 | 7.550131 | -39.4527 | 90.8069 | 1024.032 | 19.7684 | |
| 1.013892 | -0.08607 | 0.437951 | 7.544744 | -39.1543 | 89.54882 | 1024.013 | 19.77798 | |
| 1.013894 | -0.0861 | 0.437888 | 7.544404 | -39.1353 | 89.46321 | 1024.012 | 19.77871 | |
| 1.013896 | -0.08612 | 0.437825 | 7.544063 | -39.1164 | 89.3776 | 1024.011 | 19.77944 | |
| 1.013897 | -0.08615 | 0.437763 | 7.543722 | -39.0975 | 89.29199 | 1024.009 | 19.78017 | |
| 1.013892 | -0.08502 | 0.440376 | 7.539395 | -38.8511 | 88.383 | 1024.019 | 19.79737 | |
| 1.013893 | -0.08504 | 0.440333 | 7.539088 | -38.8338 | 88.31604 | 1024.019 | 19.79833 | |

Location Properties

T2-4HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 12:42:41

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.369313 | 79.68493 | 124.0301 | 30158.77 | 20.90417 | 32718.38 | 20.68773 | 21.26695 | 33.15786 |
| ##### | 6.369549 | 79.68112 | 124.0252 | 30158.68 | 20.89673 | 32723.31 | 20.691 | 21.27015 | 33.15796 |
| ##### | 6.369785 | 79.67732 | 124.0204 | 30158.59 | 20.88929 | 32728.24 | 20.69427 | 21.27336 | 33.15805 |
| ##### | 6.370021 | 79.67352 | 124.0155 | 30158.5 | 20.88185 | 32733.17 | 20.69754 | 21.27656 | 33.15815 |
| ##### | 6.385499 | 79.64917 | 124.0064 | 30147.19 | 20.80967 | 32769.96 | 20.72154 | 21.30047 | 33.17059 |
| ##### | 6.386189 | 79.64635 | 124.0036 | 30147.05 | 20.80488 | 32773.07 | 20.7236 | 21.30249 | 33.17074 |
| ##### | 6.386878 | 79.64354 | 124.0008 | 30146.91 | 20.80008 | 32776.17 | 20.72566 | 21.30451 | 33.17089 |
| ##### | 6.398623 | 79.69985 | 124.1035 | 30082.06 | 20.65998 | 32801.11 | 20.73984 | 21.32072 | 33.24243 |
| ##### | 6.399451 | 79.70202 | 124.1081 | 30078.83 | 20.65209 | 32802.97 | 20.74096 | 21.32193 | 33.24599 |
| ##### | 6.40028 | 79.70419 | 124.1127 | 30075.6 | 20.6442 | 32804.83 | 20.74207 | 21.32314 | 33.24955 |
| ##### | 6.401108 | 79.70635 | 124.1173 | 30072.37 | 20.63631 | 32806.7 | 20.74319 | 21.32435 | 33.25312 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013662 | -0.06513 | 0.486239 | 7.075995 | -13.2421 | 49.79943 | 1023.239 | 31.65821 | |
| 1.013666 | -0.06414 | 0.488539 | 7.076269 | -13.257 | 49.79629 | 1023.24 | 31.65875 | |
| 1.01367 | -0.06314 | 0.490839 | 7.076543 | -13.2719 | 49.79315 | 1023.24 | 31.6593 | |
| 1.013675 | -0.06214 | 0.493139 | 7.076817 | -13.2867 | 49.79001 | 1023.24 | 31.65984 | |
| 1.013711 | -0.08442 | 0.441746 | 7.081319 | -13.5325 | 49.67676 | 1023.24 | 31.67712 | |
| 1.013714 | -0.08489 | 0.440676 | 7.081589 | -13.5472 | 49.6712 | 1023.24 | 31.67805 | |
| 1.013716 | -0.08535 | 0.439606 | 7.081858 | -13.5619 | 49.66565 | 1023.24 | 31.67898 | |
| 1.013762 | -0.08302 | 0.444991 | 7.085199 | -13.7416 | 49.5389 | 1023.265 | 31.69638 | |
| 1.013765 | -0.08331 | 0.444317 | 7.085438 | -13.7545 | 49.53094 | 1023.266 | 31.69751 | |
| 1.013767 | -0.0836 | 0.443643 | 7.085677 | -13.7674 | 49.52298 | 1023.268 | 31.69863 | |
| 1.01377 | -0.08389 | 0.442969 | 7.085916 | -13.7803 | 49.51501 | 1023.269 | 31.69975 | |

Location Properties

T4-1HB

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:18:13

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 5.773005 | 70.11279 | 109.6386 | 29534.61 | 19.37296 | 33091.14 | 20.90952 | 21.50924 | 33.85859 | |
| ##### 5.77527 | 70.03635 | 109.5333 | 29527.57 | 19.33432 | 33110.63 | 20.92202 | 21.52191 | 33.86666 | |
| ##### 5.774882 | 70.02588 | 109.5178 | 29528.43 | 19.33124 | 33113.78 | 20.92413 | 21.52396 | 33.86567 | |
| ##### 5.774495 | 70.0154 | 109.5023 | 29529.3 | 19.32816 | 33116.93 | 20.92624 | 21.526 | 33.86467 | |
| ##### 5.774107 | 70.00494 | 109.4867 | 29530.16 | 19.32508 | 33120.08 | 20.92834 | 21.52805 | 33.86368 | |
| ##### 5.753693 | 69.72044 | 109.0444 | 29512.05 | 19.24803 | 33154.51 | 20.95017 | 21.55043 | 33.88446 | |
| ##### 5.752851 | 69.70663 | 109.0232 | 29511.19 | 19.24396 | 33156.43 | 20.9514 | 21.55168 | 33.88546 | |
| ##### 5.752009 | 69.69281 | 109.0019 | 29510.32 | 19.23989 | 33158.34 | 20.95262 | 21.55292 | 33.88646 | |
| ##### 5.751167 | 69.67899 | 108.9807 | 29509.45 | 19.23582 | 33160.26 | 20.95384 | 21.55417 | 33.88745 | |
| ##### 5.741269 | 69.46653 | 108.6605 | 29505.92 | 19.19071 | 33188.44 | 20.97219 | 21.57248 | 33.8915 | |
| ##### 5.74047 | 69.45203 | 108.6385 | 29505.46 | 19.18731 | 33190.34 | 20.97342 | 21.57372 | 33.89203 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014201 | -0.07398 | 0.46584 | 7.450542 | -34.208 | 87.30103 | 1025.399 | 21.31849 | |
| 1.01422 | -0.08932 | 0.430447 | 7.449863 | -34.1615 | 87.077 | 1025.416 | 21.33595 | |
| 1.014222 | -0.08991 | 0.429092 | 7.449815 | -34.1584 | 87.06174 | 1025.417 | 21.33736 | |
| 1.014224 | -0.0905 | 0.427737 | 7.449767 | -34.1552 | 87.04649 | 1025.418 | 21.33877 | |
| 1.014227 | -0.09108 | 0.426382 | 7.449718 | -34.152 | 87.03124 | 1025.42 | 21.34018 | |
| 1.014262 | -0.08839 | 0.432592 | 7.448417 | -34.0752 | 86.79645 | 1025.393 | 21.34799 | |
| 1.014264 | -0.08857 | 0.432187 | 7.448349 | -34.071 | 86.78198 | 1025.393 | 21.34868 | |
| 1.014265 | -0.08874 | 0.431781 | 7.448279 | -34.0668 | 86.76752 | 1025.392 | 21.34937 | |
| 1.014267 | -0.08892 | 0.431376 | 7.448211 | -34.0626 | 86.75305 | 1025.391 | 21.35005 | |
| 1.014292 | -0.08802 | 0.433448 | 7.446723 | -33.974 | 86.45184 | 1025.399 | 21.36731 | |
| 1.014293 | -0.08795 | 0.433614 | 7.446633 | -33.9688 | 86.43424 | 1025.399 | 21.36823 | |

Location Properties

T4-1HS

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:11:56

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO | Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.534089 | 75.41734 | 116.5592 | 31211.37 | 26.24781 | 30484.82 | 19.21285 | 19.81513 | 32.03961 | |
| ##### | 5.458757 | 74.13804 | 114.6386 | 31292.24 | 26.00263 | 30704.31 | 19.36312 | 19.9578 | 31.95681 | |
| ##### | 5.454431 | 74.06456 | 114.5283 | 31296.89 | 25.98855 | 30716.91 | 19.37175 | 19.96599 | 31.95206 | |
| ##### | 5.450104 | 73.99109 | 114.418 | 31301.54 | 25.97447 | 30729.52 | 19.38038 | 19.97419 | 31.9473 | |
| ##### | 5.445778 | 73.91762 | 114.3077 | 31306.18 | 25.96039 | 30742.13 | 19.38901 | 19.98238 | 31.94255 | |
| ##### | 5.505178 | 74.07533 | 114.6783 | 31355.55 | 25.6065 | 30996.84 | 19.56266 | 20.14795 | 31.89231 | |
| ##### | 5.50598 | 74.05245 | 114.6497 | 31359.54 | 25.58564 | 31012.86 | 19.57359 | 20.15836 | 31.88823 | |
| ##### | 5.506783 | 74.02957 | 114.6211 | 31363.54 | 25.56478 | 31028.87 | 19.58452 | 20.16877 | 31.88416 | |
| ##### | 5.492722 | 73.70338 | 114.1467 | 31384.09 | 25.21976 | 31253.49 | 19.73715 | 20.31477 | 31.86329 | |
| ##### | 5.493006 | 73.68901 | 114.1282 | 31386.08 | 25.19837 | 31268.04 | 19.74705 | 20.32422 | 31.86127 | |
| ##### | 5.493291 | 73.67464 | 114.1097 | 31388.08 | 25.17699 | 31282.59 | 19.75695 | 20.33368 | 31.85923 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.0111 | -0.07418 | 0.465371 | 7.528016 | -39.3629 | 84.5417 | 1025.33 | 20.64 | |
| 1.011285 | -0.0869 | 0.436043 | 7.520403 | -38.8788 | 95.40692 | 1025.33 | 20.64 | |
| 1.011295 | -0.08763 | 0.434359 | 7.519966 | -38.851 | 96.03094 | 1025.33 | 20.64 | |
| 1.011306 | -0.08836 | 0.432675 | 7.519528 | -38.8232 | 96.65497 | 1025.33 | 20.64 | |
| 1.011316 | -0.08909 | 0.43099 | 7.519091 | -38.7954 | 97.27898 | 1025.33 | 20.64 | |
| 1.011549 | 0.025416 | 0.69511 | 7.51337 | -38.4325 | 98.52814 | 1025.347 | 20.64884 | |
| 1.011563 | 0.030034 | 0.705761 | 7.512948 | -38.4057 | 98.83348 | 1025.348 | 20.64922 | |
| 1.011577 | 0.034651 | 0.716412 | 7.512527 | -38.3789 | 99.13882 | 1025.349 | 20.6496 | |
| 1.011791 | 0.024424 | 0.692822 | 7.507162 | -38.0599 | 99.85015 | 1025.316 | 20.65786 | |
| 1.011804 | 0.026069 | 0.696615 | 7.506814 | -38.0387 | 99.93541 | 1025.315 | 20.65836 | |
| 1.011818 | 0.027713 | 0.700408 | 7.506466 | -38.0175 | 100.0207 | 1025.314 | 20.65886 | |

Location Properties

T4-2HB

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:37:39

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 6.150394 | 75.46003 | 117.9136 | 30017.98 | 19.862 | 33284.37 | 21.05704 | 21.63484 | 33.31337 |
| ##### | 6.151361 | 75.46546 | 117.9228 | 30015.51 | 19.85609 | 33285.79 | 21.05787 | 21.63576 | 33.3161 |
| ##### | 6.151371 | 75.43653 | 117.8845 | 30056.5 | 19.82132 | 33355.83 | 21.10579 | 21.68129 | 33.27068 |
| ##### | 6.15169 | 75.43725 | 117.8861 | 30057.16 | 19.81758 | 33359.2 | 21.10804 | 21.68348 | 33.26995 |
| ##### | 6.152009 | 75.43797 | 117.8877 | 30057.83 | 19.81385 | 33362.57 | 21.11029 | 21.68567 | 33.26921 |
| ##### | 6.154263 | 75.39906 | 117.8298 | 30056.31 | 19.79012 | 33377.7 | 21.12021 | 21.6955 | 33.27088 |
| ##### | 6.154394 | 75.39697 | 117.8268 | 30056.85 | 19.78828 | 33379.59 | 21.12148 | 21.69673 | 33.27029 |
| ##### | 6.154525 | 75.39487 | 117.8237 | 30057.39 | 19.78645 | 33381.48 | 21.12275 | 21.69796 | 33.26969 |
| ##### | 6.154656 | 75.39278 | 117.8207 | 30057.92 | 19.78462 | 33383.37 | 21.12402 | 21.69919 | 33.2691 |
| ##### | 6.175936 | 75.56488 | 118.1073 | 30018.28 | 19.69424 | 33403.39 | 21.13559 | 21.71221 | 33.31304 |
| ##### | 6.176943 | 75.57191 | 118.1191 | 30016.45 | 19.68967 | 33404.59 | 21.1363 | 21.71298 | 33.31507 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014197 | -0.09973 | 0.40645 | 7.474978 | -35.6171 | 78.66796 | 1025.351 | 23.75035 | |
| 1.014199 | -0.09971 | 0.40649 | 7.474937 | -35.6141 | 78.65681 | 1025.349 | 23.75087 | |
| 1.014243 | -0.11295 | 0.375939 | 7.473674 | -35.5418 | 78.46366 | 1025.359 | 23.7673 | |
| 1.014246 | -0.11345 | 0.374803 | 7.473613 | -35.538 | 78.45284 | 1025.359 | 23.76802 | |
| 1.014249 | -0.11394 | 0.373666 | 7.473551 | -35.5342 | 78.44201 | 1025.358 | 23.76874 | |
| 1.014262 | -0.10459 | 0.395225 | 7.472316 | -35.4627 | 78.19073 | 1025.308 | 23.78635 | |
| 1.014263 | -0.10438 | 0.395704 | 7.472237 | -35.4581 | 78.17575 | 1025.306 | 23.78744 | |
| 1.014265 | -0.10418 | 0.396184 | 7.472159 | -35.4536 | 78.16077 | 1025.304 | 23.78853 | |
| 1.014266 | -0.10397 | 0.396664 | 7.47208 | -35.449 | 78.14578 | 1025.302 | 23.78962 | |
| 1.014297 | -0.10056 | 0.404527 | 7.471243 | -35.3906 | 77.92738 | 1025.362 | 23.78949 | |
| 1.014298 | -0.10022 | 0.405309 | 7.471181 | -35.3865 | 77.91263 | 1025.364 | 23.78982 | |

Location Properties

T4-4HS

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 11:11:02

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.766996 | 77.8349 | 120.4793 | 31580.02 | 25.52179 | 31268.4 | 19.75074 | 20.32446 | 31.66559 |
| ##### | 5.757228 | 77.43475 | 119.9145 | 31688.18 | 25.2635 | 31529.64 | 19.92993 | 20.49426 | 31.55755 |
| ##### | 5.756629 | 77.41021 | 119.8798 | 31694.81 | 25.24766 | 31545.66 | 19.94092 | 20.50468 | 31.55092 |
| ##### | 5.756029 | 77.38566 | 119.8452 | 31701.45 | 25.23181 | 31561.69 | 19.95191 | 20.5151 | 31.54429 |
| ##### | 5.75543 | 77.36111 | 119.8105 | 31708.08 | 25.21597 | 31577.71 | 19.9629 | 20.52551 | 31.53767 |
| ##### | 5.779554 | 77.27258 | 119.7501 | 31715.53 | 25.05028 | 31685.27 | 20.03599 | 20.59543 | 31.53032 |
| ##### | 5.780457 | 77.25904 | 119.734 | 31718.41 | 25.03644 | 31696.45 | 20.04362 | 20.60269 | 31.52744 |
| ##### | 5.78136 | 77.24551 | 119.7179 | 31721.3 | 25.02261 | 31707.62 | 20.05125 | 20.60995 | 31.52456 |
| ##### | 5.782262 | 77.23196 | 119.7018 | 31724.19 | 25.00878 | 31718.8 | 20.05889 | 20.61722 | 31.52168 |
| ##### | 5.7998 | 77.32016 | 119.8696 | 31656.52 | 24.71676 | 31828.84 | 20.13212 | 20.68875 | 31.58909 |
| ##### | 5.801038 | 77.32086 | 119.8739 | 31654.07 | 24.69974 | 31836.73 | 20.13742 | 20.69387 | 31.59153 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011714 | -0.06642 | 0.483282 | 7.479595 | -36.5359 | 63.20297 | 1025.41 | 27.52 | |
| 1.011923 | -0.08448 | 0.441625 | 7.476929 | -36.3614 | 71.0409 | 1025.365 | 27.52 | |
| 1.011936 | -0.08558 | 0.439069 | 7.476765 | -36.3507 | 71.5217 | 1025.362 | 27.52 | |
| 1.011948 | -0.08669 | 0.436514 | 7.476602 | -36.34 | 72.00249 | 1025.359 | 27.52 | |
| 1.011961 | -0.0878 | 0.433959 | 7.476438 | -36.3292 | 72.48329 | 1025.356 | 27.52 | |
| 1.012063 | -0.09448 | 0.418546 | 7.475197 | -36.2426 | 73.52595 | 1025.379 | 27.52873 | |
| 1.012073 | -0.09522 | 0.416846 | 7.475077 | -36.2345 | 73.75874 | 1025.379 | 27.52914 | |
| 1.012083 | -0.09596 | 0.415146 | 7.474956 | -36.2263 | 73.99154 | 1025.379 | 27.52955 | |
| 1.012092 | -0.09669 | 0.413445 | 7.474835 | -36.2182 | 74.22434 | 1025.379 | 27.52996 | |
| 1.01223 | -0.0814 | 0.448727 | 7.474403 | -36.1642 | 74.68591 | 1025.397 | 27.53853 | |
| 1.012239 | -0.08093 | 0.44981 | 7.47435 | -36.1595 | 74.75302 | 1025.398 | 27.53909 | |

Location Properties

T4-2HS

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:31:09

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.641896 | 76.92428 | 118.9137 | 31622.09 | 26.18156 | 30924.2 | 19.51756 | 20.10073 | 31.62346 |
| ##### | 5.641896 | 76.92428 | 118.9137 | 31622.09 | 26.18156 | 30924.2 | 19.51756 | 20.10073 | 31.62346 |
| ##### | 5.641896 | 76.92428 | 118.9137 | 31622.09 | 26.18156 | 30924.2 | 19.51756 | 20.10073 | 31.62346 |
| ##### | 5.59732 | 76.03583 | 117.6007 | 31702.75 | 25.91606 | 31157.63 | 19.67753 | 20.25246 | 31.54302 |
| ##### | 5.594614 | 75.9819 | 117.521 | 31707.64 | 25.89995 | 31171.79 | 19.68724 | 20.26167 | 31.53813 |
| ##### | 5.591909 | 75.92799 | 117.4413 | 31712.54 | 25.88383 | 31185.96 | 19.69695 | 20.27088 | 31.53325 |
| ##### | 5.619005 | 75.75469 | 117.2718 | 31685.89 | 25.65455 | 31294.87 | 19.7705 | 20.34167 | 31.55979 |
| ##### | 5.619167 | 75.72594 | 117.2332 | 31686.6 | 25.63801 | 31305.26 | 19.77758 | 20.34842 | 31.55908 |
| ##### | 5.619328 | 75.6972 | 117.1946 | 31687.31 | 25.62146 | 31315.65 | 19.78465 | 20.35518 | 31.55837 |
| ##### | 5.61949 | 75.66845 | 117.156 | 31688.02 | 25.60492 | 31326.05 | 19.79172 | 20.36193 | 31.55766 |
| ##### | 5.615203 | 75.41991 | 116.8102 | 31629.4 | 25.21705 | 31499.13 | 19.90813 | 20.47443 | 31.61617 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.011348 | -0.10604 | 0.391891 | 7.47546 | -36.3847 | 71.27853 | 1025.41 | 22.84 | |
| 1.011348 | -0.10604 | 0.391891 | 7.47546 | -36.3847 | 71.27853 | 1025.41 | 22.84 | |
| 1.011348 | -0.10604 | 0.391891 | 7.47546 | -36.3847 | 71.27853 | 1025.41 | 22.84 | |
| 1.011545 | -0.08996 | 0.428978 | 7.473558 | -36.2411 | 81.2205 | 1025.39 | 22.85935 | |
| 1.011557 | -0.08898 | 0.431229 | 7.473443 | -36.2324 | 81.82391 | 1025.389 | 22.86052 | |
| 1.011569 | -0.08801 | 0.43348 | 7.473327 | -36.2237 | 82.42731 | 1025.388 | 22.8617 | |
| 1.011691 | -0.10037 | 0.404958 | 7.47129 | -36.0887 | 83.57005 | 1025.382 | 22.87629 | |
| 1.011701 | -0.10055 | 0.404555 | 7.471154 | -36.0792 | 83.85603 | 1025.381 | 22.8774 | |
| 1.011711 | -0.10072 | 0.404153 | 7.471018 | -36.0698 | 84.14202 | 1025.38 | 22.87851 | |
| 1.011721 | -0.1009 | 0.403751 | 7.470882 | -36.0603 | 84.42801 | 1025.38 | 22.87962 | |
| 1.01192 | -0.10185 | 0.401552 | 7.469536 | -35.9473 | 85.32001 | 1025.363 | 22.88799 | |

Location Properties

T4-3HB

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:58:00

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.732335 | 70.39335 | 109.9879 | 29868.94 | 19.96447 | 33047.39 | 20.89458 | 21.4808 | 33.47963 |
| ##### | 5.732841 | 70.39295 | 109.9881 | 29865.5 | 19.95884 | 33047.52 | 20.89453 | 21.48088 | 33.48347 |
| ##### | 5.733347 | 70.39256 | 109.9883 | 29862.06 | 19.95321 | 33047.64 | 20.89447 | 21.48096 | 33.48732 |
| ##### | 5.733854 | 70.39217 | 109.9885 | 29858.62 | 19.94758 | 33047.77 | 20.89442 | 21.48105 | 33.49117 |
| ##### | 5.722995 | 70.20441 | 109.7002 | 29880.48 | 19.89099 | 33111.59 | 20.93743 | 21.52254 | 33.46667 |
| ##### | 5.722668 | 70.19597 | 109.6874 | 29880.15 | 19.8865 | 33114.37 | 20.93925 | 21.52434 | 33.46703 |
| ##### | 5.722341 | 70.18753 | 109.6747 | 29879.82 | 19.88201 | 33117.14 | 20.94107 | 21.52615 | 33.4674 |
| ##### | 5.722013 | 70.17908 | 109.662 | 29879.49 | 19.87751 | 33119.92 | 20.94289 | 21.52795 | 33.46777 |
| ##### | 5.726119 | 70.09114 | 109.5364 | 29775.26 | 19.78476 | 33069.32 | 20.90526 | 21.49506 | 33.58499 |
| ##### | 5.726102 | 70.08391 | 109.5257 | 29771.19 | 19.77963 | 33068.4 | 20.90449 | 21.49446 | 33.58957 |
| ##### | 5.726085 | 70.07668 | 109.515 | 29767.12 | 19.7745 | 33067.48 | 20.90372 | 21.49386 | 33.59414 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014049 | -0.09915 | 0.407783 | 7.476878 | -35.7324 | 73.66582 | 1025.419 | 26.20652 | |
| 1.01405 | -0.09902 | 0.408069 | 7.476843 | -35.7297 | 73.65721 | 1025.419 | 26.20781 | |
| 1.014052 | -0.0989 | 0.408355 | 7.476808 | -35.7269 | 73.64859 | 1025.42 | 26.20909 | |
| 1.014053 | -0.09878 | 0.408641 | 7.476773 | -35.7242 | 73.63998 | 1025.42 | 26.21038 | |
| 1.014099 | -0.08788 | 0.433776 | 7.475759 | -35.6613 | 73.50964 | 1025.385 | 26.21823 | |
| 1.014102 | -0.08734 | 0.435029 | 7.475706 | -35.6578 | 73.50163 | 1025.383 | 26.21894 | |
| 1.014104 | -0.08679 | 0.436283 | 7.475653 | -35.6543 | 73.49361 | 1025.382 | 26.21965 | |
| 1.014106 | -0.08625 | 0.437536 | 7.475601 | -35.6507 | 73.4856 | 1025.38 | 26.22037 | |
| 1.0141 | -0.08785 | 0.433843 | 7.474708 | -35.5925 | 73.41714 | 1025.354 | 26.23722 | |
| 1.014101 | -0.08771 | 0.434171 | 7.47465 | -35.5888 | 73.41156 | 1025.353 | 26.23811 | |
| 1.014101 | -0.08757 | 0.434499 | 7.474593 | -35.585 | 73.40599 | 1025.351 | 26.239 | |

Location Properties

BG-2HT

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 09:51:38

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.198702 | 77.8047 | 121.3911 | 31567.06 | 20.98254 | 34190.64 | 21.71792 | 22.22392 | 31.67859 | |
| ##### 6.200192 | 77.80621 | 121.3956 | 31567.56 | 20.9741 | 34197.12 | 21.72227 | 22.22813 | 31.67809 | |
| ##### 6.216994 | 77.86702 | 121.5126 | 31495.96 | 20.7403 | 34285.52 | 21.77859 | 22.28559 | 31.75013 | |
| ##### 6.218174 | 77.86886 | 121.5172 | 31492.54 | 20.72721 | 34291.1 | 21.78219 | 22.28921 | 31.75357 | |
| ##### 6.219355 | 77.8707 | 121.5218 | 31489.12 | 20.71412 | 34296.67 | 21.78578 | 22.29284 | 31.75701 | |
| ##### 6.226657 | 77.84567 | 121.5042 | 31554.52 | 20.59969 | 34450.02 | 21.89041 | 22.39251 | 31.6912 | |
| ##### 6.227319 | 77.84573 | 121.5057 | 31556.13 | 20.59004 | 34458.66 | 21.89623 | 22.39813 | 31.68958 | |
| ##### 6.227982 | 77.8458 | 121.5073 | 31557.74 | 20.5804 | 34467.31 | 21.90206 | 22.40375 | 31.68796 | |
| ##### 6.228644 | 77.84586 | 121.5088 | 31559.35 | 20.57076 | 34475.96 | 21.90788 | 22.40937 | 31.68634 | |
| ##### 6.276245 | 78.12556 | 121.9884 | 31545.54 | 20.45975 | 34540.94 | 21.95062 | 22.45161 | 31.70021 | |
| ##### 6.278514 | 78.13757 | 122.0095 | 31546.11 | 20.45248 | 34546.8 | 21.95454 | 22.45542 | 31.69963 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.014422 | -0.074 | 0.465801 | 7.305794 | -26.3522 | 175.1309 | 1025.295 | 19.22932 | |
| 1.014427 | -0.07424 | 0.465242 | 7.306543 | -26.3931 | 175.0121 | 1025.292 | 19.23003 | |
| 1.014528 | -0.07381 | 0.466225 | 7.317195 | -26.9624 | 173.1171 | 1025.292 | 19.23853 | |
| 1.014534 | -0.07392 | 0.465969 | 7.317903 | -27.0005 | 172.9947 | 1025.29 | 19.23909 | |
| 1.01454 | -0.07403 | 0.465712 | 7.31861 | -27.0385 | 172.8723 | 1025.289 | 19.23965 | |
| 1.014648 | -0.08521 | 0.439936 | 7.328196 | -27.5594 | 171.1042 | 1025.298 | 19.24811 | |
| 1.014655 | -0.08571 | 0.43879 | 7.328836 | -27.594 | 170.9876 | 1025.299 | 19.24866 | |
| 1.014662 | -0.0862 | 0.437645 | 7.329476 | -27.6286 | 170.871 | 1025.299 | 19.24921 | |
| 1.014668 | -0.0867 | 0.4365 | 7.330117 | -27.6633 | 170.7545 | 1025.299 | 19.24976 | |
| 1.014728 | -0.09141 | 0.42563 | 7.339773 | -28.1878 | 168.9549 | 1025.317 | 19.26688 | |
| 1.014733 | -0.09183 | 0.424657 | 7.340393 | -28.2214 | 168.84 | 1025.317 | 19.2678 | |

Location Properties

T4-3HS

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 10:48:59

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|-----------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### | 5.959849 | 78.65567 | 122.0772 | 31554.96 | 24.05991 | 32131.91 | 20.33497 | 20.88574 | 31.69074 |
| ##### | 5.959849 | 78.65567 | 122.0772 | 31554.96 | 24.05991 | 32131.91 | 20.33497 | 20.88574 | 31.69074 |
| ##### | 5.959849 | 78.65567 | 122.0772 | 31554.96 | 24.05991 | 32131.91 | 20.33497 | 20.88574 | 31.69074 |
| ##### | 5.936267 | 78.16579 | 121.3464 | 31636.18 | 23.88566 | 32324.17 | 20.46668 | 21.01071 | 31.60938 |
| ##### | 5.934869 | 78.13675 | 121.303 | 31640.99 | 23.87533 | 32335.57 | 20.47449 | 21.01812 | 31.60456 |
| ##### | 5.933471 | 78.10771 | 121.2597 | 31645.81 | 23.865 | 32346.96 | 20.4823 | 21.02553 | 31.59974 |
| ##### | 5.932073 | 78.07867 | 121.2164 | 31650.62 | 23.85467 | 32358.36 | 20.49011 | 21.03293 | 31.59491 |
| ##### | 5.969891 | 78.32209 | 121.6369 | 31596.42 | 23.65939 | 32426.86 | 20.53505 | 21.07746 | 31.64917 |
| ##### | 5.970697 | 78.31886 | 121.6343 | 31596.44 | 23.64786 | 32434.16 | 20.53998 | 21.08221 | 31.64914 |
| ##### | 5.971503 | 78.31564 | 121.6316 | 31596.47 | 23.63633 | 32441.47 | 20.54492 | 21.08696 | 31.64911 |
| ##### | 6.001166 | 78.60912 | 122.1128 | 31647.91 | 23.54736 | 32551.15 | 20.62017 | 21.15825 | 31.59768 |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.012566 | -0.10887 | 0.385347 | 7.497962 | -37.4005 | 62.06815 | 1025.35 | 24.95 | |
| 1.012566 | -0.10887 | 0.385347 | 7.497962 | -37.4005 | 62.06815 | 1025.35 | 24.95 | |
| 1.012566 | -0.10887 | 0.385347 | 7.497962 | -37.4005 | 62.06815 | 1025.35 | 24.95 | |
| 1.012713 | -0.0822 | 0.446869 | 7.494752 | -37.1978 | 71.73286 | 1025.28 | 24.95993 | |
| 1.012722 | -0.08062 | 0.450517 | 7.494562 | -37.1858 | 72.3058 | 1025.276 | 24.96052 | |
| 1.01273 | -0.07904 | 0.454164 | 7.494372 | -37.1738 | 72.87874 | 1025.272 | 24.96111 | |
| 1.012739 | -0.07746 | 0.457811 | 7.494182 | -37.1617 | 73.45168 | 1025.268 | 24.9617 | |
| 1.012826 | -0.09629 | 0.41437 | 7.492727 | -37.0656 | 74.09975 | 1025.273 | 24.97652 | |
| 1.012833 | -0.09632 | 0.414301 | 7.492594 | -37.057 | 74.3642 | 1025.271 | 24.97732 | |
| 1.01284 | -0.09635 | 0.414232 | 7.49246 | -37.0485 | 74.62865 | 1025.27 | 24.97811 | |
| 1.012921 | -0.0897 | 0.429585 | 7.490558 | -36.9321 | 75.63362 | 1025.321 | 25.00442 | |

Location Properties

T3-4HTS

Location Name = Device Location

Report Properties

Start Time = 2022-03-02 12:22:10

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 6.217382 | 81.4741 | 126.2847 | 30901.93 | 23.65849 | 31714.55 | 20.0385 | 20.61446 | 32.36044 | |
| ##### 6.217382 | 81.4741 | 126.2847 | 30901.93 | 23.65849 | 31714.55 | 20.0385 | 20.61446 | 32.36044 | |
| ##### 6.182421 | 80.79842 | 125.2743 | 30970.65 | 23.4642 | 31906.64 | 20.16941 | 20.73932 | 32.28864 | |
| ##### 6.180176 | 80.75503 | 125.2095 | 30975.06 | 23.45172 | 31918.97 | 20.17781 | 20.74733 | 32.28403 | |
| ##### 6.177931 | 80.71164 | 125.1446 | 30979.47 | 23.43925 | 31931.31 | 20.18622 | 20.75535 | 32.27943 | |
| ##### 6.175687 | 80.66826 | 125.0797 | 30983.89 | 23.42677 | 31943.64 | 20.19462 | 20.76337 | 32.27481 | |
| ##### 6.254523 | 81.21805 | 126.0133 | 31003.66 | 23.24378 | 32079.9 | 20.28674 | 20.85193 | 32.25427 | |
| ##### 6.257086 | 81.22472 | 126.0282 | 31006.31 | 23.23069 | 32090.88 | 20.29419 | 20.85907 | 32.25151 | |
| ##### 6.259649 | 81.23138 | 126.043 | 31008.96 | 23.2176 | 32101.86 | 20.30164 | 20.86621 | 32.24874 | |
| ##### 6.300024 | 81.64445 | 126.7065 | 30991.1 | 22.94521 | 32257.33 | 20.40561 | 20.96726 | 32.26733 | |
| ##### 6.303189 | 81.67126 | 126.7507 | 30990.84 | 22.92856 | 32267.66 | 20.41255 | 20.97398 | 32.2676 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.012453 | -0.05868 | 0.501131 | 7.167558 | -18.4761 | 48.82583 | 1023.58 | 30.81 | |
| 1.012453 | -0.05868 | 0.501131 | 7.167558 | -18.4761 | 48.82583 | 1023.58 | 30.81 | |
| 1.012604 | -0.06555 | 0.485288 | 7.152372 | -17.614 | 53.94907 | 1023.533 | 30.80061 | |
| 1.012614 | -0.06599 | 0.484271 | 7.151397 | -17.5587 | 54.27804 | 1023.53 | 30.80001 | |
| 1.012624 | -0.06643 | 0.483254 | 7.150422 | -17.5033 | 54.60701 | 1023.527 | 30.7994 | |
| 1.012633 | -0.06687 | 0.482236 | 7.149446 | -17.4479 | 54.93598 | 1023.524 | 30.7988 | |
| 1.012752 | -0.07169 | 0.471111 | 7.146504 | -17.276 | 54.85865 | 1023.557 | 30.79161 | |
| 1.012761 | -0.07208 | 0.470211 | 7.145981 | -17.2461 | 54.98815 | 1023.557 | 30.79105 | |
| 1.012771 | -0.07247 | 0.46931 | 7.145458 | -17.2161 | 55.11765 | 1023.557 | 30.79049 | |
| 1.012922 | -0.07698 | 0.458926 | 7.143099 | -17.0745 | 55.31495 | 1023.55 | 30.79039 | |
| 1.012931 | -0.07729 | 0.45819 | 7.142886 | -17.0619 | 55.33997 | 1023.55 | 30.79023 | |

Location Properties

T4-4HB

Location Name = Device Location

Report Properties

Start Time = 2022-03-03 11:17:39

Time Offset = -05:00:00

Duration = 00:00:20

Readings = 11

Instrument Properties

Device Model = Aqua TROLL 400

Device SN = 789301

Instrument Properties

Device Model = PowerPack

Device SN = 793927

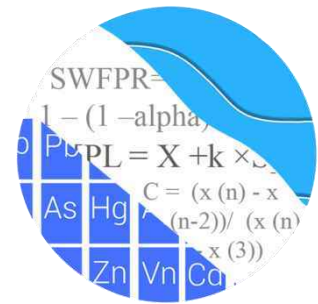
| Date Time | RDO Conc | RDO Satur | Oxygen Pa | Actual Con | Temperatu | Specific Co | Salinity (PS | Total Disso | Resistivity |
|----------------|----------|-----------|-----------|------------|-----------|-------------|--------------|-------------|-------------|
| ##### 5.9857 | 74.9509 | 116.9178 | 30511.75 | 20.98585 | 33045.39 | 20.91745 | 21.47951 | 32.77427 | |
| ##### 5.986166 | 74.94792 | 116.9144 | 30512.71 | 20.97628 | 33052.94 | 20.92251 | 21.48441 | 32.77324 | |
| ##### 5.99753 | 74.90672 | 116.8744 | 30490.41 | 20.89372 | 33085.33 | 20.94324 | 21.50547 | 32.7972 | |
| ##### 5.998267 | 74.90511 | 116.8733 | 30490.23 | 20.88743 | 33089.43 | 20.94596 | 21.50813 | 32.79739 | |
| ##### 5.999005 | 74.90349 | 116.8722 | 30490.05 | 20.88115 | 33093.53 | 20.94868 | 21.5108 | 32.79758 | |
| ##### 6.003206 | 74.88223 | 116.8541 | 30454.42 | 20.77252 | 33129.48 | 20.97127 | 21.53416 | 32.83597 | |
| ##### 6.003595 | 74.88045 | 116.8524 | 30452.34 | 20.76601 | 33131.68 | 20.97266 | 21.53559 | 32.83821 | |
| ##### 6.003984 | 74.87866 | 116.8507 | 30450.25 | 20.75951 | 33133.89 | 20.97404 | 21.53703 | 32.84045 | |
| ##### 6.004374 | 74.87688 | 116.8491 | 30448.17 | 20.75301 | 33136.09 | 20.97543 | 21.53846 | 32.8427 | |
| ##### 6.008521 | 74.86411 | 116.8367 | 30499.51 | 20.68091 | 33241.81 | 21.04751 | 21.60718 | 32.78743 | |
| ##### 6.008791 | 74.86311 | 116.8357 | 30501.19 | 20.67552 | 33247.37 | 21.05126 | 21.61079 | 32.78562 | |

| Density (g/ | Pressure (f | Depth (ft) | pH (pH) (2: | pH mV (m\ | ORP (mV) (| Barometric | Temperatu | Marked |
|-------------|-------------|------------|-------------|-----------|------------|------------|-----------|--------|
| 1.013815 | -0.04273 | 0.537912 | 7.527704 | -38.6737 | 72.32153 | 1025.305 | 28.57828 | |
| 1.013821 | -0.03899 | 0.546557 | 7.527609 | -38.6673 | 72.31146 | 1025.303 | 28.57952 | |
| 1.013858 | -0.07307 | 0.467942 | 7.526812 | -38.6164 | 72.09378 | 1025.302 | 28.6051 | |
| 1.013861 | -0.0725 | 0.469258 | 7.526751 | -38.6125 | 72.0813 | 1025.301 | 28.60656 | |
| 1.013865 | -0.07193 | 0.470574 | 7.52669 | -38.6086 | 72.06881 | 1025.3 | 28.60802 | |
| 1.013909 | -0.08744 | 0.434789 | 7.525798 | -38.5427 | 71.84195 | 1025.342 | 28.63393 | |
| 1.013912 | -0.08883 | 0.431573 | 7.525742 | -38.5388 | 71.82758 | 1025.344 | 28.63559 | |
| 1.013914 | -0.09023 | 0.428357 | 7.525687 | -38.5348 | 71.8132 | 1025.345 | 28.63725 | |
| 1.013917 | -0.09162 | 0.425142 | 7.525631 | -38.5308 | 71.79883 | 1025.347 | 28.6389 | |
| 1.013999 | -0.10202 | 0.401161 | 7.524123 | -38.4433 | 71.65993 | 1025.305 | 28.65625 | |
| 1.013994 | -0.1028 | 0.399363 | 7.524036 | -38.438 | 71.64919 | 1025.304 | 28.65755 | |

APPENDIX D

STATISTICAL ANALYSES

GROUNDWATER STATS CONSULTING



February 28, 2022

Resolute Environmental & Water Resources Consulting
Attn: Mr. Stephen Wilson
1003 Weatherstone Parkway, Ste. 320
Woodstock, GA 30188

Re: Plant McManus Ash Pond (AP)
Statistical Analysis - September 2021 Sampling Event

Dear Mr. Wilson,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the for the September 2021 sample event for Georgia Power Company's Plant McManus Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules (EPD) for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

The groundwater monitoring well network consists of the following:

- **Upgradient Wells:** MCM-01, MCM-02, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, and MCM-20
- **Downgradient Wells:** MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- **Delineation Well:** DPZ-2

Note that upgradient wells MCM-18, MCM-19, and MCM-20 were installed late in 2019. Delineation well DPZ-2 is evaluated with confidence intervals for Appendix IV constituents with four or more samples. A minimum of 8 samples have been collected at each well and data from these wells are included in this analysis. For some constituents in these

upgradient wells such as arsenic, calcium, lead, and lithium, the concentrations are higher in comparison to other upgradient wells.

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

The statistical analysis provided in this report was performed according to the background screening conducted by MacStat Consulting in April 2019. Interwell prediction limits, combined with a 1-of-2 resample plan, for Appendix III parameters were recommended as the primary statistical method.

The CCR program monitors the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

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

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

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. However, during this analysis, higher reporting limits resulted from laboratory dilution factors for antimony, cadmium, chromium, lead, molybdenum, and thallium. Therefore, the previous lower historical reporting limits were substituted for these constituents to maintain more conservative limits.

When concentrations exist higher in downgradient wells relative to observations reported upgradient of the facility, as seen in the majority of the Appendix III parameters, this may be reflective of natural variation or a result of practices at the facility. A separate study and hydrogeological investigation would be required to fully understand the geochemical conditions and expected groundwater quality for the region. That study and assessment is beyond the scope of services provided by Groundwater Stats Consulting.

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. As a result of the previous background screening, the following non-detect values were flagged due to elevated reporting limits: <0.025 mg/L for lead in upgradient well MCM-19; and <0.1 mg/L, <0.15 mg/L and <0.3 mg/L for lithium in upgradient well MCM-18. Additionally, a high value for combined radium 226 + 228 in upgradient well MCM-20 was flagged as an outlier as well as a high value for fluoride in downgradient well MCM-06. This step results in construction of background limits that are conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

Based on the 2019 screening, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the 2019 screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods:

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

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Groundwater Protection Standards (GWPS) for each detected Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the

parametric 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 following approaches are used for handling non-detects (USEPA, 2009):

- 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.

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. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting 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.

Statistical Analysis of Appendix III Parameters – September 2021

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. No new values were flagged for Appendix III parameters in upgradient wells and a summary of flagged outliers follows this report (Figure C).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2021 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The September 2021 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 a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MCM-07, MCM-12, and MCM-17
- Calcium: MCM-06, MCM-07, and MCM-17
- pH: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17

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. Upgradient trends are an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of trend test results follows this letter including a list of statistically significant trends. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: MCM-07
- Calcium: MCM-07

Decreasing:

- Calcium: MCM-18 (upgradient) and MCM-20 (upgradient)
- pH: MCM-05, MCM-06, MCM-07, MCM-12, and MCM-14

Statistical Analysis of Appendix IV Parameters – September 2021

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. Downgradient and delineation well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged as outliers. A summary of all previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2021 for Appendix IV constituents (Figure F). 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).

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

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

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

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

Following Georgia EPD Rule requirements and the Federal CCR requirements, Federal and State GWPS were established for statistical comparison of Appendix IV constituents for the September 2021 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 and delineation well using all available data through September 2021. Note that confidence intervals require a minimum of 4 samples and, in many cases, delineation well DPZ-2 had insufficient samples at this time. The Sanitas software was used to calculate both the tolerance limits and the confidence intervals. For Federal requirements, confidence intervals were compared to the GWPS prepared according to the CCR Rule (Figure H). For the State requirements, confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a) (Figure I). The background limit for combined radium 226 + 228 is considerably higher than the MCL due to high concentrations in upgradient wells, such as those observed in upgradient well MCM-20. These concentrations are assumed to represent natural groundwater quality since the reported measurements are in upgradient wells; however, this determination is beyond the scope of this analysis.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries of both the Federal and State confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

Federal:

- Arsenic: MCM-06
- Lithium: DPZ-2 and MCM-06

State:

- Arsenic: MCM-06
- Lithium: DPZ-2, MCM-06, and MCM-14

Trend Test Evaluation – Appendix IV

The Sen's Slope/Mann Kendall trend test was conducted to determine whether concentrations are statistically increasing, decreasing, or stable (Figure J). Upgradient wells are included in the trend analyses 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. Note delineation well DPZ-2 has insufficient samples at this time for meaningful results using the Sen's Slope/Mann Kendall trend test with 99% confidence. A summary of the Appendix IV trend test results follows this letter and no statistically significant trends were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Plant McManus Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew Collins
Project Manager



Kristina L. Rayner
Groundwater Statistician

100% Non-Detects: Appendix IV Downgradient & Delineation

Analysis Run 12/29/2021 3:18 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Antimony (mg/L)

DPZ-2, MCM-04, MCM-05, MCM-07, MCM-12

Beryllium (mg/L)

DPZ-2, MCM-06

Cadmium (mg/L)

DPZ-2, MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14

Chromium (mg/L)

DPZ-2

Cobalt (mg/L)

DPZ-2

Lead (mg/L)

DPZ-2, MCM-04

Mercury (mg/L)

DPZ-2, MCM-12

Molybdenum (mg/L)

DPZ-2, MCM-04, MCM-07, MCM-12, MCM-14

Selenium (mg/L)

DPZ-2

Thallium (mg/L)

DPZ-2, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

Appendix III Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/1/2021, 11:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | %NDs | Transform | Alpha | Method |
|------------------------|--------|------------|------------|-----------|---------|------|------|--------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 9/14/2021 | 1.5 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 9/13/2021 | 1.4 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 9/14/2021 | 2.1 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 9/14/2021 | 299 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 9/14/2021 | 225 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 9/14/2021 | 190 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 9/14/2021 | 6.67 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 9/14/2021 | 6.94 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 9/14/2021 | 6.28 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 9/13/2021 | 6.24 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 9/13/2021 | 6.3 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 9/14/2021 | 6.77 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |

Appendix III Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/1/2021, 11:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | %NDs | Transform | Alpha | Method |
|-------------------------------|---------------|-------------|-------------|------------------|-------------|------------|------------|---------------|------------|------------------|------------------------------------|
| Boron (mg/L) | MCM-04 | 1.3 | n/a | 9/14/2021 | 0.07J | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-05 | 1.3 | n/a | 9/14/2021 | 0.95J | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 9/14/2021 | 1.1 | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 9/14/2021 | 1.5 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 9/13/2021 | 1.4 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-14 | 1.3 | n/a | 9/13/2021 | 1.2 | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 9/14/2021 | 2.1 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-04 | 169 | n/a | 9/14/2021 | 12.5 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-05 | 169 | n/a | 9/14/2021 | 13.9 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 9/14/2021 | 299 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 9/14/2021 | 225 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-12 | 169 | n/a | 9/13/2021 | 6 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 9/13/2021 | 165 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 9/14/2021 | 190 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-04 | 8130 | n/a | 9/14/2021 | 28.5 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-05 | 8130 | n/a | 9/14/2021 | 3940 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-06 | 8130 | n/a | 9/14/2021 | 5360 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-07 | 8130 | n/a | 9/14/2021 | 6300 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-12 | 8130 | n/a | 9/13/2021 | 433 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-14 | 8130 | n/a | 9/13/2021 | 5010 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-17 | 8130 | n/a | 9/14/2021 | 4090 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-04 | 1.5 | n/a | 9/14/2021 | 0.05 | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-05 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-06 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-07 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-12 | 1.5 | n/a | 9/13/2021 | 1.4 | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-14 | 1.5 | n/a | 9/13/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-17 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-04 | 5.81 | 3.36 | 9/14/2021 | 5.09 | No | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 9/14/2021 | 6.67 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 9/14/2021 | 6.94 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 9/14/2021 | 6.28 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 9/13/2021 | 6.24 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 9/13/2021 | 6.3 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 9/14/2021 | 6.77 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-04 | 1140 | n/a | 9/14/2021 | 96.2 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-05 | 1140 | n/a | 9/14/2021 | 459 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-06 | 1140 | n/a | 9/14/2021 | 490 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-07 | 1140 | n/a | 9/14/2021 | 819 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-12 | 1140 | n/a | 9/13/2021 | 0.5ND | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-14 | 1140 | n/a | 9/13/2021 | 680 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-17 | 1140 | n/a | 9/14/2021 | 460 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-04 | 14600 | n/a | 9/14/2021 | 193 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-05 | 14600 | n/a | 9/14/2021 | 8020 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-06 | 14600 | n/a | 9/14/2021 | 11800 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-07 | 14600 | n/a | 9/14/2021 | 13400 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-12 | 14600 | n/a | 9/13/2021 | 1450 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-14 | 14600 | n/a | 9/13/2021 | 11400 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-17 | 14600 | n/a | 9/14/2021 | 8820 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/30/2021, 10:06 AM

| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|------------------------|-------------|--------------|--------------|-----------------|-------------|----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MCM-07 | 0.1515 | 64 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 35.39 | 70 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -19.45 | -52 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -47.21 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.06323 | -73 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.07919 | -57 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.07594 | -64 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.05115 | -56 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1384 | -101 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |

Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/30/2021, 10:06 AM

| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|-------------------------------|--------------------|-----------------|-------------|------------|------------|-----------|----------|------------|------------|-------------|-----------|
| Boron (mg/L) | MCM-01 (bg) | 0.005268 | 29 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-02 (bg) | -0.01422 | -18 | -48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-07 | 0.1515 | 64 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-11 (bg) | 0.004391 | 25 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-12 | 0.0235 | 20 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-15 (bg) | 0.007968 | 39 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-16 (bg) | -0.005194 | -22 | -48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-17 | -0.04304 | -18 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-18 (bg) | -0.02454 | -24 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-19 (bg) | 0.1284 | 14 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-20 (bg) | 0 | -1 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-01 (bg) | 0.2793 | 5 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-02 (bg) | -0.2586 | -42 | -48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-06 | 44.92 | 51 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 35.39 | 70 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-11 (bg) | -1.659 | -41 | -48 | No | 14 | 7.143 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-15 (bg) | 0.1417 | 10 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-16 (bg) | 0.2144 | 23 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-17 | 16.77 | 53 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -19.45 | -52 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -30.87 | -37 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -47.21 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-01 (bg) | 0.03493 | 24 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-02 (bg) | 0.01474 | 34 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.06323 | -73 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.07919 | -57 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.07594 | -64 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-11 (bg) | -0.05853 | -45 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.05115 | -56 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1384 | -101 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-15 (bg) | -0.07157 | -27 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-16 (bg) | 0.01093 | 5 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-17 | -0.09795 | -47 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.1318 | 32 | 34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-19 (bg) | -0.04282 | -8 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.1177 | -30 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |

Upper Tolerance Limits Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/2/2021, 2:15 PM

| <u>Constituent</u> | <u>Well</u> | <u>Upper Lim.</u> | <u>Date</u> | <u>Observ.</u> | <u>Sig.</u> | <u>Bg N</u> | <u>Bg Mean</u> | <u>Std. Dev.</u> | <u>%NDs</u> | <u>ND Adj.</u> | <u>Transform</u> | <u>Alpha</u> | <u>Method</u> |
|-----------------------------------|-------------|-------------------|-------------|----------------|-------------|-------------|----------------|------------------|-------------|----------------|------------------|--------------|---------------------|
| Antimony (mg/L) | n/a | 0.003 | n/a | n/a | n/a | 91 | n/a | n/a | 94.51 | n/a | n/a | 0.009394 | NP Inter(NDs) |
| Arsenic (mg/L) | n/a | 0.031 | n/a | n/a | n/a | 110 | n/a | n/a | 14.55 | n/a | n/a | 0.003545 | NP Inter(normality) |
| Barium (mg/L) | n/a | 0.22 | n/a | n/a | n/a | 107 | n/a | n/a | 0 | n/a | n/a | 0.004135 | NP Inter(normality) |
| Beryllium (mg/L) | n/a | 0.021 | n/a | n/a | n/a | 106 | n/a | n/a | 26.42 | n/a | n/a | 0.004352 | NP Inter(normality) |
| Cadmium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 85 | n/a | n/a | 92.94 | n/a | n/a | 0.01278 | NP Inter(NDs) |
| Chromium (mg/L) | n/a | 0.011 | n/a | n/a | n/a | 91 | n/a | n/a | 49.45 | n/a | n/a | 0.009394 | NP Inter(normality) |
| Cobalt (mg/L) | n/a | 0.036 | n/a | n/a | n/a | 106 | n/a | n/a | 76.42 | n/a | n/a | 0.004352 | NP Inter(NDs) |
| Combined Radium 226 + 228 (pCi/L) | n/a | 55.8 | n/a | n/a | n/a | 105 | n/a | n/a | 0 | n/a | n/a | 0.004581 | NP Inter(normality) |
| Fluoride (mg/L) | n/a | 1.5 | n/a | n/a | n/a | 111 | n/a | n/a | 45.95 | n/a | n/a | 0.003368 | NP Inter(normality) |
| Lead (mg/L) | n/a | 0.005 | n/a | n/a | n/a | 106 | n/a | n/a | 82.08 | n/a | n/a | 0.004352 | NP Inter(NDs) |
| Lithium (mg/L) | n/a | 0.026 | n/a | n/a | n/a | 103 | n/a | n/a | 55.34 | n/a | n/a | 0.005076 | NP Inter(NDs) |
| Mercury (mg/L) | n/a | 0.0007 | n/a | n/a | n/a | 85 | n/a | n/a | 94.12 | n/a | n/a | 0.01278 | NP Inter(NDs) |
| Molybdenum (mg/L) | n/a | 0.01 | n/a | n/a | n/a | 90 | n/a | n/a | 92.22 | n/a | n/a | 0.009888 | NP Inter(NDs) |
| Selenium (mg/L) | n/a | 0.15 | n/a | n/a | n/a | 107 | n/a | n/a | 60.75 | n/a | n/a | 0.004135 | NP Inter(NDs) |
| Thallium (mg/L) | n/a | 0.002 | n/a | n/a | n/a | 90 | n/a | n/a | 92.22 | n/a | n/a | 0.009888 | NP Inter(NDs) |

| MCMANUS ASH POND GWPS | | | | | |
|--------------------------------|------------|---------------------------|-------------------------|---------------------|-------------------|
| Constituent Name | MCL | CCR-Rule Specified | Background Limit | Federal GWPS | State GWPS |
| Antimony, Total (mg/L) | 0.006 | | 0.003 | 0.006 | 0.006 |
| Arsenic, Total (mg/L) | 0.01 | | 0.031 | 0.031 | 0.031 |
| Barium, Total (mg/L) | 2 | | 0.22 | 2 | 2 |
| Beryllium, Total (mg/L) | 0.004 | | 0.021 | 0.021 | 0.021 |
| Cadmium, Total (mg/L) | 0.005 | | 0.0025 | 0.005 | 0.005 |
| Chromium, Total (mg/L) | 0.1 | | 0.011 | 0.1 | 0.1 |
| Cobalt, Total (mg/L) | | 0.006 | 0.036 | 0.036 | 0.036 |
| Combined Radium, Total (pCi/L) | 5 | | 55.8 | 55.8 | 55.8 |
| Fluoride, Total (mg/L) | 4 | | 1.5 | 4 | 4 |
| Lead, Total (mg/L) | | 0.015 | 0.005 | 0.015 | 0.005 |
| Lithium, Total (mg/L) | | 0.04 | 0.026 | 0.04 | 0.026 |
| Mercury, Total (mg/L) | 0.002 | | 0.0007 | 0.002 | 0.002 |
| Molybdenum, Total (mg/L) | | 0.1 | 0.01 | 0.1 | 0.01 |
| Selenium, Total (mg/L) | 0.05 | | 0.15 | 0.15 | 0.15 |
| Thallium, Total (mg/L) | 0.002 | | 0.001 | 0.002 | 0.002 |

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Federal Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

| <u>Constituent</u> | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Compliance</u> | <u>Sig. N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>%NDs</u> | <u>ND Adj.</u> | <u>Transform</u> | <u>Alpha</u> | <u>Method</u> |
|--------------------|-------------|-------------------|-------------------|-------------------|---------------|-------------|------------------|-------------|----------------|------------------|--------------|---------------|
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.04 | Yes 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.04 | Yes 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |

Federal Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.00098 | 0.006 | No | 13 | 0.002675 | 0.0007709 | 76.92 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 12 | 0.002783 | 0.0007506 | 91.67 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 12 | 0.002815 | 0.0006409 | 91.67 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.0249 | 0.0151 | 0.031 | No | 4 | 0.0225 | 0.005447 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.008019 | 0.002934 | 0.031 | No | 15 | 0.0058 | 0.004243 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.0335 | 0.002 | 0.031 | No | 17 | 0.01725 | 0.01344 | 17.65 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes | 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.0214 | 0.01122 | 0.031 | No | 17 | 0.01631 | 0.008125 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.03 | 0.001 | 0.031 | No | 14 | 0.0159 | 0.01468 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-14 | 0.03 | 0.0014 | 0.031 | No | 14 | 0.01651 | 0.0141 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-17 | 0.03 | 0.0017 | 0.031 | No | 15 | 0.01376 | 0.0138 | 40 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-04 | 0.09086 | 0.03286 | 2 | No | 14 | 0.07307 | 0.0749 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.04502 | 0.009496 | 2 | No | 15 | 0.05122 | 0.1122 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 15 | 0.1079 | 0.05641 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2056 | 0.1016 | 2 | No | 14 | 0.1644 | 0.09816 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-12 | 0.1285 | 0.1062 | 2 | No | 14 | 0.1174 | 0.01579 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1285 | 0.05361 | 2 | No | 14 | 0.09108 | 0.0529 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1388 | 0.06144 | 2 | No | 14 | 0.1001 | 0.05463 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.003 | 0.00021 | 0.021 | No | 14 | 0.001272 | 0.001345 | 35.71 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.003 | 0.000054 | 0.021 | No | 15 | 0.002804 | 0.0007607 | 93.33 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.003 | 0.00012 | 0.021 | No | 14 | 0.002377 | 0.001239 | 78.57 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001236 | 0.0004659 | 0.021 | No | 14 | 0.0009843 | 0.0008851 | 14.29 | None | ln(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.003 | 0.000097 | 0.021 | No | 14 | 0.001968 | 0.001438 | 64.29 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.003 | 0.00018 | 0.021 | No | 14 | 0.001231 | 0.001369 | 35.71 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.0025 | 0.005 | No | 11 | 0.002281 | 0.0007257 | 90.91 | None | No | 0.006 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.0012 | 0.1 | No | 12 | 0.005667 | 0.004533 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 12 | 0.005453 | 0.004755 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.00655 | 0.004546 | 61.54 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 12 | 0.00485 | 0.00381 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 12 | 0.00695 | 0.002356 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 12 | 0.005106 | 0.004349 | 41.67 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01305 | 0.007718 | 0.1 | No | 12 | 0.01104 | 0.003034 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.03 | 0.0054 | 0.036 | No | 15 | 0.01746 | 0.01221 | 46.67 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.03 | 0.0019 | 0.036 | No | 15 | 0.02813 | 0.007255 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.03 | 0.0009 | 0.036 | No | 15 | 0.02608 | 0.01035 | 86.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.03 | 0.0011 | 0.036 | No | 14 | 0.02794 | 0.007724 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.03 | 0.00053 | 0.036 | No | 14 | 0.01948 | 0.01464 | 64.29 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.03 | 0.0006 | 0.036 | No | 14 | 0.0279 | 0.007857 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.03 | 0.0007 | 0.036 | No | 14 | 0.02369 | 0.01254 | 78.57 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.96 | 3.112 | 55.8 | No | 14 | 4.634 | 2.256 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.042 | 1.387 | 55.8 | No | 15 | 2.441 | 1.741 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 8.58 | 1.94 | 55.8 | No | 14 | 5.409 | 3.319 | 0 | None | No | 0.01 | NP (normality) |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.615 | 5.621 | 55.8 | No | 15 | 7.618 | 2.946 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.092 | 2.128 | 55.8 | No | 14 | 2.61 | 0.6799 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.458 | 3.108 | 55.8 | No | 15 | 5.283 | 3.21 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.82 | 2.01 | 55.8 | No | 15 | 5.015 | 3.04 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 15 | 0.1375 | 0.1296 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.5406 | 0.2639 | 4 | No | 17 | 0.4194 | 0.2322 | 11.76 | None | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.068 | 4 | No | 15 | 0.1965 | 0.1497 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.54 | 0.1 | 4 | No | 16 | 0.2916 | 0.2926 | 43.75 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.296 | 0.9687 | 4 | No | 15 | 1.1 | 0.3249 | 6.667 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.5 | 0.084 | 4 | No | 16 | 0.2315 | 0.2003 | 56.25 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 16 | 0.5396 | 0.5124 | 37.5 | None | No | 0.01 | NP (normality) |

Federal Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|---------------|----------------|-------------|------------|-----------|----------------|-----------------|----------|-------------|------------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.015 | No | 15 | 0.00468 | 0.001239 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.015 | No | 15 | 0.004675 | 0.00126 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.015 | No | 14 | 0.003956 | 0.002075 | 78.57 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.015 | No | 14 | 0.003605 | 0.00229 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.015 | No | 14 | 0.004649 | 0.001315 | 92.86 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.015 | No | 14 | 0.003639 | 0.002233 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.04 | Yes | 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.006 | 0.0015 | 0.04 | No | 14 | 0.003986 | 0.002174 | 50 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.04 | No | 15 | 0.06487 | 0.14 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.04 | Yes | 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05517 | 0.02018 | 0.04 | No | 15 | 0.04383 | 0.03675 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.01198 | 0.009702 | 0.04 | No | 14 | 0.01061 | 0.002124 | 14.29 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.04 | No | 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02576 | 0.01317 | 0.04 | No | 14 | 0.01946 | 0.008888 | 7.143 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002464 | 0.0001538 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0001856 | 0.00004764 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 12 | 0.0001967 | 0.00001155 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002427 | 0.0001417 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002418 | 0.0001387 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002251 | 0.0001461 | 81.82 | None | No | 0.006 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.1 | No | 12 | 0.009258 | 0.002538 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.1 | No | 13 | 0.007562 | 0.003813 | 69.23 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.1 | No | 12 | 0.009325 | 0.002338 | 91.67 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.01 | 0.0025 | 0.15 | No | 14 | 0.008777 | 0.003136 | 85.71 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.01 | 0.0023 | 0.15 | No | 15 | 0.00794 | 0.00354 | 73.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.01 | 0.002 | 0.15 | No | 15 | 0.0066 | 0.003726 | 46.67 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.01 | 0.0023 | 0.15 | No | 14 | 0.006557 | 0.003675 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-12 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.005943 | 0.004219 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-14 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.006879 | 0.003864 | 57.14 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.01 | 0.0018 | 0.15 | No | 14 | 0.0063 | 0.003859 | 42.86 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 13 | 0.001852 | 0.0005336 | 92.31 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 12 | 0.001845 | 0.0005369 | 91.67 | None | No | 0.01 | NP (NDs) |

State Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|----------------|--------|------------|------------|------------|--------|---------|-----------|-------|---------|-----------|-------|--------|
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.026 | Yes 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.026 | Yes 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.026 | Yes 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |

State Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.00098 | 0.006 | No | 13 | 0.002675 | 0.0007709 | 76.92 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 12 | 0.002783 | 0.0007506 | 91.67 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 12 | 0.002815 | 0.0006409 | 91.67 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.0249 | 0.0151 | 0.031 | No | 4 | 0.0225 | 0.005447 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.008019 | 0.002934 | 0.031 | No | 15 | 0.0058 | 0.004243 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.0335 | 0.002 | 0.031 | No | 17 | 0.01725 | 0.01344 | 17.65 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes | 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.0214 | 0.01122 | 0.031 | No | 17 | 0.01631 | 0.008125 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.03 | 0.001 | 0.031 | No | 14 | 0.0159 | 0.01468 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-14 | 0.03 | 0.0014 | 0.031 | No | 14 | 0.01651 | 0.0141 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-17 | 0.03 | 0.0017 | 0.031 | No | 15 | 0.01376 | 0.0138 | 40 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-04 | 0.09086 | 0.03286 | 2 | No | 14 | 0.07307 | 0.0749 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.04502 | 0.009496 | 2 | No | 15 | 0.05122 | 0.1122 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 15 | 0.1079 | 0.05641 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2056 | 0.1016 | 2 | No | 14 | 0.1644 | 0.09816 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-12 | 0.1285 | 0.1062 | 2 | No | 14 | 0.1174 | 0.01579 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1285 | 0.05361 | 2 | No | 14 | 0.09108 | 0.0529 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1388 | 0.06144 | 2 | No | 14 | 0.1001 | 0.05463 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.003 | 0.00021 | 0.021 | No | 14 | 0.001272 | 0.001345 | 35.71 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.003 | 0.000054 | 0.021 | No | 15 | 0.002804 | 0.0007607 | 93.33 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.003 | 0.00012 | 0.021 | No | 14 | 0.002377 | 0.001239 | 78.57 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001236 | 0.0004659 | 0.021 | No | 14 | 0.0009843 | 0.0008851 | 14.29 | None | ln(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.003 | 0.000097 | 0.021 | No | 14 | 0.001968 | 0.001438 | 64.29 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.003 | 0.00018 | 0.021 | No | 14 | 0.001231 | 0.001369 | 35.71 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.0025 | 0.005 | No | 11 | 0.002281 | 0.0007257 | 90.91 | None | No | 0.006 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.0012 | 0.1 | No | 12 | 0.005667 | 0.004533 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 12 | 0.005453 | 0.004755 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.00655 | 0.004546 | 61.54 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 12 | 0.00485 | 0.00381 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 12 | 0.00695 | 0.002356 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 12 | 0.005106 | 0.004349 | 41.67 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01305 | 0.007718 | 0.1 | No | 12 | 0.01104 | 0.003034 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.03 | 0.0054 | 0.036 | No | 15 | 0.01746 | 0.01221 | 46.67 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.03 | 0.0019 | 0.036 | No | 15 | 0.02813 | 0.007255 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.03 | 0.0009 | 0.036 | No | 15 | 0.02608 | 0.01035 | 86.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.03 | 0.0011 | 0.036 | No | 14 | 0.02794 | 0.007724 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.03 | 0.00053 | 0.036 | No | 14 | 0.01948 | 0.01464 | 64.29 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.03 | 0.0006 | 0.036 | No | 14 | 0.0279 | 0.007857 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.03 | 0.0007 | 0.036 | No | 14 | 0.02369 | 0.01254 | 78.57 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.96 | 3.112 | 55.8 | No | 14 | 4.634 | 2.256 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.042 | 1.387 | 55.8 | No | 15 | 2.441 | 1.741 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 8.58 | 1.94 | 55.8 | No | 14 | 5.409 | 3.319 | 0 | None | No | 0.01 | NP (normality) |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.615 | 5.621 | 55.8 | No | 15 | 7.618 | 2.946 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.092 | 2.128 | 55.8 | No | 14 | 2.61 | 0.6799 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.458 | 3.108 | 55.8 | No | 15 | 5.283 | 3.21 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.82 | 2.01 | 55.8 | No | 15 | 5.015 | 3.04 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 15 | 0.1375 | 0.1296 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.5406 | 0.2639 | 4 | No | 17 | 0.4194 | 0.2322 | 11.76 | None | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.068 | 4 | No | 15 | 0.1965 | 0.1497 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.54 | 0.1 | 4 | No | 16 | 0.2916 | 0.2926 | 43.75 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.296 | 0.9687 | 4 | No | 15 | 1.1 | 0.3249 | 6.667 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.5 | 0.084 | 4 | No | 16 | 0.2315 | 0.2003 | 56.25 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 16 | 0.5396 | 0.5124 | 37.5 | None | No | 0.01 | NP (normality) |

State Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|----------------|----------------|--------------|------------|-----------|----------------|-----------------|--------------|-------------|------------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.005 | No | 15 | 0.00468 | 0.001239 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.005 | No | 15 | 0.004675 | 0.00126 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.005 | No | 14 | 0.003956 | 0.002075 | 78.57 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.005 | No | 14 | 0.003605 | 0.00229 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.005 | No | 14 | 0.004649 | 0.001315 | 92.86 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.005 | No | 14 | 0.003639 | 0.002233 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.026 | Yes | 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.006 | 0.0015 | 0.026 | No | 14 | 0.003986 | 0.002174 | 50 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.026 | No | 15 | 0.06487 | 0.14 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.026 | Yes | 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05517 | 0.02018 | 0.026 | No | 15 | 0.04383 | 0.03675 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.01198 | 0.009702 | 0.026 | No | 14 | 0.01061 | 0.002124 | 14.29 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.026 | Yes | 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02576 | 0.01317 | 0.026 | No | 14 | 0.01946 | 0.008888 | 7.143 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002464 | 0.0001538 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0001856 | 0.00004764 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 12 | 0.0001967 | 0.00001155 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002427 | 0.0001417 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002418 | 0.0001387 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002251 | 0.0001461 | 81.82 | None | No | 0.006 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.01 | No | 12 | 0.009258 | 0.002538 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.01 | No | 13 | 0.007562 | 0.003813 | 69.23 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.01 | No | 12 | 0.009325 | 0.002338 | 91.67 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.01 | 0.0025 | 0.15 | No | 14 | 0.008777 | 0.003136 | 85.71 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.01 | 0.0023 | 0.15 | No | 15 | 0.00794 | 0.00354 | 73.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.01 | 0.002 | 0.15 | No | 15 | 0.0066 | 0.003726 | 46.67 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.01 | 0.0023 | 0.15 | No | 14 | 0.006557 | 0.003675 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-12 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.005943 | 0.004219 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-14 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.006879 | 0.003864 | 57.14 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.01 | 0.0018 | 0.15 | No | 14 | 0.0063 | 0.003859 | 42.86 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 13 | 0.001852 | 0.0005336 | 92.31 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 12 | 0.001845 | 0.0005369 | 91.67 | None | No | 0.01 | NP (NDs) |

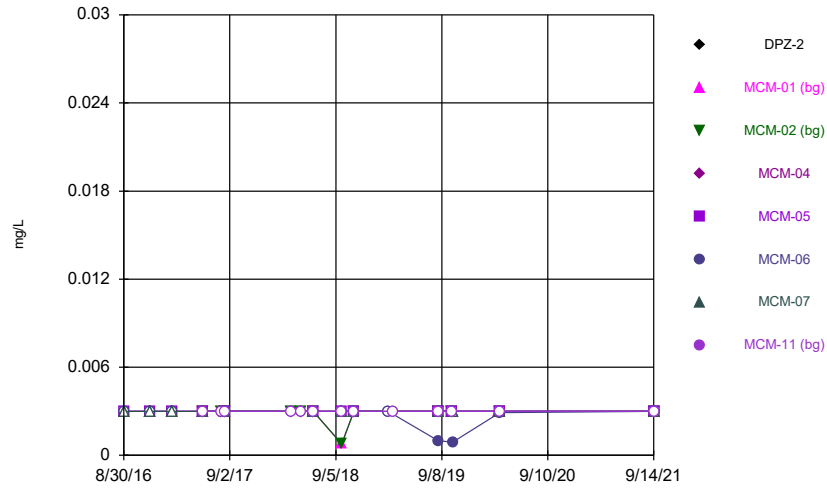
Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/2/2021, 2:27 PM

| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|----------------|-------------|------------|-------|----------|------|----|-------|-----------|-------|-------|--------|
| Arsenic (mg/L) | MCM-01 (bg) | 0.001171 | 42 | 53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-02 (bg) | 0 | 0 | 53 | No | 15 | 40 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-06 | 0.04091 | 53 | 68 | No | 18 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-11 (bg) | -0.00367 | -56 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-15 (bg) | 0.0002099 | 14 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-16 (bg) | 0 | -1 | -48 | No | 14 | 50 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-18 (bg) | -0.002162 | -28 | -38 | No | 12 | 16.67 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-19 (bg) | -0.0005531 | -7 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-20 (bg) | -0.005196 | -12 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-01 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-02 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-06 | 0.01364 | 49 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-11 (bg) | 0 | 12 | 48 | No | 14 | 42.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-14 | 0.007102 | 40 | 53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-15 (bg) | 0 | 16 | 48 | No | 14 | 57.14 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-16 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-18 (bg) | 0.01173 | 12 | 25 | No | 9 | 44.44 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-19 (bg) | 0 | 6 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-20 (bg) | -0.0009363 | -8 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |

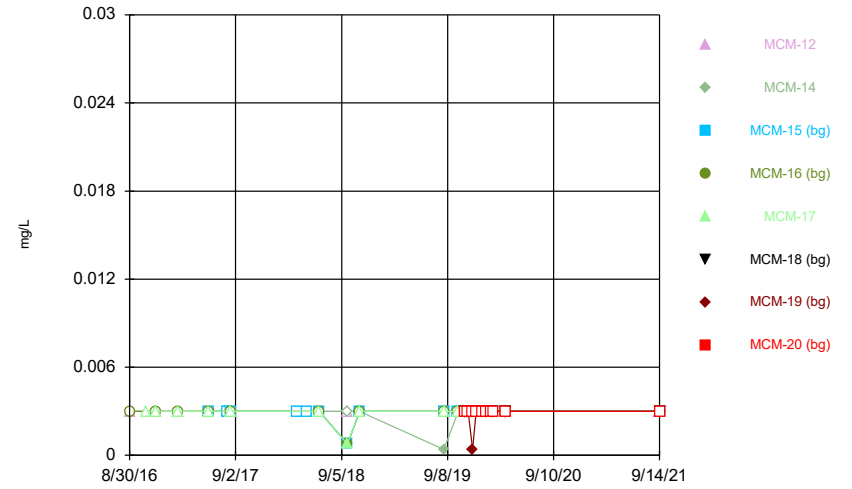
FIGURE A.

Time Series



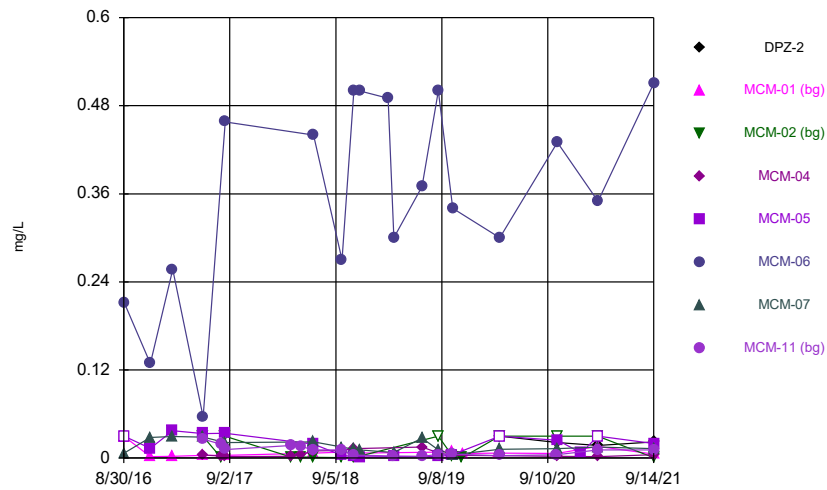
Constituent: Antimony Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



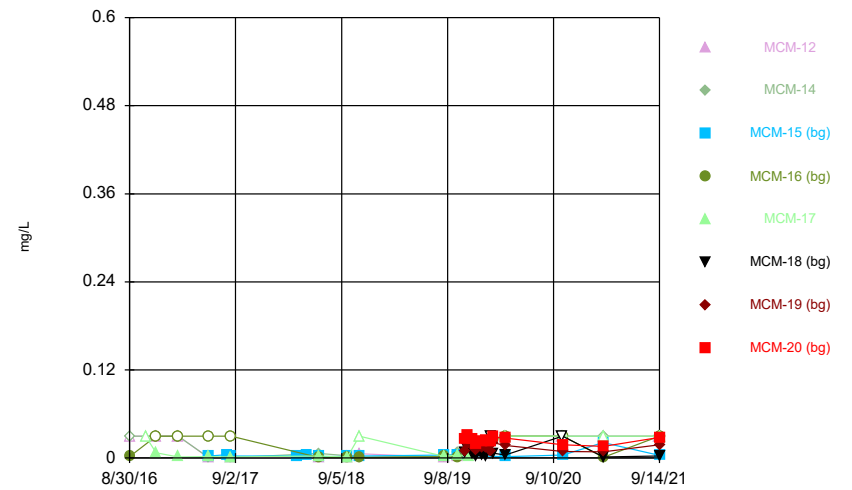
Constituent: Antimony Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



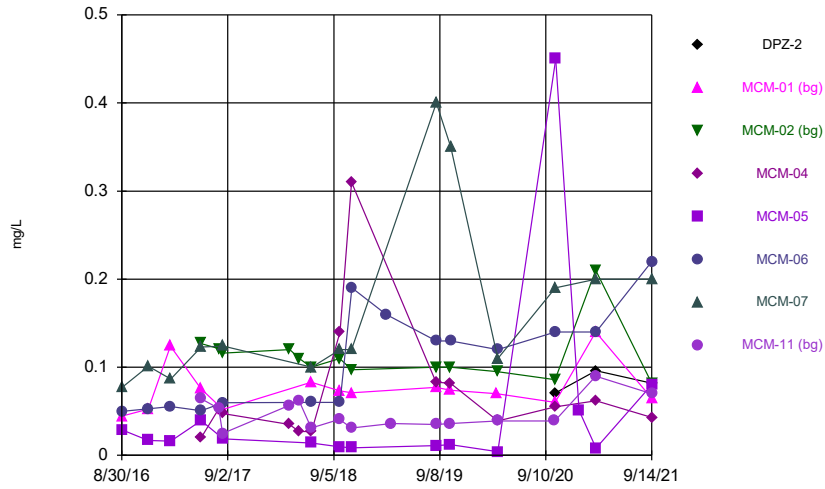
Constituent: Arsenic Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



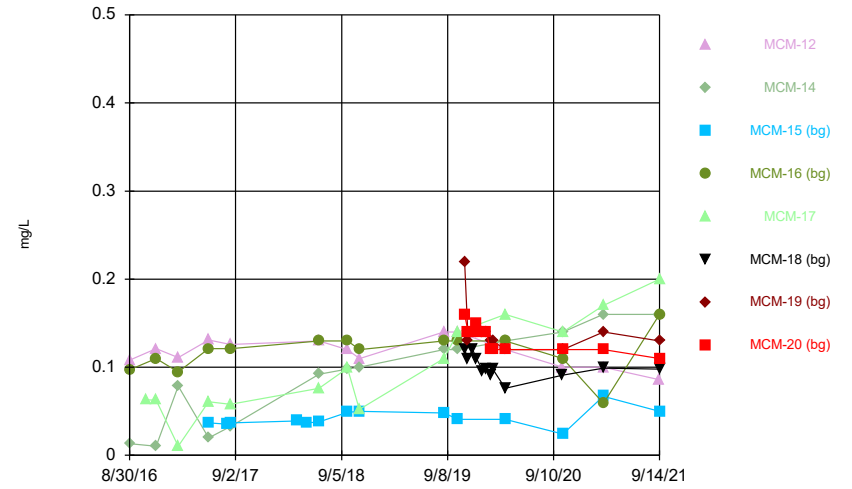
Constituent: Arsenic Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



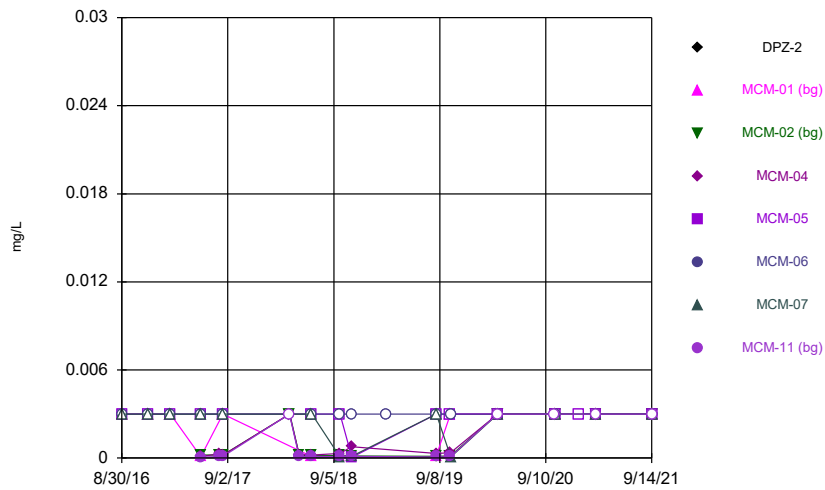
Constituent: Barium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



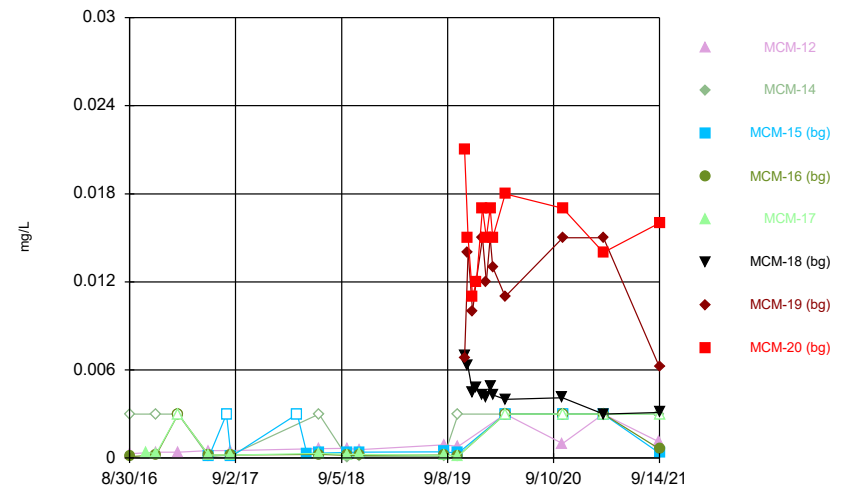
Constituent: Barium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



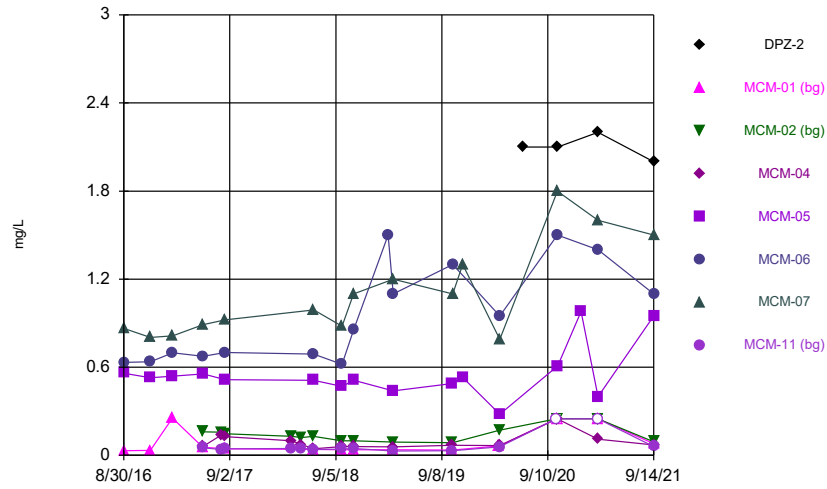
Constituent: Beryllium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



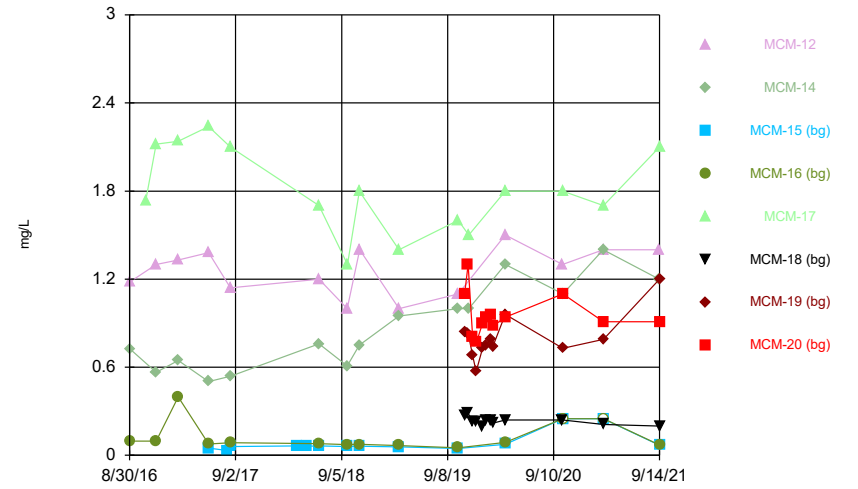
Constituent: Beryllium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



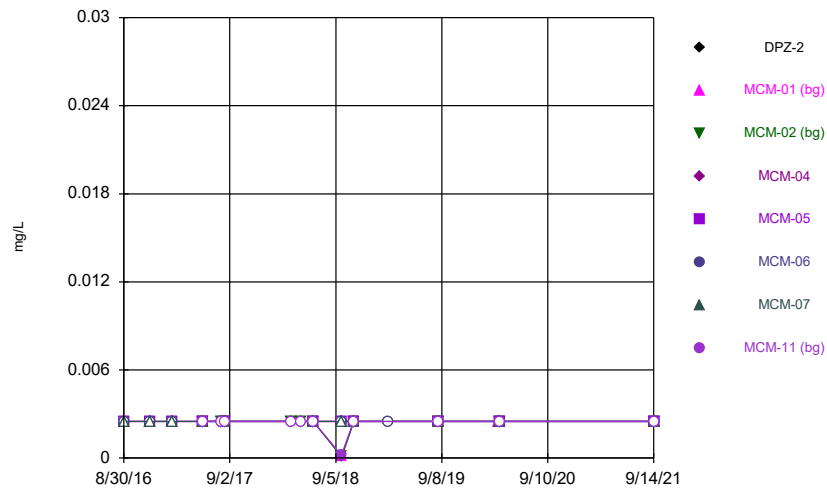
Constituent: Boron Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



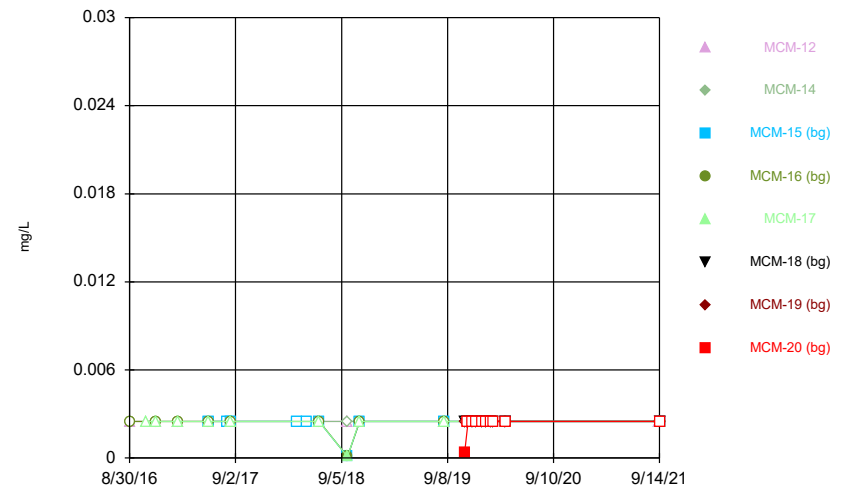
Constituent: Boron Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



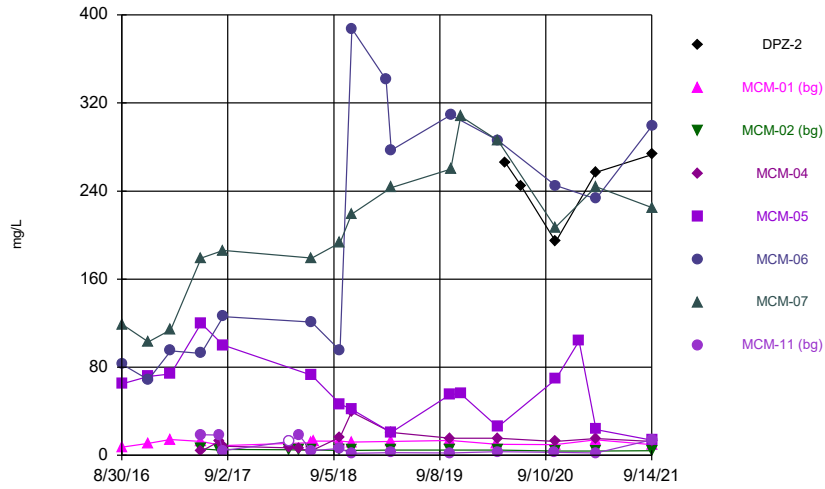
Constituent: Cadmium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



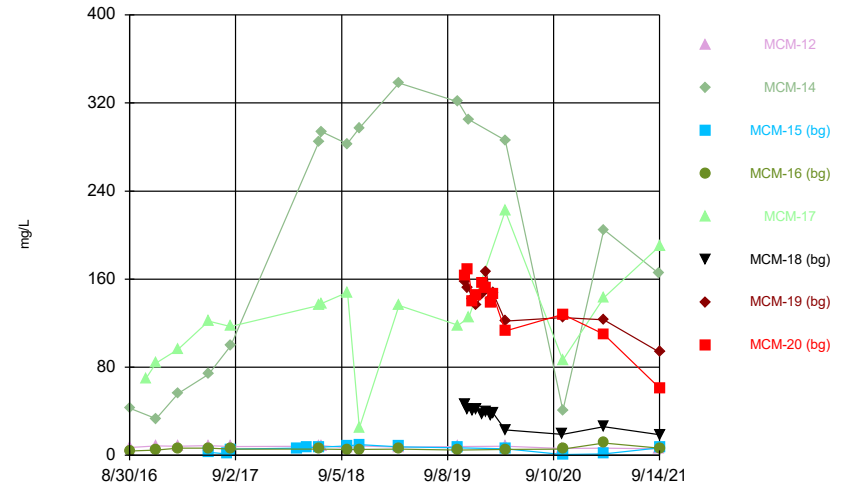
Constituent: Cadmium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



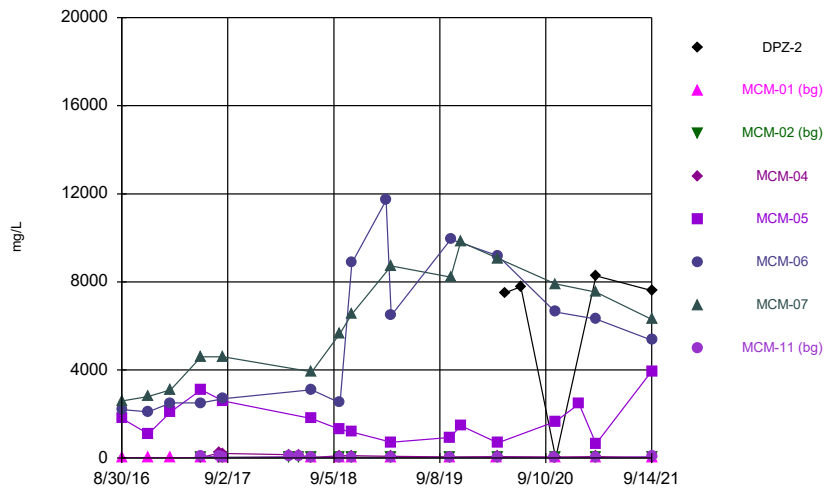
Constituent: Calcium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



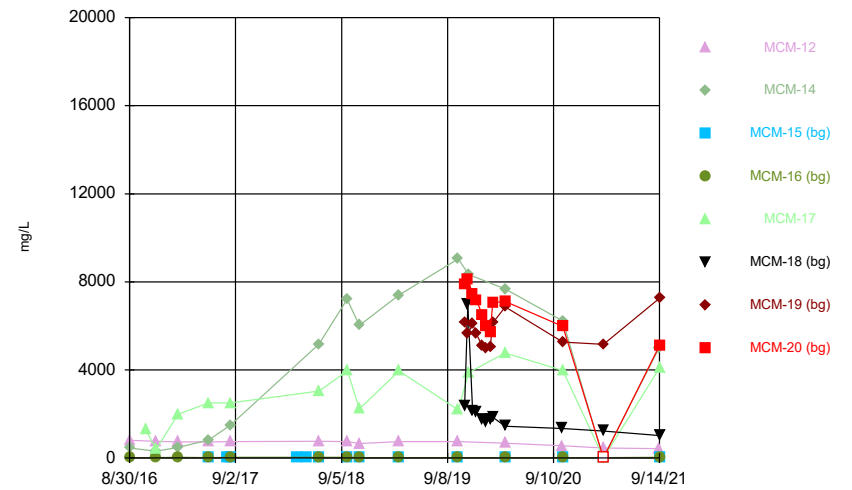
Constituent: Calcium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



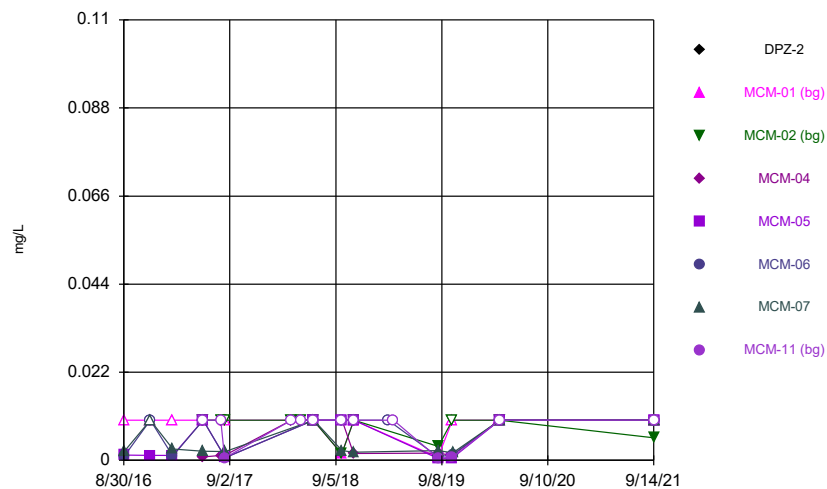
Constituent: Chloride Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



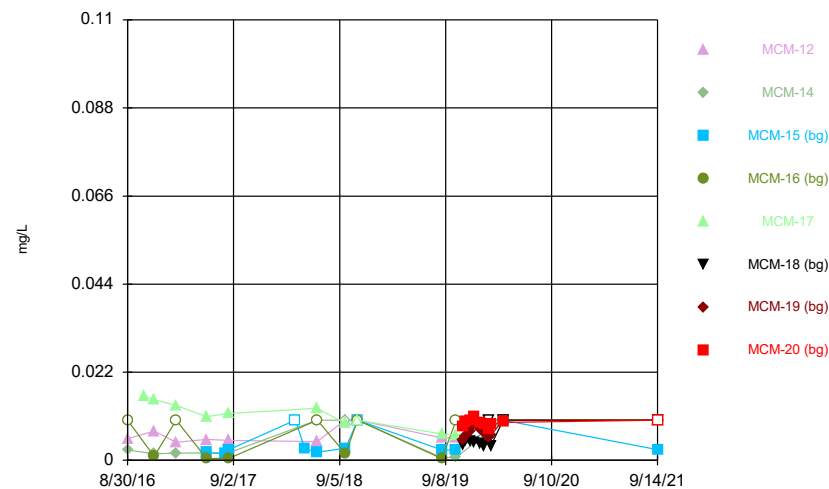
Constituent: Chloride Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



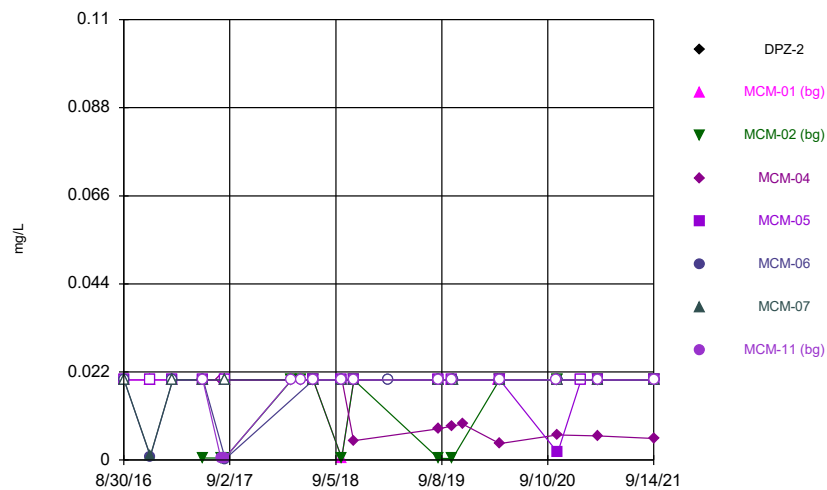
Constituent: Chromium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



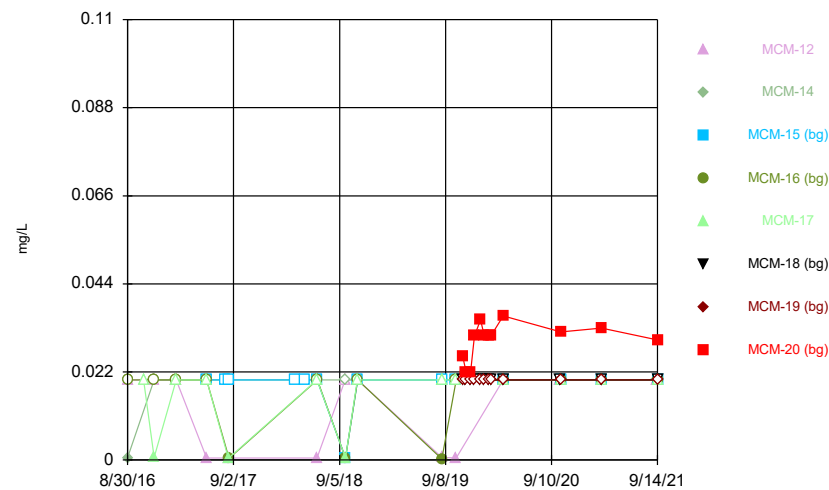
Constituent: Chromium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



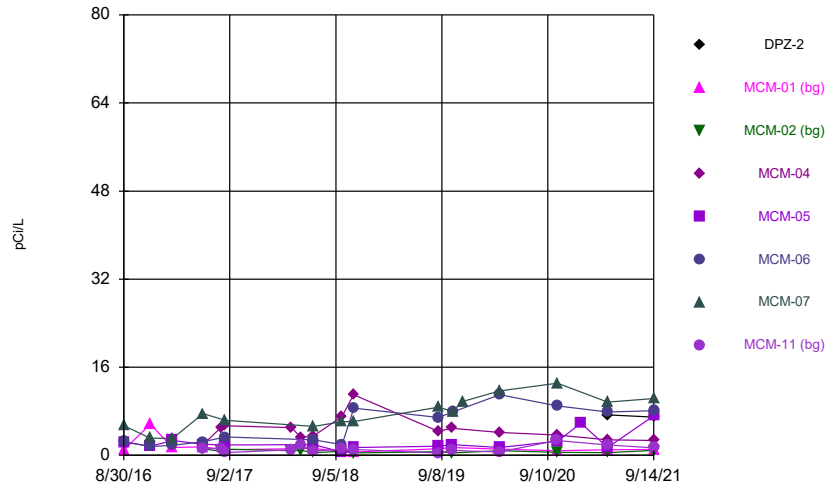
Constituent: Cobalt Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



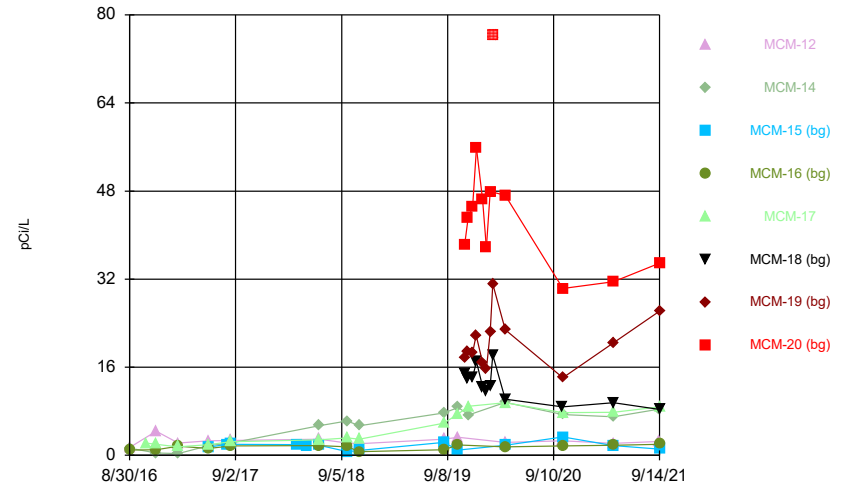
Constituent: Cobalt Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



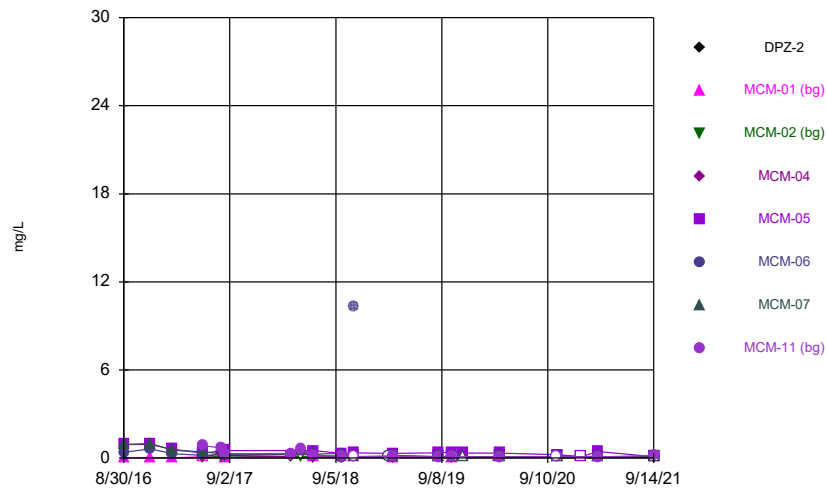
Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



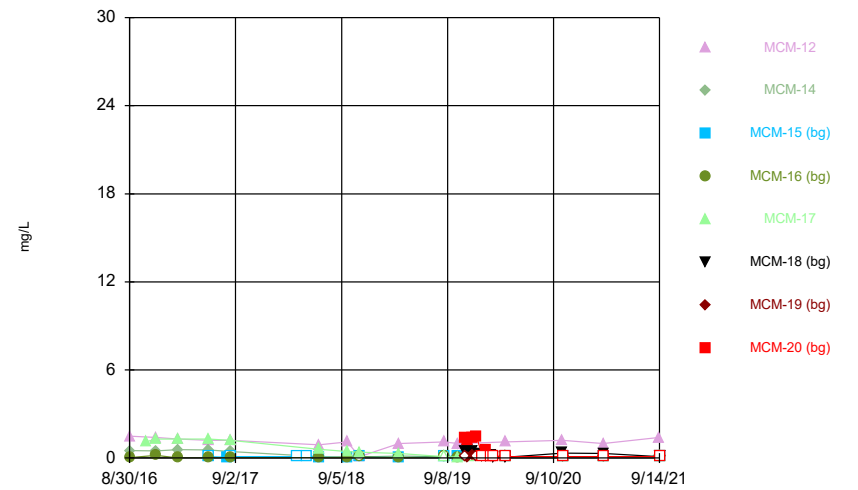
Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



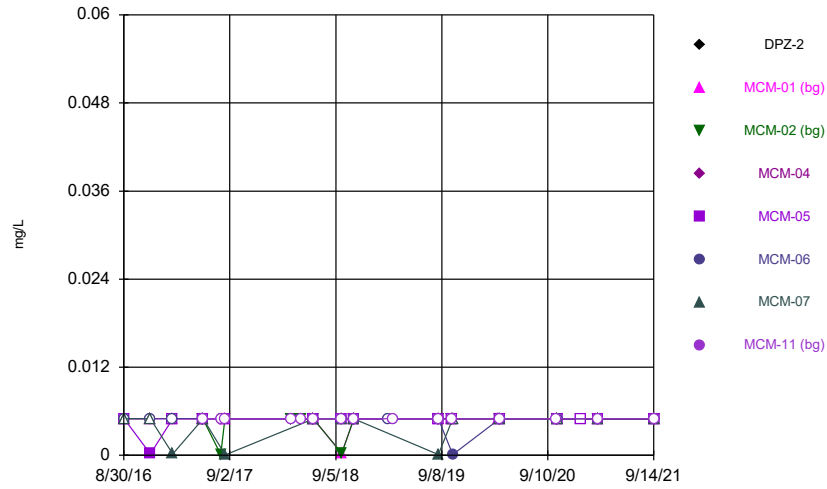
Constituent: Fluoride Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



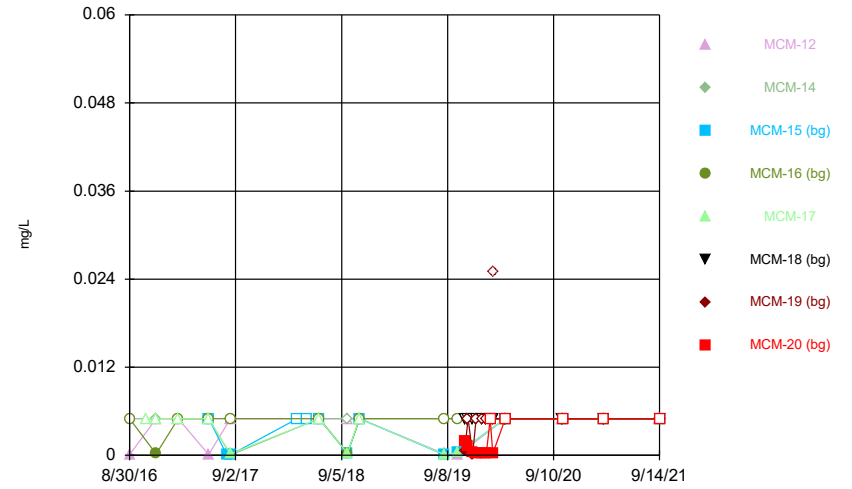
Constituent: Fluoride Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



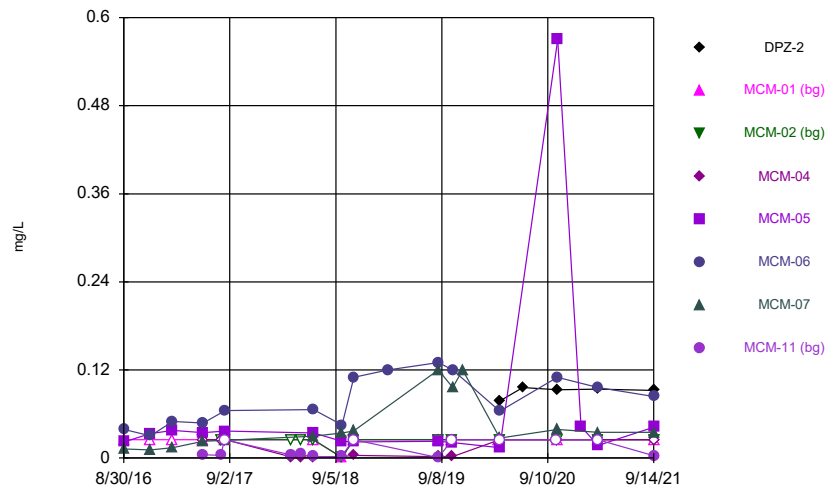
Constituent: Lead Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



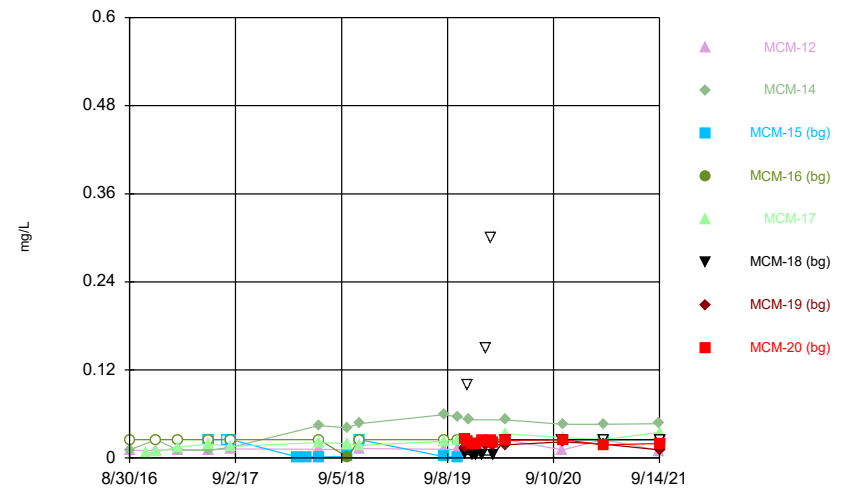
Constituent: Lead Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



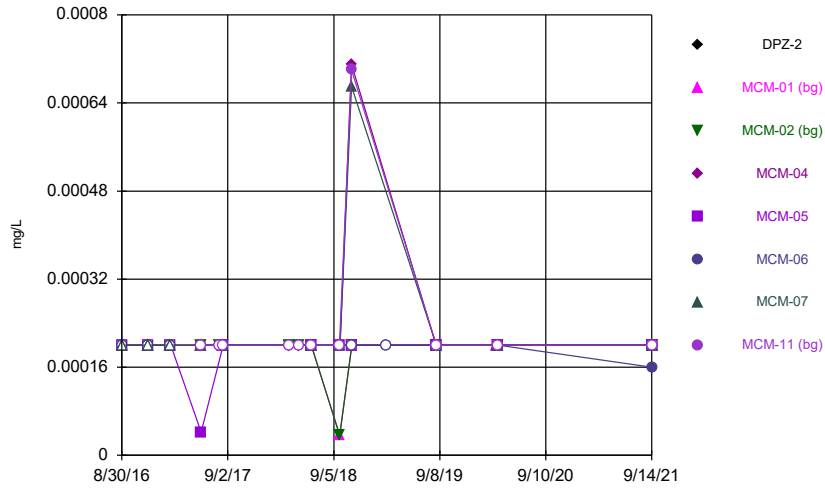
Constituent: Lithium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



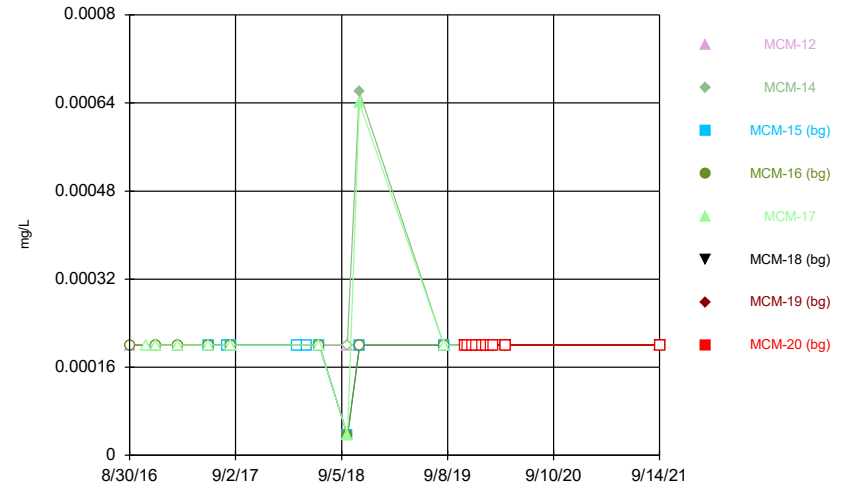
Constituent: Lithium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



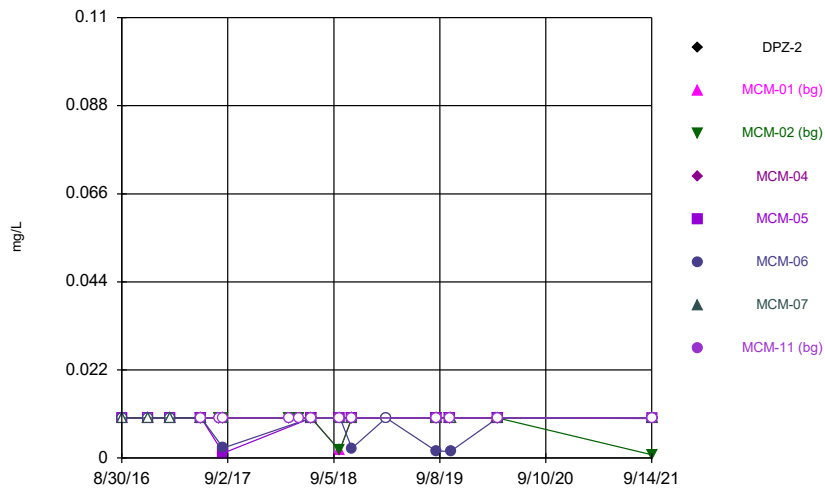
Constituent: Mercury Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



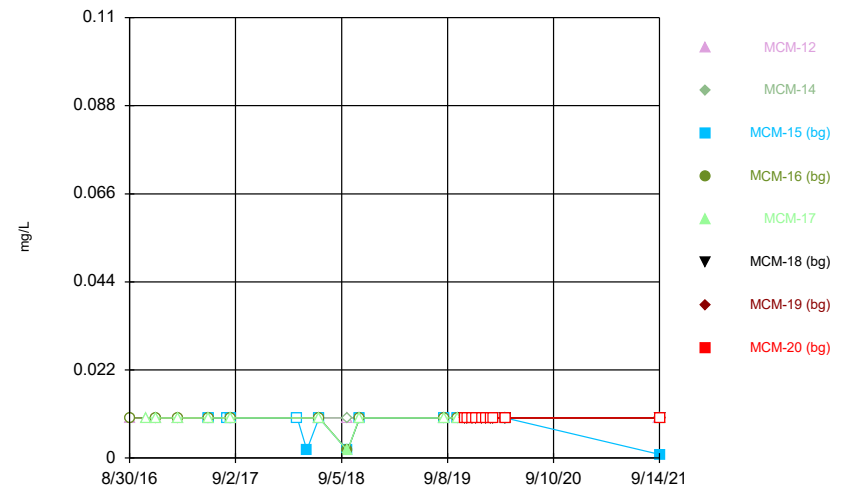
Constituent: Mercury Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



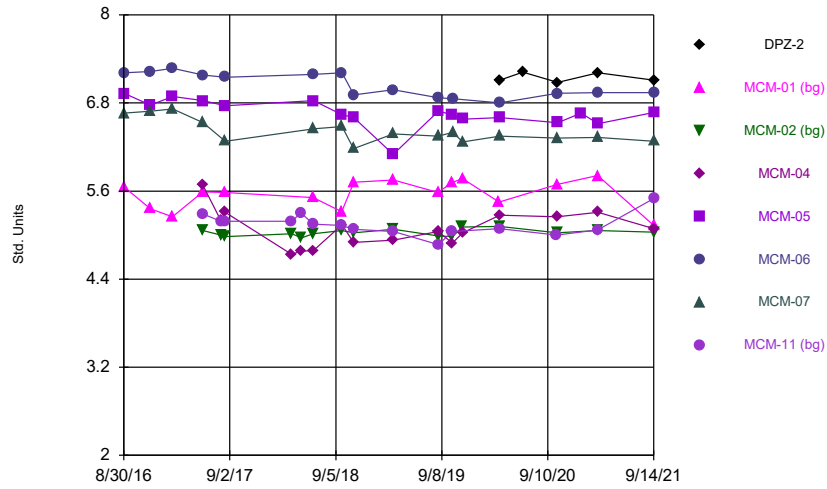
Constituent: Molybdenum Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



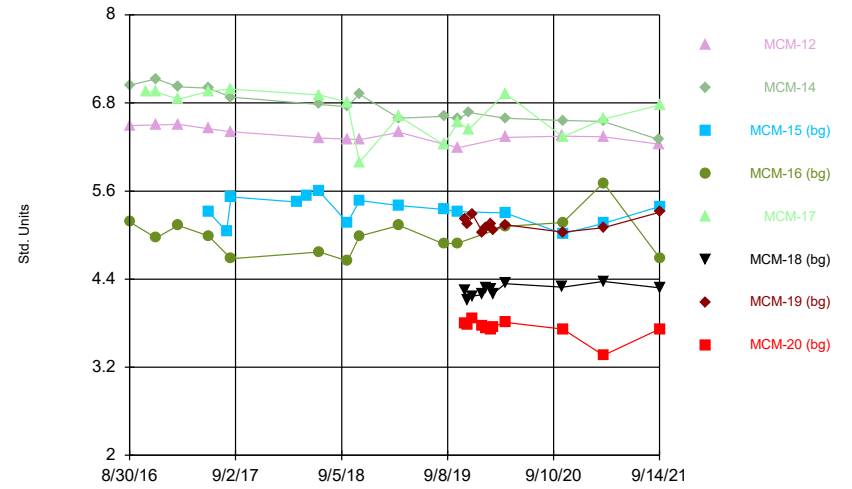
Constituent: Molybdenum Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



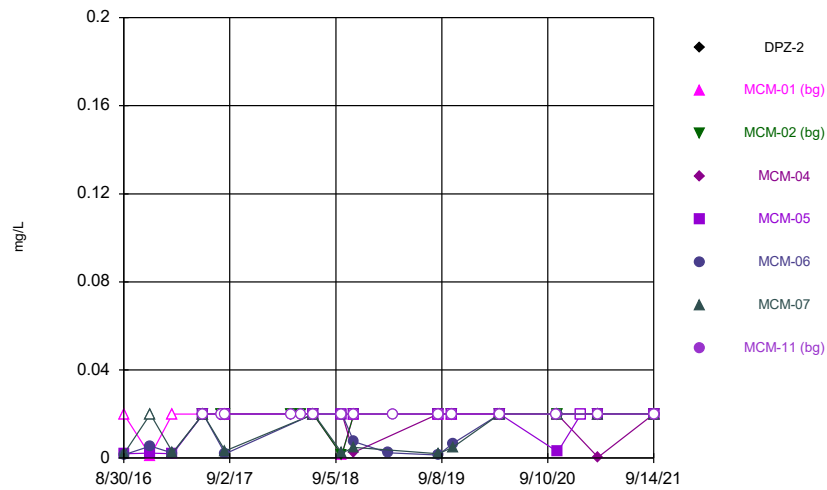
Constituent: pH, field Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



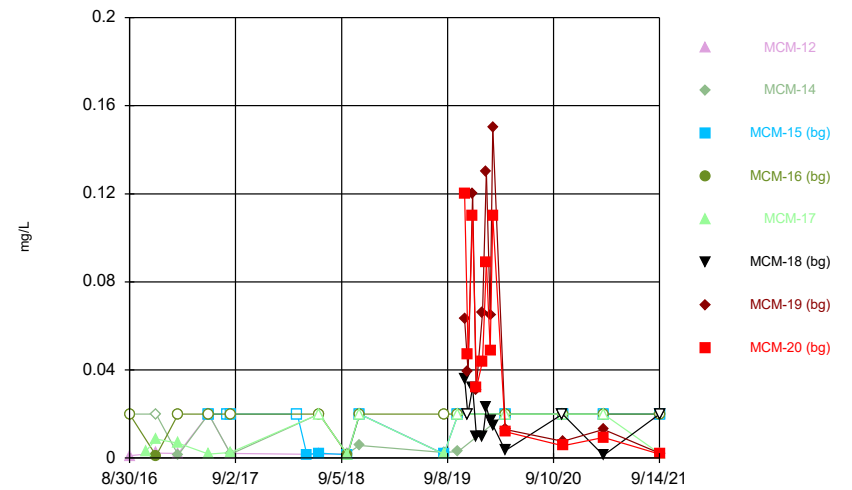
Constituent: pH, field Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



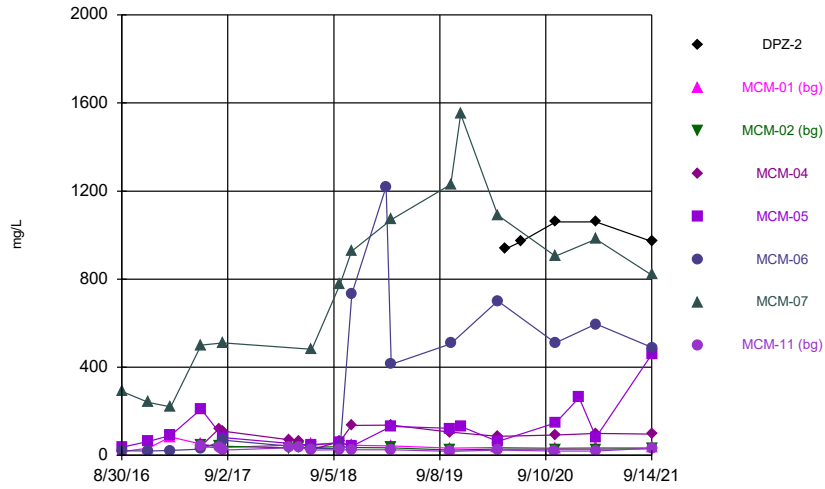
Constituent: Selenium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



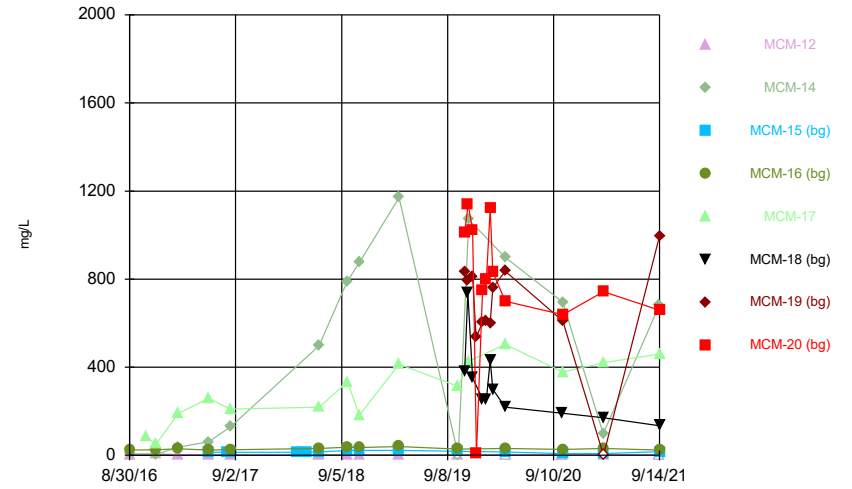
Constituent: Selenium Analysis Run 12/29/2021 3:07 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



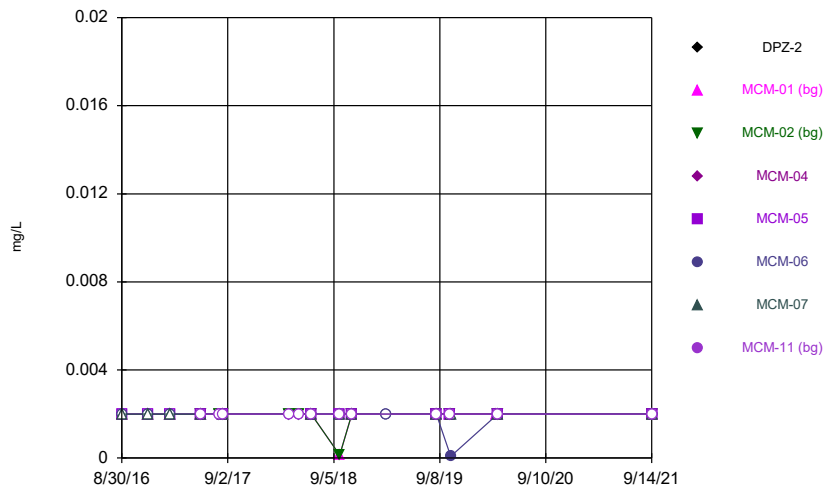
Constituent: Sulfate Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



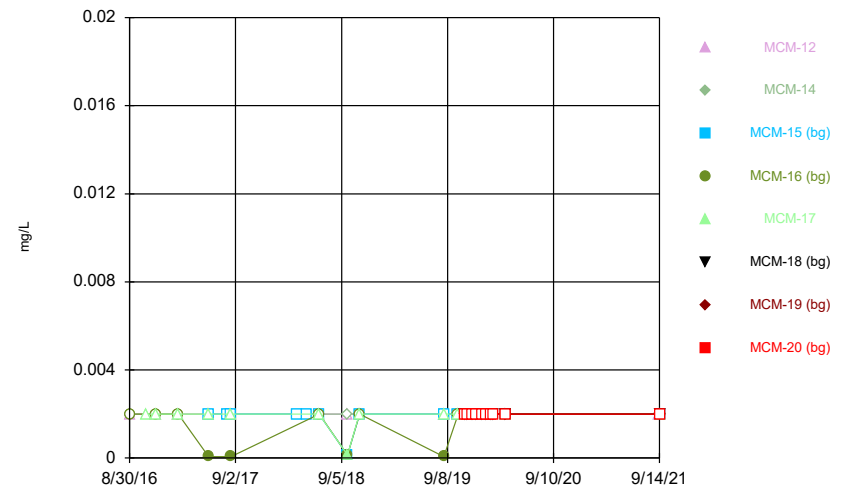
Constituent: Sulfate Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



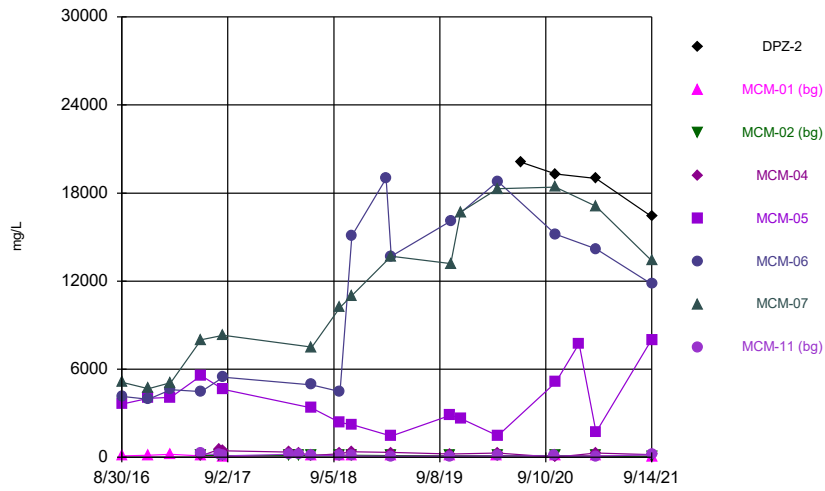
Constituent: Thallium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



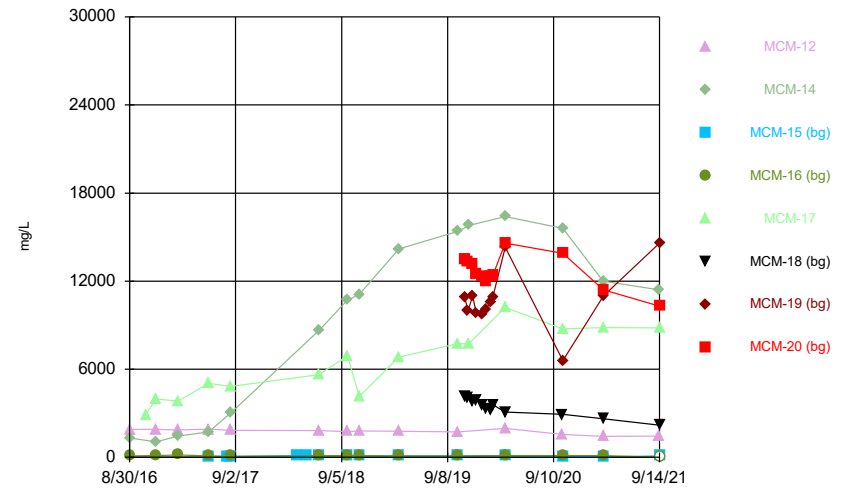
Constituent: Thallium Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/29/2021 3:07 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-----------|-------------|-------------|------------|------------|--------|------------|-------------|
| 8/30/2016 | | <0.03 | | | | | | |
| 8/31/2016 | | | | | <0.03 | 0.212 | 0.0066 | |
| 11/30/2016 | | 0.0018 (J) | | | 0.0132 | 0.129 | 0.0281 | |
| 2/15/2017 | | 0.0022 (J) | | | | | | |
| 2/16/2017 | | | | | 0.0372 | 0.257 | 0.0295 | |
| 5/31/2017 | | | <0.03 | | | | | 0.0259 |
| 6/1/2017 | | 0.0036 (J) | | 0.004 (J) | | | | |
| 6/2/2017 | | | | | 0.0335 | 0.0559 | 0.0286 | |
| 8/2/2017 | | | 0.0011 (J) | 0.0028 (J) | | | | 0.0188 |
| 8/15/2017 | | | | | | | | 0.0117 |
| 8/16/2017 | | 0.0038 (J) | <0.03 | | | | | |
| 8/17/2017 | | | | 0.0021 (J) | 0.0336 | 0.458 | 0.0211 | |
| 4/4/2018 | | | | 0.0023 (J) | | | | 0.017 |
| 4/5/2018 | | | 0.00098 (J) | | | | | |
| 5/8/2018 | | | | 0.0048 (J) | | | | 0.016 |
| 5/9/2018 | | | 0.0014 (J) | | | | | |
| 6/19/2018 | | 0.0069 | 0.0011 (J) | | | | | 0.011 |
| 6/20/2018 | | | | 0.0099 | 0.019 | 0.44 | | |
| 6/21/2018 | | | | | | | 0.022 (J) | |
| 9/25/2018 | | | | | | | | 0.011 |
| 9/26/2018 | | 0.0081 | 0.00057 | | | | | |
| 9/27/2018 | | | | 0.01 | 0.0035 (J) | 0.27 | 0.015 | |
| 11/6/2018 | | | | 0.013 | | | 0.012 | 0.0043 (J) |
| 11/7/2018 | | 0.0069 | 0.00059 (J) | | 0.002 (J) | 0.5 | | |
| 11/27/2018 | | | | | 0.0016 (J) | 0.5 | 0.011 | |
| 3/6/2019 | | | | | | 0.49 | | |
| 3/25/2019 | | | | | | | | 0.0029 (J) |
| 3/26/2019 | | | | | 0.0018 (J) | 0.3 | 0.0078 | |
| 7/2/2019 | | | | 0.015 (J) | | 0.37 | 0.027 | 0.0024 (J) |
| 8/27/2019 | | 0.0079 | | 0.0072 | | | | |
| 8/28/2019 | | | <0.03 | | 0.0019 (J) | 0.5 | 0.011 | 0.005 (J) |
| 10/15/2019 | | | | 0.0038 (J) | | | | |
| 10/16/2019 | | 0.01 | 0.003 (J) | | 0.0047 (J) | | | 0.0054 |
| 10/17/2019 | | | | | | 0.34 | 0.0046 (J) | |
| 11/19/2019 | | | 0.00057 (J) | | | | | |
| 11/20/2019 | | 0.0064 | | | | | | |
| 3/26/2020 | | 0.0069 | | | | | | |
| 3/27/2020 | | | <0.03 | | | | | 0.0034 (J) |
| 3/28/2020 | <0.03 | | | 0.0034 (J) | <0.03 | 0.3 | 0.012 | |
| 10/12/2020 | | | | | | | | 0.0047 (J) |
| 10/13/2020 | | 0.0061 | <0.03 | 0.0022 (J) | | | | |
| 10/14/2020 | | | | | | 0.43 | 0.013 | |
| 10/15/2020 | 0.021 | | | | 0.024 | | | |
| 1/4/2021 | | | | | 0.0072 | | | |
| 3/3/2021 | | 0.016 (J) | <0.03 | | | | | 0.011 (J) |
| 3/4/2021 | 0.017 (J) | | | 0.0018 (J) | <0.03 | 0.35 | 0.015 (J) | |
| 9/14/2021 | 0.022 | 0.0055 | 0.00067 (J) | 0.0047 (J) | 0.02 (J) | 0.51 | 0.013 (J) | 0.011 |

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | <0.03 | <0.03 | | 0.0018 (J) | | | | |
| 10/25/2016 | | | | | <0.03 | | | |
| 11/30/2016 | <0.03 | <0.03 | | <0.03 | 0.0072 | | | |
| 2/15/2017 | <0.03 | <0.03 | | <0.03 | 0.0017 (J) | | | |
| 5/31/2017 | 0.0007 (J) | 0.0008 (J) | | | 0.0018 (J) | | | |
| 6/1/2017 | | | | <0.03 | | | | |
| 6/2/2017 | | | 0.0026 (J) | | | | | |
| 8/2/2017 | | | 0.0047 (J) | | | | | |
| 8/15/2017 | 0.0006 (J) | | | | 0.0015 (J) | | | |
| 8/16/2017 | | 0.0007 (J) | | | | | | |
| 8/17/2017 | | | 0.0028 (J) | <0.03 | | | | |
| 4/4/2018 | | | 0.0029 (J) | | | | | |
| 5/8/2018 | | | 0.0048 (J) | | | | | |
| 6/19/2018 | 0.001 (J) | 0.0062 (J) | 0.0019 (J) | | 0.0029 (J) | | | |
| 6/20/2018 | | | | 0.00058 (J) | | | | |
| 9/25/2018 | 0.0011 (J) | 0.0031 (J) | | | | | | |
| 9/26/2018 | | | 0.0023 (J) | 0.00057 | 0.0015 (J) | | | |
| 11/6/2018 | | 0.0014 (J) | | | <0.03 | | | |
| 11/7/2018 | 0.0057 | | 0.0028 | 0.00057 | | | | |
| 8/26/2019 | | 0.0022 (J) | | | | | | |
| 8/27/2019 | 0.0011 (J) | | 0.0041 (J) | 0.0019 (J) | 0.0024 (J) | | | |
| 10/15/2019 | 0.0024 (J) | 0.0067 | 0.0038 (J) | | | | | |
| 10/16/2019 | | | | 0.001 (J) | 0.0043 (J) | | | |
| 11/7/2019 | | | | | | 0.0067 | 0.0094 (J) | 0.026 |
| 11/18/2019 | | | | | | 0.012 (J) | | |
| 11/19/2019 | | | | | | | 0.019 (J) | 0.031 (J) |
| 11/21/2019 | | | | | 0.0031 (J) | | | |
| 12/4/2019 | | | | | | | 0.016 | 0.026 |
| 12/5/2019 | | | | | | 0.0055 | | |
| 12/17/2019 | | | | | | | 0.011 (J) | |
| 12/18/2019 | | | | | | 0.0031 (J) | | 0.019 (J) |
| 1/8/2020 | | | | | | | 0.015 (J) | 0.022 (J) |
| 1/9/2020 | | | | | | 0.0034 (J) | | |
| 1/21/2020 | | | | | | 0.0031 (J) | 0.015 (J) | 0.024 (J) |
| 2/4/2020 | | | | | | <0.03 | 0.0092 (J) | 0.022 (J) |
| 2/13/2020 | | | | | | 0.0066 | 0.021 (J) | 0.029 |
| 3/27/2020 | <0.03 | <0.03 | 0.0018 (J) | <0.03 | <0.03 | 0.0043 (J) | 0.017 | 0.027 |
| 10/12/2020 | <0.03 | | | | | <0.03 | | |
| 10/13/2020 | | <0.03 | 0.0042 (J) | <0.03 | <0.03 | | 0.0089 | 0.018 |
| 3/2/2021 | <0.03 | <0.03 | 0.021 (J) | | | | | |
| 3/3/2021 | | | | 0.0012 (J) | <0.03 | 0.0014 (J) | 0.0086 (J) | 0.016 (J) |
| 9/13/2021 | <0.03 | <0.03 | | | | | | |
| 9/14/2021 | | | 0.0035 (J) | <0.03 | <0.03 | 0.0029 (J) | 0.018 (J) | 0.028 |

Time Series

Constituent: Barium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|------------|--------|--------|-------------|
| 8/30/2016 | | 0.0443 | | | | | | |
| 8/31/2016 | | | | | 0.0289 | 0.0498 | 0.0771 | |
| 11/30/2016 | | 0.0524 | | | 0.0168 | 0.0528 | 0.101 | |
| 2/15/2017 | | 0.124 | | | | | | |
| 2/16/2017 | | | | | 0.016 | 0.0555 | 0.0865 | |
| 5/31/2017 | | | 0.127 | | | | | 0.0646 |
| 6/1/2017 | | 0.0757 | | 0.0195 | | | | |
| 6/2/2017 | | | | | 0.0393 (J) | 0.0508 | 0.123 | |
| 8/2/2017 | | | 0.121 | 0.053 | | | | 0.0533 |
| 8/15/2017 | | | | | | | | 0.0247 |
| 8/16/2017 | | 0.0522 | 0.116 | | | | | |
| 8/17/2017 | | | | 0.0475 | 0.0188 | 0.0596 | 0.124 | |
| 4/4/2018 | | | | 0.035 | | | | 0.057 |
| 4/5/2018 | | | 0.12 | | | | | |
| 5/8/2018 | | | | 0.027 | | | | 0.062 |
| 5/9/2018 | | | 0.11 | | | | | |
| 6/19/2018 | | 0.083 | 0.1 | | | | | 0.031 |
| 6/20/2018 | | | | 0.027 | 0.014 | 0.06 | | |
| 6/21/2018 | | | | | | | 0.1 | |
| 9/25/2018 | | | | | | | | 0.041 |
| 9/26/2018 | | 0.073 | 0.11 | | | | | |
| 9/27/2018 | | | | 0.14 | 0.0097 (J) | 0.06 | 0.12 | |
| 11/6/2018 | | | | 0.31 | | | 0.12 | 0.031 |
| 11/7/2018 | | 0.071 | 0.097 | | 0.0085 (J) | 0.19 | | |
| 3/6/2019 | | | | | | 0.16 | | |
| 3/25/2019 | | | | | | | | 0.036 |
| 8/27/2019 | | 0.077 | | 0.083 | | | | |
| 8/28/2019 | | | 0.1 | | 0.011 | 0.13 | 0.4 | 0.035 |
| 10/15/2019 | | | | 0.082 | | | | |
| 10/16/2019 | | 0.074 | 0.1 | | 0.012 | | | 0.036 |
| 10/17/2019 | | | | | | 0.13 | 0.35 | |
| 3/26/2020 | | 0.07 | | | | | | |
| 3/27/2020 | | | 0.095 | | | | | 0.039 |
| 3/28/2020 | | | | 0.039 | 0.0041 (J) | 0.12 | 0.11 | |
| 10/12/2020 | | | | | | | | 0.039 |
| 10/13/2020 | | 0.06 | 0.086 | 0.055 | | | | |
| 10/14/2020 | | | | | | 0.14 | 0.19 | |
| 10/15/2020 | 0.071 | | | | 0.45 | | | |
| 1/4/2021 | | | | | 0.051 | | | |
| 3/3/2021 | | 0.14 | 0.21 | | | | | 0.09 |
| 3/4/2021 | 0.096 | | | 0.062 | 0.0082 (J) | 0.14 | 0.2 | |
| 9/14/2021 | 0.082 | 0.065 | 0.082 | 0.043 | 0.08 | 0.22 | 0.2 | 0.07 |

Time Series

Constituent: Barium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 0.108 | 0.0131 | | 0.0973 | | | | |
| 10/25/2016 | | | | | 0.063 | | | |
| 11/30/2016 | 0.121 | 0.0105 | | 0.11 | 0.0628 | | | |
| 2/15/2017 | 0.111 | 0.0786 | | 0.0945 | 0.0102 | | | |
| 5/31/2017 | 0.131 | 0.0199 | | | 0.061 | | | |
| 6/1/2017 | | | | 0.121 | | | | |
| 6/2/2017 | | | 0.0368 (J) | | | | | |
| 8/2/2017 | | | 0.0355 | | | | | |
| 8/15/2017 | 0.126 | | | | 0.0579 | | | |
| 8/16/2017 | | 0.033 | | | | | | |
| 8/17/2017 | | | 0.037 | 0.121 | | | | |
| 4/4/2018 | | | 0.039 | | | | | |
| 5/8/2018 | | | 0.037 | | | | | |
| 6/19/2018 | 0.13 | 0.092 | 0.038 | | 0.076 | | | |
| 6/20/2018 | | | | 0.13 | | | | |
| 9/25/2018 | 0.12 | 0.098 | | | | | | |
| 9/26/2018 | | | 0.049 | 0.13 | 0.099 | | | |
| 11/6/2018 | | 0.1 | | | 0.052 | | | |
| 11/7/2018 | 0.11 | | 0.05 | 0.12 | | | | |
| 8/26/2019 | | 0.12 | | | | | | |
| 8/27/2019 | 0.14 | | 0.048 | 0.13 | 0.11 | | | |
| 10/15/2019 | 0.14 | 0.12 | 0.041 | | | | | |
| 10/16/2019 | | | | 0.13 | 0.14 | | | |
| 11/7/2019 | | | | | | 0.12 | 0.22 | 0.16 |
| 11/18/2019 | | | | | | 0.11 | | |
| 11/19/2019 | | | | | | | 0.13 | 0.14 |
| 12/4/2019 | | | | | | | 0.14 | 0.14 |
| 12/5/2019 | | | | | | 0.12 | | |
| 12/17/2019 | | | | | | | 0.14 | |
| 12/18/2019 | | | | | | 0.11 | | 0.15 |
| 1/8/2020 | | | | | | | 0.14 | 0.14 |
| 1/9/2020 | | | | | | 0.096 | | |
| 1/21/2020 | | | | | | 0.098 | 0.14 | 0.14 |
| 2/4/2020 | | | | | | 0.091 | 0.13 | 0.12 |
| 2/13/2020 | | | | | | 0.098 | 0.13 | 0.12 |
| 3/27/2020 | 0.12 | 0.13 | 0.041 | 0.13 | 0.16 | 0.076 | 0.12 | 0.12 |
| 10/12/2020 | 0.1 | | | | | 0.091 | | |
| 10/13/2020 | | 0.14 | 0.024 | 0.11 | 0.14 | | 0.12 | 0.12 |
| 3/2/2021 | 0.1 | 0.16 | 0.067 | | | | | |
| 3/3/2021 | | | | 0.059 | 0.17 | 0.099 | 0.14 | 0.12 |
| 9/13/2021 | 0.086 | 0.16 | | | | | | |
| 9/14/2021 | | | 0.05 | 0.16 | 0.2 (M1) | 0.098 | 0.13 | 0.11 |

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0003 (J) | <0.003 | | 0.0001 (J) | | | | |
| 10/25/2016 | | | | | 0.0004 (J) | | | |
| 11/30/2016 | 0.0004 (J) | <0.003 | | 0.0002 (J) | 0.0003 (J) | | | |
| 2/15/2017 | 0.0004 (J) | <0.003 | | <0.003 | <0.003 | | | |
| 5/31/2017 | 0.0005 (J) | 0.0001 (J) | | | 0.0002 (J) | | | |
| 6/1/2017 | | | | 0.0002 (J) | | | | |
| 6/2/2017 | | | 0.0001 (J) | | | | | |
| 8/2/2017 | | | <0.003 | | | | | |
| 8/15/2017 | 0.0005 (J) | | | | 0.0002 (J) | | | |
| 8/16/2017 | | 0.0002 (J) | | | | | | |
| 8/17/2017 | | | 0.0001 (J) | 0.0002 (J) | | | | |
| 4/4/2018 | | | <0.003 | | | | | |
| 5/8/2018 | | | 0.00031 (J) | | | | | |
| 6/19/2018 | 0.00065 (J) | <0.003 | 0.00034 (J) | | 0.00032 (J) | | | |
| 6/20/2018 | | | | 0.00024 (J) | | | | |
| 9/25/2018 | 0.00066 (J) | 5E-05 (J) | | | | | | |
| 9/26/2018 | | | 0.00039 (J) | 0.00019 (J) | 0.00024 (J) | | | |
| 11/6/2018 | | 9.7E-05 (J) | | | 0.00026 (J) | | | |
| 11/7/2018 | 0.00058 (J) | | 0.00041 (J) | 0.00019 (J) | | | | |
| 8/26/2019 | | 0.0001 (J) | | | | | | |
| 8/27/2019 | 0.0009 (J) | | 0.00042 (J) | 0.00021 (J) | 0.00018 (J) | | | |
| 10/15/2019 | 0.00079 (J) | <0.003 | 0.00034 (J) | | | | | |
| 10/16/2019 | | | | 0.00014 (J) | 0.00014 (J) | | | |
| 11/7/2019 | | | | | | 0.007 | 0.0068 (J) | 0.021 |
| 11/18/2019 | | | | | | 0.0063 (J) | | |
| 11/19/2019 | | | | | | | 0.014 (J) | 0.015 (J) |
| 12/4/2019 | | | | | | | 0.01 | 0.011 |
| 12/5/2019 | | | | | | 0.0045 | | |
| 12/17/2019 | | | | | | | 0.012 | |
| 12/18/2019 | | | | | | 0.0048 | | 0.012 |
| 1/8/2020 | | | | | | | 0.015 (J) | 0.017 |
| 1/9/2020 | | | | | | 0.0043 | | |
| 1/21/2020 | | | | | | 0.0041 (J) | 0.012 (J) | 0.015 |
| 2/4/2020 | | | | | | 0.0049 (J) | 0.015 (J) | 0.017 (J) |
| 2/13/2020 | | | | | | 0.0043 | 0.013 (J) | 0.015 (J) |
| 3/27/2020 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | 0.004 | 0.011 | 0.018 |
| 10/12/2020 | 0.001 (J) | | | | | 0.0041 | | |
| 10/13/2020 | | <0.003 | <0.003 | <0.003 | <0.003 | | 0.015 | 0.017 |
| 3/2/2021 | <0.003 | <0.003 | <0.003 | | | | | |
| 3/3/2021 | | | | <0.003 | <0.003 | 0.003 | 0.015 | 0.014 |
| 9/13/2021 | 0.0011 | <0.003 | | | | | | |
| 9/14/2021 | | | 0.00034 (J) | 0.00062 | <0.003 | 0.0031 | 0.0062 | 0.016 |

Time Series

Constituent: Boron (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|---------|-------------|-------------|-----------|----------|---------|---------|-------------|
| 8/30/2016 | | 0.0325 (J) | | | | | | |
| 8/31/2016 | | | | | 0.56 | 0.632 | 0.863 | |
| 11/30/2016 | | 0.0334 (J) | | | 0.529 | 0.637 | 0.804 | |
| 2/15/2017 | | 0.254 | | | | | | |
| 2/16/2017 | | | | | 0.539 | 0.698 | 0.815 | |
| 5/31/2017 | | | 0.161 | | | | | 0.0521 |
| 6/1/2017 | | 0.0564 | | 0.0608 | | | | |
| 6/2/2017 | | | | | 0.555 | 0.674 | 0.891 | |
| 8/2/2017 | | | 0.158 | 0.137 | | | | 0.0392 (J) |
| 8/15/2017 | | | | | | | | 0.0448 |
| 8/16/2017 | | 0.0435 | 0.148 | | | | | |
| 8/17/2017 | | | | 0.128 | 0.516 | 0.7 | 0.922 | |
| 4/4/2018 | | | | 0.1 | | | | 0.046 |
| 4/5/2018 | | | 0.13 | | | | | |
| 5/8/2018 | | | | 0.074 | | | | 0.048 |
| 5/9/2018 | | | 0.12 | | | | | |
| 6/19/2018 | | 0.04 (J) | 0.13 | | | | | 0.04 |
| 6/20/2018 | | | | 0.045 | 0.51 | 0.69 | | |
| 6/21/2018 | | | | | | | 0.99 | |
| 9/25/2018 | | | | | | | | 0.043 |
| 9/26/2018 | | 0.038 (J) | 0.1 | | | | | |
| 9/27/2018 | | | | 0.06 | 0.47 | 0.62 | 0.88 | |
| 11/6/2018 | | | | 0.06 | | | 1.1 | 0.046 |
| 11/7/2018 | | 0.037 (J) | 0.1 | | 0.51 | 0.86 | | |
| 3/6/2019 | | | | | | 1.5 | | |
| 3/24/2019 | | | | | 0.44 | 1.1 | 1.2 | |
| 3/25/2019 | | 0.038 (J) | 0.091 | 0.058 | | | | 0.03 (J) |
| 10/15/2019 | | | | 0.068 | | | | |
| 10/16/2019 | | 0.036 (J) | 0.085 | | 0.49 | | | 0.032 (J) |
| 10/17/2019 | | | | | | 1.3 | 1.1 | |
| 11/20/2019 | | | | | 0.53 | | 1.3 | |
| 3/26/2020 | | 0.064 (J) | | | | | | |
| 3/27/2020 | | | 0.17 (J) | | | | | 0.058 (J) |
| 3/28/2020 | | | | 0.067 (J) | 0.28 (J) | 0.95 | 0.79 | |
| 6/16/2020 | 2.1 | | | | | | | |
| 10/12/2020 | | | | | | | | <0.5 |
| 10/13/2020 | | <0.5 | <0.5 | <0.5 | | | | |
| 10/14/2020 | | | | | | 1.5 | 1.8 | |
| 10/15/2020 | 2.1 | | | | 0.61 | | | |
| 1/4/2021 | | | | | 0.98 | | | |
| 3/3/2021 | | <0.5 | <0.5 | | | | | <0.5 |
| 3/4/2021 | 2.2 (J) | | | 0.11 (J) | 0.4 (J) | 1.4 (J) | 1.6 (J) | |
| 9/14/2021 | 2 | 0.079 (J) | 0.093 (J) | 0.07 (J) | 0.95 (J) | 1.1 | 1.5 | 0.06 (J) |

Time Series

Constituent: Boron (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|----------|---------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 1.18 | 0.726 | | 0.0972 (J) | | | | |
| 10/25/2016 | | | | | 1.73 | | | |
| 11/30/2016 | 1.3 | 0.565 | | 0.0964 | 2.12 | | | |
| 2/15/2017 | 1.33 | 0.647 | | 0.398 | 2.14 | | | |
| 5/31/2017 | 1.38 | 0.503 | | | 2.24 | | | |
| 6/1/2017 | | | | 0.0776 | | | | |
| 6/2/2017 | | | 0.0495 | | | | | |
| 8/2/2017 | | | 0.0333 (J) | | | | | |
| 8/15/2017 | 1.14 | | | | 2.1 | | | |
| 8/16/2017 | | 0.539 | | | | | | |
| 8/17/2017 | | | 0.0593 | 0.0853 | | | | |
| 4/4/2018 | | | 0.065 | | | | | |
| 5/8/2018 | | | 0.062 | | | | | |
| 6/19/2018 | 1.2 | 0.76 | 0.064 | | 1.7 | | | |
| 6/20/2018 | | | | 0.079 | | | | |
| 9/25/2018 | 1 | 0.61 | | | | | | |
| 9/26/2018 | | | 0.06 | 0.072 | 1.3 | | | |
| 11/6/2018 | | 0.75 | | | 1.8 | | | |
| 11/7/2018 | 1.4 | | 0.062 (J) | 0.074 | | | | |
| 3/24/2019 | 1 | 0.95 | | | 1.4 | | | |
| 3/25/2019 | | | 0.057 | 0.067 | | | | |
| 10/15/2019 | 1.1 | 1 | 0.046 | | | | | |
| 10/16/2019 | | | | 0.051 | 1.6 | | | |
| 11/7/2019 | | | | | | 0.27 | 0.84 | 1.1 |
| 11/18/2019 | | | | | | 0.29 (J) | | |
| 11/19/2019 | | | | | | | 0.83 | 1.3 |
| 11/21/2019 | | 1 | | | 1.5 | | | |
| 12/4/2019 | | | | | | | 0.68 | 0.81 |
| 12/5/2019 | | | | | | 0.23 | | |
| 12/17/2019 | | | | | | | 0.57 | |
| 12/18/2019 | | | | | | 0.23 | | 0.77 |
| 1/8/2020 | | | | | | | 0.73 | 0.9 |
| 1/9/2020 | | | | | | 0.2 | | |
| 1/21/2020 | | | | | | 0.24 (J) | 0.75 | 0.94 |
| 2/4/2020 | | | | | | 0.24 (J) | 0.79 (J) | 0.96 (J) |
| 2/13/2020 | | | | | | 0.22 | 0.74 | 0.88 |
| 3/27/2020 | 1.5 | 1.3 | 0.076 (J) | 0.088 (J) | 1.8 | 0.24 (J) | 0.96 | 0.94 |
| 10/12/2020 | 1.3 | | | | | 0.24 (J) | | |
| 10/13/2020 | | 1.1 | <0.5 | <0.5 | 1.8 | | 0.73 | 1.1 |
| 3/2/2021 | 1.4 (J) | 1.4 (J) | <0.5 | | | | | |
| 3/3/2021 | | | | <0.5 | 1.7 (J) | 0.21 (J) | 0.79 (J) | 0.91 (J) |
| 9/13/2021 | 1.4 (M1) | 1.2 | | | | | | |
| 9/14/2021 | | | 0.068 (J) | 0.071 (J) | 2.1 (M1) | 0.2 (J) | 1.2 | 0.91 (J) |

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|----------|----------|-----------|--------|-------------|
| 8/30/2016 | | 7.3 | | | | | | |
| 8/31/2016 | | | | | 65 | 82.8 | 119 | |
| 11/30/2016 | | 10.8 | | | 71.7 | 68.7 | 103 | |
| 2/15/2017 | | 14.3 | | | | | | |
| 2/16/2017 | | | | | 74 | 94.8 | 114 | |
| 5/31/2017 | | | 5.9 | | | | | 18.6 |
| 6/1/2017 | | 12.7 (J) | | 3.65 | | | | |
| 6/2/2017 | | | | | 120 | 92.5 | 179 | |
| 8/2/2017 | | | 4.69 | 12.4 | | | | 18.5 |
| 8/15/2017 | | | | | | | | 4.09 |
| 8/16/2017 | | 8.7 | 5.25 | | | | | |
| 8/17/2017 | | | | 8.17 | 100 | 126 | 186 | |
| 4/4/2018 | | | | 6.8 | | | | <25 |
| 4/5/2018 | | | 5 | | | | | |
| 5/8/2018 | | | | 5.7 | | | | 18.4 (J) |
| 5/9/2018 | | | 4.7 | | | | | |
| 6/19/2018 | | 11.6 (J) | 4.8 | | | | | 4.3 |
| 6/20/2018 | | | | 4.3 | 72.8 | 121 | | |
| 6/21/2018 | | | | | | | 179 | |
| 6/28/2018 | | 13 | | | | | | |
| 9/25/2018 | | | | | | | | 6.2 (D) |
| 9/26/2018 | | 12.8 (J) | 4.6 | | | | | |
| 9/27/2018 | | | | 16.4 (J) | 46.6 | 95.1 | 193 | |
| 11/6/2018 | | | | 39.5 | | | 219 | 1.8 |
| 11/7/2018 | | 11.9 | 4.6 | | 41.8 | 387.5 (D) | | |
| 3/6/2019 | | | | | | 341 | | |
| 3/24/2019 | | | | | 20.9 (J) | 277 | 243 | |
| 3/25/2019 | | 12.6 (J) | 4.7 | 20.8 (J) | | | | 2.5 (D) |
| 10/15/2019 | | | | 15.5 | | | | |
| 10/16/2019 | | 13.6 | 4.9 | | 55.2 | | | 2.2 |
| 10/17/2019 | | | | | | 309 | 260 | |
| 11/20/2019 | | | | | 55.8 | | 308 | |
| 3/26/2020 | | 10.1 | | | | | | |
| 3/27/2020 | | | 4.9 | | | | | 3.3 |
| 3/28/2020 | | | | 15.5 | 25.8 | 286 | 286 | |
| 4/23/2020 | 266 | | | | | | | |
| 6/16/2020 | 245 | | | | | | | |
| 10/12/2020 | | | | | | | | 2.8 |
| 10/13/2020 | | 9.8 | 3.8 | 12.5 | | | | |
| 10/14/2020 | | | | | | 245 | 207 | |
| 10/15/2020 | 194 | | | | 69.1 | | | |
| 1/4/2021 | | | | | 104 | | | |
| 3/3/2021 | | 14 | 4 | | | | | |
| 3/4/2021 | 257 | | | 15.1 | 23.4 | 233 | 244 | 2.1 |
| 9/14/2021 | 273 | 9.6 | 4.2 | 12.5 | 13.9 | 299 | 225 | 14 |

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 7.05 | 42.8 | | 4.02 | | | | |
| 10/25/2016 | | | | | 69.4 | | | |
| 11/30/2016 | 8.69 | 33.2 | | 4.87 | 83.9 | | | |
| 2/15/2017 | 8.34 | 56.1 | | 6.61 | 96.3 | | | |
| 5/31/2017 | 8.85 | 73.6 | | | 122 | | | |
| 6/1/2017 | | | | 6.42 | | | | |
| 6/2/2017 | | | 2.77 | | | | | |
| 8/2/2017 | | | 1.27 | | | | | |
| 8/15/2017 | 8.05 | | | | 117 | | | |
| 8/16/2017 | | 99.6 | | | | | | |
| 8/17/2017 | | | 5.53 | 5.62 | | | | |
| 4/4/2018 | | | 6.5 | | | | | |
| 5/8/2018 | | | 6.7 | | | | | |
| 6/19/2018 | 8.3 | 285 | 7.4 | | 136 | | | |
| 6/20/2018 | | | | 5.7 | | | | |
| 6/28/2018 | 8.9 | 294 | | | 138 | | | |
| 9/25/2018 | 6.8 | 283 | | | | | | |
| 9/26/2018 | | | 8.5 (J) | 5.3 | 148 | | | |
| 11/6/2018 | | 297 | | | 24.7 | | | |
| 11/7/2018 | 8.5 | | 9.8 | 5.3 | | | | |
| 3/24/2019 | 7.4 | 338 | | | 136 | | | |
| 3/25/2019 | | | 7.8 | 5.7 | | | | |
| 10/15/2019 | 7.9 | 321 | 6.7 | | | | | |
| 10/16/2019 | | | | 4.8 | 118 | | | |
| 11/7/2019 | | | | | | 46.2 | 158 | 163 |
| 11/18/2019 | | | | | | 41.8 | | |
| 11/19/2019 | | | | | | | 152 | 169 |
| 11/21/2019 | | 305 | | | 125 | | | |
| 12/4/2019 | | | | | | | 142 | 140 |
| 12/5/2019 | | | | | | 40.5 | | |
| 12/17/2019 | | | | | | | 136 | |
| 12/18/2019 | | | | | | 42 | | 145 |
| 1/8/2020 | | | | | | | 147 | 157 |
| 1/9/2020 | | | | | | 37.1 | | |
| 1/21/2020 | | | | | | 40.1 | 167 | 152 |
| 2/4/2020 | | | | | | 36.2 | 142 | 139 |
| 2/13/2020 | | | | | | 38.9 | 148 | 146 |
| 3/27/2020 | 8.3 | 286 | 5.9 | 5.4 | 222 | 23.2 | 122 | 113 |
| 10/12/2020 | 6.1 | | | | | 19.1 | | |
| 10/13/2020 | | 40.9 | 0.83 | 5.7 | 86.4 | | 125 | 128 |
| 3/4/2021 | 6.5 | 205 | 1.4 | 11.2 | 143 | 26 | 123 | 110 |
| 9/13/2021 | 6 | 165 | | | | | | |
| 9/14/2021 | | | 6.7 | 6.5 | 190 | 18.8 | 93.6 | 61.1 |

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|---------|----------|----------|-------------|
| 8/30/2016 | | 9.7 | | | | | | |
| 8/31/2016 | | | | | 1800 | 2200 | 2600 | |
| 11/30/2016 | | 19 | | | 1100 | 2100 | 2800 | |
| 2/15/2017 | | 21 | | | | | | |
| 2/16/2017 | | | | | 2100 | 2500 | 3100 | |
| 5/31/2017 | | | 39 | | | | | 98 |
| 6/1/2017 | | 12 | | 22 | | | | |
| 6/2/2017 | | | | | 3100 | 2500 | 4600 | |
| 8/2/2017 | | | 42 | 230 | | | | 57 |
| 8/15/2017 | | | | | | | | 15 |
| 8/16/2017 | | 14 | 41 | | | | | |
| 8/17/2017 | | | | 210 | 2600 | 2700 | 4600 | |
| 4/4/2018 | | | | 156 | | | | 69 |
| 4/5/2018 | | | 40.2 | | | | | |
| 5/8/2018 | | | | 140 | | | | 72.3 |
| 5/9/2018 | | | 40.6 | | | | | |
| 6/19/2018 | | 24.4 | 37.7 | | | | | 17.3 |
| 6/20/2018 | | | | 27.5 | 1800 | 3100 | | |
| 6/21/2018 | | | | | | | 3920 | |
| 9/25/2018 | | | | | | | | 31.3 |
| 9/26/2018 | | 23.4 | 33.4 | | | | | |
| 9/27/2018 | | | | 101 | 1300 | 2510 (D) | 5660 (D) | |
| 11/6/2018 | | | | 107 | | | 6520 | 9.8 |
| 11/7/2018 | | 21.8 | 30.7 | | 1180 | 8860 | | |
| 3/6/2019 | | | | | | 11700 | | |
| 3/24/2019 | | | | | 717 | 6470 | 8720 | |
| 3/25/2019 | | 19.4 | 33.5 | 78.5 | | | | 12.9 |
| 10/15/2019 | | | | 46 | | | | |
| 10/16/2019 | | 21.4 | 33.1 | | 941 (D) | | | 12.2 |
| 10/17/2019 | | | | | | 9930 | 8210 | |
| 11/20/2019 | | | | | 1480 | | 9810 | |
| 3/26/2020 | | 23 | | | | | | |
| 3/27/2020 | | | 32.9 | | | | | 14.5 |
| 3/28/2020 | | | | 71.4 | 693 | 9190 | 9070 | |
| 4/23/2020 | 7500 | | | | | | | |
| 6/16/2020 | 7780 | | | | | | | |
| 10/12/2020 | | | | | | | | 13.9 |
| 10/13/2020 | | 13.5 | 25.7 | 54.4 | | | | |
| 10/14/2020 | | | | | | 6630 | 7910 | |
| 10/15/2020 | <1 | | | | 1660 | | | |
| 1/4/2021 | | | | | 2460 | | | |
| 3/3/2021 | | 13.6 | 20.5 | | | | | 9.4 |
| 3/4/2021 | 8280 | | | 69.6 | 652 | 6310 | 7540 | |
| 9/14/2021 | 7610 | 16.7 | 21.8 | 28.5 | 3940 | 5360 | 6300 | 62.8 |

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|---------|--------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 800 | 450 | | 26 | | | | |
| 10/25/2016 | | | | | 1300 | | | |
| 11/30/2016 | 760 | 310 | | 27 | 400 | | | |
| 2/15/2017 | 740 | 490 | | 30 | 2000 | | | |
| 5/31/2017 | 740 | 820 | | | 2500 | | | |
| 6/1/2017 | | | | 27 | | | | |
| 6/2/2017 | | | 11 | | | | | |
| 8/2/2017 | | | 3.2 | | | | | |
| 8/15/2017 | 750 | | | | 2500 | | | |
| 8/16/2017 | | 1500 | | | | | | |
| 8/17/2017 | | | 12 | 32 | | | | |
| 4/4/2018 | | | 13.4 | | | | | |
| 5/8/2018 | | | 13.2 | | | | | |
| 6/19/2018 | 760 | 5180 | 13.7 | | 3050 | | | |
| 6/20/2018 | | | | 30 | | | | |
| 9/25/2018 | 752 (D) | 7220 | | | | | | |
| 9/26/2018 | | | 18.5 | 28.4 | 3965 (D) | | | |
| 11/6/2018 | | 6020 | | | 2230 | | | |
| 11/7/2018 | 665 | | 20.2 | 25.1 | | | | |
| 3/24/2019 | 744 | 7400 | | | 3960 | | | |
| 3/25/2019 | | | 19.7 | 21.8 | | | | |
| 10/15/2019 | 744 | 9050 | 17.1 | | | | | |
| 10/16/2019 | | | | 20 | 2181.5 (D) | | | |
| 11/7/2019 | | | | | | 2360 | 6170 | 7880 |
| 11/18/2019 | | | | | | 6970 | | |
| 11/19/2019 | | | | | | | 5650 | 8130 |
| 11/21/2019 | | 8330 | | | 3890 | | | |
| 12/4/2019 | | | | | | | 6100 | 7410 |
| 12/5/2019 | | | | | | 2130 | | |
| 12/17/2019 | | | | | | | 5660 | |
| 12/18/2019 | | | | | | 2090 | | 7170 |
| 1/8/2020 | | | | | | | 5070 | 6480 |
| 1/9/2020 | | | | | | 1750 | | |
| 1/21/2020 | | | | | | 1630 | 5010 | 6000 |
| 2/4/2020 | | | | | | 1760 | 5030 | 5700 |
| 2/13/2020 | | | | | | 1850 | 6140 | 7060 |
| 3/27/2020 | 675 | 7680 | 14.1 | 23.6 | 4770 | 1450 | 6870 | 7110 |
| 10/12/2020 | 552 | | | | | 1340 | | |
| 10/13/2020 | | 6230 | 3.8 | 23.3 | 3980 | | 5260 | 5980 |
| 3/2/2021 | 459 | <1 | 4.2 | | | | | |
| 3/3/2021 | | | | 27.6 | <1 | 1230 | 5170 | <1 |
| 9/13/2021 | 433 | 5010 | | | | | | |
| 9/14/2021 | | | 13.6 | 30 | 4090 | 1020 | 7250 | 5100 |

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/29/2021 3:10 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|------------|-------------|-------------|------------|-------------|
| 8/30/2016 | | <0.01 | | | | | | |
| 8/31/2016 | | | | | 0.0013 (J) | 0.001 (J) | 0.0022 (J) | |
| 11/30/2016 | | <0.01 | | | 0.0012 (J) | <0.01 | <0.01 | |
| 2/15/2017 | | <0.01 | | | | | | |
| 2/16/2017 | | | | | 0.0012 (J) | 0.0011 (J) | 0.0028 (J) | |
| 5/31/2017 | | | <0.01 | | | | | <0.01 |
| 6/1/2017 | | <0.01 | | 0.0008 (J) | | | | |
| 6/2/2017 | | | | | <0.01 | <0.01 | 0.0023 (J) | |
| 8/2/2017 | | | <0.01 | 0.0012 (J) | | | | <0.01 |
| 8/15/2017 | | | | | | | | 0.0006 (J) |
| 8/16/2017 | | <0.01 | <0.01 | | | | | |
| 8/17/2017 | | | | 0.0013 (J) | 0.0007 (J) | 0.0007 (J) | 0.0022 (J) | |
| 4/4/2018 | | | | <0.01 | | | | <0.01 |
| 4/5/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | | <0.01 | | | | <0.01 |
| 5/9/2018 | | | <0.01 | | | | | |
| 6/19/2018 | | <0.01 | <0.01 | | | | | <0.01 |
| 6/20/2018 | | | | <0.01 | <0.01 | <0.01 | | |
| 6/21/2018 | | | | | | | <0.01 | |
| 9/25/2018 | | | | | | | | <0.01 |
| 9/26/2018 | | 0.0016 | 0.0016 | | | | | |
| 9/27/2018 | | | | <0.01 | <0.01 | <0.01 | 0.0024 (J) | |
| 11/6/2018 | | | | 0.0017 (J) | | | 0.002 (J) | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | <0.01 | | |
| 3/6/2019 | | | | | | <0.01 | | |
| 3/25/2019 | | | | | | | | <0.01 |
| 8/27/2019 | | 0.00079 (J) | | 0.0018 (J) | | | | |
| 8/28/2019 | | | 0.0035 (J) | | 0.00047 (J) | 0.00085 (J) | 0.0024 (J) | 0.00053 (J) |
| 10/15/2019 | | | | 0.0012 (J) | | | | |
| 10/16/2019 | | <0.01 | <0.01 | | 0.00057 (J) | | | 0.00072 (J) |
| 10/17/2019 | | | | | | 0.0015 (J) | 0.0019 (J) | |
| 3/26/2020 | | <0.01 | | | | | | |
| 3/27/2020 | | | <0.01 | | | | | <0.01 |
| 3/28/2020 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | 0.0056 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/29/2021 3:10 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0054 (J) | 0.0026 (J) | | <0.01 | | | | |
| 10/25/2016 | | | | | 0.016 | | | |
| 11/30/2016 | 0.0073 (J) | 0.0016 (J) | | 0.001 (J) | 0.0151 (J) | | | |
| 2/15/2017 | 0.0045 (J) | 0.0018 (J) | | <0.01 | 0.0137 | | | |
| 5/31/2017 | 0.0052 (J) | 0.0019 (J) | | | 0.0109 | | | |
| 6/1/2017 | | | | 0.0004 (J) | | | | |
| 6/2/2017 | | | 0.0019 (J) | | | | | |
| 8/2/2017 | | | 0.0017 (J) | | | | | |
| 8/15/2017 | 0.005 (J) | | | | 0.0117 | | | |
| 8/16/2017 | | 0.0019 (J) | | | | | | |
| 8/17/2017 | | | 0.0027 (J) | 0.0005 (J) | | | | |
| 4/4/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | 0.0029 (J) | | | | | |
| 6/19/2018 | 0.0047 (J) | <0.01 | 0.002 (J) | | 0.013 (J) | | | |
| 6/20/2018 | | | | <0.01 | | | | |
| 9/25/2018 | <0.01 | <0.01 | | | | | | |
| 9/26/2018 | | | 0.003 (J) | 0.0016 | 0.0092 (J) | | | |
| 11/6/2018 | | <0.01 | | | <0.01 | | | |
| 11/7/2018 | <0.01 | | <0.01 | <0.01 | | | | |
| 8/26/2019 | | 0.00071 (J) | | | | | | |
| 8/27/2019 | 0.0056 (J) | | 0.0026 (J) | 0.00043 (J) | 0.0066 (J) | | | |
| 10/15/2019 | 0.0057 (J) | 0.00076 (J) | 0.0026 (J) | | | | | |
| 10/16/2019 | | | | <0.01 | 0.0063 (J) | | | |
| 11/7/2019 | | | | | | 0.0038 (J) | 0.005 (J) | 0.0083 (J) |
| 11/18/2019 | | | | | | 0.0046 (J) | | |
| 11/19/2019 | | | | | | | 0.0059 (J) | 0.0096 (J) |
| 12/4/2019 | | | | | | | 0.0073 (J) | 0.0099 (J) |
| 12/5/2019 | | | | | | 0.0046 (J) | | |
| 12/17/2019 | | | | | | | 0.009 (J) | |
| 12/18/2019 | | | | | | 0.0045 (J) | | 0.011 (J) |
| 1/8/2020 | | | | | | | 0.0077 (J) | 0.0092 (J) |
| 1/9/2020 | | | | | | 0.004 (J) | | |
| 1/21/2020 | | | | | | 0.0036 (J) | 0.007 (J) | 0.009 (J) |
| 2/4/2020 | | | | | | <0.01 | 0.0057 (J) | 0.0078 (J) |
| 2/13/2020 | | | | | | 0.0036 (J) | 0.0063 (J) | 0.0091 (J) |
| 3/27/2020 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.0095 (J) |
| 9/13/2021 | <0.01 | <0.01 | | | | | | |
| 9/14/2021 | | | 0.0027 (J) | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|------------|------------|------------|------------|-------------|
| 8/30/2016 | | <0.02 | | | | | | |
| 8/31/2016 | | | | | <0.02 | <0.02 | <0.02 | |
| 11/30/2016 | | <0.02 | | | <0.02 | 0.0009 (J) | 0.0011 (J) | |
| 2/15/2017 | | <0.02 | | | | | | |
| 2/16/2017 | | | | | <0.02 | <0.02 | <0.02 | |
| 5/31/2017 | | | 0.0005 (J) | | | | | <0.02 |
| 6/1/2017 | | <0.02 | | <0.02 | | | | |
| 6/2/2017 | | | | | <0.02 | <0.02 | <0.02 | |
| 8/2/2017 | | | 0.0005 (J) | <0.02 | | | | 0.0006 (J) |
| 8/15/2017 | | | | | | | | 0.0004 (J) |
| 8/16/2017 | | <0.02 | 0.0005 (J) | | | | | |
| 8/17/2017 | | | | <0.02 | <0.02 | 0.0003 (J) | <0.02 | |
| 4/4/2018 | | | | <0.02 | | | | <0.02 |
| 4/5/2018 | | | <0.02 | | | | | |
| 5/8/2018 | | | | <0.02 | | | | <0.02 |
| 5/9/2018 | | | <0.02 | | | | | |
| 6/19/2018 | | <0.02 | <0.02 | | | | | <0.02 |
| 6/20/2018 | | | | <0.02 | <0.02 | <0.02 | | |
| 6/21/2018 | | | | | | | <0.02 | |
| 9/25/2018 | | | | | | | | <0.02 |
| 9/26/2018 | | 0.00052 | 0.00052 | | | | | |
| 9/27/2018 | | | | <0.02 | <0.02 | <0.02 | <0.02 | |
| 11/6/2018 | | | | 0.0048 (J) | | | <0.02 | <0.02 |
| 11/7/2018 | | <0.02 | <0.02 | | <0.02 | <0.02 | | |
| 3/6/2019 | | | | | | <0.02 | | |
| 8/27/2019 | | <0.02 | | 0.0078 | | | | |
| 8/28/2019 | | | 0.00042 (J) | | <0.02 | <0.02 | <0.02 | <0.02 |
| 10/15/2019 | | | | 0.0085 | | | | |
| 10/16/2019 | | <0.02 | 0.00037 (J) | | <0.02 | | | <0.02 |
| 10/17/2019 | | | | | | <0.02 | <0.02 | |
| 11/20/2019 | | | | 0.009 | | | | |
| 3/26/2020 | | <0.02 | | | | | | |
| 3/27/2020 | | | <0.02 | | | | | <0.02 |
| 3/28/2020 | | | | 0.0041 (J) | <0.02 | <0.02 | <0.02 | |
| 10/12/2020 | | | | | | | | <0.02 |
| 10/13/2020 | | <0.02 | <0.02 | 0.0063 | | | | |
| 10/14/2020 | | | | | | <0.02 | <0.02 | |
| 10/15/2020 | <0.02 | | | | 0.0019 (J) | | | |
| 1/4/2021 | | | | | <0.02 | | | |
| 3/3/2021 | | <0.02 | <0.02 | | | | | <0.02 |
| 3/4/2021 | <0.02 | | | 0.006 | <0.02 | <0.02 | <0.02 | |
| 9/14/2021 | <0.02 | <0.02 | <0.02 | 0.0054 | <0.02 | <0.02 | <0.02 | <0.02 |

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|-----------|----------|---------|-------------|
| 8/30/2016 | | 0.929 | | | | | | |
| 8/31/2016 | | | | | 2.39 (D) | 2.47 (D) | 5.4 (D) | |
| 11/30/2016 | | 5.64 | | | 1.66 | 1.6 | 3.13 | |
| 2/15/2017 | | 1.41 | | | | | | |
| 2/16/2017 | | | | | 2.71 | 1.83 | 3.09 | |
| 5/31/2017 | | | 1.17 (U) | | | | | 1.2 |
| 6/1/2017 | | 1.51 | | 1.9 | | | | |
| 6/2/2017 | | | | | 1.99 | 2.45 | 7.56 | |
| 8/2/2017 | | | 0.704 (U) | 5.01 | | | | 1.26 |
| 8/15/2017 | | | | | | | | 0.511 (U) |
| 8/16/2017 | | 1.01 (U) | 1.11 (U) | | | | | |
| 8/17/2017 | | | | 5.35 | 1.87 | 3.33 | 6.38 | |
| 4/4/2018 | | | | 5.05 | | | | 1.04 |
| 4/5/2018 | | | 0.868 (U) | | | | | |
| 5/8/2018 | | | | 3.25 | | | | 1.95 |
| 5/9/2018 | | | 0.888 | | | | | |
| 6/19/2018 | | 1.23 | 0.483 (U) | | | | | 0.785 (U) |
| 6/20/2018 | | | | 3.53 | 1.95 | 2.84 | | |
| 6/21/2018 | | | | | | | 5.24 | |
| 9/25/2018 | | | | | | | | 1.15 (U) |
| 9/26/2018 | | 0.72 (U) | 0.73 (U) | | | | | |
| 9/27/2018 | | | | 7.07 | 0.629 (U) | 1.94 | 6.11 | |
| 11/6/2018 | | | | 11 | | | 6.1 | 1.1 |
| 11/7/2018 | | 0.616 (U) | 0.429 (U) | | 1.41 (U) | 8.58 | | |
| 8/27/2019 | | 1.2 (U) | | 4.4 | | | | |
| 8/28/2019 | | | 0.679 (U) | | 1.67 | 6.86 | 8.73 | 0.434 (U) |
| 10/15/2019 | | | | 4.92 | | | | |
| 10/16/2019 | | 1.4 (U) | 0.422 (U) | | 1.92 | | | 0.923 (U) |
| 10/17/2019 | | | | | | 7.85 | 7.97 | |
| 11/20/2019 | | | | | | | 9.8 | |
| 3/26/2020 | | 1.15 (U) | | | | | | |
| 3/27/2020 | | | 0.838 (U) | | | | | 0.609 (U) |
| 3/28/2020 | | | | 4.16 | 1.44 (U) | 11 (U) | 11.7 | |
| 10/12/2020 | | | | | | | | 2.7 |
| 10/13/2020 | | 0.855 (U) | 0.56 (U) | 3.71 | | | | |
| 10/14/2020 | | | | | | 8.97 | 13.1 | |
| 10/15/2020 | | | | | 2.56 | | | |
| 1/4/2021 | | | | | 5.84 | | | |
| 4/6/2021 | 7.33 | 1.01 (U) | 0.474 (U) | 2.83 | 1.43 (U) | 7.89 | 9.66 | 1.88 |
| 9/14/2021 | 6.97 | 1.06 (U) | 0.878 (U) | 2.69 | 7.15 | 8.11 | 10.3 | 1.37 (U) |

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|-----------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 1.4 | 1.31 | | 0.977 (U) | | | | |
| 10/25/2016 | | | | | 2.22 | | | |
| 11/30/2016 | 4.37 | 0.438 (U) | | 0.994 | 2.01 | | | |
| 2/15/2017 | 2.21 | 0.3 (U) | | 1.65 | 1.56 | | | |
| 5/31/2017 | 2.62 | 1.77 | | | 1.92 | | | |
| 6/1/2017 | | | | 1.22 | | | | |
| 6/2/2017 | | | 1.47 | | | | | |
| 8/2/2017 | | | 1.99 | | | | | |
| 8/15/2017 | 2.69 | | | | 2.47 | | | |
| 8/16/2017 | | 2.26 | | | | | | |
| 8/17/2017 | | | 2.03 | 1.71 | | | | |
| 4/4/2018 | | | 1.96 | | | | | |
| 5/8/2018 | | | 1.69 | | | | | |
| 6/19/2018 | 2.96 | 5.39 | 1.83 | | 2.82 | | | |
| 6/20/2018 | | | | 1.78 | | | | |
| 9/25/2018 | 2.23 | 6.22 | | | | | | |
| 9/26/2018 | | | 0.637 (U) | 1.56 | 3.15 (D) | | | |
| 11/6/2018 | | 5.38 | | | 2.95 | | | |
| 11/7/2018 | 2.14 | | 0.894 (U) | 0.651 (U) | | | | |
| 8/26/2019 | | 7.68 | | | | | | |
| 8/27/2019 | 2.91 | | 2.33 | 1.03 (U) | 5.82 | | | |
| 10/15/2019 | 3.28 | 8.7 | 0.979 (U) | | | | | |
| 10/16/2019 | | | | 1.86 | 7.5 | | | |
| 11/7/2019 | | | | | | 14.8 | 17.7 | 38.2 |
| 11/18/2019 | | | | | | 13.9 | | |
| 11/19/2019 | | | | | | | 18.9 | 43.1 |
| 11/21/2019 | | 7.34 | | | 8.89 | | | |
| 12/4/2019 | | | | | | | 18.6 | 45.1 |
| 12/5/2019 | | | | | | 14.2 | | |
| 12/17/2019 | | | | | | | 21.8 | |
| 12/18/2019 | | | | | | 17 | | 55.8 |
| 1/8/2020 | | | | | | | 16.9 | 46.5 |
| 1/9/2020 | | | | | | 12.3 | | |
| 1/21/2020 | | | | | | 11.7 | 15.6 | 37.7 |
| 2/4/2020 | | | | | | 12.7 | 22.38 | 47.9 |
| 2/13/2020 | | | | | | 18.2 | 31.1 | 76.3 (o) |
| 3/27/2020 | 2.33 | 9.63 | 1.84 | 1.51 | 9.54 | 10.2 | 22.8 | 47.2 |
| 10/12/2020 | 2.66 | | | | | 8.83 | | |
| 10/13/2020 | | 7.43 | 3.32 | 1.71 | 7.75 | | 14.1 | 30.3 |
| 4/6/2021 | 2.2 | 7.02 | 1.74 | 1.81 | 7.8 | 9.57 | 20.4 | 31.5 |
| 9/13/2021 | 2.54 | 8.38 | | | | | | |
| 9/14/2021 | | | 1.15 (U) | 2.02 | 8.82 | 8.31 | 26.2 | 34.9 |

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-----------|--------|-----------|-----------|-------------|
| 8/30/2016 | | 0.03 (J) | | | | | | |
| 8/31/2016 | | | | | 0.93 | 0.41 | 0.92 | |
| 11/30/2016 | | 0.04 (J) | | | 0.93 | 0.61 | 0.99 | |
| 2/15/2017 | | 0.007 (J) | | | | | | |
| 2/16/2017 | | | | | 0.6 | 0.3 (J) | 0.54 | |
| 5/31/2017 | | | 0.01 (J) | | | | | 0.85 |
| 6/1/2017 | | <0.1 | | <0.1 | | | | |
| 6/2/2017 | | | | | 0.34 | 0.19 (J) | 0.42 | |
| 8/2/2017 | | | 0.14 (J) | 0.27 (J) | | | | 0.69 |
| 8/15/2017 | | | | | | | | 0.29 (J) |
| 8/16/2017 | | 0.03 (J) | 0.13 (J) | | | | | |
| 8/17/2017 | | | | 0.18 (J) | 0.52 | 0.26 (J) | 0.27 (J) | |
| 4/4/2018 | | | | <0.1 | | | | 0.32 |
| 4/5/2018 | | | <0.1 | | | | | |
| 5/8/2018 | | | | 0.56 | | | | 0.63 |
| 5/9/2018 | | | <0.1 | | | | | |
| 6/19/2018 | | <0.1 | 0.065 (J) | | | | | 0.17 (J) |
| 6/20/2018 | | | | 0.033 (J) | 0.5 | 0.22 (J) | | |
| 6/21/2018 | | | | | | | 0.28 (J) | |
| 9/25/2018 | | | | | | | | 0.15 (J) |
| 9/26/2018 | | 0.12 (J) | 0.029 | | | | | |
| 9/27/2018 | | | | 0.12 (J) | 0.32 | 0.068 (J) | 0.32 (D) | |
| 11/6/2018 | | | | <0.1 | | | 0.086 (J) | <0.1 |
| 11/7/2018 | | <0.1 | <0.1 | | 0.35 | 10.3 (o) | | |
| 3/6/2019 | | | | | | <0.1 | | |
| 3/24/2019 | | | | | 0.32 | 0.19 (J) | 0.14 (J) | |
| 3/25/2019 | | 0.038 (J) | 0.039 (J) | 0.055 (J) | | | | 0.12 (J) |
| 8/27/2019 | | <0.1 | | <0.1 | | | | |
| 8/28/2019 | | | <0.1 | | 0.36 | <0.1 | <0.1 | 0.068 (J) |
| 10/15/2019 | | | | 0.095 (J) | | | | |
| 10/16/2019 | | 0.046 (JD) | 0.044 (JD) | | 0.41 | | | 0.1 (J) |
| 10/17/2019 | | | | | | <0.1 | <0.1 | |
| 11/20/2019 | | | | | 0.34 | | <0.1 | |
| 3/26/2020 | | <0.1 | | | | | | |
| 3/27/2020 | | | <0.1 | | | | | 0.066 (J) |
| 3/28/2020 | | | | <0.1 | 0.34 | <0.1 | <0.1 | |
| 10/12/2020 | | | | | | | | <0.1 |
| 10/13/2020 | | <0.1 | <0.1 | <0.1 | | | | |
| 10/14/2020 | | | | | | <0.1 | <0.1 | |
| 10/15/2020 | 0.11 | | | | 0.22 | | | |
| 1/4/2021 | | | | | <0.1 | | | |
| 3/3/2021 | | <0.1 | <0.1 | | | | | 0.082 (J) |
| 3/4/2021 | <0.1 | | | <0.1 | 0.45 | <0.1 | <0.1 | |
| 9/14/2021 | <0.1 | <0.1 | <0.1 | 0.05 | <0.1 | <0.1 | <0.1 | 0.18 |

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-----------|-------------|-------------|------------|------------|------------|------------|-------------|
| 8/30/2016 | | <0.025 | | | | | | |
| 8/31/2016 | | | | | 0.0219 (J) | 0.0389 (J) | 0.0122 (J) | |
| 11/30/2016 | | <0.025 | | | 0.0333 (J) | 0.0303 (J) | 0.011 (J) | |
| 2/15/2017 | | <0.025 | | | | | | |
| 2/16/2017 | | | | | 0.0376 (J) | 0.05 (J) | 0.0142 (J) | |
| 5/31/2017 | | | <0.025 | | | | | 0.0047 (J) |
| 6/1/2017 | | <0.025 | | <0.025 | | | | |
| 6/2/2017 | | | | | 0.0346 (J) | 0.0477 (J) | 0.0229 (J) | |
| 8/2/2017 | | | <0.025 | <0.025 | | | | 0.0036 (J) |
| 8/15/2017 | | | | | | | | <0.025 |
| 8/16/2017 | | <0.025 | <0.025 | | | | | |
| 8/17/2017 | | | | <0.025 | 0.0367 (J) | 0.0645 | 0.0241 (J) | |
| 4/4/2018 | | | | 0.0013 (J) | | | | 0.0041 (J) |
| 4/5/2018 | | | <0.025 | | | | | |
| 5/8/2018 | | | | 0.0012 (J) | | | | 0.0052 (J) |
| 5/9/2018 | | | <0.025 | | | | | |
| 6/19/2018 | | <0.025 | <0.025 | | | | | 0.0017 (J) |
| 6/20/2018 | | | | 0.0015 (J) | 0.034 (J) | 0.066 (J) | | |
| 6/21/2018 | | | | | | | 0.03 (J) | |
| 9/25/2018 | | | | | | | | 0.0018 (J) |
| 9/26/2018 | | 0.00097 | 0.00097 | | | | | |
| 9/27/2018 | | | | 0.0021 (J) | 0.023 (J) | 0.045 (J) | 0.034 (J) | |
| 11/6/2018 | | | | 0.0038 (J) | | | 0.037 (J) | <0.025 |
| 11/7/2018 | | <0.025 | <0.025 | | 0.022 (J) | 0.11 | | |
| 3/6/2019 | | | | | | 0.12 | | |
| 8/27/2019 | | <0.025 | | 0.002 (J) | | | | |
| 8/28/2019 | | | <0.025 | | 0.023 (J) | 0.13 | 0.12 | 0.00082 (J) |
| 10/15/2019 | | | | 0.0019 (J) | | | | |
| 10/16/2019 | | <0.025 | <0.025 | | 0.021 (J) | | | <0.025 |
| 10/17/2019 | | | | | | 0.12 | 0.096 | |
| 11/20/2019 | | | | | | | 0.12 | |
| 3/26/2020 | | <0.025 | | | | | | |
| 3/27/2020 | | | <0.025 | | | | | <0.025 |
| 3/28/2020 | 0.078 (J) | | | <0.025 | 0.014 (J) | 0.064 | 0.027 (J) | |
| 6/16/2020 | 0.096 (J) | | | | | | | |
| 10/12/2020 | | | | | | | | <0.025 |
| 10/13/2020 | | <0.025 | <0.025 | <0.025 | | | | |
| 10/14/2020 | | | | | | 0.11 | 0.039 (J) | |
| 10/15/2020 | 0.093 | | | | 0.57 | | | |
| 1/4/2021 | | | | | 0.043 (J) | | | |
| 3/3/2021 | | <0.025 | <0.025 | | | | | <0.025 |
| 3/4/2021 | 0.094 (J) | | | <0.025 | 0.017 (J) | 0.096 (J) | 0.035 (J) | |
| 9/14/2021 | 0.092 | <0.025 | <0.025 | <0.025 | 0.042 (J) | 0.084 | 0.035 (J) | 0.0033 (J) |

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0102 (J) | 0.0112 (J) | | <0.025 | | | | |
| 10/25/2016 | | | | | 0.007 (J) | | | |
| 11/30/2016 | 0.0106 (J) | <0.025 | | <0.025 | 0.0086 (J) | | | |
| 2/15/2017 | 0.0115 (J) | 0.0105 (J) | | <0.025 | 0.0149 (J) | | | |
| 5/31/2017 | 0.011 (J) | 0.0106 (J) | | | 0.019 (J) | | | |
| 6/1/2017 | | | | <0.025 | | | | |
| 6/2/2017 | | | <0.025 | | | | | |
| 8/2/2017 | | | <0.025 | | | | | |
| 8/15/2017 | 0.0123 (J) | | | | 0.016 (J) | | | |
| 8/16/2017 | | 0.0145 (J) | | | | | | |
| 8/17/2017 | | | <0.025 | <0.025 | | | | |
| 4/4/2018 | | | 0.0015 (J) | | | | | |
| 5/8/2018 | | | 0.0014 (J) | | | | | |
| 6/19/2018 | 0.012 (J) | 0.044 (J) | 0.0016 (J) | | 0.021 (J) | | | |
| 6/20/2018 | | | | <0.025 | | | | |
| 9/25/2018 | 0.011 (J) | 0.041 (J) | | | | | | |
| 9/26/2018 | | | 0.0018 (J) | 0.00097 | 0.02 (J) | | | |
| 11/6/2018 | | 0.047 (J) | | | 0.017 (J) | | | |
| 11/7/2018 | 0.013 (J) | | <0.025 | <0.025 | | | | |
| 8/26/2019 | | 0.059 | | | | | | |
| 8/27/2019 | 0.012 (J) | | 0.002 (J) | <0.025 | 0.023 (J) | | | |
| 10/15/2019 | 0.012 (J) | 0.056 (J) | 0.0016 (J) | | | | | |
| 10/16/2019 | | | | <0.025 | 0.024 (J) | | | |
| 11/7/2019 | | | | | | 0.0055 (J) | 0.015 (J) | 0.026 (J) |
| 11/18/2019 | | | | | | <0.1 (o) | | |
| 11/19/2019 | | | | | | | 0.02 (J) | 0.023 (J) |
| 11/21/2019 | | 0.052 | | | | | | |
| 12/4/2019 | | | | | | | 0.016 (J) | 0.019 (J) |
| 12/5/2019 | | | | | | 0.0042 (J) | | |
| 12/17/2019 | | | | | | | 0.018 (J) | |
| 12/18/2019 | | | | | | 0.0045 (J) | | 0.02 (J) |
| 1/8/2020 | | | | | | | 0.022 (J) | 0.024 (J) |
| 1/9/2020 | | | | | | 0.0041 (J) | | |
| 1/21/2020 | | | | | | <0.15 (o) | 0.018 (J) | 0.022 (J) |
| 2/4/2020 | | | | | | <0.3 (o) | 0.02 (J) | 0.024 (J) |
| 2/13/2020 | | | | | | 0.004 (J) | 0.018 (J) | 0.021 (J) |
| 3/27/2020 | <0.025 | 0.052 | <0.025 | <0.025 | 0.033 (J) | <0.025 | 0.018 (J) | 0.024 (J) |
| 10/12/2020 | 0.011 (J) | | | | | <0.025 | | |
| 10/13/2020 | | 0.046 (J) | <0.025 | <0.025 | 0.028 (J) | | 0.022 (J) | 0.025 (J) |
| 3/2/2021 | <0.025 | 0.046 (J) | <0.025 | | | | | |
| 3/3/2021 | | | | <0.025 | <0.025 | <0.025 | 0.019 (J) | 0.018 (J) |
| 9/13/2021 | 0.01 (J) | 0.047 | | | | | | |
| 9/14/2021 | | | <0.025 | <0.025 | 0.035 (J) | <0.025 | 0.011 (J) | 0.02 (J) |

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|---------|-------------|-------------|---------|-------------|-------------|---------|-------------|
| 8/30/2016 | | <0.0002 | | | | | | |
| 8/31/2016 | | | | | <0.0002 | <0.0002 | <0.0002 | |
| 11/30/2016 | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | |
| 2/15/2017 | | <0.0002 | | | | | | |
| 2/16/2017 | | | | | <0.0002 | <0.0002 | <0.0002 | |
| 5/31/2017 | | | <0.0002 | | | | | <0.0002 |
| 6/1/2017 | | <0.0002 | | <0.0002 | | | | |
| 6/2/2017 | | | | | 4.2E-05 (J) | <0.0002 | <0.0002 | |
| 8/2/2017 | | | <0.0002 | <0.0002 | | | | <0.0002 |
| 8/15/2017 | | | | | | | | <0.0002 |
| 8/16/2017 | | <0.0002 | <0.0002 | | | | | |
| 8/17/2017 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 4/4/2018 | | | | <0.0002 | | | | <0.0002 |
| 4/5/2018 | | | <0.0002 | | | | | |
| 5/8/2018 | | | | <0.0002 | | | | <0.0002 |
| 5/9/2018 | | | <0.0002 | | | | | |
| 6/19/2018 | | <0.0002 | <0.0002 | | | | | <0.0002 |
| 6/20/2018 | | | | <0.0002 | <0.0002 | <0.0002 | | |
| 6/21/2018 | | | | | | | <0.0002 | |
| 9/25/2018 | | | | | | | | <0.0002 |
| 9/26/2018 | | 3.6E-05 | 3.6E-05 | | | | | |
| 9/27/2018 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 11/6/2018 | | | | 0.00071 | | | 0.00067 | 0.0007 |
| 11/7/2018 | | <0.0002 | <0.0002 | | <0.0002 | <0.0002 | | |
| 3/6/2019 | | | | | | <0.0002 | | |
| 8/27/2019 | | <0.0002 | | <0.0002 | | | | |
| 8/28/2019 | | | <0.0002 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 3/26/2020 | | <0.0002 | | | | | | |
| 3/27/2020 | | | <0.0002 | | | | | <0.0002 |
| 3/28/2020 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 9/14/2021 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.00016 (J) | <0.0002 | <0.0002 |

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|------------|------------|--------|-------------|
| 8/30/2016 | | <0.01 | | | | | | |
| 8/31/2016 | | | | | <0.01 | <0.01 | <0.01 | |
| 11/30/2016 | | <0.01 | | | <0.01 | <0.01 | <0.01 | |
| 2/15/2017 | | <0.01 | | | | | | |
| 2/16/2017 | | | | | <0.01 | <0.01 | <0.01 | |
| 5/31/2017 | | | <0.01 | | | | | <0.01 |
| 6/1/2017 | | <0.01 | | <0.01 | | | | |
| 6/2/2017 | | | | | <0.01 | <0.01 | <0.01 | |
| 8/2/2017 | | | <0.01 | <0.01 | | | | <0.01 |
| 8/15/2017 | | | | | | | | <0.01 |
| 8/16/2017 | | <0.01 | <0.01 | | | | | |
| 8/17/2017 | | | | <0.01 | 0.0012 (J) | 0.0025 (J) | <0.01 | |
| 4/4/2018 | | | | <0.01 | | | | <0.01 |
| 4/5/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | | <0.01 | | | | <0.01 |
| 5/9/2018 | | | <0.01 | | | | | |
| 6/19/2018 | | <0.01 | <0.01 | | | | | <0.01 |
| 6/20/2018 | | | | <0.01 | <0.01 | <0.01 | | |
| 6/21/2018 | | | | | | | <0.01 | |
| 9/25/2018 | | | | | | | | <0.01 |
| 9/26/2018 | | 0.0019 | 0.0019 | | | | | |
| 9/27/2018 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 11/6/2018 | | | | <0.01 | | | <0.01 | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | 0.0024 (J) | | |
| 3/6/2019 | | | | | | <0.01 | | |
| 8/27/2019 | | <0.01 | | <0.01 | | | | |
| 8/28/2019 | | | <0.01 | | <0.01 | 0.0017 (J) | <0.01 | <0.01 |
| 10/15/2019 | | | | <0.01 | | | | |
| 10/16/2019 | | <0.01 | <0.01 | | <0.01 | | | <0.01 |
| 10/17/2019 | | | | | | 0.0017 (J) | <0.01 | |
| 3/26/2020 | | <0.01 | | | | | | |
| 3/27/2020 | | | <0.01 | | | | | <0.01 |
| 3/28/2020 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | 0.0008 (J) | <0.01 | 0.0099 (J) | <0.01 | <0.01 | <0.01 |

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-----------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | <0.01 | <0.01 | | <0.01 | | | | |
| 10/25/2016 | | | | | <0.01 | | | |
| 11/30/2016 | <0.01 | <0.01 | | <0.01 | <0.01 | | | |
| 2/15/2017 | <0.01 | <0.01 | | <0.01 | <0.01 | | | |
| 5/31/2017 | <0.01 | <0.01 | | | <0.01 | | | |
| 6/1/2017 | | | | <0.01 | | | | |
| 6/2/2017 | | | <0.01 | | | | | |
| 8/2/2017 | | | <0.01 | | | | | |
| 8/15/2017 | <0.01 | | | | <0.01 | | | |
| 8/16/2017 | | <0.01 | | | | | | |
| 8/17/2017 | | | <0.01 | <0.01 | | | | |
| 4/4/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | 0.002 (J) | | | | | |
| 6/19/2018 | <0.01 | <0.01 | <0.01 | | <0.01 | | | |
| 6/20/2018 | | | | <0.01 | | | | |
| 9/25/2018 | <0.01 | <0.01 | | | | | | |
| 9/26/2018 | | | 0.0019 | 0.0019 | 0.0019 | | | |
| 11/6/2018 | | <0.01 | | | <0.01 | | | |
| 11/7/2018 | <0.01 (D) | | <0.01 (D) | <0.01 | | | | |
| 8/26/2019 | | <0.01 | | | | | | |
| 8/27/2019 | <0.01 | | <0.01 | <0.01 | <0.01 | | | |
| 10/15/2019 | <0.01 | <0.01 | <0.01 | | | | | |
| 10/16/2019 | | | | <0.01 | <0.01 | | | |
| 11/7/2019 | | | | | | <0.01 | <0.01 | <0.01 |
| 11/18/2019 | | | | | | <0.01 | | |
| 11/19/2019 | | | | | | | <0.01 | <0.01 |
| 12/4/2019 | | | | | | | <0.01 | <0.01 |
| 12/5/2019 | | | | | | <0.01 | | |
| 12/17/2019 | | | | | | | <0.01 | |
| 12/18/2019 | | | | | | <0.01 | | <0.01 |
| 1/8/2020 | | | | | | | <0.01 | <0.01 |
| 1/9/2020 | | | | | | <0.01 | | |
| 1/21/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 2/4/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 2/13/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 3/27/2020 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 9/13/2021 | <0.01 | <0.01 | | | | | | |
| 9/14/2021 | | | 0.0009 (J) | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |

Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | | 5.66 | | | | | | |
| 8/31/2016 | | | | | 6.93 | 7.21 | 6.66 | |
| 11/30/2016 | | 5.36 | | | 6.77 | 7.23 | 6.69 | |
| 2/15/2017 | | 5.25 | | | | | | |
| 2/16/2017 | | | | | 6.89 | 7.27 | 6.72 | |
| 5/31/2017 | | | 5.06 | | | | | 5.29 |
| 6/1/2017 | | 5.59 | | 5.68 | | | | |
| 6/2/2017 | | | | | 6.83 | 7.18 | 6.53 | |
| 8/2/2017 | | | 5 | 5.2 | | | | 5.19 |
| 8/15/2017 | | | | | | | | 5.19 |
| 8/16/2017 | | 5.58 | 4.98 | | | | | |
| 8/17/2017 | | | | 5.31 | 6.76 | 7.15 | 6.28 | |
| 4/4/2018 | | | | 4.74 | | | | 5.19 |
| 4/5/2018 | | | 5.02 | | | | | |
| 5/8/2018 | | | | 4.78 | | | | 5.3 |
| 5/9/2018 | | | 4.96 | | | | | |
| 6/19/2018 | | 5.51 | 5.02 | | | | | 5.15 |
| 6/20/2018 | | | | 4.79 | 6.83 | 7.19 | | |
| 6/21/2018 | | | | | | | 6.45 | |
| 9/25/2018 | | | | | | | | 5.13 |
| 9/26/2018 | | 5.32 | 5.06 | | | | | |
| 9/27/2018 | | | | 5.14 | 6.64 | 7.21 | 6.48 | |
| 11/6/2018 | | | | 4.9 | | | 6.18 | 5.08 |
| 11/7/2018 | | 5.72 | 5.03 | | 6.6 | 6.91 | | |
| 3/24/2019 | | | | | 6.1 | 6.98 | 6.38 | |
| 3/25/2019 | | 5.75 | 5.08 | 4.93 | | | | 5.05 |
| 8/27/2019 | | 5.58 | | 5.05 | | | | |
| 8/28/2019 | | | 4.99 | | 6.69 | 6.87 | 6.35 | 4.87 |
| 10/15/2019 | | | | 4.89 | | | | |
| 10/16/2019 | | 5.72 | 4.98 | | 6.64 | | | 5.05 |
| 10/17/2019 | | | | | | 6.86 | 6.4 | |
| 11/19/2019 | | | 5.11 | | | | | |
| 11/20/2019 | | 5.77 | | 5.03 | 6.58 | | 6.27 | |
| 3/26/2020 | | 5.45 | | | | | | |
| 3/27/2020 | | | 5.12 | | | | | 5.09 |
| 3/28/2020 | 7.11 | | | 5.27 | 6.6 | 6.8 | 6.35 | |
| 6/16/2020 | 7.22 | | | | | | | |
| 10/12/2020 | | | | | | | | 5 |
| 10/13/2020 | | 5.69 | 5.03 | 5.25 | | | | |
| 10/14/2020 | | | | | | 6.93 | 6.32 | |
| 10/15/2020 | 7.08 | | | | 6.53 | | | |
| 1/4/2021 | | | | | 6.66 | | | |
| 3/3/2021 | | 5.81 | 5.06 | | | | | 5.07 |
| 3/4/2021 | 7.21 | | | 5.31 | 6.52 | 6.94 | 6.33 | |
| 9/14/2021 | 7.11 | 5.13 | 5.04 | 5.09 | 6.67 | 6.94 | 6.28 | 5.5 |

Time Series

Constituent: pH, field (Std. Units) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 6.49 | 7.04 | | 5.18 | | | | |
| 10/25/2016 | | | | | 6.95 | | | |
| 11/30/2016 | 6.5 | 7.13 | | 4.96 | 6.95 | | | |
| 2/15/2017 | 6.51 | 7.02 | | 5.13 | 6.85 | | | |
| 5/31/2017 | 6.45 | 7 | | | 6.96 | | | |
| 6/1/2017 | | | | 4.99 | | | | |
| 6/2/2017 | | | 5.31 | | | | | |
| 8/2/2017 | | | 5.05 | | | | | |
| 8/15/2017 | 6.41 | | | | 6.99 | | | |
| 8/16/2017 | | 6.88 | | | | | | |
| 8/17/2017 | | | 5.52 | 4.68 | | | | |
| 4/4/2018 | | | 5.45 | | | | | |
| 5/8/2018 | | | 5.54 | | | | | |
| 6/19/2018 | 6.32 | 6.78 | 5.6 | | 6.91 | | | |
| 6/20/2018 | | | | 4.77 | | | | |
| 9/25/2018 | 6.31 | 6.75 | | | | | | |
| 9/26/2018 | | | 5.17 | 4.65 | 6.81 | | | |
| 11/6/2018 | | 6.92 | | | 5.99 | | | |
| 11/7/2018 | 6.3 | | 5.47 | 4.99 | | | | |
| 3/24/2019 | 6.4 | 6.59 | 5.4 | | 6.62 | | | |
| 3/25/2019 | | | | 5.13 | | | | |
| 8/26/2019 | | 6.62 | | | | | | |
| 8/27/2019 | 6.24 | | 5.35 | 4.88 | 6.23 | | | |
| 10/15/2019 | 6.19 | 6.58 | 5.32 | | | | | |
| 10/16/2019 | | | | 4.89 | 6.54 | | | |
| 11/7/2019 | | | | | | 4.25 | 5.21 | 3.79 |
| 11/18/2019 | | | | | | 4.12 | | |
| 11/19/2019 | | | | | | | 5.15 | 3.78 |
| 11/21/2019 | | 6.67 | | | 6.44 | | | |
| 12/4/2019 | | | | | | | 5.28 (D) | 3.87 (D) |
| 12/5/2019 | | | | | | 4.17 (D) | | |
| 1/8/2020 | | | | | | | 5.04 | 3.77 |
| 1/9/2020 | | | | | | 4.19 | | |
| 1/21/2020 | | | | | | 4.28 | 5.1 | 3.73 |
| 2/4/2020 | | | | | | 4.26 | 5.15 | 3.72 |
| 2/13/2020 | | | | | | 4.2 | 5.07 | 3.75 |
| 3/27/2020 | 6.33 | 6.59 | 5.3 | 5.12 | 6.93 | 4.34 | 5.14 | 3.81 |
| 10/12/2020 | 6.35 | | | | | 4.29 | | |
| 10/13/2020 | | 6.56 | 5.02 | 5.17 | 6.34 | | 5.04 | 3.72 |
| 3/2/2021 | 6.34 | 6.55 | 5.16 | | | | | |
| 3/3/2021 | | | | 5.71 | 6.58 | 4.37 | 5.1 | 3.36 |
| 9/13/2021 | 6.24 | 6.3 | | | | | | |
| 9/14/2021 | | | 5.39 | 4.69 | 6.77 | 4.28 | 5.31 | 3.72 |

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0011 (J) | <0.02 | | <0.02 | | | | |
| 10/25/2016 | | | | | 0.003 (J) | | | |
| 11/30/2016 | 0.0023 (J) | <0.02 | | 0.0011 (J) | 0.0087 (J) | | | |
| 2/15/2017 | 0.0021 (J) | 0.0014 (J) | | <0.02 | 0.0067 (J) | | | |
| 5/31/2017 | <0.02 | <0.02 | | | 0.0018 (J) | | | |
| 6/1/2017 | | | | <0.02 | | | | |
| 6/2/2017 | | | <0.02 | | | | | |
| 8/2/2017 | | | <0.02 | | | | | |
| 8/15/2017 | 0.0021 (J) | | | | 0.0025 (J) | | | |
| 8/16/2017 | | 0.0018 (J) | | | | | | |
| 8/17/2017 | | | <0.02 | <0.02 | | | | |
| 4/4/2018 | | | <0.02 | | | | | |
| 5/8/2018 | | | 0.0016 (J) | | | | | |
| 6/19/2018 | 0.0017 (J) | <0.02 | 0.0022 (J) | | <0.02 | | | |
| 6/20/2018 | | | | <0.02 | | | | |
| 9/25/2018 | 0.002 (J) | 0.0019 (J) | | | | | | |
| 9/26/2018 | | | 0.0015 (J) | 0.0014 | 0.0016 (J) | | | |
| 11/6/2018 | | 0.0057 (J) | | | <0.02 | | | |
| 11/7/2018 | <0.02 | | <0.02 | <0.02 | | | | |
| 8/26/2019 | | 0.0025 (J) | | | | | | |
| 8/27/2019 | 0.0019 (J) | | 0.0018 (J) | <0.02 | 0.0018 (J) | | | |
| 10/15/2019 | <0.02 | 0.003 (J) | <0.02 | | | | | |
| 10/16/2019 | | | | <0.02 | <0.02 | | | |
| 11/7/2019 | | | | | | 0.036 | 0.063 | 0.12 |
| 11/18/2019 | | | | | | <0.02 | | |
| 11/19/2019 | | | | | | | 0.039 (J) | 0.047 (J) |
| 12/4/2019 | | | | | | | 0.12 | 0.11 |
| 12/5/2019 | | | | | | 0.032 | | |
| 12/17/2019 | | | | | | | 0.031 (J) | |
| 12/18/2019 | | | | | | 0.01 | | 0.032 (J) |
| 1/8/2020 | | | | | | | 0.066 | 0.044 (J) |
| 1/9/2020 | | | | | | 0.01 | | |
| 1/21/2020 | | | | | | 0.023 (J) | 0.13 | 0.089 |
| 2/4/2020 | | | | | | 0.017 (J) | 0.065 (J) | 0.049 (J) |
| 2/13/2020 | | | | | | 0.015 | 0.15 | 0.11 |
| 3/27/2020 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.0034 (J) | 0.013 | 0.012 |
| 10/12/2020 | <0.02 | | | | | <0.02 | | |
| 10/13/2020 | | <0.02 | <0.02 | <0.02 | <0.02 | | 0.0076 (J) | 0.0056 (J) |
| 3/2/2021 | <0.02 | <0.02 | <0.02 | | | | | |
| 3/3/2021 | | | | <0.02 | <0.02 | 0.0012 (J) | 0.013 (J) | 0.0094 (J) |
| 9/13/2021 | <0.02 | <0.02 | | | | | | |
| 9/14/2021 | | | <0.02 | <0.02 | 0.0021 | <0.02 | 0.0022 (J) | 0.0018 (J) |

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-----------|-----------|----------|---------|-------------|
| 8/30/2016 | | 17 | | | | | | |
| 8/31/2016 | | | | | 37 | 21 | 290 | |
| 11/30/2016 | | 33 | | | 63 | 19 | 240 | |
| 2/15/2017 | | 83 | | | | | | |
| 2/16/2017 | | | | | 90 | 22 | 220 | |
| 5/31/2017 | | | 46 | | | | | 40 |
| 6/1/2017 | | 51 | | 42 | | | | |
| 6/2/2017 | | | | | 210 | 28 | 500 | |
| 8/2/2017 | | | 43 | 120 | | | | 34 |
| 8/15/2017 | | | | | | | | 24 |
| 8/16/2017 | | 36 | 41 | | | | | |
| 8/17/2017 | | | | 110 | 80 | 69 | 510 | |
| 4/4/2018 | | | | 70.6 | | | | 33.9 |
| 4/5/2018 | | | 33.4 | | | | | |
| 5/8/2018 | | | | 61.4 | | | | 35.7 |
| 5/9/2018 | | | 36 | | | | | |
| 6/19/2018 | | 50.3 | 35.5 | | | | | 23.7 |
| 6/20/2018 | | | | 25.3 | 46 (J) | 33 | | |
| 6/21/2018 | | | | | | | 481 | |
| 9/25/2018 | | | | | | | | 25.6 |
| 9/26/2018 | | 54.1 | 39.6 | | | | | |
| 9/27/2018 | | | | 63.4 | 58.5 (J) | 29.4 (D) | 777 (D) | |
| 11/6/2018 | | | | 136 | | | 926 | 25.2 |
| 11/7/2018 | | 45.6 | 35.8 | | 41.3 (J) | 734 | | |
| 3/6/2019 | | | | | | 1220 (J) | | |
| 3/24/2019 | | | | | 131 | 413 | 1070 | |
| 3/25/2019 | | 43 | 34.2 | 137 | | | | 24.9 |
| 10/15/2019 | | | | 105 | | | | |
| 10/16/2019 | | 31.9 | 24.4 | | 122.5 (D) | | | 17.4 |
| 10/17/2019 | | | | | | 507 | 1230 | |
| 11/20/2019 | | | | | 132 | | 1550 | |
| 3/26/2020 | | 36.2 | | | | | | |
| 3/27/2020 | | | 28.6 | | | | | 23.4 |
| 3/28/2020 | | | | 86.6 | 63.8 | 701 | 1090 | |
| 4/23/2020 | 936 | | | | | | | |
| 6/16/2020 | 970 | | | | | | | |
| 10/12/2020 | | | | | | | | 19.3 |
| 10/13/2020 | | 32.3 | 27.6 | 92.3 | | | | |
| 10/14/2020 | | | | | | 510 | 904 | |
| 10/15/2020 | 1060 | | | | 147 | | | |
| 1/4/2021 | | | | | 262 | | | |
| 3/3/2021 | | 33.8 | 27.6 | | | | | 19.9 |
| 3/4/2021 | 1060 | | | 99.1 | 82.2 | 596 | 982 | |
| 9/14/2021 | 971 | 34.2 | 30.4 | 96.2 (M1) | 459 | 490 | 819 | 33.1 |

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|----------|--------|-------------|-------------|-----------|-------------|-------------|-------------|
| 8/30/2016 | 4.3 | 6.4 | | 24 | | | | |
| 10/25/2016 | | | | | 84 | | | |
| 11/30/2016 | 7.6 | 4.5 | | 26 | | | | |
| 2/15/2017 | 3 | 37 | | 30 | 190 | | | |
| 5/31/2017 | 2.5 | 61 | | | 260 | | | |
| 6/1/2017 | | | | 24 | | | | |
| 6/2/2017 | | | 13 | | | | | |
| 8/2/2017 | | | 14 | | | | | |
| 8/15/2017 | 3.2 | | | | 210 | | | |
| 8/16/2017 | | 130 | | | | | | |
| 8/17/2017 | | | 14 | 26 | | | | |
| 4/4/2018 | | | 13.4 | | | | | |
| 5/8/2018 | | | 14.8 | | | | | |
| 6/19/2018 | 1.6 | 498 | 15.5 | | 218 | | | |
| 6/20/2018 | | | | 31.2 | | | | |
| 9/25/2018 | 1 | 790 | | | | | | |
| 9/26/2018 | | | 23 | 36.8 | 333 (D) | | | |
| 11/6/2018 | | 875 | | | 182 | | | |
| 11/7/2018 | 0.41 (J) | | 22.2 | 35 | | | | |
| 3/24/2019 | 1.5 | 1170 | | | 413 | | | |
| 3/25/2019 | | | 22.4 | 40.1 | | | | |
| 10/15/2019 | 0.54 (J) | <1 | 17.9 | | | | | |
| 10/16/2019 | | | | 28.5 | 312.5 (D) | | | |
| 11/7/2019 | | | | | | 379 | 832 | 1010 |
| 11/18/2019 | | | | | | 737 | | |
| 11/19/2019 | | | | | | | 795 | 1140 |
| 11/21/2019 | | 1070 | | | 428 | | | |
| 12/4/2019 | | | | | | | 810 | 1020 |
| 12/5/2019 | | | | | | 351 | | |
| 12/17/2019 | | | | | | | 535 | |
| 12/18/2019 | | | | | | | | 8.1 |
| 1/8/2020 | | | | | | | 603 | 747 |
| 1/9/2020 | | | | | | 254 | | |
| 1/21/2020 | | | | | | 254 | 611 | 798 |
| 2/4/2020 | | | | | | 432 | 599 | 1120 |
| 2/13/2020 | | | | | | 300 | 761 | 833 |
| 3/27/2020 | <1 | 899 | 14.6 | 31.2 | 504 | 219 | 836 | 700 |
| 10/12/2020 | <1 | | | | | 191 | | |
| 10/13/2020 | | 695 | 7.6 | 26.8 | 378 | | 609 | 638 |
| 3/2/2021 | 1.2 | 97.5 | 8 | | | | | |
| 3/3/2021 | | | | 30.5 | 420 | 171 | <1 | 743 |
| 9/13/2021 | <1 | 680 | | | | | | |
| 9/14/2021 | | | 16.7 | 24.4 | 460 | 134 | 995 | 659 |

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | | 86 | | | | | | |
| 8/31/2016 | | | | | 3620 | 4160 | 5100 | |
| 11/30/2016 | | 131 | | | 4030 | 3950 | 4680 | |
| 2/15/2017 | | 212 | | | | | | |
| 2/16/2017 | | | | | 4080 | 4600 | 5080 | |
| 5/31/2017 | | | 123 | | | | | 257 |
| 6/1/2017 | | 103 | | 97 | | | | |
| 6/2/2017 | | | | | 5560 | 4470 | 8000 | |
| 8/2/2017 | | | 136 | 538 | | | | 183 |
| 8/15/2017 | | | | | | | | 90 |
| 8/16/2017 | | 65 | 124 | | | | | |
| 8/17/2017 | | | | 445 | 4620 | 5450 | 8320 | |
| 4/4/2018 | | | | 365 | | | | 197 |
| 4/5/2018 | | | 128 | | | | | |
| 5/8/2018 | | | | 304 | | | | 225 |
| 5/9/2018 | | | 127 | | | | | |
| 6/19/2018 | | 142 | 143 | | | | | 112 |
| 6/20/2018 | | | | 114 | 3370 | 4940 | | |
| 6/21/2018 | | | | | | | 7500 | |
| 9/25/2018 | | | | | | | | 137 |
| 9/26/2018 | | 133 | 132 | | | | | |
| 9/27/2018 | | | | 255 | 2360 | 4480 | 10200 | |
| 11/6/2018 | | | | 388 | | | 11000 | 89 |
| 11/7/2018 | | 121 | 134 | | 2230 | 15100 | | |
| 3/6/2019 | | | | | | 19000 | | |
| 3/24/2019 | | | | | 1450 | 13700 | 13700 | |
| 3/25/2019 | | 116 | 111 | 327 | | | | 74 |
| 10/15/2019 | | | | 237 | | | | |
| 10/16/2019 | | 104 | 96 | | 2860 | | | 82 |
| 10/17/2019 | | | | | | 16100 | 13200 | |
| 11/20/2019 | | | | | 2640 | | 16700 | |
| 3/26/2020 | | 114 | | | | | | |
| 3/27/2020 | | | 119 | | | | | 87 |
| 3/28/2020 | | | | 284 | 1470 | 18800 | 18300 | |
| 6/16/2020 | 20100 | | | | | | | |
| 10/12/2020 | | | | | | | | 94 |
| 10/13/2020 | | 113 | 118 | <25 | | | | |
| 10/14/2020 | | | | | | 15200 | 18400 | |
| 10/15/2020 | 19300 | | | | 5100 | | | |
| 1/4/2021 | | | | | 7750 | | | |
| 3/3/2021 | | 99 | 84 | | | | | 66 |
| 3/4/2021 | 19000 | | | 285 | 1700 | 14200 | 17100 | |
| 9/14/2021 | 16400 | 66 | 76 | 193 | 8020 | 11800 | 13400 | 191 |

Time Series

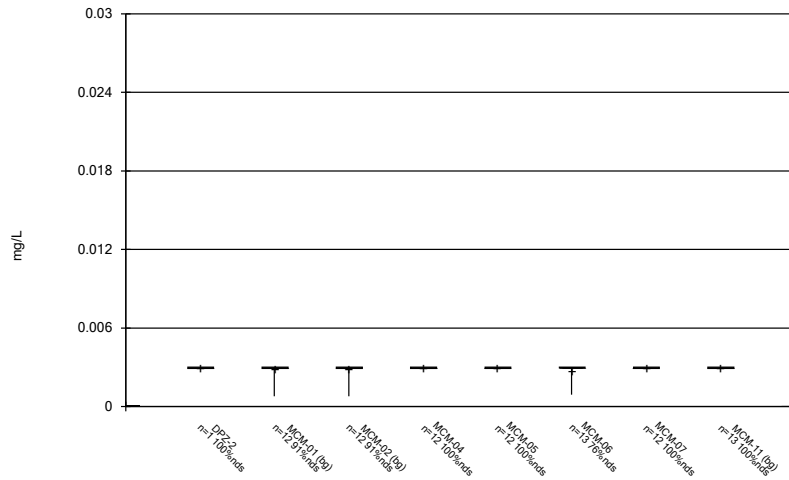
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/29/2021 3:10 PM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 1910 | 1310 | | 99 | | | | |
| 10/25/2016 | | | | | 2900 | | | |
| 11/30/2016 | 1910 | 1050 | | 111 | 3970 | | | |
| 2/15/2017 | 1870 | 1440 | | 170 | 3820 | | | |
| 5/31/2017 | 1920 | 1740 | | | 5050 | | | |
| 6/1/2017 | | | | 98 | | | | |
| 6/2/2017 | | | 69 | | | | | |
| 8/2/2017 | | | 35 | | | | | |
| 8/15/2017 | 1840 | | | | 4820 | | | |
| 8/16/2017 | | 3010 | | | | | | |
| 8/17/2017 | | | 51 | 84 | | | | |
| 4/4/2018 | | | 90 | | | | | |
| 5/8/2018 | | | 89 | | | | | |
| 6/19/2018 | 1820 | 8630 | 110 | | 5640 | | | |
| 6/20/2018 | | | | 123 | | | | |
| 9/25/2018 | 1760 | 10700 | | | | | | |
| 9/26/2018 | | | 124 | 117 | 6920 | | | |
| 11/6/2018 | | 11100 | | | 4160 | | | |
| 11/7/2018 | 1800 | | 125 | 120 | | | | |
| 3/24/2019 | 1770 | 14200 | | | 6840 | | | |
| 3/25/2019 | | | 98 | 101 | | | | |
| 10/15/2019 | 1730 | 15400 | 107 | | | | | |
| 10/16/2019 | | | | 95 | 7740 | | | |
| 11/7/2019 | | | | | | 4140 | 10900 | 13500 |
| 11/18/2019 | | | | | | 4030 | | |
| 11/19/2019 | | | | | | | 10000 | 13300 |
| 11/21/2019 | | 15800 | | | 7720 | | | |
| 12/4/2019 | | | | | | | 11000 | 13200 |
| 12/5/2019 | | | | | | 3840 | | |
| 12/17/2019 | | | | | | | 9860 | |
| 12/18/2019 | | | | | | 3880 | | 12500 |
| 1/8/2020 | | | | | | | 9760 | 12300 |
| 1/9/2020 | | | | | | 3520 | | |
| 1/21/2020 | | | | | | 3280 | 10100 | 12000 |
| 2/4/2020 | | | | | | 3220 | 10600 | 12300 |
| 2/13/2020 | | | | | | 3580 | 10900 | 12400 |
| 3/27/2020 | 1970 | 16400 | 110 | 110 | 10200 | 3090 | 14300 | 14600 |
| 10/12/2020 | 1560 | | | | | 2920 | | |
| 10/13/2020 | | 15600 | 63 | 115 | 8750 | | 6600 | 13900 |
| 3/2/2021 | 1430 | 12000 | 40 | | | | | |
| 3/3/2021 | | | | 122 | 8830 | 2620 | 11000 | 11400 |
| 9/13/2021 | 1450 | 11400 | | | | | | |
| 9/14/2021 | | | 96 | <25 | 8820 | 2190 | 14600 | 10300 |

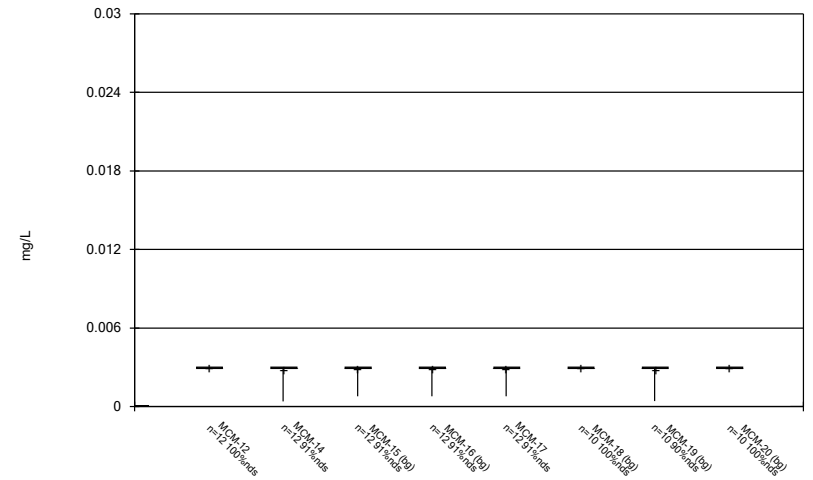
FIGURE B.

Box & Whiskers Plot



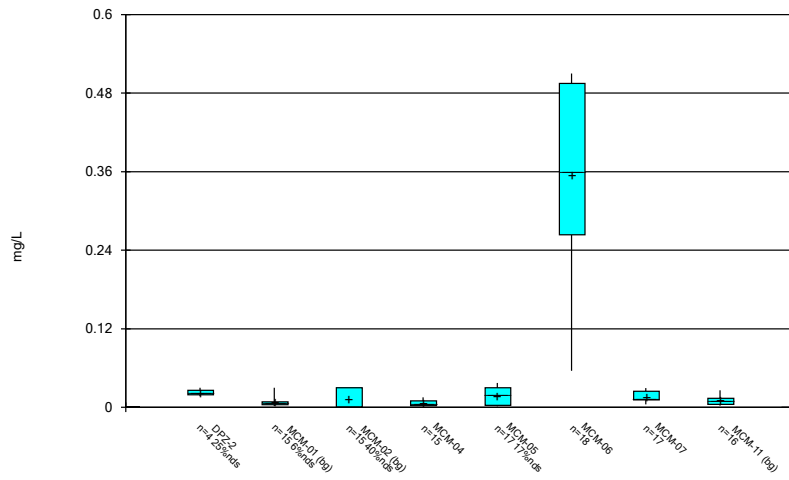
Constituent: Antimony Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



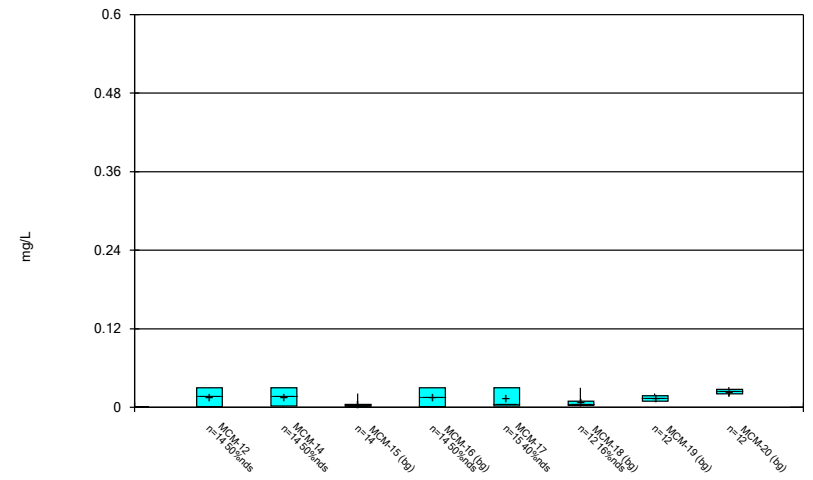
Constituent: Antimony Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



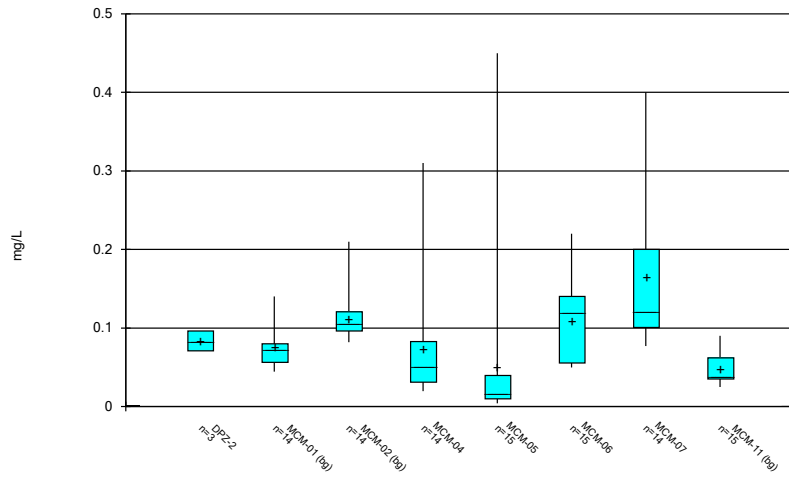
Constituent: Arsenic Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



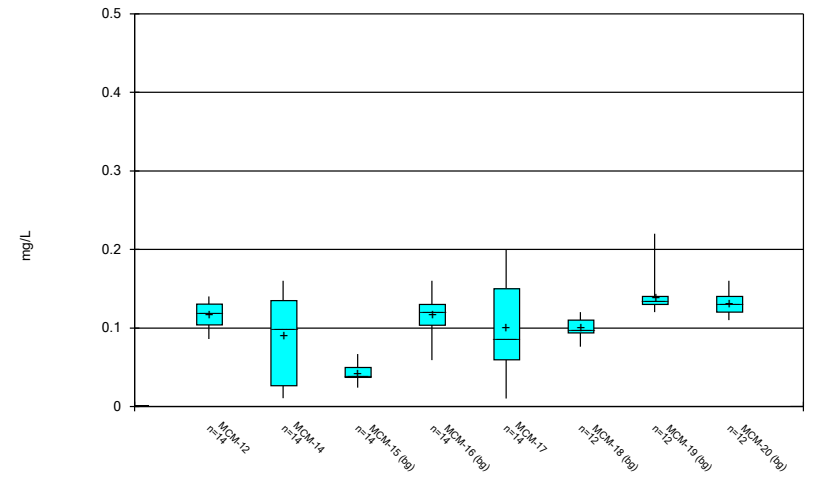
Constituent: Arsenic Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



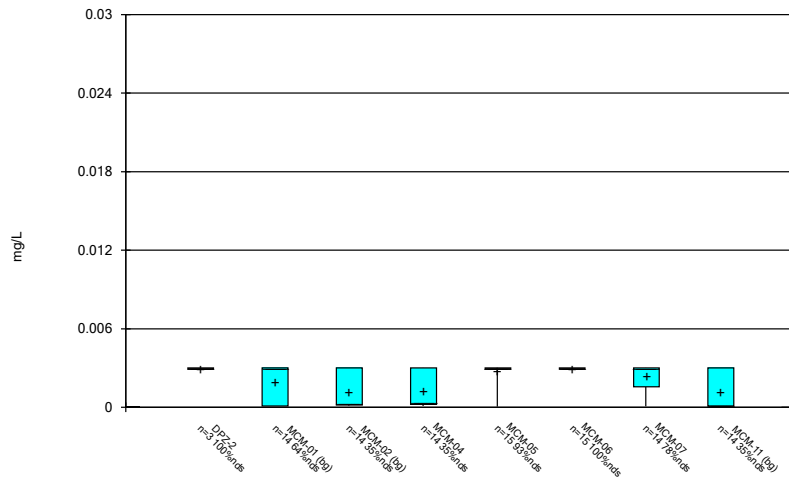
Constituent: Barium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



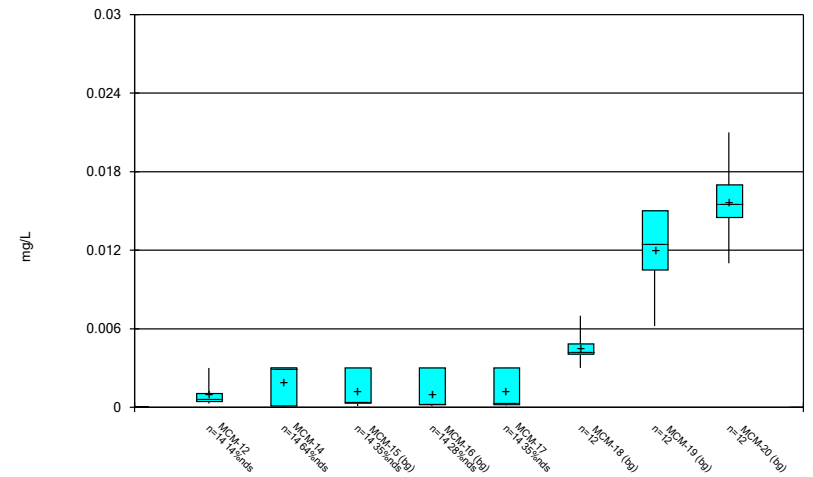
Constituent: Barium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



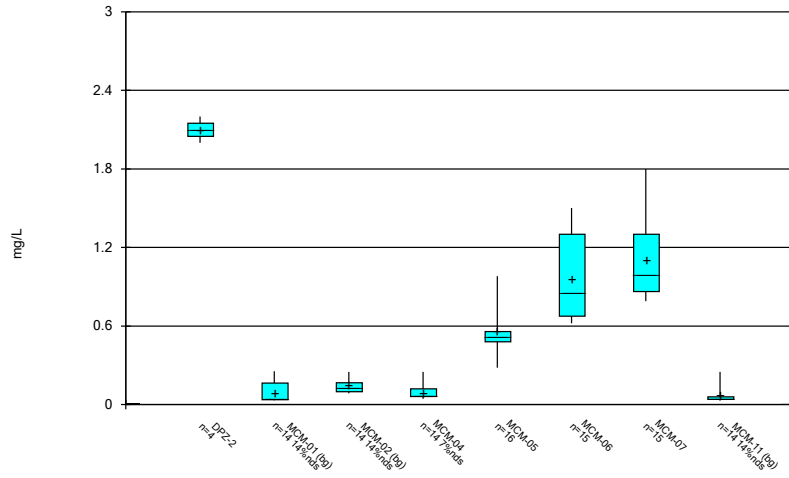
Constituent: Beryllium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



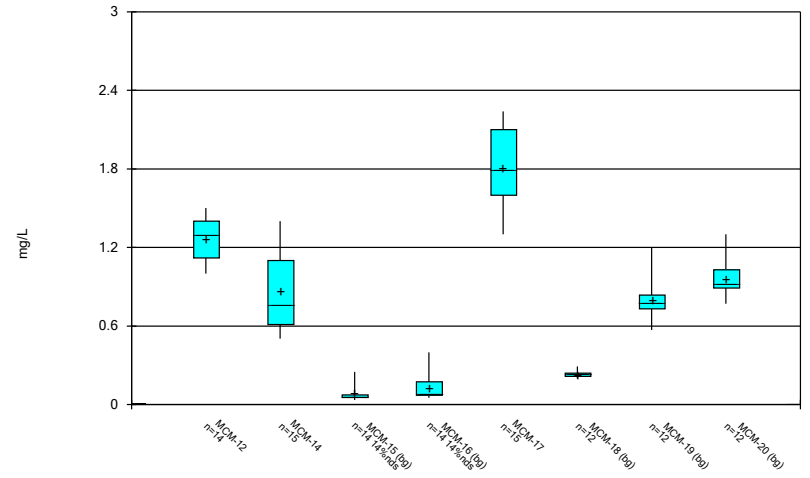
Constituent: Beryllium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



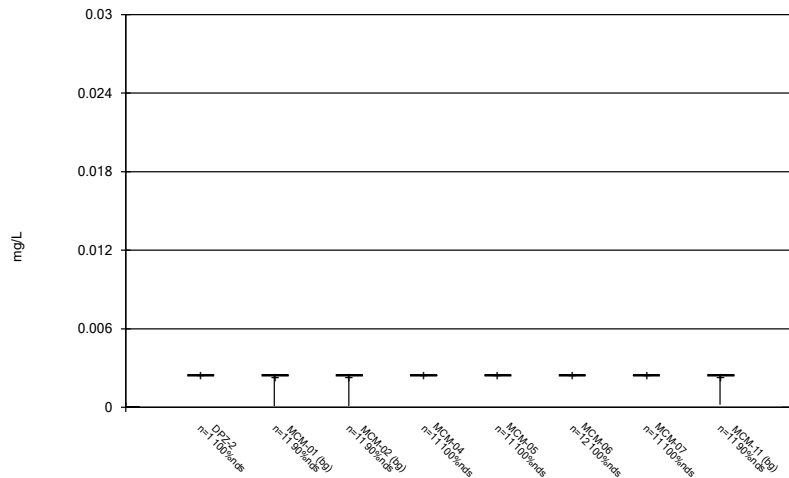
Constituent: Boron Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



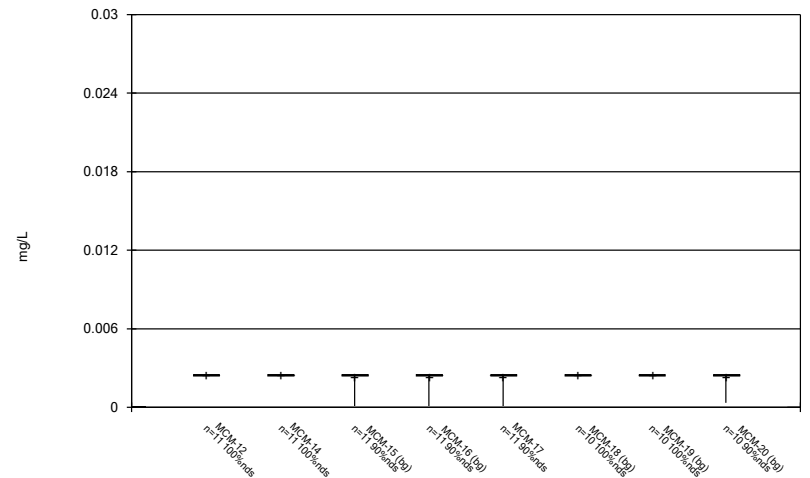
Constituent: Boron Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



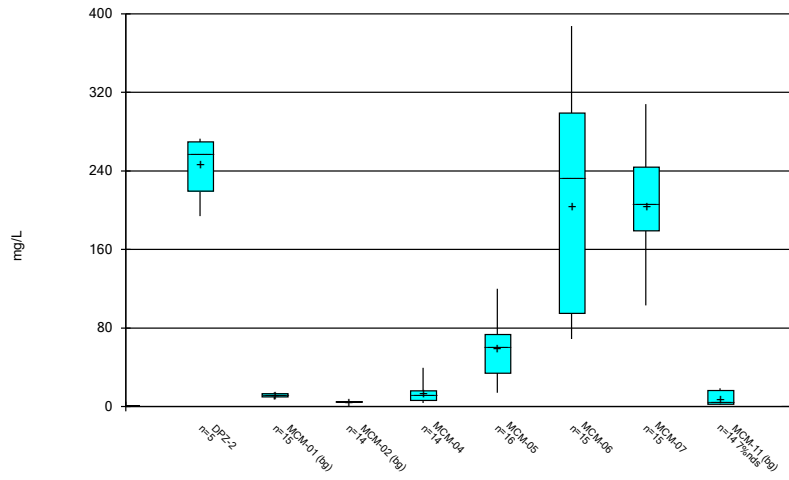
Constituent: Cadmium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



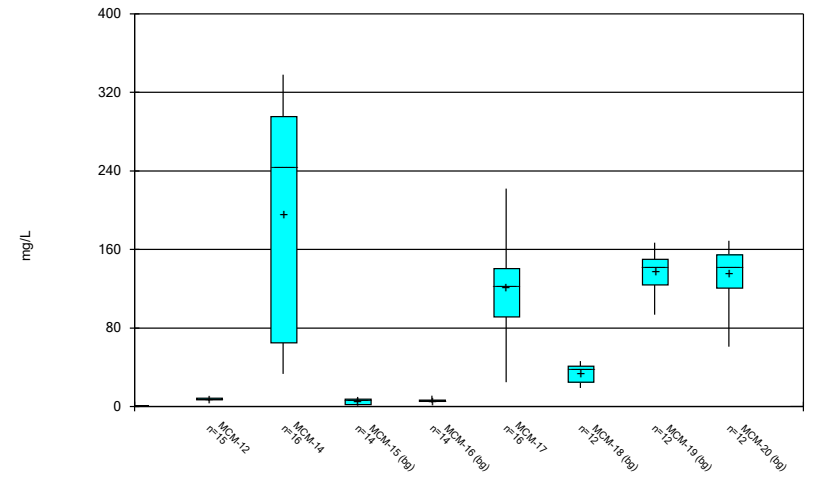
Constituent: Cadmium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



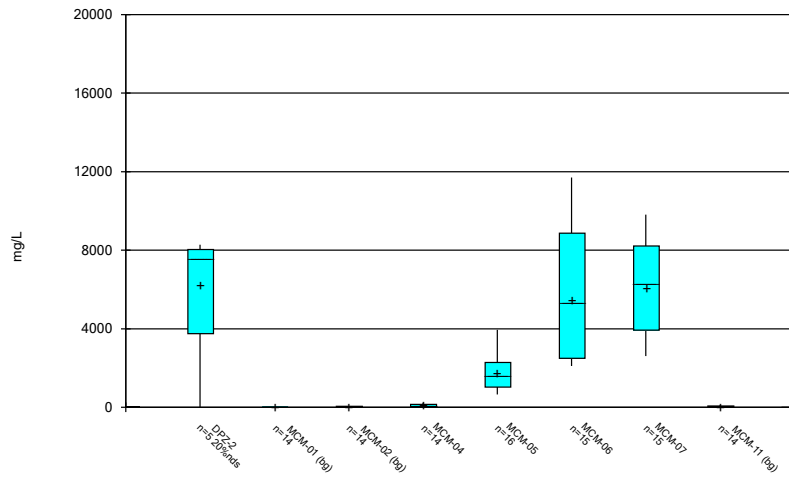
Constituent: Calcium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



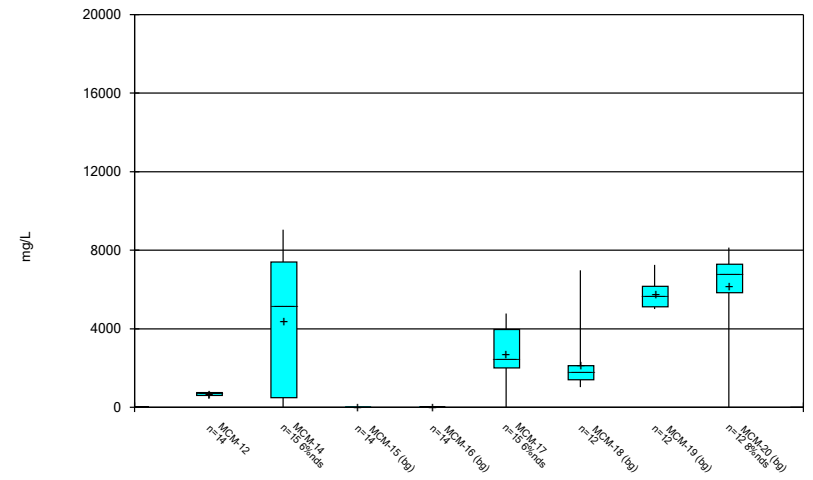
Constituent: Calcium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



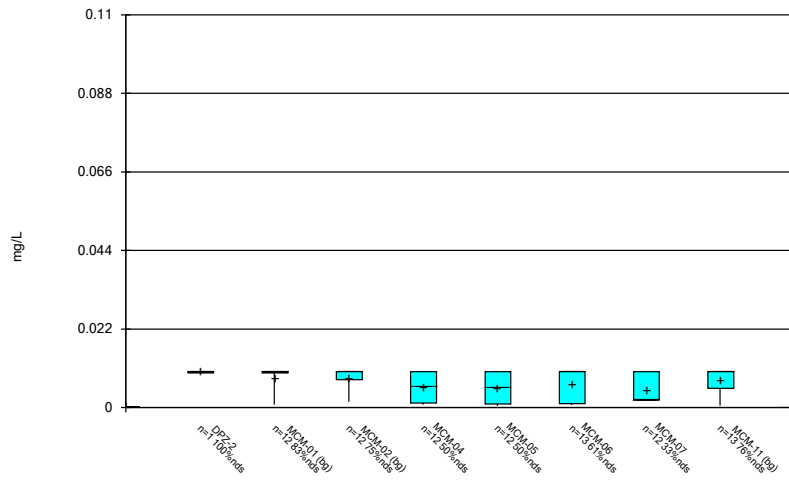
Constituent: Chloride Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



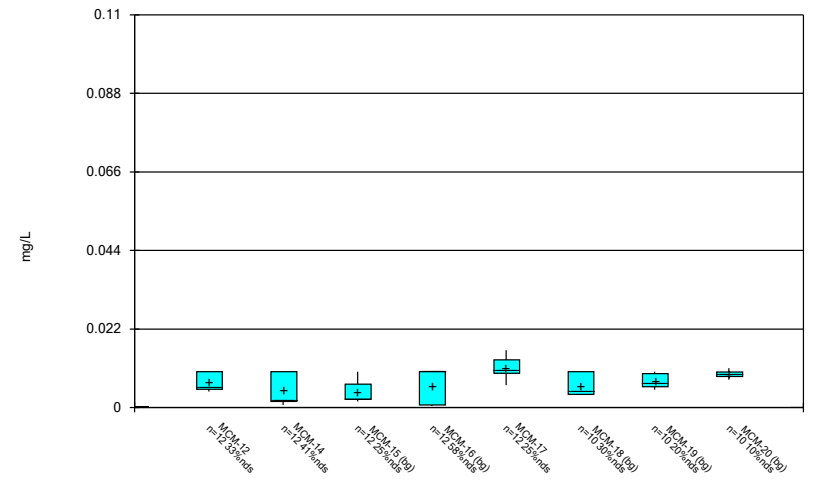
Constituent: Chloride Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



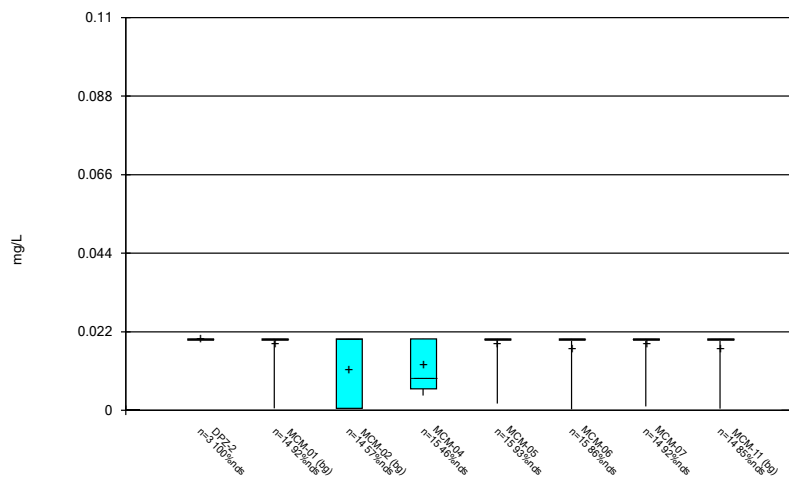
Constituent: Chromium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



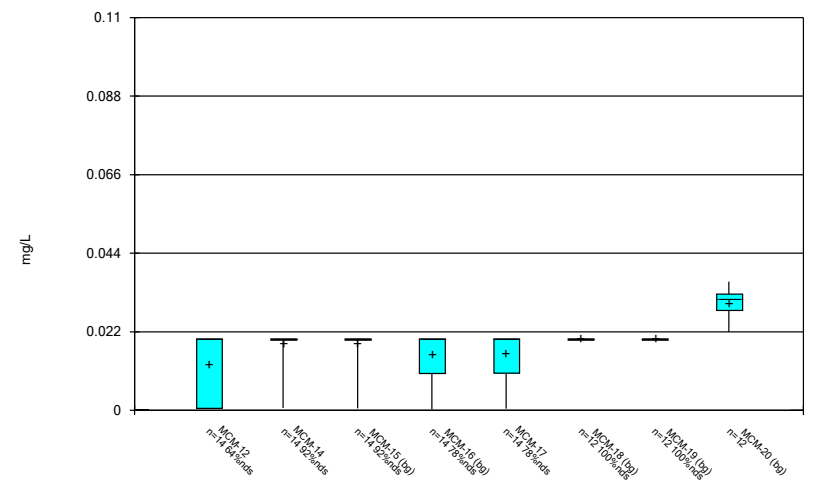
Constituent: Chromium Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



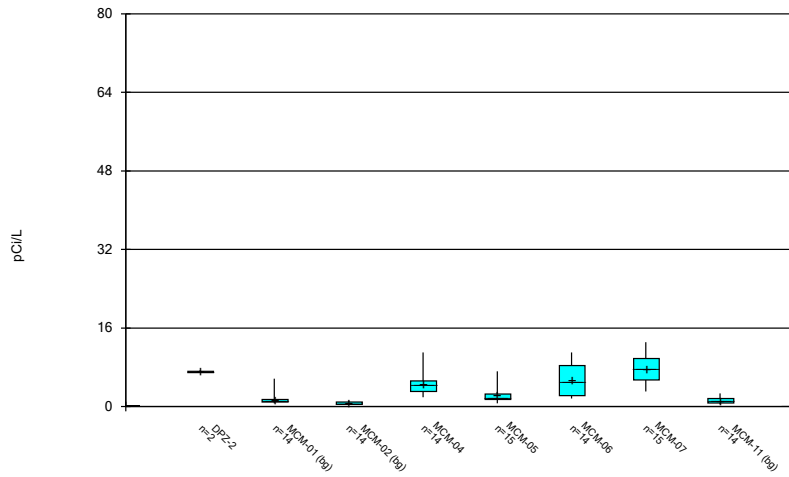
Constituent: Cobalt Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



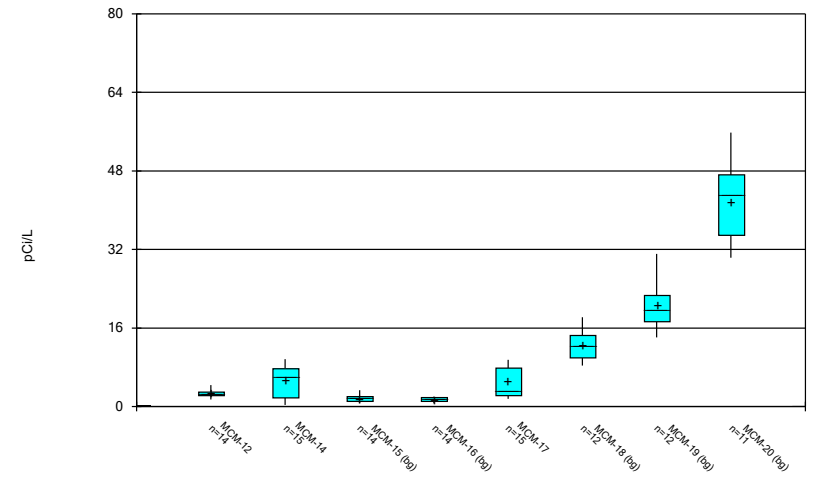
Constituent: Cobalt Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



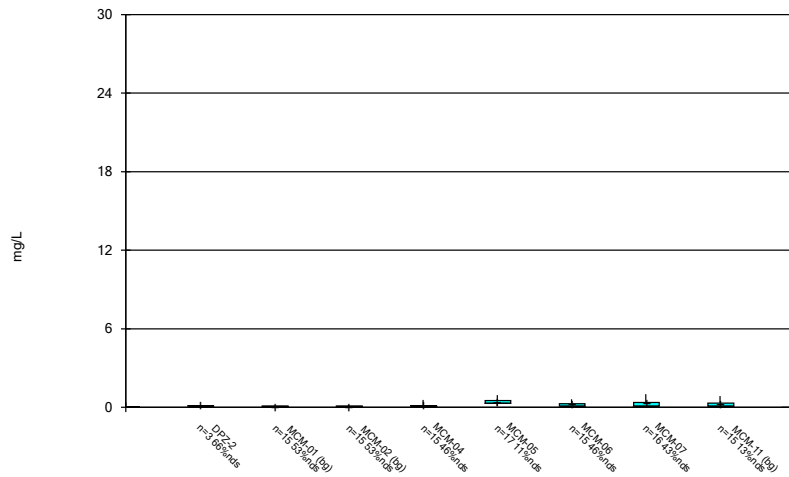
Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



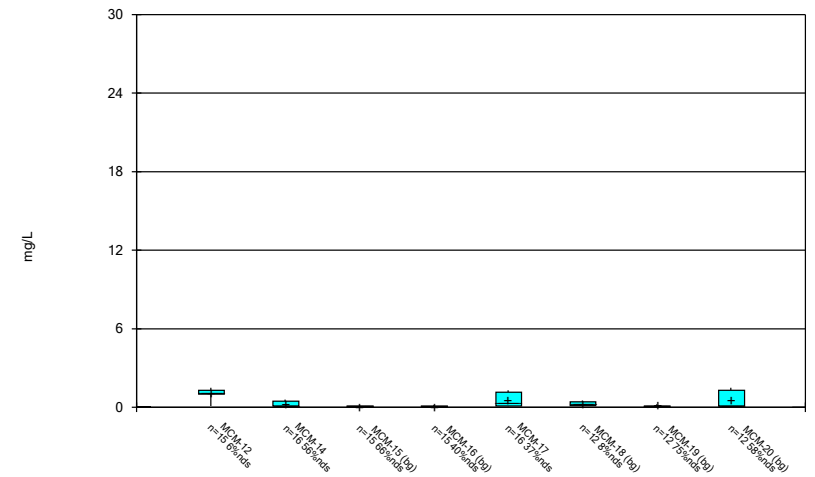
Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



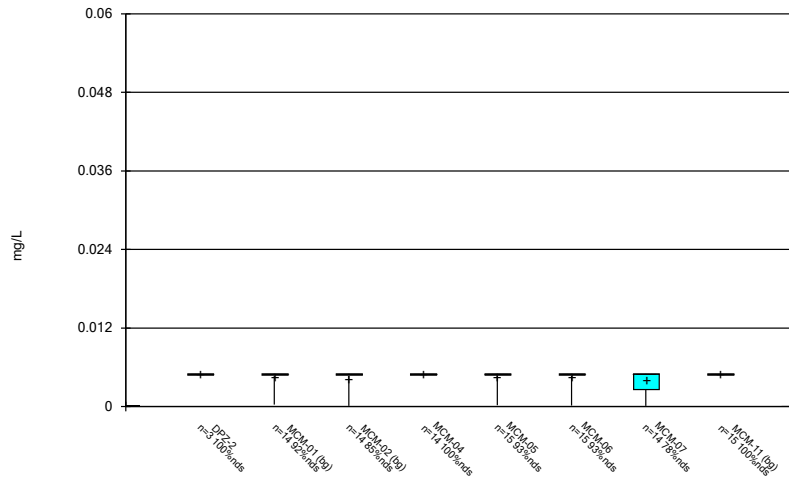
Constituent: Fluoride Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



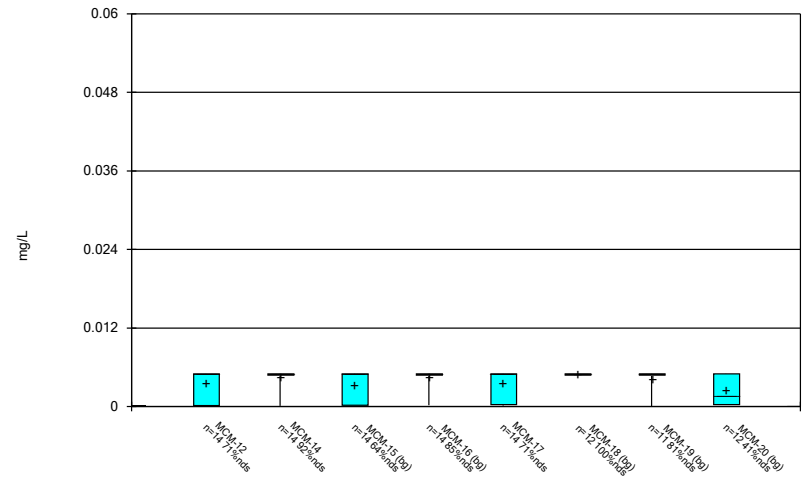
Constituent: Fluoride Analysis Run 12/29/2021 3:11 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



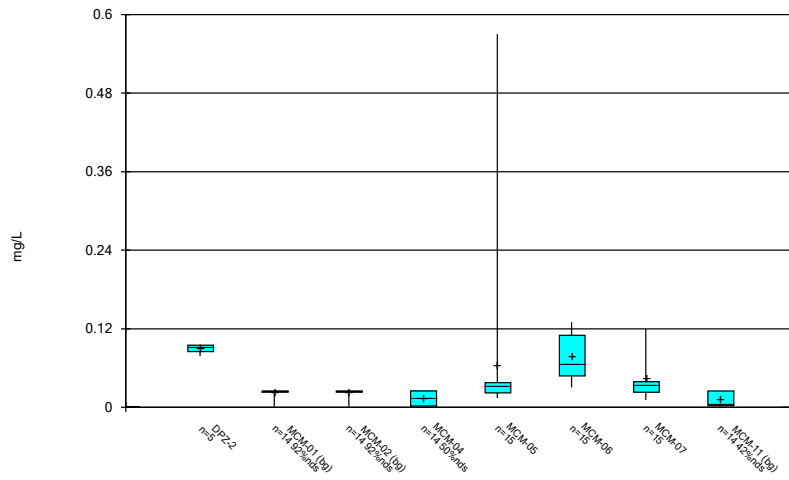
Constituent: Lead Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



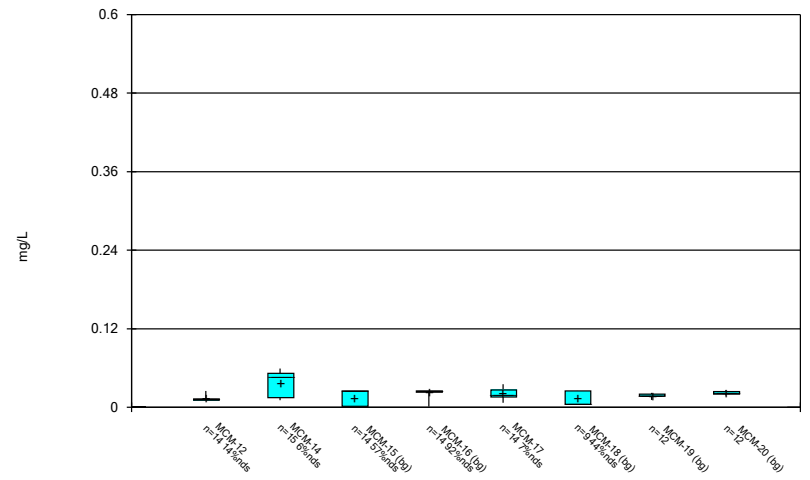
Constituent: Lead Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



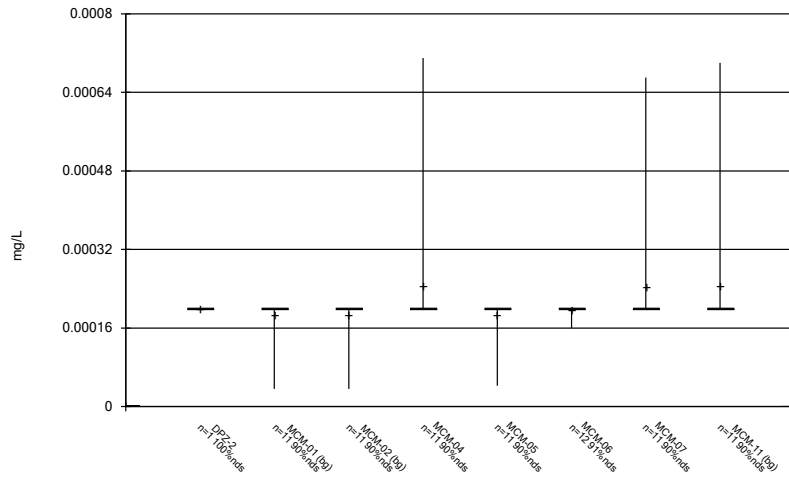
Constituent: Lithium Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



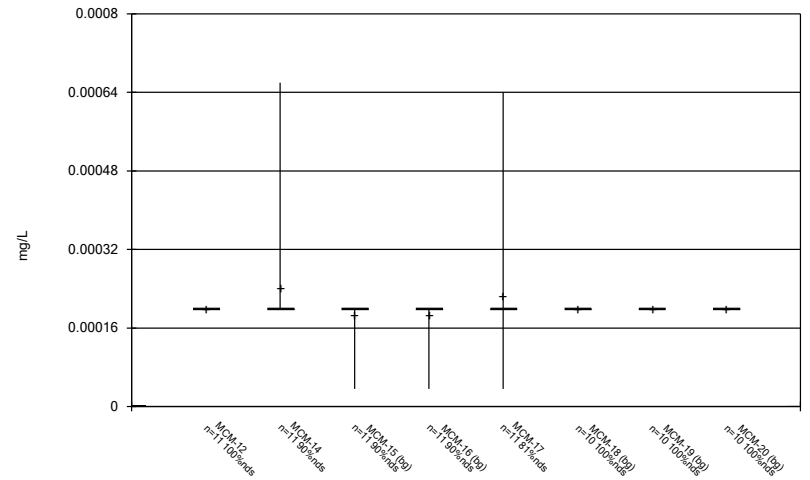
Constituent: Lithium Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



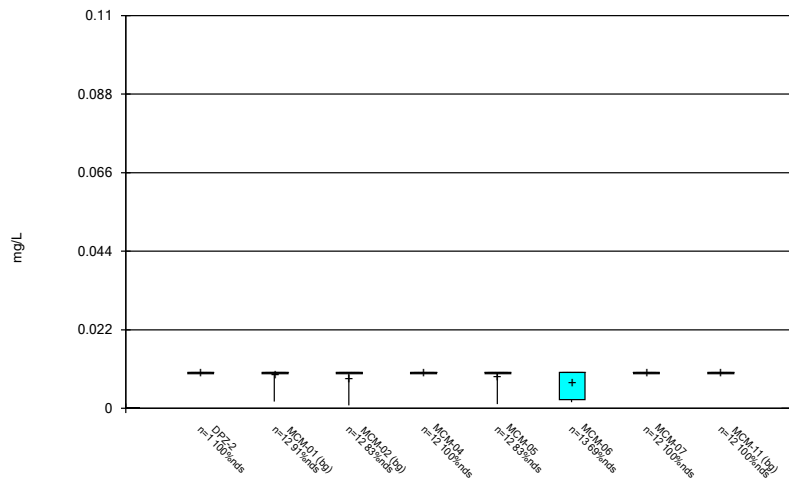
Constituent: Mercury Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



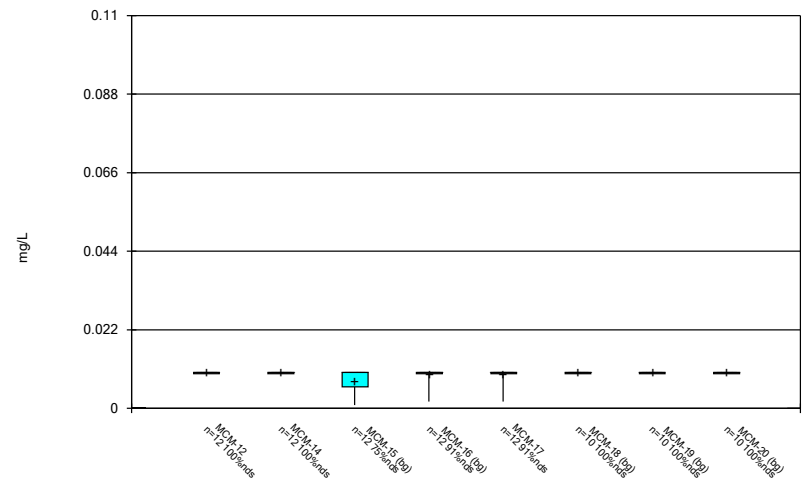
Constituent: Mercury Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



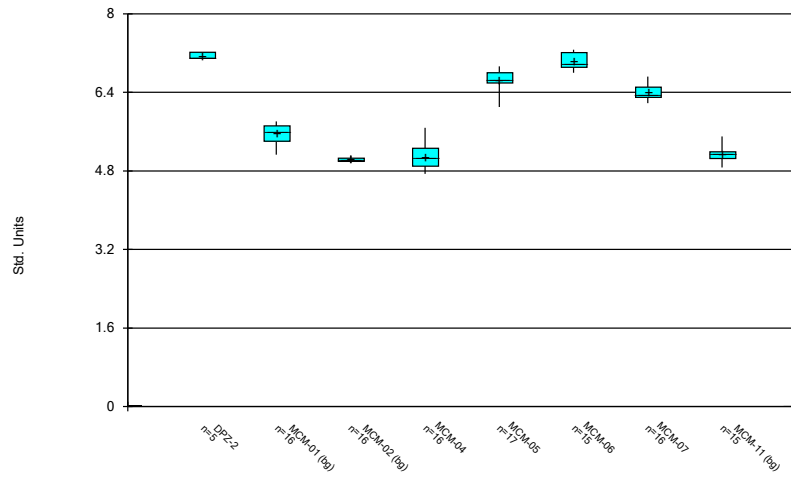
Constituent: Molybdenum Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



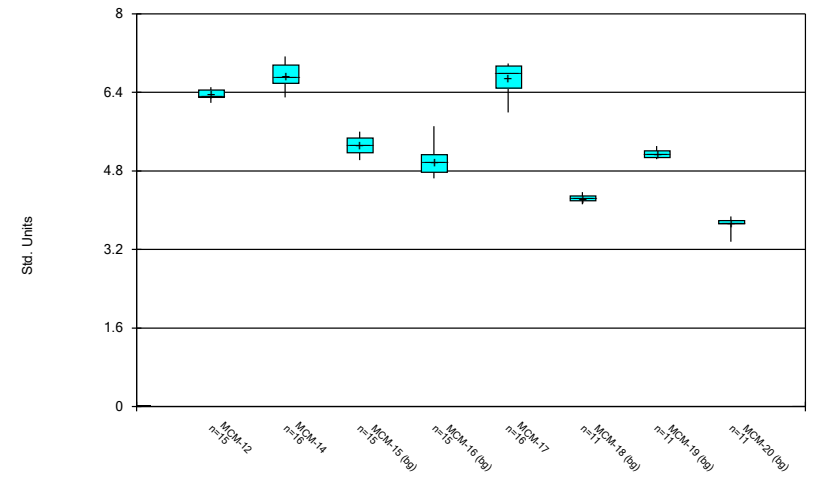
Constituent: Molybdenum Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



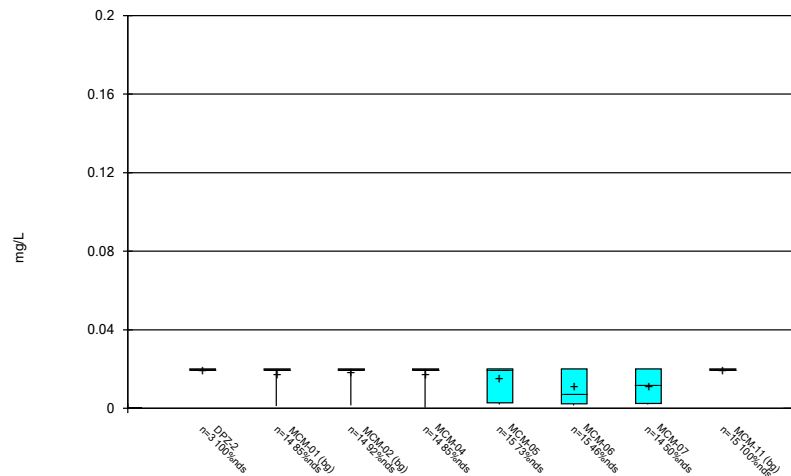
Constituent: pH, field Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



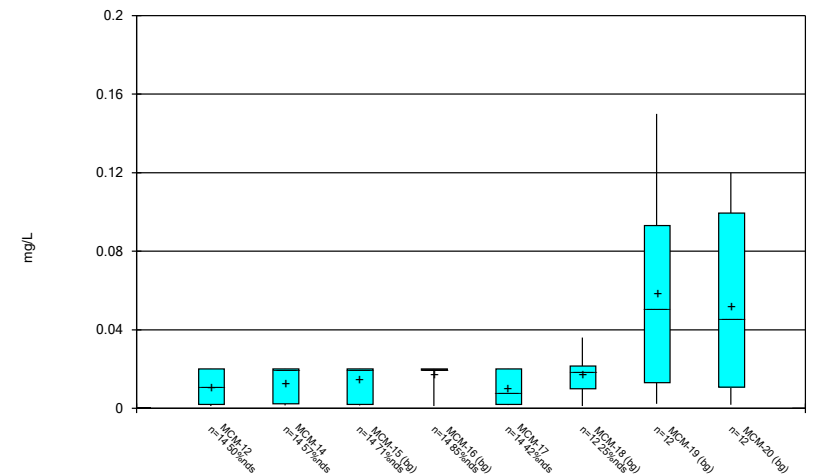
Constituent: pH, field Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



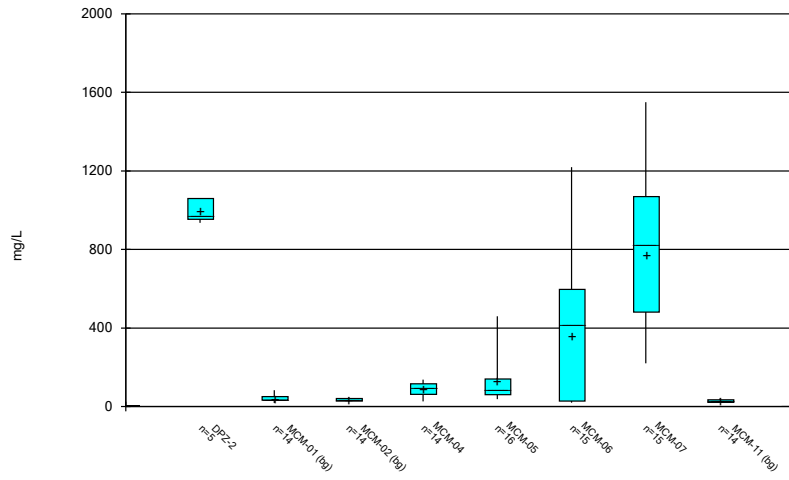
Constituent: Selenium Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



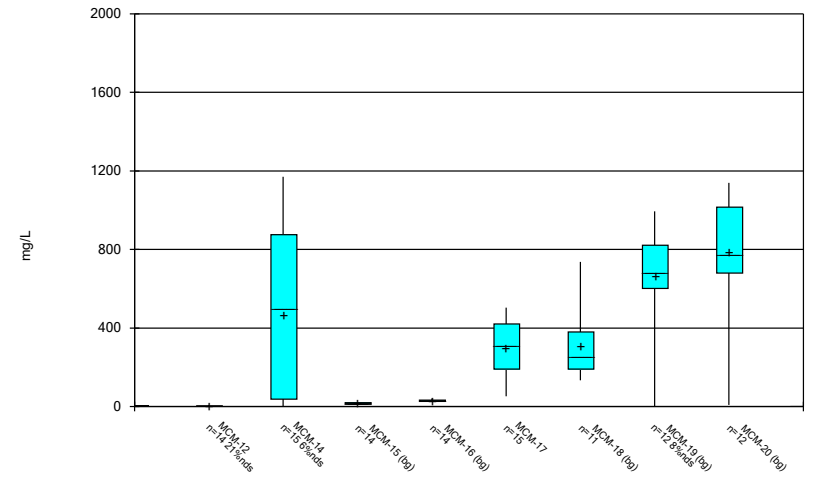
Constituent: Selenium Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



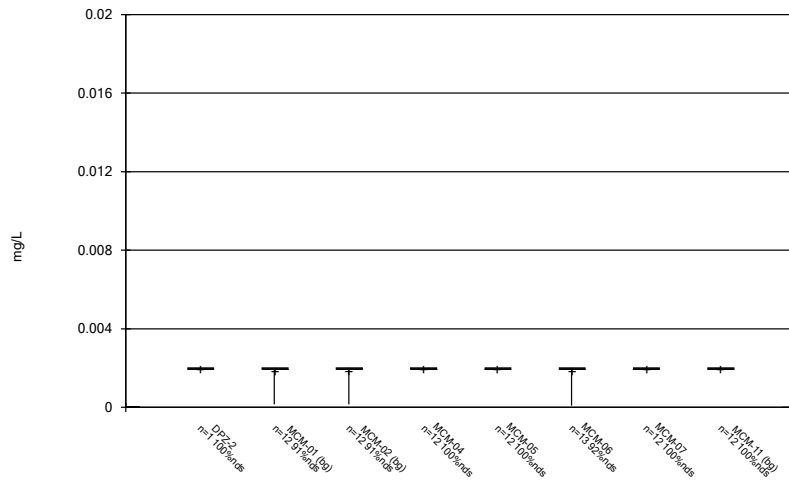
Constituent: Sulfate Analysis Run 12/29/2021 3:12 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



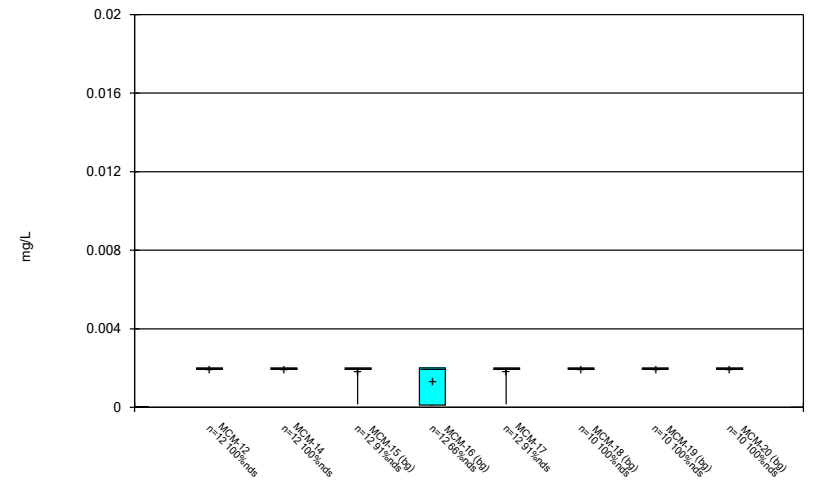
Constituent: Sulfate Analysis Run 12/29/2021 3:12 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



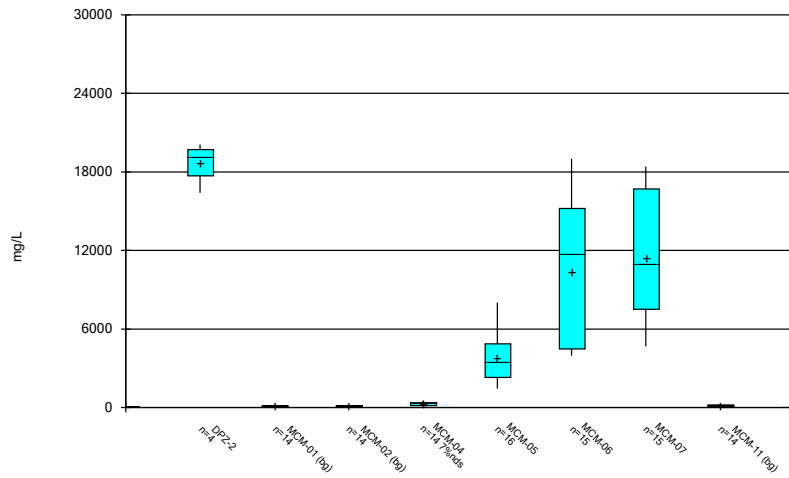
Constituent: Thallium Analysis Run 12/29/2021 3:12 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



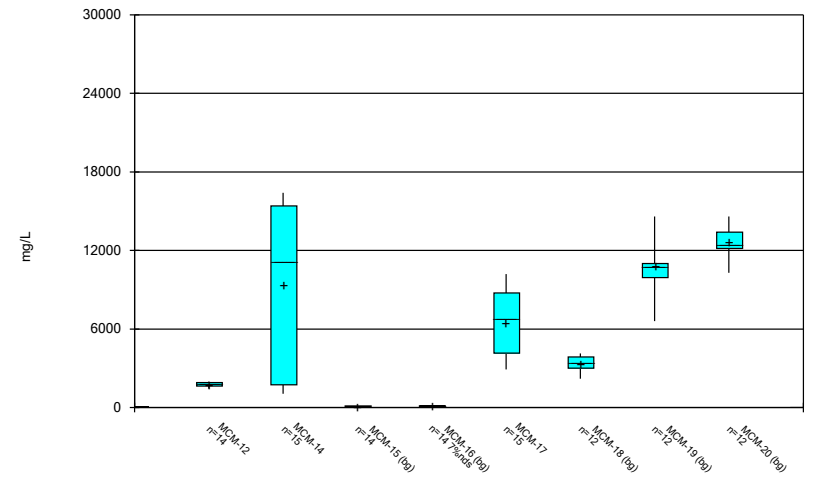
Constituent: Thallium Analysis Run 12/29/2021 3:12 PM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/29/2021 3:12 PM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE C.

Outlier Summary

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/10/2021, 5:00 PM

| | MCM-20 Combined Radium 226 + 228 (pCi/L) | MCM-06 Fluoride (mg/L) | MCM-19 Lead (mg/L) | MCM-18 Lithium (mg/L) |
|------------|--|------------------------|--------------------|-----------------------|
| 11/7/2018 | 10.3 (o) | | | |
| 11/18/2019 | | | <0.1 (o) | |
| 1/21/2020 | | | <0.15 (o) | |
| 2/4/2020 | | | <0.3 (o) | |
| 2/13/2020 | 76.3 (o) | | <0.025 (o) | |

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/1/2021, 11:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | %NDs | Transform | Alpha | Method |
|------------------------|--------|------------|------------|-----------|---------|------|------|--------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 9/14/2021 | 1.5 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 9/13/2021 | 1.4 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 9/14/2021 | 2.1 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 9/14/2021 | 299 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 9/14/2021 | 225 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 9/14/2021 | 190 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 9/14/2021 | 6.67 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 9/14/2021 | 6.94 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 9/14/2021 | 6.28 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 9/13/2021 | 6.24 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 9/13/2021 | 6.3 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 9/14/2021 | 6.77 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |

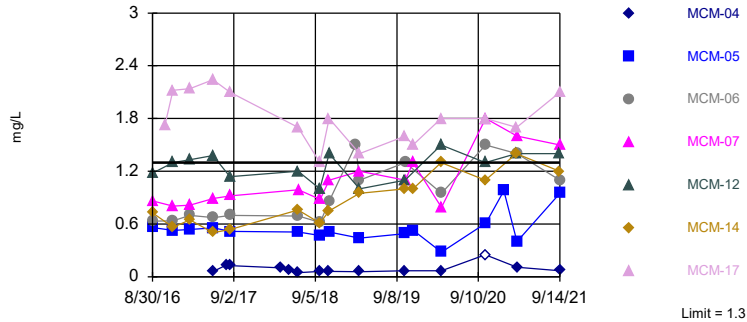
Appendix III Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/1/2021, 11:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | %NDs | Transform | Alpha | Method |
|-------------------------------|---------------|-------------|-------------|------------------|-------------|------------|------------|---------------|------------|------------------|------------------------------------|
| Boron (mg/L) | MCM-04 | 1.3 | n/a | 9/14/2021 | 0.07J | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-05 | 1.3 | n/a | 9/14/2021 | 0.95J | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 9/14/2021 | 1.1 | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 9/14/2021 | 1.5 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 9/13/2021 | 1.4 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-14 | 1.3 | n/a | 9/13/2021 | 1.2 | No | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 9/14/2021 | 2.1 | Yes | 106 | 9.434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-04 | 169 | n/a | 9/14/2021 | 12.5 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-05 | 169 | n/a | 9/14/2021 | 13.9 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 9/14/2021 | 299 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 9/14/2021 | 225 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-12 | 169 | n/a | 9/13/2021 | 6 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 9/13/2021 | 165 | No | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 9/14/2021 | 190 | Yes | 107 | 0.9346 | n/a | 0.000173 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-04 | 8130 | n/a | 9/14/2021 | 28.5 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-05 | 8130 | n/a | 9/14/2021 | 3940 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-06 | 8130 | n/a | 9/14/2021 | 5360 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-07 | 8130 | n/a | 9/14/2021 | 6300 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-12 | 8130 | n/a | 9/13/2021 | 433 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-14 | 8130 | n/a | 9/13/2021 | 5010 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-17 | 8130 | n/a | 9/14/2021 | 4090 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-04 | 1.5 | n/a | 9/14/2021 | 0.05 | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-05 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-06 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-07 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-12 | 1.5 | n/a | 9/13/2021 | 1.4 | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-14 | 1.5 | n/a | 9/13/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-17 | 1.5 | n/a | 9/14/2021 | 0.1ND | No | 111 | 45.95 | n/a | 0.0001613 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-04 | 5.81 | 3.36 | 9/14/2021 | 5.09 | No | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 9/14/2021 | 6.67 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 9/14/2021 | 6.94 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 9/14/2021 | 6.28 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 9/13/2021 | 6.24 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 9/13/2021 | 6.3 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 9/14/2021 | 6.77 | Yes | 110 | 0 | n/a | 0.0003284 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-04 | 1140 | n/a | 9/14/2021 | 96.2 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-05 | 1140 | n/a | 9/14/2021 | 459 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-06 | 1140 | n/a | 9/14/2021 | 490 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-07 | 1140 | n/a | 9/14/2021 | 819 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-12 | 1140 | n/a | 9/13/2021 | 0.5ND | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-14 | 1140 | n/a | 9/13/2021 | 680 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-17 | 1140 | n/a | 9/14/2021 | 460 | No | 105 | 0.9524 | n/a | 0.0001788 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-04 | 14600 | n/a | 9/14/2021 | 193 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-05 | 14600 | n/a | 9/14/2021 | 8020 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-06 | 14600 | n/a | 9/14/2021 | 11800 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-07 | 14600 | n/a | 9/14/2021 | 13400 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-12 | 14600 | n/a | 9/13/2021 | 1450 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-14 | 14600 | n/a | 9/13/2021 | 11400 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-17 | 14600 | n/a | 9/14/2021 | 8820 | No | 106 | 0.9434 | n/a | 0.0001759 | NP Inter (normality) 1 of 2 |

Exceeds Limit: MCM-07, MCM-12, MCM-17

Prediction Limit
Interwell Non-parametric

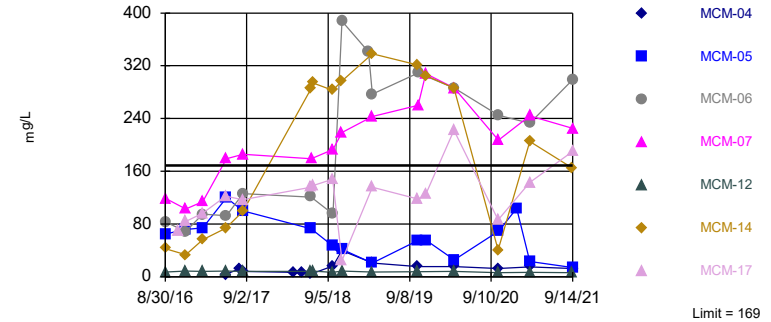


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 106 background values. 9.434% NDs. Annual per-constituent alpha = 0.001757. Individual comparison alpha = 0.0001759 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limit: MCM-06, MCM-07, MCM-17

Prediction Limit
Interwell Non-parametric

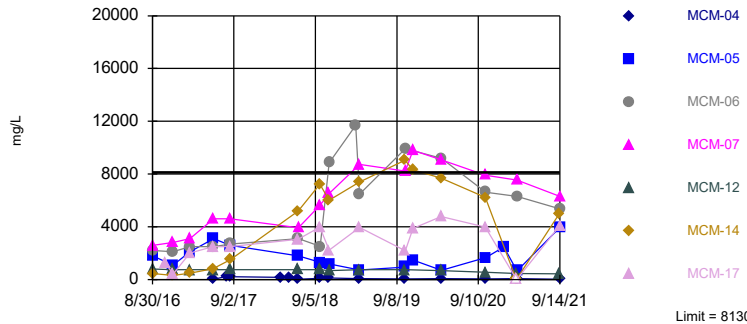


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 107 background values. 0.9346% NDs. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

Prediction Limit
Interwell Non-parametric

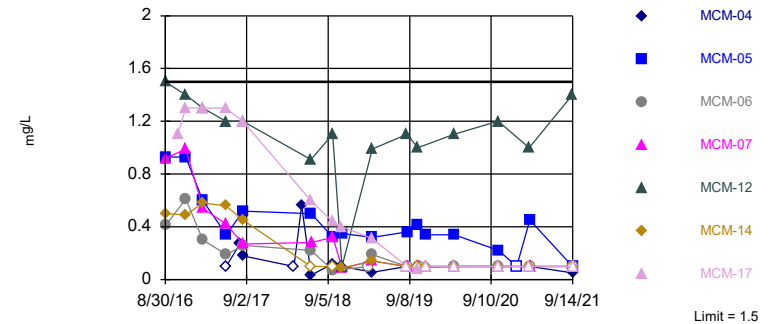


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 106 background values. 0.9434% NDs. Annual per-constituent alpha = 0.001757. Individual comparison alpha = 0.0001759 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

Prediction Limit
Interwell Non-parametric

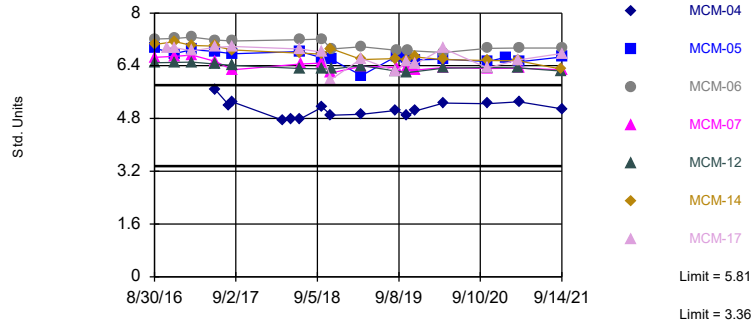


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 111 background values. 45.95% NDs. Annual per-constituent alpha = 0.001612. Individual comparison alpha = 0.0001613 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, MCM-17

Prediction Limit
Interwell Non-parametric



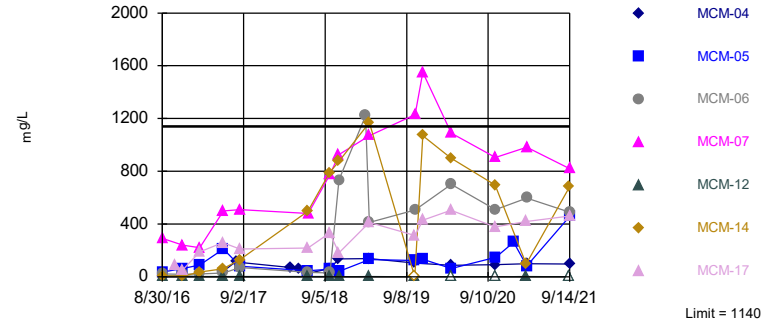
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 110 background values. Annual per-constituent alpha = 0.003282. Individual comparison alpha = 0.0003284 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Within Limit

Hollow symbols indicate censored values.

Prediction Limit
Interwell Non-parametric



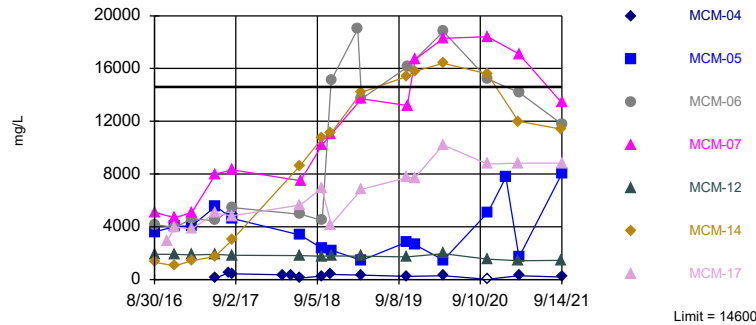
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 105 background values. 0.9524% NDs. Annual per-constituent alpha = 0.001787. Individual comparison alpha = 0.0001788 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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 106 background values. 0.9434% NDs. Annual per-constituent alpha = 0.001757. Individual comparison alpha = 0.0001759 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/1/2021 11:26 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|--------|-------------|--------|--------|----------|--------|-------------|
| 8/30/2016 | 0.0325 (J) | 1.18 | 0.726 | 0.0972 (J) | | | | | |
| 8/31/2016 | | | | | 0.632 | 0.863 | 0.56 | | |
| 10/25/2016 | | | | | | | | 1.73 | |
| 11/30/2016 | 0.0334 (J) | 1.3 | 0.565 | 0.0964 | 0.637 | 0.804 | 0.529 | 2.12 | |
| 2/15/2017 | 0.254 | 1.33 | 0.647 | 0.398 | | | | 2.14 | |
| 2/16/2017 | | | | | 0.698 | 0.815 | 0.539 | | |
| 5/31/2017 | | 1.38 | 0.503 | | | | | 2.24 | 0.0521 |
| 6/1/2017 | 0.0564 | | | 0.0776 | | | | | |
| 6/2/2017 | | | | | 0.674 | 0.891 | 0.555 | | |
| 8/2/2017 | | | | | | | | | 0.0392 (J) |
| 8/15/2017 | | 1.14 | | | | | | 2.1 | 0.0448 |
| 8/16/2017 | 0.0435 | | 0.539 | | | | | | |
| 8/17/2017 | | | | 0.0853 | 0.7 | 0.922 | 0.516 | | |
| 4/4/2018 | | | | | | | | | 0.046 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 0.048 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 0.04 (J) | 1.2 | 0.76 | | | | | 1.7 | 0.04 |
| 6/20/2018 | | | | 0.079 | 0.69 | | 0.51 | | |
| 6/21/2018 | | | | | | 0.99 | | | |
| 9/25/2018 | | 1 | 0.61 | | | | | | 0.043 |
| 9/26/2018 | 0.038 (J) | | | 0.072 | | | | 1.3 | |
| 9/27/2018 | | | | | 0.62 | 0.88 | 0.47 | | |
| 11/6/2018 | | | 0.75 | | | 1.1 | | 1.8 | 0.046 |
| 11/7/2018 | 0.037 (J) | 1.4 | | 0.074 | 0.86 | | 0.51 | | |
| 3/6/2019 | | | | | 1.5 | | | | |
| 3/24/2019 | | 1 | 0.95 | | 1.1 | 1.2 | 0.44 | 1.4 | |
| 3/25/2019 | 0.038 (J) | | | 0.067 | | | | | 0.03 (J) |
| 10/15/2019 | | 1.1 | 1 | | | | | | |
| 10/16/2019 | 0.036 (J) | | | 0.051 | | | 0.49 | 1.6 | 0.032 (J) |
| 10/17/2019 | | | | | 1.3 | 1.1 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | 1.3 | 0.53 | | |
| 11/21/2019 | | | 1 | | | | | 1.5 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 0.064 (J) | | | | | | | | |
| 3/27/2020 | | 1.5 | 1.3 | 0.088 (J) | | | | 1.8 | 0.058 (J) |
| 3/28/2020 | | | | | 0.95 | 0.79 | 0.28 (J) | | |
| 10/12/2020 | | 1.3 | | | | | | | <0.5 |
| 10/13/2020 | <0.5 | | 1.1 | <0.5 | | | | 1.8 | |
| 10/14/2020 | | | | | 1.5 | 1.8 | | | |
| 10/15/2020 | | | | | | | 0.61 | | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|----------|---------|-------------|---------|---------|----------|----------|-------------|
| 1/4/2021 | | | | | | | 0.98 | | |
| 3/2/2021 | | 1.4 (J) | 1.4 (J) | | | | | | |
| 3/3/2021 | <0.5 | | | <0.5 | | | | 1.7 (J) | <0.5 |
| 3/4/2021 | | | | | 1.4 (J) | 1.6 (J) | 0.4 (J) | | |
| 9/13/2021 | | 1.4 (M1) | 1.2 | | | | | | |
| 9/14/2021 | 0.079 (J) | | | 0.071 (J) | 1.1 | 1.5 | 0.95 (J) | 2.1 (M1) | 0.06 (J) |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|------------|-------------|-----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 0.161 | | | | | |
| 6/1/2017 | | 0.0608 | | | | |
| 6/2/2017 | | | 0.0495 | | | |
| 8/2/2017 | 0.158 | 0.137 | 0.0333 (J) | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 0.148 | | | | | |
| 8/17/2017 | | 0.128 | 0.0593 | | | |
| 4/4/2018 | | 0.1 | 0.065 | | | |
| 4/5/2018 | 0.13 | | | | | |
| 5/8/2018 | | 0.074 | 0.062 | | | |
| 5/9/2018 | 0.12 | | | | | |
| 6/19/2018 | 0.13 | | 0.064 | | | |
| 6/20/2018 | | 0.045 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 0.1 | | 0.06 | | | |
| 9/27/2018 | | 0.06 | | | | |
| 11/6/2018 | | 0.06 | | | | |
| 11/7/2018 | 0.1 | | 0.062 (J) | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 0.091 | 0.058 | 0.057 | | | |
| 10/15/2019 | | 0.068 | 0.046 | | | |
| 10/16/2019 | 0.085 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 1.1 | 0.84 | 0.27 |
| 11/18/2019 | | | | | | 0.29 (J) |
| 11/19/2019 | | | | 1.3 | 0.83 | |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 0.81 | 0.68 | |
| 12/5/2019 | | | | | | 0.23 |
| 12/17/2019 | | | | | 0.57 | |
| 12/18/2019 | | | | 0.77 | | 0.23 |
| 1/8/2020 | | | | 0.9 | 0.73 | |
| 1/9/2020 | | | | | | 0.2 |
| 1/21/2020 | | | | 0.94 | 0.75 | 0.24 (J) |
| 2/4/2020 | | | | 0.96 (J) | 0.79 (J) | 0.24 (J) |
| 2/13/2020 | | | | 0.88 | 0.74 | 0.22 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 0.17 (J) | | 0.076 (J) | 0.94 | 0.96 | 0.24 (J) |
| 3/28/2020 | | 0.067 (J) | | | | |
| 10/12/2020 | | | | | | 0.24 (J) |
| 10/13/2020 | <0.5 | <0.5 | <0.5 | 1.1 | 0.73 | |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|-----------|-------------|----------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | <0.5 | | | |
| 3/3/2021 | <0.5 | | | 0.91 (J) | 0.79 (J) | 0.21 (J) |
| 3/4/2021 | | 0.11 (J) | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 0.093 (J) | 0.07 (J) | 0.068 (J) | 0.91 (J) | 1.2 | 0.2 (J) |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|----------|-----------|--------|--------|-------------|
| 8/30/2016 | 7.3 | 7.05 | 4.02 | 42.8 | | | | | |
| 8/31/2016 | | | | | 65 | 82.8 | 119 | | |
| 10/25/2016 | | | | | | | | 69.4 | |
| 11/30/2016 | 10.8 | 8.69 | 4.87 | 33.2 | 71.7 | 68.7 | 103 | 83.9 | |
| 2/15/2017 | 14.3 | 8.34 | 6.61 | 56.1 | | | | 96.3 | |
| 2/16/2017 | | | | | 74 | 94.8 | 114 | | |
| 5/31/2017 | | 8.85 | | 73.6 | | | | 122 | 18.6 |
| 6/1/2017 | 12.7 (J) | | 6.42 | | | | | | |
| 6/2/2017 | | | | | 120 | 92.5 | 179 | | |
| 8/2/2017 | | | | | | | | | 18.5 |
| 8/15/2017 | | 8.05 | | | | | | 117 | 4.09 |
| 8/16/2017 | 8.7 | | | 99.6 | | | | | |
| 8/17/2017 | | | 5.62 | | 100 | 126 | 186 | | |
| 4/4/2018 | | | | | | | | | <25 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 18.4 (J) |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 11.6 (J) | 8.3 | | 285 | | | | 136 | 4.3 |
| 6/20/2018 | | | 5.7 | | 72.8 | 121 | | | |
| 6/21/2018 | | | | | | | 179 | | |
| 6/28/2018 | 13 | 8.9 | | 294 | | | | 138 | |
| 9/25/2018 | | 6.8 | | 283 | | | | | 6.2 (D) |
| 9/26/2018 | 12.8 (J) | | 5.3 | | | | | 148 | |
| 9/27/2018 | | | | | 46.6 | 95.1 | 193 | | |
| 11/6/2018 | | | | 297 | | | 219 | 24.7 | 1.8 |
| 11/7/2018 | 11.9 | 8.5 | 5.3 | | 41.8 | 387.5 (D) | | | |
| 3/6/2019 | | | | | | 341 | | | |
| 3/24/2019 | | 7.4 | | 338 | 20.9 (J) | 277 | 243 | 136 | |
| 3/25/2019 | 12.6 (J) | | 5.7 | | | | | | 2.5 (D) |
| 10/15/2019 | | 7.9 | | 321 | | | | | |
| 10/16/2019 | 13.6 | | 4.8 | | 55.2 | | | 118 | 2.2 |
| 10/17/2019 | | | | | | 309 | 260 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | 55.8 | | 308 | | |
| 11/21/2019 | | | | 305 | | | | 125 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 10.1 | | | | | | | | |
| 3/27/2020 | | 8.3 | 5.4 | 286 | | | | 222 | 3.3 |
| 3/28/2020 | | | | | 25.8 | 286 | 286 | | |
| 10/12/2020 | | 6.1 | | | | | | | 2.8 |
| 10/13/2020 | 9.8 | | 5.7 | 40.9 | | | | 86.4 | |
| 10/14/2020 | | | | | | 245 | 207 | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|--------|--------|--------|--------|-------------|
| 10/15/2020 | | | | | 69.1 | | | | |
| 1/4/2021 | | | | | 104 | | | | |
| 3/3/2021 | 14 | | | | | | | | |
| 3/4/2021 | | 6.5 | 11.2 | 205 | 23.4 | 233 | 244 | 143 | 2.1 |
| 9/13/2021 | | 6 | | 165 | | | | | |
| 9/14/2021 | 9.6 | | 6.5 | | 13.9 | 299 | 225 | 190 | 14 |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 5.9 | | | | | |
| 6/1/2017 | | 3.65 | | | | |
| 6/2/2017 | | | 2.77 | | | |
| 8/2/2017 | 4.69 | 12.4 | 1.27 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 5.25 | | | | | |
| 8/17/2017 | | 8.17 | 5.53 | | | |
| 4/4/2018 | | 6.8 | 6.5 | | | |
| 4/5/2018 | 5 | | | | | |
| 5/8/2018 | | 5.7 | 6.7 | | | |
| 5/9/2018 | 4.7 | | | | | |
| 6/19/2018 | 4.8 | | 7.4 | | | |
| 6/20/2018 | | 4.3 | | | | |
| 6/21/2018 | | | | | | |
| 6/28/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 4.6 | | 8.5 (J) | | | |
| 9/27/2018 | | 16.4 (J) | | | | |
| 11/6/2018 | | 39.5 | | | | |
| 11/7/2018 | 4.6 | | 9.8 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 4.7 | 20.8 (J) | 7.8 | | | |
| 10/15/2019 | | 15.5 | 6.7 | | | |
| 10/16/2019 | 4.9 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 46.2 | 158 | 163 |
| 11/18/2019 | | | | 41.8 | | |
| 11/19/2019 | | | | | 152 | 169 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | | 142 | 140 |
| 12/5/2019 | | | | 40.5 | | |
| 12/17/2019 | | | | | 136 | |
| 12/18/2019 | | | | 42 | | 145 |
| 1/8/2020 | | | | | 147 | 157 |
| 1/9/2020 | | | | 37.1 | | |
| 1/21/2020 | | | | 40.1 | 167 | 152 |
| 2/4/2020 | | | | 36.2 | 142 | 139 |
| 2/13/2020 | | | | 38.9 | 148 | 146 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 4.9 | | 5.9 | 23.2 | 122 | 113 |
| 3/28/2020 | | 15.5 | | | | |
| 10/12/2020 | | | | 19.1 | | |
| 10/13/2020 | 3.8 | 12.5 | 0.83 | | 125 | 128 |
| 10/14/2020 | | | | | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 10/15/2020 | | | | | | |
| 1/4/2021 | | | | | | |
| 3/3/2021 | 4 | | | | | |
| 3/4/2021 | | 15.1 | 1.4 | 26 | 123 | 110 |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 4.2 | 12.5 | 6.7 | 18.8 | 93.6 | 61.1 |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|------------|-------------|---------|--------|-------------|----------|----------|---------|------------|-------------|
| 8/30/2016 | 9.7 | 800 | 450 | 26 | | | | | |
| 8/31/2016 | | | | | 2200 | 2600 | 1800 | | |
| 10/25/2016 | | | | | | | | 1300 | |
| 11/30/2016 | 19 | 760 | 310 | 27 | 2100 | 2800 | 1100 | 400 | |
| 2/15/2017 | 21 | 740 | 490 | 30 | | | | 2000 | |
| 2/16/2017 | | | | | 2500 | 3100 | 2100 | | |
| 5/31/2017 | | 740 | 820 | | | | | 2500 | 98 |
| 6/1/2017 | 12 | | | 27 | | | | | |
| 6/2/2017 | | | | | 2500 | 4600 | 3100 | | |
| 8/2/2017 | | | | | | | | | 57 |
| 8/15/2017 | | 750 | | | | | | 2500 | 15 |
| 8/16/2017 | 14 | | 1500 | | | | | | |
| 8/17/2017 | | | | 32 | 2700 | 4600 | 2600 | | |
| 4/4/2018 | | | | | | | | | 69 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 72.3 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 24.4 | 760 | 5180 | | | | | 3050 | 17.3 |
| 6/20/2018 | | | | 30 | 3100 | | 1800 | | |
| 6/21/2018 | | | | | | 3920 | | | |
| 9/25/2018 | | 752 (D) | 7220 | | | | | | 31.3 |
| 9/26/2018 | 23.4 | | | 28.4 | | | | 3965 (D) | |
| 9/27/2018 | | | | | 2510 (D) | 5660 (D) | 1300 | | |
| 11/6/2018 | | | 6020 | | | 6520 | | 2230 | 9.8 |
| 11/7/2018 | 21.8 | 665 | | 25.1 | 8860 | | 1180 | | |
| 3/6/2019 | | | | | 11700 | | | | |
| 3/24/2019 | | 744 | 7400 | | 6470 | 8720 | 717 | 3960 | |
| 3/25/2019 | 19.4 | | | 21.8 | | | | | 12.9 |
| 10/15/2019 | | 744 | 9050 | | | | | | |
| 10/16/2019 | 21.4 | | | 20 | | | 941 (D) | 2181.5 (D) | 12.2 |
| 10/17/2019 | | | | | 9930 | 8210 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | 9810 | 1480 | | |
| 11/21/2019 | | | 8330 | | | | | 3890 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 23 | | | | | | | | |
| 3/27/2020 | | 675 | 7680 | 23.6 | | | | 4770 | 14.5 |
| 3/28/2020 | | | | | 9190 | 9070 | 693 | | |
| 10/12/2020 | | 552 | | | | | | | 13.9 |
| 10/13/2020 | 13.5 | | 6230 | 23.3 | | | | 3980 | |
| 10/14/2020 | | | | | 6630 | 7910 | | | |
| 10/15/2020 | | | | | | | 1660 | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | | | 2460 | | |
| 3/2/2021 | | 459 | <1 | | | | | | |
| 3/3/2021 | 13.6 | | | 27.6 | | | | <1 | 9.4 |
| 3/4/2021 | | | | | 6310 | 7540 | 652 | | |
| 9/13/2021 | | 433 | 5010 | | | | | | |
| 9/14/2021 | 16.7 | | | 30 | 5360 | 6300 | 3940 | 4090 | 62.8 |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 39 | | | | | |
| 6/1/2017 | | 22 | | | | |
| 6/2/2017 | | | 11 | | | |
| 8/2/2017 | 42 | 230 | 3.2 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 41 | | | | | |
| 8/17/2017 | | 210 | 12 | | | |
| 4/4/2018 | | 156 | 13.4 | | | |
| 4/5/2018 | 40.2 | | | | | |
| 5/8/2018 | | 140 | 13.2 | | | |
| 5/9/2018 | 40.6 | | | | | |
| 6/19/2018 | 37.7 | | 13.7 | | | |
| 6/20/2018 | | 27.5 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 33.4 | | 18.5 | | | |
| 9/27/2018 | | 101 | | | | |
| 11/6/2018 | | 107 | | | | |
| 11/7/2018 | 30.7 | | 20.2 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 33.5 | 78.5 | 19.7 | | | |
| 10/15/2019 | | 46 | 17.1 | | | |
| 10/16/2019 | 33.1 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 7880 | 6170 | 2360 |
| 11/18/2019 | | | | | | 6970 |
| 11/19/2019 | | | | 8130 | 5650 | |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 7410 | 6100 | |
| 12/5/2019 | | | | | | 2130 |
| 12/17/2019 | | | | | 5660 | |
| 12/18/2019 | | | | 7170 | | 2090 |
| 1/8/2020 | | | | 6480 | 5070 | |
| 1/9/2020 | | | | | | 1750 |
| 1/21/2020 | | | | 6000 | 5010 | 1630 |
| 2/4/2020 | | | | 5700 | 5030 | 1760 |
| 2/13/2020 | | | | 7060 | 6140 | 1850 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 32.9 | | 14.1 | 7110 | 6870 | 1450 |
| 3/28/2020 | | 71.4 | | | | |
| 10/12/2020 | | | | | | 1340 |
| 10/13/2020 | 25.7 | 54.4 | 3.8 | 5980 | 5260 | |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 4.2 | | | |
| 3/3/2021 | 20.5 | | | <1 | 5170 | 1230 |
| 3/4/2021 | | 69.6 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 21.8 | 28.5 | 13.6 | 5100 | 7250 | 1020 |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|--------|-----------|-------------|-----------|-----------|--------|-----------|-------------|
| 8/30/2016 | 0.03 (J) | 1.5 | 0.5 | 0.04 (J) | | | | | |
| 8/31/2016 | | | | | 0.41 | 0.92 | 0.93 | | |
| 10/25/2016 | | | | | | | | 1.1 | |
| 11/30/2016 | 0.04 (J) | 1.4 | 0.49 | 0.18 (J) | 0.61 | 0.99 | 0.93 | 1.3 | |
| 2/15/2017 | 0.007 (J) | 1.3 | 0.58 | 0.02 (J) | | | | 1.3 | |
| 2/16/2017 | | | | | 0.3 (J) | 0.54 | 0.6 | | |
| 5/31/2017 | | 1.2 | 0.56 | | | | | 1.3 | 0.01 (J) |
| 6/1/2017 | <0.1 | | | 0.005 (J) | | | | | |
| 6/2/2017 | | | | | 0.19 (J) | 0.42 | 0.34 | | |
| 8/2/2017 | | | | | | | | | 0.14 (J) |
| 8/15/2017 | | 1.2 | | | | | | 1.2 | |
| 8/16/2017 | 0.03 (J) | | 0.45 | | | | | | 0.13 (J) |
| 8/17/2017 | | | | 0.04 (J) | 0.26 (J) | 0.27 (J) | 0.52 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | <0.1 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | <0.1 |
| 6/19/2018 | <0.1 | 0.91 | <0.1 | | | | | 0.6 | 0.065 (J) |
| 6/20/2018 | | | | 0.038 (J) | 0.22 (J) | | 0.5 | | |
| 6/21/2018 | | | | | | 0.28 (J) | | | |
| 9/25/2018 | | 1.1 | <0.1 | | | | | | |
| 9/26/2018 | 0.12 (J) | | | 0.029 | | | | 0.44 (D) | 0.029 |
| 9/27/2018 | | | | | 0.068 (J) | 0.32 (D) | 0.32 | | |
| 11/6/2018 | | | 0.084 (J) | | | 0.086 (J) | | 0.4 | |
| 11/7/2018 | <0.1 | <0.1 | | <0.1 | 10.3 (o) | | 0.35 | | <0.1 |
| 3/6/2019 | | | | | <0.1 | | | | |
| 3/24/2019 | | 0.99 | 0.14 (J) | | 0.19 (J) | 0.14 (J) | 0.32 | 0.31 | |
| 3/25/2019 | 0.038 (J) | | | 0.041 (J) | | | | | 0.039 (J) |
| 8/26/2019 | | | <0.1 | | | | | | |
| 8/27/2019 | <0.1 | 1.1 | | <0.1 | | | | <0.1 | |
| 8/28/2019 | | | | | <0.1 | <0.1 | 0.36 | | <0.1 |
| 10/15/2019 | | 1 | <0.1 | | | | | | |
| 10/16/2019 | 0.046 (JD) | | | 0.044 (J) | | | 0.41 | 0.083 (J) | 0.044 (JD) |
| 10/17/2019 | | | | | <0.1 | <0.1 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | <0.1 | 0.34 | | |
| 11/21/2019 | | | <0.1 | | | | | <0.1 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | <0.1 | | | | | | | | |
| 3/27/2020 | | 1.1 | <0.1 | <0.1 | | | | <0.1 | <0.1 |
| 3/28/2020 | | | | | <0.1 | <0.1 | 0.34 | | |
| 10/12/2020 | | 1.2 | | | | | | | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 10/13/2020 | <0.1 | | <0.1 | <0.1 | | | | <0.1 | <0.1 |
| 10/14/2020 | | | | | <0.1 | <0.1 | | | |
| 10/15/2020 | | | | | | | 0.22 | | |
| 1/4/2021 | | | | | | | <0.1 | | |
| 3/2/2021 | | 1 | <0.1 | | | | | | |
| 3/3/2021 | <0.1 | | | <0.1 | | | | <0.1 | <0.1 |
| 3/4/2021 | | | | | <0.1 | <0.1 | 0.45 | | |
| 9/13/2021 | | 1.4 | <0.1 | | | | | | |
| 9/14/2021 | <0.1 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-18 (bg) | MCM-19 (bg) |
|------------|-------------|-----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 0.85 | | | | | |
| 6/1/2017 | | <0.1 | | | | |
| 6/2/2017 | | | <0.1 | | | |
| 8/2/2017 | 0.69 | 0.27 (J) | 0.05 (J) | | | |
| 8/15/2017 | 0.29 (J) | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 0.18 (J) | <0.1 | | | |
| 4/4/2018 | 0.32 | <0.1 | <0.1 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 0.63 | 0.56 | <0.1 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 0.17 (J) | | 0.057 (J) | | | |
| 6/20/2018 | | 0.033 (J) | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 0.15 (J) | | | | | |
| 9/26/2018 | | | 0.029 | | | |
| 9/27/2018 | | 0.12 (J) | | | | |
| 11/6/2018 | <0.1 | <0.1 | | | | |
| 11/7/2018 | | | <0.1 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 0.12 (J) | 0.055 (J) | 0.036 (J) | | | |
| 8/26/2019 | | | | | | |
| 8/27/2019 | | <0.1 | <0.1 | | | |
| 8/28/2019 | 0.068 (J) | | | | | |
| 10/15/2019 | | 0.095 (J) | 0.14 (J) | | | |
| 10/16/2019 | 0.1 (J) | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 1.4 | 0.49 | <0.1 |
| 11/18/2019 | | | | | 0.52 | |
| 11/19/2019 | | | | 1.2 | | 0.033 (J) |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 1.4 | | 0.22 (J) |
| 12/5/2019 | | | | | 0.5 | |
| 12/17/2019 | | | | | | <0.1 |
| 12/18/2019 | | | | 1.5 | 0.33 | |
| 1/8/2020 | | | | <0.1 | | <0.1 |
| 1/9/2020 | | | | | 0.12 (J) | |
| 1/21/2020 | | | | 0.53 | 0.13 (J) | 0.11 (J) |
| 2/4/2020 | | | | <0.1 | 0.18 (J) | <0.1 |
| 2/13/2020 | | | | <0.1 | 0.077 (J) | <0.1 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 0.066 (J) | | <0.1 | <0.1 | 0.06 (J) | <0.1 |
| 3/28/2020 | | <0.1 | | | | |
| 10/12/2020 | <0.1 | | | | 0.34 | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-18 (bg) | MCM-19 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 10/13/2020 | | <0.1 | <0.1 | <0.1 | | <0.1 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | <0.1 | | | |
| 3/3/2021 | 0.082 (J) | | | <0.1 | 0.32 | <0.1 |
| 3/4/2021 | | <0.1 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 0.18 | 0.05 | <0.1 | <0.1 | <0.1 | <0.1 |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-16 (bg) | MCM-12 | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-02 (bg) |
|------------|-------------|-------------|--------|--------|--------|--------|--------|--------|-------------|
| 8/30/2016 | 5.66 | 5.18 | 6.49 | 7.04 | | | | | |
| 8/31/2016 | | | | | 6.93 | 7.21 | 6.66 | | |
| 10/25/2016 | | | | | | | | 6.95 | |
| 11/30/2016 | 5.36 | 4.96 | 6.5 | 7.13 | 6.77 | 7.23 | 6.69 | 6.95 | |
| 2/15/2017 | 5.25 | 5.13 | 6.51 | 7.02 | | | | 6.85 | |
| 2/16/2017 | | | | | 6.89 | 7.27 | 6.72 | | |
| 5/31/2017 | | | 6.45 | 7 | | | | 6.96 | 5.06 |
| 6/1/2017 | 5.59 | 4.99 | | | | | | | |
| 6/2/2017 | | | | | 6.83 | 7.18 | 6.53 | | |
| 8/2/2017 | | | | | | | | | 5 |
| 8/15/2017 | | | 6.41 | | | | | 6.99 | |
| 8/16/2017 | 5.58 | | | 6.88 | | | | | 4.98 |
| 8/17/2017 | | 4.68 | | | 6.76 | 7.15 | 6.28 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | 5.02 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | 4.96 |
| 6/19/2018 | 5.51 | | 6.32 | 6.78 | | | | 6.91 | 5.02 |
| 6/20/2018 | | 4.77 | | | 6.83 | 7.19 | | | |
| 6/21/2018 | | | | | | | 6.45 | | |
| 9/25/2018 | | | 6.31 | 6.75 | | | | | |
| 9/26/2018 | 5.32 | 4.65 | | | | | | 6.81 | 5.06 |
| 9/27/2018 | | | | | 6.64 | 7.21 | 6.48 | | |
| 11/6/2018 | | | | 6.92 | | | 6.18 | 5.99 | |
| 11/7/2018 | 5.72 | 4.99 | 6.3 | | 6.6 | 6.91 | | | 5.03 |
| 3/24/2019 | | | 6.4 | 6.59 | 6.1 | 6.98 | 6.38 | 6.62 | |
| 3/25/2019 | 5.75 | 5.13 | | | | | | | 5.08 |
| 8/26/2019 | | | | 6.62 | | | | | |
| 8/27/2019 | 5.58 | 4.88 | 6.24 | | | | | 6.23 | |
| 8/28/2019 | | | | | 6.69 | 6.87 | 6.35 | | 4.99 |
| 10/15/2019 | | | 6.19 | 6.58 | | | | | |
| 10/16/2019 | 5.72 | 4.89 | | | 6.64 | | | 6.54 | 4.98 |
| 10/17/2019 | | | | | | 6.86 | 6.4 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | 5.11 |
| 11/20/2019 | 5.77 | | | | 6.58 | | 6.27 | | |
| 11/21/2019 | | | | 6.67 | | | | 6.44 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 5.45 | | | | | | | | |
| 3/27/2020 | | 5.12 | 6.33 | 6.59 | | | | 6.93 | 5.12 |
| 3/28/2020 | | | | | 6.6 | 6.8 | 6.35 | | |
| 10/12/2020 | | | 6.35 | | | | | | |
| 10/13/2020 | 5.69 | 5.17 | | 6.56 | | | | 6.34 | 5.03 |
| 10/14/2020 | | | | | | 6.93 | 6.32 | | |
| 10/15/2020 | | | | | 6.53 | | | | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-16 (bg) | MCM-12 | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-02 (bg) |
|-----------|-------------|-------------|--------|--------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | 6.66 | | | | |
| 3/2/2021 | | | 6.34 | 6.55 | | | | | |
| 3/3/2021 | 5.81 | 5.71 | | | | | | 6.58 | 5.06 |
| 3/4/2021 | | | | | 6.52 | 6.94 | 6.33 | | |
| 9/13/2021 | | | 6.24 | 6.3 | | | | | |
| 9/14/2021 | 5.13 | 4.69 | | | 6.67 | 6.94 | 6.28 | 6.77 | 5.04 |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 5.29 | | | | | |
| 6/1/2017 | | 5.68 | | | | |
| 6/2/2017 | | | 5.31 | | | |
| 8/2/2017 | 5.19 | 5.2 | 5.05 | | | |
| 8/15/2017 | 5.19 | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 5.31 | 5.52 | | | |
| 4/4/2018 | 5.19 | 4.74 | 5.45 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 5.3 | 4.78 | 5.54 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 5.15 | | 5.6 | | | |
| 6/20/2018 | | 4.79 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 5.13 | | | | | |
| 9/26/2018 | | | 5.17 | | | |
| 9/27/2018 | | 5.14 | | | | |
| 11/6/2018 | 5.08 | 4.9 | | | | |
| 11/7/2018 | | | 5.47 | | | |
| 3/24/2019 | | | 5.4 | | | |
| 3/25/2019 | 5.05 | 4.93 | | | | |
| 8/26/2019 | | | | | | |
| 8/27/2019 | | 5.05 | 5.35 | | | |
| 8/28/2019 | 4.87 | | | | | |
| 10/15/2019 | | 4.89 | 5.32 | | | |
| 10/16/2019 | 5.05 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 3.79 | 5.21 | 4.25 |
| 11/18/2019 | | | | | | 4.12 |
| 11/19/2019 | | | | 3.78 | 5.15 | |
| 11/20/2019 | | 5.03 | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 3.87 (D) | 5.28 (D) | |
| 12/5/2019 | | | | | | 4.17 (D) |
| 1/8/2020 | | | | 3.77 | 5.04 | |
| 1/9/2020 | | | | | | 4.19 |
| 1/21/2020 | | | | 3.73 | 5.1 | 4.28 |
| 2/4/2020 | | | | 3.72 | 5.15 | 4.26 |
| 2/13/2020 | | | | 3.75 | 5.07 | 4.2 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 5.09 | | 5.3 | 3.81 | 5.14 | 4.34 |
| 3/28/2020 | | 5.27 | | | | |
| 10/12/2020 | 5 | | | | | 4.29 |
| 10/13/2020 | | 5.25 | 5.02 | 3.72 | 5.04 | |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 5.16 | | | |
| 3/3/2021 | 5.07 | | | 3.36 | 5.1 | 4.37 |
| 3/4/2021 | | 5.31 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 5.5 | 5.09 | 5.39 | 3.72 | 5.31 | 4.28 |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|----------|--------|-------------|----------|---------|-----------|-----------|-------------|
| 8/30/2016 | 17 | 4.3 | 6.4 | 24 | | | | | |
| 8/31/2016 | | | | | 21 | 290 | 37 | | |
| 10/25/2016 | | | | | | | | 84 | |
| 11/30/2016 | 33 | 7.6 | 4.5 | 26 | 19 | 240 | 63 | 52 | |
| 2/15/2017 | 83 | 3 | 37 | 30 | | | | 190 | |
| 2/16/2017 | | | | | 22 | 220 | 90 | | |
| 5/31/2017 | | 2.5 | 61 | | | | | 260 | 46 |
| 6/1/2017 | 51 | | | 24 | | | | | |
| 6/2/2017 | | | | | 28 | 500 | 210 | | |
| 8/2/2017 | | | | | | | | | 43 |
| 8/15/2017 | | 3.2 | | | | | | 210 | |
| 8/16/2017 | 36 | | 130 | | | | | | 41 |
| 8/17/2017 | | | | 26 | 69 | 510 | 80 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | 33.4 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | 36 |
| 6/19/2018 | 50.3 | 1.6 | 498 | | | | | 218 | 35.5 |
| 6/20/2018 | | | | 31.2 | 33 | | 46 (J) | | |
| 6/21/2018 | | | | | | 481 | | | |
| 9/25/2018 | | 1 | 790 | | | | | | |
| 9/26/2018 | 54.1 | | | 36.8 | | | | 333 (D) | 39.6 |
| 9/27/2018 | | | | | 29.4 (D) | 777 (D) | 58.5 (J) | | |
| 11/6/2018 | | | 875 | | | 926 | | 182 | |
| 11/7/2018 | 45.6 | 0.41 (J) | | 35 | 734 | | 41.3 (J) | | 35.8 |
| 3/6/2019 | | | | | 1220 (J) | | | | |
| 3/24/2019 | | 1.5 | 1170 | | 413 | 1070 | 131 | 413 | |
| 3/25/2019 | 43 | | | 40.1 | | | | | 34.2 |
| 10/15/2019 | | 0.54 (J) | <1 | | | | | | |
| 10/16/2019 | 31.9 | | | 28.5 | | | 122.5 (D) | 312.5 (D) | 24.4 |
| 10/17/2019 | | | | | 507 | 1230 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | 1550 | 132 | | |
| 11/21/2019 | | | 1070 | | | | | 428 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 36.2 | | | | | | | | |
| 3/27/2020 | | <1 | 899 | 31.2 | | | | 504 | 28.6 |
| 3/28/2020 | | | | | 701 | 1090 | 63.8 | | |
| 10/12/2020 | | <1 | | | | | | | |
| 10/13/2020 | 32.3 | | 695 | 26.8 | | | | 378 | 27.6 |
| 10/14/2020 | | | | | 510 | 904 | | | |
| 10/15/2020 | | | | | | | 147 | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|-----------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | | | 262 | | |
| 3/2/2021 | | 1.2 | 97.5 | | | | | | |
| 3/3/2021 | 33.8 | | | 30.5 | | | | 420 | 27.6 |
| 3/4/2021 | | | | | 596 | 982 | 82.2 | | |
| 9/13/2021 | | <1 | 680 | | | | | | |
| 9/14/2021 | 34.2 | | | 24.4 | 490 | 819 | 459 | 460 | 30.4 |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-18 (bg) | MCM-19 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 40 | | | | | |
| 6/1/2017 | | 42 | | | | |
| 6/2/2017 | | | 13 | | | |
| 8/2/2017 | 34 | 120 | 14 | | | |
| 8/15/2017 | 24 | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 110 | 14 | | | |
| 4/4/2018 | 33.9 | 70.6 | 13.4 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 35.7 | 61.4 | 14.8 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 23.7 | | 15.5 | | | |
| 6/20/2018 | | 25.3 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 25.6 | | | | | |
| 9/26/2018 | | | 23 | | | |
| 9/27/2018 | | 63.4 | | | | |
| 11/6/2018 | 25.2 | 136 | | | | |
| 11/7/2018 | | | 22.2 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 24.9 | 137 | 22.4 | | | |
| 10/15/2019 | | 105 | 17.9 | | | |
| 10/16/2019 | 17.4 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 1010 | 379 | 832 |
| 11/18/2019 | | | | | 737 | |
| 11/19/2019 | | | | 1140 | | 795 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 1020 | | 810 |
| 12/5/2019 | | | | | 351 | |
| 12/17/2019 | | | | | | 535 |
| 12/18/2019 | | | | 8.1 | | |
| 1/8/2020 | | | | 747 | | 603 |
| 1/9/2020 | | | | | 254 | |
| 1/21/2020 | | | | 798 | 254 | 611 |
| 2/4/2020 | | | | 1120 | 432 | 599 |
| 2/13/2020 | | | | 833 | 300 | 761 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 23.4 | | 14.6 | 700 | 219 | 836 |
| 3/28/2020 | | 86.6 | | | | |
| 10/12/2020 | 19.3 | | | | 191 | |
| 10/13/2020 | | 92.3 | 7.6 | 638 | | 609 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-18 (bg) | MCM-19 (bg) |
|-----------|-------------|-----------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 8 | | | |
| 3/3/2021 | 19.9 | | | 743 | 171 | <1 |
| 3/4/2021 | | 99.1 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 33.1 | 96.2 (M1) | 16.7 | 659 | 134 | 995 |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | 86 | 1910 | 1310 | 99 | | | | | |
| 8/31/2016 | | | | | 4160 | 5100 | 3620 | | |
| 10/25/2016 | | | | | | | | 2900 | |
| 11/30/2016 | 131 | 1910 | 1050 | 111 | 3950 | 4680 | 4030 | 3970 | |
| 2/15/2017 | 212 | 1870 | 1440 | 170 | | | | 3820 | |
| 2/16/2017 | | | | | 4600 | 5080 | 4080 | | |
| 5/31/2017 | | 1920 | 1740 | | | | | 5050 | 257 |
| 6/1/2017 | 103 | | | 98 | | | | | |
| 6/2/2017 | | | | | 4470 | 8000 | 5560 | | |
| 8/2/2017 | | | | | | | | | 183 |
| 8/15/2017 | | 1840 | | | | | | 4820 | 90 |
| 8/16/2017 | 65 | | 3010 | | | | | | |
| 8/17/2017 | | | | 84 | 5450 | 8320 | 4620 | | |
| 4/4/2018 | | | | | | | | | 197 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 225 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 142 | 1820 | 8630 | | | | | 5640 | 112 |
| 6/20/2018 | | | | 123 | 4940 | | 3370 | | |
| 6/21/2018 | | | | | | 7500 | | | |
| 9/25/2018 | | 1760 | 10700 | | | | | | 137 |
| 9/26/2018 | 133 | | | 117 | | | | 6920 | |
| 9/27/2018 | | | | | 4480 | 10200 | 2360 | | |
| 11/6/2018 | | | 11100 | | | 11000 | | 4160 | 89 |
| 11/7/2018 | 121 | 1800 | | 120 | 15100 | | 2230 | | |
| 3/6/2019 | | | | | 19000 | | | | |
| 3/24/2019 | | 1770 | 14200 | | 13700 | 13700 | 1450 | 6840 | |
| 3/25/2019 | 116 | | | 101 | | | | | 74 |
| 10/15/2019 | | 1730 | 15400 | | | | | | |
| 10/16/2019 | 104 | | | 95 | | | 2860 | 7740 | 82 |
| 10/17/2019 | | | | | 16100 | 13200 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | 16700 | 2640 | | |
| 11/21/2019 | | | 15800 | | | | | 7720 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 114 | | | | | | | | |
| 3/27/2020 | | 1970 | 16400 | 110 | | | | 10200 | 87 |
| 3/28/2020 | | | | | 18800 | 18300 | 1470 | | |
| 10/12/2020 | | 1560 | | | | | | | 94 |
| 10/13/2020 | 113 | | 15600 | 115 | | | | 8750 | |
| 10/14/2020 | | | | | 15200 | 18400 | | | |
| 10/15/2020 | | | | | | | 5100 | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | | | 7750 | | |
| 3/2/2021 | | 1430 | 12000 | | | | | | |
| 3/3/2021 | 99 | | | 122 | | | | 8830 | 66 |
| 3/4/2021 | | | | | 14200 | 17100 | 1700 | | |
| 9/13/2021 | | 1450 | 11400 | | | | | | |
| 9/14/2021 | 66 | | | <25 | 11800 | 13400 | 8020 | 8820 | 191 |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 123 | | | | | |
| 6/1/2017 | | 97 | | | | |
| 6/2/2017 | | | 69 | | | |
| 8/2/2017 | 136 | 538 | 35 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 124 | | | | | |
| 8/17/2017 | | 445 | 51 | | | |
| 4/4/2018 | | 365 | 90 | | | |
| 4/5/2018 | 128 | | | | | |
| 5/8/2018 | | 304 | 89 | | | |
| 5/9/2018 | 127 | | | | | |
| 6/19/2018 | 143 | | 110 | | | |
| 6/20/2018 | | 114 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 132 | | 124 | | | |
| 9/27/2018 | | 255 | | | | |
| 11/6/2018 | | 388 | | | | |
| 11/7/2018 | 134 | | 125 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 111 | 327 | 98 | | | |
| 10/15/2019 | | 237 | 107 | | | |
| 10/16/2019 | 96 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 13500 | 10900 | 4140 |
| 11/18/2019 | | | | | | 4030 |
| 11/19/2019 | | | | 13300 | 10000 | |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 13200 | 11000 | |
| 12/5/2019 | | | | | | 3840 |
| 12/17/2019 | | | | | 9860 | |
| 12/18/2019 | | | | 12500 | | 3880 |
| 1/8/2020 | | | | 12300 | 9760 | |
| 1/9/2020 | | | | | | 3520 |
| 1/21/2020 | | | | 12000 | 10100 | 3280 |
| 2/4/2020 | | | | 12300 | 10600 | 3220 |
| 2/13/2020 | | | | 12400 | 10900 | 3580 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 119 | | 110 | 14600 | 14300 | 3090 |
| 3/28/2020 | | 284 | | | | |
| 10/12/2020 | | | | | | 2920 |
| 10/13/2020 | 118 | <25 | 63 | 13900 | 6600 | |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/1/2021 11:29 AM View: Appendix III
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 40 | | | |
| 3/3/2021 | 84 | | | 11400 | 11000 | 2620 |
| 3/4/2021 | | 285 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 76 | 193 | 96 | 10300 | 14600 | 2190 |

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/30/2021, 10:06 AM

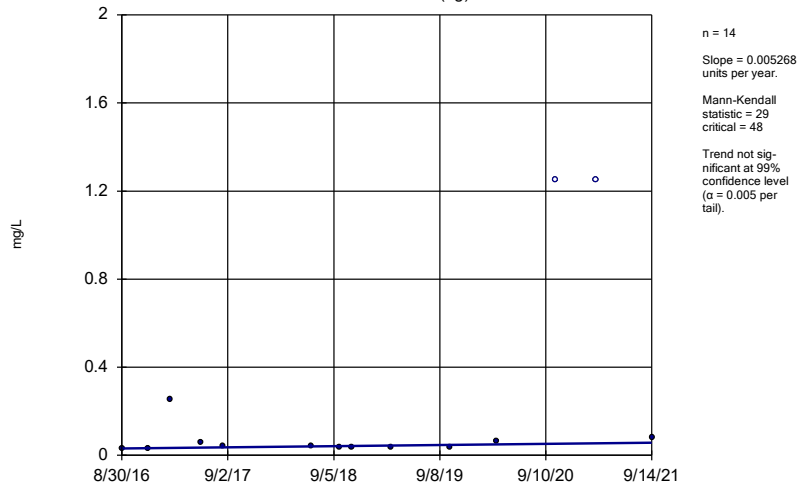
| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|------------------------|-------------|--------------|--------------|-----------------|-------------|----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MCM-07 | 0.1515 | 64 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 35.39 | 70 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -19.45 | -52 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -47.21 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.06323 | -73 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.07919 | -57 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.07594 | -64 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.05115 | -56 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1384 | -101 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |

Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 11/30/2021, 10:06 AM

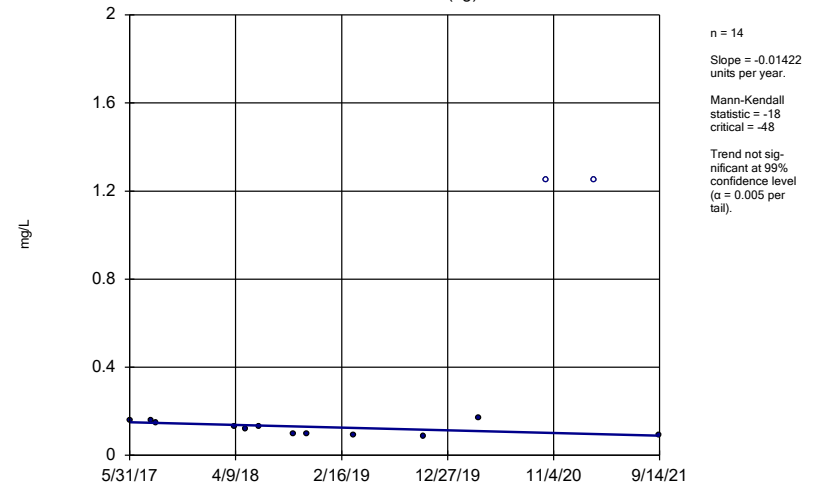
| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|-------------------------------|--------------------|-----------------|-------------|------------|------------|-----------|----------|------------|------------|-------------|-----------|
| Boron (mg/L) | MCM-01 (bg) | 0.005268 | 29 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-02 (bg) | -0.01422 | -18 | -48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-07 | 0.1515 | 64 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-11 (bg) | 0.004391 | 25 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-12 | 0.0235 | 20 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-15 (bg) | 0.007968 | 39 | 48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-16 (bg) | -0.005194 | -22 | -48 | No | 14 | 14.29 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-17 | -0.04304 | -18 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-18 (bg) | -0.02454 | -24 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-19 (bg) | 0.1284 | 14 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-20 (bg) | 0 | -1 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-01 (bg) | 0.2793 | 5 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-02 (bg) | -0.2586 | -42 | -48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-06 | 44.92 | 51 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 35.39 | 70 | 53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-11 (bg) | -1.659 | -41 | -48 | No | 14 | 7.143 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-15 (bg) | 0.1417 | 10 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-16 (bg) | 0.2144 | 23 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-17 | 16.77 | 53 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -19.45 | -52 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -30.87 | -37 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -47.21 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-01 (bg) | 0.03493 | 24 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-02 (bg) | 0.01474 | 34 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.06323 | -73 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.07919 | -57 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.07594 | -64 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-11 (bg) | -0.05853 | -45 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.05115 | -56 | -53 | Yes | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1384 | -101 | -58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-15 (bg) | -0.07157 | -27 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-16 (bg) | 0.01093 | 5 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-17 | -0.09795 | -47 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.1318 | 32 | 34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-19 (bg) | -0.04282 | -8 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.1177 | -30 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator
MCM-01 (bg)



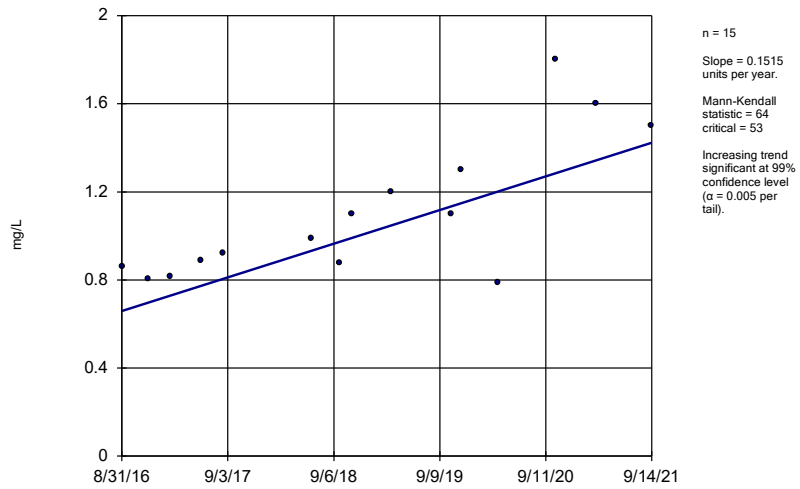
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-02 (bg)



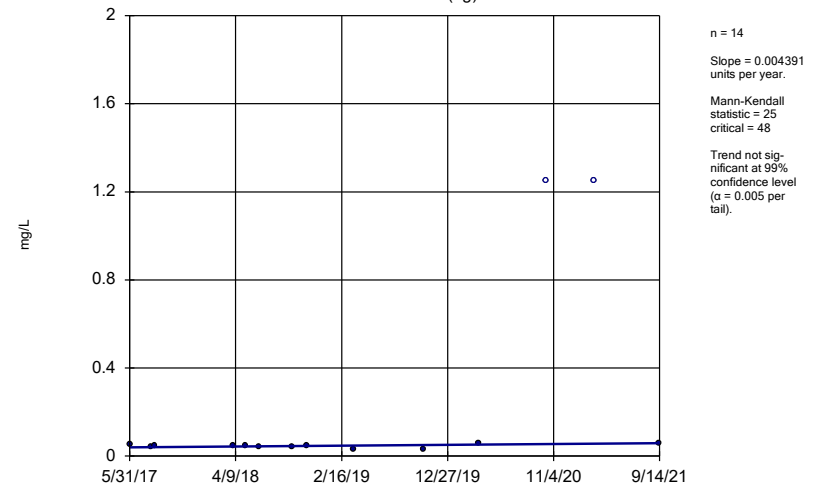
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-07



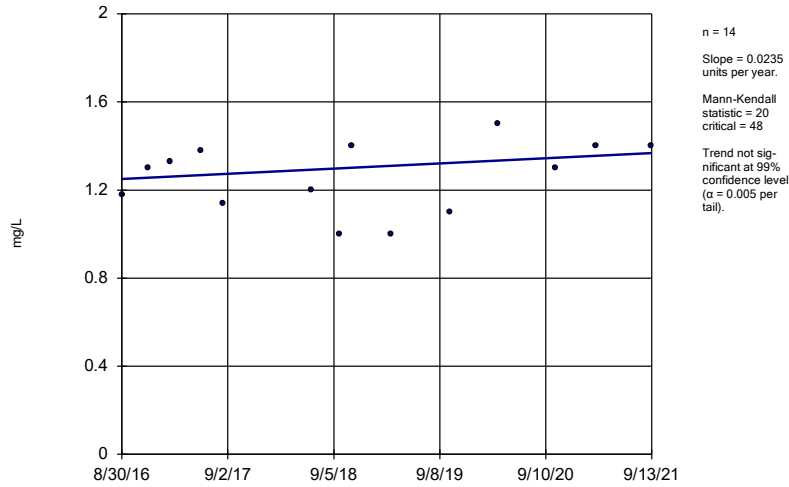
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



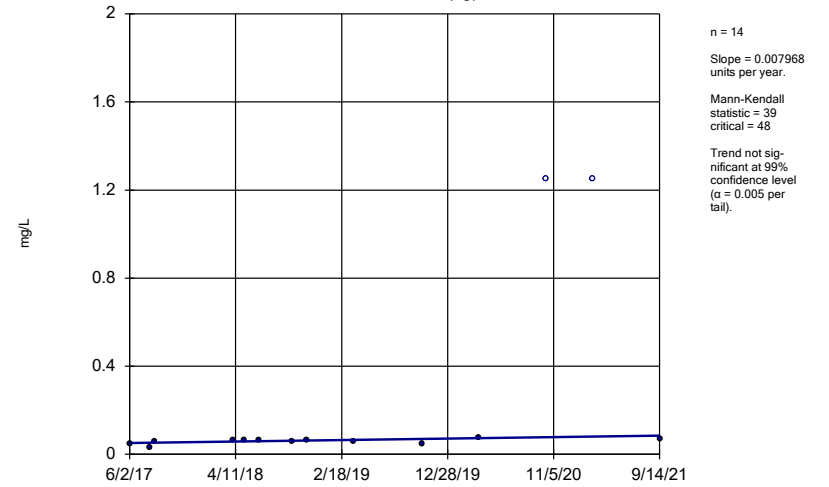
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-12



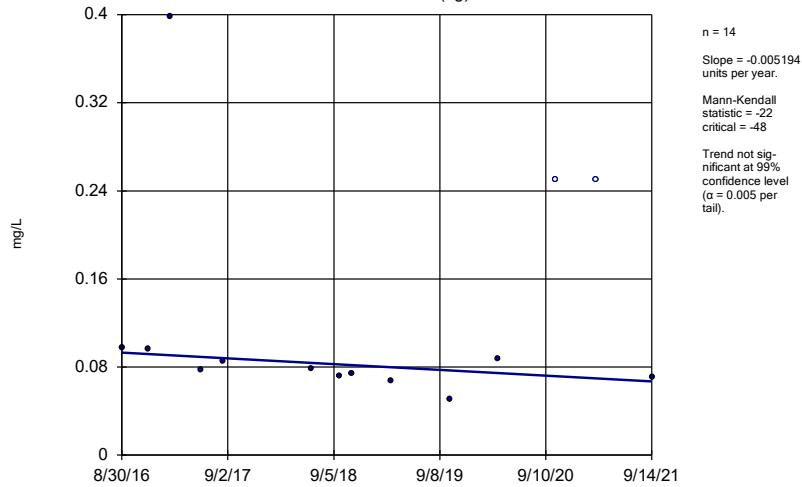
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-15 (bg)



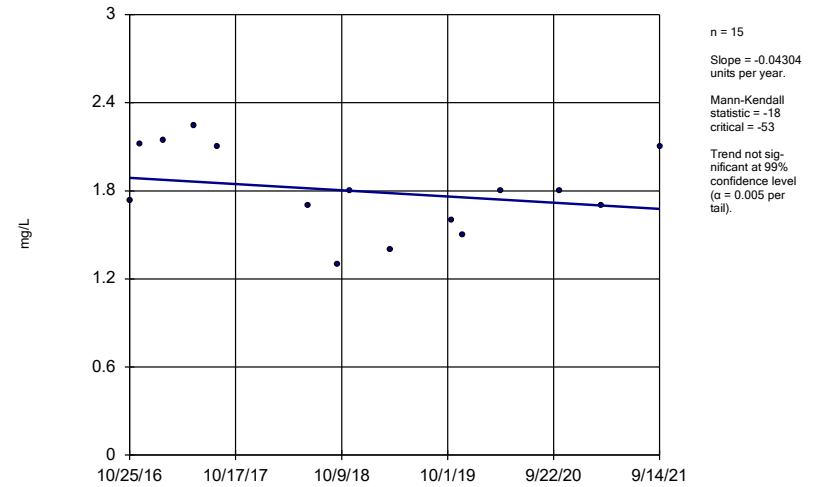
Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-16 (bg)



Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

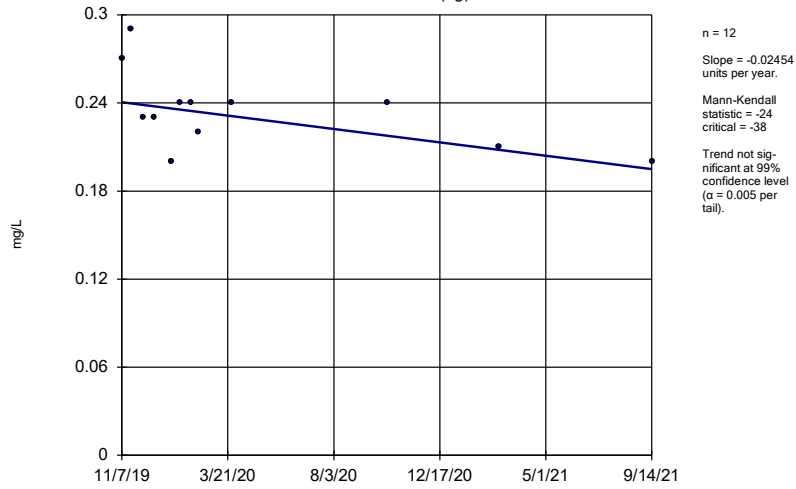
Sen's Slope Estimator
MCM-17



Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

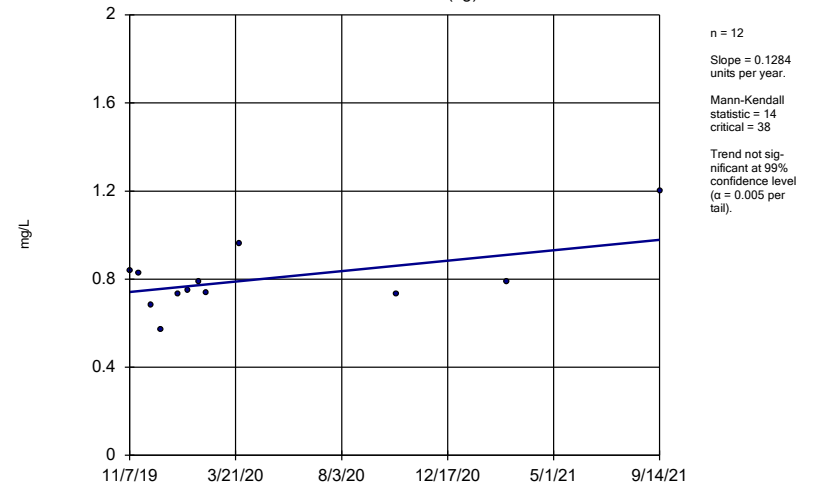
MCM-18 (bg)



Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

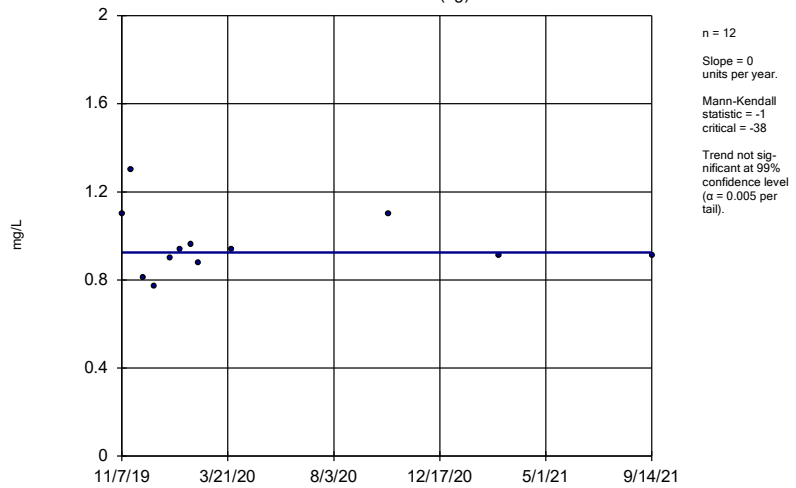
MCM-19 (bg)



Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

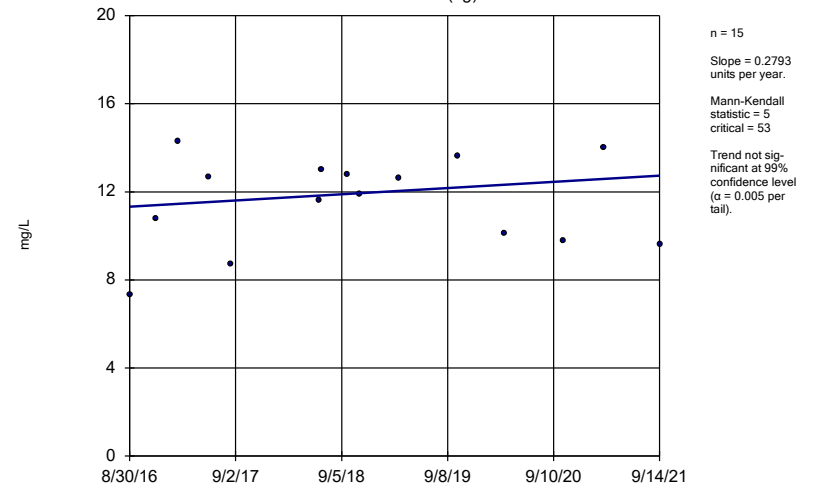
MCM-20 (bg)



Constituent: Boron Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

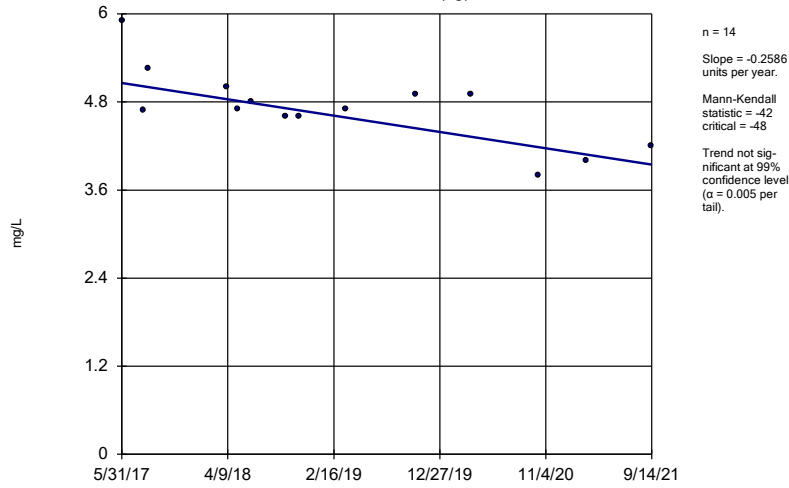
Sen's Slope Estimator

MCM-01 (bg)



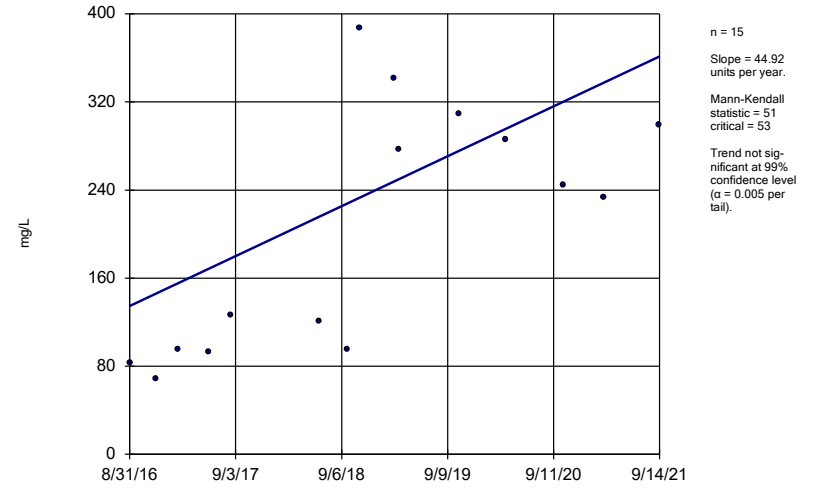
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-02 (bg)



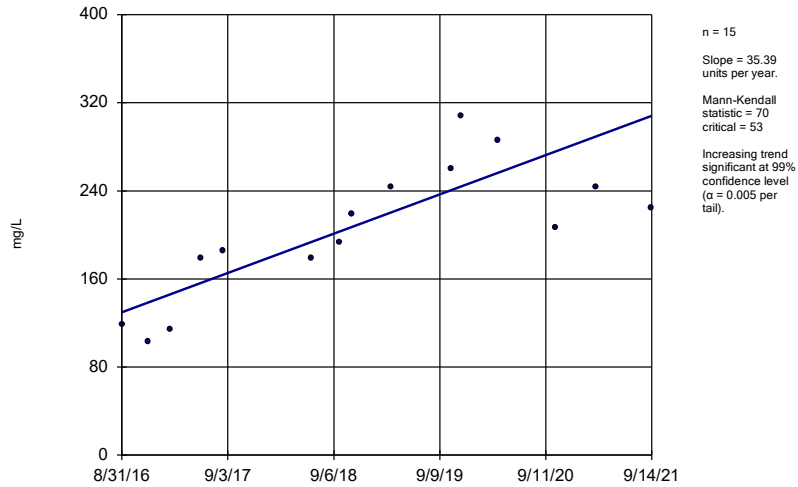
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-06



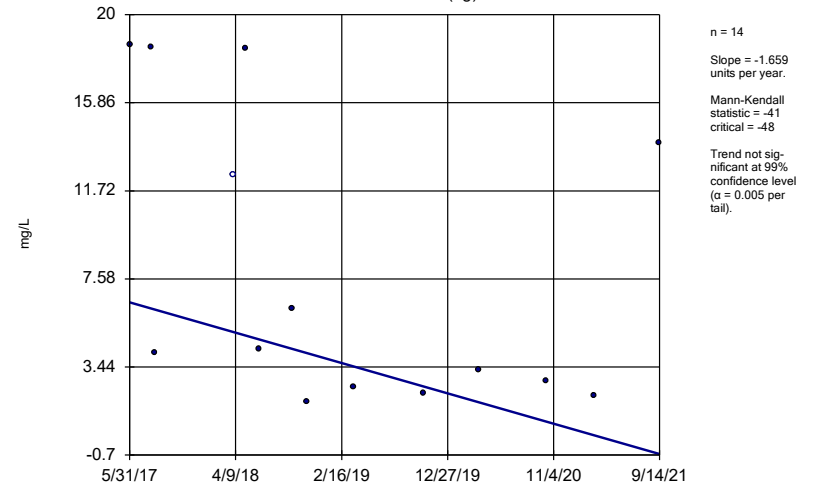
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-07



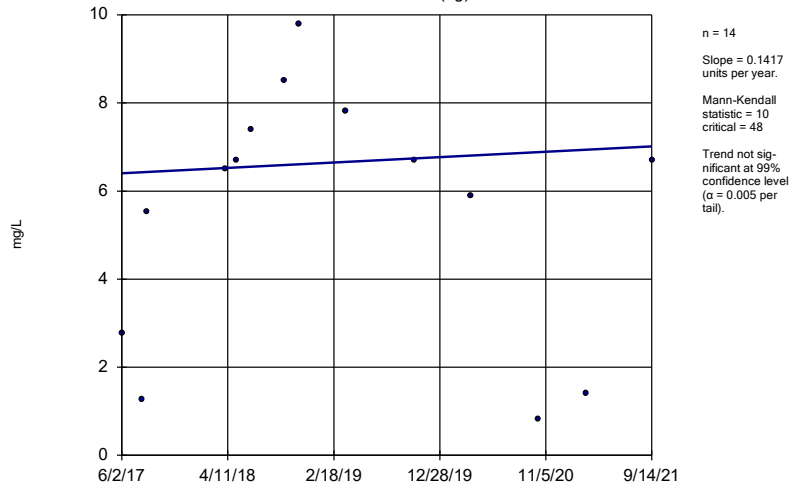
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



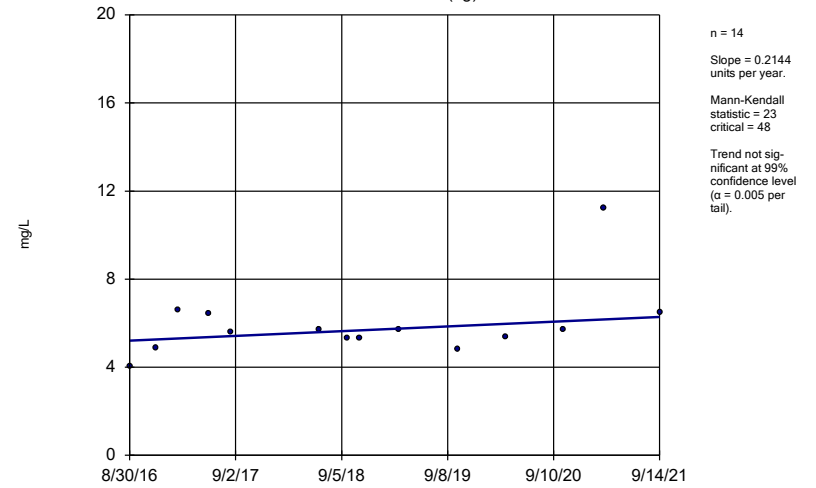
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-15 (bg)



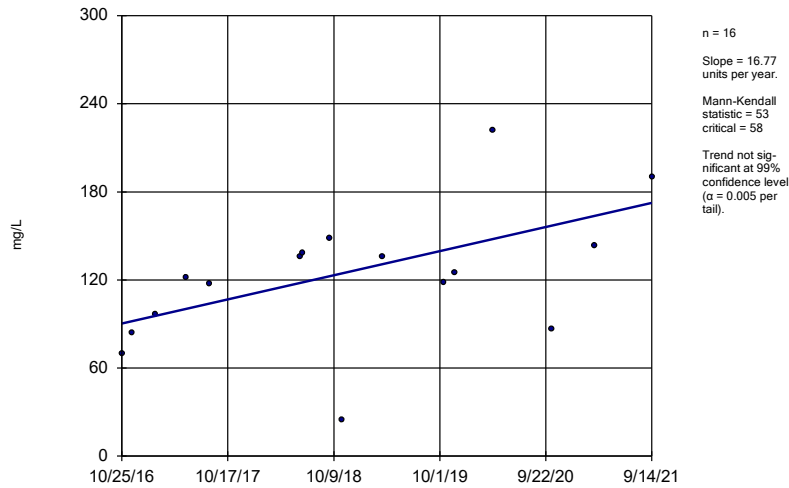
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-16 (bg)



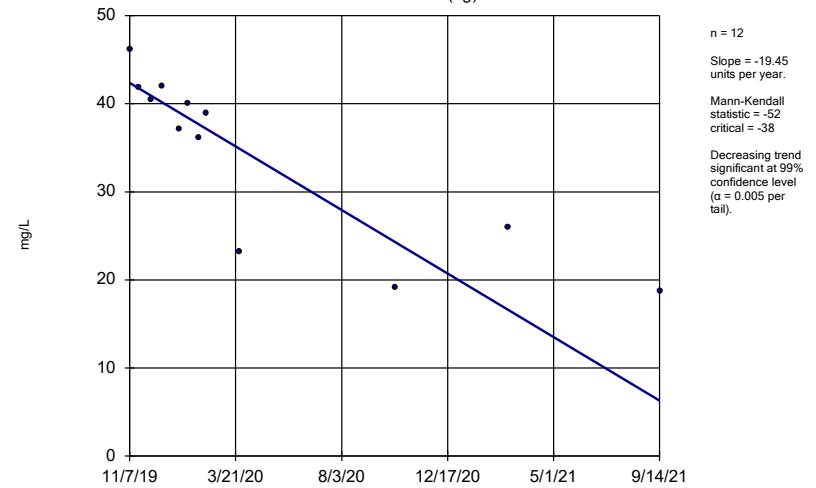
Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-17



Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

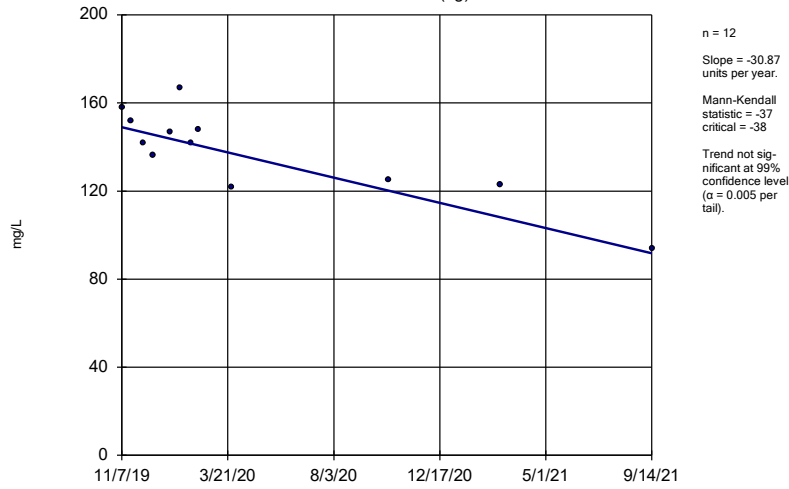
Sen's Slope Estimator
MCM-18 (bg)



Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

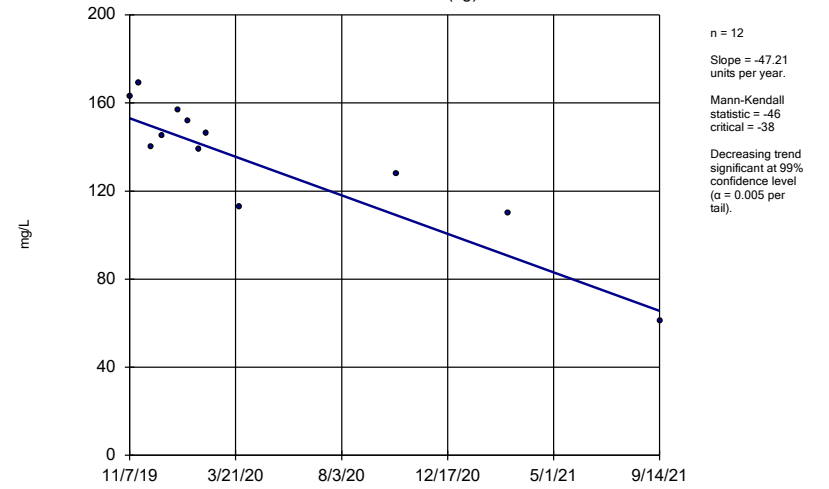
MCM-19 (bg)



Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

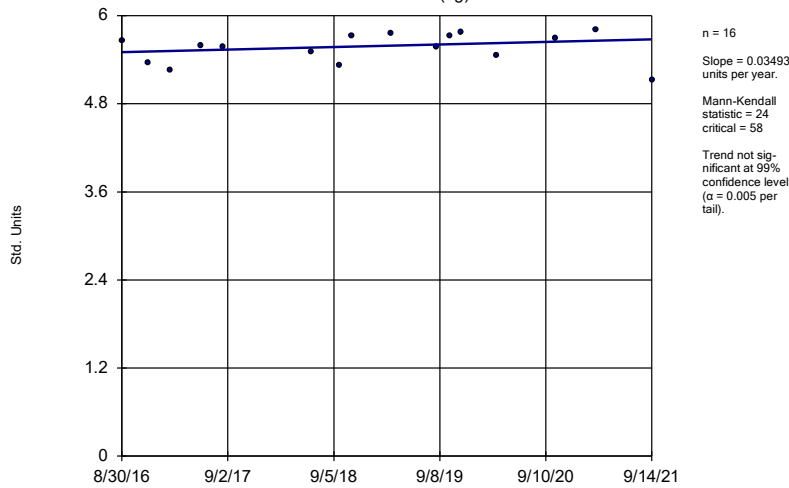
MCM-20 (bg)



Constituent: Calcium Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

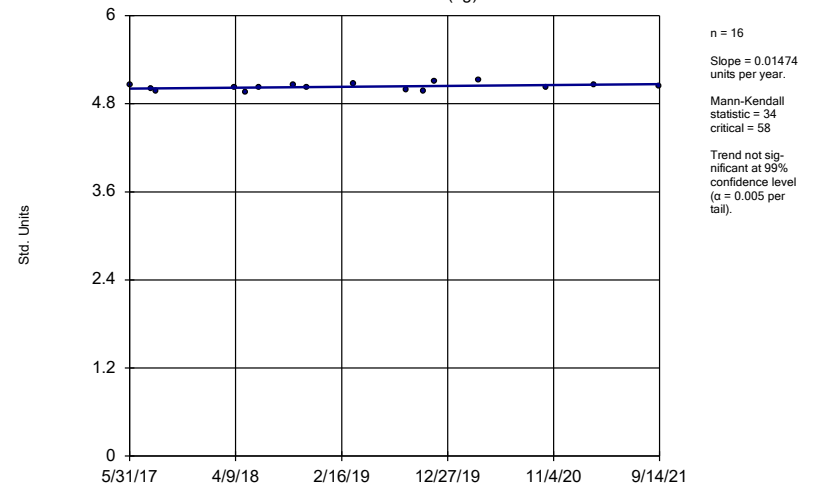
MCM-01 (bg)



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

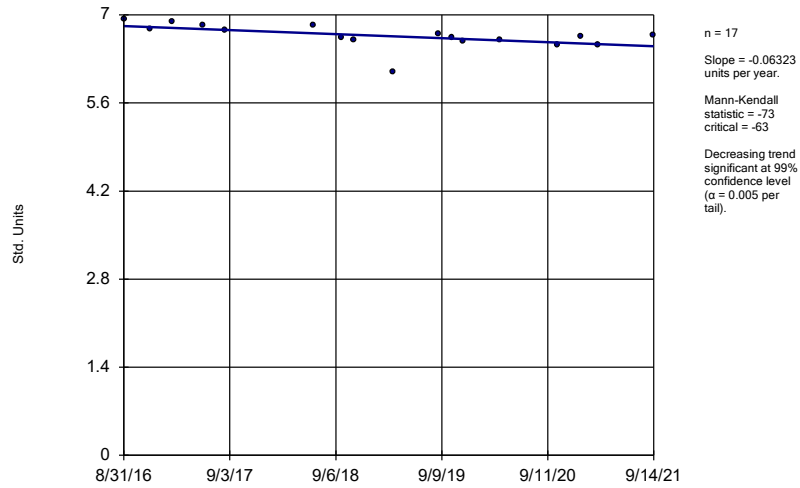
MCM-02 (bg)



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

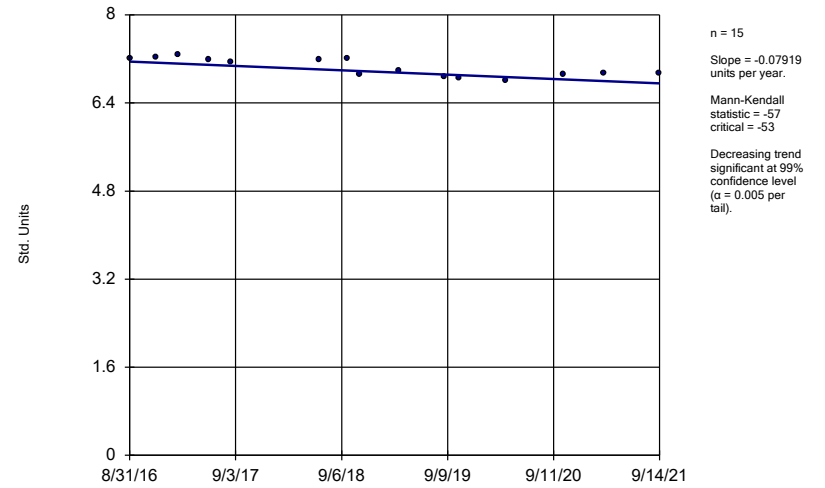
MCM-05



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

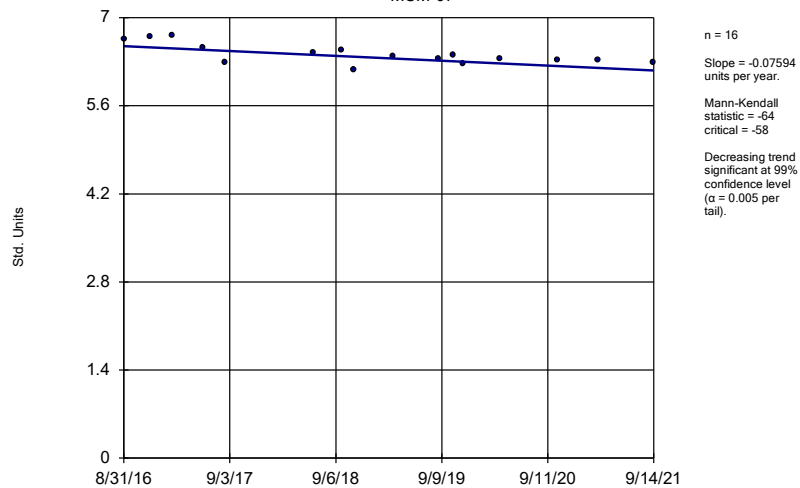
MCM-06



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

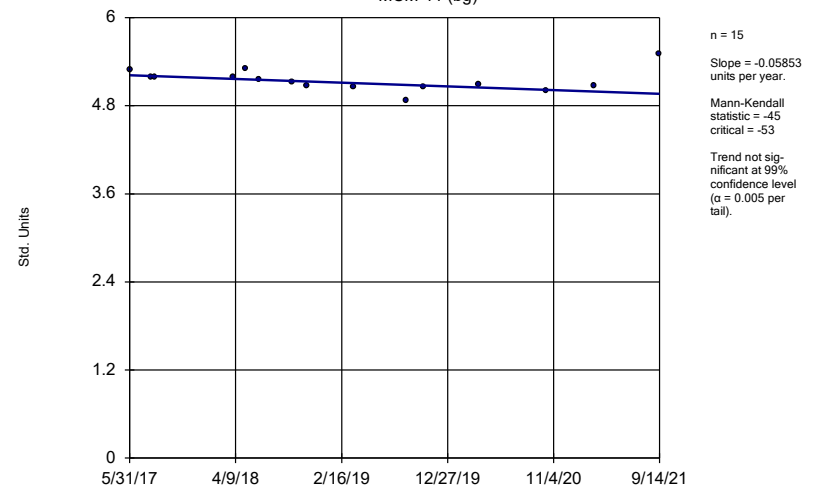
MCM-07



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-11 (bg)



Constituent: pH, field Analysis Run 11/30/2021 10:04 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-12

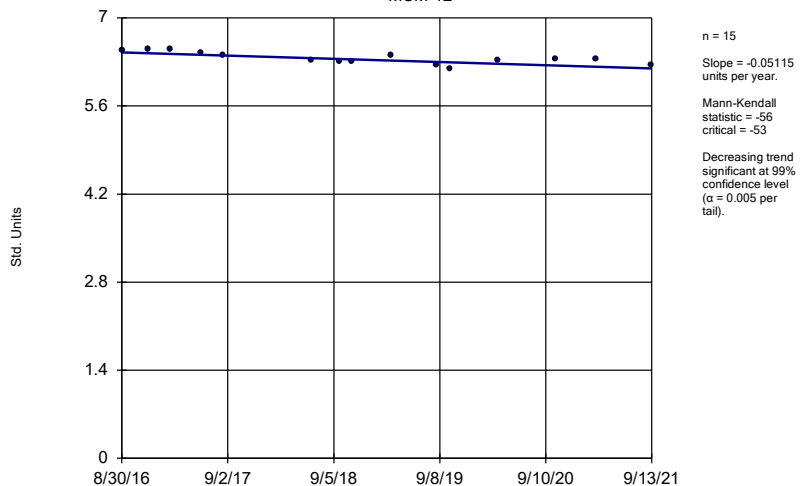


FIGURE F.

Upper Tolerance Limits Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/2/2021, 2:15 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 | 91 | n/a | n/a | 94.51 | n/a | n/a | 0.009394 | NP Inter(NDs) |
| Arsenic (mg/L) | n/a | 0.031 | n/a | n/a | n/a | 110 | n/a | n/a | 14.55 | n/a | n/a | 0.003545 | NP Inter(normality) |
| Barium (mg/L) | n/a | 0.22 | n/a | n/a | n/a | 107 | n/a | n/a | 0 | n/a | n/a | 0.004135 | NP Inter(normality) |
| Beryllium (mg/L) | n/a | 0.021 | n/a | n/a | n/a | 106 | n/a | n/a | 26.42 | n/a | n/a | 0.004352 | NP Inter(normality) |
| Cadmium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | 85 | n/a | n/a | 92.94 | n/a | n/a | 0.01278 | NP Inter(NDs) |
| Chromium (mg/L) | n/a | 0.011 | n/a | n/a | n/a | 91 | n/a | n/a | 49.45 | n/a | n/a | 0.009394 | NP Inter(normality) |
| Cobalt (mg/L) | n/a | 0.036 | n/a | n/a | n/a | 106 | n/a | n/a | 76.42 | n/a | n/a | 0.004352 | NP Inter(NDs) |
| Combined Radium 226 + 228 (pCi/L) | n/a | 55.8 | n/a | n/a | n/a | 105 | n/a | n/a | 0 | n/a | n/a | 0.004581 | NP Inter(normality) |
| Fluoride (mg/L) | n/a | 1.5 | n/a | n/a | n/a | 111 | n/a | n/a | 45.95 | n/a | n/a | 0.003368 | NP Inter(normality) |
| Lead (mg/L) | n/a | 0.005 | n/a | n/a | n/a | 106 | n/a | n/a | 82.08 | n/a | n/a | 0.004352 | NP Inter(NDs) |
| Lithium (mg/L) | n/a | 0.026 | n/a | n/a | n/a | 103 | n/a | n/a | 55.34 | n/a | n/a | 0.005076 | NP Inter(NDs) |
| Mercury (mg/L) | n/a | 0.0007 | n/a | n/a | n/a | 85 | n/a | n/a | 94.12 | n/a | n/a | 0.01278 | NP Inter(NDs) |
| Molybdenum (mg/L) | n/a | 0.01 | n/a | n/a | n/a | 90 | n/a | n/a | 92.22 | n/a | n/a | 0.009888 | NP Inter(NDs) |
| Selenium (mg/L) | n/a | 0.15 | n/a | n/a | n/a | 107 | n/a | n/a | 60.75 | n/a | n/a | 0.004135 | NP Inter(NDs) |
| Thallium (mg/L) | n/a | 0.002 | n/a | n/a | n/a | 90 | n/a | n/a | 92.22 | n/a | n/a | 0.009888 | NP Inter(NDs) |

FIGURE G.

| MCMANUS ASH POND GWPS | | | | | |
|--------------------------------|------------|---------------------------|-------------------------|---------------------|-------------------|
| Constituent Name | MCL | CCR-Rule Specified | Background Limit | Federal GWPS | State GWPS |
| Antimony, Total (mg/L) | 0.006 | | 0.003 | 0.006 | 0.006 |
| Arsenic, Total (mg/L) | 0.01 | | 0.031 | 0.031 | 0.031 |
| Barium, Total (mg/L) | 2 | | 0.22 | 2 | 2 |
| Beryllium, Total (mg/L) | 0.004 | | 0.021 | 0.021 | 0.021 |
| Cadmium, Total (mg/L) | 0.005 | | 0.0025 | 0.005 | 0.005 |
| Chromium, Total (mg/L) | 0.1 | | 0.011 | 0.1 | 0.1 |
| Cobalt, Total (mg/L) | | 0.006 | 0.036 | 0.036 | 0.036 |
| Combined Radium, Total (pCi/L) | 5 | | 55.8 | 55.8 | 55.8 |
| Fluoride, Total (mg/L) | 4 | | 1.5 | 4 | 4 |
| Lead, Total (mg/L) | | 0.015 | 0.005 | 0.015 | 0.005 |
| Lithium, Total (mg/L) | | 0.04 | 0.026 | 0.04 | 0.026 |
| Mercury, Total (mg/L) | 0.002 | | 0.0007 | 0.002 | 0.002 |
| Molybdenum, Total (mg/L) | | 0.1 | 0.01 | 0.1 | 0.01 |
| Selenium, Total (mg/L) | 0.05 | | 0.15 | 0.15 | 0.15 |
| Thallium, Total (mg/L) | 0.002 | | 0.001 | 0.002 | 0.002 |

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Federal Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

| <u>Constituent</u> | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Compliance</u> | <u>Sig. N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>%NDs</u> | <u>ND Adj.</u> | <u>Transform</u> | <u>Alpha</u> | <u>Method</u> |
|--------------------|-------------|-------------------|-------------------|-------------------|---------------|-------------|------------------|-------------|----------------|------------------|--------------|---------------|
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.04 | Yes 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.04 | Yes 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |

Federal Confidence Intervals - All Results

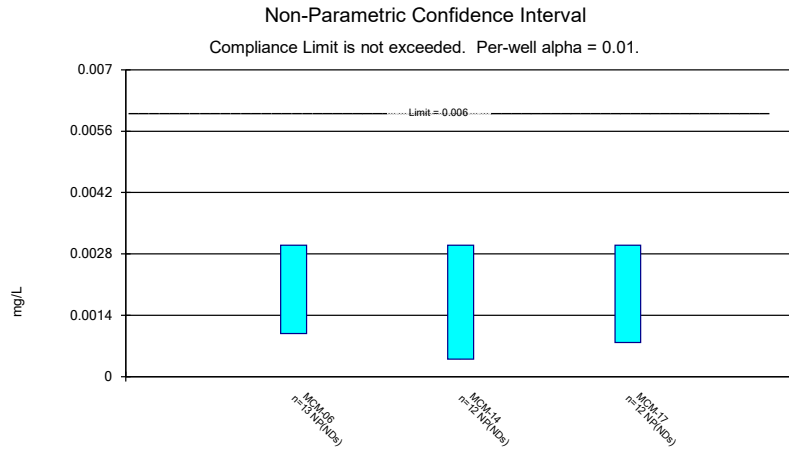
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.00098 | 0.006 | No | 13 | 0.002675 | 0.0007709 | 76.92 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 12 | 0.002783 | 0.0007506 | 91.67 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 12 | 0.002815 | 0.0006409 | 91.67 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.0249 | 0.0151 | 0.031 | No | 4 | 0.0225 | 0.005447 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.008019 | 0.002934 | 0.031 | No | 15 | 0.0058 | 0.004243 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.0335 | 0.002 | 0.031 | No | 17 | 0.01725 | 0.01344 | 17.65 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes | 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.0214 | 0.01122 | 0.031 | No | 17 | 0.01631 | 0.008125 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.03 | 0.001 | 0.031 | No | 14 | 0.0159 | 0.01468 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-14 | 0.03 | 0.0014 | 0.031 | No | 14 | 0.01651 | 0.0141 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-17 | 0.03 | 0.0017 | 0.031 | No | 15 | 0.01376 | 0.0138 | 40 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-04 | 0.09086 | 0.03286 | 2 | No | 14 | 0.07307 | 0.0749 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.04502 | 0.009496 | 2 | No | 15 | 0.05122 | 0.1122 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 15 | 0.1079 | 0.05641 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2056 | 0.1016 | 2 | No | 14 | 0.1644 | 0.09816 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-12 | 0.1285 | 0.1062 | 2 | No | 14 | 0.1174 | 0.01579 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1285 | 0.05361 | 2 | No | 14 | 0.09108 | 0.0529 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1388 | 0.06144 | 2 | No | 14 | 0.1001 | 0.05463 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.003 | 0.00021 | 0.021 | No | 14 | 0.001272 | 0.001345 | 35.71 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.003 | 0.000054 | 0.021 | No | 15 | 0.002804 | 0.0007607 | 93.33 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.003 | 0.00012 | 0.021 | No | 14 | 0.002377 | 0.001239 | 78.57 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001236 | 0.0004659 | 0.021 | No | 14 | 0.0009843 | 0.0008851 | 14.29 | None | ln(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.003 | 0.000097 | 0.021 | No | 14 | 0.001968 | 0.001438 | 64.29 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.003 | 0.00018 | 0.021 | No | 14 | 0.001231 | 0.001369 | 35.71 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.0025 | 0.005 | No | 11 | 0.002281 | 0.0007257 | 90.91 | None | No | 0.006 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.0012 | 0.1 | No | 12 | 0.005667 | 0.004533 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 12 | 0.005453 | 0.004755 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.00655 | 0.004546 | 61.54 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 12 | 0.00485 | 0.00381 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 12 | 0.00695 | 0.002356 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 12 | 0.005106 | 0.004349 | 41.67 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01305 | 0.007718 | 0.1 | No | 12 | 0.01104 | 0.003034 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.03 | 0.0054 | 0.036 | No | 15 | 0.01746 | 0.01221 | 46.67 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.03 | 0.0019 | 0.036 | No | 15 | 0.02813 | 0.007255 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.03 | 0.0009 | 0.036 | No | 15 | 0.02608 | 0.01035 | 86.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.03 | 0.0011 | 0.036 | No | 14 | 0.02794 | 0.007724 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.03 | 0.00053 | 0.036 | No | 14 | 0.01948 | 0.01464 | 64.29 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.03 | 0.0006 | 0.036 | No | 14 | 0.0279 | 0.007857 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.03 | 0.0007 | 0.036 | No | 14 | 0.02369 | 0.01254 | 78.57 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.96 | 3.112 | 55.8 | No | 14 | 4.634 | 2.256 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.042 | 1.387 | 55.8 | No | 15 | 2.441 | 1.741 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 8.58 | 1.94 | 55.8 | No | 14 | 5.409 | 3.319 | 0 | None | No | 0.01 | NP (normality) |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.615 | 5.621 | 55.8 | No | 15 | 7.618 | 2.946 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.092 | 2.128 | 55.8 | No | 14 | 2.61 | 0.6799 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.458 | 3.108 | 55.8 | No | 15 | 5.283 | 3.21 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.82 | 2.01 | 55.8 | No | 15 | 5.015 | 3.04 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 15 | 0.1375 | 0.1296 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.5406 | 0.2639 | 4 | No | 17 | 0.4194 | 0.2322 | 11.76 | None | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.068 | 4 | No | 15 | 0.1965 | 0.1497 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.54 | 0.1 | 4 | No | 16 | 0.2916 | 0.2926 | 43.75 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.296 | 0.9687 | 4 | No | 15 | 1.1 | 0.3249 | 6.667 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.5 | 0.084 | 4 | No | 16 | 0.2315 | 0.2003 | 56.25 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 16 | 0.5396 | 0.5124 | 37.5 | None | No | 0.01 | NP (normality) |

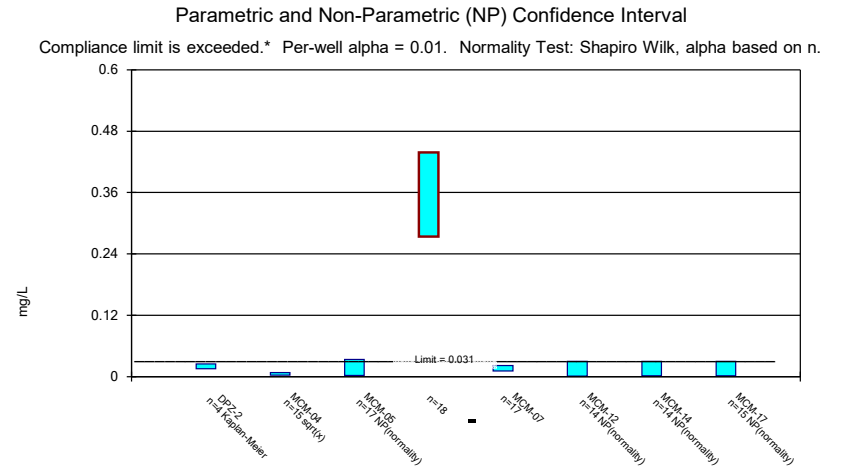
Federal Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:26 PM

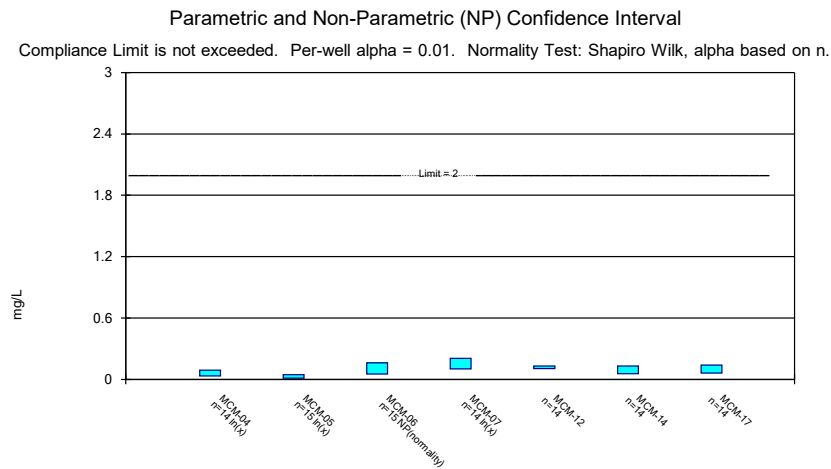
| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|---------------|----------------|-------------|------------|-----------|----------------|-----------------|----------|-------------|------------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.015 | No | 15 | 0.00468 | 0.001239 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.015 | No | 15 | 0.004675 | 0.00126 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.015 | No | 14 | 0.003956 | 0.002075 | 78.57 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.015 | No | 14 | 0.003605 | 0.00229 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.015 | No | 14 | 0.004649 | 0.001315 | 92.86 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.015 | No | 14 | 0.003639 | 0.002233 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.04 | Yes | 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.006 | 0.0015 | 0.04 | No | 14 | 0.003986 | 0.002174 | 50 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.04 | No | 15 | 0.06487 | 0.14 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.04 | Yes | 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05517 | 0.02018 | 0.04 | No | 15 | 0.04383 | 0.03675 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.01198 | 0.009702 | 0.04 | No | 14 | 0.01061 | 0.002124 | 14.29 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.04 | No | 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02576 | 0.01317 | 0.04 | No | 14 | 0.01946 | 0.008888 | 7.143 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002464 | 0.0001538 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0001856 | 0.00004764 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 12 | 0.0001967 | 0.00001155 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002427 | 0.0001417 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002418 | 0.0001387 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002251 | 0.0001461 | 81.82 | None | No | 0.006 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.1 | No | 12 | 0.009258 | 0.002538 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.1 | No | 13 | 0.007562 | 0.003813 | 69.23 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.1 | No | 12 | 0.009325 | 0.002338 | 91.67 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.01 | 0.0025 | 0.15 | No | 14 | 0.008777 | 0.003136 | 85.71 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.01 | 0.0023 | 0.15 | No | 15 | 0.00794 | 0.00354 | 73.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.01 | 0.002 | 0.15 | No | 15 | 0.0066 | 0.003726 | 46.67 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.01 | 0.0023 | 0.15 | No | 14 | 0.006557 | 0.003675 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-12 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.005943 | 0.004219 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-14 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.006879 | 0.003864 | 57.14 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.01 | 0.0018 | 0.15 | No | 14 | 0.0063 | 0.003859 | 42.86 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 13 | 0.001852 | 0.0005336 | 92.31 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 12 | 0.001845 | 0.0005369 | 91.67 | None | No | 0.01 | NP (NDs) |



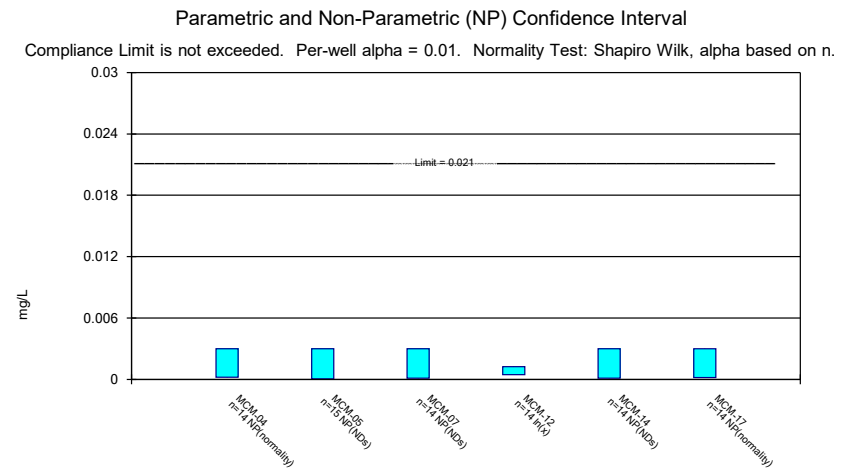
Constituent: Antimony Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Arsenic Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



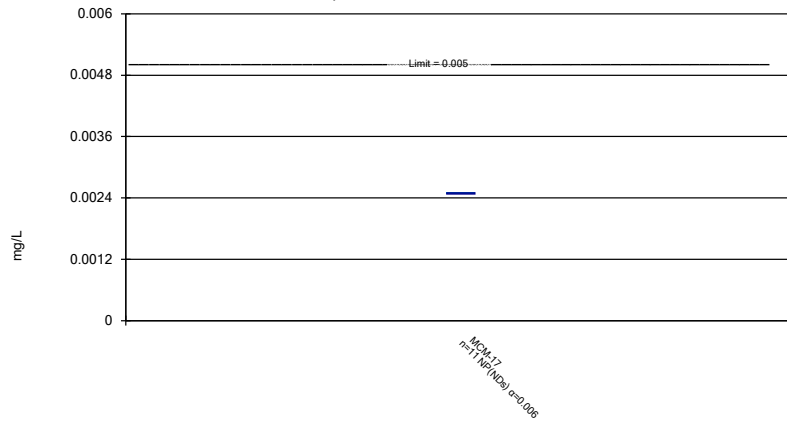
Constituent: Barium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Beryllium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

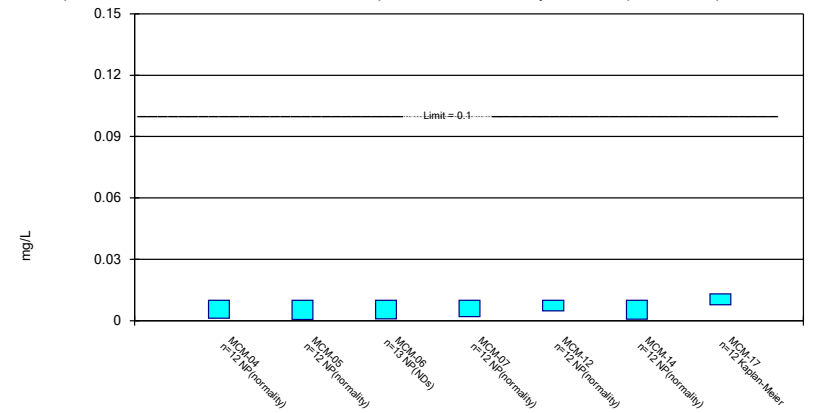
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

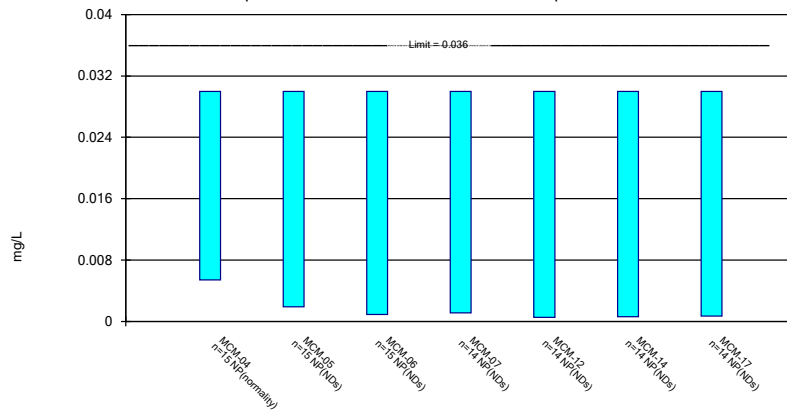
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

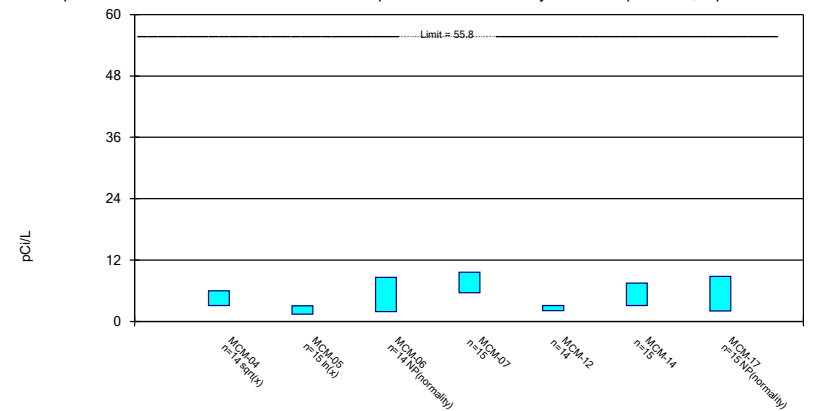
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

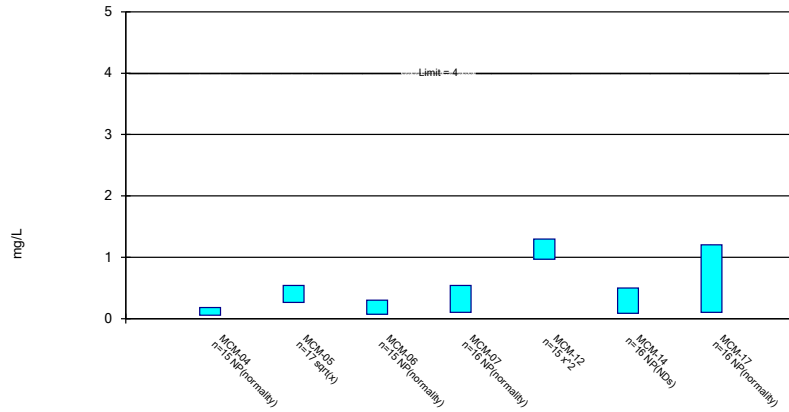
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confide
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

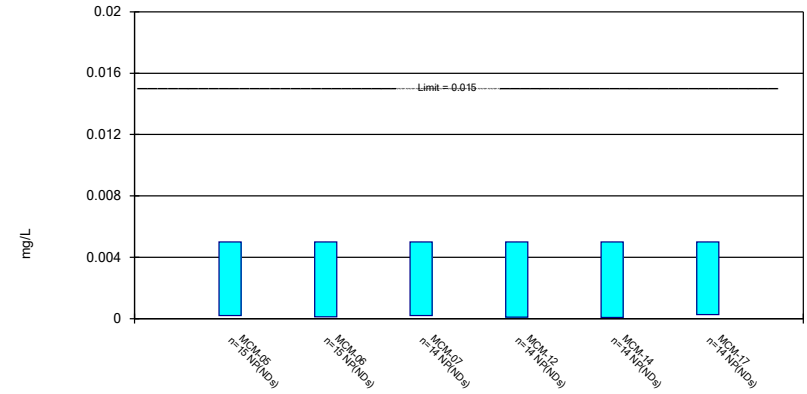
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

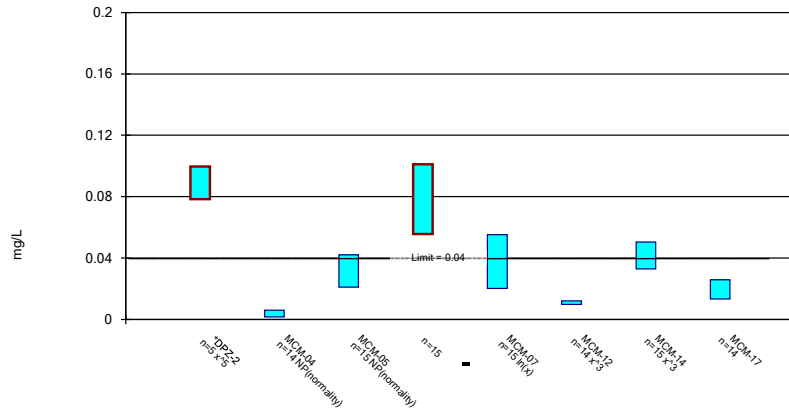
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

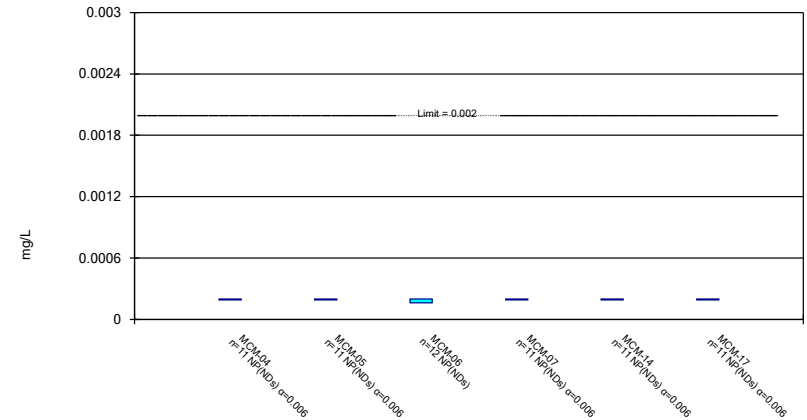
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



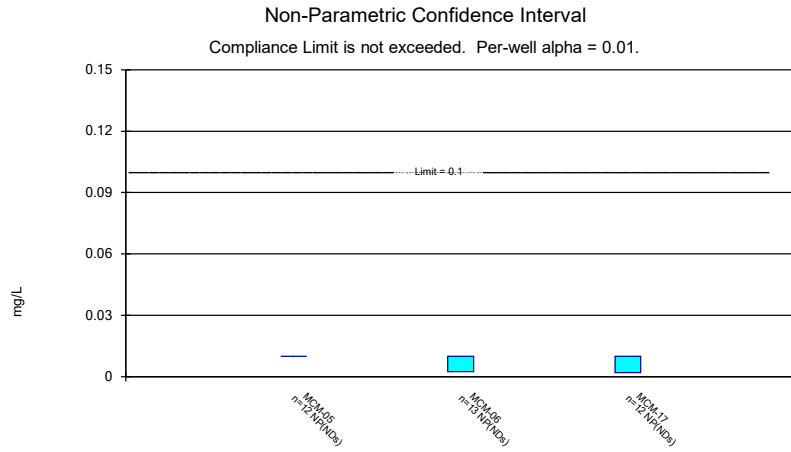
Constituent: Lithium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

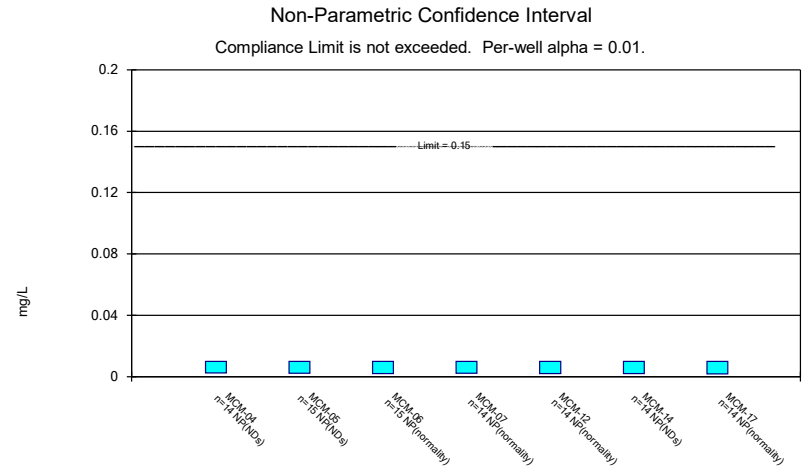
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



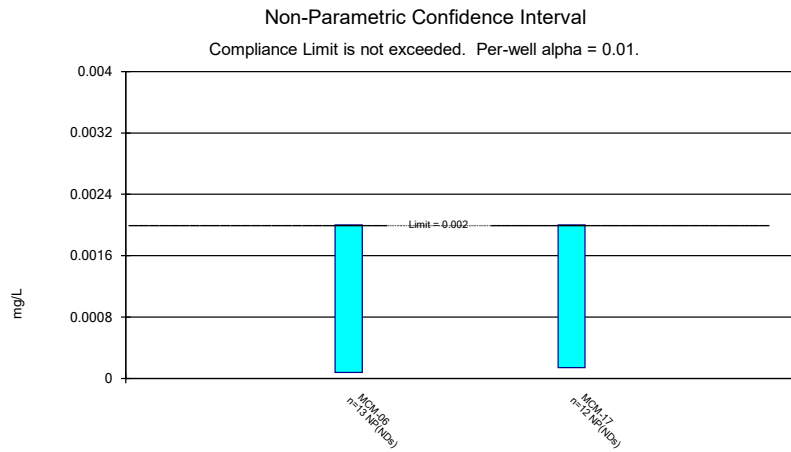
Constituent: Mercury Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Molybdenum Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Selenium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Thallium Analysis Run 12/29/2021 3:23 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-14 | MCM-17 |
|------------|-------------|------------|-----------|
| 8/30/2016 | | <0.003 | |
| 8/31/2016 | <0.003 | | |
| 10/25/2016 | | | <0.003 |
| 11/30/2016 | <0.003 | <0.003 | <0.003 |
| 2/15/2017 | | <0.003 | <0.003 |
| 2/16/2017 | <0.003 | | |
| 5/31/2017 | | <0.003 | <0.003 |
| 6/2/2017 | <0.003 | | |
| 8/15/2017 | | | <0.003 |
| 8/16/2017 | | <0.003 | |
| 8/17/2017 | <0.003 | | |
| 6/19/2018 | | <0.003 | <0.003 |
| 6/20/2018 | <0.003 | | |
| 9/25/2018 | | <0.003 | |
| 9/26/2018 | | | 0.00078 |
| 9/27/2018 | <0.003 | | |
| 11/6/2018 | | <0.003 | <0.003 |
| 11/7/2018 | <0.003 | | |
| 3/6/2019 | <0.003 | | |
| 8/26/2019 | | 0.0004 (J) | |
| 8/27/2019 | | | <0.003 |
| 8/28/2019 | 0.00098 (J) | | |
| 10/15/2019 | | <0.003 | |
| 10/16/2019 | | | <0.003 |
| 10/17/2019 | 0.0009 (J) | | |
| 3/27/2020 | | <0.003 | <0.003 |
| 3/28/2020 | 0.0029 (J) | | |
| 9/13/2021 | | <0.003 | |
| 9/14/2021 | <0.003 | | <0.003 |
| Mean | 0.002675 | 0.002783 | 0.002815 |
| Std. Dev. | 0.0007709 | 0.0007506 | 0.0006409 |
| Upper Lim. | 0.003 | 0.003 | 0.003 |
| Lower Lim. | 0.00098 | 0.0004 | 0.00078 |

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|--------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | <0.03 | <0.03 | |
| 8/31/2016 | | | <0.03 | 0.212 | 0.0066 | | | |
| 10/25/2016 | | | | | | | | <0.03 |
| 11/30/2016 | | | 0.0132 | 0.129 | 0.0281 | <0.03 | <0.03 | 0.0072 |
| 2/15/2017 | | | | | | <0.03 | <0.03 | 0.0017 (J) |
| 2/16/2017 | | | 0.0372 | 0.257 | 0.0295 | | | |
| 5/31/2017 | | | | | | 0.0007 (J) | 0.0008 (J) | 0.0018 (J) |
| 6/1/2017 | | 0.004 (J) | | | | | | |
| 6/2/2017 | | | 0.0335 | 0.0559 | 0.0286 | | | |
| 8/2/2017 | | 0.0028 (J) | | | | | | |
| 8/15/2017 | | | | | | 0.0006 (J) | | 0.0015 (J) |
| 8/16/2017 | | | | | | | 0.0007 (J) | |
| 8/17/2017 | | 0.0021 (J) | 0.0336 | 0.458 | 0.0211 | | | |
| 4/4/2018 | | 0.0023 (J) | | | | | | |
| 5/8/2018 | | 0.0048 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.001 (J) | 0.0062 (J) | 0.0029 (J) |
| 6/20/2018 | | 0.0099 | 0.019 | 0.44 | | | | |
| 6/21/2018 | | | | | 0.022 (J) | | | |
| 9/25/2018 | | | | | | 0.0011 (J) | 0.0031 (J) | |
| 9/26/2018 | | | | | | | | 0.0015 (J) |
| 9/27/2018 | | 0.01 | 0.0035 (J) | 0.27 | 0.015 | | | |
| 11/6/2018 | | 0.013 | | | 0.012 | | 0.0014 (J) | <0.03 |
| 11/7/2018 | | | 0.002 (J) | 0.5 | | 0.0057 | | |
| 11/27/2018 | | | 0.0016 (J) | 0.5 | 0.011 | | | |
| 3/6/2019 | | | | 0.49 | | | | |
| 3/26/2019 | | | 0.0018 (J) | 0.3 | 0.0078 | | | |
| 7/2/2019 | | 0.015 (J) | | 0.37 | 0.027 | | | |
| 8/26/2019 | | | | | | | 0.0022 (J) | |
| 8/27/2019 | | 0.0072 | | | | 0.0011 (J) | | 0.0024 (J) |
| 8/28/2019 | | | 0.0019 (J) | 0.5 | 0.011 | | | |
| 10/15/2019 | | 0.0038 (J) | | | | 0.0024 (J) | 0.0067 | |
| 10/16/2019 | | | 0.0047 (J) | | | | | 0.0043 (J) |
| 10/17/2019 | | | | 0.34 | 0.0046 (J) | | | |
| 11/21/2019 | | | | | | | | 0.0031 (J) |
| 3/27/2020 | | | | | | <0.03 | <0.03 | <0.03 |
| 3/28/2020 | <0.03 | 0.0034 (J) | <0.03 | 0.3 | 0.012 | | | |
| 10/12/2020 | | | | | | <0.03 | | |
| 10/13/2020 | | 0.0022 (J) | | | | | <0.03 | <0.03 |
| 10/14/2020 | | | | 0.43 | 0.013 | | | |
| 10/15/2020 | 0.021 | | 0.024 | | | | | |
| 1/4/2021 | | | 0.0072 | | | | | |
| 3/2/2021 | | | | | | <0.03 | <0.03 | |
| 3/3/2021 | | | | | | | | <0.03 |
| 3/4/2021 | 0.017 (J) | 0.0018 (J) | <0.03 | 0.35 | 0.015 (J) | | | |
| 9/13/2021 | | | | | | <0.03 | <0.03 | |
| 9/14/2021 | 0.022 | 0.0047 (J) | 0.02 (J) | 0.51 | 0.013 (J) | | | <0.03 |
| Mean | 0.0225 | 0.0058 | 0.01725 | 0.3562 | 0.01631 | 0.0159 | 0.01651 | 0.01376 |
| Std. Dev. | 0.005447 | 0.004243 | 0.01344 | 0.1357 | 0.008125 | 0.01468 | 0.0141 | 0.0138 |
| Upper Lim. | 0.0249 | 0.008019 | 0.0335 | 0.4383 | 0.0214 | 0.03 | 0.03 | 0.03 |
| Lower Lim. | 0.0151 | 0.002934 | 0.002 | 0.2741 | 0.01122 | 0.001 | 0.0014 | 0.0017 |

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|---------|------------|---------|---------|---------|---------|----------|
| 8/30/2016 | | | | | 0.108 | 0.0131 | |
| 8/31/2016 | | 0.0289 | 0.0498 | 0.0771 | | | |
| 10/25/2016 | | | | | | | 0.063 |
| 11/30/2016 | | 0.0168 | 0.0528 | 0.101 | 0.121 | 0.0105 | 0.0628 |
| 2/15/2017 | | | | | 0.111 | 0.0786 | 0.0102 |
| 2/16/2017 | | 0.016 | 0.0555 | 0.0865 | | | |
| 5/31/2017 | | | | | 0.131 | 0.0199 | 0.061 |
| 6/1/2017 | 0.0195 | | | | | | |
| 6/2/2017 | | 0.0393 (J) | 0.0508 | 0.123 | | | |
| 8/2/2017 | 0.053 | | | | | | |
| 8/15/2017 | | | | | 0.126 | | 0.0579 |
| 8/16/2017 | | | | | | 0.033 | |
| 8/17/2017 | 0.0475 | 0.0188 | 0.0596 | 0.124 | | | |
| 4/4/2018 | 0.035 | | | | | | |
| 5/8/2018 | 0.027 | | | | | | |
| 6/19/2018 | | | | | 0.13 | 0.092 | 0.076 |
| 6/20/2018 | 0.027 | 0.014 | 0.06 | | | | |
| 6/21/2018 | | | | 0.1 | | | |
| 9/25/2018 | | | | | 0.12 | 0.098 | |
| 9/26/2018 | | | | | | | 0.099 |
| 9/27/2018 | 0.14 | 0.0097 (J) | 0.06 | 0.12 | | | |
| 11/6/2018 | 0.31 | | | 0.12 | | 0.1 | 0.052 |
| 11/7/2018 | | 0.0085 (J) | 0.19 | | 0.11 | | |
| 3/6/2019 | | | 0.16 | | | | |
| 8/26/2019 | | | | | | 0.12 | |
| 8/27/2019 | 0.083 | | | | 0.14 | | 0.11 |
| 8/28/2019 | | 0.011 | 0.13 | 0.4 | | | |
| 10/15/2019 | 0.082 | | | | 0.14 | 0.12 | |
| 10/16/2019 | | 0.012 | | | | | 0.14 |
| 10/17/2019 | | | 0.13 | 0.35 | | | |
| 3/27/2020 | | | | | 0.12 | 0.13 | 0.16 |
| 3/28/2020 | 0.039 | 0.0041 (J) | 0.12 | 0.11 | | | |
| 10/12/2020 | | | | | 0.1 | | |
| 10/13/2020 | 0.055 | | | | | 0.14 | 0.14 |
| 10/14/2020 | | | 0.14 | 0.19 | | | |
| 10/15/2020 | | 0.45 | | | | | |
| 1/4/2021 | | 0.051 | | | | | |
| 3/2/2021 | | | | | 0.1 | 0.16 | |
| 3/3/2021 | | | | | | | 0.17 |
| 3/4/2021 | 0.062 | 0.0082 (J) | 0.14 | 0.2 | | | |
| 9/13/2021 | | | | | 0.086 | 0.16 | |
| 9/14/2021 | 0.043 | 0.08 | 0.22 | 0.2 | | | 0.2 (M1) |
| Mean | 0.07307 | 0.05122 | 0.1079 | 0.1644 | 0.1174 | 0.09108 | 0.1001 |
| Std. Dev. | 0.0749 | 0.1122 | 0.05641 | 0.09816 | 0.01579 | 0.0529 | 0.05463 |
| Upper Lim. | 0.09086 | 0.04502 | 0.16 | 0.2056 | 0.1285 | 0.1285 | 0.1388 |
| Lower Lim. | 0.03286 | 0.009496 | 0.0528 | 0.1016 | 0.1062 | 0.05361 | 0.06144 |

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | 0.0003 (J) | <0.003 | |
| 8/31/2016 | | <0.003 | <0.003 | | | |
| 10/25/2016 | | | | | | 0.0004 (J) |
| 11/30/2016 | | <0.003 | <0.003 | 0.0004 (J) | <0.003 | 0.0003 (J) |
| 2/15/2017 | | | | 0.0004 (J) | <0.003 | <0.003 |
| 2/16/2017 | | <0.003 | <0.003 | | | |
| 5/31/2017 | | | | 0.0005 (J) | 0.0001 (J) | 0.0002 (J) |
| 6/1/2017 | 0.0001 (J) | | | | | |
| 6/2/2017 | | <0.003 | <0.003 | | | |
| 8/2/2017 | 0.0003 (J) | | | | | |
| 8/15/2017 | | | | 0.0005 (J) | | 0.0002 (J) |
| 8/16/2017 | | | | | 0.0002 (J) | |
| 8/17/2017 | 0.0002 (J) | <0.003 | <0.003 | | | |
| 4/4/2018 | <0.003 | | | | | |
| 5/8/2018 | 0.00025 (J) | | | | | |
| 6/19/2018 | | | | 0.00065 (J) | <0.003 | 0.00032 (J) |
| 6/20/2018 | 0.00021 (J) | <0.003 | | | | |
| 6/21/2018 | | | <0.003 | | | |
| 9/25/2018 | | | | 0.00066 (J) | 5E-05 (J) | |
| 9/26/2018 | | | | | | 0.00024 (J) |
| 9/27/2018 | 0.00031 (J) | <0.003 | 7.4E-05 (J) | | | |
| 11/6/2018 | 0.00077 (J) | | 0.00012 (J) | | 9.7E-05 (J) | 0.00026 (J) |
| 11/7/2018 | | 5.4E-05 (J) | | 0.00058 (J) | | |
| 8/26/2019 | | | | | 0.0001 (J) | |
| 8/27/2019 | 0.00032 (J) | | | 0.0009 (J) | | 0.00018 (J) |
| 8/28/2019 | | <0.003 | <0.003 | | | |
| 10/15/2019 | 0.00035 (J) | | | 0.00079 (J) | <0.003 | |
| 10/16/2019 | | <0.003 | | | | 0.00014 (J) |
| 10/17/2019 | | | 7.8E-05 (J) | | | |
| 3/27/2020 | | | | <0.003 | <0.003 | <0.003 |
| 3/28/2020 | <0.003 | <0.003 | <0.003 | | | |
| 10/12/2020 | | | | 0.001 (J) | | |
| 10/13/2020 | <0.003 | | | | <0.003 | <0.003 |
| 10/14/2020 | | | <0.003 | | | |
| 10/15/2020 | | <0.003 | | | | |
| 1/4/2021 | | <0.003 | | | | |
| 3/2/2021 | | | | <0.003 | <0.003 | |
| 3/3/2021 | | | | | | <0.003 |
| 3/4/2021 | <0.003 | <0.003 | <0.003 | | | |
| 9/13/2021 | | | | 0.0011 | <0.003 | |
| 9/14/2021 | <0.003 | <0.003 | <0.003 | | | <0.003 |
| Mean | 0.001272 | 0.002804 | 0.002377 | 0.0009843 | 0.001968 | 0.001231 |
| Std. Dev. | 0.001345 | 0.0007607 | 0.001239 | 0.0008851 | 0.001438 | 0.001369 |
| Upper Lim. | 0.003 | 0.003 | 0.003 | 0.001236 | 0.003 | 0.003 |
| Lower Lim. | 0.00021 | 5.4E-05 | 0.00012 | 0.0004659 | 9.7E-05 | 0.00018 |

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-17 |
|------------|-----------|
| 10/25/2016 | <0.0025 |
| 11/30/2016 | <0.0025 |
| 2/15/2017 | <0.0025 |
| 5/31/2017 | <0.0025 |
| 8/15/2017 | <0.0025 |
| 6/19/2018 | <0.0025 |
| 9/26/2018 | 9.3E-05 |
| 11/6/2018 | <0.0025 |
| 8/27/2019 | <0.0025 |
| 3/27/2020 | <0.0025 |
| 9/14/2021 | <0.0025 |
| Mean | 0.002281 |
| Std. Dev. | 0.0007257 |
| Upper Lim. | 0.0025 |
| Lower Lim. | 0.0025 |

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|-------------|-------------|------------|------------|-------------|------------|
| 8/30/2016 | | | | | 0.0054 (J) | 0.0026 (J) | |
| 8/31/2016 | | 0.0013 (J) | 0.001 (J) | 0.0022 (J) | | | |
| 10/25/2016 | | | | | | | 0.016 |
| 11/30/2016 | | 0.0012 (J) | <0.01 | <0.01 | 0.0073 (J) | 0.0016 (J) | 0.0151 (J) |
| 2/15/2017 | | | | | 0.0045 (J) | 0.0018 (J) | 0.0137 |
| 2/16/2017 | | 0.0012 (J) | 0.0011 (J) | 0.0028 (J) | | | |
| 5/31/2017 | | | | | 0.0052 (J) | 0.0019 (J) | 0.0109 |
| 6/1/2017 | 0.0008 (J) | | | | | | |
| 6/2/2017 | | <0.01 | <0.01 | 0.0023 (J) | | | |
| 8/2/2017 | 0.0012 (J) | | | | | | |
| 8/15/2017 | | | | | 0.005 (J) | | 0.0117 |
| 8/16/2017 | | | | | | 0.0019 (J) | |
| 8/17/2017 | 0.0013 (J) | 0.0007 (J) | 0.0007 (J) | 0.0022 (J) | | | |
| 4/4/2018 | <0.01 | | | | | | |
| 5/8/2018 | <0.01 | | | | | | |
| 6/19/2018 | | | | | 0.0047 (J) | <0.01 | 0.013 (J) |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | | | | |
| 6/21/2018 | | | | <0.01 | | | |
| 9/25/2018 | | | | | <0.01 | <0.01 | |
| 9/26/2018 | | | | | | | 0.0092 (J) |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | 0.0024 (J) | | | |
| 11/6/2018 | 0.0017 (J) | | | 0.002 (J) | | <0.01 | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | | |
| 3/6/2019 | | | <0.01 | | | | |
| 8/26/2019 | | | | | | 0.00071 (J) | |
| 8/27/2019 | 0.0018 (J) | | | | 0.0056 (J) | | 0.0066 (J) |
| 8/28/2019 | | 0.00047 (J) | 0.00085 (J) | 0.0024 (J) | | | |
| 10/15/2019 | 0.0012 (J) | | | | 0.0057 (J) | 0.00076 (J) | |
| 10/16/2019 | | 0.00057 (J) | | | | | 0.0063 (J) |
| 10/17/2019 | | | 0.0015 (J) | 0.0019 (J) | | | |
| 3/27/2020 | | | | | <0.01 | <0.01 | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| 9/13/2021 | | | | | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 |
| Mean | 0.005667 | 0.005453 | 0.00655 | 0.00485 | 0.00695 | 0.005106 | 0.01104 |
| Std. Dev. | 0.004533 | 0.004755 | 0.004546 | 0.00381 | 0.002356 | 0.004349 | 0.003034 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01305 |
| Lower Lim. | 0.0012 | 0.00057 | 0.00085 | 0.002 | 0.0047 | 0.00076 | 0.007718 |

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|------------|------------|------------|-------------|------------|------------|
| 8/30/2016 | | | | | <0.03 | 0.0006 (J) | |
| 8/31/2016 | | <0.03 | <0.03 | <0.03 | | | |
| 10/25/2016 | | | | | | | <0.03 |
| 11/30/2016 | | <0.03 | 0.0009 (J) | 0.0011 (J) | <0.03 | <0.03 | 0.0007 (J) |
| 2/15/2017 | | | | | <0.03 | <0.03 | <0.03 |
| 2/16/2017 | | <0.03 | <0.03 | <0.03 | | | |
| 5/31/2017 | | | | | 0.0005 (J) | <0.03 | <0.03 |
| 6/1/2017 | <0.03 | | | | | | |
| 6/2/2017 | | <0.03 | <0.03 | <0.03 | | | |
| 8/2/2017 | <0.03 | | | | | | |
| 8/15/2017 | | | | | 0.0005 (J) | | 0.0004 (J) |
| 8/16/2017 | | | | | | <0.03 | |
| 8/17/2017 | <0.03 | <0.03 | 0.0003 (J) | <0.03 | | | |
| 4/4/2018 | <0.03 | | | | | | |
| 5/8/2018 | <0.03 | | | | | | |
| 6/19/2018 | | | | | 0.00053 (J) | <0.03 | <0.03 |
| 6/20/2018 | <0.03 | <0.03 | <0.03 | | | | |
| 6/21/2018 | | | | <0.03 | | | |
| 9/25/2018 | | | | | <0.03 | <0.03 | |
| 9/26/2018 | | | | | | | 0.00052 |
| 9/27/2018 | <0.03 | <0.03 | <0.03 | <0.03 | | | |
| 11/6/2018 | 0.0048 (J) | | | <0.03 | | <0.03 | <0.03 |
| 11/7/2018 | | <0.03 | <0.03 | | <0.03 | | |
| 3/6/2019 | | | <0.03 | | | | |
| 8/26/2019 | | | | | | <0.03 | |
| 8/27/2019 | 0.0078 | | | | 0.0007 (J) | | <0.03 |
| 8/28/2019 | | <0.03 | <0.03 | <0.03 | | | |
| 10/15/2019 | 0.0085 | | | | 0.00054 (J) | <0.03 | |
| 10/16/2019 | | <0.03 | | | | | <0.03 |
| 10/17/2019 | | | <0.03 | <0.03 | | | |
| 11/20/2019 | 0.009 | | | | | | |
| 3/27/2020 | | | | | <0.03 | <0.03 | <0.03 |
| 3/28/2020 | 0.0041 (J) | <0.03 | <0.03 | <0.03 | | | |
| 10/12/2020 | | | | | <0.03 | | |
| 10/13/2020 | 0.0063 | | | | | <0.03 | <0.03 |
| 10/14/2020 | | | <0.03 | <0.03 | | | |
| 10/15/2020 | | 0.0019 (J) | | | | | |
| 1/4/2021 | | <0.03 | | | | | |
| 3/2/2021 | | | | | <0.03 | <0.03 | |
| 3/3/2021 | | | | | | | <0.03 |
| 3/4/2021 | 0.006 | <0.03 | <0.03 | <0.03 | | | |
| 9/13/2021 | | | | | <0.03 | <0.03 | |
| 9/14/2021 | 0.0054 | <0.03 | <0.03 | <0.03 | | | <0.03 |
| Mean | 0.01746 | 0.02813 | 0.02608 | 0.02794 | 0.01948 | 0.0279 | 0.02369 |
| Std. Dev. | 0.01221 | 0.007255 | 0.01035 | 0.007724 | 0.01464 | 0.007857 | 0.01254 |
| Upper Lim. | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Lower Lim. | 0.0054 | 0.0019 | 0.0009 | 0.0011 | 0.00053 | 0.0006 | 0.0007 |

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|--------|-----------|----------|---------|--------|-----------|----------|
| 8/30/2016 | | | | | 1.4 | 1.31 | |
| 8/31/2016 | | 2.39 (D) | 2.47 (D) | 5.4 (D) | | | |
| 10/25/2016 | | | | | | | 2.22 |
| 11/30/2016 | | 1.66 | 1.6 | 3.13 | 4.37 | 0.438 (U) | 2.01 |
| 2/15/2017 | | | | | 2.21 | 0.3 (U) | 1.56 |
| 2/16/2017 | | 2.71 | 1.83 | 3.09 | | | |
| 5/31/2017 | | | | | 2.62 | 1.77 | 1.92 |
| 6/1/2017 | 1.9 | | | | | | |
| 6/2/2017 | | 1.99 | 2.45 | 7.56 | | | |
| 8/2/2017 | 5.01 | | | | | | |
| 8/15/2017 | | | | | 2.69 | | 2.47 |
| 8/16/2017 | | | | | | 2.26 | |
| 8/17/2017 | 5.35 | 1.87 | 3.33 | 6.38 | | | |
| 4/4/2018 | 5.05 | | | | | | |
| 5/8/2018 | 3.25 | | | | | | |
| 6/19/2018 | | | | | 2.96 | 5.39 | 2.82 |
| 6/20/2018 | 3.53 | 1.95 | 2.84 | | | | |
| 6/21/2018 | | | | 5.24 | | | |
| 9/25/2018 | | | | | 2.23 | 6.22 | |
| 9/26/2018 | | | | | | | 3.15 (D) |
| 9/27/2018 | 7.07 | 0.629 (U) | 1.94 | 6.11 | | | |
| 11/6/2018 | 11 | | | 6.1 | | 5.38 | 2.95 |
| 11/7/2018 | | 1.41 (U) | 8.58 | | 2.14 | | |
| 8/26/2019 | | | | | | 7.68 | |
| 8/27/2019 | 4.4 | | | | 2.91 | | 5.82 |
| 8/28/2019 | | 1.67 | 6.86 | 8.73 | | | |
| 10/15/2019 | 4.92 | | | | 3.28 | 8.7 | |
| 10/16/2019 | | 1.92 | | | | | 7.5 |
| 10/17/2019 | | | 7.85 | 7.97 | | | |
| 11/20/2019 | | | | 9.8 | | | |
| 11/21/2019 | | | | | | 7.34 | 8.89 |
| 3/27/2020 | | | | | 2.33 | 9.63 | 9.54 |
| 3/28/2020 | 4.16 | 1.44 (U) | 11 (U) | 11.7 | | | |
| 10/12/2020 | | | | | 2.66 | | |
| 10/13/2020 | 3.71 | | | | | 7.43 | 7.75 |
| 10/14/2020 | | | 8.97 | 13.1 | | | |
| 10/15/2020 | | 2.56 | | | | | |
| 1/4/2021 | | 5.84 | | | | | |
| 4/6/2021 | 2.83 | 1.43 (U) | 7.89 | 9.66 | 2.2 | 7.02 | 7.8 |
| 9/13/2021 | | | | | 2.54 | 8.38 | |
| 9/14/2021 | 2.69 | 7.15 | 8.11 | 10.3 | | | 8.82 |
| Mean | 4.634 | 2.441 | 5.409 | 7.618 | 2.61 | 5.283 | 5.015 |
| Std. Dev. | 2.256 | 1.741 | 3.319 | 2.946 | 0.6799 | 3.21 | 3.04 |
| Upper Lim. | 5.96 | 3.042 | 8.58 | 9.615 | 3.092 | 7.458 | 8.82 |
| Lower Lim. | 3.112 | 1.387 | 1.94 | 5.621 | 2.128 | 3.108 | 2.01 |

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|--------|-----------|-----------|--------|-----------|-----------|
| 8/30/2016 | | | | | 1.5 | 0.5 | |
| 8/31/2016 | | 0.93 | 0.41 | 0.92 | | | |
| 10/25/2016 | | | | | | | 1.1 |
| 11/30/2016 | | 0.93 | 0.61 | 0.99 | 1.4 | 0.49 | 1.3 |
| 2/15/2017 | | | | | 1.3 | 0.58 | 1.3 |
| 2/16/2017 | | 0.6 | 0.3 (J) | 0.54 | | | |
| 5/31/2017 | | | | | 1.2 | 0.56 | 1.3 |
| 6/1/2017 | <0.1 | | | | | | |
| 6/2/2017 | | 0.34 | 0.19 (J) | 0.42 | | | |
| 8/2/2017 | 0.27 (J) | | | | | | |
| 8/15/2017 | | | | | 1.2 | | 1.2 |
| 8/16/2017 | | | | | | 0.45 | |
| 8/17/2017 | 0.18 (J) | 0.52 | 0.26 (J) | 0.27 (J) | | | |
| 4/4/2018 | <0.1 | | | | | | |
| 5/8/2018 | 0.56 | | | | | | |
| 6/19/2018 | | | | | 0.91 | <0.1 | 0.6 |
| 6/20/2018 | 0.033 (J) | 0.5 | 0.22 (J) | | | | |
| 6/21/2018 | | | | 0.28 (J) | | | |
| 9/25/2018 | | | | | 1.1 | <0.1 | |
| 9/26/2018 | | | | | | | 0.44 (D) |
| 9/27/2018 | 0.12 (J) | 0.32 | 0.068 (J) | 0.32 (D) | | | |
| 11/6/2018 | <0.1 | | | 0.086 (J) | | 0.084 (J) | 0.4 |
| 11/7/2018 | | 0.35 | 10.3 (o) | | <0.1 | | |
| 3/6/2019 | | | <0.1 | | | | |
| 3/24/2019 | | 0.32 | 0.19 (J) | 0.14 (J) | 0.99 | 0.14 (J) | 0.31 |
| 3/25/2019 | 0.055 (J) | | | | | | |
| 8/26/2019 | | | | | | <0.1 | |
| 8/27/2019 | <0.1 | | | | 1.1 | | <0.1 |
| 8/28/2019 | | 0.36 | <0.1 | <0.1 | | | |
| 10/15/2019 | 0.095 (J) | | | | 1 | <0.1 | |
| 10/16/2019 | | 0.41 | | | | | 0.083 (J) |
| 10/17/2019 | | | <0.1 | <0.1 | | | |
| 11/20/2019 | | 0.34 | | <0.1 | | | |
| 11/21/2019 | | | | | | <0.1 | <0.1 |
| 3/27/2020 | | | | | 1.1 | <0.1 | <0.1 |
| 3/28/2020 | <0.1 | 0.34 | <0.1 | <0.1 | | | |
| 10/12/2020 | | | | | 1.2 | | |
| 10/13/2020 | <0.1 | | | | | <0.1 | <0.1 |
| 10/14/2020 | | | <0.1 | <0.1 | | | |
| 10/15/2020 | | 0.22 | | | | | |
| 1/4/2021 | | <0.1 | | | | | |
| 3/2/2021 | | | | | 1 | <0.1 | |
| 3/3/2021 | | | | | | | <0.1 |
| 3/4/2021 | <0.1 | 0.45 | <0.1 | <0.1 | | | |
| 9/13/2021 | | | | | 1.4 | <0.1 | |
| 9/14/2021 | 0.05 | <0.1 | <0.1 | <0.1 | | | <0.1 |
| Mean | 0.1375 | 0.4194 | 0.1965 | 0.2916 | 1.1 | 0.2315 | 0.5396 |
| Std. Dev. | 0.1296 | 0.2322 | 0.1497 | 0.2926 | 0.3249 | 0.2003 | 0.5124 |
| Upper Lim. | 0.18 | 0.5406 | 0.3 | 0.54 | 1.296 | 0.5 | 1.2 |
| Lower Lim. | 0.055 | 0.2639 | 0.068 | 0.1 | 0.9687 | 0.084 | 0.1 |

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|-------------|------------|-------------|-----------|-------------|
| 8/30/2016 | | | | 0.0001 (J) | <0.005 | |
| 8/31/2016 | <0.005 | <0.005 | <0.005 | | | |
| 10/25/2016 | | | | | | <0.005 |
| 11/30/2016 | 0.0002 (J) | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 2/15/2017 | | | | <0.005 | <0.005 | <0.005 |
| 2/16/2017 | <0.005 | <0.005 | 0.0002 (J) | | | |
| 5/31/2017 | | | | 9E-05 (J) | <0.005 | <0.005 |
| 6/2/2017 | <0.005 | <0.005 | <0.005 | | | |
| 8/15/2017 | | | | <0.005 | | 0.0002 (J) |
| 8/16/2017 | | | | | 8E-05 (J) | |
| 8/17/2017 | <0.005 | <0.005 | 8E-05 (J) | | | |
| 6/19/2018 | | | | <0.005 | <0.005 | <0.005 |
| 6/20/2018 | <0.005 | <0.005 | | | | |
| 6/21/2018 | | | <0.005 | | | |
| 9/25/2018 | | | | <0.005 | <0.005 | |
| 9/26/2018 | | | | | | 0.00027 |
| 9/27/2018 | <0.005 | <0.005 | <0.005 | | | |
| 11/6/2018 | | | <0.005 | | <0.005 | <0.005 |
| 11/7/2018 | <0.005 | <0.005 | | <0.005 | | |
| 3/6/2019 | | <0.005 | | | | |
| 8/26/2019 | | | | | <0.005 | |
| 8/27/2019 | | | | 0.00022 (J) | | 0.00014 (J) |
| 8/28/2019 | <0.005 | <0.005 | 0.0001 (J) | | | |
| 10/15/2019 | | | | 5.6E-05 (J) | <0.005 | |
| 10/16/2019 | <0.005 | | | | | 0.00034 (J) |
| 10/17/2019 | | 0.00012 (J) | <0.005 | | | |
| 3/27/2020 | | | | <0.005 | <0.005 | <0.005 |
| 3/28/2020 | <0.005 | <0.005 | <0.005 | | | |
| 10/12/2020 | | | | <0.005 | | |
| 10/13/2020 | | | | | <0.005 | <0.005 |
| 10/14/2020 | | <0.005 | <0.005 | | | |
| 10/15/2020 | <0.005 | | | | | |
| 1/4/2021 | <0.005 | | | | | |
| 3/2/2021 | | | | <0.005 | <0.005 | |
| 3/3/2021 | | | | | | <0.005 |
| 3/4/2021 | <0.005 | <0.005 | <0.005 | | | |
| 9/13/2021 | | | | <0.005 | <0.005 | |
| 9/14/2021 | <0.005 | <0.005 | <0.005 | | | <0.005 |
| Mean | 0.00468 | 0.004675 | 0.003956 | 0.003605 | 0.004649 | 0.003639 |
| Std. Dev. | 0.001239 | 0.00126 | 0.002075 | 0.00229 | 0.001315 | 0.002233 |
| Upper Lim. | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| Lower Lim. | 0.0002 | 0.00012 | 0.0002 | 0.0001 | 8E-05 | 0.00027 |

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | 0.0102 (J) | 0.0112 (J) | |
| 8/31/2016 | | | 0.0219 (J) | 0.0389 (J) | 0.0122 (J) | | | |
| 10/25/2016 | | | | | | | | 0.007 (J) |
| 11/30/2016 | | | 0.0333 (J) | 0.0303 (J) | 0.011 (J) | 0.0106 (J) | <0.012 | 0.0086 (J) |
| 2/15/2017 | | | | | | 0.0115 (J) | 0.0105 (J) | 0.0149 (J) |
| 2/16/2017 | | | 0.0376 (J) | 0.05 (J) | 0.0142 (J) | | | |
| 5/31/2017 | | | | | | 0.011 (J) | 0.0106 (J) | 0.019 (J) |
| 6/1/2017 | | <0.012 | | | | | | |
| 6/2/2017 | | | 0.0346 (J) | 0.0477 (J) | 0.0229 (J) | | | |
| 8/2/2017 | | <0.012 | | | | | | |
| 8/15/2017 | | | | | | 0.0123 (J) | | 0.016 (J) |
| 8/16/2017 | | | | | | | 0.0145 (J) | |
| 8/17/2017 | | <0.012 | 0.0367 (J) | 0.0645 | 0.0241 (J) | | | |
| 4/4/2018 | | 0.0013 (J) | | | | | | |
| 5/8/2018 | | 0.0012 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.012 (J) | 0.044 (J) | 0.021 (J) |
| 6/20/2018 | | 0.0015 (J) | 0.034 (J) | 0.066 (J) | | | | |
| 6/21/2018 | | | | | 0.03 (J) | | | |
| 9/25/2018 | | | | | | 0.011 (J) | 0.041 (J) | |
| 9/26/2018 | | | | | | | | 0.02 (J) |
| 9/27/2018 | | 0.0021 (J) | 0.023 (J) | 0.045 (J) | 0.034 (J) | | | |
| 11/6/2018 | | 0.0038 (J) | | | 0.037 (J) | | 0.047 (J) | 0.017 (J) |
| 11/7/2018 | | | 0.022 (J) | 0.11 | | 0.013 (J) | | |
| 3/6/2019 | | | | 0.12 | | | | |
| 8/26/2019 | | | | | | | 0.059 | |
| 8/27/2019 | | 0.002 (J) | | | | 0.012 (J) | | 0.023 (J) |
| 8/28/2019 | | | 0.023 (J) | 0.13 | 0.12 | | | |
| 10/15/2019 | | 0.0019 (J) | | | | 0.012 (J) | 0.056 (J) | |
| 10/16/2019 | | | 0.021 (J) | | | | | 0.024 (J) |
| 10/17/2019 | | | | 0.12 | 0.096 | | | |
| 11/20/2019 | | | | | 0.12 | | | |
| 11/21/2019 | | | | | | | 0.052 | |
| 3/27/2020 | | | | | | <0.012 | 0.052 | 0.033 (J) |
| 3/28/2020 | 0.078 (J) | <0.012 | 0.014 (J) | 0.064 | 0.027 (J) | | | |
| 6/16/2020 | 0.096 (J) | | | | | | | |
| 10/12/2020 | | | | | | 0.011 (J) | | |
| 10/13/2020 | | <0.012 | | | | | 0.046 (J) | 0.028 (J) |
| 10/14/2020 | | | | 0.11 | 0.039 (J) | | | |
| 10/15/2020 | 0.093 | | 0.57 | | | | | |
| 1/4/2021 | | | 0.043 (J) | | | | | |
| 3/2/2021 | | | | | | <0.012 | 0.046 (J) | |
| 3/3/2021 | | | | | | | | <0.012 |
| 3/4/2021 | 0.094 (J) | <0.012 | 0.017 (J) | 0.096 (J) | 0.035 (J) | | | |
| 9/13/2021 | | | | | | 0.01 (J) | 0.047 | |
| 9/14/2021 | 0.092 | <0.012 | 0.042 (J) | 0.084 | 0.035 (J) | | | 0.035 (J) |
| Mean | 0.0906 | 0.003986 | 0.06487 | 0.07843 | 0.04383 | 0.01061 | 0.03619 | 0.01946 |
| Std. Dev. | 0.007197 | 0.002174 | 0.14 | 0.03355 | 0.03675 | 0.002124 | 0.01935 | 0.008888 |
| Upper Lim. | 0.0996 | 0.006 | 0.042 | 0.1012 | 0.05517 | 0.01198 | 0.05038 | 0.02576 |
| Lower Lim. | 0.07843 | 0.0015 | 0.021 | 0.05569 | 0.02018 | 0.009702 | 0.03288 | 0.01317 |

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-14 | MCM-17 |
|------------|-----------|-------------|-------------|-----------|-----------|-----------|
| 8/30/2016 | | | | | <0.0002 | |
| 8/31/2016 | | <0.0002 | <0.0002 | <0.0002 | | |
| 10/25/2016 | | | | | | <0.0002 |
| 11/30/2016 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 2/15/2017 | | | | | <0.0002 | <0.0002 |
| 2/16/2017 | | <0.0002 | <0.0002 | <0.0002 | | |
| 5/31/2017 | | | | | <0.0002 | <0.0002 |
| 6/1/2017 | <0.0002 | | | | | |
| 6/2/2017 | | 4.2E-05 (J) | <0.0002 | <0.0002 | | |
| 8/2/2017 | <0.0002 | | | | | |
| 8/15/2017 | | | | | | <0.0002 |
| 8/16/2017 | | | | | <0.0002 | |
| 8/17/2017 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 4/4/2018 | <0.0002 | | | | | |
| 5/8/2018 | <0.0002 | | | | | |
| 6/19/2018 | | | | | <0.0002 | <0.0002 |
| 6/20/2018 | <0.0002 | <0.0002 | <0.0002 | | | |
| 6/21/2018 | | | | <0.0002 | | |
| 9/25/2018 | | | | | <0.0002 | |
| 9/26/2018 | | | | | | 3.6E-05 |
| 9/27/2018 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 11/6/2018 | 0.00071 | | | 0.00067 | 0.00066 | 0.00064 |
| 11/7/2018 | | <0.0002 | <0.0002 | | | |
| 3/6/2019 | | | <0.0002 | | | |
| 8/26/2019 | | | | | <0.0002 | |
| 8/27/2019 | <0.0002 | | | | | <0.0002 |
| 8/28/2019 | | <0.0002 | <0.0002 | <0.0002 | | |
| 3/27/2020 | | | | | <0.0002 | <0.0002 |
| 3/28/2020 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 9/13/2021 | | | | | <0.0002 | |
| 9/14/2021 | <0.0002 | <0.0002 | 0.00016 (J) | <0.0002 | | <0.0002 |
| Mean | 0.0002464 | 0.0001856 | 0.0001967 | 0.0002427 | 0.0002418 | 0.0002251 |
| Std. Dev. | 0.0001538 | 4.764E-05 | 1.155E-05 | 0.0001417 | 0.0001387 | 0.0001461 |
| Upper Lim. | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| Lower Lim. | 0.0002 | 0.0002 | 0.00016 | 0.0002 | 0.0002 | 0.0002 |

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-05 | MCM-06 | MCM-17 |
|------------|------------|------------|----------|
| 8/31/2016 | <0.01 | <0.01 | |
| 10/25/2016 | | | <0.01 |
| 11/30/2016 | <0.01 | <0.01 | <0.01 |
| 2/15/2017 | | | <0.01 |
| 2/16/2017 | <0.01 | <0.01 | |
| 5/31/2017 | | | <0.01 |
| 6/2/2017 | <0.01 | <0.01 | |
| 8/15/2017 | | | <0.01 |
| 8/17/2017 | 0.0012 (J) | 0.0025 (J) | |
| 6/19/2018 | | | <0.01 |
| 6/20/2018 | <0.01 | <0.01 | |
| 9/26/2018 | | | 0.0019 |
| 9/27/2018 | <0.01 | <0.01 | |
| 11/6/2018 | | | <0.01 |
| 11/7/2018 | <0.01 | 0.0024 (J) | |
| 3/6/2019 | | <0.01 | |
| 8/27/2019 | | | <0.01 |
| 8/28/2019 | <0.01 | 0.0017 (J) | |
| 10/16/2019 | <0.01 | | <0.01 |
| 10/17/2019 | | 0.0017 (J) | |
| 3/27/2020 | | | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | |
| 9/14/2021 | 0.0099 (J) | <0.01 | <0.01 |
| Mean | 0.009258 | 0.007562 | 0.009325 |
| Std. Dev. | 0.002538 | 0.003813 | 0.002338 |
| Upper Lim. | 0.01 | 0.01 | 0.01 |
| Lower Lim. | 0.0099 | 0.0024 | 0.0019 |

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | 0.0011 (J) | <0.01 | |
| 8/31/2016 | | 0.002 (J) | 0.0015 (J) | 0.0021 (J) | | | |
| 10/25/2016 | | | | | | | 0.003 (J) |
| 11/30/2016 | | 0.0023 (J) | 0.0054 (J) | <0.01 | 0.0023 (J) | <0.01 | 0.0087 (J) |
| 2/15/2017 | | | | | 0.0021 (J) | 0.0014 (J) | 0.0067 (J) |
| 2/16/2017 | | 0.002 (J) | 0.0022 (J) | 0.0025 (J) | | | |
| 5/31/2017 | | | | | <0.01 | <0.01 | 0.0018 (J) |
| 6/1/2017 | <0.01 | | | | | | |
| 6/2/2017 | | <0.01 | <0.01 | <0.01 | | | |
| 8/2/2017 | <0.01 | | | | | | |
| 8/15/2017 | | | | | 0.0021 (J) | | 0.0025 (J) |
| 8/16/2017 | | | | | | 0.0018 (J) | |
| 8/17/2017 | <0.01 | <0.01 | 0.002 (J) | 0.0033 (J) | | | |
| 4/4/2018 | <0.01 | | | | | | |
| 5/8/2018 | <0.01 | | | | | | |
| 6/19/2018 | | | | | 0.0017 (J) | <0.01 | <0.01 |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | | | | |
| 6/21/2018 | | | | <0.01 | | | |
| 9/25/2018 | | | | | 0.002 (J) | 0.0019 (J) | |
| 9/26/2018 | | | | | | | 0.0016 (J) |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | 0.0023 (J) | | | |
| 11/6/2018 | 0.0025 (J) | | | 0.0048 (J) | | 0.0057 (J) | <0.01 |
| 11/7/2018 | | <0.01 | 0.0075 (J) | | <0.01 | | |
| 3/6/2019 | | | 0.0024 (J) | | | | |
| 8/26/2019 | | | | | | 0.0025 (J) | |
| 8/27/2019 | <0.01 | | | | 0.0019 (J) | | 0.0018 (J) |
| 8/28/2019 | | <0.01 | 0.0014 (J) | 0.0019 (J) | | | |
| 10/15/2019 | <0.01 | | | | <0.01 | 0.003 (J) | |
| 10/16/2019 | | <0.01 | | | | | <0.01 |
| 10/17/2019 | | | 0.0066 (J) | 0.0049 (J) | | | |
| 3/27/2020 | | | | | <0.01 | <0.01 | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| 10/12/2020 | | | | | <0.01 | | |
| 10/13/2020 | <0.01 | | | | | <0.01 | <0.01 |
| 10/14/2020 | | | <0.01 | <0.01 | | | |
| 10/15/2020 | | 0.0028 (J) | | | | | |
| 1/4/2021 | | <0.01 | | | | | |
| 3/2/2021 | | | | | <0.01 | <0.01 | |
| 3/3/2021 | | | | | | | <0.01 |
| 3/4/2021 | 0.00038 (J) | <0.01 | <0.01 | <0.01 | | | |
| 9/13/2021 | | | | | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | <0.01 | <0.01 | | | 0.0021 |
| Mean | 0.008777 | 0.00794 | 0.0066 | 0.006557 | 0.005943 | 0.006879 | 0.0063 |
| Std. Dev. | 0.003136 | 0.00354 | 0.003726 | 0.003675 | 0.004219 | 0.003864 | 0.003859 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Lower Lim. | 0.0025 | 0.0023 | 0.002 | 0.0023 | 0.0019 | 0.0019 | 0.0018 |

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/29/2021 3:26 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-17 |
|------------|-------------|-----------|
| 8/31/2016 | <0.002 | |
| 10/25/2016 | | <0.002 |
| 11/30/2016 | <0.002 | <0.002 |
| 2/15/2017 | | <0.002 |
| 2/16/2017 | <0.002 | |
| 5/31/2017 | | <0.002 |
| 6/2/2017 | <0.002 | |
| 8/15/2017 | | <0.002 |
| 8/17/2017 | <0.002 | |
| 6/19/2018 | | <0.002 |
| 6/20/2018 | <0.002 | |
| 9/26/2018 | | 0.00014 |
| 9/27/2018 | <0.002 | |
| 11/6/2018 | | <0.002 |
| 11/7/2018 | <0.002 | |
| 3/6/2019 | <0.002 | |
| 8/27/2019 | | <0.002 |
| 8/28/2019 | <0.002 | |
| 10/16/2019 | | <0.002 |
| 10/17/2019 | 7.6E-05 (J) | |
| 3/27/2020 | | <0.002 |
| 3/28/2020 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 |
| Mean | 0.001852 | 0.001845 |
| Std. Dev. | 0.0005336 | 0.0005369 |
| Upper Lim. | 0.002 | 0.002 |
| Lower Lim. | 7.6E-05 | 0.00014 |

FIGURE I.

State Confidence Intervals - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|----------------|--------|------------|------------|------------|--------|---------|-----------|-------|---------|-----------|-------|--------|
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.026 | Yes 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.026 | Yes 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.026 | Yes 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |

State Confidence Intervals - All Results

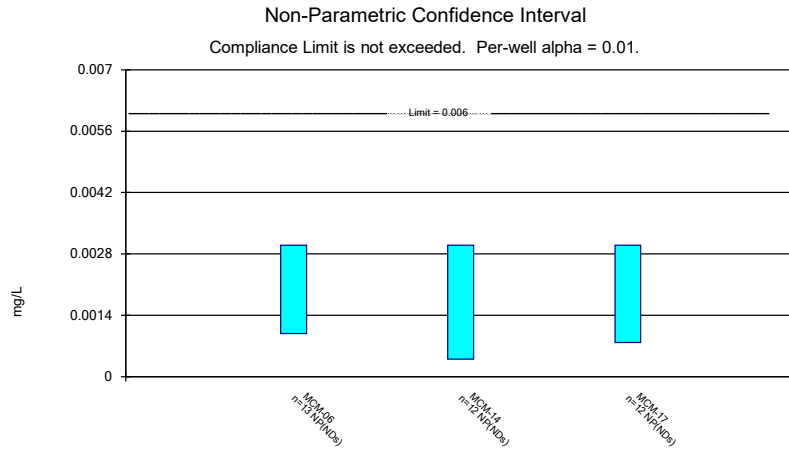
Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.00098 | 0.006 | No | 13 | 0.002675 | 0.0007709 | 76.92 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 12 | 0.002783 | 0.0007506 | 91.67 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 12 | 0.002815 | 0.0006409 | 91.67 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.0249 | 0.0151 | 0.031 | No | 4 | 0.0225 | 0.005447 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.008019 | 0.002934 | 0.031 | No | 15 | 0.0058 | 0.004243 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.0335 | 0.002 | 0.031 | No | 17 | 0.01725 | 0.01344 | 17.65 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-06 | 0.4383 | 0.2741 | 0.031 | Yes | 18 | 0.3562 | 0.1357 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.0214 | 0.01122 | 0.031 | No | 17 | 0.01631 | 0.008125 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.03 | 0.001 | 0.031 | No | 14 | 0.0159 | 0.01468 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-14 | 0.03 | 0.0014 | 0.031 | No | 14 | 0.01651 | 0.0141 | 50 | None | No | 0.01 | NP (normality) |
| Arsenic (mg/L) | MCM-17 | 0.03 | 0.0017 | 0.031 | No | 15 | 0.01376 | 0.0138 | 40 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-04 | 0.09086 | 0.03286 | 2 | No | 14 | 0.07307 | 0.0749 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.04502 | 0.009496 | 2 | No | 15 | 0.05122 | 0.1122 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 15 | 0.1079 | 0.05641 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2056 | 0.1016 | 2 | No | 14 | 0.1644 | 0.09816 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-12 | 0.1285 | 0.1062 | 2 | No | 14 | 0.1174 | 0.01579 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1285 | 0.05361 | 2 | No | 14 | 0.09108 | 0.0529 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1388 | 0.06144 | 2 | No | 14 | 0.1001 | 0.05463 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.003 | 0.00021 | 0.021 | No | 14 | 0.001272 | 0.001345 | 35.71 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.003 | 0.000054 | 0.021 | No | 15 | 0.002804 | 0.0007607 | 93.33 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.003 | 0.00012 | 0.021 | No | 14 | 0.002377 | 0.001239 | 78.57 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001236 | 0.0004659 | 0.021 | No | 14 | 0.0009843 | 0.0008851 | 14.29 | None | ln(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.003 | 0.000097 | 0.021 | No | 14 | 0.001968 | 0.001438 | 64.29 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.003 | 0.00018 | 0.021 | No | 14 | 0.001231 | 0.001369 | 35.71 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.0025 | 0.005 | No | 11 | 0.002281 | 0.0007257 | 90.91 | None | No | 0.006 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.0012 | 0.1 | No | 12 | 0.005667 | 0.004533 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 12 | 0.005453 | 0.004755 | 50 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.00655 | 0.004546 | 61.54 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 12 | 0.00485 | 0.00381 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 12 | 0.00695 | 0.002356 | 33.33 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 12 | 0.005106 | 0.004349 | 41.67 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01305 | 0.007718 | 0.1 | No | 12 | 0.01104 | 0.003034 | 25 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.03 | 0.0054 | 0.036 | No | 15 | 0.01746 | 0.01221 | 46.67 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.03 | 0.0019 | 0.036 | No | 15 | 0.02813 | 0.007255 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.03 | 0.0009 | 0.036 | No | 15 | 0.02608 | 0.01035 | 86.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.03 | 0.0011 | 0.036 | No | 14 | 0.02794 | 0.007724 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.03 | 0.00053 | 0.036 | No | 14 | 0.01948 | 0.01464 | 64.29 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.03 | 0.0006 | 0.036 | No | 14 | 0.0279 | 0.007857 | 92.86 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.03 | 0.0007 | 0.036 | No | 14 | 0.02369 | 0.01254 | 78.57 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.96 | 3.112 | 55.8 | No | 14 | 4.634 | 2.256 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.042 | 1.387 | 55.8 | No | 15 | 2.441 | 1.741 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 8.58 | 1.94 | 55.8 | No | 14 | 5.409 | 3.319 | 0 | None | No | 0.01 | NP (normality) |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.615 | 5.621 | 55.8 | No | 15 | 7.618 | 2.946 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.092 | 2.128 | 55.8 | No | 14 | 2.61 | 0.6799 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.458 | 3.108 | 55.8 | No | 15 | 5.283 | 3.21 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.82 | 2.01 | 55.8 | No | 15 | 5.015 | 3.04 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 15 | 0.1375 | 0.1296 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.5406 | 0.2639 | 4 | No | 17 | 0.4194 | 0.2322 | 11.76 | None | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.068 | 4 | No | 15 | 0.1965 | 0.1497 | 46.67 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.54 | 0.1 | 4 | No | 16 | 0.2916 | 0.2926 | 43.75 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.296 | 0.9687 | 4 | No | 15 | 1.1 | 0.3249 | 6.667 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.5 | 0.084 | 4 | No | 16 | 0.2315 | 0.2003 | 56.25 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 16 | 0.5396 | 0.5124 | 37.5 | None | No | 0.01 | NP (normality) |

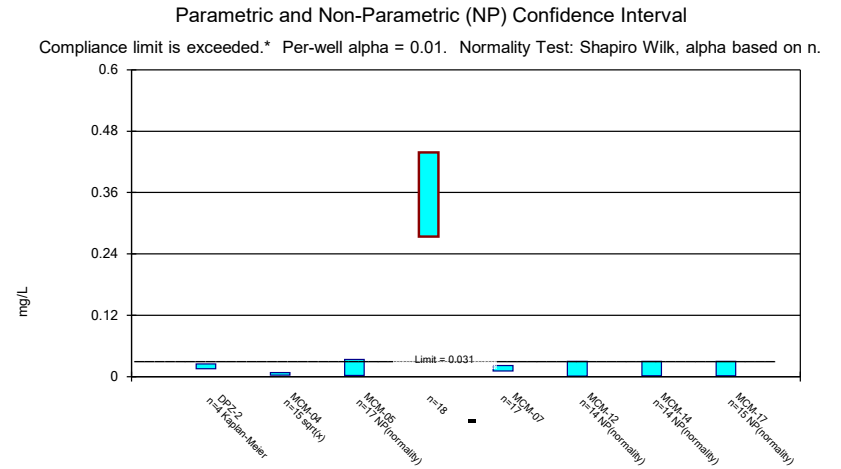
State Confidence Intervals - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/29/2021, 3:22 PM

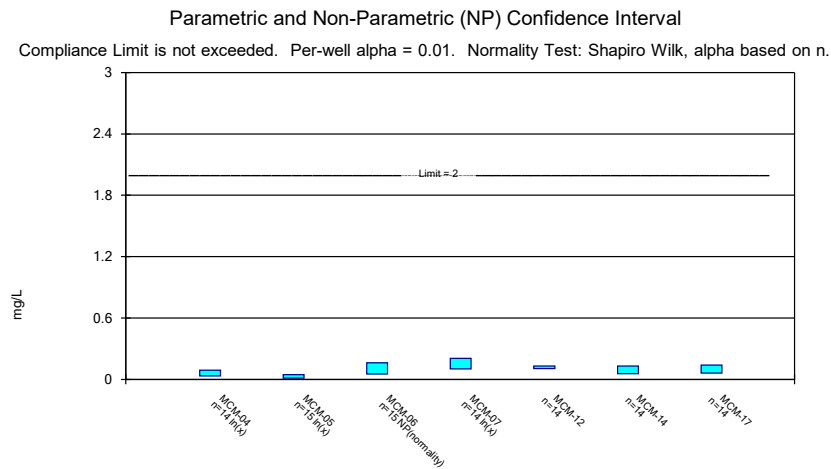
| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|----------------|----------------|--------------|------------|-----------|----------------|-----------------|--------------|-------------|------------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.005 | No | 15 | 0.00468 | 0.001239 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.005 | No | 15 | 0.004675 | 0.00126 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.005 | No | 14 | 0.003956 | 0.002075 | 78.57 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.005 | No | 14 | 0.003605 | 0.00229 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.005 | No | 14 | 0.004649 | 0.001315 | 92.86 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.005 | No | 14 | 0.003639 | 0.002233 | 71.43 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.0996 | 0.07843 | 0.026 | Yes | 5 | 0.0906 | 0.007197 | 0 | None | x^5 | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.006 | 0.0015 | 0.026 | No | 14 | 0.003986 | 0.002174 | 50 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.026 | No | 15 | 0.06487 | 0.14 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.1012 | 0.05569 | 0.026 | Yes | 15 | 0.07843 | 0.03355 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05517 | 0.02018 | 0.026 | No | 15 | 0.04383 | 0.03675 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.01198 | 0.009702 | 0.026 | No | 14 | 0.01061 | 0.002124 | 14.29 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-14 | 0.05038 | 0.03288 | 0.026 | Yes | 15 | 0.03619 | 0.01935 | 6.667 | None | x^3 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02576 | 0.01317 | 0.026 | No | 14 | 0.01946 | 0.008888 | 7.143 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002464 | 0.0001538 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0001856 | 0.00004764 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 12 | 0.0001967 | 0.00001155 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002427 | 0.0001417 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002418 | 0.0001387 | 90.91 | None | No | 0.006 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.0002 | 0.0002 | 0.002 | No | 11 | 0.0002251 | 0.0001461 | 81.82 | None | No | 0.006 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.01 | No | 12 | 0.009258 | 0.002538 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.01 | No | 13 | 0.007562 | 0.003813 | 69.23 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.01 | No | 12 | 0.009325 | 0.002338 | 91.67 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.01 | 0.0025 | 0.15 | No | 14 | 0.008777 | 0.003136 | 85.71 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.01 | 0.0023 | 0.15 | No | 15 | 0.00794 | 0.00354 | 73.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.01 | 0.002 | 0.15 | No | 15 | 0.0066 | 0.003726 | 46.67 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.01 | 0.0023 | 0.15 | No | 14 | 0.006557 | 0.003675 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-12 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.005943 | 0.004219 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-14 | 0.01 | 0.0019 | 0.15 | No | 14 | 0.006879 | 0.003864 | 57.14 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.01 | 0.0018 | 0.15 | No | 14 | 0.0063 | 0.003859 | 42.86 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 13 | 0.001852 | 0.0005336 | 92.31 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 12 | 0.001845 | 0.0005369 | 91.67 | None | No | 0.01 | NP (NDs) |



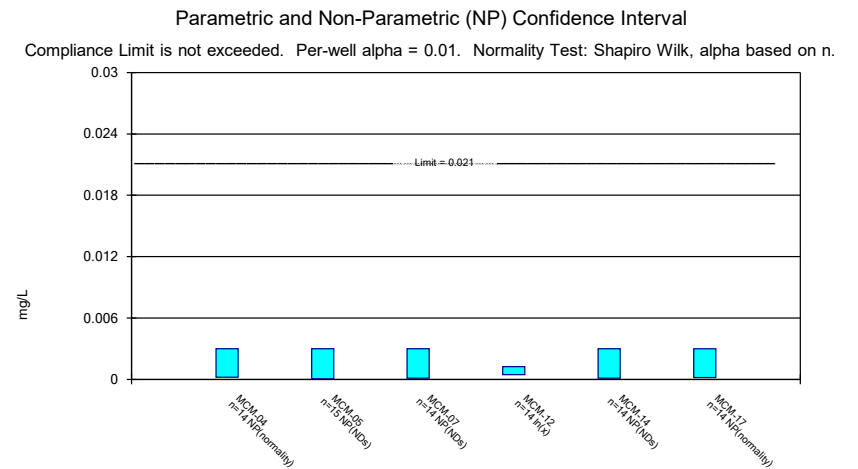
Constituent: Antimony Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Arsenic Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



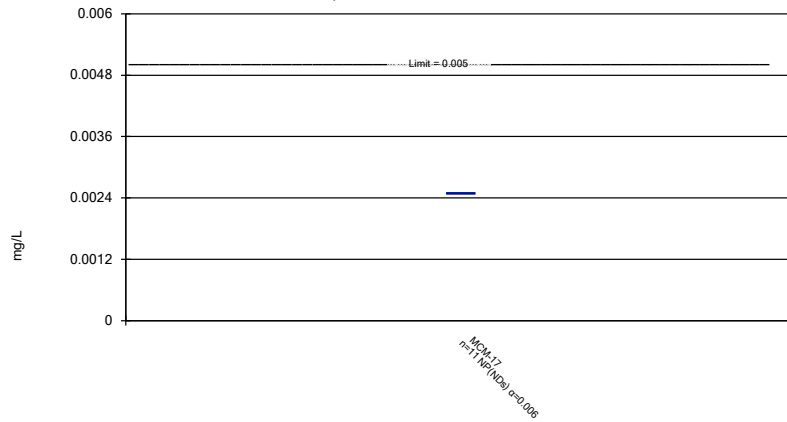
Constituent: Barium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Beryllium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

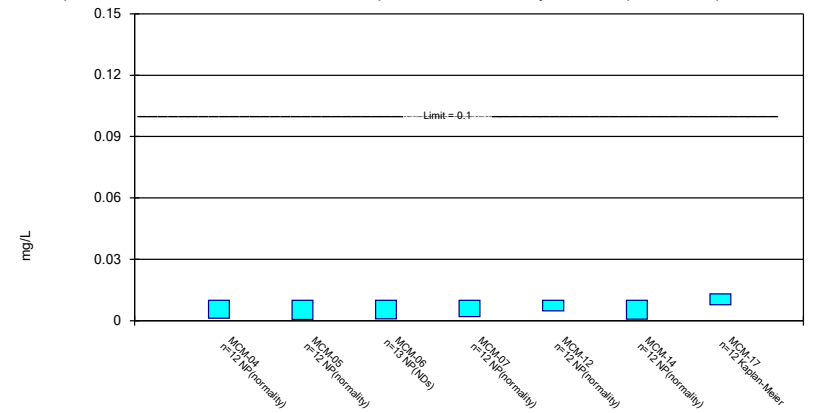
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

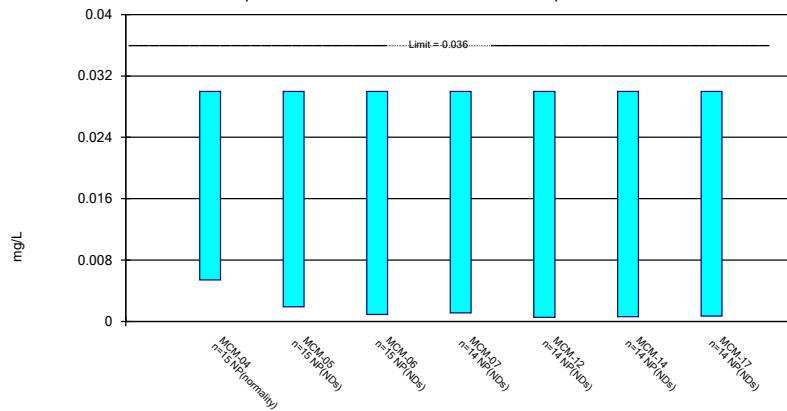
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

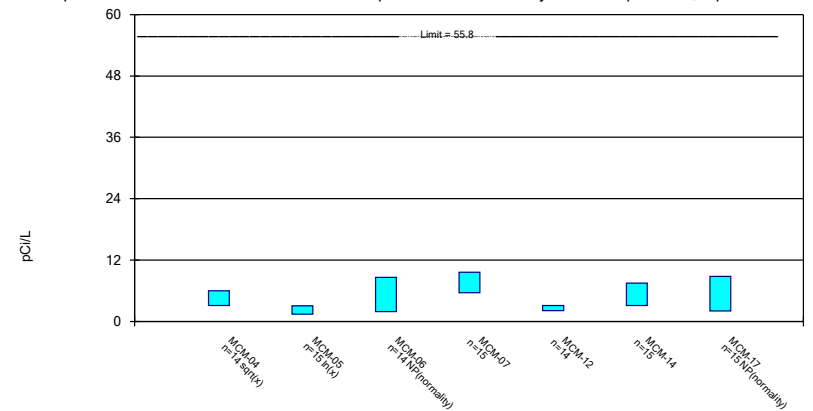
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

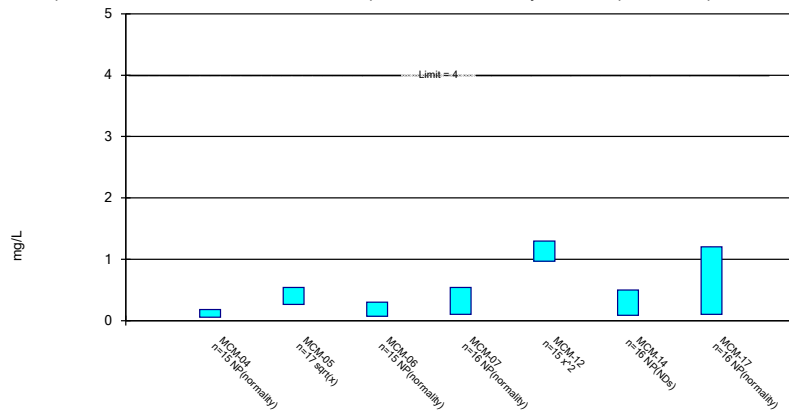
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confide
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

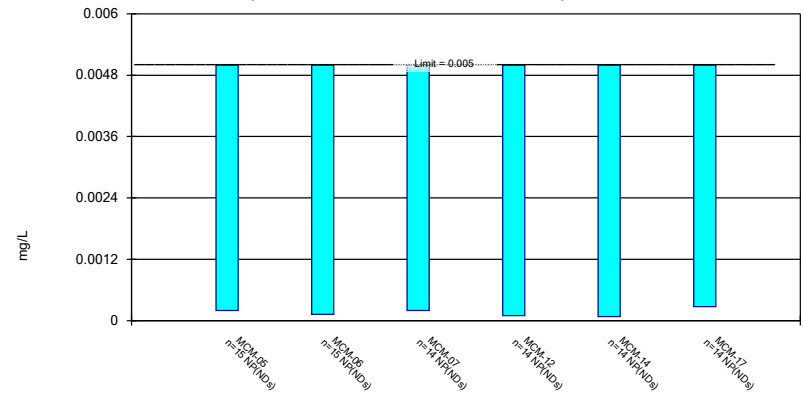
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

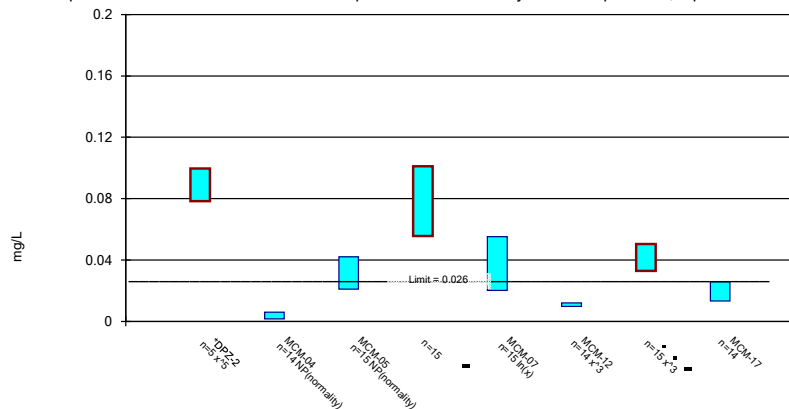
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

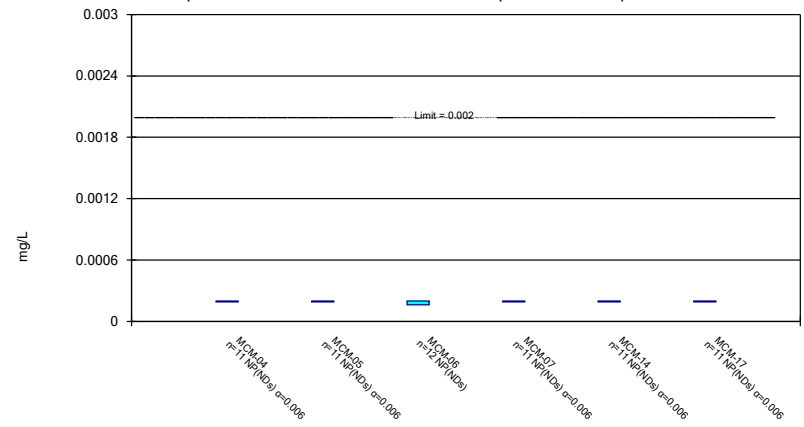
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



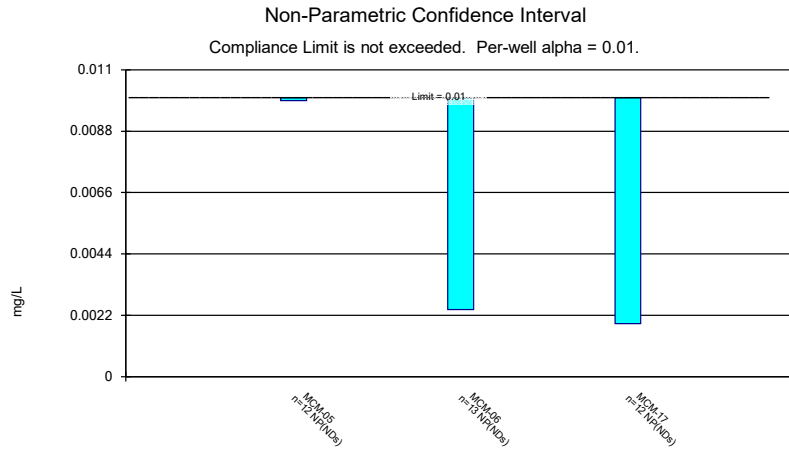
Constituent: Lithium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

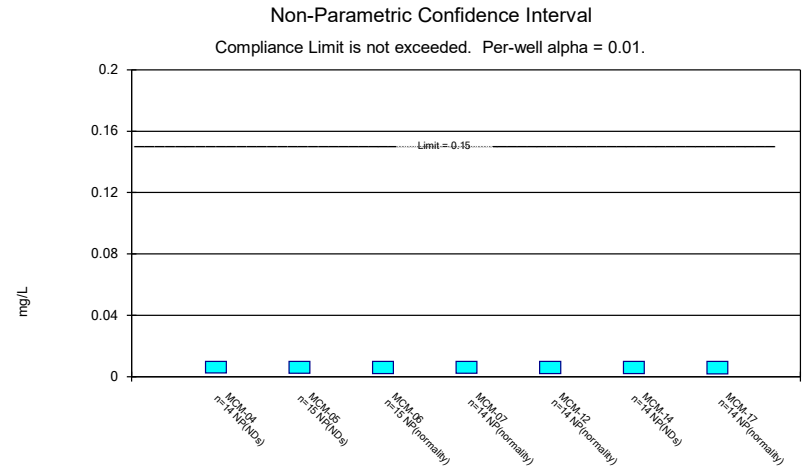
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



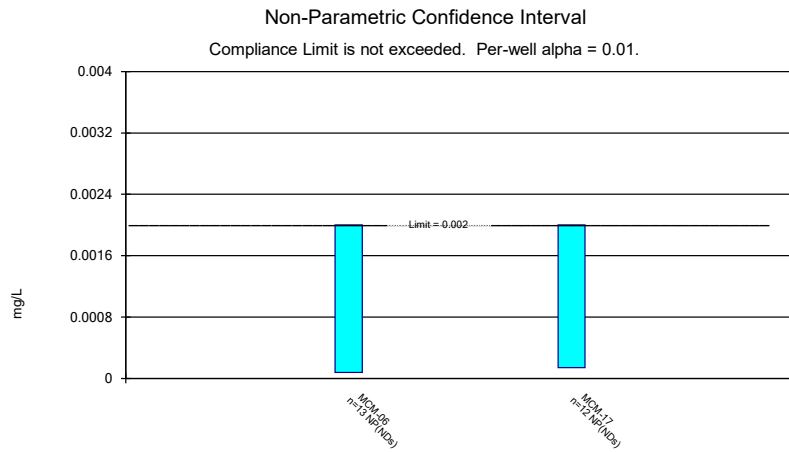
Constituent: Mercury Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Molybdenum Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Selenium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Thallium Analysis Run 12/29/2021 3:21 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-14 | MCM-17 |
|------------|-------------|------------|-----------|
| 8/30/2016 | | <0.003 | |
| 8/31/2016 | <0.003 | | |
| 10/25/2016 | | | <0.003 |
| 11/30/2016 | <0.003 | <0.003 | <0.003 |
| 2/15/2017 | | <0.003 | <0.003 |
| 2/16/2017 | <0.003 | | |
| 5/31/2017 | | <0.003 | <0.003 |
| 6/2/2017 | <0.003 | | |
| 8/15/2017 | | | <0.003 |
| 8/16/2017 | | <0.003 | |
| 8/17/2017 | <0.003 | | |
| 6/19/2018 | | <0.003 | <0.003 |
| 6/20/2018 | <0.003 | | |
| 9/25/2018 | | <0.003 | |
| 9/26/2018 | | | 0.00078 |
| 9/27/2018 | <0.003 | | |
| 11/6/2018 | | <0.003 | <0.003 |
| 11/7/2018 | <0.003 | | |
| 3/6/2019 | <0.003 | | |
| 8/26/2019 | | 0.0004 (J) | |
| 8/27/2019 | | | <0.003 |
| 8/28/2019 | 0.00098 (J) | | |
| 10/15/2019 | | <0.003 | |
| 10/16/2019 | | | <0.003 |
| 10/17/2019 | 0.0009 (J) | | |
| 3/27/2020 | | <0.003 | <0.003 |
| 3/28/2020 | 0.0029 (J) | | |
| 9/13/2021 | | <0.003 | |
| 9/14/2021 | <0.003 | | <0.003 |
| Mean | 0.002675 | 0.002783 | 0.002815 |
| Std. Dev. | 0.0007709 | 0.0007506 | 0.0006409 |
| Upper Lim. | 0.003 | 0.003 | 0.003 |
| Lower Lim. | 0.00098 | 0.0004 | 0.00078 |

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|--------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | <0.03 | <0.03 | |
| 8/31/2016 | | | <0.03 | 0.212 | 0.0066 | | | |
| 10/25/2016 | | | | | | | | <0.03 |
| 11/30/2016 | | | 0.0132 | 0.129 | 0.0281 | <0.03 | <0.03 | 0.0072 |
| 2/15/2017 | | | | | | <0.03 | <0.03 | 0.0017 (J) |
| 2/16/2017 | | | 0.0372 | 0.257 | 0.0295 | | | |
| 5/31/2017 | | | | | | 0.0007 (J) | 0.0008 (J) | 0.0018 (J) |
| 6/1/2017 | | 0.004 (J) | | | | | | |
| 6/2/2017 | | | 0.0335 | 0.0559 | 0.0286 | | | |
| 8/2/2017 | | 0.0028 (J) | | | | | | |
| 8/15/2017 | | | | | | 0.0006 (J) | | 0.0015 (J) |
| 8/16/2017 | | | | | | | 0.0007 (J) | |
| 8/17/2017 | | 0.0021 (J) | 0.0336 | 0.458 | 0.0211 | | | |
| 4/4/2018 | | 0.0023 (J) | | | | | | |
| 5/8/2018 | | 0.0048 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.001 (J) | 0.0062 (J) | 0.0029 (J) |
| 6/20/2018 | | 0.0099 | 0.019 | 0.44 | | | | |
| 6/21/2018 | | | | | 0.022 (J) | | | |
| 9/25/2018 | | | | | | 0.0011 (J) | 0.0031 (J) | |
| 9/26/2018 | | | | | | | | 0.0015 (J) |
| 9/27/2018 | | 0.01 | 0.0035 (J) | 0.27 | 0.015 | | | |
| 11/6/2018 | | 0.013 | | | 0.012 | | 0.0014 (J) | <0.03 |
| 11/7/2018 | | | 0.002 (J) | 0.5 | | 0.0057 | | |
| 11/27/2018 | | | 0.0016 (J) | 0.5 | 0.011 | | | |
| 3/6/2019 | | | | 0.49 | | | | |
| 3/26/2019 | | | 0.0018 (J) | 0.3 | 0.0078 | | | |
| 7/2/2019 | | 0.015 (J) | | 0.37 | 0.027 | | | |
| 8/26/2019 | | | | | | | 0.0022 (J) | |
| 8/27/2019 | | 0.0072 | | | | 0.0011 (J) | | 0.0024 (J) |
| 8/28/2019 | | | 0.0019 (J) | 0.5 | 0.011 | | | |
| 10/15/2019 | | 0.0038 (J) | | | | 0.0024 (J) | 0.0067 | |
| 10/16/2019 | | | 0.0047 (J) | | | | | 0.0043 (J) |
| 10/17/2019 | | | | 0.34 | 0.0046 (J) | | | |
| 11/21/2019 | | | | | | | | 0.0031 (J) |
| 3/27/2020 | | | | | | <0.03 | <0.03 | <0.03 |
| 3/28/2020 | <0.03 | 0.0034 (J) | <0.03 | 0.3 | 0.012 | | | |
| 10/12/2020 | | | | | | <0.03 | | |
| 10/13/2020 | | 0.0022 (J) | | | | | <0.03 | <0.03 |
| 10/14/2020 | | | | 0.43 | 0.013 | | | |
| 10/15/2020 | 0.021 | | 0.024 | | | | | |
| 1/4/2021 | | | 0.0072 | | | | | |
| 3/2/2021 | | | | | | <0.03 | <0.03 | |
| 3/3/2021 | | | | | | | | <0.03 |
| 3/4/2021 | 0.017 (J) | 0.0018 (J) | <0.03 | 0.35 | 0.015 (J) | | | |
| 9/13/2021 | | | | | | <0.03 | <0.03 | |
| 9/14/2021 | 0.022 | 0.0047 (J) | 0.02 (J) | 0.51 | 0.013 (J) | | | <0.03 |
| Mean | 0.0225 | 0.0058 | 0.01725 | 0.3562 | 0.01631 | 0.0159 | 0.01651 | 0.01376 |
| Std. Dev. | 0.005447 | 0.004243 | 0.01344 | 0.1357 | 0.008125 | 0.01468 | 0.0141 | 0.0138 |
| Upper Lim. | 0.0249 | 0.008019 | 0.0335 | 0.4383 | 0.0214 | 0.03 | 0.03 | 0.03 |
| Lower Lim. | 0.0151 | 0.002934 | 0.002 | 0.2741 | 0.01122 | 0.001 | 0.0014 | 0.0017 |

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|---------|------------|---------|---------|---------|---------|----------|
| 8/30/2016 | | | | | 0.108 | 0.0131 | |
| 8/31/2016 | | 0.0289 | 0.0498 | 0.0771 | | | |
| 10/25/2016 | | | | | | | 0.063 |
| 11/30/2016 | | 0.0168 | 0.0528 | 0.101 | 0.121 | 0.0105 | 0.0628 |
| 2/15/2017 | | | | | 0.111 | 0.0786 | 0.0102 |
| 2/16/2017 | | 0.016 | 0.0555 | 0.0865 | | | |
| 5/31/2017 | | | | | 0.131 | 0.0199 | 0.061 |
| 6/1/2017 | 0.0195 | | | | | | |
| 6/2/2017 | | 0.0393 (J) | 0.0508 | 0.123 | | | |
| 8/2/2017 | 0.053 | | | | | | |
| 8/15/2017 | | | | | 0.126 | | 0.0579 |
| 8/16/2017 | | | | | | 0.033 | |
| 8/17/2017 | 0.0475 | 0.0188 | 0.0596 | 0.124 | | | |
| 4/4/2018 | 0.035 | | | | | | |
| 5/8/2018 | 0.027 | | | | | | |
| 6/19/2018 | | | | | 0.13 | 0.092 | 0.076 |
| 6/20/2018 | 0.027 | 0.014 | 0.06 | | | | |
| 6/21/2018 | | | | 0.1 | | | |
| 9/25/2018 | | | | | 0.12 | 0.098 | |
| 9/26/2018 | | | | | | | 0.099 |
| 9/27/2018 | 0.14 | 0.0097 (J) | 0.06 | 0.12 | | | |
| 11/6/2018 | 0.31 | | | 0.12 | | 0.1 | 0.052 |
| 11/7/2018 | | 0.0085 (J) | 0.19 | | 0.11 | | |
| 3/6/2019 | | | 0.16 | | | | |
| 8/26/2019 | | | | | | 0.12 | |
| 8/27/2019 | 0.083 | | | | 0.14 | | 0.11 |
| 8/28/2019 | | 0.011 | 0.13 | 0.4 | | | |
| 10/15/2019 | 0.082 | | | | 0.14 | 0.12 | |
| 10/16/2019 | | 0.012 | | | | | 0.14 |
| 10/17/2019 | | | 0.13 | 0.35 | | | |
| 3/27/2020 | | | | | 0.12 | 0.13 | 0.16 |
| 3/28/2020 | 0.039 | 0.0041 (J) | 0.12 | 0.11 | | | |
| 10/12/2020 | | | | | 0.1 | | |
| 10/13/2020 | 0.055 | | | | | 0.14 | 0.14 |
| 10/14/2020 | | | 0.14 | 0.19 | | | |
| 10/15/2020 | | 0.45 | | | | | |
| 1/4/2021 | | 0.051 | | | | | |
| 3/2/2021 | | | | | 0.1 | 0.16 | |
| 3/3/2021 | | | | | | | 0.17 |
| 3/4/2021 | 0.062 | 0.0082 (J) | 0.14 | 0.2 | | | |
| 9/13/2021 | | | | | 0.086 | 0.16 | |
| 9/14/2021 | 0.043 | 0.08 | 0.22 | 0.2 | | | 0.2 (M1) |
| Mean | 0.07307 | 0.05122 | 0.1079 | 0.1644 | 0.1174 | 0.09108 | 0.1001 |
| Std. Dev. | 0.0749 | 0.1122 | 0.05641 | 0.09816 | 0.01579 | 0.0529 | 0.05463 |
| Upper Lim. | 0.09086 | 0.04502 | 0.16 | 0.2056 | 0.1285 | 0.1285 | 0.1388 |
| Lower Lim. | 0.03286 | 0.009496 | 0.0528 | 0.1016 | 0.1062 | 0.05361 | 0.06144 |

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | 0.0003 (J) | <0.003 | |
| 8/31/2016 | | <0.003 | <0.003 | | | |
| 10/25/2016 | | | | | | 0.0004 (J) |
| 11/30/2016 | | <0.003 | <0.003 | 0.0004 (J) | <0.003 | 0.0003 (J) |
| 2/15/2017 | | | | 0.0004 (J) | <0.003 | <0.003 |
| 2/16/2017 | | <0.003 | <0.003 | | | |
| 5/31/2017 | | | | 0.0005 (J) | 0.0001 (J) | 0.0002 (J) |
| 6/1/2017 | 0.0001 (J) | | | | | |
| 6/2/2017 | | <0.003 | <0.003 | | | |
| 8/2/2017 | 0.0003 (J) | | | | | |
| 8/15/2017 | | | | 0.0005 (J) | | 0.0002 (J) |
| 8/16/2017 | | | | | 0.0002 (J) | |
| 8/17/2017 | 0.0002 (J) | <0.003 | <0.003 | | | |
| 4/4/2018 | <0.003 | | | | | |
| 5/8/2018 | 0.00025 (J) | | | | | |
| 6/19/2018 | | | | 0.00065 (J) | <0.003 | 0.00032 (J) |
| 6/20/2018 | 0.00021 (J) | <0.003 | | | | |
| 6/21/2018 | | | <0.003 | | | |
| 9/25/2018 | | | | 0.00066 (J) | 5E-05 (J) | |
| 9/26/2018 | | | | | | 0.00024 (J) |
| 9/27/2018 | 0.00031 (J) | <0.003 | 7.4E-05 (J) | | | |
| 11/6/2018 | 0.00077 (J) | | 0.00012 (J) | | 9.7E-05 (J) | 0.00026 (J) |
| 11/7/2018 | | 5.4E-05 (J) | | 0.00058 (J) | | |
| 8/26/2019 | | | | | 0.0001 (J) | |
| 8/27/2019 | 0.00032 (J) | | | 0.0009 (J) | | 0.00018 (J) |
| 8/28/2019 | | <0.003 | <0.003 | | | |
| 10/15/2019 | 0.00035 (J) | | | 0.00079 (J) | <0.003 | |
| 10/16/2019 | | <0.003 | | | | 0.00014 (J) |
| 10/17/2019 | | | 7.8E-05 (J) | | | |
| 3/27/2020 | | | | <0.003 | <0.003 | <0.003 |
| 3/28/2020 | <0.003 | <0.003 | <0.003 | | | |
| 10/12/2020 | | | | 0.001 (J) | | |
| 10/13/2020 | <0.003 | | | | <0.003 | <0.003 |
| 10/14/2020 | | | <0.003 | | | |
| 10/15/2020 | | <0.003 | | | | |
| 1/4/2021 | | <0.003 | | | | |
| 3/2/2021 | | | | <0.003 | <0.003 | |
| 3/3/2021 | | | | | | <0.003 |
| 3/4/2021 | <0.003 | <0.003 | <0.003 | | | |
| 9/13/2021 | | | | 0.0011 | <0.003 | |
| 9/14/2021 | <0.003 | <0.003 | <0.003 | | | <0.003 |
| Mean | 0.001272 | 0.002804 | 0.002377 | 0.0009843 | 0.001968 | 0.001231 |
| Std. Dev. | 0.001345 | 0.0007607 | 0.001239 | 0.0008851 | 0.001438 | 0.001369 |
| Upper Lim. | 0.003 | 0.003 | 0.003 | 0.001236 | 0.003 | 0.003 |
| Lower Lim. | 0.00021 | 5.4E-05 | 0.00012 | 0.0004659 | 9.7E-05 | 0.00018 |

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-17 |
|------------|-----------|
| 10/25/2016 | <0.0025 |
| 11/30/2016 | <0.0025 |
| 2/15/2017 | <0.0025 |
| 5/31/2017 | <0.0025 |
| 8/15/2017 | <0.0025 |
| 6/19/2018 | <0.0025 |
| 9/26/2018 | 9.3E-05 |
| 11/6/2018 | <0.0025 |
| 8/27/2019 | <0.0025 |
| 3/27/2020 | <0.0025 |
| 9/14/2021 | <0.0025 |
| Mean | 0.002281 |
| Std. Dev. | 0.0007257 |
| Upper Lim. | 0.0025 |
| Lower Lim. | 0.0025 |

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|-------------|-------------|------------|------------|-------------|------------|
| 8/30/2016 | | | | | 0.0054 (J) | 0.0026 (J) | |
| 8/31/2016 | | 0.0013 (J) | 0.001 (J) | 0.0022 (J) | | | |
| 10/25/2016 | | | | | | | 0.016 |
| 11/30/2016 | | 0.0012 (J) | <0.01 | <0.01 | 0.0073 (J) | 0.0016 (J) | 0.0151 (J) |
| 2/15/2017 | | | | | 0.0045 (J) | 0.0018 (J) | 0.0137 |
| 2/16/2017 | | 0.0012 (J) | 0.0011 (J) | 0.0028 (J) | | | |
| 5/31/2017 | | | | | 0.0052 (J) | 0.0019 (J) | 0.0109 |
| 6/1/2017 | 0.0008 (J) | | | | | | |
| 6/2/2017 | | <0.01 | <0.01 | 0.0023 (J) | | | |
| 8/2/2017 | 0.0012 (J) | | | | | | |
| 8/15/2017 | | | | | 0.005 (J) | | 0.0117 |
| 8/16/2017 | | | | | | 0.0019 (J) | |
| 8/17/2017 | 0.0013 (J) | 0.0007 (J) | 0.0007 (J) | 0.0022 (J) | | | |
| 4/4/2018 | <0.01 | | | | | | |
| 5/8/2018 | <0.01 | | | | | | |
| 6/19/2018 | | | | | 0.0047 (J) | <0.01 | 0.013 (J) |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | | | | |
| 6/21/2018 | | | | <0.01 | | | |
| 9/25/2018 | | | | | <0.01 | <0.01 | |
| 9/26/2018 | | | | | | | 0.0092 (J) |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | 0.0024 (J) | | | |
| 11/6/2018 | 0.0017 (J) | | | 0.002 (J) | | <0.01 | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | | |
| 3/6/2019 | | | <0.01 | | | | |
| 8/26/2019 | | | | | | 0.00071 (J) | |
| 8/27/2019 | 0.0018 (J) | | | | 0.0056 (J) | | 0.0066 (J) |
| 8/28/2019 | | 0.00047 (J) | 0.00085 (J) | 0.0024 (J) | | | |
| 10/15/2019 | 0.0012 (J) | | | | 0.0057 (J) | 0.00076 (J) | |
| 10/16/2019 | | 0.00057 (J) | | | | | 0.0063 (J) |
| 10/17/2019 | | | 0.0015 (J) | 0.0019 (J) | | | |
| 3/27/2020 | | | | | <0.01 | <0.01 | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| 9/13/2021 | | | | | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 |
| Mean | 0.005667 | 0.005453 | 0.00655 | 0.00485 | 0.00695 | 0.005106 | 0.01104 |
| Std. Dev. | 0.004533 | 0.004755 | 0.004546 | 0.00381 | 0.002356 | 0.004349 | 0.003034 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01305 |
| Lower Lim. | 0.0012 | 0.00057 | 0.00085 | 0.002 | 0.0047 | 0.00076 | 0.007718 |

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|------------|------------|------------|-------------|------------|------------|
| 8/30/2016 | | | | | <0.03 | 0.0006 (J) | |
| 8/31/2016 | | <0.03 | <0.03 | <0.03 | | | |
| 10/25/2016 | | | | | | | <0.03 |
| 11/30/2016 | | <0.03 | 0.0009 (J) | 0.0011 (J) | <0.03 | <0.03 | 0.0007 (J) |
| 2/15/2017 | | | | | <0.03 | <0.03 | <0.03 |
| 2/16/2017 | | <0.03 | <0.03 | <0.03 | | | |
| 5/31/2017 | | | | | 0.0005 (J) | <0.03 | <0.03 |
| 6/1/2017 | <0.03 | | | | | | |
| 6/2/2017 | | <0.03 | <0.03 | <0.03 | | | |
| 8/2/2017 | <0.03 | | | | | | |
| 8/15/2017 | | | | | 0.0005 (J) | | 0.0004 (J) |
| 8/16/2017 | | | | | | <0.03 | |
| 8/17/2017 | <0.03 | <0.03 | 0.0003 (J) | <0.03 | | | |
| 4/4/2018 | <0.03 | | | | | | |
| 5/8/2018 | <0.03 | | | | | | |
| 6/19/2018 | | | | | 0.00053 (J) | <0.03 | <0.03 |
| 6/20/2018 | <0.03 | <0.03 | <0.03 | | | | |
| 6/21/2018 | | | | <0.03 | | | |
| 9/25/2018 | | | | | <0.03 | <0.03 | |
| 9/26/2018 | | | | | | | 0.00052 |
| 9/27/2018 | <0.03 | <0.03 | <0.03 | <0.03 | | | |
| 11/6/2018 | 0.0048 (J) | | | <0.03 | | <0.03 | <0.03 |
| 11/7/2018 | | <0.03 | <0.03 | | <0.03 | | |
| 3/6/2019 | | | <0.03 | | | | |
| 8/26/2019 | | | | | | <0.03 | |
| 8/27/2019 | 0.0078 | | | | 0.0007 (J) | | <0.03 |
| 8/28/2019 | | <0.03 | <0.03 | <0.03 | | | |
| 10/15/2019 | 0.0085 | | | | 0.00054 (J) | <0.03 | |
| 10/16/2019 | | <0.03 | | | | | <0.03 |
| 10/17/2019 | | | <0.03 | <0.03 | | | |
| 11/20/2019 | 0.009 | | | | | | |
| 3/27/2020 | | | | | <0.03 | <0.03 | <0.03 |
| 3/28/2020 | 0.0041 (J) | <0.03 | <0.03 | <0.03 | | | |
| 10/12/2020 | | | | | <0.03 | | |
| 10/13/2020 | 0.0063 | | | | | <0.03 | <0.03 |
| 10/14/2020 | | | <0.03 | <0.03 | | | |
| 10/15/2020 | | 0.0019 (J) | | | | | |
| 1/4/2021 | | <0.03 | | | | | |
| 3/2/2021 | | | | | <0.03 | <0.03 | |
| 3/3/2021 | | | | | | | <0.03 |
| 3/4/2021 | 0.006 | <0.03 | <0.03 | <0.03 | | | |
| 9/13/2021 | | | | | <0.03 | <0.03 | |
| 9/14/2021 | 0.0054 | <0.03 | <0.03 | <0.03 | | | <0.03 |
| Mean | 0.01746 | 0.02813 | 0.02608 | 0.02794 | 0.01948 | 0.0279 | 0.02369 |
| Std. Dev. | 0.01221 | 0.007255 | 0.01035 | 0.007724 | 0.01464 | 0.007857 | 0.01254 |
| Upper Lim. | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Lower Lim. | 0.0054 | 0.0019 | 0.0009 | 0.0011 | 0.00053 | 0.0006 | 0.0007 |

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|--------|-----------|----------|---------|--------|-----------|----------|
| 8/30/2016 | | | | | 1.4 | 1.31 | |
| 8/31/2016 | | 2.39 (D) | 2.47 (D) | 5.4 (D) | | | |
| 10/25/2016 | | | | | | | 2.22 |
| 11/30/2016 | | 1.66 | 1.6 | 3.13 | 4.37 | 0.438 (U) | 2.01 |
| 2/15/2017 | | | | | 2.21 | 0.3 (U) | 1.56 |
| 2/16/2017 | | 2.71 | 1.83 | 3.09 | | | |
| 5/31/2017 | | | | | 2.62 | 1.77 | 1.92 |
| 6/1/2017 | 1.9 | | | | | | |
| 6/2/2017 | | 1.99 | 2.45 | 7.56 | | | |
| 8/2/2017 | 5.01 | | | | | | |
| 8/15/2017 | | | | | 2.69 | | 2.47 |
| 8/16/2017 | | | | | | 2.26 | |
| 8/17/2017 | 5.35 | 1.87 | 3.33 | 6.38 | | | |
| 4/4/2018 | 5.05 | | | | | | |
| 5/8/2018 | 3.25 | | | | | | |
| 6/19/2018 | | | | | 2.96 | 5.39 | 2.82 |
| 6/20/2018 | 3.53 | 1.95 | 2.84 | | | | |
| 6/21/2018 | | | | 5.24 | | | |
| 9/25/2018 | | | | | 2.23 | 6.22 | |
| 9/26/2018 | | | | | | | 3.15 (D) |
| 9/27/2018 | 7.07 | 0.629 (U) | 1.94 | 6.11 | | | |
| 11/6/2018 | 11 | | | 6.1 | | 5.38 | 2.95 |
| 11/7/2018 | | 1.41 (U) | 8.58 | | 2.14 | | |
| 8/26/2019 | | | | | | 7.68 | |
| 8/27/2019 | 4.4 | | | | 2.91 | | 5.82 |
| 8/28/2019 | | 1.67 | 6.86 | 8.73 | | | |
| 10/15/2019 | 4.92 | | | | 3.28 | 8.7 | |
| 10/16/2019 | | 1.92 | | | | | 7.5 |
| 10/17/2019 | | | 7.85 | 7.97 | | | |
| 11/20/2019 | | | | 9.8 | | | |
| 11/21/2019 | | | | | | 7.34 | 8.89 |
| 3/27/2020 | | | | | 2.33 | 9.63 | 9.54 |
| 3/28/2020 | 4.16 | 1.44 (U) | 11 (U) | 11.7 | | | |
| 10/12/2020 | | | | | 2.66 | | |
| 10/13/2020 | 3.71 | | | | | 7.43 | 7.75 |
| 10/14/2020 | | | 8.97 | 13.1 | | | |
| 10/15/2020 | | 2.56 | | | | | |
| 1/4/2021 | | 5.84 | | | | | |
| 4/6/2021 | 2.83 | 1.43 (U) | 7.89 | 9.66 | 2.2 | 7.02 | 7.8 |
| 9/13/2021 | | | | | 2.54 | 8.38 | |
| 9/14/2021 | 2.69 | 7.15 | 8.11 | 10.3 | | | 8.82 |
| Mean | 4.634 | 2.441 | 5.409 | 7.618 | 2.61 | 5.283 | 5.015 |
| Std. Dev. | 2.256 | 1.741 | 3.319 | 2.946 | 0.6799 | 3.21 | 3.04 |
| Upper Lim. | 5.96 | 3.042 | 8.58 | 9.615 | 3.092 | 7.458 | 8.82 |
| Lower Lim. | 3.112 | 1.387 | 1.94 | 5.621 | 2.128 | 3.108 | 2.01 |

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|--------|-----------|-----------|--------|-----------|-----------|
| 8/30/2016 | | | | | 1.5 | 0.5 | |
| 8/31/2016 | | 0.93 | 0.41 | 0.92 | | | |
| 10/25/2016 | | | | | | | 1.1 |
| 11/30/2016 | | 0.93 | 0.61 | 0.99 | 1.4 | 0.49 | 1.3 |
| 2/15/2017 | | | | | 1.3 | 0.58 | 1.3 |
| 2/16/2017 | | 0.6 | 0.3 (J) | 0.54 | | | |
| 5/31/2017 | | | | | 1.2 | 0.56 | 1.3 |
| 6/1/2017 | <0.1 | | | | | | |
| 6/2/2017 | | 0.34 | 0.19 (J) | 0.42 | | | |
| 8/2/2017 | 0.27 (J) | | | | | | |
| 8/15/2017 | | | | | 1.2 | | 1.2 |
| 8/16/2017 | | | | | | 0.45 | |
| 8/17/2017 | 0.18 (J) | 0.52 | 0.26 (J) | 0.27 (J) | | | |
| 4/4/2018 | <0.1 | | | | | | |
| 5/8/2018 | 0.56 | | | | | | |
| 6/19/2018 | | | | | 0.91 | <0.1 | 0.6 |
| 6/20/2018 | 0.033 (J) | 0.5 | 0.22 (J) | | | | |
| 6/21/2018 | | | | 0.28 (J) | | | |
| 9/25/2018 | | | | | 1.1 | <0.1 | |
| 9/26/2018 | | | | | | | 0.44 (D) |
| 9/27/2018 | 0.12 (J) | 0.32 | 0.068 (J) | 0.32 (D) | | | |
| 11/6/2018 | <0.1 | | | 0.086 (J) | | 0.084 (J) | 0.4 |
| 11/7/2018 | | 0.35 | 10.3 (o) | | <0.1 | | |
| 3/6/2019 | | | <0.1 | | | | |
| 3/24/2019 | | 0.32 | 0.19 (J) | 0.14 (J) | 0.99 | 0.14 (J) | 0.31 |
| 3/25/2019 | 0.055 (J) | | | | | | |
| 8/26/2019 | | | | | | <0.1 | |
| 8/27/2019 | <0.1 | | | | 1.1 | | <0.1 |
| 8/28/2019 | | 0.36 | <0.1 | <0.1 | | | |
| 10/15/2019 | 0.095 (J) | | | | 1 | <0.1 | |
| 10/16/2019 | | 0.41 | | | | | 0.083 (J) |
| 10/17/2019 | | | <0.1 | <0.1 | | | |
| 11/20/2019 | | 0.34 | | <0.1 | | | |
| 11/21/2019 | | | | | | <0.1 | <0.1 |
| 3/27/2020 | | | | | 1.1 | <0.1 | <0.1 |
| 3/28/2020 | <0.1 | 0.34 | <0.1 | <0.1 | | | |
| 10/12/2020 | | | | | 1.2 | | |
| 10/13/2020 | <0.1 | | | | | <0.1 | <0.1 |
| 10/14/2020 | | | <0.1 | <0.1 | | | |
| 10/15/2020 | | 0.22 | | | | | |
| 1/4/2021 | | <0.1 | | | | | |
| 3/2/2021 | | | | | 1 | <0.1 | |
| 3/3/2021 | | | | | | | <0.1 |
| 3/4/2021 | <0.1 | 0.45 | <0.1 | <0.1 | | | |
| 9/13/2021 | | | | | 1.4 | <0.1 | |
| 9/14/2021 | 0.05 | <0.1 | <0.1 | <0.1 | | | <0.1 |
| Mean | 0.1375 | 0.4194 | 0.1965 | 0.2916 | 1.1 | 0.2315 | 0.5396 |
| Std. Dev. | 0.1296 | 0.2322 | 0.1497 | 0.2926 | 0.3249 | 0.2003 | 0.5124 |
| Upper Lim. | 0.18 | 0.5406 | 0.3 | 0.54 | 1.296 | 0.5 | 1.2 |
| Lower Lim. | 0.055 | 0.2639 | 0.068 | 0.1 | 0.9687 | 0.084 | 0.1 |

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|-------------|------------|-------------|-----------|-------------|
| 8/30/2016 | | | | 0.0001 (J) | <0.005 | |
| 8/31/2016 | <0.005 | <0.005 | <0.005 | | | |
| 10/25/2016 | | | | | | <0.005 |
| 11/30/2016 | 0.0002 (J) | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 2/15/2017 | | | | <0.005 | <0.005 | <0.005 |
| 2/16/2017 | <0.005 | <0.005 | 0.0002 (J) | | | |
| 5/31/2017 | | | | 9E-05 (J) | <0.005 | <0.005 |
| 6/2/2017 | <0.005 | <0.005 | <0.005 | | | |
| 8/15/2017 | | | | <0.005 | | 0.0002 (J) |
| 8/16/2017 | | | | | 8E-05 (J) | |
| 8/17/2017 | <0.005 | <0.005 | 8E-05 (J) | | | |
| 6/19/2018 | | | | <0.005 | <0.005 | <0.005 |
| 6/20/2018 | <0.005 | <0.005 | | | | |
| 6/21/2018 | | | <0.005 | | | |
| 9/25/2018 | | | | <0.005 | <0.005 | |
| 9/26/2018 | | | | | | 0.00027 |
| 9/27/2018 | <0.005 | <0.005 | <0.005 | | | |
| 11/6/2018 | | | <0.005 | | <0.005 | <0.005 |
| 11/7/2018 | <0.005 | <0.005 | | <0.005 | | |
| 3/6/2019 | | <0.005 | | | | |
| 8/26/2019 | | | | | <0.005 | |
| 8/27/2019 | | | | 0.00022 (J) | | 0.00014 (J) |
| 8/28/2019 | <0.005 | <0.005 | 0.0001 (J) | | | |
| 10/15/2019 | | | | 5.6E-05 (J) | <0.005 | |
| 10/16/2019 | <0.005 | | | | | 0.00034 (J) |
| 10/17/2019 | | 0.00012 (J) | <0.005 | | | |
| 3/27/2020 | | | | <0.005 | <0.005 | <0.005 |
| 3/28/2020 | <0.005 | <0.005 | <0.005 | | | |
| 10/12/2020 | | | | <0.005 | | |
| 10/13/2020 | | | | | <0.005 | <0.005 |
| 10/14/2020 | | <0.005 | <0.005 | | | |
| 10/15/2020 | <0.005 | | | | | |
| 1/4/2021 | <0.005 | | | | | |
| 3/2/2021 | | | | <0.005 | <0.005 | |
| 3/3/2021 | | | | | | <0.005 |
| 3/4/2021 | <0.005 | <0.005 | <0.005 | | | |
| 9/13/2021 | | | | <0.005 | <0.005 | |
| 9/14/2021 | <0.005 | <0.005 | <0.005 | | | <0.005 |
| Mean | 0.00468 | 0.004675 | 0.003956 | 0.003605 | 0.004649 | 0.003639 |
| Std. Dev. | 0.001239 | 0.00126 | 0.002075 | 0.00229 | 0.001315 | 0.002233 |
| Upper Lim. | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| Lower Lim. | 0.0002 | 0.00012 | 0.0002 | 0.0001 | 8E-05 | 0.00027 |

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | 0.0102 (J) | 0.0112 (J) | |
| 8/31/2016 | | | 0.0219 (J) | 0.0389 (J) | 0.0122 (J) | | | |
| 10/25/2016 | | | | | | | | 0.007 (J) |
| 11/30/2016 | | | 0.0333 (J) | 0.0303 (J) | 0.011 (J) | 0.0106 (J) | <0.012 | 0.0086 (J) |
| 2/15/2017 | | | | | | 0.0115 (J) | 0.0105 (J) | 0.0149 (J) |
| 2/16/2017 | | | 0.0376 (J) | 0.05 (J) | 0.0142 (J) | | | |
| 5/31/2017 | | | | | | 0.011 (J) | 0.0106 (J) | 0.019 (J) |
| 6/1/2017 | | <0.012 | | | | | | |
| 6/2/2017 | | | 0.0346 (J) | 0.0477 (J) | 0.0229 (J) | | | |
| 8/2/2017 | | <0.012 | | | | | | |
| 8/15/2017 | | | | | | 0.0123 (J) | | 0.016 (J) |
| 8/16/2017 | | | | | | | 0.0145 (J) | |
| 8/17/2017 | | <0.012 | 0.0367 (J) | 0.0645 | 0.0241 (J) | | | |
| 4/4/2018 | | 0.0013 (J) | | | | | | |
| 5/8/2018 | | 0.0012 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.012 (J) | 0.044 (J) | 0.021 (J) |
| 6/20/2018 | | 0.0015 (J) | 0.034 (J) | 0.066 (J) | | | | |
| 6/21/2018 | | | | | 0.03 (J) | | | |
| 9/25/2018 | | | | | | 0.011 (J) | 0.041 (J) | |
| 9/26/2018 | | | | | | | | 0.02 (J) |
| 9/27/2018 | | 0.0021 (J) | 0.023 (J) | 0.045 (J) | 0.034 (J) | | | |
| 11/6/2018 | | 0.0038 (J) | | | 0.037 (J) | | 0.047 (J) | 0.017 (J) |
| 11/7/2018 | | | 0.022 (J) | 0.11 | | 0.013 (J) | | |
| 3/6/2019 | | | | 0.12 | | | | |
| 8/26/2019 | | | | | | | 0.059 | |
| 8/27/2019 | | 0.002 (J) | | | | 0.012 (J) | | 0.023 (J) |
| 8/28/2019 | | | 0.023 (J) | 0.13 | 0.12 | | | |
| 10/15/2019 | | 0.0019 (J) | | | | 0.012 (J) | 0.056 (J) | |
| 10/16/2019 | | | 0.021 (J) | | | | | 0.024 (J) |
| 10/17/2019 | | | | 0.12 | 0.096 | | | |
| 11/20/2019 | | | | | 0.12 | | | |
| 11/21/2019 | | | | | | | 0.052 | |
| 3/27/2020 | | | | | | <0.012 | 0.052 | 0.033 (J) |
| 3/28/2020 | 0.078 (J) | <0.012 | 0.014 (J) | 0.064 | 0.027 (J) | | | |
| 6/16/2020 | 0.096 (J) | | | | | | | |
| 10/12/2020 | | | | | | 0.011 (J) | | |
| 10/13/2020 | | <0.012 | | | | | 0.046 (J) | 0.028 (J) |
| 10/14/2020 | | | | 0.11 | 0.039 (J) | | | |
| 10/15/2020 | 0.093 | | 0.57 | | | | | |
| 1/4/2021 | | | 0.043 (J) | | | | | |
| 3/2/2021 | | | | | | <0.012 | 0.046 (J) | |
| 3/3/2021 | | | | | | | | <0.012 |
| 3/4/2021 | 0.094 (J) | <0.012 | 0.017 (J) | 0.096 (J) | 0.035 (J) | | | |
| 9/13/2021 | | | | | | 0.01 (J) | 0.047 | |
| 9/14/2021 | 0.092 | <0.012 | 0.042 (J) | 0.084 | 0.035 (J) | | | 0.035 (J) |
| Mean | 0.0906 | 0.003986 | 0.06487 | 0.07843 | 0.04383 | 0.01061 | 0.03619 | 0.01946 |
| Std. Dev. | 0.007197 | 0.002174 | 0.14 | 0.03355 | 0.03675 | 0.002124 | 0.01935 | 0.008888 |
| Upper Lim. | 0.0996 | 0.006 | 0.042 | 0.1012 | 0.05517 | 0.01198 | 0.05038 | 0.02576 |
| Lower Lim. | 0.07843 | 0.0015 | 0.021 | 0.05569 | 0.02018 | 0.009702 | 0.03288 | 0.01317 |

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-14 | MCM-17 |
|------------|-----------|-------------|-------------|-----------|-----------|-----------|
| 8/30/2016 | | | | | <0.0002 | |
| 8/31/2016 | | <0.0002 | <0.0002 | <0.0002 | | |
| 10/25/2016 | | | | | | <0.0002 |
| 11/30/2016 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 2/15/2017 | | | | | <0.0002 | <0.0002 |
| 2/16/2017 | | <0.0002 | <0.0002 | <0.0002 | | |
| 5/31/2017 | | | | | <0.0002 | <0.0002 |
| 6/1/2017 | <0.0002 | | | | | |
| 6/2/2017 | | 4.2E-05 (J) | <0.0002 | <0.0002 | | |
| 8/2/2017 | <0.0002 | | | | | |
| 8/15/2017 | | | | | | <0.0002 |
| 8/16/2017 | | | | | <0.0002 | |
| 8/17/2017 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 4/4/2018 | <0.0002 | | | | | |
| 5/8/2018 | <0.0002 | | | | | |
| 6/19/2018 | | | | | <0.0002 | <0.0002 |
| 6/20/2018 | <0.0002 | <0.0002 | <0.0002 | | | |
| 6/21/2018 | | | | <0.0002 | | |
| 9/25/2018 | | | | | <0.0002 | |
| 9/26/2018 | | | | | | 3.6E-05 |
| 9/27/2018 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 11/6/2018 | 0.00071 | | | 0.00067 | 0.00066 | 0.00064 |
| 11/7/2018 | | <0.0002 | <0.0002 | | | |
| 3/6/2019 | | | <0.0002 | | | |
| 8/26/2019 | | | | | <0.0002 | |
| 8/27/2019 | <0.0002 | | | | | <0.0002 |
| 8/28/2019 | | <0.0002 | <0.0002 | <0.0002 | | |
| 3/27/2020 | | | | | <0.0002 | <0.0002 |
| 3/28/2020 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 9/13/2021 | | | | | <0.0002 | |
| 9/14/2021 | <0.0002 | <0.0002 | 0.00016 (J) | <0.0002 | | <0.0002 |
| Mean | 0.0002464 | 0.0001856 | 0.0001967 | 0.0002427 | 0.0002418 | 0.0002251 |
| Std. Dev. | 0.0001538 | 4.764E-05 | 1.155E-05 | 0.0001417 | 0.0001387 | 0.0001461 |
| Upper Lim. | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| Lower Lim. | 0.0002 | 0.0002 | 0.00016 | 0.0002 | 0.0002 | 0.0002 |

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-05 | MCM-06 | MCM-17 |
|------------|------------|------------|----------|
| 8/31/2016 | <0.01 | <0.01 | |
| 10/25/2016 | | | <0.01 |
| 11/30/2016 | <0.01 | <0.01 | <0.01 |
| 2/15/2017 | | | <0.01 |
| 2/16/2017 | <0.01 | <0.01 | |
| 5/31/2017 | | | <0.01 |
| 6/2/2017 | <0.01 | <0.01 | |
| 8/15/2017 | | | <0.01 |
| 8/17/2017 | 0.0012 (J) | 0.0025 (J) | |
| 6/19/2018 | | | <0.01 |
| 6/20/2018 | <0.01 | <0.01 | |
| 9/26/2018 | | | 0.0019 |
| 9/27/2018 | <0.01 | <0.01 | |
| 11/6/2018 | | | <0.01 |
| 11/7/2018 | <0.01 | 0.0024 (J) | |
| 3/6/2019 | | <0.01 | |
| 8/27/2019 | | | <0.01 |
| 8/28/2019 | <0.01 | 0.0017 (J) | |
| 10/16/2019 | <0.01 | | <0.01 |
| 10/17/2019 | | 0.0017 (J) | |
| 3/27/2020 | | | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | |
| 9/14/2021 | 0.0099 (J) | <0.01 | <0.01 |
| Mean | 0.009258 | 0.007562 | 0.009325 |
| Std. Dev. | 0.002538 | 0.003813 | 0.002338 |
| Upper Lim. | 0.01 | 0.01 | 0.01 |
| Lower Lim. | 0.0099 | 0.0024 | 0.0019 |

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | 0.0011 (J) | <0.01 | |
| 8/31/2016 | | 0.002 (J) | 0.0015 (J) | 0.0021 (J) | | | |
| 10/25/2016 | | | | | | | 0.003 (J) |
| 11/30/2016 | | 0.0023 (J) | 0.0054 (J) | <0.01 | 0.0023 (J) | <0.01 | 0.0087 (J) |
| 2/15/2017 | | | | | 0.0021 (J) | 0.0014 (J) | 0.0067 (J) |
| 2/16/2017 | | 0.002 (J) | 0.0022 (J) | 0.0025 (J) | | | |
| 5/31/2017 | | | | | <0.01 | <0.01 | 0.0018 (J) |
| 6/1/2017 | <0.01 | | | | | | |
| 6/2/2017 | | <0.01 | <0.01 | <0.01 | | | |
| 8/2/2017 | <0.01 | | | | | | |
| 8/15/2017 | | | | | 0.0021 (J) | | 0.0025 (J) |
| 8/16/2017 | | | | | | 0.0018 (J) | |
| 8/17/2017 | <0.01 | <0.01 | 0.002 (J) | 0.0033 (J) | | | |
| 4/4/2018 | <0.01 | | | | | | |
| 5/8/2018 | <0.01 | | | | | | |
| 6/19/2018 | | | | | 0.0017 (J) | <0.01 | <0.01 |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | | | | |
| 6/21/2018 | | | | <0.01 | | | |
| 9/25/2018 | | | | | 0.002 (J) | 0.0019 (J) | |
| 9/26/2018 | | | | | | | 0.0016 (J) |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | 0.0023 (J) | | | |
| 11/6/2018 | 0.0025 (J) | | | 0.0048 (J) | | 0.0057 (J) | <0.01 |
| 11/7/2018 | | <0.01 | 0.0075 (J) | | <0.01 | | |
| 3/6/2019 | | | 0.0024 (J) | | | | |
| 8/26/2019 | | | | | | 0.0025 (J) | |
| 8/27/2019 | <0.01 | | | | 0.0019 (J) | | 0.0018 (J) |
| 8/28/2019 | | <0.01 | 0.0014 (J) | 0.0019 (J) | | | |
| 10/15/2019 | <0.01 | | | | <0.01 | 0.003 (J) | |
| 10/16/2019 | | <0.01 | | | | | <0.01 |
| 10/17/2019 | | | 0.0066 (J) | 0.0049 (J) | | | |
| 3/27/2020 | | | | | <0.01 | <0.01 | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| 10/12/2020 | | | | | <0.01 | | |
| 10/13/2020 | <0.01 | | | | | <0.01 | <0.01 |
| 10/14/2020 | | | <0.01 | <0.01 | | | |
| 10/15/2020 | | 0.0028 (J) | | | | | |
| 1/4/2021 | | <0.01 | | | | | |
| 3/2/2021 | | | | | <0.01 | <0.01 | |
| 3/3/2021 | | | | | | | <0.01 |
| 3/4/2021 | 0.00038 (J) | <0.01 | <0.01 | <0.01 | | | |
| 9/13/2021 | | | | | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | <0.01 | <0.01 | | | 0.0021 |
| Mean | 0.008777 | 0.00794 | 0.0066 | 0.006557 | 0.005943 | 0.006879 | 0.0063 |
| Std. Dev. | 0.003136 | 0.00354 | 0.003726 | 0.003675 | 0.004219 | 0.003864 | 0.003859 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Lower Lim. | 0.0025 | 0.0023 | 0.002 | 0.0023 | 0.0019 | 0.0019 | 0.0018 |

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/29/2021 3:22 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-17 |
|------------|-------------|-----------|
| 8/31/2016 | <0.002 | |
| 10/25/2016 | | <0.002 |
| 11/30/2016 | <0.002 | <0.002 |
| 2/15/2017 | | <0.002 |
| 2/16/2017 | <0.002 | |
| 5/31/2017 | | <0.002 |
| 6/2/2017 | <0.002 | |
| 8/15/2017 | | <0.002 |
| 8/17/2017 | <0.002 | |
| 6/19/2018 | | <0.002 |
| 6/20/2018 | <0.002 | |
| 9/26/2018 | | 0.00014 |
| 9/27/2018 | <0.002 | |
| 11/6/2018 | | <0.002 |
| 11/7/2018 | <0.002 | |
| 3/6/2019 | <0.002 | |
| 8/27/2019 | | <0.002 |
| 8/28/2019 | <0.002 | |
| 10/16/2019 | | <0.002 |
| 10/17/2019 | 7.6E-05 (J) | |
| 3/27/2020 | | <0.002 |
| 3/28/2020 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 |
| Mean | 0.001852 | 0.001845 |
| Std. Dev. | 0.0005336 | 0.0005369 |
| Upper Lim. | 0.002 | 0.002 |
| Lower Lim. | 7.6E-05 | 0.00014 |

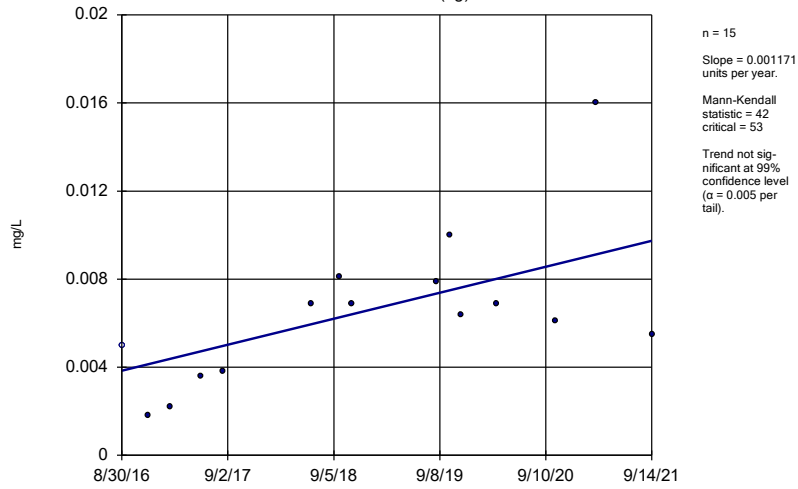
FIGURE J.

Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 12/2/2021, 2:27 PM

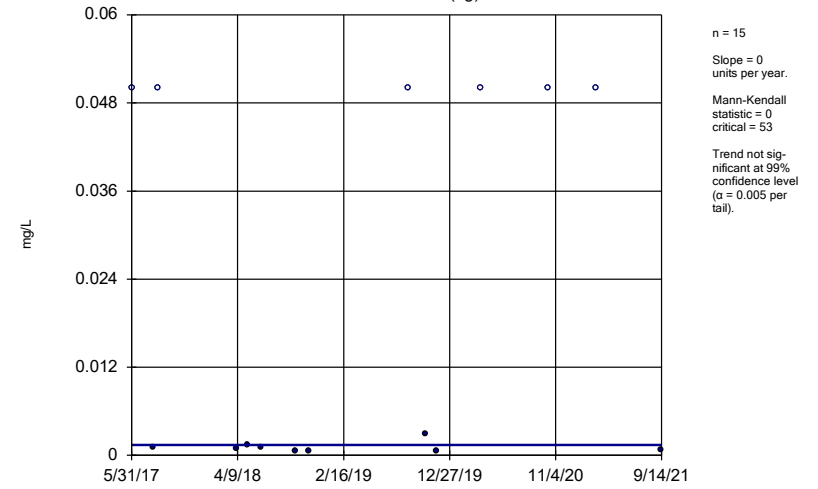
| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|----------------|-------------|------------|-------|----------|------|----|-------|-----------|-------|-------|--------|
| Arsenic (mg/L) | MCM-01 (bg) | 0.001171 | 42 | 53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-02 (bg) | 0 | 0 | 53 | No | 15 | 40 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-06 | 0.04091 | 53 | 68 | No | 18 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-11 (bg) | -0.00367 | -56 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-15 (bg) | 0.0002099 | 14 | 48 | No | 14 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-16 (bg) | 0 | -1 | -48 | No | 14 | 50 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-18 (bg) | -0.002162 | -28 | -38 | No | 12 | 16.67 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-19 (bg) | -0.0005531 | -7 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-20 (bg) | -0.005196 | -12 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-01 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-02 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-06 | 0.01364 | 49 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-11 (bg) | 0 | 12 | 48 | No | 14 | 42.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-14 | 0.007102 | 40 | 53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-15 (bg) | 0 | 16 | 48 | No | 14 | 57.14 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-16 (bg) | 0 | 1 | 48 | No | 14 | 92.86 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-18 (bg) | 0.01173 | 12 | 25 | No | 9 | 44.44 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-19 (bg) | 0 | 6 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-20 (bg) | -0.0009363 | -8 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator
MCM-01 (bg)



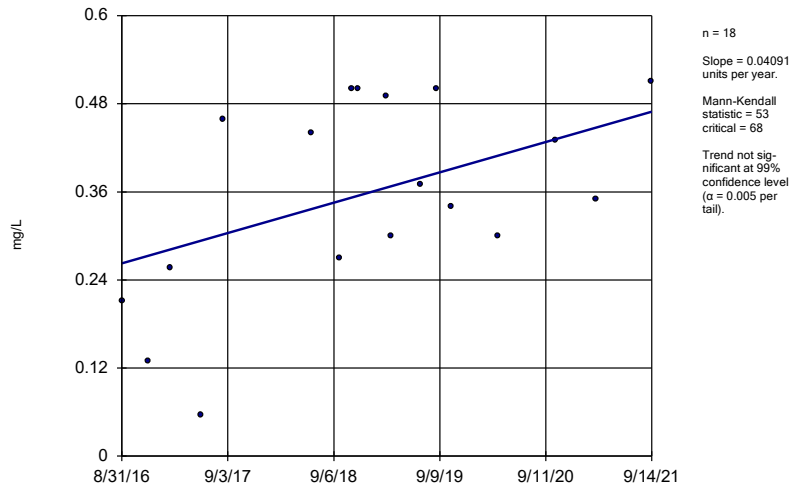
Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-02 (bg)



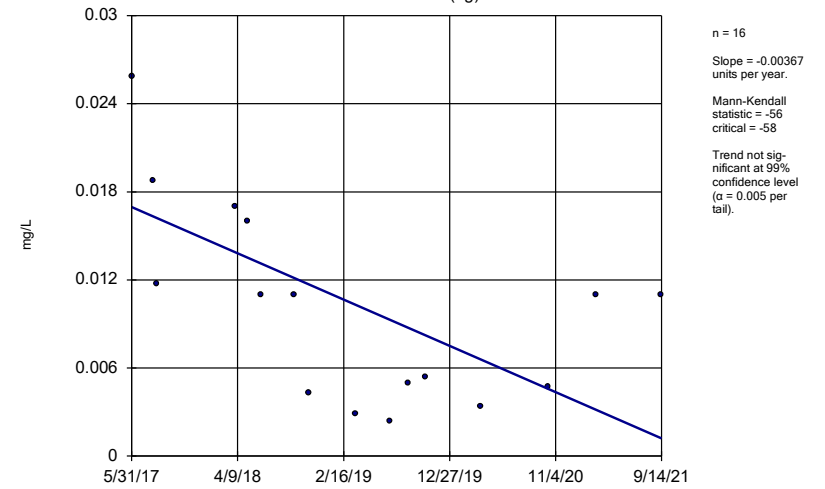
Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-06



Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

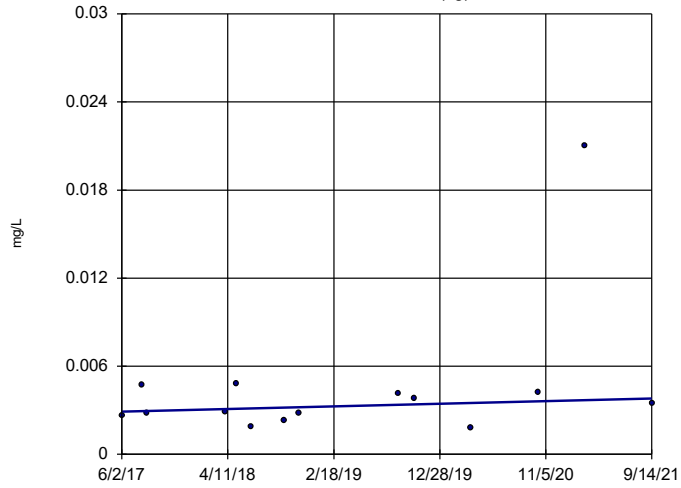
Sen's Slope Estimator
MCM-11 (bg)



Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)



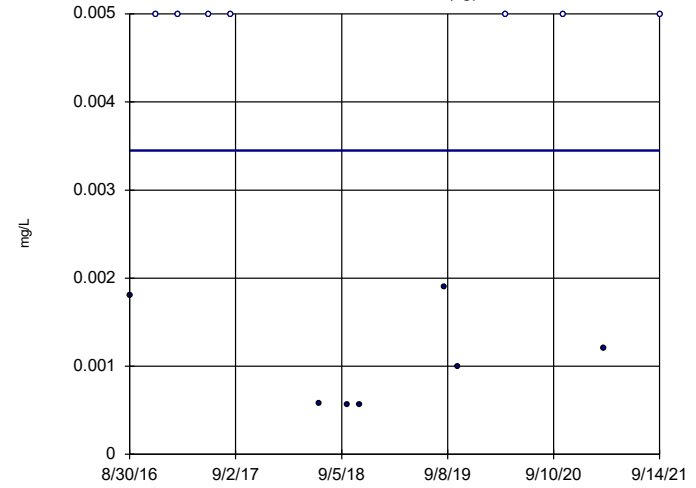
n = 14
 Slope = 0.0002099
 units per year.
 Mann-Kendall
 statistic = 14
 critical = 48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-16 (bg)

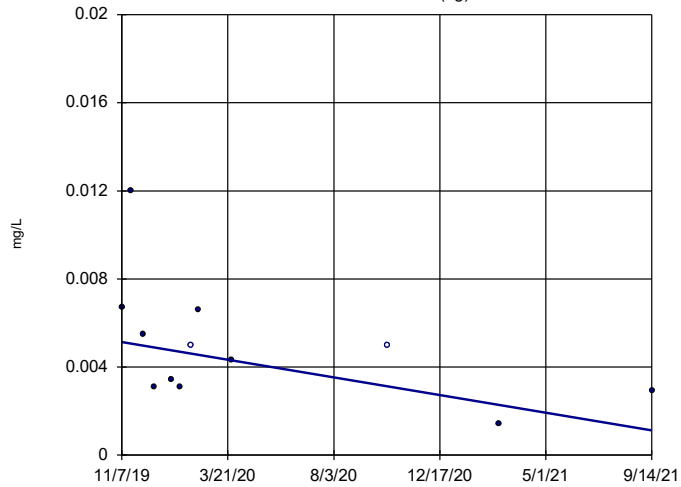


n = 14
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -1
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

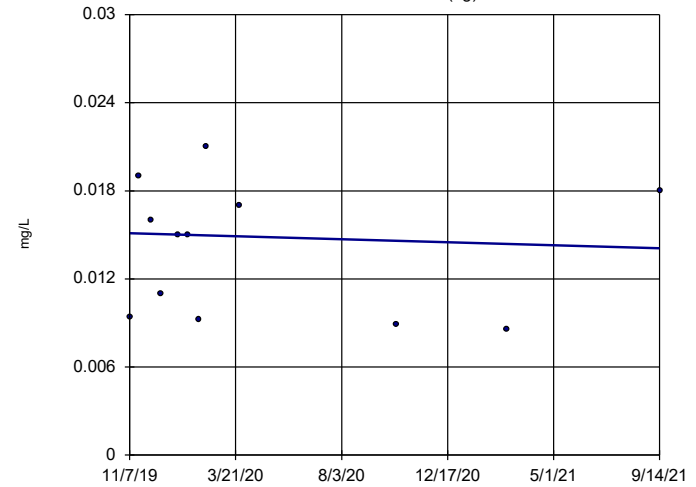


n = 12
 Slope = -0.002162
 units per year.
 Mann-Kendall
 statistic = -28
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

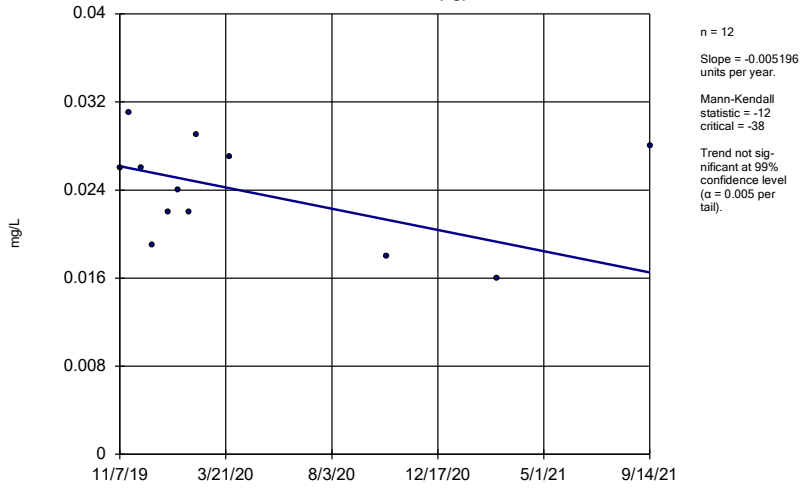


n = 12
 Slope = -0.0005531
 units per year.
 Mann-Kendall
 statistic = -7
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

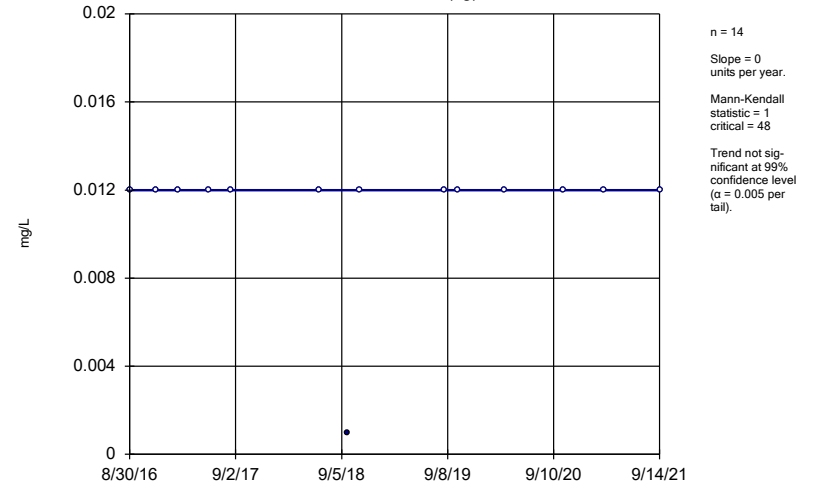


Constituent: Arsenic Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

MCM-01 (bg)

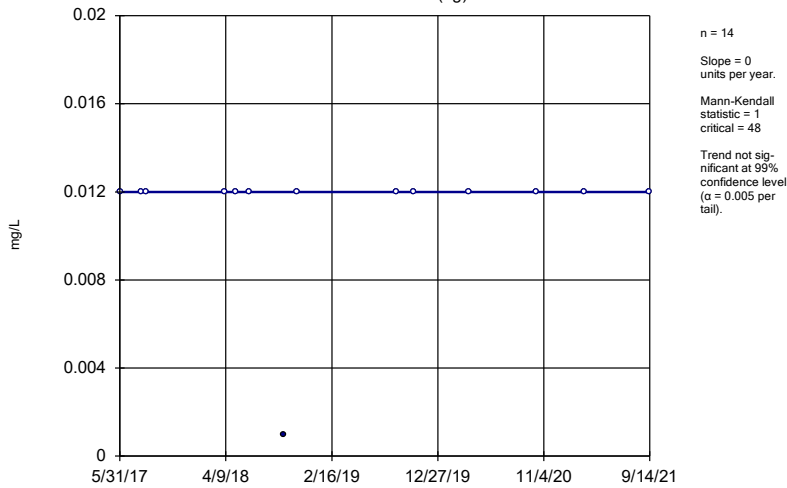


Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Sen's Slope Estimator

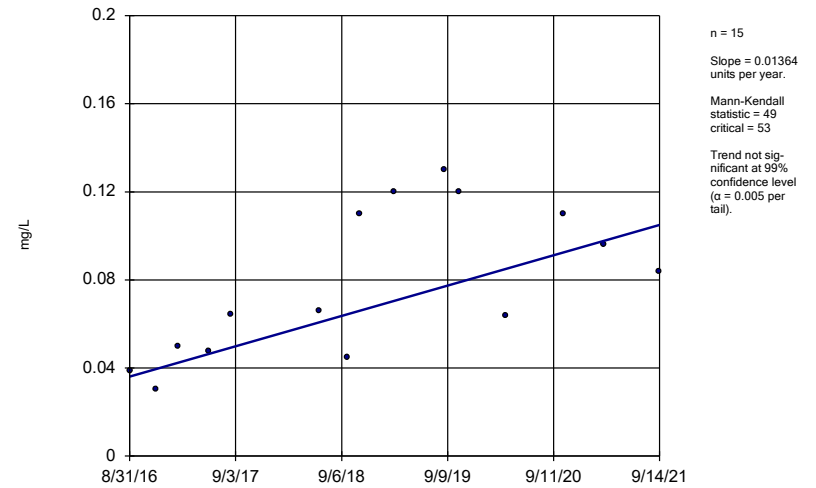
MCM-02 (bg)



Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

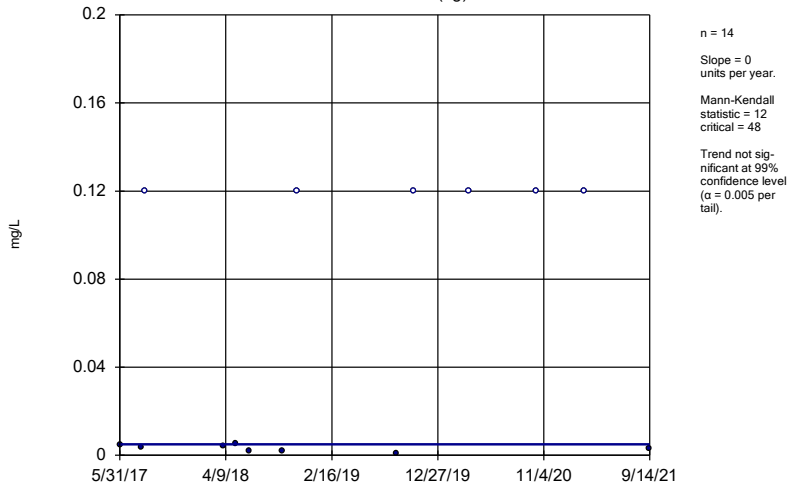
Sen's Slope Estimator

MCM-06



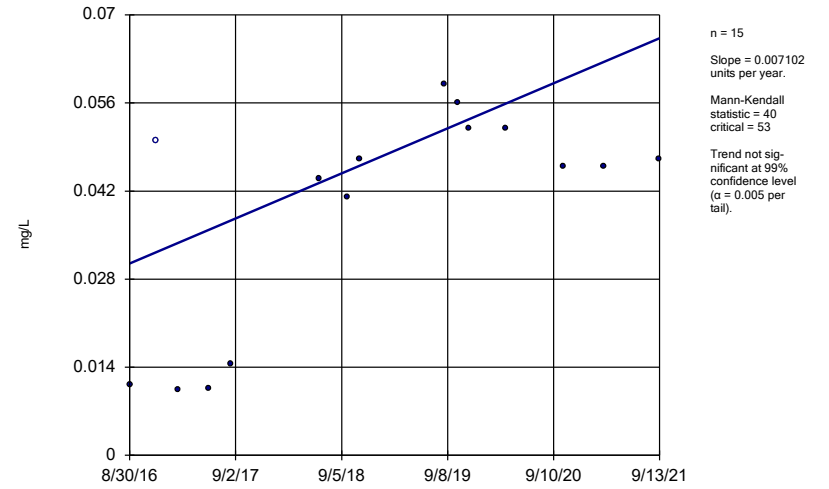
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



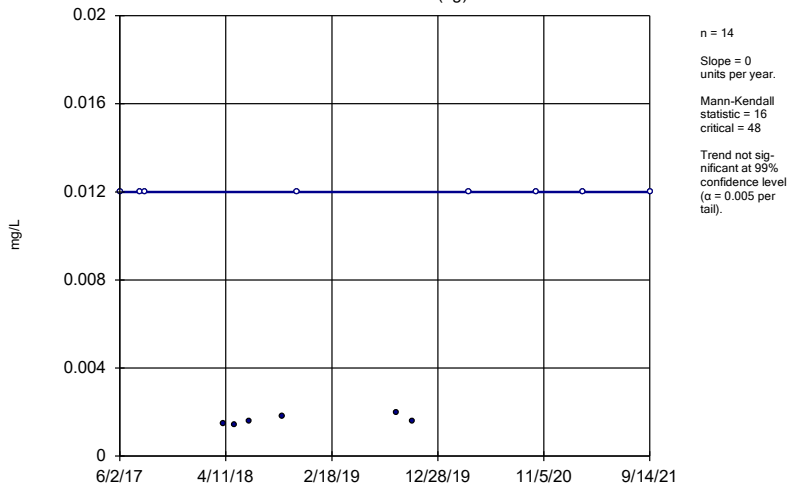
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-14



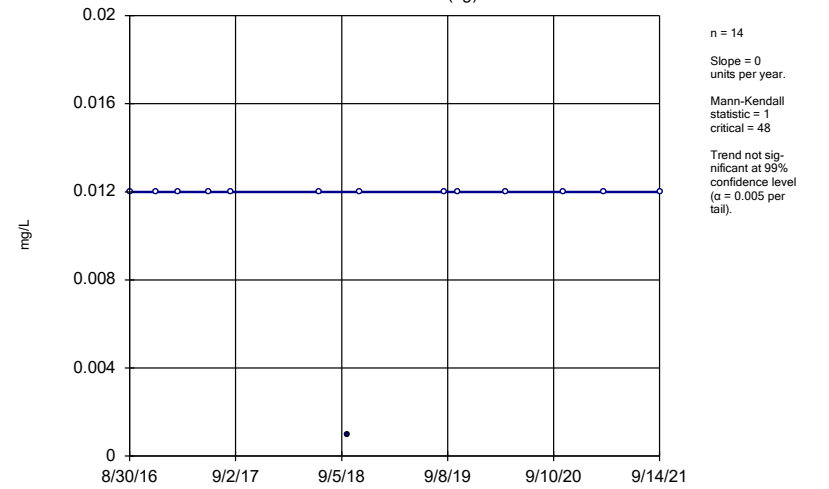
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-15 (bg)



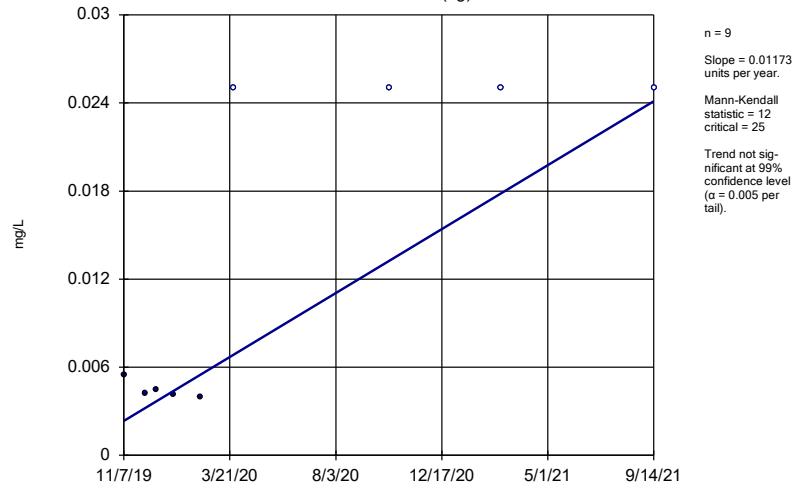
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-16 (bg)



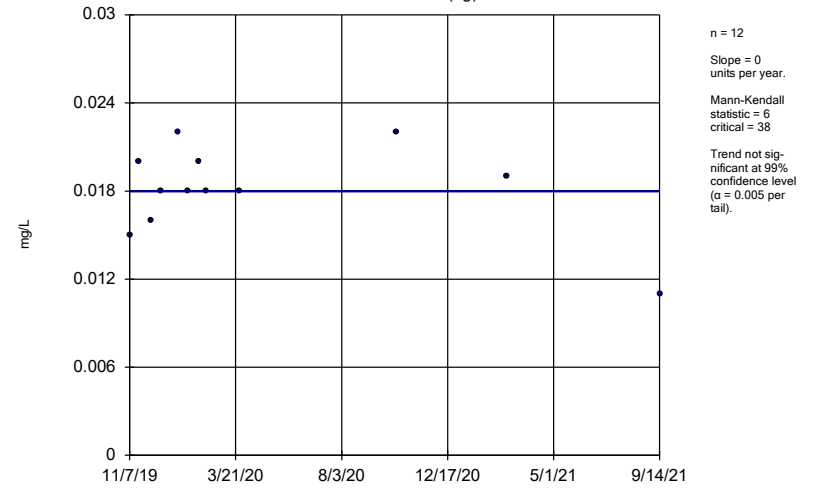
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-18 (bg)



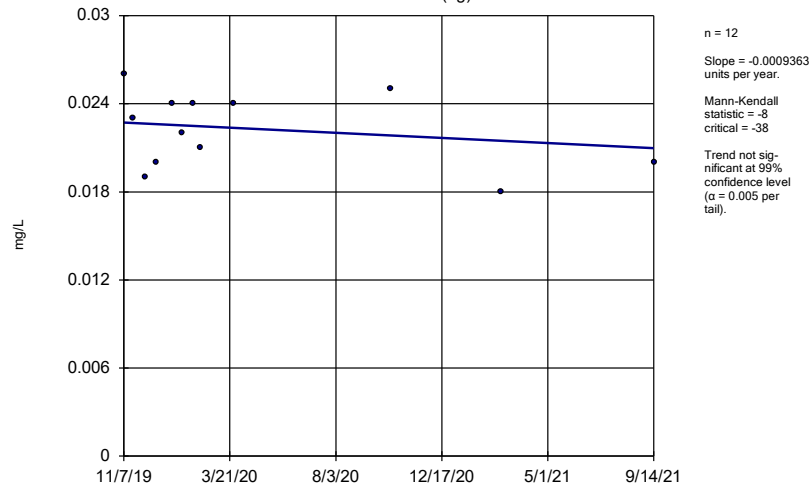
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-19 (bg)



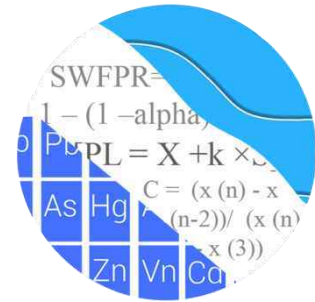
Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-20 (bg)



Constituent: Lithium Analysis Run 12/2/2021 2:26 PM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

GROUNDWATER STATS CONSULTING



July 29, 2022

Resolute Environmental & Water Resources Consulting
Attn: Mr. Stephen Wilson
1003 Weatherstone Parkway, Ste. 320
Woodstock, GA 30188

Re: Plant McManus Ash Pond (AP)
Statistical Analysis – March 2022 Sampling Event

Dear Mr. Wilson,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the March 2022 sample event for Georgia Power Company's Plant McManus Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules (EPD) for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

The groundwater monitoring well network consists of the following:

- **Upgradient Wells:** MCM-01, MCM-02, MCM-11, MCM-15, MCM-16, MCM-18, MCM-19, and MCM-20
- **Downgradient Wells:** MCM-04, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14, and MCM-17
- **Delineation Well:** DPZ-2

Note that upgradient wells MCM-18, MCM-19, and MCM-20 were installed late in 2019. Delineation well DPZ-2 is evaluated with confidence intervals for Appendix IV constituents with four or more samples. A minimum of 8 samples have been collected at each upgradient and downgradient well and data from these wells are included in this analysis.

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

The statistical analysis provided in this report was performed according to the background screening conducted by MacStat Consulting in April 2019. Interwell prediction limits, combined with a 1-of-2 resample plan, for Appendix III parameters were recommended as the primary statistical method.

The CCR program monitors the constituents listed below. The terms “parameters” and “constituents” are used interchangeably.

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

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

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. However, during this analysis, higher reporting limits resulted from laboratory dilution factors for antimony, cadmium, chromium, fluoride, lead, molybdenum, and thallium. Therefore, the previous lower historical reporting limits were substituted for all non-detects for these constituents to maintain more conservative limits.

Some constituents exist in higher concentrations in upgradient wells compared to those reported in one or more downgradient wells which is reflective of natural variation in groundwater quality. In other cases, concentrations exist higher in downgradient wells relative to observations reported upgradient of the facility, as seen in the majority of the Appendix III parameters. This may be reflective of natural variation or a result of practices at the facility. A separate study and hydrogeological investigation would be required to fully understand the geochemical conditions and expected groundwater quality for the region. That study and assessment is beyond the scope of services provided by Groundwater Stats Consulting.

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.

As a result of the previous background screening, the following non-detect values were flagged due to elevated reporting limits: 0.025 mg/L for lead in upgradient well MCM-19; and 0.1 mg/L, 0.15 mg/L and 0.3 mg/L for lithium in upgradient well MCM-18. Additionally, a high value for combined radium 226 + 228 in upgradient well MCM-20 was flagged as an outlier as well as a high value for fluoride in downgradient well MCM-06. This step results in construction of background limits that are conservative from a regulatory perspective. A summary of flagged outliers follows this report (Figure C).

Based on the 2019 screening, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the 2019 screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods:

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

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Groundwater Protection Standards (GWPS) for each detected Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-

detects, a nonparametric test is utilized. While the false positive rate associated with the parametric 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 following approaches are used for handling non-detects (USEPA, 2009):

- 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.

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. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting 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.

Statistical Analysis of Appendix III Parameters – March 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. No new values were flagged for Appendix III parameters in upgradient wells and a summary of flagged outliers follows this report (Figure C).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The March 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 a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter and includes a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Boron: MCM-06 and MCM-17
- Calcium: MCM-07 and MCM-14
- pH: MCM-05, MCM-06, MCM-07, MCM-12, and MCM-14

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. Upgradient trends are an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of trend test results follows this letter including a list of statistically significant trends. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: MCM-06
- Calcium: MCM-07
- pH: MCM-18 (upgradient)

Decreasing:

- Calcium: MCM-18, MCM-19, and MCM-20 (all upgradient)
- pH: MCM14 and MCM-20 (upgradient)

Statistical Analysis of Appendix IV Parameters – March 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. Downgradient and delineation well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged as outliers. A summary of all previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through March 2022 for Appendix IV constituents (Figure F). 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 and delineation well using all available data through March 2022. Note that confidence intervals require a minimum of 4 samples and, in some cases, delineation well DPZ-2 had insufficient samples at this time.

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.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries of the confidence intervals follow this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: MCM-06
- Lithium: DPZ-2 and MCM-06

Trend Test Evaluation – Appendix IV

The Sen's Slope/Mann Kendall trend test was conducted to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses 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. A summary of the Appendix IV trend test results follows this letter and no statistically significant trends were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Plant McManus Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew Collins
Project Manager



Kristina L. Rayner
Senior Statistician

100% Non-Detects: Appendix IV Downgradient & Delineation

Analysis Run 5/4/2022 9:35 AM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Antimony (mg/L)

DPZ-2, MCM-04, MCM-05, MCM-07, MCM-12

Beryllium (mg/L)

DPZ-2, MCM-06

Cadmium (mg/L)

DPZ-2, MCM-05, MCM-06, MCM-07, MCM-12, MCM-14

Chromium (mg/L)

DPZ-2

Cobalt (mg/L)

DPZ-2

Lead (mg/L)

DPZ-2, MCM-04

Mercury (mg/L)

DPZ-2, MCM-12

Molybdenum (mg/L)

DPZ-2, MCM-07, MCM-12, MCM-14

Selenium (mg/L)

DPZ-2

Thallium (mg/L)

DPZ-2, MCM-04, MCM-05, MCM-07, MCM-12, MCM-14

Appendix III Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg | NB | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|------------------------|--------|------------|------------|----------|---------|------|-----|-----|------|-----------|------|---------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 3/1/2022 | 1.7 | Yes | 114 | n/a | n/a | 8.772 | n/a | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 3/3/2022 | 1.4 | Yes | 114 | n/a | n/a | 8.772 | n/a | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 3/2/2022 | 198 | Yes | 115 | n/a | n/a | 0.8696 | n/a | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 3/3/2022 | 224 | Yes | 115 | n/a | n/a | 0.8696 | n/a | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 3/1/2022 | 6.87 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 3/1/2022 | 7.24 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 3/2/2022 | 6.41 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 3/3/2022 | 6.51 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 3/3/2022 | 6.49 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |

Appendix III Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg | NB | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-------------------------------|---------------|-------------|-------------|-----------------|-------------|------------|------------|------------|------------|------------|---------------|------------|------------|------------------|------------------------------------|
| Boron (mg/L) | MCM-04 | 1.3 | n/a | 3/3/2022 | 0.053 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-05 | 1.3 | n/a | 3/1/2022 | 0.75J | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 3/1/2022 | 1.7 | Yes | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 3/2/2022 | 1.3 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 3/3/2022 | 1.2 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-14 | 1.3 | n/a | 3/3/2022 | 0.89J | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 3/3/2022 | 1.4 | Yes | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-04 | 169 | n/a | 3/3/2022 | 8 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-05 | 169 | n/a | 3/1/2022 | 48.4 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 3/1/2022 | 131 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 3/2/2022 | 198 | Yes | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-12 | 169 | n/a | 3/3/2022 | 4.6 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 3/3/2022 | 224 | Yes | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 3/3/2022 | 84 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-04 | 8130 | n/a | 3/3/2022 | 12.2 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-05 | 8130 | n/a | 3/1/2022 | 1680 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-06 | 8130 | n/a | 3/1/2022 | 4150 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-07 | 8130 | n/a | 3/2/2022 | 5630 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-12 | 8130 | n/a | 3/3/2022 | 394 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-14 | 8130 | n/a | 3/3/2022 | 5040 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-17 | 8130 | n/a | 3/3/2022 | 3540 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-04 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-05 | 1.5 | n/a | 3/1/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-06 | 1.5 | n/a | 3/1/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-07 | 1.5 | n/a | 3/2/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-12 | 1.5 | n/a | 3/3/2022 | 0.95 | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-14 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-17 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-04 | 5.81 | 3.36 | 3/3/2022 | 4.98 | No | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 3/1/2022 | 6.87 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 3/1/2022 | 7.24 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 3/2/2022 | 6.41 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 3/3/2022 | 6.51 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 3/3/2022 | 6.49 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 3/3/2022 | 4.27 | No | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-04 | 1140 | n/a | 3/3/2022 | 50.6 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-05 | 1140 | n/a | 3/1/2022 | 143 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-06 | 1140 | n/a | 3/1/2022 | 440 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-07 | 1140 | n/a | 3/2/2022 | 702 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-12 | 1140 | n/a | 3/3/2022 | 2.5ND | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-14 | 1140 | n/a | 3/3/2022 | 754 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-17 | 1140 | n/a | 3/3/2022 | 324 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-04 | 14600 | n/a | 3/3/2022 | 146 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-05 | 14600 | n/a | 3/1/2022 | 3780 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-06 | 14600 | n/a | 3/1/2022 | 9040 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-07 | 14600 | n/a | 3/2/2022 | 12600 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-12 | 14600 | n/a | 3/3/2022 | 1400 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-14 | 14600 | n/a | 3/3/2022 | 11500 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-17 | 14600 | n/a | 3/3/2022 | 8120 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:31 AM

| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|------------------------|-------------|--------------|--------------|-----------------|-------------|----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MCM-06 | 0.1719 | 78 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 28.97 | 69 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -13.06 | -60 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -35.02 | -49 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -40.4 | -56 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1262 | -115 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.08928 | 39 | 38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.06599 | -39 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |

Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:31 AM

| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|-------------------------------|--------------------|-----------------|-------------|------------|------------|-----------|----------|------------|------------|-------------|-----------|
| Boron (mg/L) | MCM-01 (bg) | 0.002913 | 31 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-02 (bg) | -0.01364 | -30 | -53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-06 | 0.1719 | 78 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-11 (bg) | 0.002523 | 15 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-15 (bg) | 0.004516 | 31 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-16 (bg) | -0.005844 | -34 | -53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-17 | -0.07804 | -30 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-18 (bg) | -0.01671 | -26 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-19 (bg) | 0.01794 | 2 | 43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-20 (bg) | -0.01931 | -9 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-01 (bg) | -0.214 | -8 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-02 (bg) | -0.2463 | -52 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 28.97 | 69 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-11 (bg) | -1.311 | -37 | -53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-14 | 30.49 | 40 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-15 (bg) | 0.21 | 16 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-16 (bg) | 0.09511 | 20 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -13.06 | -60 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -35.02 | -49 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -40.4 | -56 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-01 (bg) | 0.02854 | 13 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-02 (bg) | 0.02156 | 50 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.0553 | -60 | -68 | No | 18 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.06799 | -44 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.06195 | -60 | -63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-11 (bg) | -0.04644 | -46 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.04184 | -42 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1262 | -115 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-15 (bg) | -0.04201 | -26 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-16 (bg) | 0 | -1 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.08928 | 39 | 38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-19 (bg) | 0.008423 | 3 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.06599 | -39 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |

Upper Tolerance Limit Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:33 AM

| Constituent | Well | Upper Lim. | Lower 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 | n/a | 99 | n/a | n/a | 94.95 | n/a | n/a | 0.006232 | NP Inter(NDs) |
| Arsenic (mg/L) | n/a | 0.032 | n/a | n/a | n/a | n/a | 118 | n/a | n/a | 13.56 | n/a | n/a | 0.002352 | NP Inter(normality) |
| Barium (mg/L) | n/a | 0.22 | n/a | n/a | n/a | n/a | 115 | n/a | n/a | 0 | n/a | n/a | 0.002743 | NP Inter(normality) |
| Beryllium (mg/L) | n/a | 0.021 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 24.56 | n/a | n/a | 0.002887 | NP Inter(normality) |
| Cadmium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | n/a | 93 | n/a | n/a | 93.55 | n/a | n/a | 0.008478 | NP Inter(NDs) |
| Chromium (mg/L) | n/a | 0.011 | n/a | n/a | n/a | n/a | 99 | n/a | n/a | 51.52 | n/a | n/a | 0.006232 | NP Inter(NDs) |
| Cobalt (mg/L) | n/a | 0.036 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 73.68 | n/a | n/a | 0.002887 | NP Inter(NDs) |
| Combined Radium 226 + 228 (pCi/L) | n/a | 55.8 | n/a | n/a | n/a | n/a | 113 | n/a | n/a | 0 | n/a | n/a | 0.003039 | NP Inter(normality) |
| Fluoride (mg/L) | n/a | 1.5 | n/a | n/a | n/a | n/a | 119 | n/a | n/a | 48.74 | n/a | n/a | 0.002234 | NP Inter(normality) |
| Lead (mg/L) | n/a | 0.005 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 83.33 | n/a | n/a | 0.002887 | NP Inter(NDs) |
| Lithium (mg/L) | n/a | 0.05 | n/a | n/a | n/a | n/a | 111 | n/a | n/a | 54.05 | n/a | n/a | 0.003368 | NP Inter(NDs) |
| Mercury (mg/L) | n/a | 0.0007 | n/a | n/a | n/a | n/a | 93 | n/a | n/a | 94.62 | n/a | n/a | 0.008478 | NP Inter(NDs) |
| Molybdenum (mg/L) | n/a | 0.01 | n/a | n/a | n/a | n/a | 98 | n/a | n/a | 90.82 | n/a | n/a | 0.00656 | NP Inter(NDs) |
| Selenium (mg/L) | n/a | 0.15 | n/a | n/a | n/a | n/a | 115 | n/a | n/a | 60.87 | n/a | n/a | 0.002743 | NP Inter(NDs) |
| Thallium (mg/L) | n/a | 0.002 | n/a | n/a | n/a | n/a | 98 | n/a | n/a | 91.84 | n/a | n/a | 0.00656 | NP Inter(NDs) |

| MCMANUS ASH POND 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 | | 0.032 | 0.032 |
| Barium, Total (mg/L) | 2 | | 0.22 | 2 |
| Beryllium, Total (mg/L) | 0.004 | | 0.021 | 0.021 |
| Cadmium, Total (mg/L) | 0.005 | | 0.0025 | 0.005 |
| Chromium, Total (mg/L) | 0.1 | | 0.011 | 0.1 |
| Cobalt, Total (mg/L) | n/a | 0.006 | 0.036 | 0.036 |
| Combined Radium, Total (pCi/L) | 5 | | 55.8 | 55.8 |
| Fluoride, Total (mg/L) | 4 | | 1.5 | 4 |
| Lead, Total (mg/L) | n/a | 0.015 | 0.005 | 0.015 |
| Lithium, Total (mg/L) | n/a | 0.04 | 0.05 | 0.05 |
| Mercury, Total (mg/L) | 0.002 | | 0.0007 | 0.002 |
| Molybdenum, Total (mg/L) | n/a | 0.1 | 0.01 | 0.1 |
| Selenium, Total (mg/L) | 0.05 | | 0.15 | 0.15 |
| Thallium, Total (mg/L) | 0.002 | | 0.002 | 0.002 |

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Confidence Interval - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| <u>Constituent</u> | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Compliance</u> | <u>Sig.</u> | <u>N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>%NDs</u> | <u>ND Adj.</u> | <u>Transform</u> | <u>Alpha</u> | <u>Method</u> |
|--------------------|-------------|-------------------|-------------------|-------------------|-------------|----------|-------------|------------------|-------------|----------------|------------------|--------------|---------------|
| Arsenic (mg/L) | MCM-06 | 0.4289 | 0.2713 | 0.032 | Yes | 19 | 0.3501 | 0.1346 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.09913 | 0.0812 | 0.05 | Yes | 6 | 0.09017 | 0.006524 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.09925 | 0.05705 | 0.05 | Yes | 16 | 0.07815 | 0.03243 | 0 | None | No | 0.01 | Param. |

Confidence Interval - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.0029 | 0.006 | No | 14 | 0.002699 | 0.0007457 | 78.57 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 13 | 0.0028 | 0.0007211 | 92.31 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 13 | 0.002829 | 0.0006157 | 92.31 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.02354 | 0.01396 | 0.032 | No | 5 | 0.019 | 0.002915 | 20 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.007714 | 0.003016 | 0.032 | No | 16 | 0.005694 | 0.004121 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.01983 | 0.005206 | 0.032 | No | 18 | 0.01523 | 0.01186 | 16.67 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-06 | 0.4289 | 0.2713 | 0.032 | Yes | 19 | 0.3501 | 0.1346 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.02004 | 0.0106 | 0.032 | No | 18 | 0.01591 | 0.008069 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.02 | 0.001 | 0.032 | No | 15 | 0.01151 | 0.009474 | 53.33 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | MCM-14 | 0.02 | 0.0014 | 0.032 | No | 15 | 0.01207 | 0.008922 | 53.33 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | MCM-17 | 0.02 | 0.0017 | 0.032 | No | 16 | 0.0104 | 0.008848 | 43.75 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | DPZ-2 | 0.1061 | 0.05538 | 2 | No | 4 | 0.08075 | 0.01118 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-04 | 0.08496 | 0.03259 | 2 | No | 15 | 0.07027 | 0.07299 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.0442 | 0.01033 | 2 | No | 16 | 0.05021 | 0.1084 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 16 | 0.1064 | 0.05482 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2 | 0.1 | 2 | No | 15 | 0.1614 | 0.09528 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-12 | 0.1275 | 0.1008 | 2 | No | 15 | 0.1141 | 0.01968 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1311 | 0.05896 | 2 | No | 15 | 0.09501 | 0.0532 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1358 | 0.06446 | 2 | No | 15 | 0.1001 | 0.05264 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.002 | 0.00021 | 0.021 | No | 15 | 0.0008707 | 0.0008389 | 33.33 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.002 | 0.000054 | 0.021 | No | 16 | 0.001878 | 0.0004865 | 93.75 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.002 | 0.00012 | 0.021 | No | 15 | 0.001618 | 0.0007906 | 80 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001153 | 0.0005117 | 0.021 | No | 15 | 0.0008653 | 0.0005316 | 13.33 | None | sqrt(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.002 | 0.0001 | 0.021 | No | 15 | 0.00137 | 0.000923 | 66.67 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.002 | 0.0002 | 0.021 | No | 15 | 0.0009493 | 0.0008901 | 40 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-04 | 0.0025 | 0.00043 | 0.005 | No | 12 | 0.002327 | 0.0005976 | 91.67 | None | No | 0.01 | NP (NDs) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.000093 | 0.005 | No | 12 | 0.002299 | 0.0006948 | 91.67 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.005296 | 0.004541 | 46.15 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 13 | 0.005803 | 0.004724 | 53.85 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.001 | 0.1 | No | 14 | 0.006796 | 0.004463 | 64.29 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 13 | 0.005246 | 0.003917 | 38.46 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 13 | 0.007185 | 0.002409 | 38.46 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 13 | 0.005482 | 0.004379 | 46.15 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01266 | 0.007638 | 0.1 | No | 13 | 0.01096 | 0.002919 | 30.77 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.02 | 0.0049 | 0.036 | No | 16 | 0.0123 | 0.007128 | 43.75 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.02 | 0.0019 | 0.036 | No | 16 | 0.01887 | 0.004525 | 93.75 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.02 | 0.0009 | 0.036 | No | 16 | 0.01757 | 0.006627 | 87.5 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.02 | 0.0011 | 0.036 | No | 15 | 0.01874 | 0.00488 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.02 | 0.00053 | 0.036 | No | 15 | 0.01352 | 0.009489 | 66.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.02 | 0.0006 | 0.036 | No | 15 | 0.01871 | 0.005009 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.02 | 0.0007 | 0.036 | No | 15 | 0.01611 | 0.008057 | 80 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.727 | 3.038 | 55.8 | No | 15 | 4.492 | 2.242 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.434 | 1.46 | 55.8 | No | 16 | 2.799 | 2.207 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 7.605 | 3.268 | 55.8 | No | 15 | 5.437 | 3.2 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.375 | 5.616 | 55.8 | No | 16 | 7.496 | 2.888 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.147 | 2.199 | 55.8 | No | 15 | 2.673 | 0.6995 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.679 | 4.405 | 55.8 | No | 16 | 5.453 | 3.174 | 0 | None | x^2 | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.89 | 2.01 | 55.8 | No | 16 | 5.27 | 3.11 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | DPZ-2 | 0.11 | 0.1 | 4 | No | 4 | 0.1025 | 0.005 | 75 | None | No | 0.0625 | NP (NDs) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 16 | 0.1352 | 0.1256 | 50 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.4377 | 0.1918 | 4 | No | 18 | 0.4017 | 0.2375 | 16.67 | Kaplan-Meier | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.1 | 4 | No | 16 | 0.1905 | 0.1466 | 50 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.42 | 0.1 | 4 | No | 17 | 0.2804 | 0.2871 | 47.06 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.278 | 0.9662 | 4 | No | 16 | 1.091 | 0.3162 | 6.25 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.49 | 0.084 | 4 | No | 17 | 0.2238 | 0.1965 | 58.82 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 17 | 0.5137 | 0.5075 | 41.18 | None | No | 0.01 | NP (normality) |

Confidence Interval - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|----------------|----------------|-------------|------------|-----------|----------------|-----------------|----------|-------------|-----------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.015 | No | 16 | 0.0047 | 0.0012 | 93.75 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.015 | No | 16 | 0.004695 | 0.00122 | 93.75 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.015 | No | 15 | 0.004025 | 0.002018 | 80 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.015 | No | 15 | 0.003698 | 0.002236 | 73.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.015 | No | 15 | 0.004672 | 0.00127 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.015 | No | 15 | 0.00373 | 0.00218 | 73.33 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.09913 | 0.0812 | 0.05 | Yes | 6 | 0.09017 | 0.006524 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.025 | 0.0015 | 0.05 | No | 15 | 0.0127 | 0.01192 | 46.67 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.05 | No | 16 | 0.06257 | 0.1356 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.09925 | 0.05705 | 0.05 | Yes | 16 | 0.07815 | 0.03243 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05209 | 0.02029 | 0.05 | No | 16 | 0.04246 | 0.03592 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.025 | 0.0106 | 0.05 | No | 15 | 0.01411 | 0.005694 | 20 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-14 | 0.04913 | 0.03069 | 0.05 | No | 16 | 0.03743 | 0.01719 | 6.25 | None | x^2 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02605 | 0.01548 | 0.05 | No | 15 | 0.02077 | 0.007797 | 6.667 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.00071 | 0.0002 | 0.002 | No | 12 | 0.0002425 | 0.0001472 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.000042 | 0.002 | No | 12 | 0.0001868 | 0.00004561 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 13 | 0.0001969 | 0.00001109 | 92.31 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.00067 | 0.0002 | 0.002 | No | 12 | 0.0002392 | 0.0001357 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.00066 | 0.0002 | 0.002 | No | 12 | 0.0002383 | 0.0001328 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.00064 | 0.000036 | 0.002 | No | 12 | 0.000223 | 0.0001395 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-04 | 0.01 | 0.00015 | 0.1 | No | 13 | 0.009242 | 0.002732 | 92.31 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.1 | No | 13 | 0.009315 | 0.002439 | 84.62 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.1 | No | 14 | 0.007736 | 0.003721 | 71.43 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.1 | No | 13 | 0.009377 | 0.002247 | 92.31 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.04 | 0.0025 | 0.15 | No | 15 | 0.0322 | 0.01616 | 80 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.04 | 0.0023 | 0.15 | No | 16 | 0.03057 | 0.01687 | 75 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.04 | 0.002 | 0.15 | No | 16 | 0.02181 | 0.01886 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.04 | 0.0023 | 0.15 | No | 15 | 0.02279 | 0.01907 | 53.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-12 | 0.04 | 0.0019 | 0.15 | No | 15 | 0.02221 | 0.01968 | 53.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-14 | 0.04 | 0.0019 | 0.15 | No | 15 | 0.02509 | 0.01893 | 60 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.04 | 0.0018 | 0.15 | No | 15 | 0.02055 | 0.01893 | 46.67 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 14 | 0.001863 | 0.0005142 | 92.86 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 13 | 0.001857 | 0.0005159 | 92.31 | None | No | 0.01 | NP (NDs) |

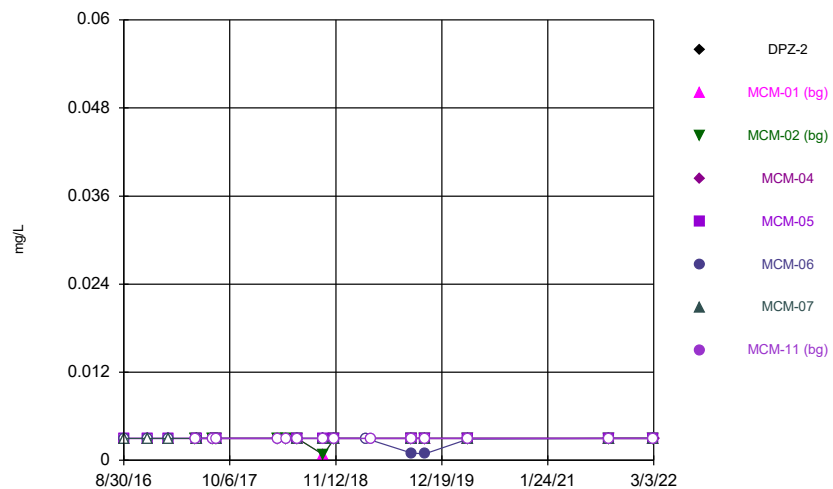
Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:40 AM

| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|----------------|-------------|-----------|-------|----------|------|----|-------|-----------|-------|-------|--------|
| Arsenic (mg/L) | MCM-01 (bg) | 0.00116 | 41 | 58 | No | 16 | 6.25 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-02 (bg) | 0 | -7 | -58 | No | 16 | 37.5 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-06 | 0.02574 | 41 | 74 | No | 19 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-11 (bg) | -0.002994 | -58 | -63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-15 (bg) | 0.0001396 | 14 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-16 (bg) | 0 | -15 | -53 | No | 15 | 46.67 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-18 (bg) | -0.001633 | -30 | -43 | No | 13 | 15.38 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-19 (bg) | -0.001694 | -19 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-20 (bg) | 0 | 0 | 43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | DPZ-2 | -0.002797 | -3 | -14 | No | 6 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-01 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-02 (bg) | 0 | 2 | 53 | No | 15 | 93.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-06 | 0.01129 | 50 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-11 (bg) | 0 | 4 | 53 | No | 15 | 40 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-15 (bg) | 0 | 10 | 53 | No | 15 | 53.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-16 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-18 (bg) | 0.02063 | 17 | 30 | No | 10 | 50 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-19 (bg) | 0.002313 | 18 | 43 | No | 13 | 7.692 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-20 (bg) | -0.001009 | -14 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |

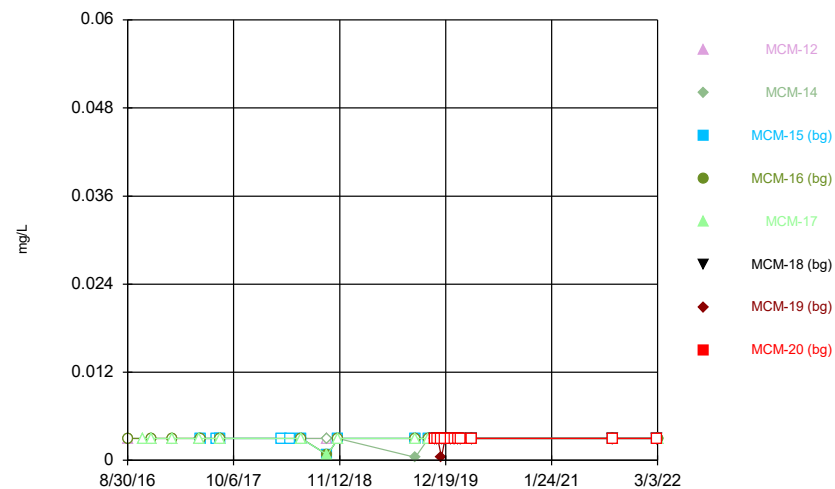
FIGURE A.

Time Series



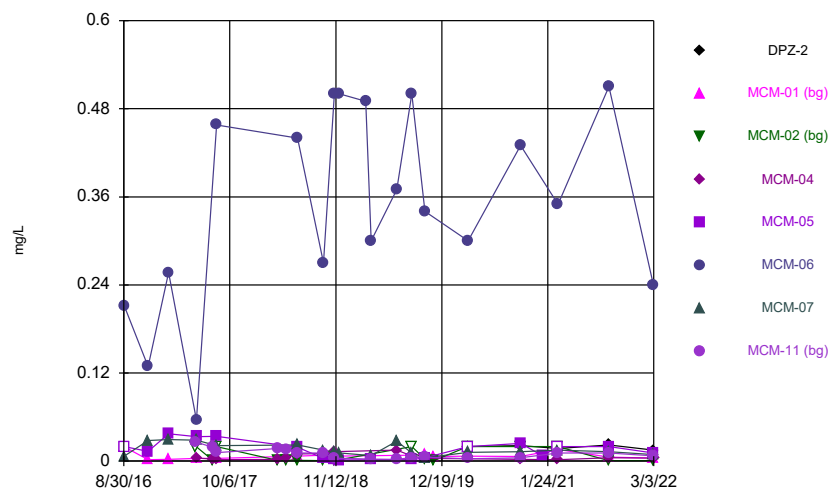
Constituent: Antimony Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



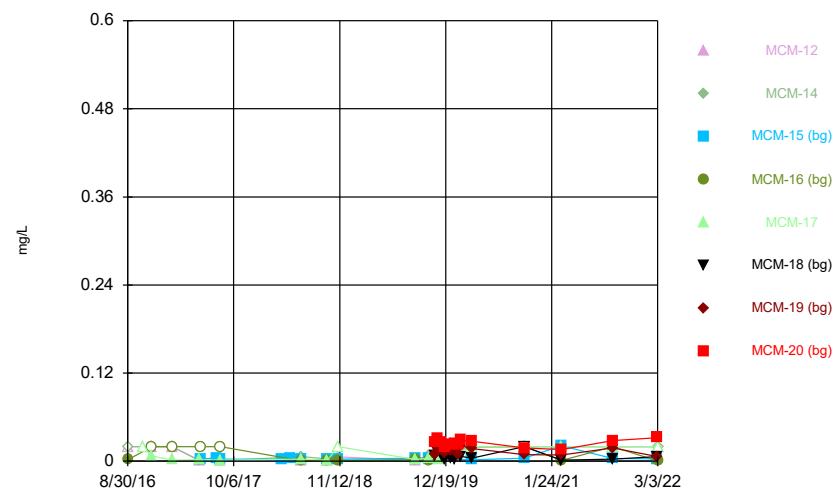
Constituent: Antimony Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



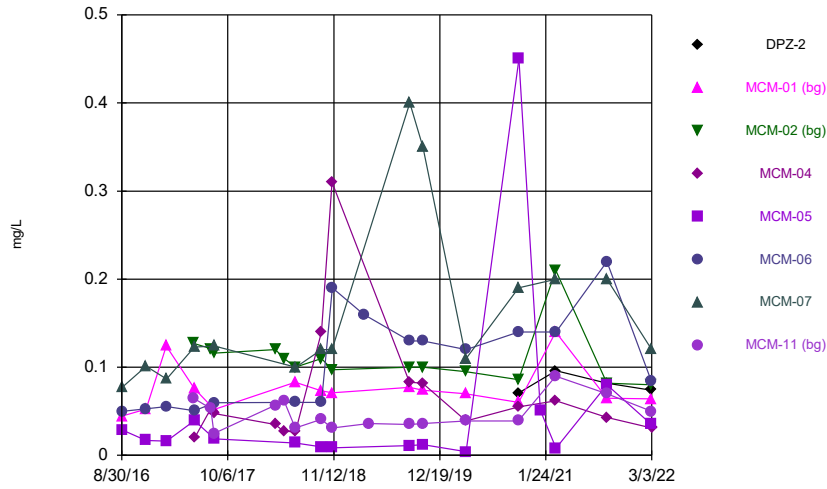
Constituent: Arsenic Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



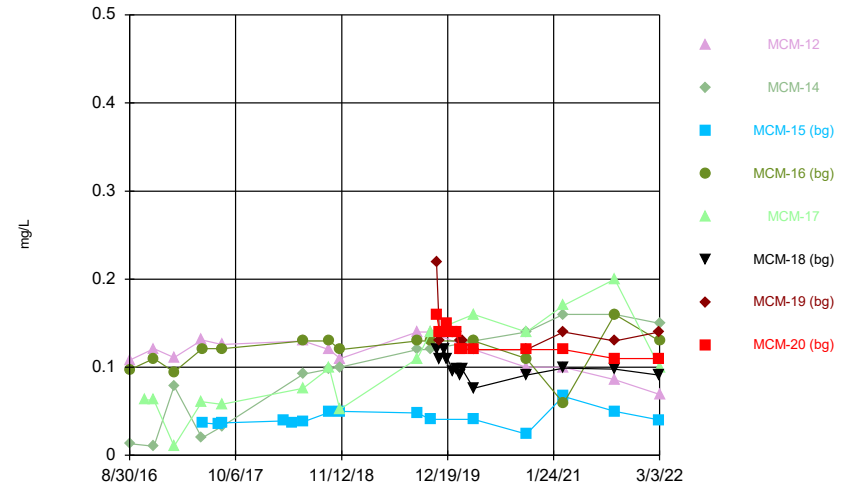
Constituent: Arsenic Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



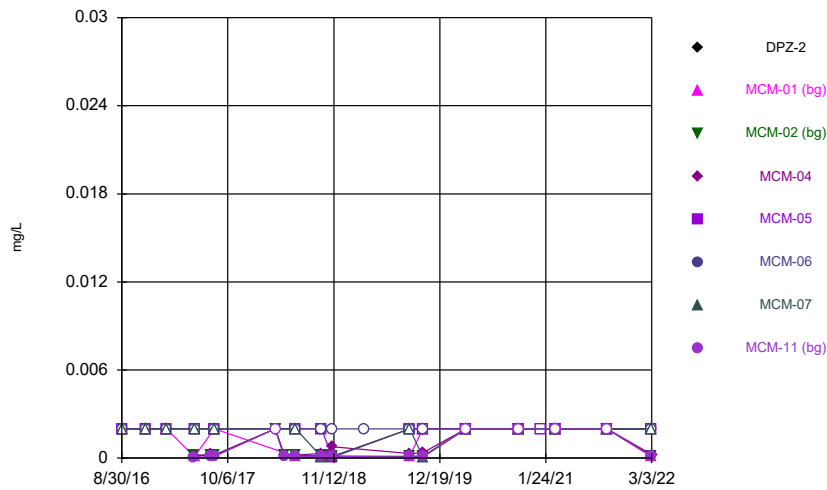
Constituent: Barium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



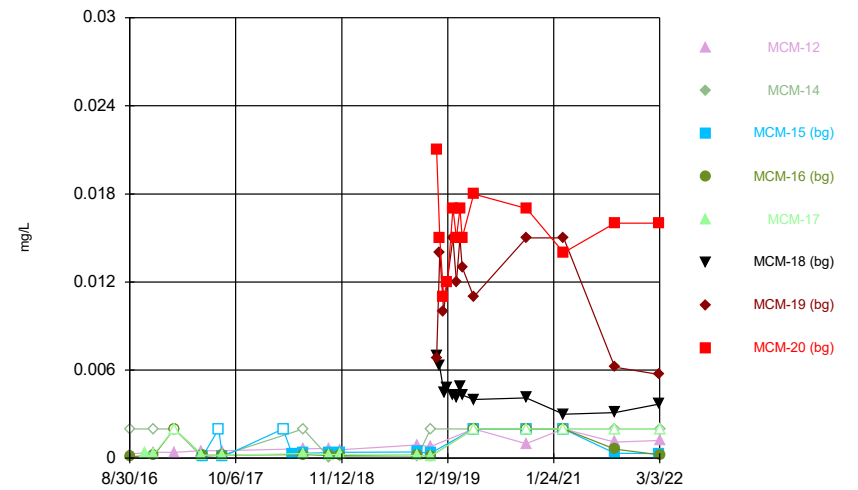
Constituent: Barium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



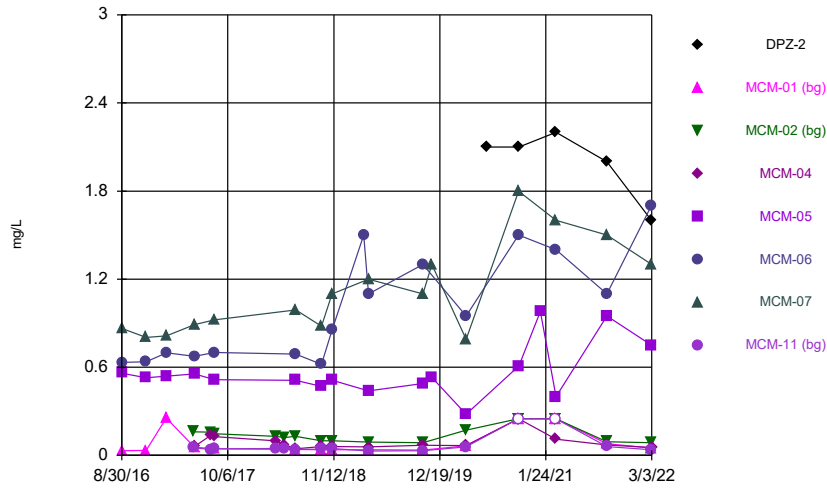
Constituent: Beryllium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



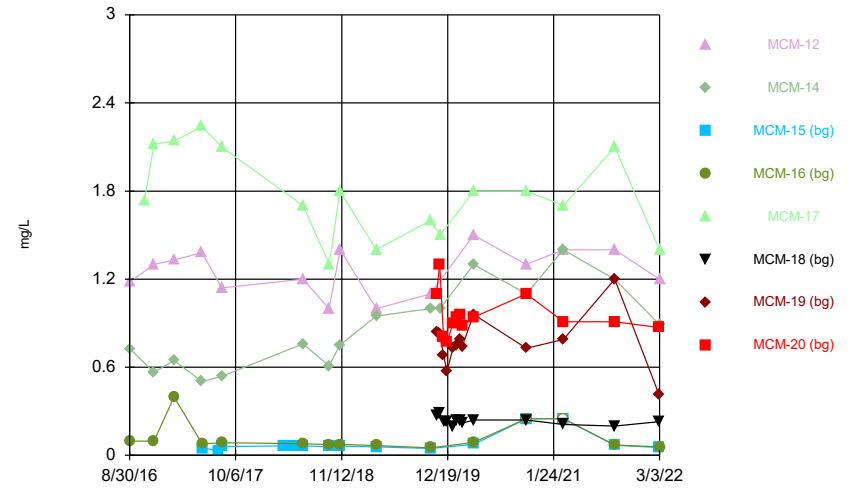
Constituent: Beryllium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



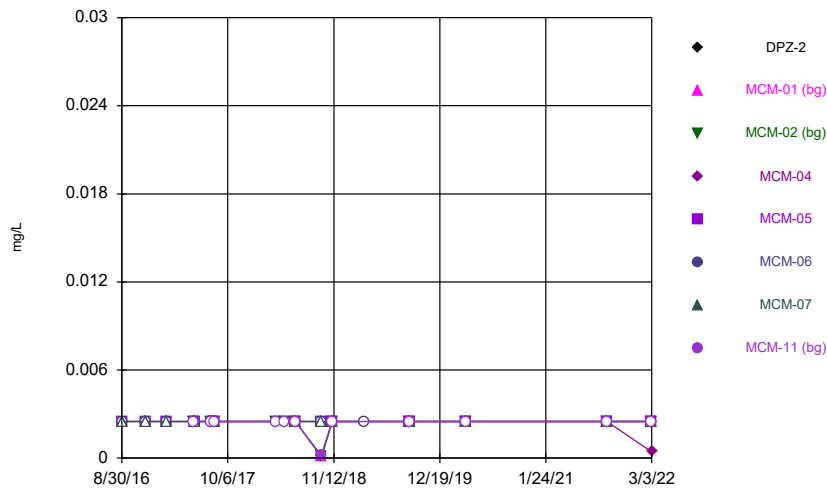
Constituent: Boron Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



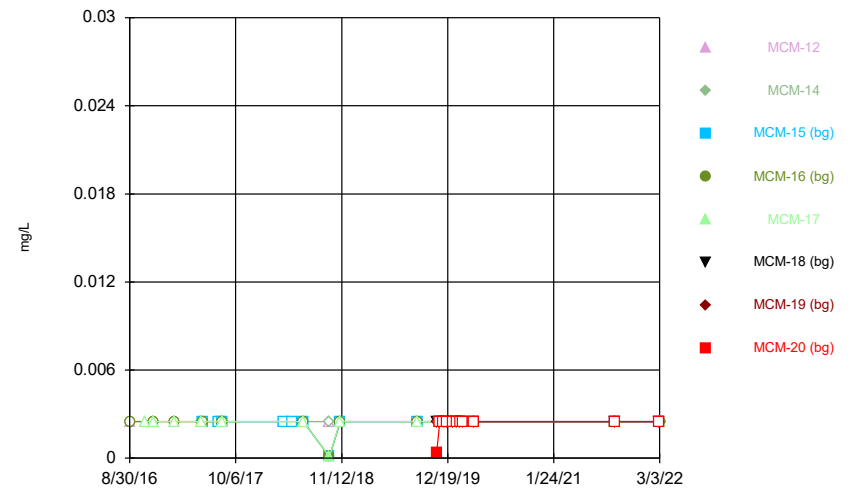
Constituent: Boron Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



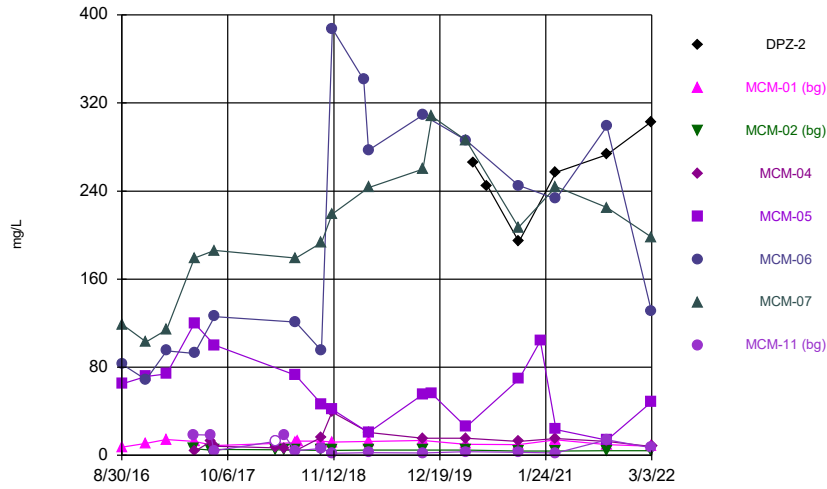
Constituent: Cadmium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



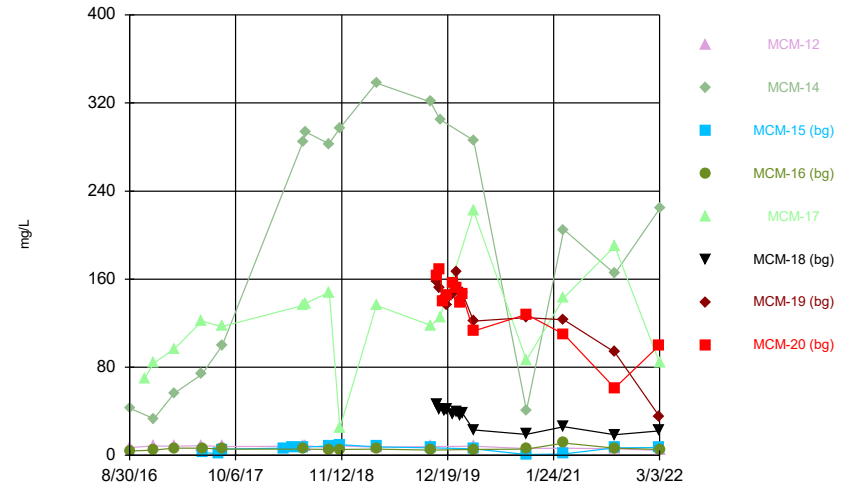
Constituent: Cadmium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



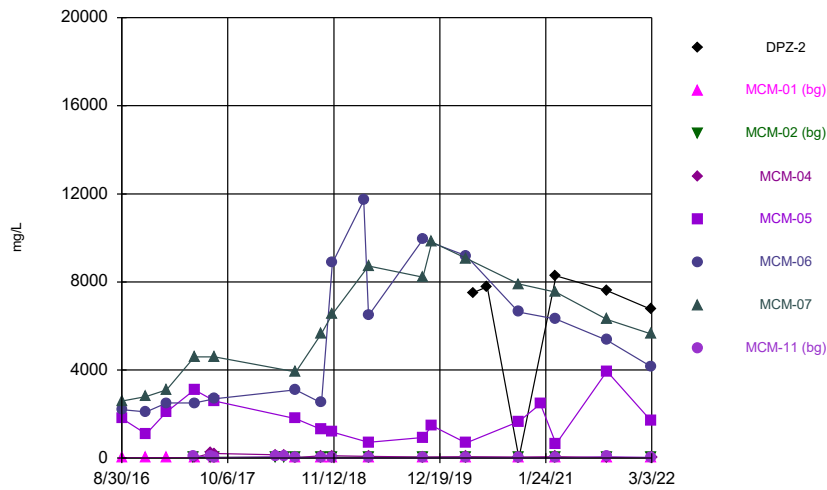
Constituent: Calcium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



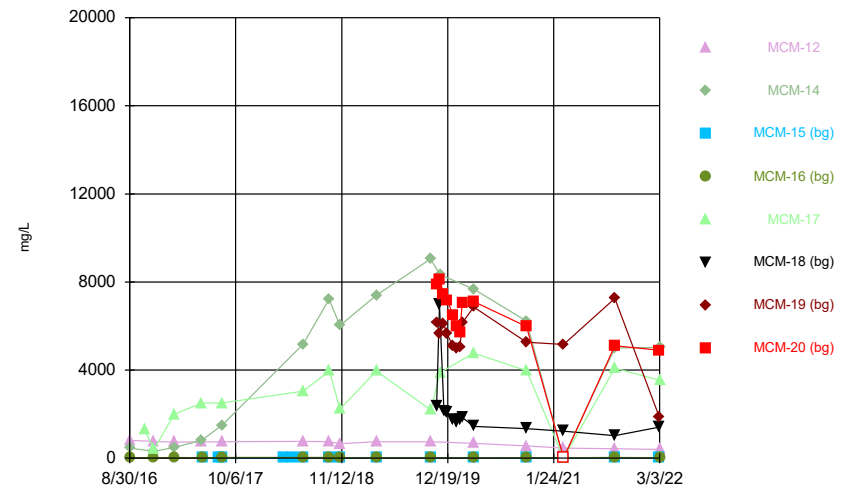
Constituent: Calcium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



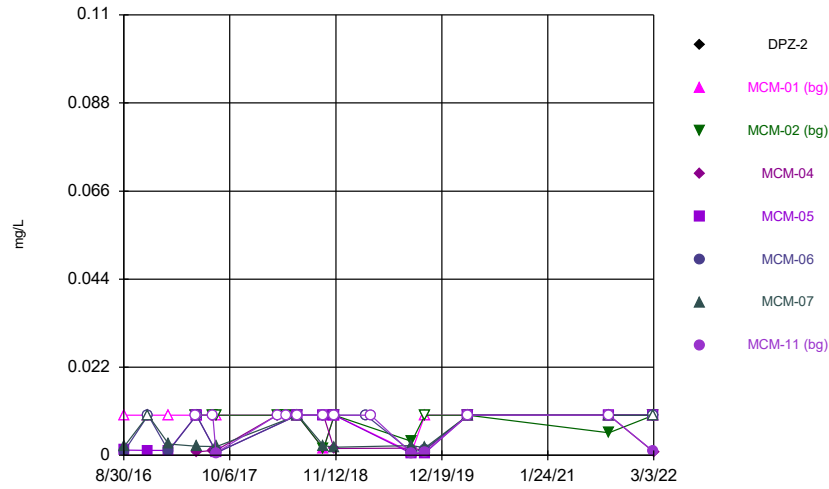
Constituent: Chloride Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



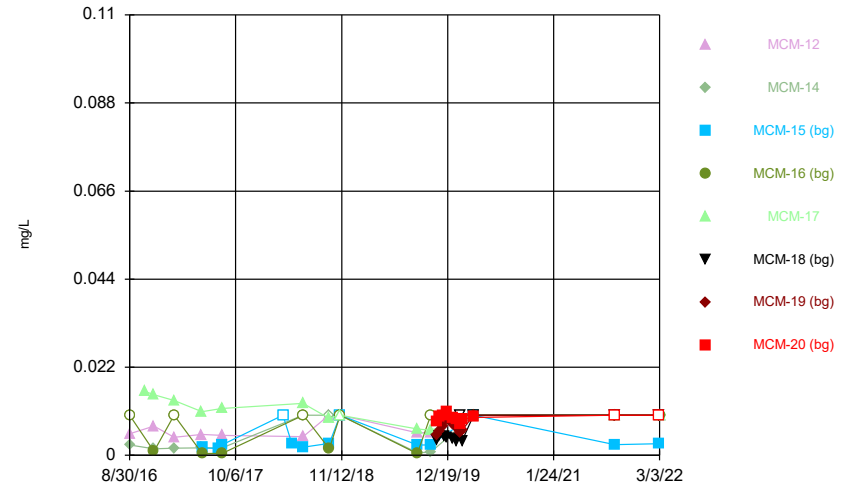
Constituent: Chloride Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



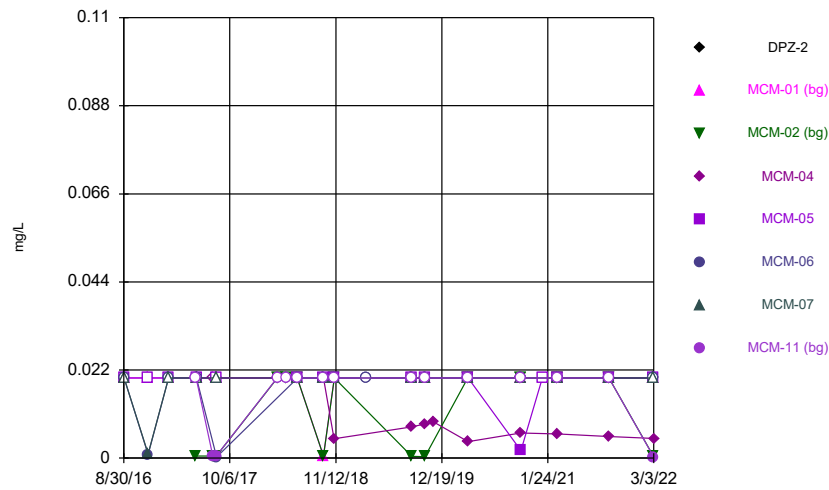
Constituent: Chromium Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



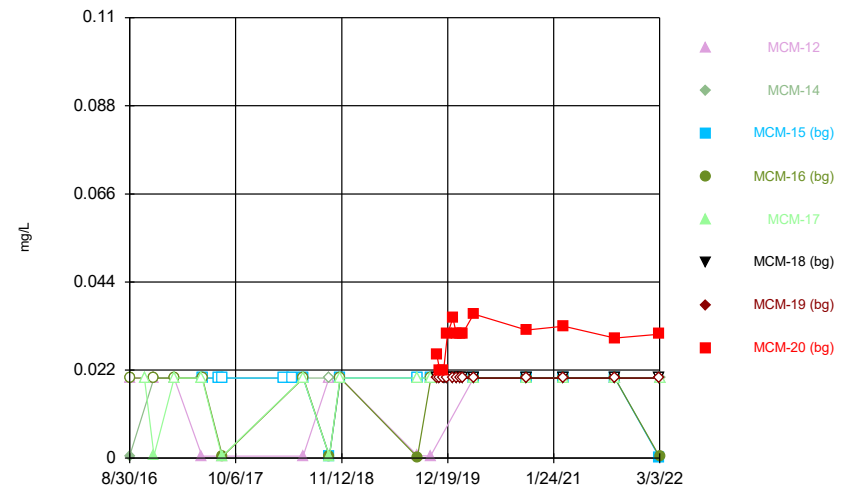
Constituent: Chromium Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



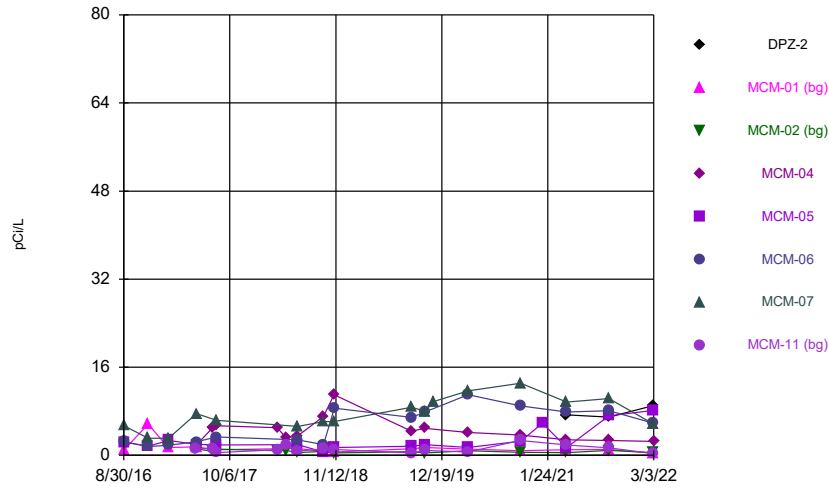
Constituent: Cobalt Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



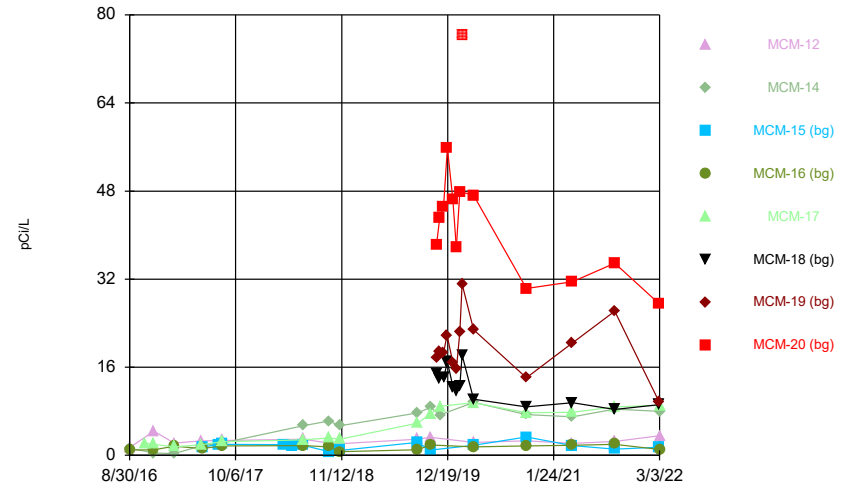
Constituent: Cobalt Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



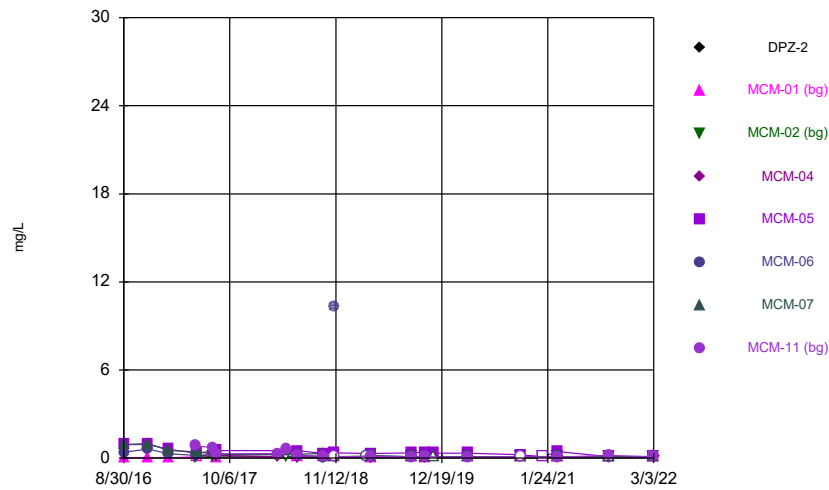
Constituent: Combined Radium 226 + 228 Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



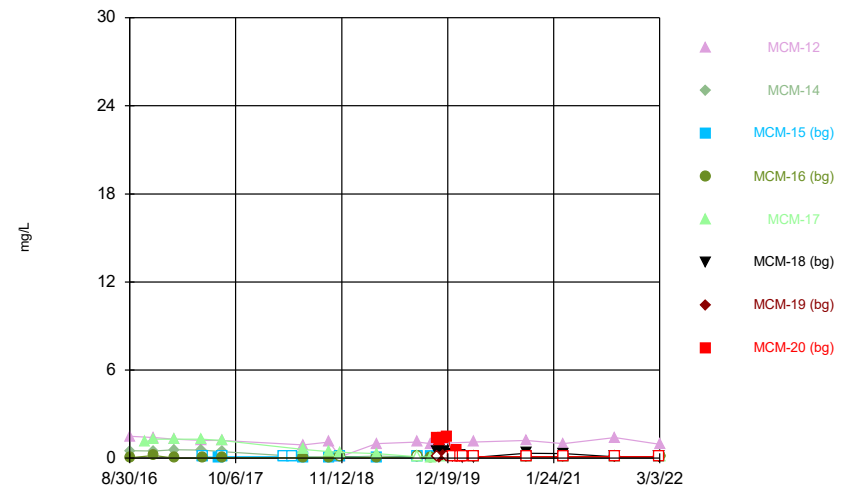
Constituent: Combined Radium 226 + 228 Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



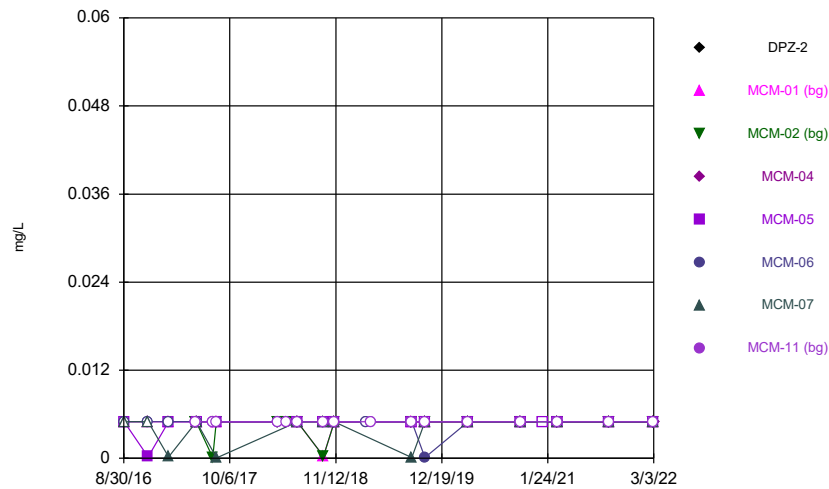
Constituent: Fluoride Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



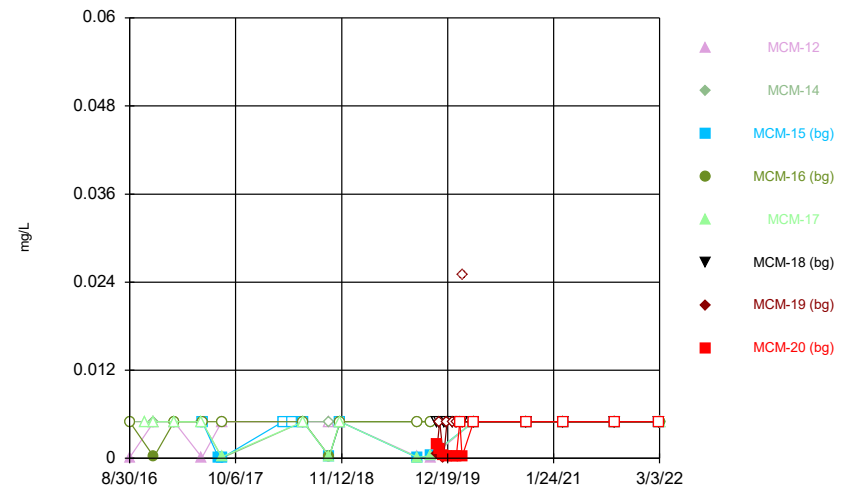
Constituent: Fluoride Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



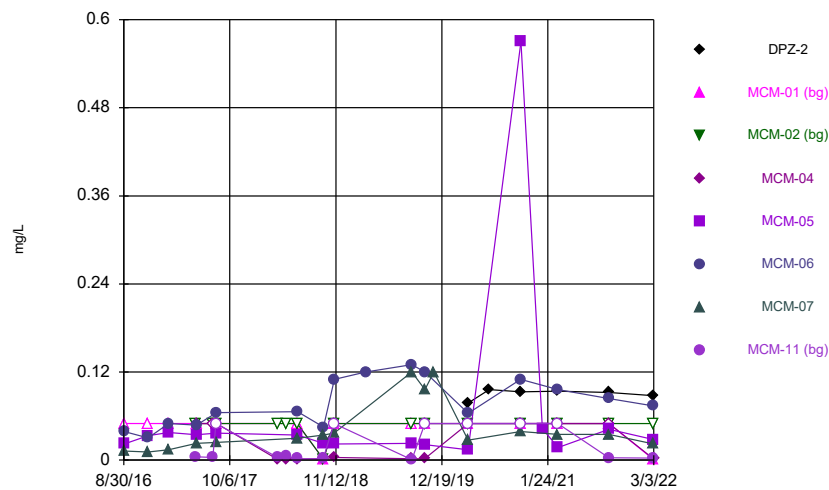
Constituent: Lead Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



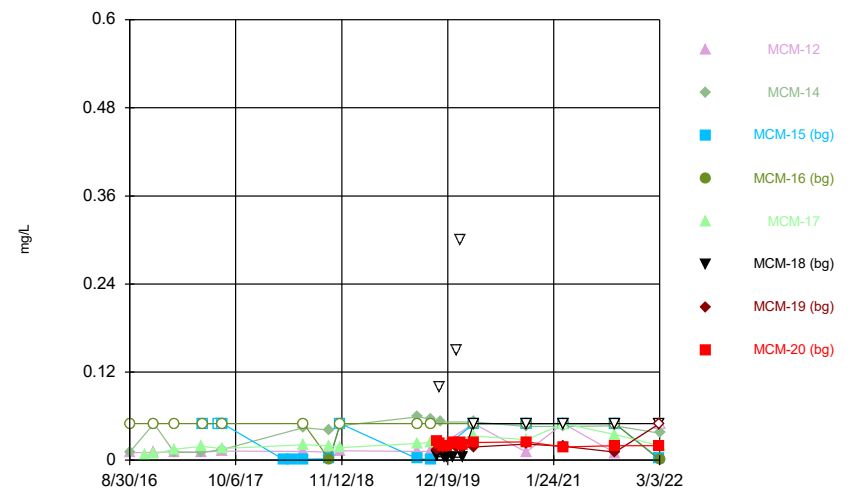
Constituent: Lead Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



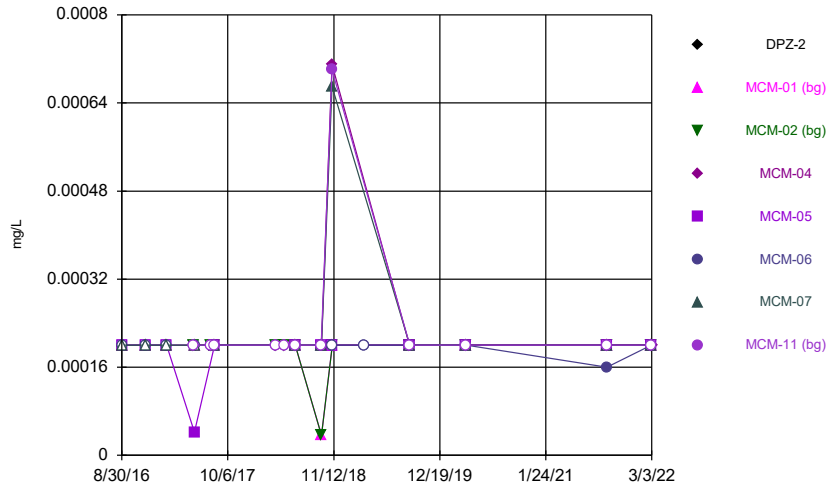
Constituent: Lithium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



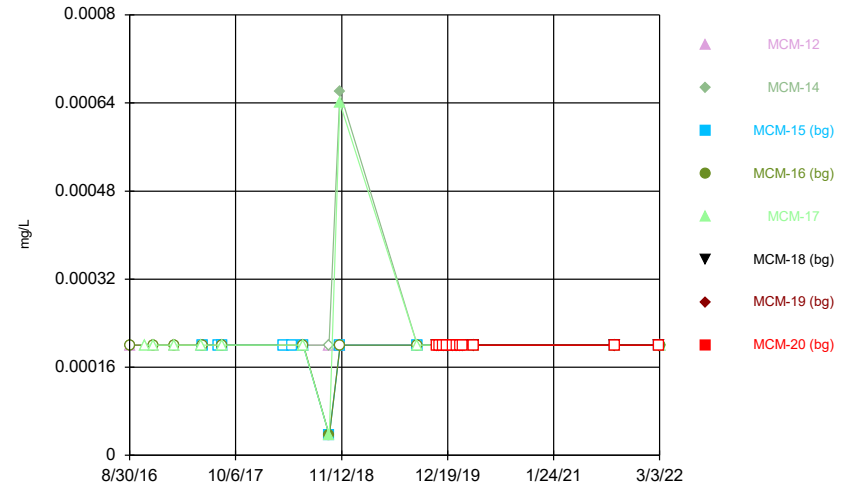
Constituent: Lithium Analysis Run 5/4/2022 9:19 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



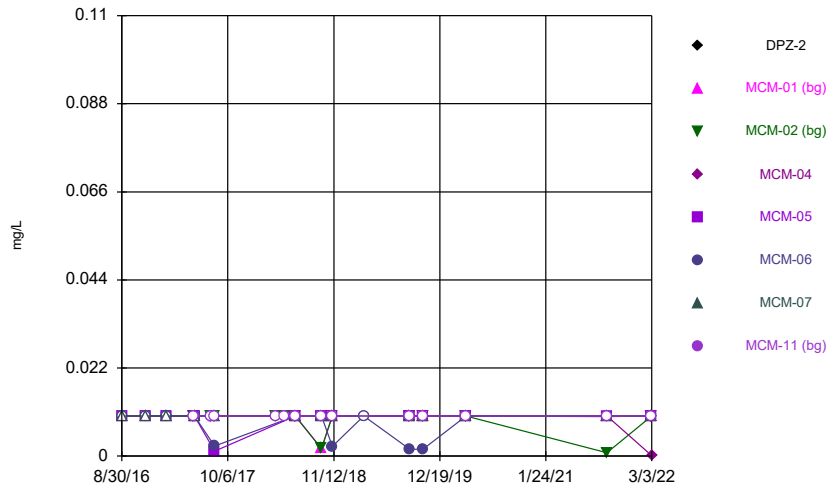
Constituent: Mercury Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



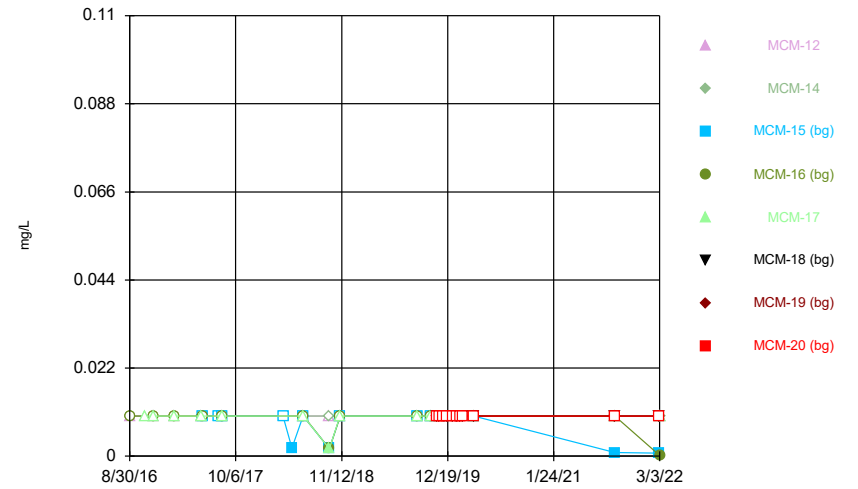
Constituent: Mercury Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



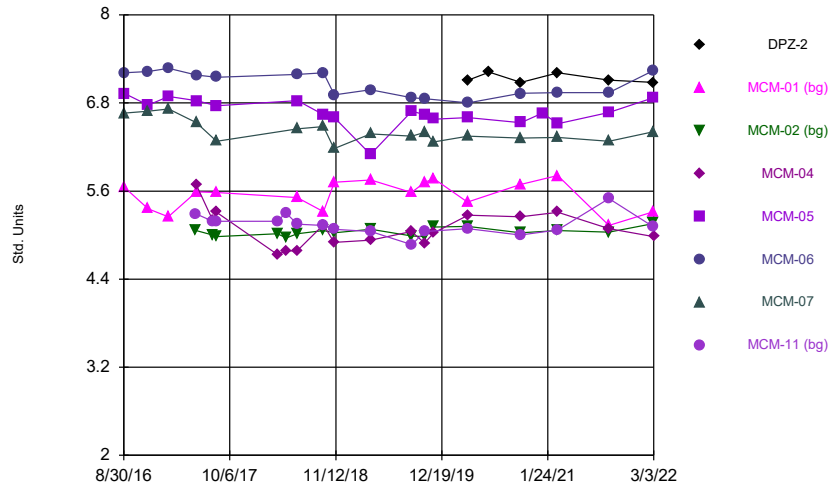
Constituent: Molybdenum Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



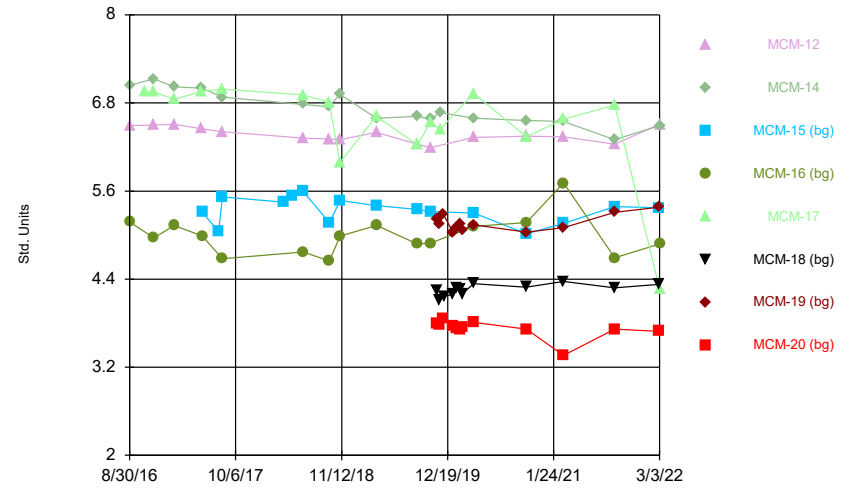
Constituent: Molybdenum Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



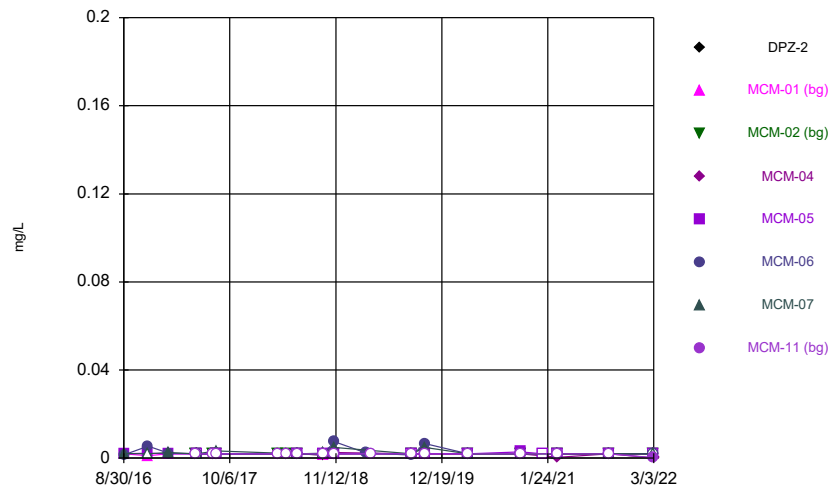
Constituent: pH, field Analysis Run 5/4/2022 9:19 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



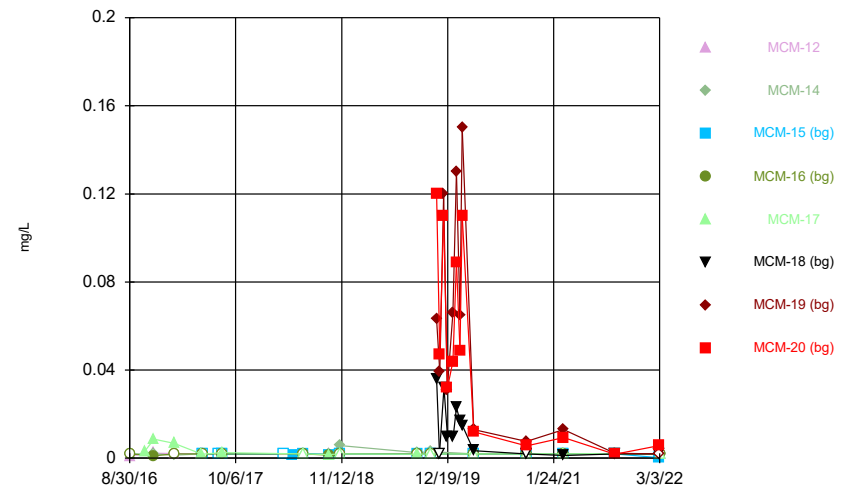
Constituent: pH, field Analysis Run 5/4/2022 9:20 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



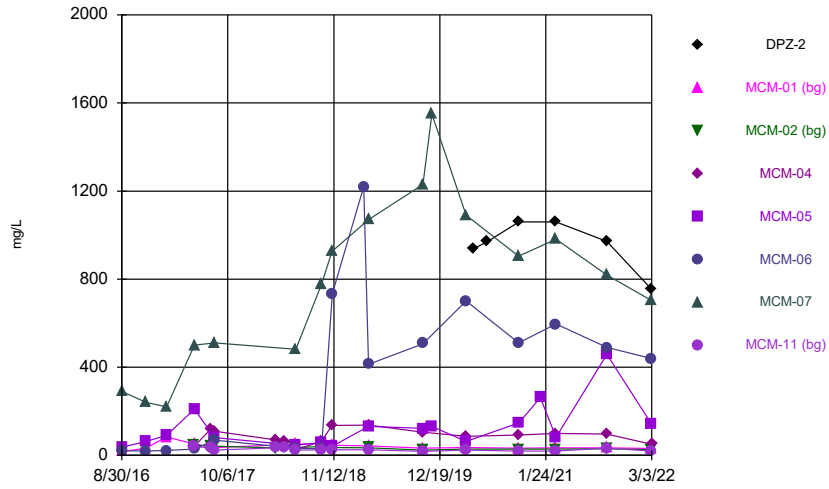
Constituent: Selenium Analysis Run 5/4/2022 9:20 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



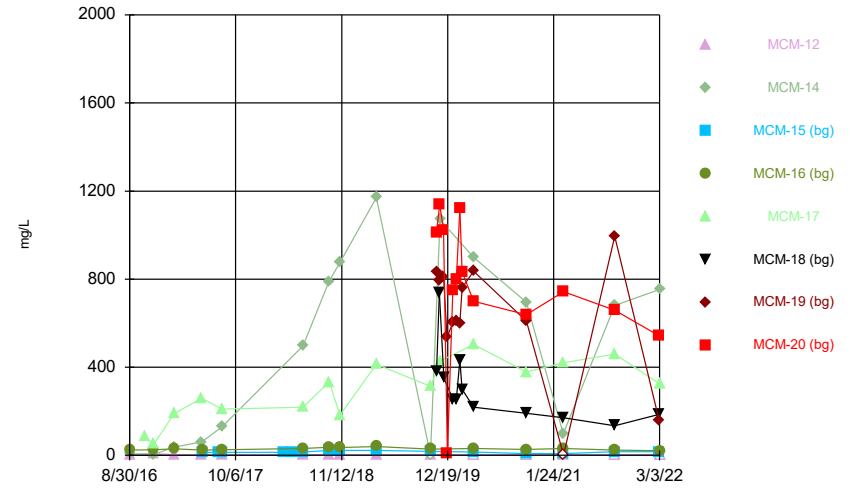
Constituent: Selenium Analysis Run 5/4/2022 9:20 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



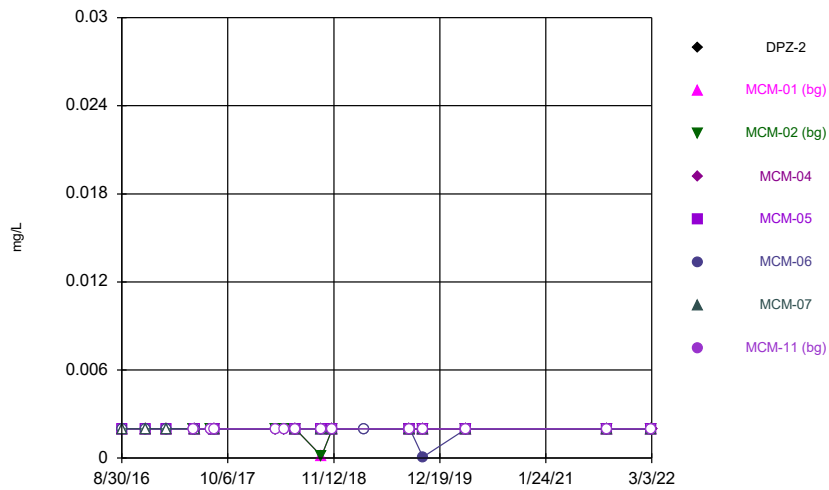
Constituent: Sulfate Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



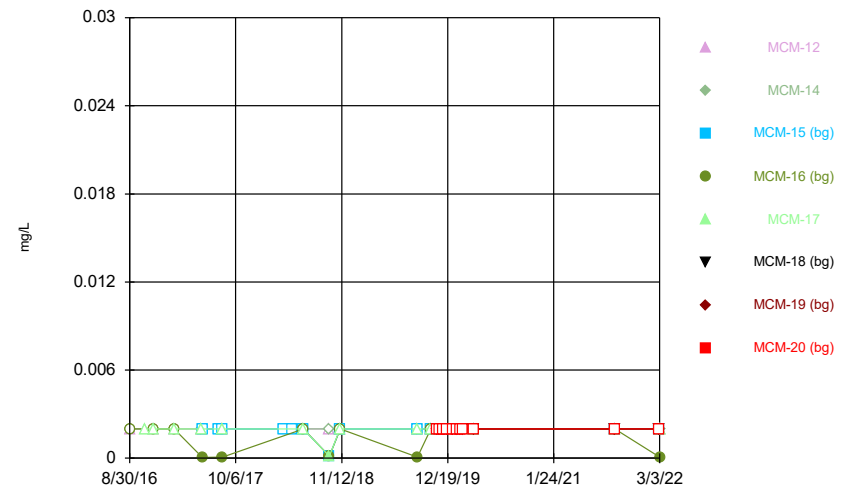
Constituent: Sulfate Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



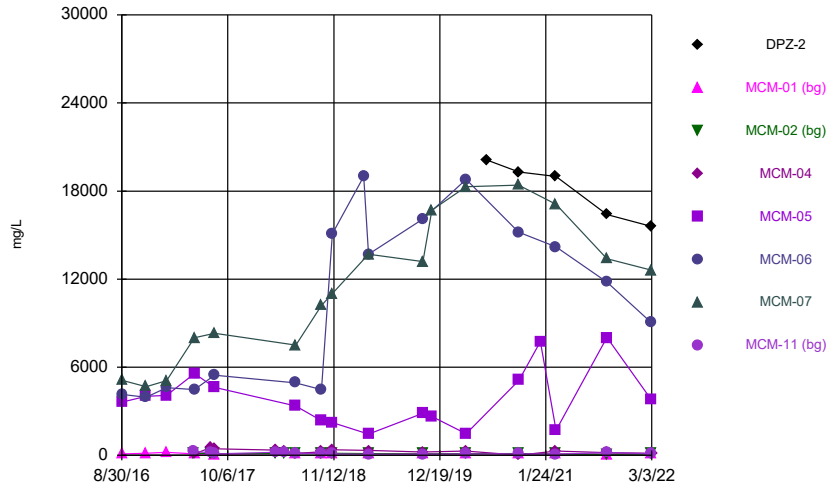
Constituent: Thallium Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



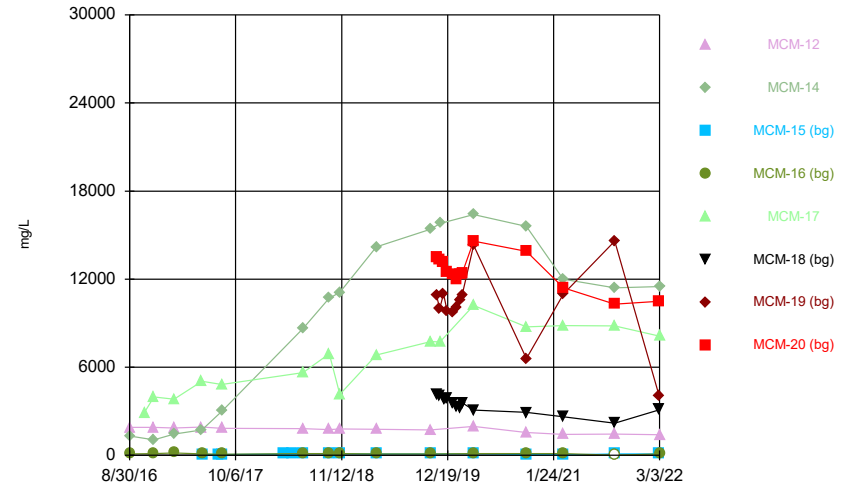
Constituent: Thallium Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|--------|-------------|-------------|--------|--------|-------------|--------|-------------|
| 8/30/2016 | | <0.003 | | | | | | |
| 8/31/2016 | | | | | <0.003 | <0.003 | <0.003 | |
| 11/30/2016 | | <0.003 | | | <0.003 | <0.003 | <0.003 | |
| 2/15/2017 | | <0.003 | | | | | | |
| 2/16/2017 | | | | | <0.003 | <0.003 | <0.003 | |
| 5/31/2017 | | | <0.003 | | | | | <0.003 |
| 6/1/2017 | | <0.003 | | <0.003 | | | | |
| 6/2/2017 | | | | | <0.003 | <0.003 | <0.003 | |
| 8/2/2017 | | | <0.003 | <0.003 | | | | <0.003 |
| 8/15/2017 | | | | | | | | <0.003 |
| 8/16/2017 | | <0.003 | <0.003 | | | | | |
| 8/17/2017 | | | | <0.003 | <0.003 | <0.003 | <0.003 | |
| 4/4/2018 | | | | <0.003 | | | | <0.003 |
| 4/5/2018 | | | <0.003 | | | | | |
| 5/8/2018 | | | | <0.003 | | | | <0.003 |
| 5/9/2018 | | | <0.003 | | | | | |
| 6/19/2018 | | <0.003 | <0.003 | | | | | <0.003 |
| 6/20/2018 | | | | <0.003 | <0.003 | <0.003 | | |
| 6/21/2018 | | | | | | | <0.003 | |
| 9/25/2018 | | | | | | | | <0.003 |
| 9/26/2018 | | 0.00078 | 0.00078 | | | | | |
| 9/27/2018 | | | | <0.003 | <0.003 | <0.003 | <0.003 | |
| 11/6/2018 | | | | <0.003 | | | <0.003 | <0.003 |
| 11/7/2018 | | <0.003 | <0.003 | | <0.003 | <0.003 | | |
| 3/6/2019 | | | | | | <0.003 | | |
| 3/25/2019 | | | | | | | | <0.003 |
| 8/27/2019 | | <0.003 | | <0.003 | | | | |
| 8/28/2019 | | | <0.003 | | <0.003 | 0.00098 (J) | <0.003 | <0.003 |
| 10/15/2019 | | | | <0.003 | | | | |
| 10/16/2019 | | <0.003 | <0.003 | | <0.003 | | | <0.003 |
| 10/17/2019 | | | | | | 0.0009 (J) | <0.003 | |
| 3/26/2020 | | <0.003 | | | | | | |
| 3/27/2020 | | | <0.003 | | | | | <0.003 |
| 3/28/2020 | | | | <0.003 | <0.003 | 0.0029 (J) | <0.003 | |
| 9/14/2021 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 |
| 3/1/2022 | <0.003 | | | | <0.003 | <0.003 | | |
| 3/2/2022 | | <0.003 | <0.003 | | | | <0.003 | <0.003 |
| 3/3/2022 | | | | <0.003 | | | | |

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|------------|-------------|-------------|---------|-------------|-------------|-------------|
| 8/30/2016 | <0.003 | <0.003 | | <0.003 | | | | |
| 10/25/2016 | | | | | <0.003 | | | |
| 11/30/2016 | <0.003 | <0.003 | | <0.003 | <0.003 | | | |
| 2/15/2017 | <0.003 | <0.003 | | <0.003 | <0.003 | | | |
| 5/31/2017 | <0.003 | <0.003 | | | <0.003 | | | |
| 6/1/2017 | | | | <0.003 | | | | |
| 6/2/2017 | | | <0.003 | | | | | |
| 8/2/2017 | | | <0.003 | | | | | |
| 8/15/2017 | <0.003 | | | | <0.003 | | | |
| 8/16/2017 | | <0.003 | | | | | | |
| 8/17/2017 | | | <0.003 | <0.003 | | | | |
| 4/4/2018 | | | <0.003 | | | | | |
| 5/8/2018 | | | <0.003 | | | | | |
| 6/19/2018 | <0.003 | <0.003 | <0.003 | | <0.003 | | | |
| 6/20/2018 | | | | <0.003 | | | | |
| 9/25/2018 | <0.003 | <0.003 | | | | | | |
| 9/26/2018 | | | 0.00078 | 0.00078 | 0.00078 | | | |
| 11/6/2018 | | <0.003 | | | <0.003 | | | |
| 11/7/2018 | <0.003 | | <0.003 | <0.003 | | | | |
| 8/26/2019 | | 0.0004 (J) | | | | | | |
| 8/27/2019 | <0.003 | | <0.003 | <0.003 | <0.003 | | | |
| 10/15/2019 | <0.003 | <0.003 | <0.003 | | | | | |
| 10/16/2019 | | | | <0.003 | <0.003 | | | |
| 11/7/2019 | | | | | | <0.003 | <0.003 | <0.003 |
| 11/18/2019 | | | | | | <0.003 | | |
| 11/19/2019 | | | | | | | <0.003 | <0.003 |
| 12/4/2019 | | | | | | | 0.00041 (J) | <0.003 |
| 12/5/2019 | | | | | | <0.003 | | |
| 12/17/2019 | | | | | | | <0.003 | |
| 12/18/2019 | | | | | | <0.003 | | <0.003 |
| 1/8/2020 | | | | | | | <0.003 | <0.003 |
| 1/9/2020 | | | | | | <0.003 | | |
| 1/21/2020 | | | | | | <0.003 | <0.003 | <0.003 |
| 2/4/2020 | | | | | | <0.003 | <0.003 | <0.003 |
| 2/13/2020 | | | | | | <0.003 | <0.003 | <0.003 |
| 3/27/2020 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 |
| 9/13/2021 | <0.003 | <0.003 | | | | | | |
| 9/14/2021 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 |
| 3/1/2022 | | | | | | | <0.003 | <0.003 |
| 3/2/2022 | | | <0.003 | | | <0.003 | | |
| 3/3/2022 | <0.003 | <0.003 | | <0.003 | <0.003 | | | |

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-----------|-------------|-------------|------------|------------|--------|------------|-------------|
| 8/30/2016 | | <0.02 | | | | | | |
| 8/31/2016 | | | | | <0.02 | 0.212 | 0.0066 | |
| 11/30/2016 | | 0.0018 (J) | | | 0.0132 | 0.129 | 0.0281 | |
| 2/15/2017 | | 0.0022 (J) | | | | | | |
| 2/16/2017 | | | | | 0.0372 | 0.257 | 0.0295 | |
| 5/31/2017 | | | <0.02 | | | | | 0.0259 |
| 6/1/2017 | | 0.0036 (J) | | 0.004 (J) | | | | |
| 6/2/2017 | | | | | 0.0335 | 0.0559 | 0.0286 | |
| 8/2/2017 | | | 0.0011 (J) | 0.0028 (J) | | | | 0.0188 |
| 8/15/2017 | | | | | | | | 0.0117 |
| 8/16/2017 | | 0.0038 (J) | <0.02 | | | | | |
| 8/17/2017 | | | | 0.0021 (J) | 0.0336 | 0.458 | 0.0211 | |
| 4/4/2018 | | | | 0.0023 (J) | | | | 0.017 |
| 4/5/2018 | | | 0.00098 (J) | | | | | |
| 5/8/2018 | | | | 0.0048 (J) | | | | 0.016 |
| 5/9/2018 | | | 0.0014 (J) | | | | | |
| 6/19/2018 | | 0.0069 | 0.0011 (J) | | | | | 0.011 |
| 6/20/2018 | | | | 0.0099 | 0.019 | 0.44 | | |
| 6/21/2018 | | | | | | | 0.022 (J) | |
| 9/25/2018 | | | | | | | | 0.011 |
| 9/26/2018 | | 0.0081 | 0.00057 | | | | | |
| 9/27/2018 | | | | 0.01 | 0.0035 (J) | 0.27 | 0.015 | |
| 11/6/2018 | | | | 0.013 | | | 0.012 | 0.0043 (J) |
| 11/7/2018 | | 0.0069 | 0.00059 (J) | | 0.002 (J) | 0.5 | | |
| 11/27/2018 | | | | | 0.0016 (J) | 0.5 | 0.011 | |
| 3/6/2019 | | | | | | 0.49 | | |
| 3/25/2019 | | | | | | | | 0.0029 (J) |
| 3/26/2019 | | | | | 0.0018 (J) | 0.3 | 0.0078 | |
| 7/2/2019 | | | | 0.015 (J) | | 0.37 | 0.027 | 0.0024 (J) |
| 8/27/2019 | | 0.0079 | | 0.0072 | | | | |
| 8/28/2019 | | | <0.02 | | 0.0019 (J) | 0.5 | 0.011 | 0.005 (J) |
| 10/15/2019 | | | | 0.0038 (J) | | | | |
| 10/16/2019 | | 0.01 | 0.003 (J) | | 0.0047 (J) | | | 0.0054 |
| 10/17/2019 | | | | | | 0.34 | 0.0046 (J) | |
| 11/19/2019 | | | 0.00057 (J) | | | | | |
| 11/20/2019 | | 0.0064 | | | | | | |
| 3/26/2020 | | 0.0069 | | | | | | |
| 3/27/2020 | | | <0.02 | | | | | 0.0034 (J) |
| 3/28/2020 | <0.02 | | | 0.0034 (J) | <0.02 | 0.3 | 0.012 | |
| 10/12/2020 | | | | | | | | 0.0047 (J) |
| 10/13/2020 | | 0.0061 | <0.02 | 0.0022 (J) | | | | |
| 10/14/2020 | | | | | | 0.43 | 0.013 | |
| 10/15/2020 | 0.021 | | | | 0.024 | | | |
| 1/4/2021 | | | | | 0.0072 | | | |
| 3/3/2021 | | 0.016 (J) | <0.02 | | | | | 0.011 (J) |
| 3/4/2021 | 0.017 (J) | | | 0.0018 (J) | <0.02 | 0.35 | 0.015 (J) | |
| 9/14/2021 | 0.022 | 0.0055 | 0.00067 (J) | 0.0047 (J) | 0.02 (J) | 0.51 | 0.013 (J) | 0.011 |
| 3/1/2022 | 0.015 (J) | | | | 0.011 (J) | 0.24 | | |
| 3/2/2022 | | 0.0043 | 0.00077 (J) | | | | 0.009 (J) | 0.0071 |
| 3/3/2022 | | | | 0.0041 | | | | |

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | <0.02 | <0.02 | | 0.0018 (J) | | | | |
| 10/25/2016 | | | | | <0.02 | | | |
| 11/30/2016 | <0.02 | <0.02 | | <0.02 | 0.0072 | | | |
| 2/15/2017 | <0.02 | <0.02 | | <0.02 | 0.0017 (J) | | | |
| 5/31/2017 | 0.0007 (J) | 0.0008 (J) | | | 0.0018 (J) | | | |
| 6/1/2017 | | | | <0.02 | | | | |
| 6/2/2017 | | | 0.0026 (J) | | | | | |
| 8/2/2017 | | | 0.0047 (J) | | | | | |
| 8/15/2017 | 0.0006 (J) | | | | 0.0015 (J) | | | |
| 8/16/2017 | | 0.0007 (J) | | | | | | |
| 8/17/2017 | | | 0.0028 (J) | <0.02 | | | | |
| 4/4/2018 | | | 0.0029 (J) | | | | | |
| 5/8/2018 | | | 0.0048 (J) | | | | | |
| 6/19/2018 | 0.001 (J) | 0.0062 (J) | 0.0019 (J) | | 0.0029 (J) | | | |
| 6/20/2018 | | | | 0.00058 (J) | | | | |
| 9/25/2018 | 0.0011 (J) | 0.0031 (J) | | | | | | |
| 9/26/2018 | | | 0.0023 (J) | 0.00057 | 0.0015 (J) | | | |
| 11/6/2018 | | 0.0014 (J) | | | <0.02 | | | |
| 11/7/2018 | 0.0057 | | 0.0028 | 0.00057 | | | | |
| 8/26/2019 | | 0.0022 (J) | | | | | | |
| 8/27/2019 | 0.0011 (J) | | 0.0041 (J) | 0.0019 (J) | 0.0024 (J) | | | |
| 10/15/2019 | 0.0024 (J) | 0.0067 | 0.0038 (J) | | | | | |
| 10/16/2019 | | | | 0.001 (J) | 0.0043 (J) | | | |
| 11/7/2019 | | | | | | 0.0067 | 0.0094 (J) | 0.026 |
| 11/18/2019 | | | | | | 0.012 (J) | | |
| 11/19/2019 | | | | | | | 0.019 (J) | 0.031 (J) |
| 11/21/2019 | | | | | 0.0031 (J) | | | |
| 12/4/2019 | | | | | | | 0.016 | 0.026 |
| 12/5/2019 | | | | | | 0.0055 | | |
| 12/17/2019 | | | | | | | 0.011 (J) | |
| 12/18/2019 | | | | | | 0.0031 (J) | | 0.019 (J) |
| 1/8/2020 | | | | | | | 0.015 (J) | 0.022 (J) |
| 1/9/2020 | | | | | | 0.0034 (J) | | |
| 1/21/2020 | | | | | | 0.0031 (J) | 0.015 (J) | 0.024 (J) |
| 2/4/2020 | | | | | | <0.02 | 0.0092 (J) | 0.022 (J) |
| 2/13/2020 | | | | | | 0.0066 | 0.021 (J) | 0.029 |
| 3/27/2020 | <0.02 | <0.02 | 0.0018 (J) | <0.02 | <0.02 | 0.0043 (J) | 0.017 | 0.027 |
| 10/12/2020 | <0.02 | | | | | <0.02 | | |
| 10/13/2020 | | <0.02 | 0.0042 (J) | <0.02 | <0.02 | | 0.0089 | 0.018 |
| 3/2/2021 | <0.02 | <0.02 | 0.021 (J) | | | | | |
| 3/3/2021 | | | | 0.0012 (J) | <0.02 | 0.0014 (J) | 0.0086 (J) | 0.016 (J) |
| 9/13/2021 | <0.02 | <0.02 | | | | | | |
| 9/14/2021 | | | 0.0035 (J) | <0.02 | <0.02 | 0.0029 (J) | 0.018 (J) | 0.028 |
| 3/1/2022 | | | | | | | 0.0061 (J) | 0.032 |
| 3/2/2022 | | | 0.0032 | | | 0.0064 (J) | | |
| 3/3/2022 | <0.02 | <0.02 | | 0.00024 (J) | <0.02 | | | |

Time Series

Constituent: Barium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|------------|--------|--------|-------------|
| 8/30/2016 | | 0.0443 | | | | | | |
| 8/31/2016 | | | | | 0.0289 | 0.0498 | 0.0771 | |
| 11/30/2016 | | 0.0524 | | | 0.0168 | 0.0528 | 0.101 | |
| 2/15/2017 | | 0.124 | | | | | | |
| 2/16/2017 | | | | | 0.016 | 0.0555 | 0.0865 | |
| 5/31/2017 | | | 0.127 | | | | | 0.0646 |
| 6/1/2017 | | 0.0757 | | 0.0195 | | | | |
| 6/2/2017 | | | | | 0.0393 (J) | 0.0508 | 0.123 | |
| 8/2/2017 | | | 0.121 | 0.053 | | | | 0.0533 |
| 8/15/2017 | | | | | | | | 0.0247 |
| 8/16/2017 | | 0.0522 | 0.116 | | | | | |
| 8/17/2017 | | | | 0.0475 | 0.0188 | 0.0596 | 0.124 | |
| 4/4/2018 | | | | 0.035 | | | | 0.057 |
| 4/5/2018 | | | 0.12 | | | | | |
| 5/8/2018 | | | | 0.027 | | | | 0.062 |
| 5/9/2018 | | | 0.11 | | | | | |
| 6/19/2018 | | 0.083 | 0.1 | | | | | 0.031 |
| 6/20/2018 | | | | 0.027 | 0.014 | 0.06 | | |
| 6/21/2018 | | | | | | | 0.1 | |
| 9/25/2018 | | | | | | | | 0.041 |
| 9/26/2018 | | 0.073 | 0.11 | | | | | |
| 9/27/2018 | | | | 0.14 | 0.0097 (J) | 0.06 | 0.12 | |
| 11/6/2018 | | | | 0.31 | | | 0.12 | 0.031 |
| 11/7/2018 | | 0.071 | 0.097 | | 0.0085 (J) | 0.19 | | |
| 3/6/2019 | | | | | | 0.16 | | |
| 3/25/2019 | | | | | | | | 0.036 |
| 8/27/2019 | | 0.077 | | 0.083 | | | | |
| 8/28/2019 | | | 0.1 | | 0.011 | 0.13 | 0.4 | 0.035 |
| 10/15/2019 | | | | 0.082 | | | | |
| 10/16/2019 | | 0.074 | 0.1 | | 0.012 | | | 0.036 |
| 10/17/2019 | | | | | | 0.13 | 0.35 | |
| 3/26/2020 | | 0.07 | | | | | | |
| 3/27/2020 | | | 0.095 | | | | | 0.039 |
| 3/28/2020 | | | | 0.039 | 0.0041 (J) | 0.12 | 0.11 | |
| 10/12/2020 | | | | | | | | 0.039 |
| 10/13/2020 | | 0.06 | 0.086 | 0.055 | | | | |
| 10/14/2020 | | | | | | 0.14 | 0.19 | |
| 10/15/2020 | 0.071 | | | | 0.45 | | | |
| 1/4/2021 | | | | | 0.051 | | | |
| 3/3/2021 | | 0.14 | 0.21 | | | | | 0.09 |
| 3/4/2021 | 0.096 | | | 0.062 | 0.0082 (J) | 0.14 | 0.2 | |
| 9/14/2021 | 0.082 | 0.065 | 0.082 | 0.043 | 0.08 | 0.22 | 0.2 | 0.07 |
| 3/1/2022 | 0.074 | | | | 0.035 | 0.084 | | |
| 3/2/2022 | | 0.064 | 0.08 | | | | 0.12 | 0.05 |
| 3/3/2022 | | | | 0.031 | | | | |

Time Series

Constituent: Barium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 0.108 | 0.0131 | | 0.0973 | | | | |
| 10/25/2016 | | | | | 0.063 | | | |
| 11/30/2016 | 0.121 | 0.0105 | | 0.11 | 0.0628 | | | |
| 2/15/2017 | 0.111 | 0.0786 | | 0.0945 | 0.0102 | | | |
| 5/31/2017 | 0.131 | 0.0199 | | | 0.061 | | | |
| 6/1/2017 | | | | 0.121 | | | | |
| 6/2/2017 | | | 0.0368 (J) | | | | | |
| 8/2/2017 | | | 0.0355 | | | | | |
| 8/15/2017 | 0.126 | | | | 0.0579 | | | |
| 8/16/2017 | | 0.033 | | | | | | |
| 8/17/2017 | | | 0.037 | 0.121 | | | | |
| 4/4/2018 | | | 0.039 | | | | | |
| 5/8/2018 | | | 0.037 | | | | | |
| 6/19/2018 | 0.13 | 0.092 | 0.038 | | 0.076 | | | |
| 6/20/2018 | | | | 0.13 | | | | |
| 9/25/2018 | 0.12 | 0.098 | | | | | | |
| 9/26/2018 | | | 0.049 | 0.13 | 0.099 | | | |
| 11/6/2018 | | 0.1 | | | 0.052 | | | |
| 11/7/2018 | 0.11 | | 0.05 | 0.12 | | | | |
| 8/26/2019 | | 0.12 | | | | | | |
| 8/27/2019 | 0.14 | | 0.048 | 0.13 | 0.11 | | | |
| 10/15/2019 | 0.14 | 0.12 | 0.041 | | | | | |
| 10/16/2019 | | | | 0.13 | 0.14 | | | |
| 11/7/2019 | | | | | | 0.12 | 0.22 | 0.16 |
| 11/18/2019 | | | | | | 0.11 | | |
| 11/19/2019 | | | | | | | 0.13 | 0.14 |
| 12/4/2019 | | | | | | | 0.14 | 0.14 |
| 12/5/2019 | | | | | | 0.12 | | |
| 12/17/2019 | | | | | | | 0.14 | |
| 12/18/2019 | | | | | | 0.11 | | 0.15 |
| 1/8/2020 | | | | | | | 0.14 | 0.14 |
| 1/9/2020 | | | | | | 0.096 | | |
| 1/21/2020 | | | | | | 0.098 | 0.14 | 0.14 |
| 2/4/2020 | | | | | | 0.091 | 0.13 | 0.12 |
| 2/13/2020 | | | | | | 0.098 | 0.13 | 0.12 |
| 3/27/2020 | 0.12 | 0.13 | 0.041 | 0.13 | 0.16 | 0.076 | 0.12 | 0.12 |
| 10/12/2020 | 0.1 | | | | | 0.091 | | |
| 10/13/2020 | | 0.14 | 0.024 | 0.11 | 0.14 | | 0.12 | 0.12 |
| 3/2/2021 | 0.1 | 0.16 | 0.067 | | | | | |
| 3/3/2021 | | | | 0.059 | 0.17 | 0.099 | 0.14 | 0.12 |
| 9/13/2021 | 0.086 | 0.16 | | | | | | |
| 9/14/2021 | | | 0.05 | 0.16 | 0.2 (M1) | 0.098 | 0.13 | 0.11 |
| 3/1/2022 | | | | | | | 0.14 | 0.11 |
| 3/2/2022 | | | 0.04 | | | 0.091 | | |
| 3/3/2022 | 0.069 | 0.15 | | 0.13 | 0.1 | | | |

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|--------|-------------|-------------|-------------|-------------|--------|-------------|-------------|
| 8/30/2016 | | <0.002 | | | | | | |
| 8/31/2016 | | | | | <0.002 | <0.002 | <0.002 | |
| 11/30/2016 | | <0.002 | | | <0.002 | <0.002 | <0.002 | |
| 2/15/2017 | | <0.002 | | | | | | |
| 2/16/2017 | | | | | <0.002 | <0.002 | <0.002 | |
| 5/31/2017 | | | 0.0002 (J) | | | | | 7E-05 (J) |
| 6/1/2017 | | 9E-05 (J) | | 0.0001 (J) | | | | |
| 6/2/2017 | | | | | <0.002 | <0.002 | <0.002 | |
| 8/2/2017 | | | 0.0002 (J) | 0.0003 (J) | | | | 0.0001 (J) |
| 8/15/2017 | | | | | | | | 9E-05 (J) |
| 8/16/2017 | | <0.002 | 0.0002 (J) | | | | | |
| 8/17/2017 | | | | 0.0002 (J) | <0.002 | <0.002 | <0.002 | |
| 4/4/2018 | | | | <0.002 | | | | <0.002 |
| 4/5/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | | 0.00025 (J) | | | | 0.0001 (J) |
| 5/9/2018 | | | 0.00017 (J) | | | | | |
| 6/19/2018 | | 0.00011 (J) | 0.00017 (J) | | | | | 0.00011 (J) |
| 6/20/2018 | | | | 0.00021 (J) | <0.002 | <0.002 | | |
| 6/21/2018 | | | | | | | <0.002 | |
| 9/25/2018 | | | | | | | | 0.0001 (J) |
| 9/26/2018 | | 9.2E-05 (J) | 0.00017 (J) | | | | | |
| 9/27/2018 | | | | 0.00031 (J) | <0.002 | <0.002 | 7.4E-05 (J) | |
| 11/6/2018 | | | | 0.00077 (J) | | | 0.00012 (J) | 0.00012 (J) |
| 11/7/2018 | | 0.0001 (J) | 0.00015 (J) | | 5.4E-05 (J) | <0.002 | | |
| 3/6/2019 | | | | | | <0.002 | | |
| 8/27/2019 | | 9E-05 (J) | | 0.00032 (J) | | | | |
| 8/28/2019 | | | 0.00011 (J) | | <0.002 | <0.002 | <0.002 | 8.4E-05 (J) |
| 10/15/2019 | | | | 0.00035 (J) | | | | |
| 10/16/2019 | | <0.002 | 0.00013 (J) | | <0.002 | | | 9E-05 (J) |
| 10/17/2019 | | | | | | <0.002 | 7.8E-05 (J) | |
| 3/26/2020 | | <0.002 | | | | | | |
| 3/27/2020 | | | <0.002 | | | | | <0.002 |
| 3/28/2020 | | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 10/12/2020 | | | | | | | | <0.002 |
| 10/13/2020 | | <0.002 | <0.002 | <0.002 | | | | |
| 10/14/2020 | | | | | | <0.002 | <0.002 | |
| 10/15/2020 | <0.002 | | | | <0.002 | | | |
| 1/4/2021 | | | | | <0.002 | | | |
| 3/3/2021 | | <0.002 | <0.002 | | | | | <0.002 |
| 3/4/2021 | <0.002 | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| 3/1/2022 | <0.002 | | | | <0.002 | <0.002 | | |
| 3/2/2022 | | 9.6E-05 (J) | 0.00015 | | | | <0.002 | 0.00011 |
| 3/3/2022 | | | | 0.00025 | | | | |

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0003 (J) | <0.002 | | 0.0001 (J) | | | | |
| 10/25/2016 | | | | | 0.0004 (J) | | | |
| 11/30/2016 | 0.0004 (J) | <0.002 | | 0.0002 (J) | 0.0003 (J) | | | |
| 2/15/2017 | 0.0004 (J) | <0.002 | | <0.002 | <0.002 | | | |
| 5/31/2017 | 0.0005 (J) | 0.0001 (J) | | | 0.0002 (J) | | | |
| 6/1/2017 | | | | 0.0002 (J) | | | | |
| 6/2/2017 | | | 0.0001 (J) | | | | | |
| 8/2/2017 | | | <0.002 | | | | | |
| 8/15/2017 | 0.0005 (J) | | | | 0.0002 (J) | | | |
| 8/16/2017 | | 0.0002 (J) | | | | | | |
| 8/17/2017 | | | 0.0001 (J) | 0.0002 (J) | | | | |
| 4/4/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | 0.00031 (J) | | | | | |
| 6/19/2018 | 0.00065 (J) | <0.002 | 0.00034 (J) | | 0.00032 (J) | | | |
| 6/20/2018 | | | | 0.00024 (J) | | | | |
| 9/25/2018 | 0.00066 (J) | 5E-05 (J) | | | | | | |
| 9/26/2018 | | | 0.00039 (J) | 0.00019 (J) | 0.00024 (J) | | | |
| 11/6/2018 | | 9.7E-05 (J) | | | 0.00026 (J) | | | |
| 11/7/2018 | 0.00058 (J) | | 0.00041 (J) | 0.00019 (J) | | | | |
| 8/26/2019 | | 0.0001 (J) | | | | | | |
| 8/27/2019 | 0.0009 (J) | | 0.00042 (J) | 0.00021 (J) | 0.00018 (J) | | | |
| 10/15/2019 | 0.00079 (J) | <0.002 | 0.00034 (J) | | | | | |
| 10/16/2019 | | | | 0.00014 (J) | 0.00014 (J) | | | |
| 11/7/2019 | | | | | | 0.007 | 0.0068 (J) | 0.021 |
| 11/18/2019 | | | | | | 0.0063 (J) | | |
| 11/19/2019 | | | | | | | 0.014 (J) | 0.015 (J) |
| 12/4/2019 | | | | | | | 0.01 | 0.011 |
| 12/5/2019 | | | | | | 0.0045 | | |
| 12/17/2019 | | | | | | | 0.012 | |
| 12/18/2019 | | | | | | 0.0048 | | 0.012 |
| 1/8/2020 | | | | | | | 0.015 (J) | 0.017 |
| 1/9/2020 | | | | | | 0.0043 | | |
| 1/21/2020 | | | | | | 0.0041 (J) | 0.012 (J) | 0.015 |
| 2/4/2020 | | | | | | 0.0049 (J) | 0.015 (J) | 0.017 (J) |
| 2/13/2020 | | | | | | 0.0043 | 0.013 (J) | 0.015 (J) |
| 3/27/2020 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.004 | 0.011 | 0.018 |
| 10/12/2020 | 0.001 (J) | | | | | 0.0041 | | |
| 10/13/2020 | | <0.002 | <0.002 | <0.002 | <0.002 | | 0.015 | 0.017 |
| 3/2/2021 | <0.002 | <0.002 | <0.002 | | | | | |
| 3/3/2021 | | | | <0.002 | <0.002 | 0.003 | 0.015 | 0.014 |
| 9/13/2021 | 0.0011 | <0.002 | | | | | | |
| 9/14/2021 | | | 0.00034 (J) | 0.00062 | <0.002 | 0.0031 | 0.0062 | 0.016 |
| 3/1/2022 | | | | | | | 0.0057 | 0.016 |
| 3/2/2022 | | | 0.00032 | | | 0.0037 | | |
| 3/3/2022 | 0.0012 (J) | <0.002 | | 0.00023 | <0.002 | | | |

Time Series

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|---------|-------------|-------------|-----------|----------|---------|---------|-------------|
| 8/30/2016 | | 0.0325 (J) | | | | | | |
| 8/31/2016 | | | | | 0.56 | 0.632 | 0.863 | |
| 11/30/2016 | | 0.0334 (J) | | | 0.529 | 0.637 | 0.804 | |
| 2/15/2017 | | 0.254 | | | | | | |
| 2/16/2017 | | | | | 0.539 | 0.698 | 0.815 | |
| 5/31/2017 | | | 0.161 | | | | | 0.0521 |
| 6/1/2017 | | 0.0564 | | 0.0608 | | | | |
| 6/2/2017 | | | | | 0.555 | 0.674 | 0.891 | |
| 8/2/2017 | | | 0.158 | 0.137 | | | | 0.0392 (J) |
| 8/15/2017 | | | | | | | | 0.0448 |
| 8/16/2017 | | 0.0435 | 0.148 | | | | | |
| 8/17/2017 | | | | 0.128 | 0.516 | 0.7 | 0.922 | |
| 4/4/2018 | | | | 0.1 | | | | 0.046 |
| 4/5/2018 | | | 0.13 | | | | | |
| 5/8/2018 | | | | 0.074 | | | | 0.048 |
| 5/9/2018 | | | 0.12 | | | | | |
| 6/19/2018 | | 0.04 (J) | 0.13 | | | | | 0.04 |
| 6/20/2018 | | | | 0.045 | 0.51 | 0.69 | | |
| 6/21/2018 | | | | | | | 0.99 | |
| 9/25/2018 | | | | | | | | 0.043 |
| 9/26/2018 | | 0.038 (J) | 0.1 | | | | | |
| 9/27/2018 | | | | 0.06 | 0.47 | 0.62 | 0.88 | |
| 11/6/2018 | | | | 0.06 | | | 1.1 | 0.046 |
| 11/7/2018 | | 0.037 (J) | 0.1 | | 0.51 | 0.86 | | |
| 3/6/2019 | | | | | | 1.5 | | |
| 3/24/2019 | | | | | 0.44 | 1.1 | 1.2 | |
| 3/25/2019 | | 0.038 (J) | 0.091 | 0.058 | | | | 0.03 (J) |
| 10/15/2019 | | | | 0.068 | | | | |
| 10/16/2019 | | 0.036 (J) | 0.085 | | 0.49 | | | 0.032 (J) |
| 10/17/2019 | | | | | | 1.3 | 1.1 | |
| 11/20/2019 | | | | | 0.53 | | 1.3 | |
| 3/26/2020 | | 0.064 (J) | | | | | | |
| 3/27/2020 | | | 0.17 (J) | | | | | 0.058 (J) |
| 3/28/2020 | | | | 0.067 (J) | 0.28 (J) | 0.95 | 0.79 | |
| 6/16/2020 | 2.1 | | | | | | | |
| 10/12/2020 | | | | | | | | <0.5 |
| 10/13/2020 | | <0.5 | <0.5 | <0.5 | | | | |
| 10/14/2020 | | | | | | 1.5 | 1.8 | |
| 10/15/2020 | 2.1 | | | | 0.61 | | | |
| 1/4/2021 | | | | | 0.98 | | | |
| 3/3/2021 | | <0.5 | <0.5 | | | | | <0.5 |
| 3/4/2021 | 2.2 (J) | | | 0.11 (J) | 0.4 (J) | 1.4 (J) | 1.6 (J) | |
| 9/14/2021 | 2 | 0.079 (J) | 0.093 (J) | 0.07 (J) | 0.95 (J) | 1.1 | 1.5 | 0.06 (J) |
| 3/1/2022 | 1.6 (J) | | | | 0.75 (J) | 1.7 | | |
| 3/2/2022 | | 0.048 (J) | 0.086 | | | | 1.3 | 0.038 (J) |
| 3/3/2022 | | | | 0.053 | | | | |

Time Series

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|----------|----------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 1.18 | 0.726 | | 0.0972 (J) | | | | |
| 10/25/2016 | | | | | 1.73 | | | |
| 11/30/2016 | 1.3 | 0.565 | | 0.0964 | 2.12 | | | |
| 2/15/2017 | 1.33 | 0.647 | | 0.398 | 2.14 | | | |
| 5/31/2017 | 1.38 | 0.503 | | | 2.24 | | | |
| 6/1/2017 | | | | 0.0776 | | | | |
| 6/2/2017 | | | 0.0495 | | | | | |
| 8/2/2017 | | | 0.0333 (J) | | | | | |
| 8/15/2017 | 1.14 | | | | 2.1 | | | |
| 8/16/2017 | | 0.539 | | | | | | |
| 8/17/2017 | | | 0.0593 | 0.0853 | | | | |
| 4/4/2018 | | | 0.065 | | | | | |
| 5/8/2018 | | | 0.062 | | | | | |
| 6/19/2018 | 1.2 | 0.76 | 0.064 | | 1.7 | | | |
| 6/20/2018 | | | | 0.079 | | | | |
| 9/25/2018 | 1 | 0.61 | | | | | | |
| 9/26/2018 | | | 0.06 | 0.072 | 1.3 | | | |
| 11/6/2018 | | 0.75 | | | 1.8 | | | |
| 11/7/2018 | 1.4 | | 0.062 (J) | 0.074 | | | | |
| 3/24/2019 | 1 | 0.95 | | | 1.4 | | | |
| 3/25/2019 | | | 0.057 | 0.067 | | | | |
| 10/15/2019 | 1.1 | 1 | 0.046 | | | | | |
| 10/16/2019 | | | | 0.051 | 1.6 | | | |
| 11/7/2019 | | | | | | 0.27 | 0.84 | 1.1 |
| 11/18/2019 | | | | | | 0.29 (J) | | |
| 11/19/2019 | | | | | | | 0.83 | 1.3 |
| 11/21/2019 | | 1 | | | 1.5 | | | |
| 12/4/2019 | | | | | | | 0.68 | 0.81 |
| 12/5/2019 | | | | | | 0.23 | | |
| 12/17/2019 | | | | | | | 0.57 | |
| 12/18/2019 | | | | | | 0.23 | | 0.77 |
| 1/8/2020 | | | | | | | 0.73 | 0.9 |
| 1/9/2020 | | | | | | 0.2 | | |
| 1/21/2020 | | | | | | 0.24 (J) | 0.75 | 0.94 |
| 2/4/2020 | | | | | | 0.24 (J) | 0.79 (J) | 0.96 (J) |
| 2/13/2020 | | | | | | 0.22 | 0.74 | 0.88 |
| 3/27/2020 | 1.5 | 1.3 | 0.076 (J) | 0.088 (J) | 1.8 | 0.24 (J) | 0.96 | 0.94 |
| 10/12/2020 | 1.3 | | | | | 0.24 (J) | | |
| 10/13/2020 | | 1.1 | <0.5 | <0.5 | 1.8 | | 0.73 | 1.1 |
| 3/2/2021 | 1.4 (J) | 1.4 (J) | <0.5 | | | | | |
| 3/3/2021 | | | | <0.5 | 1.7 (J) | 0.21 (J) | 0.79 (J) | 0.91 (J) |
| 9/13/2021 | 1.4 (M1) | 1.2 | | | | | | |
| 9/14/2021 | | | 0.068 (J) | 0.071 (J) | 2.1 (M1) | 0.2 (J) | 1.2 | 0.91 (J) |
| 3/1/2022 | | | | | | | 0.41 (J) | 0.87 (J) |
| 3/2/2022 | | | 0.054 | | | 0.23 (J) | | |
| 3/3/2022 | 1.2 | 0.89 (J) | | 0.057 | 1.4 | | | |

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|---------|-------------|-------------|---------|---------|---------|---------|-------------|
| 8/30/2016 | | <0.0025 | | | | | | |
| 8/31/2016 | | | | | <0.0025 | <0.0025 | <0.0025 | |
| 11/30/2016 | | <0.0025 | | | <0.0025 | <0.0025 | <0.0025 | |
| 2/15/2017 | | <0.0025 | | | | | | |
| 2/16/2017 | | | | | <0.0025 | <0.0025 | <0.0025 | |
| 5/31/2017 | | | <0.0025 | | | | | <0.0025 |
| 6/1/2017 | | <0.0025 | | <0.0025 | | | | |
| 6/2/2017 | | | | | <0.0025 | <0.0025 | <0.0025 | |
| 8/2/2017 | | | <0.0025 | <0.0025 | | | | <0.0025 |
| 8/15/2017 | | | | | | | | <0.0025 |
| 8/16/2017 | | <0.0025 | <0.0025 | | | | | |
| 8/17/2017 | | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| 4/4/2018 | | | | <0.0025 | | | | <0.0025 |
| 4/5/2018 | | | <0.0025 | | | | | |
| 5/8/2018 | | | | <0.0025 | | | | <0.0025 |
| 5/9/2018 | | | <0.0025 | | | | | |
| 6/19/2018 | | <0.0025 | <0.0025 | | | | | <0.0025 |
| 6/20/2018 | | | | <0.0025 | <0.0025 | <0.0025 | | |
| 6/21/2018 | | | | | | | <0.0025 | |
| 9/25/2018 | | | | | | | | 0.0002 (J) |
| 9/26/2018 | | 9.3E-05 | 9.3E-05 | | | | | |
| 9/27/2018 | | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| 11/6/2018 | | | | <0.0025 | | | <0.0025 | <0.0025 |
| 11/7/2018 | | <0.0025 | <0.0025 | | <0.0025 | <0.0025 | | |
| 3/6/2019 | | | | | | <0.0025 | | |
| 8/27/2019 | | <0.0025 | | <0.0025 | | | | |
| 8/28/2019 | | | <0.0025 | | <0.0025 | <0.0025 | <0.0025 | <0.0025 |
| 3/26/2020 | | <0.0025 | | | | | | |
| 3/27/2020 | | | <0.0025 | | | | | <0.0025 |
| 3/28/2020 | | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| 9/14/2021 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 |
| 3/1/2022 | <0.0025 | | | | <0.0025 | <0.0025 | | |
| 3/2/2022 | | <0.0025 | <0.0025 | | | | <0.0025 | <0.0025 |
| 3/3/2022 | | | | 0.00043 | | | | |

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|---------|---------|-------------|-------------|---------|-------------|-------------|-------------|
| 8/30/2016 | <0.0025 | <0.0025 | | <0.0025 | | | | |
| 10/25/2016 | | | | | <0.0025 | | | |
| 11/30/2016 | <0.0025 | <0.0025 | | <0.0025 | <0.0025 | | | |
| 2/15/2017 | <0.0025 | <0.0025 | | <0.0025 | <0.0025 | | | |
| 5/31/2017 | <0.0025 | <0.0025 | | | <0.0025 | | | |
| 6/1/2017 | | | | <0.0025 | | | | |
| 6/2/2017 | | | <0.0025 | | | | | |
| 8/2/2017 | | | <0.0025 | | | | | |
| 8/15/2017 | <0.0025 | | | | <0.0025 | | | |
| 8/16/2017 | | <0.0025 | | | | | | |
| 8/17/2017 | | | <0.0025 | <0.0025 | | | | |
| 4/4/2018 | | | <0.0025 | | | | | |
| 5/8/2018 | | | <0.0025 | | | | | |
| 6/19/2018 | <0.0025 | <0.0025 | <0.0025 | | <0.0025 | | | |
| 6/20/2018 | | | | <0.0025 | | | | |
| 9/25/2018 | <0.0025 | <0.0025 | | | | | | |
| 9/26/2018 | | | 9.3E-05 | 9.3E-05 | 9.3E-05 | | | |
| 11/6/2018 | | <0.0025 | | | <0.0025 | | | |
| 11/7/2018 | <0.0025 | | <0.0025 | <0.0025 | | | | |
| 8/26/2019 | | <0.0025 | | | | | | |
| 8/27/2019 | <0.0025 | | <0.0025 | <0.0025 | <0.0025 | | | |
| 11/7/2019 | | | | | | <0.0025 | <0.0025 | 0.00034 (J) |
| 11/18/2019 | | | | | | <0.0025 | | |
| 11/19/2019 | | | | | | | <0.0025 | <0.0025 |
| 12/4/2019 | | | | | | | <0.0025 | <0.0025 |
| 12/5/2019 | | | | | | <0.0025 | | |
| 12/17/2019 | | | | | | | <0.0025 | |
| 12/18/2019 | | | | | | <0.0025 | | <0.0025 |
| 1/8/2020 | | | | | | | <0.0025 | <0.0025 |
| 1/9/2020 | | | | | | <0.0025 | | |
| 1/21/2020 | | | | | | <0.0025 | <0.0025 | <0.0025 |
| 2/4/2020 | | | | | | <0.0025 | <0.0025 | <0.0025 |
| 2/13/2020 | | | | | | <0.0025 | <0.0025 | <0.0025 |
| 3/27/2020 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 |
| 9/13/2021 | <0.0025 | <0.0025 | | | | | | |
| 9/14/2021 | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 |
| 3/1/2022 | | | | | | | <0.0025 | <0.0025 |
| 3/2/2022 | | | <0.0025 | | | <0.0025 | | |
| 3/3/2022 | <0.0025 | <0.0025 | | <0.0025 | <0.0025 | | | |

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|----------|----------|-----------|--------|-------------|
| 8/30/2016 | | 7.3 | | | | | | |
| 8/31/2016 | | | | | 65 | 82.8 | 119 | |
| 11/30/2016 | | 10.8 | | | 71.7 | 68.7 | 103 | |
| 2/15/2017 | | 14.3 | | | | | | |
| 2/16/2017 | | | | | 74 | 94.8 | 114 | |
| 5/31/2017 | | | 5.9 | | | | | 18.6 |
| 6/1/2017 | | 12.7 (J) | | 3.65 | | | | |
| 6/2/2017 | | | | | 120 | 92.5 | 179 | |
| 8/2/2017 | | | 4.69 | 12.4 | | | | 18.5 |
| 8/15/2017 | | | | | | | | 4.09 |
| 8/16/2017 | | 8.7 | 5.25 | | | | | |
| 8/17/2017 | | | | 8.17 | 100 | 126 | 186 | |
| 4/4/2018 | | | | 6.8 | | | | <25 |
| 4/5/2018 | | | 5 | | | | | |
| 5/8/2018 | | | | 5.7 | | | | 18.4 (J) |
| 5/9/2018 | | | 4.7 | | | | | |
| 6/19/2018 | | 11.6 (J) | 4.8 | | | | | 4.3 |
| 6/20/2018 | | | | 4.3 | 72.8 | 121 | | |
| 6/21/2018 | | | | | | | 179 | |
| 6/28/2018 | | 13 | | | | | | |
| 9/25/2018 | | | | | | | | 6.2 (D) |
| 9/26/2018 | | 12.8 (J) | 4.6 | | | | | |
| 9/27/2018 | | | | 16.4 (J) | 46.6 | 95.1 | 193 | |
| 11/6/2018 | | | | 39.5 | | | 219 | 1.8 |
| 11/7/2018 | | 11.9 | 4.6 | | 41.8 | 387.5 (D) | | |
| 3/6/2019 | | | | | | 341 | | |
| 3/24/2019 | | | | | 20.9 (J) | 277 | 243 | |
| 3/25/2019 | | 12.6 (J) | 4.7 | 20.8 (J) | | | | 2.5 (D) |
| 10/15/2019 | | | | 15.5 | | | | |
| 10/16/2019 | | 13.6 | 4.9 | | 55.2 | | | 2.2 |
| 10/17/2019 | | | | | | 309 | 260 | |
| 11/20/2019 | | | | | 55.8 | | 308 | |
| 3/26/2020 | | 10.1 | | | | | | |
| 3/27/2020 | | | 4.9 | | | | | 3.3 |
| 3/28/2020 | | | | 15.5 | 25.8 | 286 | 286 | |
| 4/23/2020 | 266 | | | | | | | |
| 6/16/2020 | 245 | | | | | | | |
| 10/12/2020 | | | | | | | | 2.8 |
| 10/13/2020 | | 9.8 | 3.8 | 12.5 | | | | |
| 10/14/2020 | | | | | | 245 | 207 | |
| 10/15/2020 | 194 | | | | 69.1 | | | |
| 1/4/2021 | | | | | 104 | | | |
| 3/3/2021 | | 14 | 4 | | | | | |
| 3/4/2021 | 257 | | | 15.1 | 23.4 | 233 | 244 | 2.1 |
| 9/14/2021 | 273 | 9.6 | 4.2 | 12.5 | 13.9 | 299 | 225 | 14 |
| 3/1/2022 | 303 | | | | 48.4 | 131 | | |
| 3/2/2022 | | 8.2 | 4.1 | | | | 198 | 6.8 |
| 3/3/2022 | | | | 8 | | | | |

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 7.05 | 42.8 | | 4.02 | | | | |
| 10/25/2016 | | | | | 69.4 | | | |
| 11/30/2016 | 8.69 | 33.2 | | 4.87 | 83.9 | | | |
| 2/15/2017 | 8.34 | 56.1 | | 6.61 | 96.3 | | | |
| 5/31/2017 | 8.85 | 73.6 | | | 122 | | | |
| 6/1/2017 | | | | 6.42 | | | | |
| 6/2/2017 | | | 2.77 | | | | | |
| 8/2/2017 | | | 1.27 | | | | | |
| 8/15/2017 | 8.05 | | | | 117 | | | |
| 8/16/2017 | | 99.6 | | | | | | |
| 8/17/2017 | | | 5.53 | 5.62 | | | | |
| 4/4/2018 | | | 6.5 | | | | | |
| 5/8/2018 | | | 6.7 | | | | | |
| 6/19/2018 | 8.3 | 285 | 7.4 | | 136 | | | |
| 6/20/2018 | | | | 5.7 | | | | |
| 6/28/2018 | 8.9 | 294 | | | 138 | | | |
| 9/25/2018 | 6.8 | 283 | | | | | | |
| 9/26/2018 | | | 8.5 (J) | 5.3 | 148 | | | |
| 11/6/2018 | | 297 | | | 24.7 | | | |
| 11/7/2018 | 8.5 | | 9.8 | 5.3 | | | | |
| 3/24/2019 | 7.4 | 338 | | | 136 | | | |
| 3/25/2019 | | | 7.8 | 5.7 | | | | |
| 10/15/2019 | 7.9 | 321 | 6.7 | | | | | |
| 10/16/2019 | | | | 4.8 | 118 | | | |
| 11/7/2019 | | | | | | 46.2 | 158 | 163 |
| 11/18/2019 | | | | | | 41.8 | | |
| 11/19/2019 | | | | | | | 152 | 169 |
| 11/21/2019 | | 305 | | | 125 | | | |
| 12/4/2019 | | | | | | | 142 | 140 |
| 12/5/2019 | | | | | | 40.5 | | |
| 12/17/2019 | | | | | | | 136 | |
| 12/18/2019 | | | | | | 42 | | 145 |
| 1/8/2020 | | | | | | | 147 | 157 |
| 1/9/2020 | | | | | | 37.1 | | |
| 1/21/2020 | | | | | | 40.1 | 167 | 152 |
| 2/4/2020 | | | | | | 36.2 | 142 | 139 |
| 2/13/2020 | | | | | | 38.9 | 148 | 146 |
| 3/27/2020 | 8.3 | 286 | 5.9 | 5.4 | 222 | 23.2 | 122 | 113 |
| 10/12/2020 | 6.1 | | | | | 19.1 | | |
| 10/13/2020 | | 40.9 | 0.83 | 5.7 | 86.4 | | 125 | 128 |
| 3/4/2021 | 6.5 | 205 | 1.4 | 11.2 | 143 | 26 | 123 | 110 |
| 9/13/2021 | 6 | 165 | | | | | | |
| 9/14/2021 | | | 6.7 | 6.5 | 190 | 18.8 | 93.6 | 61.1 |
| 3/1/2022 | | | | | | | 35.5 | 99.8 |
| 3/2/2022 | | | 7.2 | | | 22.3 | | |
| 3/3/2022 | 4.6 | 224 | | 5.4 | 84 | | | |

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|---------|----------|----------|-------------|
| 8/30/2016 | | 9.7 | | | | | | |
| 8/31/2016 | | | | | 1800 | 2200 | 2600 | |
| 11/30/2016 | | 19 | | | 1100 | 2100 | 2800 | |
| 2/15/2017 | | 21 | | | | | | |
| 2/16/2017 | | | | | 2100 | 2500 | 3100 | |
| 5/31/2017 | | | 39 | | | | | 98 |
| 6/1/2017 | | 12 | | 22 | | | | |
| 6/2/2017 | | | | | 3100 | 2500 | 4600 | |
| 8/2/2017 | | | 42 | 230 | | | | 57 |
| 8/15/2017 | | | | | | | | 15 |
| 8/16/2017 | | 14 | 41 | | | | | |
| 8/17/2017 | | | | 210 | 2600 | 2700 | 4600 | |
| 4/4/2018 | | | | 156 | | | | 69 |
| 4/5/2018 | | | 40.2 | | | | | |
| 5/8/2018 | | | | 140 | | | | 72.3 |
| 5/9/2018 | | | 40.6 | | | | | |
| 6/19/2018 | | 24.4 | 37.7 | | | | | 17.3 |
| 6/20/2018 | | | | 27.5 | 1800 | 3100 | | |
| 6/21/2018 | | | | | | | 3920 | |
| 9/25/2018 | | | | | | | | 31.3 |
| 9/26/2018 | | 23.4 | 33.4 | | | | | |
| 9/27/2018 | | | | 101 | 1300 | 2510 (D) | 5660 (D) | |
| 11/6/2018 | | | | 107 | | | 6520 | 9.8 |
| 11/7/2018 | | 21.8 | 30.7 | | 1180 | 8860 | | |
| 3/6/2019 | | | | | | 11700 | | |
| 3/24/2019 | | | | | 717 | 6470 | 8720 | |
| 3/25/2019 | | 19.4 | 33.5 | 78.5 | | | | 12.9 |
| 10/15/2019 | | | | 46 | | | | |
| 10/16/2019 | | 21.4 | 33.1 | | 941 (D) | | | 12.2 |
| 10/17/2019 | | | | | | 9930 | 8210 | |
| 11/20/2019 | | | | | 1480 | | 9810 | |
| 3/26/2020 | | 23 | | | | | | |
| 3/27/2020 | | | 32.9 | | | | | 14.5 |
| 3/28/2020 | | | | 71.4 | 693 | 9190 | 9070 | |
| 4/23/2020 | 7500 | | | | | | | |
| 6/16/2020 | 7780 | | | | | | | |
| 10/12/2020 | | | | | | | | 13.9 |
| 10/13/2020 | | 13.5 | 25.7 | 54.4 | | | | |
| 10/14/2020 | | | | | | 6630 | 7910 | |
| 10/15/2020 | <1 | | | | 1660 | | | |
| 1/4/2021 | | | | | 2460 | | | |
| 3/3/2021 | | 13.6 | 20.5 | | | | | 9.4 |
| 3/4/2021 | 8280 | | | 69.6 | 652 | 6310 | 7540 | |
| 9/14/2021 | 7610 | 16.7 | 21.8 | 28.5 | 3940 | 5360 | 6300 | 62.8 |
| 3/1/2022 | 6750 | | | | 1680 | 4150 | | |
| 3/2/2022 | | 13.4 | 20.6 | | | | 5630 | 28.4 |
| 3/3/2022 | | | | 12.2 | | | | |

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|---------|--------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 800 | 450 | | 26 | | | | |
| 10/25/2016 | | | | | 1300 | | | |
| 11/30/2016 | 760 | 310 | | 27 | 400 | | | |
| 2/15/2017 | 740 | 490 | | 30 | 2000 | | | |
| 5/31/2017 | 740 | 820 | | | 2500 | | | |
| 6/1/2017 | | | | 27 | | | | |
| 6/2/2017 | | | 11 | | | | | |
| 8/2/2017 | | | 3.2 | | | | | |
| 8/15/2017 | 750 | | | | 2500 | | | |
| 8/16/2017 | | 1500 | | | | | | |
| 8/17/2017 | | | 12 | 32 | | | | |
| 4/4/2018 | | | 13.4 | | | | | |
| 5/8/2018 | | | 13.2 | | | | | |
| 6/19/2018 | 760 | 5180 | 13.7 | | 3050 | | | |
| 6/20/2018 | | | | 30 | | | | |
| 9/25/2018 | 752 (D) | 7220 | | | | | | |
| 9/26/2018 | | | 18.5 | 28.4 | 3965 (D) | | | |
| 11/6/2018 | | 6020 | | | 2230 | | | |
| 11/7/2018 | 665 | | 20.2 | 25.1 | | | | |
| 3/24/2019 | 744 | 7400 | | | 3960 | | | |
| 3/25/2019 | | | 19.7 | 21.8 | | | | |
| 10/15/2019 | 744 | 9050 | 17.1 | | | | | |
| 10/16/2019 | | | | 20 | 2181.5 (D) | | | |
| 11/7/2019 | | | | | | 2360 | 6170 | 7880 |
| 11/18/2019 | | | | | | 6970 | | |
| 11/19/2019 | | | | | | | 5650 | 8130 |
| 11/21/2019 | | 8330 | | | 3890 | | | |
| 12/4/2019 | | | | | | | 6100 | 7410 |
| 12/5/2019 | | | | | | 2130 | | |
| 12/17/2019 | | | | | | | 5660 | |
| 12/18/2019 | | | | | | 2090 | | 7170 |
| 1/8/2020 | | | | | | | 5070 | 6480 |
| 1/9/2020 | | | | | | 1750 | | |
| 1/21/2020 | | | | | | 1630 | 5010 | 6000 |
| 2/4/2020 | | | | | | 1760 | 5030 | 5700 |
| 2/13/2020 | | | | | | 1850 | 6140 | 7060 |
| 3/27/2020 | 675 | 7680 | 14.1 | 23.6 | 4770 | 1450 | 6870 | 7110 |
| 10/12/2020 | 552 | | | | | 1340 | | |
| 10/13/2020 | | 6230 | 3.8 | 23.3 | 3980 | | 5260 | 5980 |
| 3/2/2021 | 459 | <1 | 4.2 | | | | | |
| 3/3/2021 | | | | 27.6 | <1 | 1230 | 5170 | <1 |
| 9/13/2021 | 433 | 5010 | | | | | | |
| 9/14/2021 | | | 13.6 | 30 | 4090 | 1020 | 7250 | 5100 |
| 3/1/2022 | | | | | | | 1870 | 4900 |
| 3/2/2022 | | | 14.3 | | | 1420 | | |
| 3/3/2022 | 394 | 5040 | | 26.5 | 3540 | | | |

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-------------|-------------|-------------|------------|-------------|
| 8/30/2016 | | <0.01 | | | | | | |
| 8/31/2016 | | | | | 0.0013 (J) | 0.001 (J) | 0.0022 (J) | |
| 11/30/2016 | | <0.01 | | | 0.0012 (J) | <0.01 | <0.01 | |
| 2/15/2017 | | <0.01 | | | | | | |
| 2/16/2017 | | | | | 0.0012 (J) | 0.0011 (J) | 0.0028 (J) | |
| 5/31/2017 | | | <0.01 | | | | | <0.01 |
| 6/1/2017 | | <0.01 | | 0.0008 (J) | | | | |
| 6/2/2017 | | | | | <0.01 | <0.01 | 0.0023 (J) | |
| 8/2/2017 | | | <0.01 | 0.0012 (J) | | | | <0.01 |
| 8/15/2017 | | | | | | | | 0.0006 (J) |
| 8/16/2017 | | <0.01 | <0.01 | | | | | |
| 8/17/2017 | | | | 0.0013 (J) | 0.0007 (J) | 0.0007 (J) | 0.0022 (J) | |
| 4/4/2018 | | | | <0.01 | | | | <0.01 |
| 4/5/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | | <0.01 | | | | <0.01 |
| 5/9/2018 | | | <0.01 | | | | | |
| 6/19/2018 | | <0.01 | <0.01 | | | | | <0.01 |
| 6/20/2018 | | | | <0.01 | <0.01 | <0.01 | | |
| 6/21/2018 | | | | | | | <0.01 | |
| 9/25/2018 | | | | | | | | <0.01 |
| 9/26/2018 | | 0.0016 | 0.0016 | | | | | |
| 9/27/2018 | | | | <0.01 | <0.01 | <0.01 | 0.0024 (J) | |
| 11/6/2018 | | | | 0.0017 (J) | | | 0.002 (J) | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | <0.01 | | |
| 3/6/2019 | | | | | | <0.01 | | |
| 3/25/2019 | | | | | | | | <0.01 |
| 8/27/2019 | | 0.00079 (J) | | 0.0018 (J) | | | | |
| 8/28/2019 | | | 0.0035 (J) | | 0.00047 (J) | 0.00085 (J) | 0.0024 (J) | 0.00053 (J) |
| 10/15/2019 | | | | 0.0012 (J) | | | | |
| 10/16/2019 | | <0.01 | <0.01 | | 0.00057 (J) | | | 0.00072 (J) |
| 10/17/2019 | | | | | | 0.0015 (J) | 0.0019 (J) | |
| 3/26/2020 | | <0.01 | | | | | | |
| 3/27/2020 | | | <0.01 | | | | | <0.01 |
| 3/28/2020 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | 0.0056 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 3/1/2022 | <0.01 | | | | <0.01 | <0.01 | | |
| 3/2/2022 | | <0.01 | <0.01 | | | | <0.01 | 0.00094 (J) |
| 3/3/2022 | | | | 0.00085 (J) | | | | |

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0054 (J) | 0.0026 (J) | | <0.01 | | | | |
| 10/25/2016 | | | | | 0.016 | | | |
| 11/30/2016 | 0.0073 (J) | 0.0016 (J) | | 0.001 (J) | 0.0151 (J) | | | |
| 2/15/2017 | 0.0045 (J) | 0.0018 (J) | | <0.01 | 0.0137 | | | |
| 5/31/2017 | 0.0052 (J) | 0.0019 (J) | | | 0.0109 | | | |
| 6/1/2017 | | | | 0.0004 (J) | | | | |
| 6/2/2017 | | | 0.0019 (J) | | | | | |
| 8/2/2017 | | | 0.0017 (J) | | | | | |
| 8/15/2017 | 0.005 (J) | | | | 0.0117 | | | |
| 8/16/2017 | | 0.0019 (J) | | | | | | |
| 8/17/2017 | | | 0.0027 (J) | 0.0005 (J) | | | | |
| 4/4/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | 0.0029 (J) | | | | | |
| 6/19/2018 | 0.0047 (J) | <0.01 | 0.002 (J) | | 0.013 (J) | | | |
| 6/20/2018 | | | | <0.01 | | | | |
| 9/25/2018 | <0.01 | <0.01 | | | | | | |
| 9/26/2018 | | | 0.003 (J) | 0.0016 | 0.0092 (J) | | | |
| 11/6/2018 | | <0.01 | | | <0.01 | | | |
| 11/7/2018 | <0.01 | | <0.01 | <0.01 | | | | |
| 8/26/2019 | | 0.00071 (J) | | | | | | |
| 8/27/2019 | 0.0056 (J) | | 0.0026 (J) | 0.00043 (J) | 0.0066 (J) | | | |
| 10/15/2019 | 0.0057 (J) | 0.00076 (J) | 0.0026 (J) | | | | | |
| 10/16/2019 | | | | <0.01 | 0.0063 (J) | | | |
| 11/7/2019 | | | | | | 0.0038 (J) | 0.005 (J) | 0.0083 (J) |
| 11/18/2019 | | | | | | 0.0046 (J) | | |
| 11/19/2019 | | | | | | | 0.0059 (J) | 0.0096 (J) |
| 12/4/2019 | | | | | | | 0.0073 (J) | 0.0099 (J) |
| 12/5/2019 | | | | | | 0.0046 (J) | | |
| 12/17/2019 | | | | | | | 0.009 (J) | |
| 12/18/2019 | | | | | | 0.0045 (J) | | 0.011 (J) |
| 1/8/2020 | | | | | | | 0.0077 (J) | 0.0092 (J) |
| 1/9/2020 | | | | | | 0.004 (J) | | |
| 1/21/2020 | | | | | | 0.0036 (J) | 0.007 (J) | 0.009 (J) |
| 2/4/2020 | | | | | | <0.01 | 0.0057 (J) | 0.0078 (J) |
| 2/13/2020 | | | | | | 0.0036 (J) | 0.0063 (J) | 0.0091 (J) |
| 3/27/2020 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.0095 (J) |
| 9/13/2021 | <0.01 | <0.01 | | | | | | |
| 9/14/2021 | | | 0.0027 (J) | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 3/1/2022 | | | | | | | <0.01 | <0.01 |
| 3/2/2022 | | | 0.0029 | | | <0.01 | | |
| 3/3/2022 | <0.01 | <0.01 | | <0.01 | <0.01 | | | |

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|------------|------------|------------|------------|-------------|
| 8/30/2016 | | <0.02 | | | | | | |
| 8/31/2016 | | | | | <0.02 | <0.02 | <0.02 | |
| 11/30/2016 | | <0.02 | | | <0.02 | 0.0009 (J) | 0.0011 (J) | |
| 2/15/2017 | | <0.02 | | | | | | |
| 2/16/2017 | | | | | <0.02 | <0.02 | <0.02 | |
| 5/31/2017 | | | 0.0005 (J) | | | | | <0.02 |
| 6/1/2017 | | <0.02 | | <0.02 | | | | |
| 6/2/2017 | | | | | <0.02 | <0.02 | <0.02 | |
| 8/2/2017 | | | 0.0005 (J) | <0.02 | | | | 0.0006 (J) |
| 8/15/2017 | | | | | | | | 0.0004 (J) |
| 8/16/2017 | | <0.02 | 0.0005 (J) | | | | | |
| 8/17/2017 | | | | <0.02 | <0.02 | 0.0003 (J) | <0.02 | |
| 4/4/2018 | | | | <0.02 | | | | <0.02 |
| 4/5/2018 | | | <0.02 | | | | | |
| 5/8/2018 | | | | <0.02 | | | | <0.02 |
| 5/9/2018 | | | <0.02 | | | | | |
| 6/19/2018 | | <0.02 | <0.02 | | | | | <0.02 |
| 6/20/2018 | | | | <0.02 | <0.02 | <0.02 | | |
| 6/21/2018 | | | | | | | <0.02 | |
| 9/25/2018 | | | | | | | | <0.02 |
| 9/26/2018 | | 0.00052 | 0.00052 | | | | | |
| 9/27/2018 | | | | <0.02 | <0.02 | <0.02 | <0.02 | |
| 11/6/2018 | | | | 0.0048 (J) | | | <0.02 | <0.02 |
| 11/7/2018 | | <0.02 | <0.02 | | <0.02 | <0.02 | | |
| 3/6/2019 | | | | | | <0.02 | | |
| 8/27/2019 | | <0.02 | | 0.0078 | | | | |
| 8/28/2019 | | | 0.00042 (J) | | <0.02 | <0.02 | <0.02 | <0.02 |
| 10/15/2019 | | | | 0.0085 | | | | |
| 10/16/2019 | | <0.02 | 0.00037 (J) | | <0.02 | | | <0.02 |
| 10/17/2019 | | | | | | <0.02 | <0.02 | |
| 11/20/2019 | | | | 0.009 | | | | |
| 3/26/2020 | | <0.02 | | | | | | |
| 3/27/2020 | | | <0.02 | | | | | <0.02 |
| 3/28/2020 | | | | 0.0041 (J) | <0.02 | <0.02 | <0.02 | |
| 10/12/2020 | | | | | | | | <0.02 |
| 10/13/2020 | | <0.02 | <0.02 | 0.0063 | | | | |
| 10/14/2020 | | | | | | <0.02 | <0.02 | |
| 10/15/2020 | <0.02 | | | | 0.0019 (J) | | | |
| 1/4/2021 | | | | | <0.02 | | | |
| 3/3/2021 | | <0.02 | <0.02 | | | | | <0.02 |
| 3/4/2021 | <0.02 | | | 0.006 | <0.02 | <0.02 | <0.02 | |
| 9/14/2021 | <0.02 | <0.02 | <0.02 | 0.0054 | <0.02 | <0.02 | <0.02 | <0.02 |
| 3/1/2022 | <0.02 | | | | <0.02 | <0.02 | | |
| 3/2/2022 | | <0.02 | 0.00035 (J) | | | | <0.02 | 0.00029 (J) |
| 3/3/2022 | | | | 0.0049 | | | | |

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | <0.02 | 0.0006 (J) | | <0.02 | | | | |
| 10/25/2016 | | | | | <0.02 | | | |
| 11/30/2016 | <0.02 | <0.02 | | <0.02 | 0.0007 (J) | | | |
| 2/15/2017 | <0.02 | <0.02 | | <0.02 | <0.02 | | | |
| 5/31/2017 | 0.0005 (J) | <0.02 | | | <0.02 | | | |
| 6/1/2017 | | | | <0.02 | | | | |
| 6/2/2017 | | | <0.02 | | | | | |
| 8/2/2017 | | | <0.02 | | | | | |
| 8/15/2017 | 0.0005 (J) | | | | 0.0004 (J) | | | |
| 8/16/2017 | | <0.02 | | | | | | |
| 8/17/2017 | | | <0.02 | 0.0004 (J) | | | | |
| 4/4/2018 | | | <0.02 | | | | | |
| 5/8/2018 | | | <0.02 | | | | | |
| 6/19/2018 | 0.00053 (J) | <0.02 | <0.02 | | <0.02 | | | |
| 6/20/2018 | | | | <0.02 | | | | |
| 9/25/2018 | <0.02 | <0.02 | | | | | | |
| 9/26/2018 | | | 0.00052 | 0.00052 | 0.00052 | | | |
| 11/6/2018 | | <0.02 | | | <0.02 | | | |
| 11/7/2018 | <0.02 | | <0.02 | <0.02 | | | | |
| 8/26/2019 | | <0.02 | | | | | | |
| 8/27/2019 | 0.0007 (J) | | <0.02 | 0.0003 (J) | <0.02 | | | |
| 10/15/2019 | 0.00054 (J) | <0.02 | <0.02 | | | | | |
| 10/16/2019 | | | | <0.02 | <0.02 | | | |
| 11/7/2019 | | | | | | <0.02 | <0.02 | 0.026 |
| 11/18/2019 | | | | | | <0.02 | | |
| 11/19/2019 | | | | | | | <0.02 | 0.022 (J) |
| 12/4/2019 | | | | | | | <0.02 | 0.022 |
| 12/5/2019 | | | | | | <0.02 | | |
| 12/17/2019 | | | | | | | <0.02 | |
| 12/18/2019 | | | | | | <0.02 | | 0.031 |
| 1/8/2020 | | | | | | | <0.02 | 0.035 |
| 1/9/2020 | | | | | | <0.02 | | |
| 1/21/2020 | | | | | | <0.02 | <0.02 | 0.031 |
| 2/4/2020 | | | | | | <0.02 | <0.02 | 0.031 (J) |
| 2/13/2020 | | | | | | <0.02 | <0.02 | 0.031 |
| 3/27/2020 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.036 |
| 10/12/2020 | <0.02 | | | | | <0.02 | | |
| 10/13/2020 | | <0.02 | <0.02 | <0.02 | <0.02 | | <0.02 | 0.032 |
| 3/2/2021 | <0.02 | <0.02 | <0.02 | | | | | |
| 3/3/2021 | | | | <0.02 | <0.02 | <0.02 | <0.02 | 0.033 |
| 9/13/2021 | <0.02 | <0.02 | | | | | | |
| 9/14/2021 | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 |
| 3/1/2022 | | | | | | | <0.02 | 0.031 |
| 3/2/2022 | | | 7.7E-05 (J) | | | <0.02 | | |
| 3/3/2022 | <0.02 | <0.02 | | 0.00035 (J) | <0.02 | | | |

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|-----------|----------|----------|-------------|
| 8/30/2016 | | 0.929 | | | | | | |
| 8/31/2016 | | | | | 2.39 (D) | 2.47 (D) | 5.4 (D) | |
| 11/30/2016 | | 5.64 | | | 1.66 | 1.6 | 3.13 | |
| 2/15/2017 | | 1.41 | | | | | | |
| 2/16/2017 | | | | | 2.71 | 1.83 | 3.09 | |
| 5/31/2017 | | | 1.17 (U) | | | | | 1.2 |
| 6/1/2017 | | 1.51 | | 1.9 | | | | |
| 6/2/2017 | | | | | 1.99 | 2.45 | 7.56 | |
| 8/2/2017 | | | 0.704 (U) | 5.01 | | | | 1.26 |
| 8/15/2017 | | | | | | | | 0.511 (U) |
| 8/16/2017 | | 1.01 (U) | 1.11 (U) | | | | | |
| 8/17/2017 | | | | 5.35 | 1.87 | 3.33 | 6.38 | |
| 4/4/2018 | | | | 5.05 | | | | 1.04 |
| 4/5/2018 | | | 0.868 (U) | | | | | |
| 5/8/2018 | | | | 3.25 | | | | 1.95 |
| 5/9/2018 | | | 0.888 | | | | | |
| 6/19/2018 | | 1.23 | 0.483 (U) | | | | | 0.785 (U) |
| 6/20/2018 | | | | 3.53 | 1.95 | 2.84 | | |
| 6/21/2018 | | | | | | | 5.24 | |
| 9/25/2018 | | | | | | | | 1.15 (U) |
| 9/26/2018 | | 0.72 (U) | 0.73 (U) | | | | | |
| 9/27/2018 | | | | 7.07 | 0.629 (U) | 1.94 | 6.11 | |
| 11/6/2018 | | | | 11 | | | 6.1 | 1.1 |
| 11/7/2018 | | 0.616 (U) | 0.429 (U) | | 1.41 (U) | 8.58 | | |
| 8/27/2019 | | 1.2 (U) | | 4.4 | | | | |
| 8/28/2019 | | | 0.679 (U) | | 1.67 | 6.86 | 8.73 | 0.434 (U) |
| 10/15/2019 | | | | 4.92 | | | | |
| 10/16/2019 | | 1.4 (U) | 0.422 (U) | | 1.92 | | | 0.923 (U) |
| 10/17/2019 | | | | | | 7.85 | 7.97 | |
| 11/20/2019 | | | | | | | 9.8 | |
| 3/26/2020 | | 1.15 (U) | | | | | | |
| 3/27/2020 | | | 0.838 (U) | | | | | 0.609 (U) |
| 3/28/2020 | | | | 4.16 | 1.44 (U) | 11 (U) | 11.7 | |
| 10/12/2020 | | | | | | | | 2.7 |
| 10/13/2020 | | 0.855 (U) | 0.56 (U) | 3.71 | | | | |
| 10/14/2020 | | | | | | 8.97 | 13.1 | |
| 10/15/2020 | | | | | 2.56 | | | |
| 1/4/2021 | | | | | 5.84 | | | |
| 4/6/2021 | 7.33 | 1.01 (U) | 0.474 (U) | 2.83 | 1.43 (U) | 7.89 | 9.66 | 1.88 |
| 9/14/2021 | 6.97 | 1.06 (U) | 0.878 (U) | 2.69 | 7.15 | 8.11 | 10.3 | 1.37 (U) |
| 3/1/2022 | 9.03 | | | | 8.16 (U) | 5.83 (U) | | |
| 3/2/2022 | | 0.379 (U) | 0.476 (U) | | | | 5.66 (U) | 0.313 (U) |
| 3/3/2022 | | | | 2.51 | | | | |

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|----------|-----------|-------------|-------------|----------|-------------|-------------|-------------|
| 8/30/2016 | 1.4 | 1.31 | | 0.977 (U) | | | | |
| 10/25/2016 | | | | | 2.22 | | | |
| 11/30/2016 | 4.37 | 0.438 (U) | | 0.994 | 2.01 | | | |
| 2/15/2017 | 2.21 | 0.3 (U) | | 1.65 | 1.56 | | | |
| 5/31/2017 | 2.62 | 1.77 | | | 1.92 | | | |
| 6/1/2017 | | | | 1.22 | | | | |
| 6/2/2017 | | | 1.47 | | | | | |
| 8/2/2017 | | | 1.99 | | | | | |
| 8/15/2017 | 2.69 | | | | 2.47 | | | |
| 8/16/2017 | | 2.26 | | | | | | |
| 8/17/2017 | | | 2.03 | 1.71 | | | | |
| 4/4/2018 | | | 1.96 | | | | | |
| 5/8/2018 | | | 1.69 | | | | | |
| 6/19/2018 | 2.96 | 5.39 | 1.83 | | 2.82 | | | |
| 6/20/2018 | | | | 1.78 | | | | |
| 9/25/2018 | 2.23 | 6.22 | | | | | | |
| 9/26/2018 | | | 0.637 (U) | 1.56 | 3.15 (D) | | | |
| 11/6/2018 | | 5.38 | | | 2.95 | | | |
| 11/7/2018 | 2.14 | | 0.894 (U) | 0.651 (U) | | | | |
| 8/26/2019 | | 7.68 | | | | | | |
| 8/27/2019 | 2.91 | | 2.33 | 1.03 (U) | 5.82 | | | |
| 10/15/2019 | 3.28 | 8.7 | 0.979 (U) | | | | | |
| 10/16/2019 | | | | 1.86 | 7.5 | | | |
| 11/7/2019 | | | | | | 14.8 | 17.7 | 38.2 |
| 11/18/2019 | | | | | | 13.9 | | |
| 11/19/2019 | | | | | | | 18.9 | 43.1 |
| 11/21/2019 | | 7.34 | | | 8.89 | | | |
| 12/4/2019 | | | | | | | 18.6 | 45.1 |
| 12/5/2019 | | | | | | 14.2 | | |
| 12/17/2019 | | | | | | | 21.8 | |
| 12/18/2019 | | | | | | 17 | | 55.8 |
| 1/8/2020 | | | | | | | 16.9 | 46.5 |
| 1/9/2020 | | | | | | 12.3 | | |
| 1/21/2020 | | | | | | 11.7 | 15.6 | 37.7 |
| 2/4/2020 | | | | | | 12.7 | 22.38 | 47.9 |
| 2/13/2020 | | | | | | 18.2 | 31.1 | 76.3 (o) |
| 3/27/2020 | 2.33 | 9.63 | 1.84 | 1.51 | 9.54 | 10.2 | 22.8 | 47.2 |
| 10/12/2020 | 2.66 | | | | | 8.83 | | |
| 10/13/2020 | | 7.43 | 3.32 | 1.71 | 7.75 | | 14.1 | 30.3 |
| 4/6/2021 | 2.2 | 7.02 | 1.74 | 1.81 | 7.8 | 9.57 | 20.4 | 31.5 |
| 9/13/2021 | 2.54 | 8.38 | | | | | | |
| 9/14/2021 | | | 1.15 (U) | 2.02 | 8.82 | 8.31 | 26.2 | 34.9 |
| 3/1/2022 | | | | | | | 9.65 | 27.5 |
| 3/2/2022 | | | 1.48 | | | 9.23 | | |
| 3/3/2022 | 3.56 (U) | 8 | | 1.1 (U) | 9.1 | | | |

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-----------|--------|-----------|-----------|-------------|
| 8/30/2016 | | 0.03 (J) | | | | | | |
| 8/31/2016 | | | | | 0.93 | 0.41 | 0.92 | |
| 11/30/2016 | | 0.04 (J) | | | 0.93 | 0.61 | 0.99 | |
| 2/15/2017 | | 0.007 (J) | | | | | | |
| 2/16/2017 | | | | | 0.6 | 0.3 (J) | 0.54 | |
| 5/31/2017 | | | 0.01 (J) | | | | | 0.85 |
| 6/1/2017 | | <0.1 | | <0.1 | | | | |
| 6/2/2017 | | | | | 0.34 | 0.19 (J) | 0.42 | |
| 8/2/2017 | | | 0.14 (J) | 0.27 (J) | | | | 0.69 |
| 8/15/2017 | | | | | | | | 0.29 (J) |
| 8/16/2017 | | 0.03 (J) | 0.13 (J) | | | | | |
| 8/17/2017 | | | | 0.18 (J) | 0.52 | 0.26 (J) | 0.27 (J) | |
| 4/4/2018 | | | | <0.1 | | | | 0.32 |
| 4/5/2018 | | | <0.1 | | | | | |
| 5/8/2018 | | | | 0.56 | | | | 0.63 |
| 5/9/2018 | | | <0.1 | | | | | |
| 6/19/2018 | | <0.1 | 0.065 (J) | | | | | 0.17 (J) |
| 6/20/2018 | | | | 0.033 (J) | 0.5 | 0.22 (J) | | |
| 6/21/2018 | | | | | | | 0.28 (J) | |
| 9/25/2018 | | | | | | | | 0.15 (J) |
| 9/26/2018 | | 0.12 (J) | 0.029 | | | | | |
| 9/27/2018 | | | | 0.12 (J) | 0.32 | 0.068 (J) | 0.32 (D) | |
| 11/6/2018 | | | | <0.1 | | | 0.086 (J) | <0.1 |
| 11/7/2018 | | <0.1 | <0.1 | | 0.35 | 10.3 (o) | | |
| 3/6/2019 | | | | | | <0.1 | | |
| 3/24/2019 | | | | | 0.32 | 0.19 (J) | 0.14 (J) | |
| 3/25/2019 | | 0.038 (J) | 0.039 (J) | 0.055 (J) | | | | 0.12 (J) |
| 8/27/2019 | | <0.1 | | <0.1 | | | | |
| 8/28/2019 | | | <0.1 | | 0.36 | <0.1 | <0.1 | 0.068 (J) |
| 10/15/2019 | | | | 0.095 (J) | | | | |
| 10/16/2019 | | 0.046 (JD) | 0.044 (JD) | | 0.41 | | | 0.1 (J) |
| 10/17/2019 | | | | | | <0.1 | <0.1 | |
| 11/20/2019 | | | | | 0.34 | | <0.1 | |
| 3/26/2020 | | <0.1 | | | | | | |
| 3/27/2020 | | | <0.1 | | | | | 0.066 (J) |
| 3/28/2020 | | | | <0.1 | 0.34 | <0.1 | <0.1 | |
| 10/12/2020 | | | | | | | | <0.1 |
| 10/13/2020 | | <0.1 | <0.1 | <0.1 | | | | |
| 10/14/2020 | | | | | | <0.1 | <0.1 | |
| 10/15/2020 | 0.11 | | | | 0.22 | | | |
| 1/4/2021 | | | | | <0.1 | | | |
| 3/3/2021 | | <0.1 | <0.1 | | | | | 0.082 (J) |
| 3/4/2021 | <0.1 | | | <0.1 | 0.45 | <0.1 | <0.1 | |
| 9/14/2021 | <0.1 | <0.1 | <0.1 | 0.05 | <0.1 | <0.1 | <0.1 | 0.18 |
| 3/1/2022 | <0.1 | | | | <0.1 | <0.1 | | |
| 3/2/2022 | | <0.1 | <0.1 | | | | <0.1 | 0.097 (J) |
| 3/3/2022 | | | | <0.1 | | | | |

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|-----------|-------------|-------------|-----------|-------------|-------------|-------------|
| 8/30/2016 | 1.5 | 0.5 | | 0.04 (J) | | | | |
| 10/25/2016 | | | | | 1.1 | | | |
| 11/30/2016 | 1.4 | 0.49 | | 0.18 (J) | 1.3 | | | |
| 2/15/2017 | 1.3 | 0.58 | | 0.02 (J) | 1.3 | | | |
| 5/31/2017 | 1.2 | 0.56 | | | 1.3 | | | |
| 6/1/2017 | | | | 0.005 (J) | | | | |
| 6/2/2017 | | | <0.1 | | | | | |
| 8/2/2017 | | | 0.05 (J) | | | | | |
| 8/15/2017 | 1.2 | | | | 1.2 | | | |
| 8/16/2017 | | 0.45 | | | | | | |
| 8/17/2017 | | | <0.1 | 0.04 (J) | | | | |
| 4/4/2018 | | | <0.1 | | | | | |
| 5/8/2018 | | | <0.1 | | | | | |
| 6/19/2018 | 0.91 | <0.1 | 0.057 (J) | | 0.6 | | | |
| 6/20/2018 | | | | 0.038 (J) | | | | |
| 9/25/2018 | 1.1 | <0.1 | | | | | | |
| 9/26/2018 | | | 0.029 | 0.029 | 0.44 (D) | | | |
| 11/6/2018 | | 0.084 (J) | | | 0.4 | | | |
| 11/7/2018 | <0.1 | | <0.1 | <0.1 | | | | |
| 3/24/2019 | 0.99 | 0.14 (J) | | | 0.31 | | | |
| 3/25/2019 | | | 0.036 (J) | 0.041 (J) | | | | |
| 8/26/2019 | | <0.1 | | | | | | |
| 8/27/2019 | 1.1 | | <0.1 | <0.1 | <0.1 | | | |
| 10/15/2019 | 1 | <0.1 | 0.14 (J) | | | | | |
| 10/16/2019 | | | | 0.044 (J) | 0.083 (J) | | | |
| 11/7/2019 | | | | | | 0.49 | <0.1 | 1.4 |
| 11/18/2019 | | | | | | 0.52 | | |
| 11/19/2019 | | | | | | | 0.033 (J) | 1.2 |
| 11/21/2019 | | <0.1 | | | <0.1 | | | |
| 12/4/2019 | | | | | | | 0.22 (J) | 1.4 |
| 12/5/2019 | | | | | | 0.5 | | |
| 12/17/2019 | | | | | | | <0.1 | |
| 12/18/2019 | | | | | | 0.33 | | 1.5 |
| 1/8/2020 | | | | | | | <0.1 | <0.1 |
| 1/9/2020 | | | | | | 0.12 (J) | | |
| 1/21/2020 | | | | | | 0.13 (J) | 0.11 (J) | 0.53 |
| 2/4/2020 | | | | | | 0.18 (J) | <0.1 | <0.1 |
| 2/13/2020 | | | | | | 0.077 (J) | <0.1 | <0.1 |
| 3/27/2020 | 1.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.06 (J) | <0.1 | <0.1 |
| 10/12/2020 | 1.2 | | | | | 0.34 | | |
| 10/13/2020 | | <0.1 | <0.1 | <0.1 | <0.1 | | <0.1 | <0.1 |
| 3/2/2021 | 1 | <0.1 | <0.1 | | | | | |
| 3/3/2021 | | | | <0.1 | <0.1 | 0.32 | <0.1 | <0.1 |
| 9/13/2021 | 1.4 | <0.1 | | | | | | |
| 9/14/2021 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 3/1/2022 | | | | | | | <0.1 | <0.1 |
| 3/2/2022 | | | <0.1 | | | <0.1 | | |
| 3/3/2022 | 0.95 | <0.1 | | <0.1 | <0.1 | | | |

Time Series

Constituent: Lead (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|--------|-------------|-------------|--------|------------|-------------|------------|-------------|
| 8/30/2016 | | <0.005 | | | | | | |
| 8/31/2016 | | | | | <0.005 | <0.005 | <0.005 | |
| 11/30/2016 | | <0.005 | | | 0.0002 (J) | <0.005 | <0.005 | |
| 2/15/2017 | | <0.005 | | | | | | |
| 2/16/2017 | | | | | <0.005 | <0.005 | 0.0002 (J) | |
| 5/31/2017 | | | <0.005 | | | | | <0.005 |
| 6/1/2017 | | <0.005 | | <0.005 | | | | |
| 6/2/2017 | | | | | <0.005 | <0.005 | <0.005 | |
| 8/2/2017 | | | 0.0001 (J) | <0.005 | | | | <0.005 |
| 8/15/2017 | | | | | | | | <0.005 |
| 8/16/2017 | | <0.005 | <0.005 | | | | | |
| 8/17/2017 | | | | <0.005 | <0.005 | <0.005 | 8E-05 (J) | |
| 4/4/2018 | | | | <0.005 | | | | <0.005 |
| 4/5/2018 | | | <0.005 | | | | | |
| 5/8/2018 | | | | <0.005 | | | | <0.005 |
| 5/9/2018 | | | <0.005 | | | | | |
| 6/19/2018 | | <0.005 | <0.005 | | | | | <0.005 |
| 6/20/2018 | | | | <0.005 | <0.005 | <0.005 | | |
| 6/21/2018 | | | | | | | <0.005 | |
| 9/25/2018 | | | | | | | | <0.005 |
| 9/26/2018 | | 0.00027 | 0.00027 | | | | | |
| 9/27/2018 | | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| 11/6/2018 | | | | <0.005 | | | <0.005 | <0.005 |
| 11/7/2018 | | <0.005 | <0.005 | | <0.005 | <0.005 | | |
| 3/6/2019 | | | | | | <0.005 | | |
| 3/25/2019 | | | | | | | | <0.005 |
| 8/27/2019 | | <0.005 | | <0.005 | | | | |
| 8/28/2019 | | | <0.005 | | <0.005 | <0.005 | 0.0001 (J) | <0.005 |
| 10/15/2019 | | | | <0.005 | | | | |
| 10/16/2019 | | <0.005 | <0.005 | | <0.005 | | | <0.005 |
| 10/17/2019 | | | | | | 0.00012 (J) | <0.005 | |
| 3/26/2020 | | <0.005 | | | | | | |
| 3/27/2020 | | | <0.005 | | | | | <0.005 |
| 3/28/2020 | | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| 10/12/2020 | | | | | | | | <0.005 |
| 10/13/2020 | | <0.005 | <0.005 | <0.005 | | | | |
| 10/14/2020 | | | | | | <0.005 | <0.005 | |
| 10/15/2020 | <0.005 | | | | <0.005 | | | |
| 1/4/2021 | | | | | <0.005 | | | |
| 3/3/2021 | | <0.005 | <0.005 | | | | | <0.005 |
| 3/4/2021 | <0.005 | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| 9/14/2021 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 3/1/2022 | <0.005 | | | | <0.005 | <0.005 | | |
| 3/2/2022 | | <0.005 | <0.005 | | | | <0.005 | <0.005 |
| 3/3/2022 | | | | <0.005 | | | | |

Time Series

Constituent: Lead (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0001 (J) | <0.005 | | <0.005 | | | | |
| 10/25/2016 | | | | | <0.005 | | | |
| 11/30/2016 | <0.005 | <0.005 | | 0.0002 (J) | <0.005 | | | |
| 2/15/2017 | <0.005 | <0.005 | | <0.005 | <0.005 | | | |
| 5/31/2017 | 9E-05 (J) | <0.005 | | | <0.005 | | | |
| 6/1/2017 | | | | <0.005 | | | | |
| 6/2/2017 | | | <0.005 | | | | | |
| 8/2/2017 | | | 0.0001 (J) | | | | | |
| 8/15/2017 | <0.005 | | | | 0.0002 (J) | | | |
| 8/16/2017 | | 8E-05 (J) | | | | | | |
| 8/17/2017 | | | 0.0001 (J) | <0.005 | | | | |
| 4/4/2018 | | | <0.005 | | | | | |
| 5/8/2018 | | | <0.005 | | | | | |
| 6/19/2018 | <0.005 | <0.005 | <0.005 | | <0.005 | | | |
| 6/20/2018 | | | | <0.005 | | | | |
| 9/25/2018 | <0.005 | <0.005 | | | | | | |
| 9/26/2018 | | | 0.00027 | 0.00027 | 0.00027 | | | |
| 11/6/2018 | | <0.005 | | | <0.005 | | | |
| 11/7/2018 | <0.005 | | <0.005 | <0.005 | | | | |
| 8/26/2019 | | <0.005 | | | | | | |
| 8/27/2019 | 0.00022 (J) | | 0.00011 (J) | <0.005 | 0.00014 (J) | | | |
| 10/15/2019 | 5.6E-05 (J) | <0.005 | 0.00038 (J) | | | | | |
| 10/16/2019 | | | | <0.005 | 0.00034 (J) | | | |
| 11/7/2019 | | | | | | <0.005 | 0.00063 (J) | 0.0019 (J) |
| 11/18/2019 | | | | | | <0.005 | | |
| 11/19/2019 | | | | | | | <0.005 | 0.0013 (J) |
| 12/4/2019 | | | | | | | 5.3E-05 (J) | 0.00045 (J) |
| 12/5/2019 | | | | | | <0.005 | | |
| 12/17/2019 | | | | | | | <0.005 | |
| 12/18/2019 | | | | | | <0.005 | | 0.00023 (J) |
| 1/8/2020 | | | | | | | <0.005 | 0.00029 (J) |
| 1/9/2020 | | | | | | <0.005 | | |
| 1/21/2020 | | | | | | <0.005 | <0.005 | 0.00033 (J) |
| 2/4/2020 | | | | | | <0.005 | <0.005 | <0.005 |
| 2/13/2020 | | | | | | <0.005 | <0.025 (o) | 0.00023 (J) |
| 3/27/2020 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 10/12/2020 | <0.005 | | | | | <0.005 | | |
| 10/13/2020 | | <0.005 | <0.005 | <0.005 | <0.005 | | <0.005 | <0.005 |
| 3/2/2021 | <0.005 | <0.005 | <0.005 | | | | | |
| 3/3/2021 | | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 9/13/2021 | <0.005 | <0.005 | | | | | | |
| 9/14/2021 | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 3/1/2022 | | | | | | | <0.005 | <0.005 |
| 3/2/2022 | | | <0.005 | | | <0.005 | | |
| 3/3/2022 | <0.005 | <0.005 | | <0.005 | <0.005 | | | |

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-----------|-------------|-------------|------------|------------|------------|------------|-------------|
| 8/30/2016 | | <0.05 | | | | | | |
| 8/31/2016 | | | | | 0.0219 (J) | 0.0389 (J) | 0.0122 (J) | |
| 11/30/2016 | | <0.05 | | | 0.0333 (J) | 0.0303 (J) | 0.011 (J) | |
| 2/15/2017 | | <0.05 | | | | | | |
| 2/16/2017 | | | | | 0.0376 (J) | 0.05 (J) | 0.0142 (J) | |
| 5/31/2017 | | | <0.05 | | | | | 0.0047 (J) |
| 6/1/2017 | | <0.05 | | <0.05 | | | | |
| 6/2/2017 | | | | | 0.0346 (J) | 0.0477 (J) | 0.0229 (J) | |
| 8/2/2017 | | | <0.05 | <0.05 | | | | 0.0036 (J) |
| 8/15/2017 | | | | | | | | <0.05 |
| 8/16/2017 | | <0.05 | <0.05 | | | | | |
| 8/17/2017 | | | | <0.05 | 0.0367 (J) | 0.0645 | 0.0241 (J) | |
| 4/4/2018 | | | | 0.0013 (J) | | | | 0.0041 (J) |
| 4/5/2018 | | | <0.05 | | | | | |
| 5/8/2018 | | | | 0.0012 (J) | | | | 0.0052 (J) |
| 5/9/2018 | | | <0.05 | | | | | |
| 6/19/2018 | | <0.05 | <0.05 | | | | | 0.0017 (J) |
| 6/20/2018 | | | | 0.0015 (J) | 0.034 (J) | 0.066 (J) | | |
| 6/21/2018 | | | | | | | 0.03 (J) | |
| 9/25/2018 | | | | | | | | 0.0018 (J) |
| 9/26/2018 | | 0.00097 | 0.00097 | | | | | |
| 9/27/2018 | | | | 0.0021 (J) | 0.023 (J) | 0.045 (J) | 0.034 (J) | |
| 11/6/2018 | | | | 0.0038 (J) | | | 0.037 (J) | <0.05 |
| 11/7/2018 | | <0.05 | <0.05 | | 0.022 (J) | 0.11 | | |
| 3/6/2019 | | | | | | 0.12 | | |
| 8/27/2019 | | <0.05 | | 0.002 (J) | | | | |
| 8/28/2019 | | | <0.05 | | 0.023 (J) | 0.13 | 0.12 | 0.00082 (J) |
| 10/15/2019 | | | | 0.0019 (J) | | | | |
| 10/16/2019 | | <0.05 | <0.05 | | 0.021 (J) | | | <0.05 |
| 10/17/2019 | | | | | | 0.12 | 0.096 | |
| 11/20/2019 | | | | | | | 0.12 | |
| 3/26/2020 | | <0.05 | | | | | | |
| 3/27/2020 | | | <0.05 | | | | | <0.05 |
| 3/28/2020 | 0.078 (J) | | | <0.05 | 0.014 (J) | 0.064 | 0.027 (J) | |
| 6/16/2020 | 0.096 (J) | | | | | | | |
| 10/12/2020 | | | | | | | | <0.05 |
| 10/13/2020 | | <0.05 | <0.05 | <0.05 | | | | |
| 10/14/2020 | | | | | | 0.11 | 0.039 (J) | |
| 10/15/2020 | 0.093 | | | | 0.57 | | | |
| 1/4/2021 | | | | | 0.043 (J) | | | |
| 3/3/2021 | | <0.05 | <0.05 | | | | | <0.05 |
| 3/4/2021 | 0.094 (J) | | | <0.05 | 0.017 (J) | 0.096 (J) | 0.035 (J) | |
| 9/14/2021 | 0.092 | <0.05 | <0.05 | <0.05 | 0.042 (J) | 0.084 | 0.035 (J) | 0.0033 (J) |
| 3/1/2022 | 0.088 (J) | | | | 0.028 (J) | 0.074 | | |
| 3/2/2022 | | 0.00064 (J) | <0.05 | | | | 0.022 (J) | 0.0026 |
| 3/3/2022 | | | | 0.0017 (J) | | | | |

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0102 (J) | 0.0112 (J) | | <0.05 | | | | |
| 10/25/2016 | | | | | 0.007 (J) | | | |
| 11/30/2016 | 0.0106 (J) | <0.05 | | <0.05 | 0.0086 (J) | | | |
| 2/15/2017 | 0.0115 (J) | 0.0105 (J) | | <0.05 | 0.0149 (J) | | | |
| 5/31/2017 | 0.011 (J) | 0.0106 (J) | | | 0.019 (J) | | | |
| 6/1/2017 | | | | <0.05 | | | | |
| 6/2/2017 | | | <0.05 | | | | | |
| 8/2/2017 | | | <0.05 | | | | | |
| 8/15/2017 | 0.0123 (J) | | | | 0.016 (J) | | | |
| 8/16/2017 | | 0.0145 (J) | | | | | | |
| 8/17/2017 | | | <0.05 | <0.05 | | | | |
| 4/4/2018 | | | 0.0015 (J) | | | | | |
| 5/8/2018 | | | 0.0014 (J) | | | | | |
| 6/19/2018 | 0.012 (J) | 0.044 (J) | 0.0016 (J) | | 0.021 (J) | | | |
| 6/20/2018 | | | | <0.05 | | | | |
| 9/25/2018 | 0.011 (J) | 0.041 (J) | | | | | | |
| 9/26/2018 | | | 0.0018 (J) | 0.00097 | 0.02 (J) | | | |
| 11/6/2018 | | 0.047 (J) | | | 0.017 (J) | | | |
| 11/7/2018 | 0.013 (J) | | <0.05 | <0.05 | | | | |
| 8/26/2019 | | 0.059 | | | | | | |
| 8/27/2019 | 0.012 (J) | | 0.002 (J) | <0.05 | 0.023 (J) | | | |
| 10/15/2019 | 0.012 (J) | 0.056 (J) | 0.0016 (J) | | | | | |
| 10/16/2019 | | | | <0.05 | 0.024 (J) | | | |
| 11/7/2019 | | | | | | 0.0055 (J) | 0.015 (J) | 0.026 (J) |
| 11/18/2019 | | | | | | <0.1 (o) | | |
| 11/19/2019 | | | | | | | 0.02 (J) | 0.023 (J) |
| 11/21/2019 | | 0.052 | | | | | | |
| 12/4/2019 | | | | | | | 0.016 (J) | 0.019 (J) |
| 12/5/2019 | | | | | | 0.0042 (J) | | |
| 12/17/2019 | | | | | | | 0.018 (J) | |
| 12/18/2019 | | | | | | 0.0045 (J) | | 0.02 (J) |
| 1/8/2020 | | | | | | | 0.022 (J) | 0.024 (J) |
| 1/9/2020 | | | | | | 0.0041 (J) | | |
| 1/21/2020 | | | | | | <0.15 (o) | 0.018 (J) | 0.022 (J) |
| 2/4/2020 | | | | | | <0.3 (o) | 0.02 (J) | 0.024 (J) |
| 2/13/2020 | | | | | | 0.004 (J) | 0.018 (J) | 0.021 (J) |
| 3/27/2020 | <0.05 | 0.052 | <0.05 | <0.05 | 0.033 (J) | <0.05 | 0.018 (J) | 0.024 (J) |
| 10/12/2020 | 0.011 (J) | | | | | <0.05 | | |
| 10/13/2020 | | 0.046 (J) | <0.05 | <0.05 | 0.028 (J) | | 0.022 (J) | 0.025 (J) |
| 3/2/2021 | <0.05 | 0.046 (J) | <0.05 | | | | | |
| 3/3/2021 | | | | <0.05 | <0.05 | <0.05 | 0.019 (J) | 0.018 (J) |
| 9/13/2021 | 0.01 (J) | 0.047 | | | | | | |
| 9/14/2021 | | | <0.05 | <0.05 | 0.035 (J) | <0.05 | 0.011 (J) | 0.02 (J) |
| 3/1/2022 | | | | | | | <0.05 | 0.02 (J) |
| 3/2/2022 | | | 0.0017 (J) | | | <0.05 | | |
| 3/3/2022 | <0.05 | 0.037 (J) | | 0.00061 (J) | 0.02 (J) | | | |

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|---------|-------------|-------------|---------|-------------|-------------|---------|-------------|
| 8/30/2016 | | <0.0002 | | | | | | |
| 8/31/2016 | | | | | <0.0002 | <0.0002 | <0.0002 | |
| 11/30/2016 | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | |
| 2/15/2017 | | <0.0002 | | | | | | |
| 2/16/2017 | | | | | <0.0002 | <0.0002 | <0.0002 | |
| 5/31/2017 | | | <0.0002 | | | | | <0.0002 |
| 6/1/2017 | | <0.0002 | | <0.0002 | | | | |
| 6/2/2017 | | | | | 4.2E-05 (J) | <0.0002 | <0.0002 | |
| 8/2/2017 | | | <0.0002 | <0.0002 | | | | <0.0002 |
| 8/15/2017 | | | | | | | | <0.0002 |
| 8/16/2017 | | <0.0002 | <0.0002 | | | | | |
| 8/17/2017 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 4/4/2018 | | | | <0.0002 | | | | <0.0002 |
| 4/5/2018 | | | <0.0002 | | | | | |
| 5/8/2018 | | | | <0.0002 | | | | <0.0002 |
| 5/9/2018 | | | <0.0002 | | | | | |
| 6/19/2018 | | <0.0002 | <0.0002 | | | | | <0.0002 |
| 6/20/2018 | | | | <0.0002 | <0.0002 | <0.0002 | | |
| 6/21/2018 | | | | | | | <0.0002 | |
| 9/25/2018 | | | | | | | | <0.0002 |
| 9/26/2018 | | 3.6E-05 | 3.6E-05 | | | | | |
| 9/27/2018 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 11/6/2018 | | | | 0.00071 | | | 0.00067 | 0.0007 |
| 11/7/2018 | | <0.0002 | <0.0002 | | <0.0002 | <0.0002 | | |
| 3/6/2019 | | | | | | <0.0002 | | |
| 8/27/2019 | | <0.0002 | | <0.0002 | | | | |
| 8/28/2019 | | | <0.0002 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 3/26/2020 | | <0.0002 | | | | | | |
| 3/27/2020 | | | <0.0002 | | | | | <0.0002 |
| 3/28/2020 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| 9/14/2021 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | 0.00016 (J) | <0.0002 | <0.0002 |
| 3/1/2022 | <0.0002 | | | | <0.0002 | <0.0002 | | |
| 3/2/2022 | | <0.0002 | <0.0002 | | | | <0.0002 | <0.0002 |
| 3/3/2022 | | | | <0.0002 | | | | |

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|---------|---------|-------------|-------------|---------|-------------|-------------|-------------|
| 8/30/2016 | <0.0002 | <0.0002 | | <0.0002 | | | | |
| 10/25/2016 | | | | | <0.0002 | | | |
| 11/30/2016 | <0.0002 | <0.0002 | | <0.0002 | <0.0002 | | | |
| 2/15/2017 | <0.0002 | <0.0002 | | <0.0002 | <0.0002 | | | |
| 5/31/2017 | <0.0002 | <0.0002 | | | <0.0002 | | | |
| 6/1/2017 | | | | <0.0002 | | | | |
| 6/2/2017 | | | <0.0002 | | | | | |
| 8/2/2017 | | | <0.0002 | | | | | |
| 8/15/2017 | <0.0002 | | | | <0.0002 | | | |
| 8/16/2017 | | <0.0002 | | | | | | |
| 8/17/2017 | | | <0.0002 | <0.0002 | | | | |
| 4/4/2018 | | | <0.0002 | | | | | |
| 5/8/2018 | | | <0.0002 | | | | | |
| 6/19/2018 | <0.0002 | <0.0002 | <0.0002 | | <0.0002 | | | |
| 6/20/2018 | | | | <0.0002 | | | | |
| 9/25/2018 | <0.0002 | <0.0002 | | | | | | |
| 9/26/2018 | | | 3.6E-05 | 3.6E-05 | 3.6E-05 | | | |
| 11/6/2018 | | 0.00066 | | | 0.00064 | | | |
| 11/7/2018 | <0.0002 | | <0.0002 | <0.0002 | | | | |
| 8/26/2019 | | <0.0002 | | | | | | |
| 8/27/2019 | <0.0002 | | <0.0002 | <0.0002 | <0.0002 | | | |
| 11/7/2019 | | | | | | <0.0002 | <0.0002 | <0.0002 |
| 11/18/2019 | | | | | | <0.0002 | | |
| 11/19/2019 | | | | | | | <0.0002 | <0.0002 |
| 12/4/2019 | | | | | | | <0.0002 | <0.0002 |
| 12/5/2019 | | | | | | <0.0002 | | |
| 12/17/2019 | | | | | | | <0.0002 | |
| 12/18/2019 | | | | | | <0.0002 | | <0.0002 |
| 1/8/2020 | | | | | | | <0.0002 | <0.0002 |
| 1/9/2020 | | | | | | <0.0002 | | |
| 1/21/2020 | | | | | | <0.0002 | <0.0002 | <0.0002 |
| 2/4/2020 | | | | | | <0.0002 | <0.0002 | <0.0002 |
| 2/13/2020 | | | | | | <0.0002 | <0.0002 | <0.0002 |
| 3/27/2020 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 9/13/2021 | <0.0002 | <0.0002 | | | | | | |
| 9/14/2021 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 3/1/2022 | | | | | | | <0.0002 | <0.0002 |
| 3/2/2022 | | | <0.0002 | | | <0.0002 | | |
| 3/3/2022 | <0.0002 | <0.0002 | | <0.0002 | <0.0002 | | | |

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-------------|------------|------------|--------|-------------|
| 8/30/2016 | | <0.01 | | | | | | |
| 8/31/2016 | | | | | <0.01 | <0.01 | <0.01 | |
| 11/30/2016 | | <0.01 | | | <0.01 | <0.01 | <0.01 | |
| 2/15/2017 | | <0.01 | | | | | | |
| 2/16/2017 | | | | | <0.01 | <0.01 | <0.01 | |
| 5/31/2017 | | | <0.01 | | | | | <0.01 |
| 6/1/2017 | | <0.01 | | <0.01 | | | | |
| 6/2/2017 | | | | | <0.01 | <0.01 | <0.01 | |
| 8/2/2017 | | | <0.01 | <0.01 | | | | <0.01 |
| 8/15/2017 | | | | | | | | <0.01 |
| 8/16/2017 | | <0.01 | <0.01 | | | | | |
| 8/17/2017 | | | | <0.01 | 0.0012 (J) | 0.0025 (J) | <0.01 | |
| 4/4/2018 | | | | <0.01 | | | | <0.01 |
| 4/5/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | | <0.01 | | | | <0.01 |
| 5/9/2018 | | | <0.01 | | | | | |
| 6/19/2018 | | <0.01 | <0.01 | | | | | <0.01 |
| 6/20/2018 | | | | <0.01 | <0.01 | <0.01 | | |
| 6/21/2018 | | | | | | | <0.01 | |
| 9/25/2018 | | | | | | | | <0.01 |
| 9/26/2018 | | 0.0019 | 0.0019 | | | | | |
| 9/27/2018 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 11/6/2018 | | | | <0.01 | | | <0.01 | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | 0.0024 (J) | | |
| 3/6/2019 | | | | | | <0.01 | | |
| 8/27/2019 | | <0.01 | | <0.01 | | | | |
| 8/28/2019 | | | <0.01 | | <0.01 | 0.0017 (J) | <0.01 | <0.01 |
| 10/15/2019 | | | | <0.01 | | | | |
| 10/16/2019 | | <0.01 | <0.01 | | <0.01 | | | <0.01 |
| 10/17/2019 | | | | | | 0.0017 (J) | <0.01 | |
| 3/26/2020 | | <0.01 | | | | | | |
| 3/27/2020 | | | <0.01 | | | | | <0.01 |
| 3/28/2020 | | | | <0.01 | <0.01 | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | 0.0008 (J) | <0.01 | 0.0099 (J) | <0.01 | <0.01 | <0.01 |
| 3/1/2022 | <0.01 | | | | <0.01 | <0.01 | | |
| 3/2/2022 | | <0.01 | <0.01 | | | | <0.01 | <0.01 |
| 3/3/2022 | | | | 0.00015 (J) | | | | |

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|-----------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | <0.01 | <0.01 | | <0.01 | | | | |
| 10/25/2016 | | | | | <0.01 | | | |
| 11/30/2016 | <0.01 | <0.01 | | <0.01 | <0.01 | | | |
| 2/15/2017 | <0.01 | <0.01 | | <0.01 | <0.01 | | | |
| 5/31/2017 | <0.01 | <0.01 | | | <0.01 | | | |
| 6/1/2017 | | | | <0.01 | | | | |
| 6/2/2017 | | | <0.01 | | | | | |
| 8/2/2017 | | | <0.01 | | | | | |
| 8/15/2017 | <0.01 | | | | <0.01 | | | |
| 8/16/2017 | | <0.01 | | | | | | |
| 8/17/2017 | | | <0.01 | <0.01 | | | | |
| 4/4/2018 | | | <0.01 | | | | | |
| 5/8/2018 | | | 0.002 (J) | | | | | |
| 6/19/2018 | <0.01 | <0.01 | <0.01 | | <0.01 | | | |
| 6/20/2018 | | | | <0.01 | | | | |
| 9/25/2018 | <0.01 | <0.01 | | | | | | |
| 9/26/2018 | | | 0.0019 | 0.0019 | 0.0019 | | | |
| 11/6/2018 | | <0.01 | | | <0.01 | | | |
| 11/7/2018 | <0.01 (D) | | <0.01 (D) | <0.01 | | | | |
| 8/26/2019 | | <0.01 | | | | | | |
| 8/27/2019 | <0.01 | | <0.01 | <0.01 | <0.01 | | | |
| 10/15/2019 | <0.01 | <0.01 | <0.01 | | | | | |
| 10/16/2019 | | | | <0.01 | <0.01 | | | |
| 11/7/2019 | | | | | | <0.01 | <0.01 | <0.01 |
| 11/18/2019 | | | | | | <0.01 | | |
| 11/19/2019 | | | | | | | <0.01 | <0.01 |
| 12/4/2019 | | | | | | | <0.01 | <0.01 |
| 12/5/2019 | | | | | | <0.01 | | |
| 12/17/2019 | | | | | | | <0.01 | |
| 12/18/2019 | | | | | | <0.01 | | <0.01 |
| 1/8/2020 | | | | | | | <0.01 | <0.01 |
| 1/9/2020 | | | | | | <0.01 | | |
| 1/21/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 2/4/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 2/13/2020 | | | | | | <0.01 | <0.01 | <0.01 |
| 3/27/2020 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 9/13/2021 | <0.01 | <0.01 | | | | | | |
| 9/14/2021 | | | 0.0009 (J) | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 3/1/2022 | | | | | | | <0.01 | <0.01 |
| 3/2/2022 | | | 0.00078 (J) | | | <0.01 | | |
| 3/3/2022 | <0.01 | <0.01 | | 0.00021 (J) | <0.01 | | | |

Time Series

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | | 5.66 | | | | | | |
| 8/31/2016 | | | | | 6.93 | 7.21 | 6.66 | |
| 11/30/2016 | | 5.36 | | | 6.77 | 7.23 | 6.69 | |
| 2/15/2017 | | 5.25 | | | | | | |
| 2/16/2017 | | | | | 6.89 | 7.27 | 6.72 | |
| 5/31/2017 | | | 5.06 | | | | | 5.29 |
| 6/1/2017 | | 5.59 | | 5.68 | | | | |
| 6/2/2017 | | | | | 6.83 | 7.18 | 6.53 | |
| 8/2/2017 | | | 5 | 5.2 | | | | 5.19 |
| 8/15/2017 | | | | | | | | 5.19 |
| 8/16/2017 | | 5.58 | 4.98 | | | | | |
| 8/17/2017 | | | | 5.31 | 6.76 | 7.15 | 6.28 | |
| 4/4/2018 | | | | 4.74 | | | | 5.19 |
| 4/5/2018 | | | 5.02 | | | | | |
| 5/8/2018 | | | | 4.78 | | | | 5.3 |
| 5/9/2018 | | | 4.96 | | | | | |
| 6/19/2018 | | 5.51 | 5.02 | | | | | 5.15 |
| 6/20/2018 | | | | 4.79 | 6.83 | 7.19 | | |
| 6/21/2018 | | | | | | | 6.45 | |
| 9/25/2018 | | | | | | | | 5.13 |
| 9/26/2018 | | 5.32 | 5.06 | | | | | |
| 9/27/2018 | | | | 5.14 | 6.64 | 7.21 | 6.48 | |
| 11/6/2018 | | | | 4.9 | | | 6.18 | 5.08 |
| 11/7/2018 | | 5.72 | 5.03 | | 6.6 | 6.91 | | |
| 3/24/2019 | | | | | 6.1 | 6.98 | 6.38 | |
| 3/25/2019 | | 5.75 | 5.08 | 4.93 | | | | 5.05 |
| 8/27/2019 | | 5.58 | | 5.05 | | | | |
| 8/28/2019 | | | 4.99 | | 6.69 | 6.87 | 6.35 | 4.87 |
| 10/15/2019 | | | | 4.89 | | | | |
| 10/16/2019 | | 5.72 | 4.98 | | 6.64 | | | 5.05 |
| 10/17/2019 | | | | | | 6.86 | 6.4 | |
| 11/19/2019 | | | 5.11 | | | | | |
| 11/20/2019 | | 5.77 | | 5.03 | 6.58 | | 6.27 | |
| 3/26/2020 | | 5.45 | | | | | | |
| 3/27/2020 | | | 5.12 | | | | | 5.09 |
| 3/28/2020 | 7.11 | | | 5.27 | 6.6 | 6.8 | 6.35 | |
| 6/16/2020 | 7.22 | | | | | | | |
| 10/12/2020 | | | | | | | | 5 |
| 10/13/2020 | | 5.69 | 5.03 | 5.25 | | | | |
| 10/14/2020 | | | | | | 6.93 | 6.32 | |
| 10/15/2020 | 7.08 | | | | 6.53 | | | |
| 1/4/2021 | | | | | 6.66 | | | |
| 3/3/2021 | | 5.81 | 5.06 | | | | | 5.07 |
| 3/4/2021 | 7.21 | | | 5.31 | 6.52 | 6.94 | 6.33 | |
| 9/14/2021 | 7.11 | 5.13 | 5.04 | 5.09 | 6.67 | 6.94 | 6.28 | 5.5 |
| 3/1/2022 | 7.08 | | | | 6.87 | 7.24 | | |
| 3/2/2022 | | 5.32 | 5.16 | | | | 6.41 | 5.11 |
| 3/3/2022 | | | | 4.98 | | | | |

Time Series

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 6.49 | 7.04 | | 5.18 | | | | |
| 10/25/2016 | | | | | 6.95 | | | |
| 11/30/2016 | 6.5 | 7.13 | | 4.96 | 6.95 | | | |
| 2/15/2017 | 6.51 | 7.02 | | 5.13 | 6.85 | | | |
| 5/31/2017 | 6.45 | 7 | | | 6.96 | | | |
| 6/1/2017 | | | | 4.99 | | | | |
| 6/2/2017 | | | 5.31 | | | | | |
| 8/2/2017 | | | 5.05 | | | | | |
| 8/15/2017 | 6.41 | | | | 6.99 | | | |
| 8/16/2017 | | 6.88 | | | | | | |
| 8/17/2017 | | | 5.52 | 4.68 | | | | |
| 4/4/2018 | | | 5.45 | | | | | |
| 5/8/2018 | | | 5.54 | | | | | |
| 6/19/2018 | 6.32 | 6.78 | 5.6 | | 6.91 | | | |
| 6/20/2018 | | | | 4.77 | | | | |
| 9/25/2018 | 6.31 | 6.75 | | | | | | |
| 9/26/2018 | | | 5.17 | 4.65 | 6.81 | | | |
| 11/6/2018 | | 6.92 | | | 5.99 | | | |
| 11/7/2018 | 6.3 | | 5.47 | 4.99 | | | | |
| 3/24/2019 | 6.4 | 6.59 | 5.4 | | 6.62 | | | |
| 3/25/2019 | | | | 5.13 | | | | |
| 8/26/2019 | | 6.62 | | | | | | |
| 8/27/2019 | 6.24 | | 5.35 | 4.88 | 6.23 | | | |
| 10/15/2019 | 6.19 | 6.58 | 5.32 | | | | | |
| 10/16/2019 | | | | 4.89 | 6.54 | | | |
| 11/7/2019 | | | | | | 4.25 | 5.21 | 3.79 |
| 11/18/2019 | | | | | | 4.12 | | |
| 11/19/2019 | | | | | | | 5.15 | 3.78 |
| 11/21/2019 | | 6.67 | | | 6.44 | | | |
| 12/4/2019 | | | | | | | 5.28 (D) | 3.87 (D) |
| 12/5/2019 | | | | | | 4.17 (D) | | |
| 1/8/2020 | | | | | | | 5.04 | 3.77 |
| 1/9/2020 | | | | | | 4.19 | | |
| 1/21/2020 | | | | | | 4.28 | 5.1 | 3.73 |
| 2/4/2020 | | | | | | 4.26 | 5.15 | 3.72 |
| 2/13/2020 | | | | | | 4.2 | 5.07 | 3.75 |
| 3/27/2020 | 6.33 | 6.59 | 5.3 | 5.12 | 6.93 | 4.34 | 5.14 | 3.81 |
| 10/12/2020 | 6.35 | | | | | 4.29 | | |
| 10/13/2020 | | 6.56 | 5.02 | 5.17 | 6.34 | | 5.04 | 3.72 |
| 3/2/2021 | 6.34 | 6.55 | 5.16 | | | | | |
| 3/3/2021 | | | | 5.71 | 6.58 | 4.37 | 5.1 | 3.36 |
| 9/13/2021 | 6.24 | 6.3 | | | | | | |
| 9/14/2021 | | | 5.39 | 4.69 | 6.77 | 4.28 | 5.31 | 3.72 |
| 3/1/2022 | | | | | | | 5.38 | 3.69 |
| 3/2/2022 | | | 5.37 | | | 4.33 | | |
| 3/3/2022 | 6.51 | 6.49 | | 4.88 | 4.27 | | | |

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|--------|-------------|-------------|-------------|------------|------------|------------|-------------|
| 8/30/2016 | | <0.002 | | | | | | |
| 8/31/2016 | | | | | 0.002 (J) | 0.0015 (J) | 0.0021 (J) | |
| 11/30/2016 | | 0.0011 (J) | | | 0.0023 (J) | 0.0054 (J) | <0.002 | |
| 2/15/2017 | | <0.002 | | | | | | |
| 2/16/2017 | | | | | 0.002 (J) | 0.0022 (J) | 0.0025 (J) | |
| 5/31/2017 | | | <0.002 | | | | | <0.002 |
| 6/1/2017 | | <0.002 | | <0.002 | | | | |
| 6/2/2017 | | | | | <0.002 | <0.002 | <0.002 | |
| 8/2/2017 | | | <0.002 | <0.002 | | | | <0.002 |
| 8/15/2017 | | | | | | | | <0.002 |
| 8/16/2017 | | <0.002 | <0.002 | | | | | |
| 8/17/2017 | | | | <0.002 | <0.002 | 0.002 (J) | 0.0033 (J) | |
| 4/4/2018 | | | | <0.002 | | | | <0.002 |
| 4/5/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | | <0.002 | | | | <0.002 |
| 5/9/2018 | | | <0.002 | | | | | |
| 6/19/2018 | | <0.002 | <0.002 | | | | | <0.002 |
| 6/20/2018 | | | | <0.002 | <0.002 | <0.002 | | |
| 6/21/2018 | | | | | | | <0.002 | |
| 9/25/2018 | | | | | | | | <0.002 |
| 9/26/2018 | | 0.0014 | 0.0014 | | | | | |
| 9/27/2018 | | | | <0.002 | <0.002 | <0.002 | 0.0023 (J) | |
| 11/6/2018 | | | | 0.0025 (J) | | | 0.0048 (J) | <0.002 |
| 11/7/2018 | | <0.002 | <0.002 | | <0.002 | 0.0075 (J) | | |
| 3/6/2019 | | | | | | 0.0024 (J) | | |
| 3/25/2019 | | | | | | | | <0.002 |
| 8/27/2019 | | <0.002 | | <0.002 | | | | |
| 8/28/2019 | | | <0.002 | | <0.002 | 0.0014 (J) | 0.0019 (J) | <0.002 |
| 10/15/2019 | | | | <0.002 | | | | |
| 10/16/2019 | | <0.002 | <0.002 | | <0.002 | | | <0.002 |
| 10/17/2019 | | | | | | 0.0066 (J) | 0.0049 (J) | |
| 3/26/2020 | | <0.002 | | | | | | |
| 3/27/2020 | | | <0.002 | | | | | <0.002 |
| 3/28/2020 | | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 10/12/2020 | | | | | | | | <0.002 |
| 10/13/2020 | | <0.002 | <0.002 | <0.002 | | | | |
| 10/14/2020 | | | | | | <0.002 | <0.002 | |
| 10/15/2020 | <0.002 | | | | 0.0028 (J) | | | |
| 1/4/2021 | | | | | <0.002 | | | |
| 3/3/2021 | | <0.002 | <0.002 | | | | | <0.002 |
| 3/4/2021 | <0.002 | | | 0.00038 (J) | <0.002 | <0.002 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| 3/1/2022 | <0.002 | | | | <0.002 | <0.002 | | |
| 3/2/2022 | | <0.002 | <0.002 | | | | <0.002 | 0.00022 (J) |
| 3/3/2022 | | | | 0.00012 (J) | | | | |

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|
| 8/30/2016 | 0.0011 (J) | <0.002 | | <0.002 | | | | |
| 10/25/2016 | | | | | 0.003 (J) | | | |
| 11/30/2016 | 0.0023 (J) | <0.002 | | 0.0011 (J) | 0.0087 (J) | | | |
| 2/15/2017 | 0.0021 (J) | 0.0014 (J) | | <0.002 | 0.0067 (J) | | | |
| 5/31/2017 | <0.002 | <0.002 | | | 0.0018 (J) | | | |
| 6/1/2017 | | | | <0.002 | | | | |
| 6/2/2017 | | | <0.002 | | | | | |
| 8/2/2017 | | | <0.002 | | | | | |
| 8/15/2017 | 0.0021 (J) | | | | 0.0025 (J) | | | |
| 8/16/2017 | | 0.0018 (J) | | | | | | |
| 8/17/2017 | | | <0.002 | <0.002 | | | | |
| 4/4/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | 0.0016 (J) | | | | | |
| 6/19/2018 | 0.0017 (J) | <0.002 | 0.0022 (J) | | <0.002 | | | |
| 6/20/2018 | | | | <0.002 | | | | |
| 9/25/2018 | 0.002 (J) | 0.0019 (J) | | | | | | |
| 9/26/2018 | | | 0.0015 (J) | 0.0014 | 0.0016 (J) | | | |
| 11/6/2018 | | 0.0057 (J) | | | <0.002 | | | |
| 11/7/2018 | <0.002 | | <0.002 | <0.002 | | | | |
| 8/26/2019 | | 0.0025 (J) | | | | | | |
| 8/27/2019 | 0.0019 (J) | | 0.0018 (J) | <0.002 | 0.0018 (J) | | | |
| 10/15/2019 | <0.002 | 0.003 (J) | <0.002 | | | | | |
| 10/16/2019 | | | | <0.002 | <0.002 | | | |
| 11/7/2019 | | | | | | 0.036 | 0.063 | 0.12 |
| 11/18/2019 | | | | | | <0.002 | | |
| 11/19/2019 | | | | | | | 0.039 (J) | 0.047 (J) |
| 12/4/2019 | | | | | | | 0.12 | 0.11 |
| 12/5/2019 | | | | | | 0.032 | | |
| 12/17/2019 | | | | | | | 0.031 (J) | |
| 12/18/2019 | | | | | | 0.01 | | 0.032 (J) |
| 1/8/2020 | | | | | | | 0.066 | 0.044 (J) |
| 1/9/2020 | | | | | | 0.01 | | |
| 1/21/2020 | | | | | | 0.023 (J) | 0.13 | 0.089 |
| 2/4/2020 | | | | | | 0.017 (J) | 0.065 (J) | 0.049 (J) |
| 2/13/2020 | | | | | | 0.015 | 0.15 | 0.11 |
| 3/27/2020 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 0.0034 (J) | 0.013 | 0.012 |
| 10/12/2020 | <0.002 | | | | | <0.002 | | |
| 10/13/2020 | | <0.002 | <0.002 | <0.002 | <0.002 | | 0.0076 (J) | 0.0056 (J) |
| 3/2/2021 | <0.002 | <0.002 | <0.002 | | | | | |
| 3/3/2021 | | | | <0.002 | <0.002 | 0.0012 (J) | 0.013 (J) | 0.0094 (J) |
| 9/13/2021 | <0.002 | <0.002 | | | | | | |
| 9/14/2021 | | | <0.002 | <0.002 | 0.0021 | <0.002 | 0.0022 (J) | 0.0018 (J) |
| 3/1/2022 | | | | | | | <0.002 | 0.0058 (J) |
| 3/2/2022 | | | 0.00028 (J) | | | <0.002 | | |
| 3/3/2022 | <0.002 | <0.002 | | <0.002 | <0.002 | | | |

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|-----------|-----------|----------|---------|-------------|
| 8/30/2016 | | 17 | | | | | | |
| 8/31/2016 | | | | | 37 | 21 | 290 | |
| 11/30/2016 | | 33 | | | 63 | 19 | 240 | |
| 2/15/2017 | | 83 | | | | | | |
| 2/16/2017 | | | | | 90 | 22 | 220 | |
| 5/31/2017 | | | 46 | | | | | 40 |
| 6/1/2017 | | 51 | | 42 | | | | |
| 6/2/2017 | | | | | 210 | 28 | 500 | |
| 8/2/2017 | | | 43 | 120 | | | | 34 |
| 8/15/2017 | | | | | | | | 24 |
| 8/16/2017 | | 36 | 41 | | | | | |
| 8/17/2017 | | | | 110 | 80 | 69 | 510 | |
| 4/4/2018 | | | | 70.6 | | | | 33.9 |
| 4/5/2018 | | | 33.4 | | | | | |
| 5/8/2018 | | | | 61.4 | | | | 35.7 |
| 5/9/2018 | | | 36 | | | | | |
| 6/19/2018 | | 50.3 | 35.5 | | | | | 23.7 |
| 6/20/2018 | | | | 25.3 | 46 (J) | 33 | | |
| 6/21/2018 | | | | | | | 481 | |
| 9/25/2018 | | | | | | | | 25.6 |
| 9/26/2018 | | 54.1 | 39.6 | | | | | |
| 9/27/2018 | | | | 63.4 | 58.5 (J) | 29.4 (D) | 777 (D) | |
| 11/6/2018 | | | | 136 | | | 926 | 25.2 |
| 11/7/2018 | | 45.6 | 35.8 | | 41.3 (J) | 734 | | |
| 3/6/2019 | | | | | | 1220 (J) | | |
| 3/24/2019 | | | | | 131 | 413 | 1070 | |
| 3/25/2019 | | 43 | 34.2 | 137 | | | | 24.9 |
| 10/15/2019 | | | | 105 | | | | |
| 10/16/2019 | | 31.9 | 24.4 | | 122.5 (D) | | | 17.4 |
| 10/17/2019 | | | | | | 507 | 1230 | |
| 11/20/2019 | | | | | 132 | | 1550 | |
| 3/26/2020 | | 36.2 | | | | | | |
| 3/27/2020 | | | 28.6 | | | | | 23.4 |
| 3/28/2020 | | | | 86.6 | 63.8 | 701 | 1090 | |
| 4/23/2020 | 936 | | | | | | | |
| 6/16/2020 | 970 | | | | | | | |
| 10/12/2020 | | | | | | | | 19.3 |
| 10/13/2020 | | 32.3 | 27.6 | 92.3 | | | | |
| 10/14/2020 | | | | | | 510 | 904 | |
| 10/15/2020 | 1060 | | | | 147 | | | |
| 1/4/2021 | | | | | 262 | | | |
| 3/3/2021 | | 33.8 | 27.6 | | | | | 19.9 |
| 3/4/2021 | 1060 | | | 99.1 | 82.2 | 596 | 982 | |
| 9/14/2021 | 971 | 34.2 | 30.4 | 96.2 (M1) | 459 | 490 | 819 | 33.1 |
| 3/1/2022 | 755 | | | | 143 | 440 | | |
| 3/2/2022 | | 30.8 | 25.7 | | | | 702 | 19.5 |
| 3/3/2022 | | | | 50.6 | | | | |

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|----------|--------|-------------|-------------|-----------|-------------|-------------|-------------|
| 8/30/2016 | 4.3 | 6.4 | | 24 | | | | |
| 10/25/2016 | | | | | 84 | | | |
| 11/30/2016 | 7.6 | 4.5 | | 26 | 52 | | | |
| 2/15/2017 | 3 | 37 | | 30 | 190 | | | |
| 5/31/2017 | 2.5 | 61 | | | 260 | | | |
| 6/1/2017 | | | | 24 | | | | |
| 6/2/2017 | | | 13 | | | | | |
| 8/2/2017 | | | 14 | | | | | |
| 8/15/2017 | 3.2 | | | | 210 | | | |
| 8/16/2017 | | 130 | | | | | | |
| 8/17/2017 | | | 14 | 26 | | | | |
| 4/4/2018 | | | 13.4 | | | | | |
| 5/8/2018 | | | 14.8 | | | | | |
| 6/19/2018 | 1.6 | 498 | 15.5 | | 218 | | | |
| 6/20/2018 | | | | 31.2 | | | | |
| 9/25/2018 | 1 | 790 | | | | | | |
| 9/26/2018 | | | 23 | 36.8 | 333 (D) | | | |
| 11/6/2018 | | 875 | | | 182 | | | |
| 11/7/2018 | 0.41 (J) | | 22.2 | 35 | | | | |
| 3/24/2019 | 1.5 | 1170 | | | 413 | | | |
| 3/25/2019 | | | 22.4 | 40.1 | | | | |
| 10/15/2019 | 0.54 (J) | <5 | 17.9 | | | | | |
| 10/16/2019 | | | | 28.5 | 312.5 (D) | | | |
| 11/7/2019 | | | | | | 379 | 832 | 1010 |
| 11/18/2019 | | | | | | 737 | | |
| 11/19/2019 | | | | | | | 795 | 1140 |
| 11/21/2019 | | 1070 | | | 428 | | | |
| 12/4/2019 | | | | | | | 810 | 1020 |
| 12/5/2019 | | | | | | 351 | | |
| 12/17/2019 | | | | | | | 535 | |
| 12/18/2019 | | | | | | | | 8.1 |
| 1/8/2020 | | | | | | | 603 | 747 |
| 1/9/2020 | | | | | | 254 | | |
| 1/21/2020 | | | | | | 254 | 611 | 798 |
| 2/4/2020 | | | | | | 432 | 599 | 1120 |
| 2/13/2020 | | | | | | 300 | 761 | 833 |
| 3/27/2020 | <5 | 899 | 14.6 | 31.2 | 504 | 219 | 836 | 700 |
| 10/12/2020 | <5 | | | | | 191 | | |
| 10/13/2020 | | 695 | 7.6 | 26.8 | 378 | | 609 | 638 |
| 3/2/2021 | 1.2 | 97.5 | 8 | | | | | |
| 3/3/2021 | | | | 30.5 | 420 | 171 | <5 | 743 |
| 9/13/2021 | <5 | 680 | | | | | | |
| 9/14/2021 | | | 16.7 | 24.4 | 460 | 134 | 995 | 659 |
| 3/1/2022 | | | | | | | 158 | 543 |
| 3/2/2022 | | | 16 | | | 186 | | |
| 3/3/2022 | <5 | 754 | | 20.4 | 324 | | | |

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|--------|-------------|-------------|--------|--------|-------------|--------|-------------|
| 8/30/2016 | | <0.002 | | | | | | |
| 8/31/2016 | | | | | <0.002 | <0.002 | <0.002 | |
| 11/30/2016 | | <0.002 | | | <0.002 | <0.002 | <0.002 | |
| 2/15/2017 | | <0.002 | | | | | | |
| 2/16/2017 | | | | | <0.002 | <0.002 | <0.002 | |
| 5/31/2017 | | | <0.002 | | | | | <0.002 |
| 6/1/2017 | | <0.002 | | <0.002 | | | | |
| 6/2/2017 | | | | | <0.002 | <0.002 | <0.002 | |
| 8/2/2017 | | | <0.002 | <0.002 | | | | <0.002 |
| 8/15/2017 | | | | | | | | <0.002 |
| 8/16/2017 | | <0.002 | <0.002 | | | | | |
| 8/17/2017 | | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 4/4/2018 | | | | <0.002 | | | | <0.002 |
| 4/5/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | | <0.002 | | | | <0.002 |
| 5/9/2018 | | | <0.002 | | | | | |
| 6/19/2018 | | <0.002 | <0.002 | | | | | <0.002 |
| 6/20/2018 | | | | <0.002 | <0.002 | <0.002 | | |
| 6/21/2018 | | | | | | | <0.002 | |
| 9/25/2018 | | | | | | | | <0.002 |
| 9/26/2018 | | 0.00014 | 0.00014 | | | | | |
| 9/27/2018 | | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 11/6/2018 | | | | <0.002 | | | <0.002 | <0.002 |
| 11/7/2018 | | <0.002 | <0.002 | | <0.002 | <0.002 | | |
| 3/6/2019 | | | | | | <0.002 | | |
| 8/27/2019 | | <0.002 | | <0.002 | | | | |
| 8/28/2019 | | | <0.002 | | <0.002 | <0.002 | <0.002 | <0.002 |
| 10/15/2019 | | | | <0.002 | | | | |
| 10/16/2019 | | <0.002 | <0.002 | | <0.002 | | | <0.002 |
| 10/17/2019 | | | | | | 7.6E-05 (J) | <0.002 | |
| 3/26/2020 | | <0.002 | | | | | | |
| 3/27/2020 | | | <0.002 | | | | | <0.002 |
| 3/28/2020 | | | | <0.002 | <0.002 | <0.002 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| 3/1/2022 | <0.002 | | | | <0.002 | <0.002 | | |
| 3/2/2022 | | <0.002 | <0.002 | | | | <0.002 | <0.002 |
| 3/3/2022 | | | | <0.002 | | | | |

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/4/2022 9:20 AM

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|---------|-------------|-------------|-------------|
| 8/30/2016 | <0.002 | <0.002 | | <0.002 | | | | |
| 10/25/2016 | | | | | <0.002 | | | |
| 11/30/2016 | <0.002 | <0.002 | | <0.002 | <0.002 | | | |
| 2/15/2017 | <0.002 | <0.002 | | <0.002 | <0.002 | | | |
| 5/31/2017 | <0.002 | <0.002 | | | <0.002 | | | |
| 6/1/2017 | | | | 6E-05 (J) | | | | |
| 6/2/2017 | | | <0.002 | | | | | |
| 8/2/2017 | | | <0.002 | | | | | |
| 8/15/2017 | <0.002 | | | | <0.002 | | | |
| 8/16/2017 | | <0.002 | | | | | | |
| 8/17/2017 | | | <0.002 | 7E-05 (J) | | | | |
| 4/4/2018 | | | <0.002 | | | | | |
| 5/8/2018 | | | <0.002 | | | | | |
| 6/19/2018 | <0.002 | <0.002 | <0.002 | | <0.002 | | | |
| 6/20/2018 | | | | <0.002 | | | | |
| 9/25/2018 | <0.002 | <0.002 | | | | | | |
| 9/26/2018 | | | 0.00014 | 0.00014 | 0.00014 | | | |
| 11/6/2018 | | <0.002 | | | <0.002 | | | |
| 11/7/2018 | <0.002 | | <0.002 | <0.002 | | | | |
| 8/26/2019 | | <0.002 | | | | | | |
| 8/27/2019 | <0.002 | | <0.002 | 6.6E-05 (J) | <0.002 | | | |
| 10/15/2019 | <0.002 | <0.002 | <0.002 | | | | | |
| 10/16/2019 | | | | <0.002 | <0.002 | | | |
| 11/7/2019 | | | | | | <0.002 | <0.002 | <0.002 |
| 11/18/2019 | | | | | | <0.002 | | |
| 11/19/2019 | | | | | | | <0.002 | <0.002 |
| 12/4/2019 | | | | | | | <0.002 | <0.002 |
| 12/5/2019 | | | | | | <0.002 | | |
| 12/17/2019 | | | | | | | <0.002 | |
| 12/18/2019 | | | | | | <0.002 | | <0.002 |
| 1/8/2020 | | | | | | | <0.002 | <0.002 |
| 1/9/2020 | | | | | | <0.002 | | |
| 1/21/2020 | | | | | | <0.002 | <0.002 | <0.002 |
| 2/4/2020 | | | | | | <0.002 | <0.002 | <0.002 |
| 2/13/2020 | | | | | | <0.002 | <0.002 | <0.002 |
| 3/27/2020 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| 9/13/2021 | <0.002 | <0.002 | | | | | | |
| 9/14/2021 | | | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| 3/1/2022 | | | | | | | <0.002 | <0.002 |
| 3/2/2022 | | | <0.002 | | | <0.002 | | |
| 3/3/2022 | <0.002 | <0.002 | | 6.6E-05 (J) | <0.002 | | | |

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-01 (bg) | MCM-02 (bg) | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-11 (bg) |
|------------|-------|-------------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | | 86 | | | | | | |
| 8/31/2016 | | | | | 3620 | 4160 | 5100 | |
| 11/30/2016 | | 131 | | | 4030 | 3950 | 4680 | |
| 2/15/2017 | | 212 | | | | | | |
| 2/16/2017 | | | | | 4080 | 4600 | 5080 | |
| 5/31/2017 | | | 123 | | | | | 257 |
| 6/1/2017 | | 103 | | 97 | | | | |
| 6/2/2017 | | | | | 5560 | 4470 | 8000 | |
| 8/2/2017 | | | 136 | 538 | | | | 183 |
| 8/15/2017 | | | | | | | | 90 |
| 8/16/2017 | | 65 | 124 | | | | | |
| 8/17/2017 | | | | 445 | 4620 | 5450 | 8320 | |
| 4/4/2018 | | | | 365 | | | | 197 |
| 4/5/2018 | | | 128 | | | | | |
| 5/8/2018 | | | | 304 | | | | 225 |
| 5/9/2018 | | | 127 | | | | | |
| 6/19/2018 | | 142 | 143 | | | | | 112 |
| 6/20/2018 | | | | 114 | 3370 | 4940 | | |
| 6/21/2018 | | | | | | | 7500 | |
| 9/25/2018 | | | | | | | | 137 |
| 9/26/2018 | | 133 | 132 | | | | | |
| 9/27/2018 | | | | 255 | 2360 | 4480 | 10200 | |
| 11/6/2018 | | | | 388 | | | 11000 | 89 |
| 11/7/2018 | | 121 | 134 | | 2230 | 15100 | | |
| 3/6/2019 | | | | | | 19000 | | |
| 3/24/2019 | | | | | 1450 | 13700 | 13700 | |
| 3/25/2019 | | 116 | 111 | 327 | | | | 74 |
| 10/15/2019 | | | | 237 | | | | |
| 10/16/2019 | | 104 | 96 | | 2860 | | | 82 |
| 10/17/2019 | | | | | | 16100 | 13200 | |
| 11/20/2019 | | | | | 2640 | | 16700 | |
| 3/26/2020 | | 114 | | | | | | |
| 3/27/2020 | | | 119 | | | | | 87 |
| 3/28/2020 | | | | 284 | 1470 | 18800 | 18300 | |
| 6/16/2020 | 20100 | | | | | | | |
| 10/12/2020 | | | | | | | | 94 |
| 10/13/2020 | | 113 | 118 | <25 | | | | |
| 10/14/2020 | | | | | | 15200 | 18400 | |
| 10/15/2020 | 19300 | | | | 5100 | | | |
| 1/4/2021 | | | | | 7750 | | | |
| 3/3/2021 | | 99 | 84 | | | | | 66 |
| 3/4/2021 | 19000 | | | 285 | 1700 | 14200 | 17100 | |
| 9/14/2021 | 16400 | 66 | 76 | 193 | 8020 | 11800 | 13400 | 191 |
| 3/1/2022 | 15600 | | | | 3780 | 9040 | | |
| 3/2/2022 | | 97 | 94 | | | | 12600 | 124 |
| 3/3/2022 | | | | 146 | | | | |

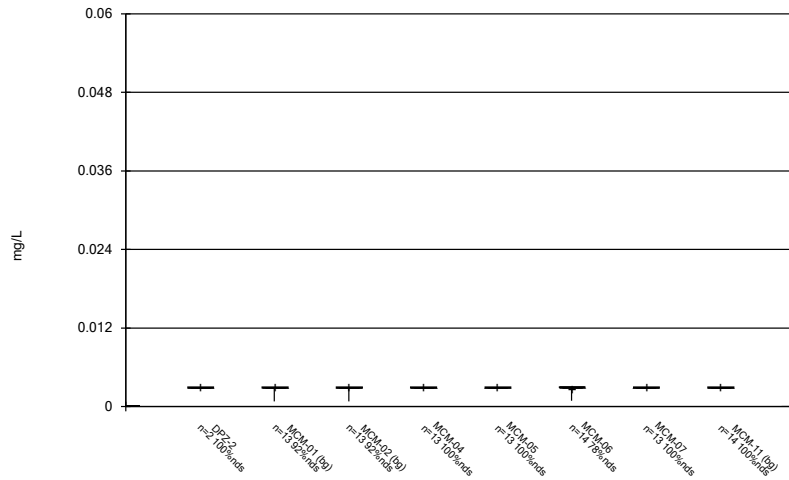
Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:20 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-12 | MCM-14 | MCM-15 (bg) | MCM-16 (bg) | MCM-17 | MCM-18 (bg) | MCM-19 (bg) | MCM-20 (bg) |
|------------|--------|--------|-------------|-------------|--------|-------------|-------------|-------------|
| 8/30/2016 | 1910 | 1310 | | 99 | | | | |
| 10/25/2016 | | | | | 2900 | | | |
| 11/30/2016 | 1910 | 1050 | | 111 | 3970 | | | |
| 2/15/2017 | 1870 | 1440 | | 170 | 3820 | | | |
| 5/31/2017 | 1920 | 1740 | | | 5050 | | | |
| 6/1/2017 | | | | 98 | | | | |
| 6/2/2017 | | | 69 | | | | | |
| 8/2/2017 | | | 35 | | | | | |
| 8/15/2017 | 1840 | | | | 4820 | | | |
| 8/16/2017 | | 3010 | | | | | | |
| 8/17/2017 | | | 51 | 84 | | | | |
| 4/4/2018 | | | 90 | | | | | |
| 5/8/2018 | | | 89 | | | | | |
| 6/19/2018 | 1820 | 8630 | 110 | | 5640 | | | |
| 6/20/2018 | | | | 123 | | | | |
| 9/25/2018 | 1760 | 10700 | | | | | | |
| 9/26/2018 | | | 124 | 117 | 6920 | | | |
| 11/6/2018 | | 11100 | | | 4160 | | | |
| 11/7/2018 | 1800 | | 125 | 120 | | | | |
| 3/24/2019 | 1770 | 14200 | | | 6840 | | | |
| 3/25/2019 | | | 98 | 101 | | | | |
| 10/15/2019 | 1730 | 15400 | 107 | | | | | |
| 10/16/2019 | | | | 95 | 7740 | | | |
| 11/7/2019 | | | | | | 4140 | 10900 | 13500 |
| 11/18/2019 | | | | | | 4030 | | |
| 11/19/2019 | | | | | | | 10000 | 13300 |
| 11/21/2019 | | 15800 | | | 7720 | | | |
| 12/4/2019 | | | | | | | 11000 | 13200 |
| 12/5/2019 | | | | | | 3840 | | |
| 12/17/2019 | | | | | | | 9860 | |
| 12/18/2019 | | | | | | 3880 | | 12500 |
| 1/8/2020 | | | | | | | 9760 | 12300 |
| 1/9/2020 | | | | | | 3520 | | |
| 1/21/2020 | | | | | | 3280 | 10100 | 12000 |
| 2/4/2020 | | | | | | 3220 | 10600 | 12300 |
| 2/13/2020 | | | | | | 3580 | 10900 | 12400 |
| 3/27/2020 | 1970 | 16400 | 110 | 110 | 10200 | 3090 | 14300 | 14600 |
| 10/12/2020 | 1560 | | | | | 2920 | | |
| 10/13/2020 | | 15600 | 63 | 115 | 8750 | | 6600 | 13900 |
| 3/2/2021 | 1430 | 12000 | 40 | | | | | |
| 3/3/2021 | | | | 122 | 8830 | 2620 | 11000 | 11400 |
| 9/13/2021 | 1450 | 11400 | | | | | | |
| 9/14/2021 | | | 96 | <25 | 8820 | 2190 | 14600 | 10300 |
| 3/1/2022 | | | | | | | 4050 | 10500 |
| 3/2/2022 | | | 103 | | | 3100 | | |
| 3/3/2022 | 1400 | 11500 | | 104 | 8120 | | | |

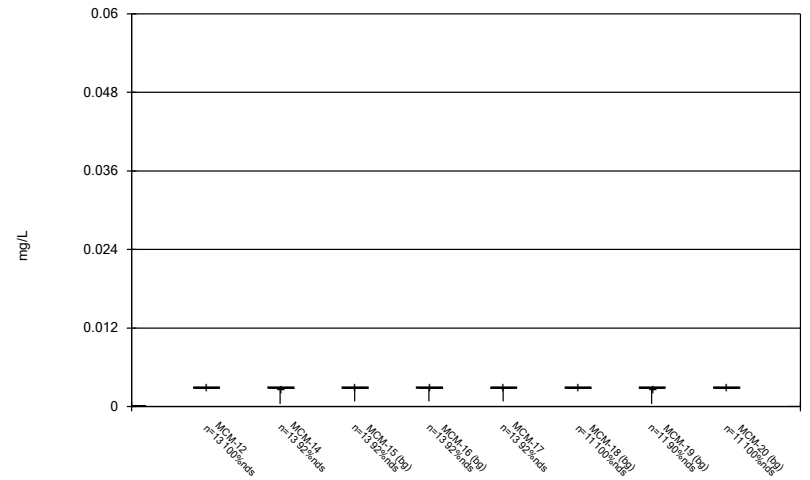
FIGURE B.

Box & Whiskers Plot



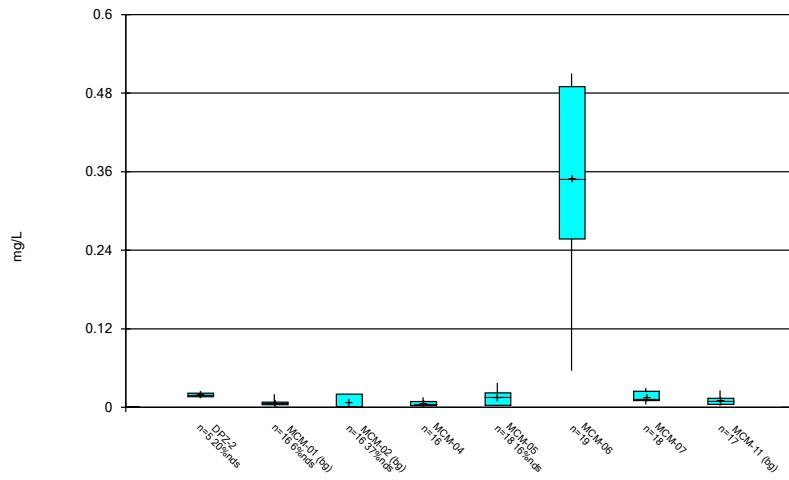
Constituent: Antimony Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



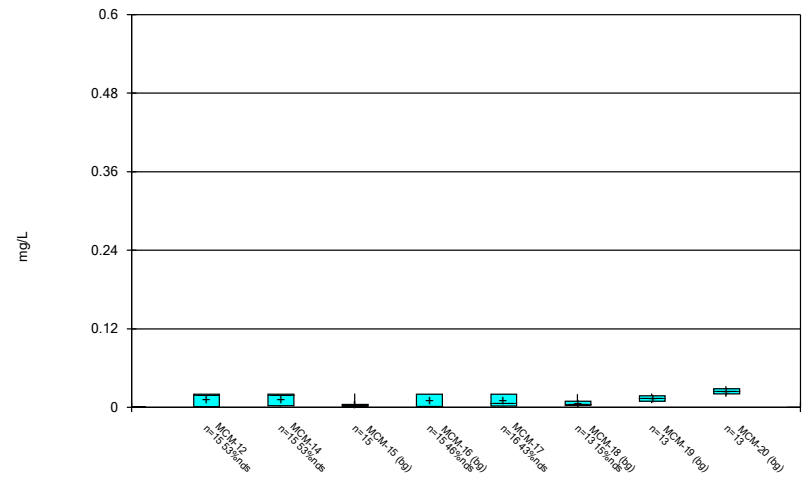
Constituent: Antimony Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



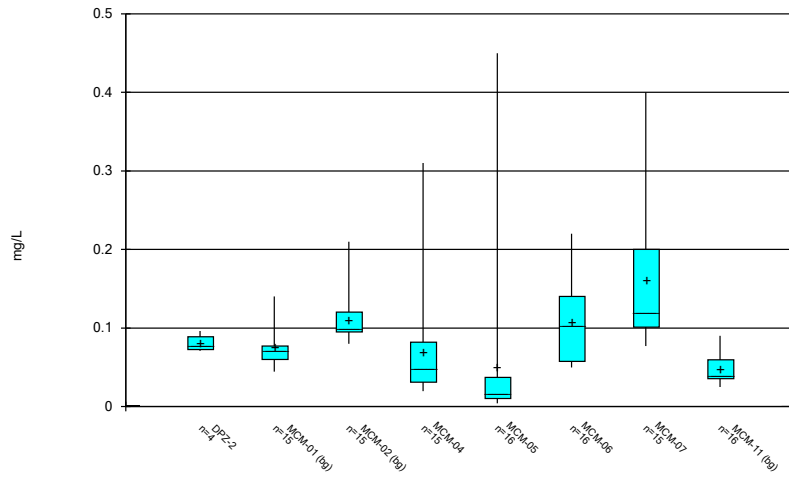
Constituent: Arsenic Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



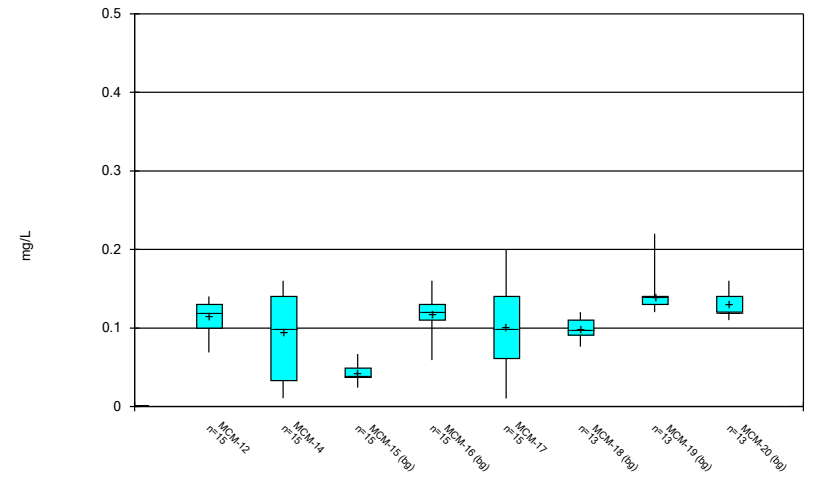
Constituent: Arsenic Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



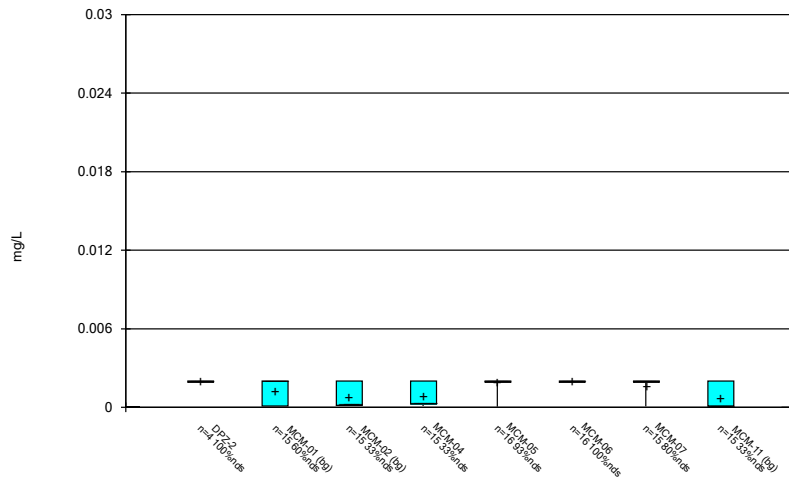
Constituent: Barium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



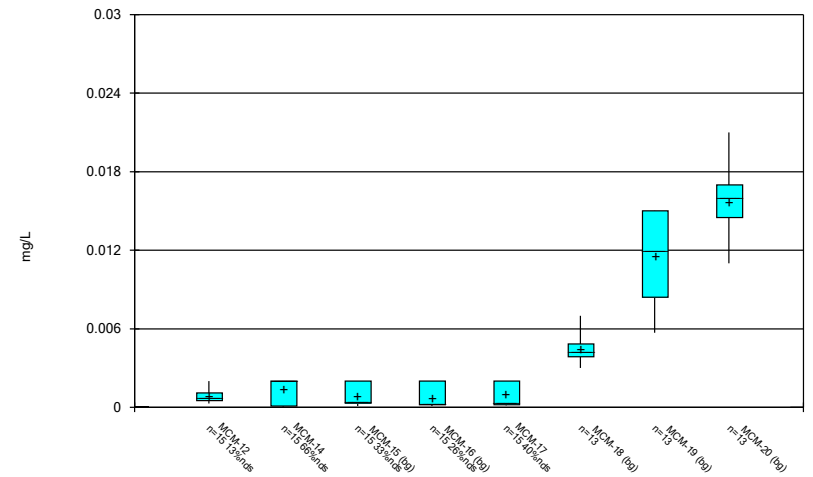
Constituent: Barium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



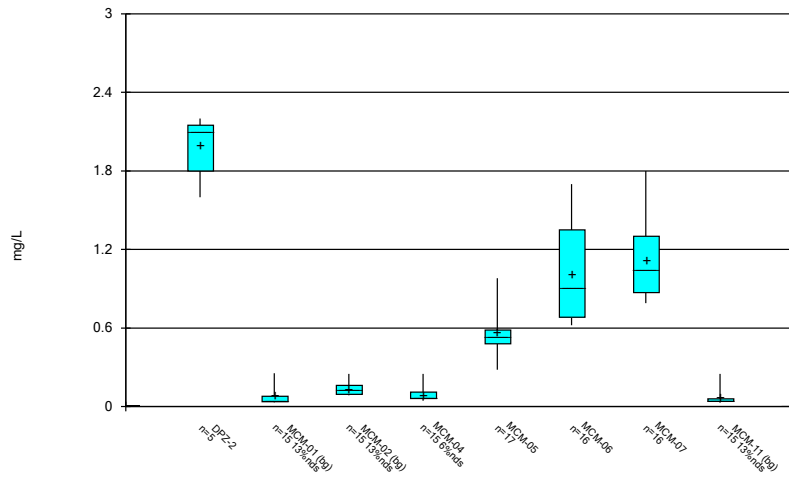
Constituent: Beryllium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



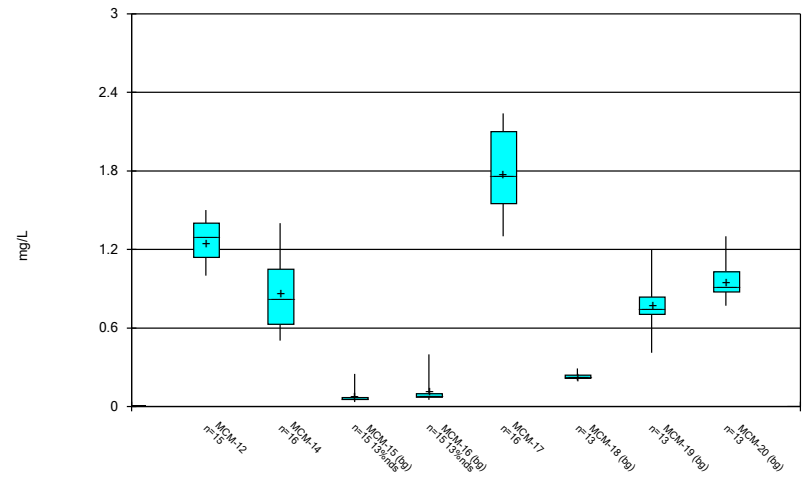
Constituent: Beryllium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



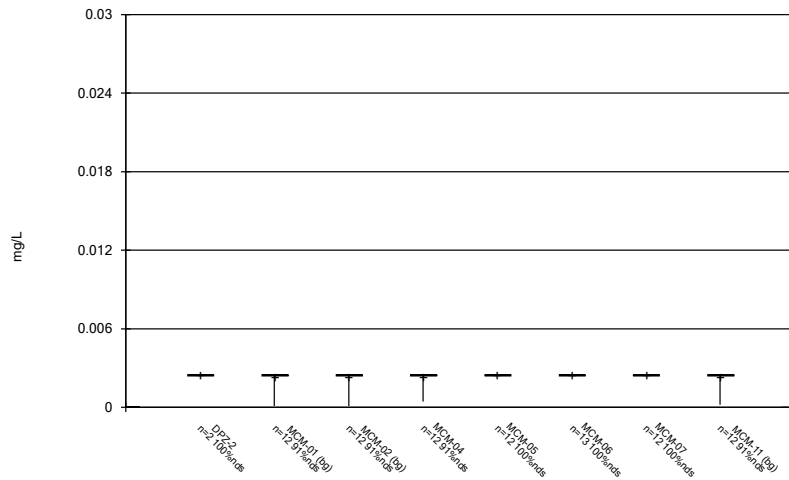
Constituent: Boron Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



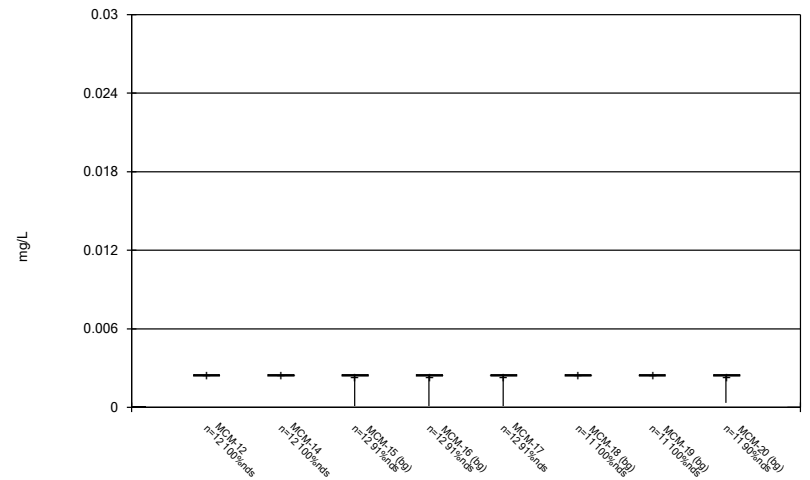
Constituent: Boron Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



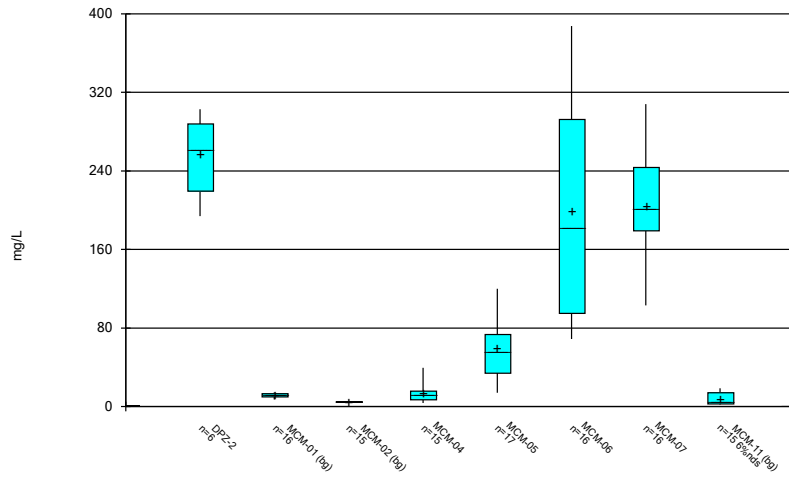
Constituent: Cadmium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



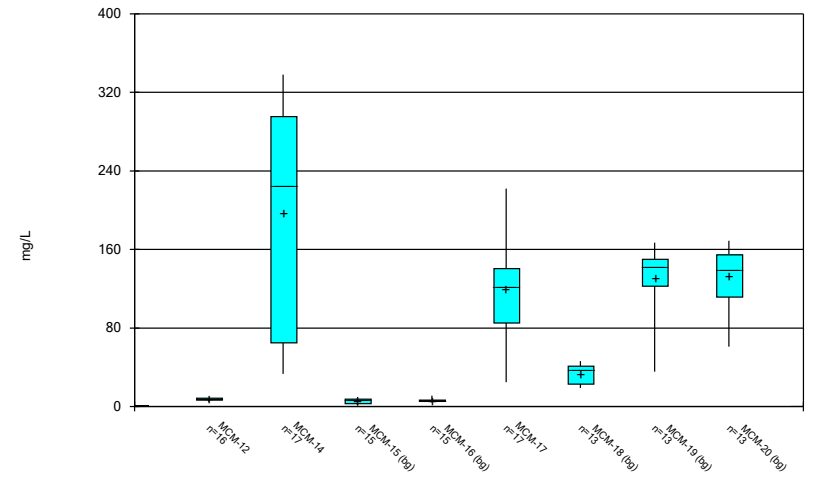
Constituent: Cadmium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



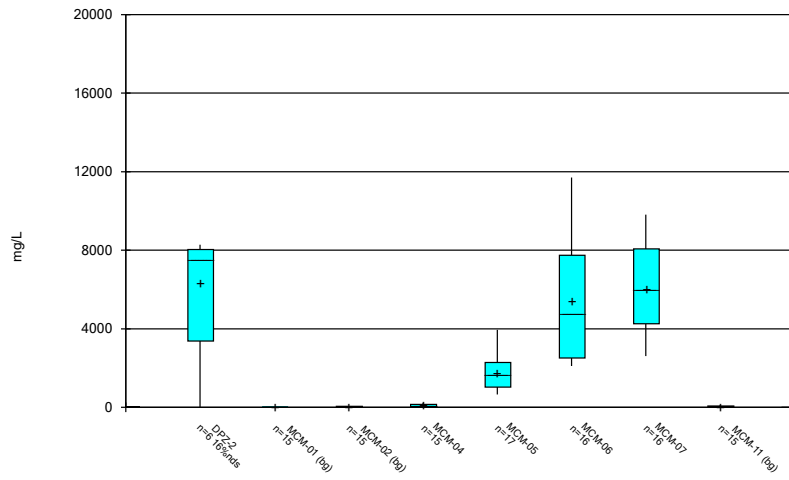
Constituent: Calcium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



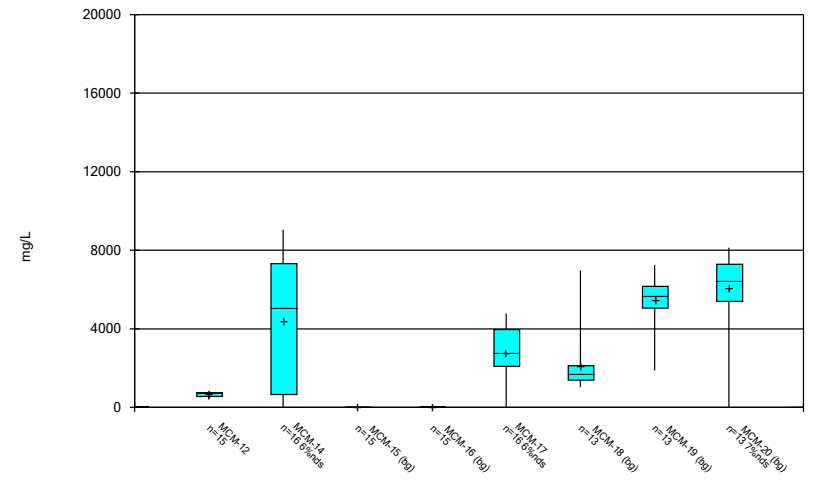
Constituent: Calcium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



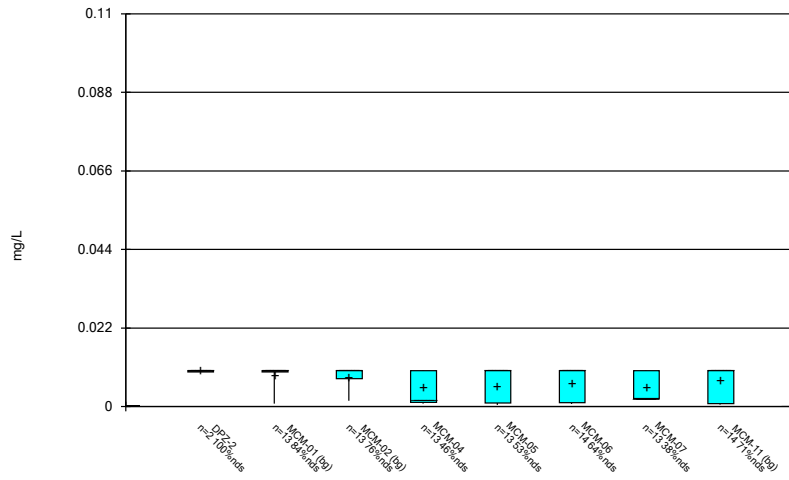
Constituent: Chloride Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



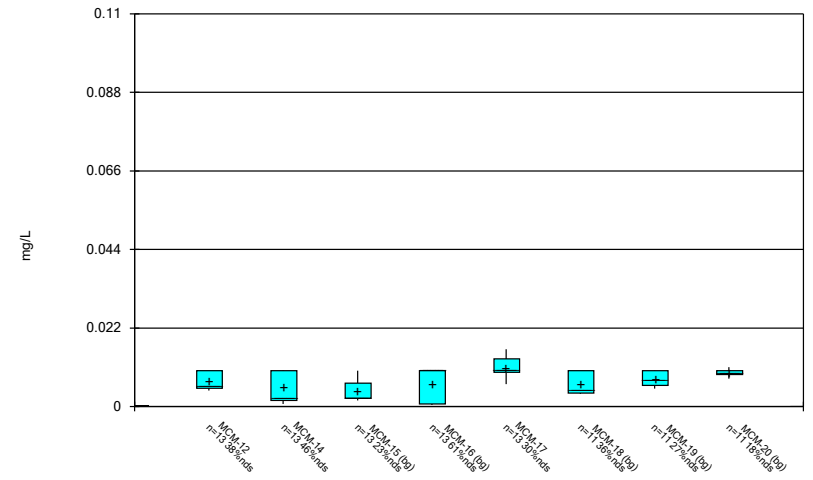
Constituent: Chloride Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



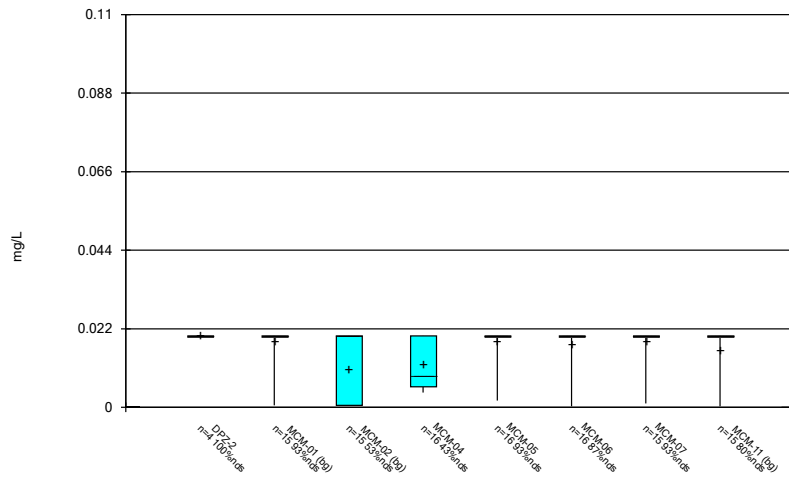
Constituent: Chromium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



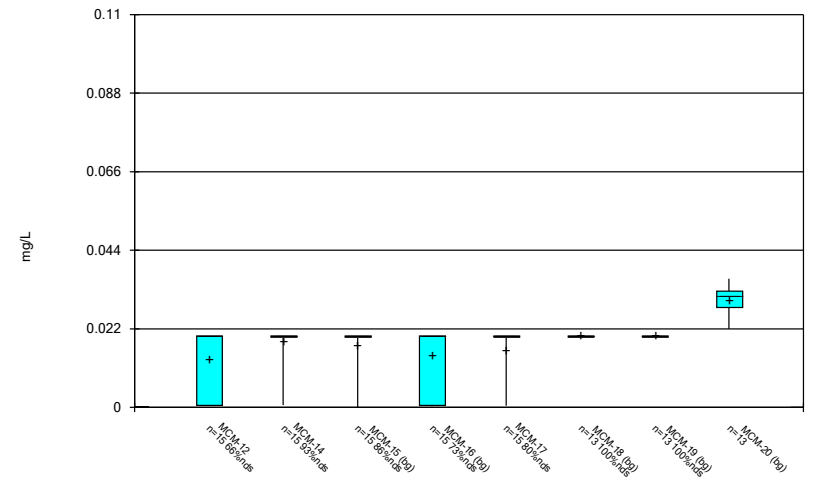
Constituent: Chromium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



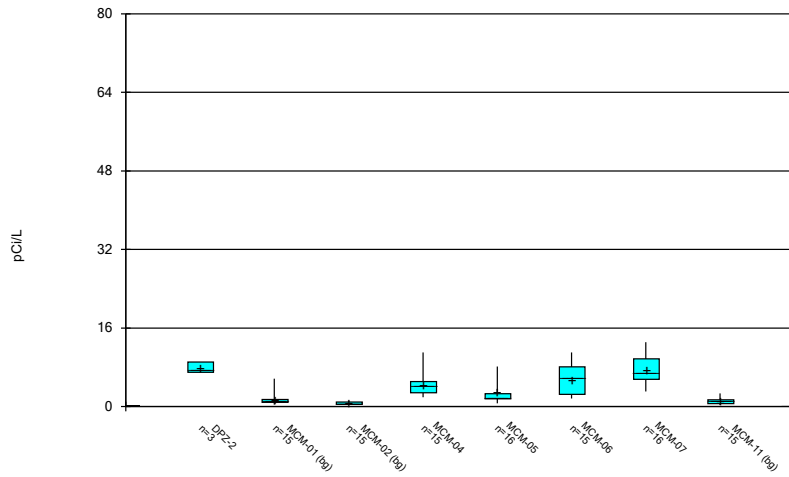
Constituent: Cobalt Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



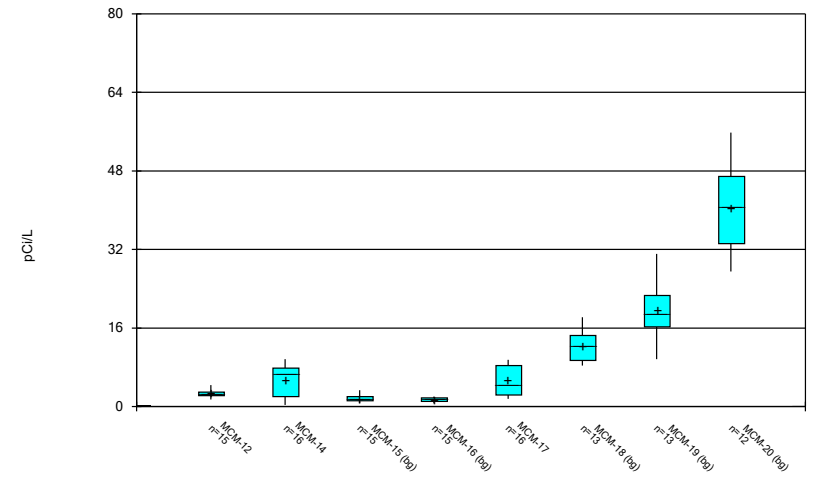
Constituent: Cobalt Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



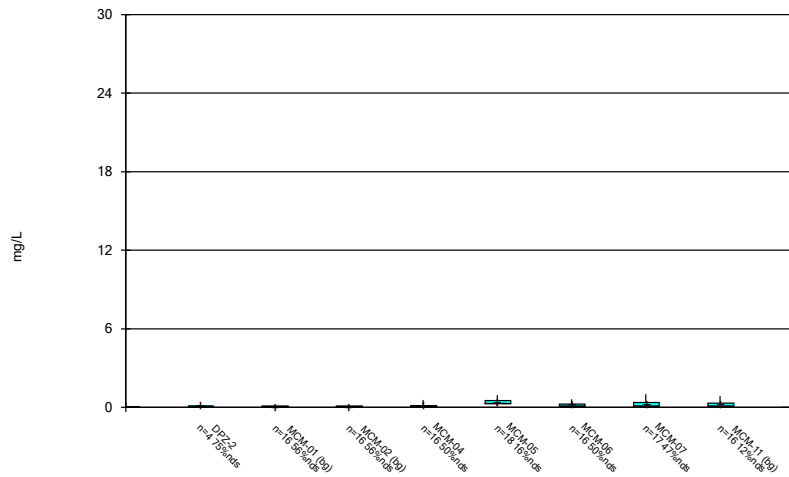
Constituent: Combined Radium 226 + 228 Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



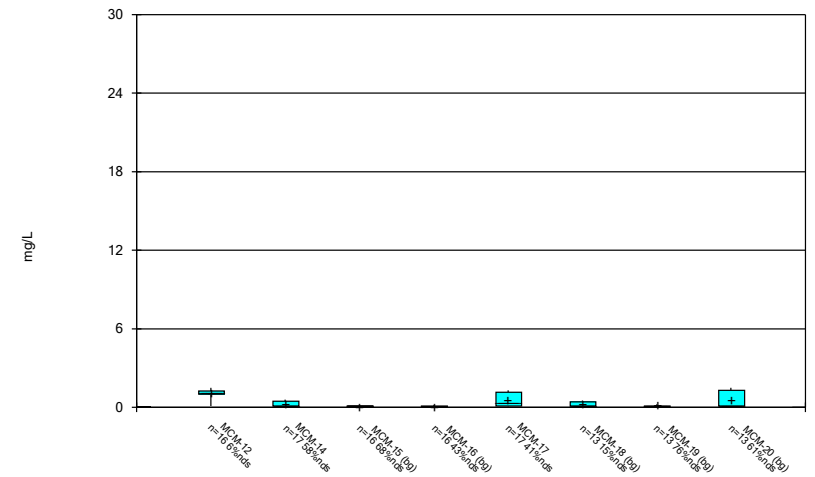
Constituent: Combined Radium 226 + 228 Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



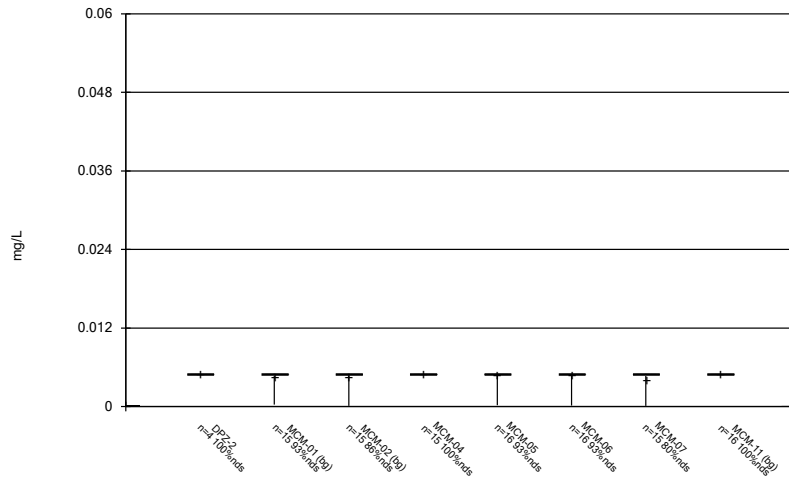
Constituent: Fluoride Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



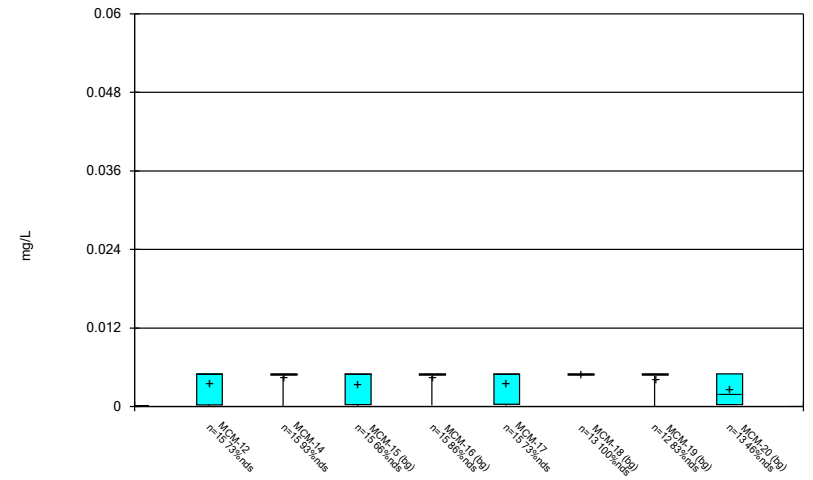
Constituent: Fluoride Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



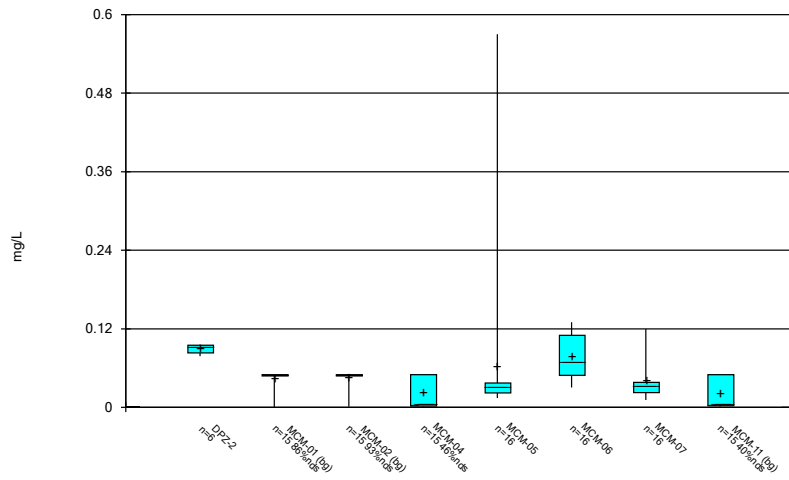
Constituent: Lead Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



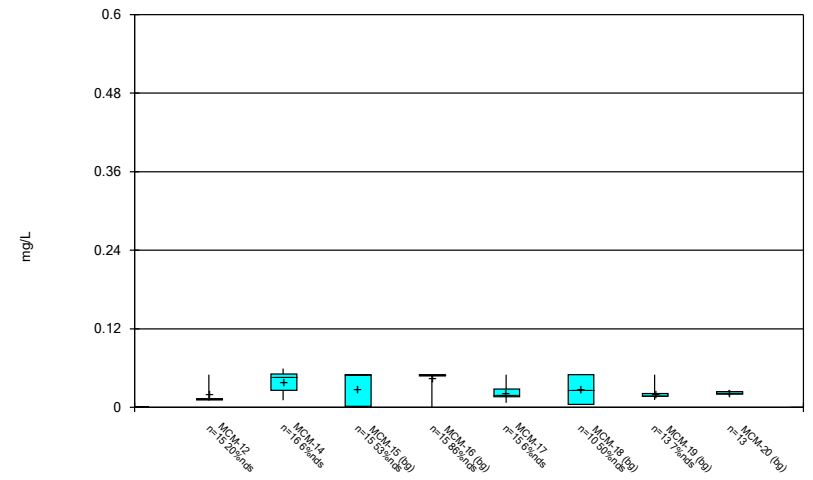
Constituent: Lead Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



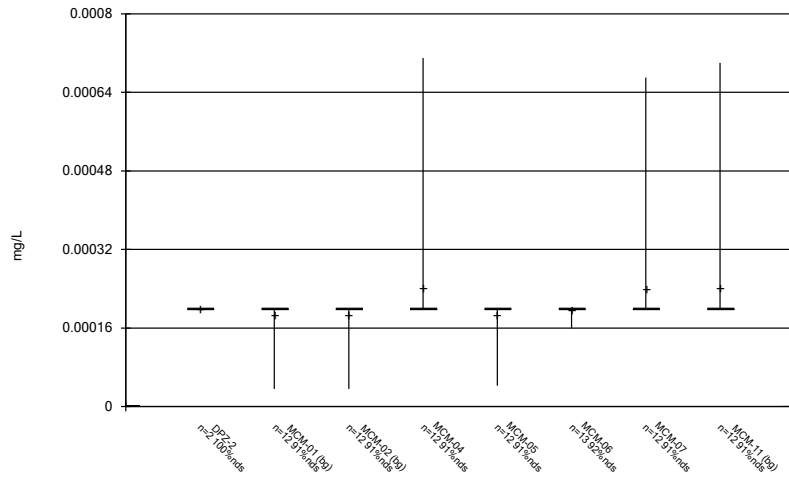
Constituent: Lithium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



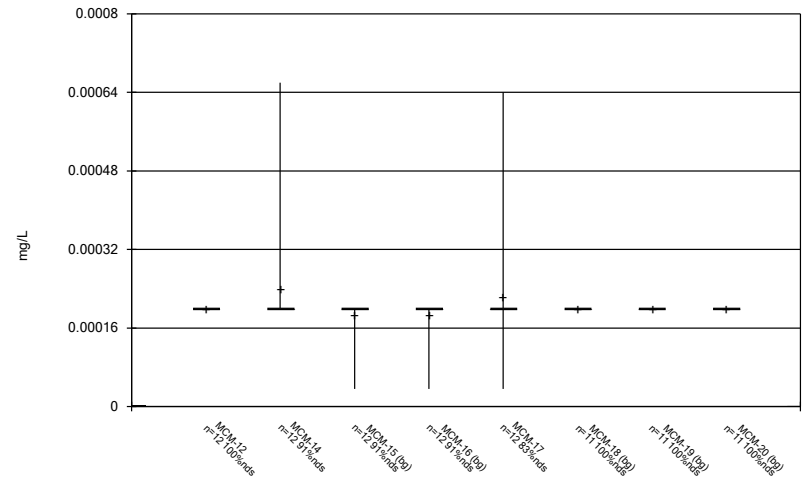
Constituent: Lithium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



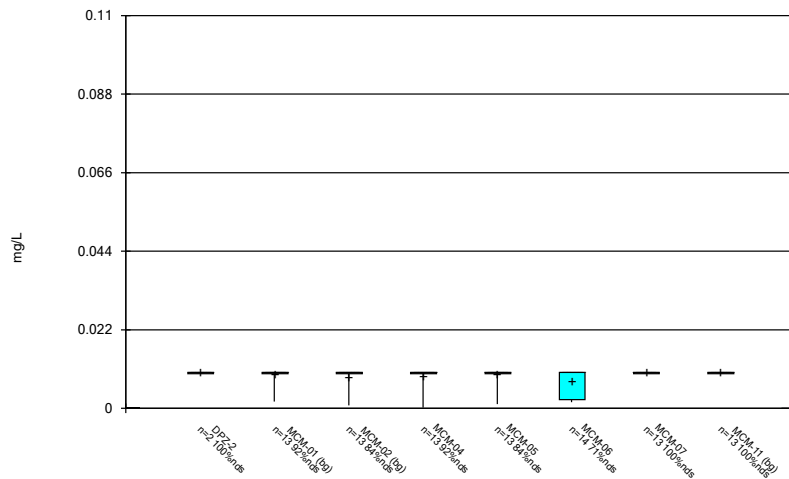
Constituent: Mercury Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



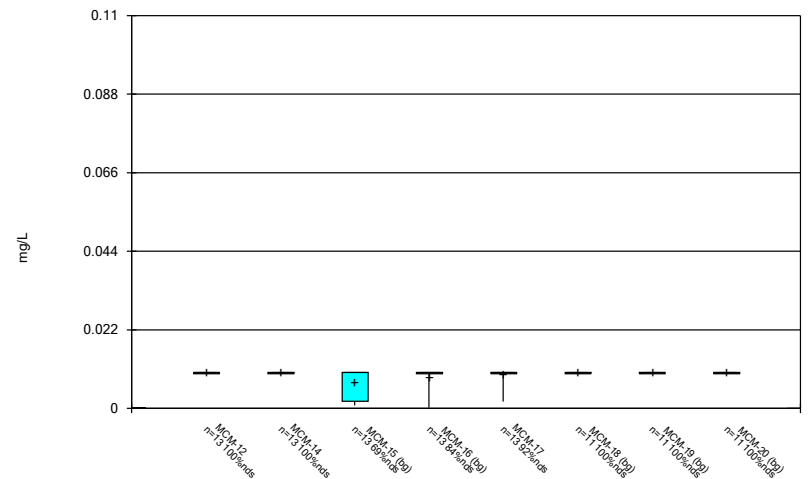
Constituent: Mercury Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



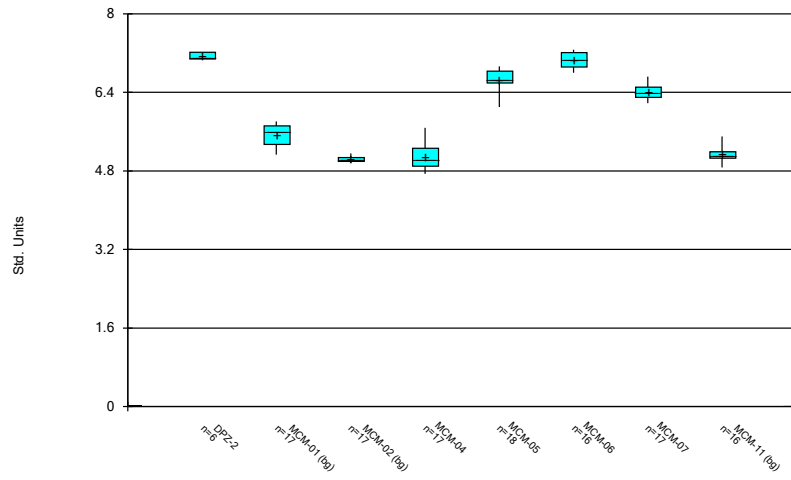
Constituent: Molybdenum Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



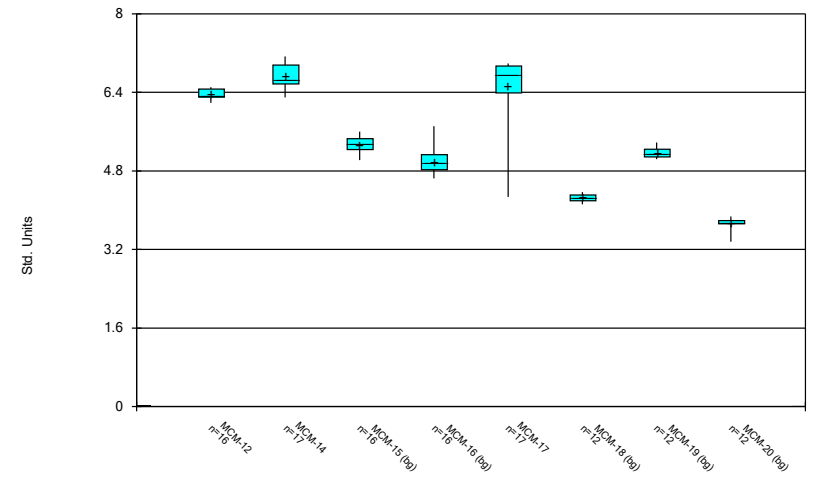
Constituent: Molybdenum Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



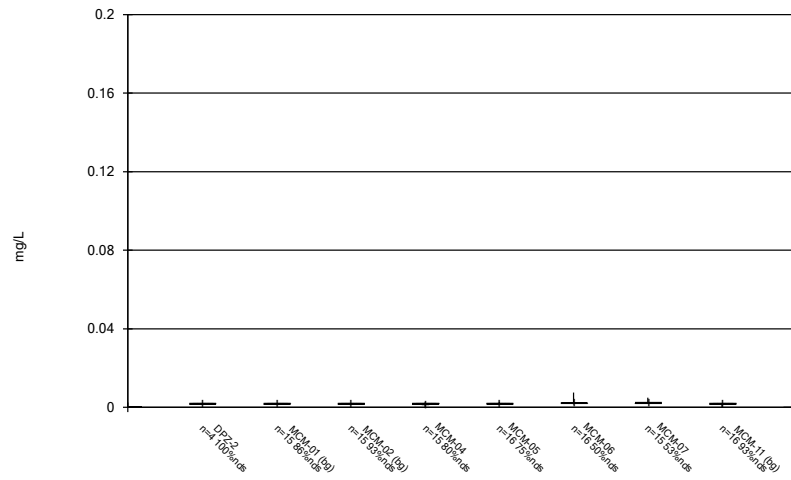
Constituent: pH, field Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



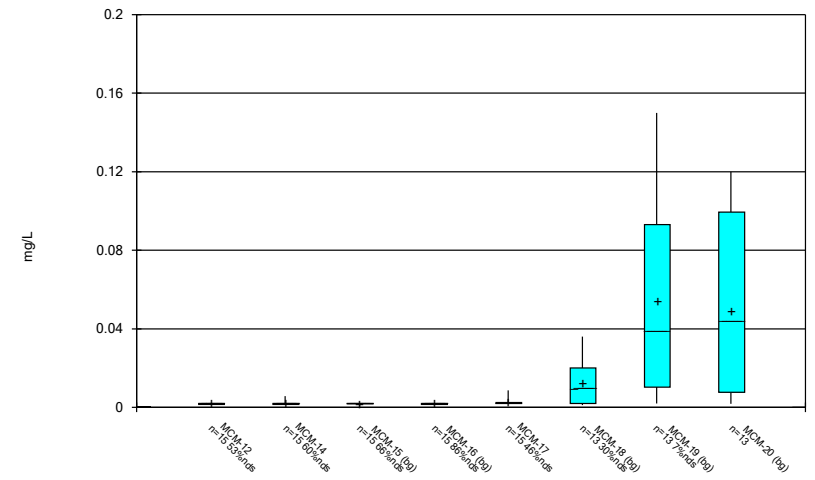
Constituent: pH, field Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



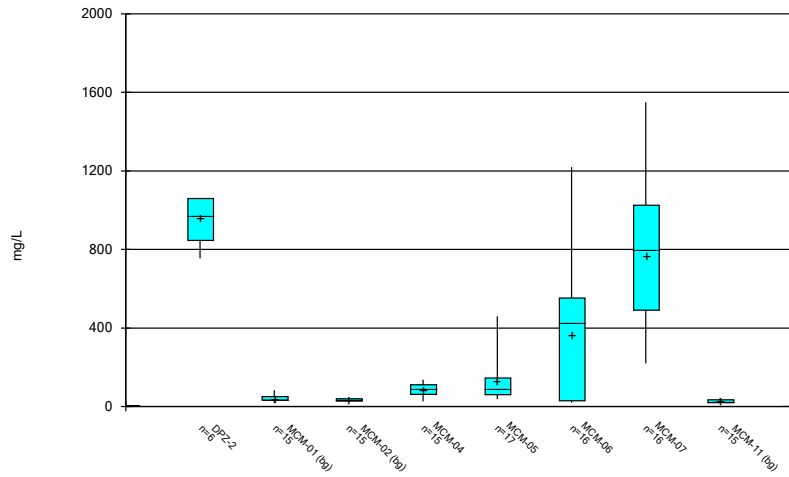
Constituent: Selenium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



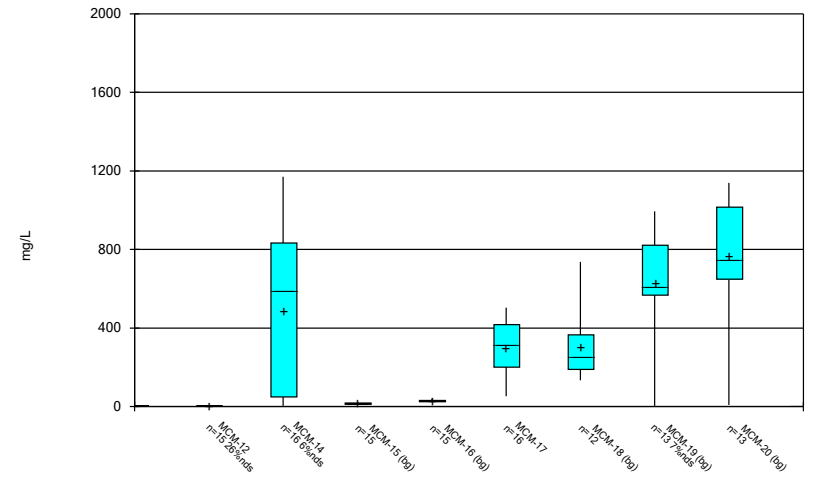
Constituent: Selenium Analysis Run 5/4/2022 9:21 AM
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



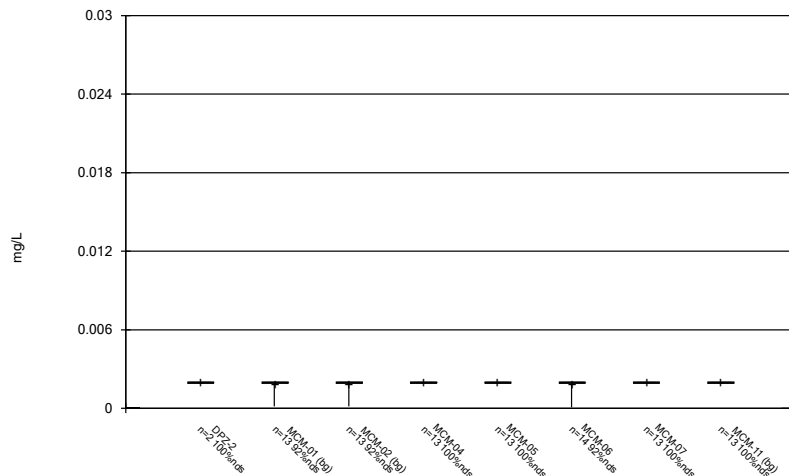
Constituent: Sulfate Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



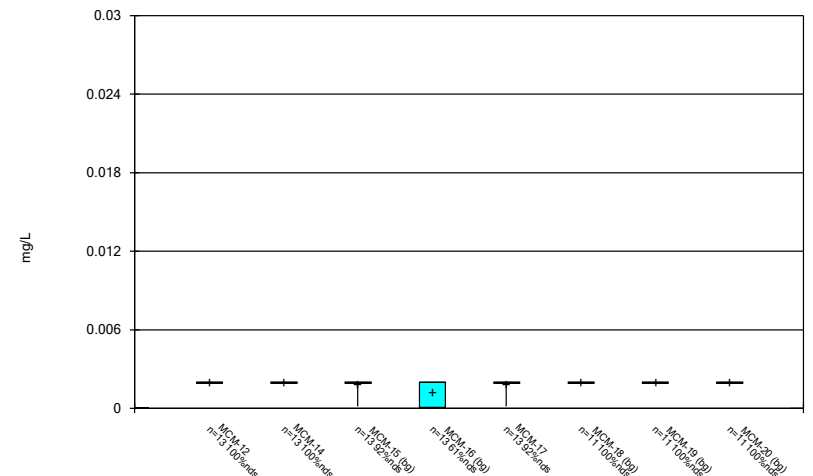
Constituent: Sulfate Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



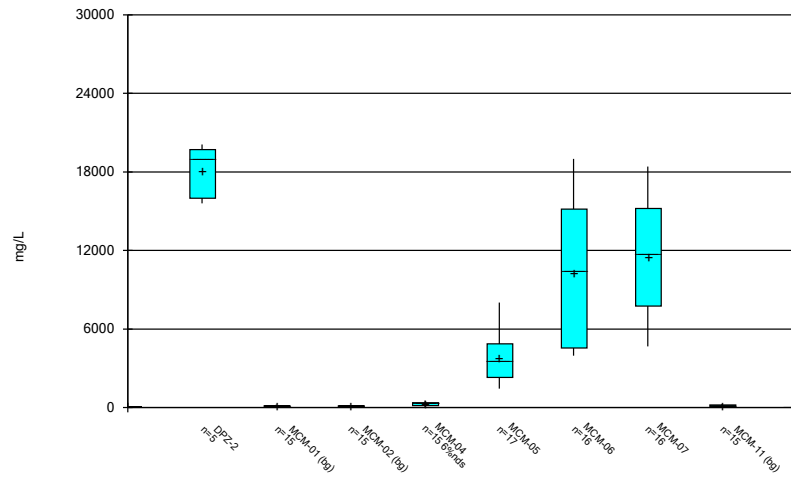
Constituent: Thallium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



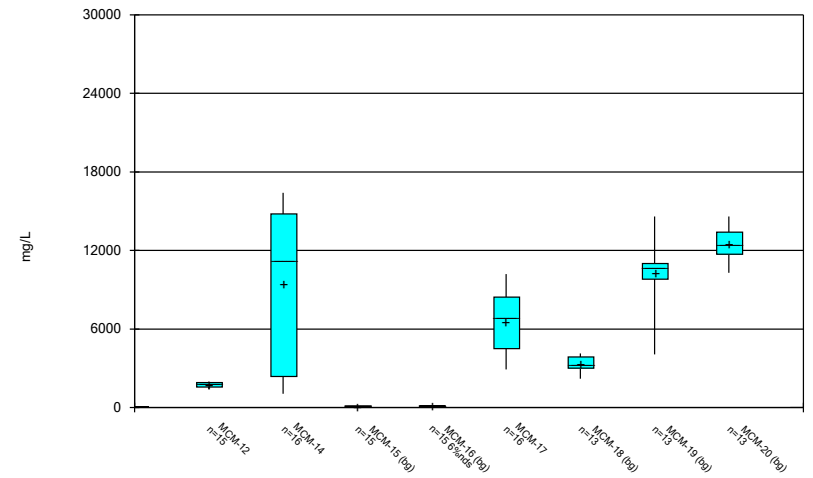
Constituent: Thallium Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/4/2022 9:21 AM
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE C.

Outlier Summary

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:25 AM

| | MCM-20 Combined Radium 226 + 228 (pCi/L) | MCM-06 Fluoride (mg/L) | MCM-19 Lead (mg/L) | MCM-18 Lithium (mg/L) |
|------------|--|------------------------|--------------------|-----------------------|
| 11/7/2018 | 10.3 (o) | | | |
| 11/18/2019 | | | <0.1 (o) | |
| 1/21/2020 | | | <0.15 (o) | |
| 2/4/2020 | | | <0.3 (o) | |
| 2/13/2020 | 76.3 (o) | | <0.025 (o) | |

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. Bg | NB | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|------------------------|--------|------------|------------|----------|---------|---------|-----|------|-----------|--------|---------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 3/1/2022 | 1.7 | Yes | 114 | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 3/3/2022 | 1.4 | Yes | 114 | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 3/2/2022 | 198 | Yes | 115 | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 3/3/2022 | 224 | Yes | 115 | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 3/1/2022 | 6.87 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 3/1/2022 | 7.24 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 3/2/2022 | 6.41 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 3/3/2022 | 6.51 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 3/3/2022 | 6.49 | Yes | 118 | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |

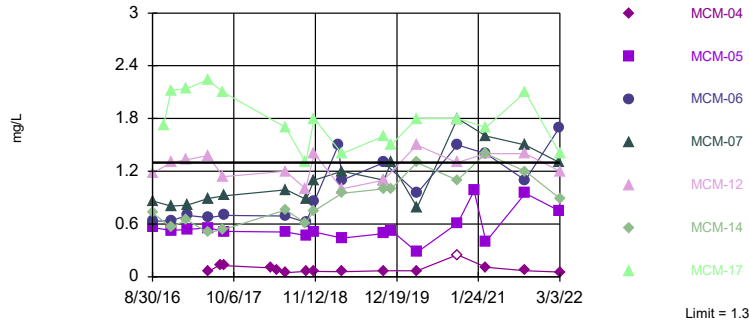
Appendix III Interwell Prediction Limits - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:29 AM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg | NB | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-------------------------------|---------------|-------------|-------------|-----------------|-------------|------------|------------|------------|------------|------------|---------------|------------|------------|------------------|------------------------------------|
| Boron (mg/L) | MCM-04 | 1.3 | n/a | 3/3/2022 | 0.053 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-05 | 1.3 | n/a | 3/1/2022 | 0.75J | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-06 | 1.3 | n/a | 3/1/2022 | 1.7 | Yes | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-07 | 1.3 | n/a | 3/2/2022 | 1.3 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-12 | 1.3 | n/a | 3/3/2022 | 1.2 | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-14 | 1.3 | n/a | 3/3/2022 | 0.89J | No | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Boron (mg/L) | MCM-17 | 1.3 | n/a | 3/3/2022 | 1.4 | Yes | 114 | n/a | n/a | n/a | 8.772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-04 | 169 | n/a | 3/3/2022 | 8 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-05 | 169 | n/a | 3/1/2022 | 48.4 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-06 | 169 | n/a | 3/1/2022 | 131 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-07 | 169 | n/a | 3/2/2022 | 198 | Yes | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-12 | 169 | n/a | 3/3/2022 | 4.6 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-14 | 169 | n/a | 3/3/2022 | 224 | Yes | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Calcium (mg/L) | MCM-17 | 169 | n/a | 3/3/2022 | 84 | No | 115 | n/a | n/a | n/a | 0.8696 | n/a | n/a | 0.0001494 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-04 | 8130 | n/a | 3/3/2022 | 12.2 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-05 | 8130 | n/a | 3/1/2022 | 1680 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-06 | 8130 | n/a | 3/1/2022 | 4150 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-07 | 8130 | n/a | 3/2/2022 | 5630 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-12 | 8130 | n/a | 3/3/2022 | 394 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-14 | 8130 | n/a | 3/3/2022 | 5040 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MCM-17 | 8130 | n/a | 3/3/2022 | 3540 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-04 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-05 | 1.5 | n/a | 3/1/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-06 | 1.5 | n/a | 3/1/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-07 | 1.5 | n/a | 3/2/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-12 | 1.5 | n/a | 3/3/2022 | 0.95 | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-14 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MCM-17 | 1.5 | n/a | 3/3/2022 | 0.1ND | No | 119 | n/a | n/a | n/a | 48.74 | n/a | n/a | 0.0001378 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-04 | 5.81 | 3.36 | 3/3/2022 | 4.98 | No | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-05 | 5.81 | 3.36 | 3/1/2022 | 6.87 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-06 | 5.81 | 3.36 | 3/1/2022 | 7.24 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-07 | 5.81 | 3.36 | 3/2/2022 | 6.41 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-12 | 5.81 | 3.36 | 3/3/2022 | 6.51 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-14 | 5.81 | 3.36 | 3/3/2022 | 6.49 | Yes | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| pH, field (Std. Units) | MCM-17 | 5.81 | 3.36 | 3/3/2022 | 4.27 | No | 118 | n/a | n/a | n/a | 0 | n/a | n/a | 0.0002814 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-04 | 1140 | n/a | 3/3/2022 | 50.6 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-05 | 1140 | n/a | 3/1/2022 | 143 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-06 | 1140 | n/a | 3/1/2022 | 440 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-07 | 1140 | n/a | 3/2/2022 | 702 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-12 | 1140 | n/a | 3/3/2022 | 2.5ND | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-14 | 1140 | n/a | 3/3/2022 | 754 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MCM-17 | 1140 | n/a | 3/3/2022 | 324 | No | 113 | n/a | n/a | n/a | 0.885 | n/a | n/a | 0.0001552 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-04 | 14600 | n/a | 3/3/2022 | 146 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-05 | 14600 | n/a | 3/1/2022 | 3780 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-06 | 14600 | n/a | 3/1/2022 | 9040 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-07 | 14600 | n/a | 3/2/2022 | 12600 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-12 | 14600 | n/a | 3/3/2022 | 1400 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-14 | 14600 | n/a | 3/3/2022 | 11500 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MCM-17 | 14600 | n/a | 3/3/2022 | 8120 | No | 114 | n/a | n/a | n/a | 0.8772 | n/a | n/a | 0.0001523 | NP Inter (normality) 1 of 2 |

Sanitas™ v.9.6.32] Groundwater Stats Consulting, UG
 Hollow symbols indicate censored values.
 Exceeds Limit: MCM-06, MCM-17

Prediction Limit
 Interwell Non-parametric

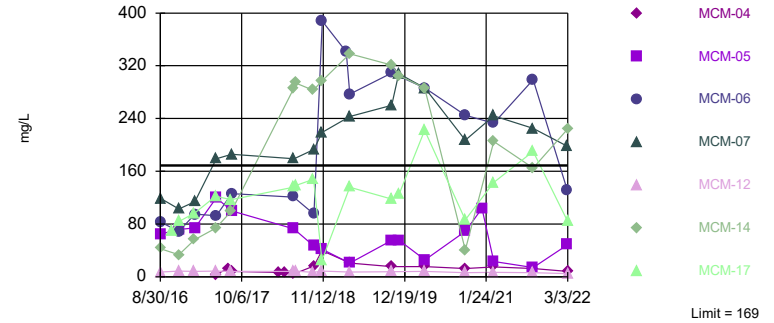


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 8.772% NDs. Annual per-constituent alpha = 0.00213. Individual comparison alpha = 0.0001523 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 5/4/2022 9:25 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.32] Groundwater Stats Consulting, UG
 Hollow symbols indicate censored values.
 Exceeds Limit: MCM-07, MCM-14

Prediction Limit
 Interwell Non-parametric

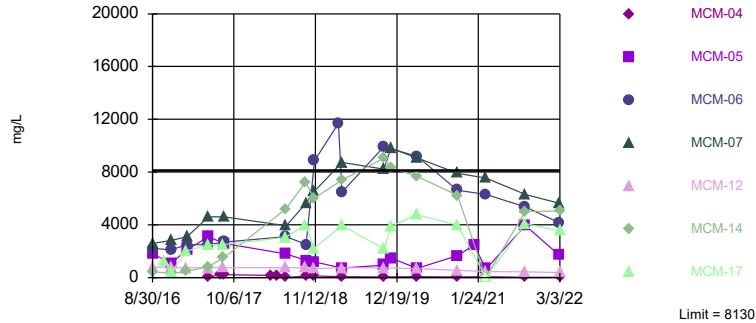


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 115 background values. 0.8696% NDs. Annual per-constituent alpha = 0.00209. Individual comparison alpha = 0.0001494 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.32] Groundwater Stats Consulting, UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Interwell Non-parametric

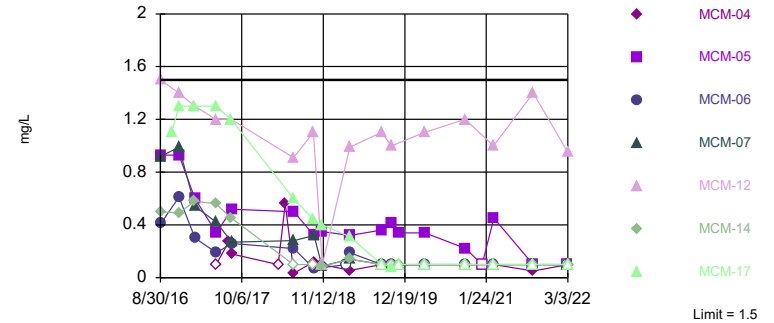


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 0.8772% NDs. Annual per-constituent alpha = 0.00213. Individual comparison alpha = 0.0001523 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sanitas™ v.9.6.32] Groundwater Stats Consulting, UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Interwell Non-parametric

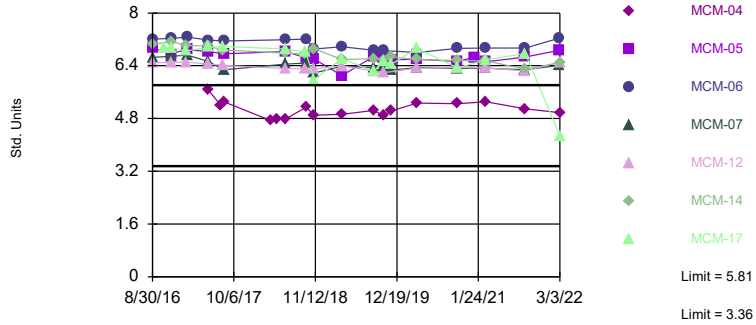


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 119 background values. 48.74% NDs. Annual per-constituent alpha = 0.001928. Individual comparison alpha = 0.0001378 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Exceeds Limits: MCM-05, MCM-06, MCM-07, MCM-12, MCM-14

Prediction Limit
Interwell Non-parametric



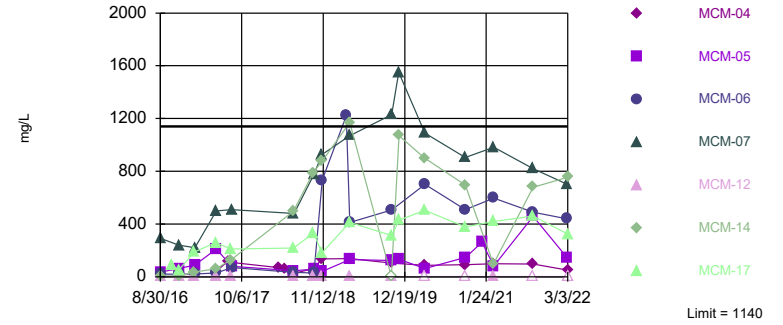
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 118 background values. Annual per-constituent alpha = 0.003936. Individual comparison alpha = 0.0002814 (1 of 2). Comparing 7 points to limit.

Constituent: pH, field Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Interwell Non-parametric



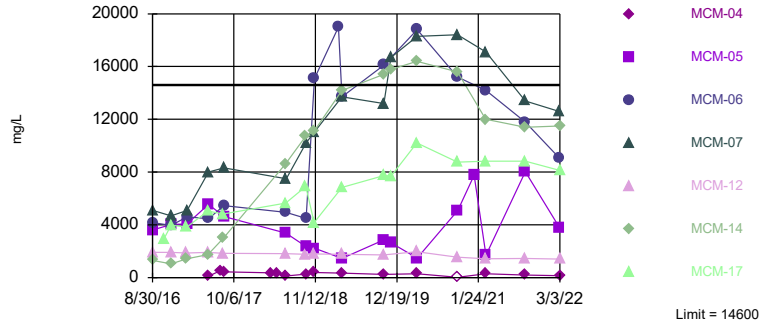
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 113 background values. 0.885% NDs. Annual per-constituent alpha = 0.002171. Individual comparison alpha = 0.0001552 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

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. 0.8772% NDs. Annual per-constituent alpha = 0.00213. Individual comparison alpha = 0.0001523 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/4/2022 9:26 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|----------|--------|--------|--------|-------------|
| 8/30/2016 | 0.0325 (J) | 1.18 | 0.0972 (J) | 0.726 | | | | | |
| 8/31/2016 | | | | | 0.56 | 0.632 | 0.863 | | |
| 10/25/2016 | | | | | | | | 1.73 | |
| 11/30/2016 | 0.0334 (J) | 1.3 | 0.0964 | 0.565 | 0.529 | 0.637 | 0.804 | 2.12 | |
| 2/15/2017 | 0.254 | 1.33 | 0.398 | 0.647 | | | | 2.14 | |
| 2/16/2017 | | | | | 0.539 | 0.698 | 0.815 | | |
| 5/31/2017 | | 1.38 | | 0.503 | | | | 2.24 | 0.0521 |
| 6/1/2017 | 0.0564 | | 0.0776 | | | | | | |
| 6/2/2017 | | | | | 0.555 | 0.674 | 0.891 | | |
| 8/2/2017 | | | | | | | | | 0.0392 (J) |
| 8/15/2017 | | 1.14 | | | | | | 2.1 | 0.0448 |
| 8/16/2017 | 0.0435 | | | 0.539 | | | | | |
| 8/17/2017 | | | 0.0853 | | 0.516 | 0.7 | 0.922 | | |
| 4/4/2018 | | | | | | | | | 0.046 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 0.048 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 0.04 (J) | 1.2 | | 0.76 | | | | 1.7 | 0.04 |
| 6/20/2018 | | | 0.079 | | 0.51 | 0.69 | | | |
| 6/21/2018 | | | | | | | 0.99 | | |
| 9/25/2018 | | 1 | | 0.61 | | | | | 0.043 |
| 9/26/2018 | 0.038 (J) | | 0.072 | | | | | 1.3 | |
| 9/27/2018 | | | | | 0.47 | 0.62 | 0.88 | | |
| 11/6/2018 | | | | 0.75 | | | 1.1 | 1.8 | 0.046 |
| 11/7/2018 | 0.037 (J) | 1.4 | 0.074 | | 0.51 | 0.86 | | | |
| 3/6/2019 | | | | | | 1.5 | | | |
| 3/24/2019 | | 1 | | 0.95 | 0.44 | 1.1 | 1.2 | 1.4 | |
| 3/25/2019 | 0.038 (J) | | 0.067 | | | | | | 0.03 (J) |
| 10/15/2019 | | 1.1 | | 1 | | | | | |
| 10/16/2019 | 0.036 (J) | | 0.051 | | 0.49 | | | 1.6 | 0.032 (J) |
| 10/17/2019 | | | | | | 1.3 | 1.1 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | 0.53 | | 1.3 | | |
| 11/21/2019 | | | | 1 | | | | 1.5 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 0.064 (J) | | | | | | | | |
| 3/27/2020 | | 1.5 | 0.088 (J) | 1.3 | | | | 1.8 | 0.058 (J) |
| 3/28/2020 | | | | | 0.28 (J) | 0.95 | 0.79 | | |
| 10/12/2020 | | 1.3 | | | | | | | <0.5 |
| 10/13/2020 | <0.5 | | <0.5 | 1.1 | | | | 1.8 | |
| 10/14/2020 | | | | | | 1.5 | 1.8 | | |
| 10/15/2020 | | | | | 0.61 | | | | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|----------|-------------|----------|----------|---------|---------|----------|-------------|
| 1/4/2021 | | | | | 0.98 | | | | |
| 3/2/2021 | | 1.4 (J) | | 1.4 (J) | | | | | |
| 3/3/2021 | <0.5 | | <0.5 | | | | | 1.7 (J) | <0.5 |
| 3/4/2021 | | | | | 0.4 (J) | 1.4 (J) | 1.6 (J) | | |
| 9/13/2021 | | 1.4 (M1) | | 1.2 | | | | | |
| 9/14/2021 | 0.079 (J) | | 0.071 (J) | | 0.95 (J) | 1.1 | 1.5 | 2.1 (M1) | 0.06 (J) |
| 3/1/2022 | | | | | 0.75 (J) | 1.7 | | | |
| 3/2/2022 | 0.048 (J) | | | | | | 1.3 | | 0.038 (J) |
| 3/3/2022 | | 1.2 | 0.057 | 0.89 (J) | | | | 1.4 | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|-----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 0.161 | | | | | |
| 6/1/2017 | | 0.0608 | | | | |
| 6/2/2017 | | | 0.0495 | | | |
| 8/2/2017 | 0.158 | 0.137 | 0.0333 (J) | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 0.148 | | | | | |
| 8/17/2017 | | 0.128 | 0.0593 | | | |
| 4/4/2018 | | 0.1 | 0.065 | | | |
| 4/5/2018 | 0.13 | | | | | |
| 5/8/2018 | | 0.074 | 0.062 | | | |
| 5/9/2018 | 0.12 | | | | | |
| 6/19/2018 | 0.13 | | 0.064 | | | |
| 6/20/2018 | | 0.045 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 0.1 | | 0.06 | | | |
| 9/27/2018 | | 0.06 | | | | |
| 11/6/2018 | | 0.06 | | | | |
| 11/7/2018 | 0.1 | | 0.062 (J) | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 0.091 | 0.058 | 0.057 | | | |
| 10/15/2019 | | 0.068 | 0.046 | | | |
| 10/16/2019 | 0.085 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 0.84 | 0.27 | 1.1 |
| 11/18/2019 | | | | | 0.29 (J) | |
| 11/19/2019 | | | | 0.83 | | 1.3 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 0.68 | | 0.81 |
| 12/5/2019 | | | | | 0.23 | |
| 12/17/2019 | | | | 0.57 | | |
| 12/18/2019 | | | | | 0.23 | 0.77 |
| 1/8/2020 | | | | 0.73 | | 0.9 |
| 1/9/2020 | | | | | 0.2 | |
| 1/21/2020 | | | | 0.75 | 0.24 (J) | 0.94 |
| 2/4/2020 | | | | 0.79 (J) | 0.24 (J) | 0.96 (J) |
| 2/13/2020 | | | | 0.74 | 0.22 | 0.88 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 0.17 (J) | | 0.076 (J) | 0.96 | 0.24 (J) | 0.94 |
| 3/28/2020 | | 0.067 (J) | | | | |
| 10/12/2020 | | | | | 0.24 (J) | |
| 10/13/2020 | <0.5 | <0.5 | <0.5 | 0.73 | | 1.1 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|-----------|-------------|----------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | <0.5 | | | |
| 3/3/2021 | <0.5 | | | 0.79 (J) | 0.21 (J) | 0.91 (J) |
| 3/4/2021 | | 0.11 (J) | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 0.093 (J) | 0.07 (J) | 0.068 (J) | 1.2 | 0.2 (J) | 0.91 (J) |
| 3/1/2022 | | | | 0.41 (J) | | 0.87 (J) |
| 3/2/2022 | 0.086 | | 0.054 | | 0.23 (J) | |
| 3/3/2022 | | 0.053 | | | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|----------|-----------|--------|--------|-------------|
| 8/30/2016 | 7.3 | 7.05 | 4.02 | 42.8 | | | | | |
| 8/31/2016 | | | | | 65 | 82.8 | 119 | | |
| 10/25/2016 | | | | | | | | 69.4 | |
| 11/30/2016 | 10.8 | 8.69 | 4.87 | 33.2 | 71.7 | 68.7 | 103 | 83.9 | |
| 2/15/2017 | 14.3 | 8.34 | 6.61 | 56.1 | | | | 96.3 | |
| 2/16/2017 | | | | | 74 | 94.8 | 114 | | |
| 5/31/2017 | | 8.85 | | 73.6 | | | | 122 | 18.6 |
| 6/1/2017 | 12.7 (J) | | 6.42 | | | | | | |
| 6/2/2017 | | | | | 120 | 92.5 | 179 | | |
| 8/2/2017 | | | | | | | | | 18.5 |
| 8/15/2017 | | 8.05 | | | | | | 117 | 4.09 |
| 8/16/2017 | 8.7 | | | 99.6 | | | | | |
| 8/17/2017 | | | 5.62 | | 100 | 126 | 186 | | |
| 4/4/2018 | | | | | | | | | <25 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 18.4 (J) |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 11.6 (J) | 8.3 | | 285 | | | | 136 | 4.3 |
| 6/20/2018 | | | 5.7 | | 72.8 | 121 | | | |
| 6/21/2018 | | | | | | | 179 | | |
| 6/28/2018 | 13 | 8.9 | | 294 | | | | 138 | |
| 9/25/2018 | | 6.8 | | 283 | | | | | 6.2 (D) |
| 9/26/2018 | 12.8 (J) | | 5.3 | | | | | 148 | |
| 9/27/2018 | | | | | 46.6 | 95.1 | 193 | | |
| 11/6/2018 | | | | 297 | | | 219 | 24.7 | 1.8 |
| 11/7/2018 | 11.9 | 8.5 | 5.3 | | 41.8 | 387.5 (D) | | | |
| 3/6/2019 | | | | | | 341 | | | |
| 3/24/2019 | | 7.4 | | 338 | 20.9 (J) | 277 | 243 | 136 | |
| 3/25/2019 | 12.6 (J) | | 5.7 | | | | | | 2.5 (D) |
| 10/15/2019 | | 7.9 | | 321 | | | | | |
| 10/16/2019 | 13.6 | | 4.8 | | 55.2 | | | 118 | 2.2 |
| 10/17/2019 | | | | | | 309 | 260 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | 55.8 | | 308 | | |
| 11/21/2019 | | | | 305 | | | | 125 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 10.1 | | | | | | | | |
| 3/27/2020 | | 8.3 | 5.4 | 286 | | | | 222 | 3.3 |
| 3/28/2020 | | | | | 25.8 | 286 | 286 | | |
| 10/12/2020 | | 6.1 | | | | | | | 2.8 |
| 10/13/2020 | 9.8 | | 5.7 | 40.9 | | | | 86.4 | |
| 10/14/2020 | | | | | | 245 | 207 | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|--------|--------|--------|--------|-------------|
| 10/15/2020 | | | | | 69.1 | | | | |
| 1/4/2021 | | | | | 104 | | | | |
| 3/3/2021 | 14 | | | | | | | | |
| 3/4/2021 | | 6.5 | 11.2 | 205 | 23.4 | 233 | 244 | 143 | 2.1 |
| 9/13/2021 | | 6 | | 165 | | | | | |
| 9/14/2021 | 9.6 | | 6.5 | | 13.9 | 299 | 225 | 190 | 14 |
| 3/1/2022 | | | | | 48.4 | 131 | | | |
| 3/2/2022 | 8.2 | | | | | | 198 | | 6.8 |
| 3/3/2022 | | 4.6 | 5.4 | 224 | | | | 84 | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 5.9 | | | | | |
| 6/1/2017 | | 3.65 | | | | |
| 6/2/2017 | | | 2.77 | | | |
| 8/2/2017 | 4.69 | 12.4 | 1.27 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 5.25 | | | | | |
| 8/17/2017 | | 8.17 | 5.53 | | | |
| 4/4/2018 | | 6.8 | 6.5 | | | |
| 4/5/2018 | 5 | | | | | |
| 5/8/2018 | | 5.7 | 6.7 | | | |
| 5/9/2018 | 4.7 | | | | | |
| 6/19/2018 | 4.8 | | 7.4 | | | |
| 6/20/2018 | | 4.3 | | | | |
| 6/21/2018 | | | | | | |
| 6/28/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 4.6 | | 8.5 (J) | | | |
| 9/27/2018 | | 16.4 (J) | | | | |
| 11/6/2018 | | 39.5 | | | | |
| 11/7/2018 | 4.6 | | 9.8 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 4.7 | 20.8 (J) | 7.8 | | | |
| 10/15/2019 | | 15.5 | 6.7 | | | |
| 10/16/2019 | 4.9 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 158 | 46.2 | 163 |
| 11/18/2019 | | | | | 41.8 | |
| 11/19/2019 | | | | 152 | | 169 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 142 | | 140 |
| 12/5/2019 | | | | | 40.5 | |
| 12/17/2019 | | | | 136 | | |
| 12/18/2019 | | | | | 42 | 145 |
| 1/8/2020 | | | | 147 | | 157 |
| 1/9/2020 | | | | | 37.1 | |
| 1/21/2020 | | | | 167 | 40.1 | 152 |
| 2/4/2020 | | | | 142 | 36.2 | 139 |
| 2/13/2020 | | | | 148 | 38.9 | 146 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 4.9 | | 5.9 | 122 | 23.2 | 113 |
| 3/28/2020 | | 15.5 | | | | |
| 10/12/2020 | | | | | 19.1 | |
| 10/13/2020 | 3.8 | 12.5 | 0.83 | 125 | | 128 |
| 10/14/2020 | | | | | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 10/15/2020 | | | | | | |
| 1/4/2021 | | | | | | |
| 3/3/2021 | 4 | | | | | |
| 3/4/2021 | | 15.1 | 1.4 | 123 | 26 | 110 |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 4.2 | 12.5 | 6.7 | 93.6 | 18.8 | 61.1 |
| 3/1/2022 | | | | 35.5 | | 99.8 |
| 3/2/2022 | 4.1 | | 7.2 | | 22.3 | |
| 3/3/2022 | | 8 | | | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|---------|-------------|--------|---------|----------|----------|------------|-------------|
| 8/30/2016 | 9.7 | 800 | 26 | 450 | | | | | |
| 8/31/2016 | | | | | 1800 | 2200 | 2600 | | |
| 10/25/2016 | | | | | | | | 1300 | |
| 11/30/2016 | 19 | 760 | 27 | 310 | 1100 | 2100 | 2800 | 400 | |
| 2/15/2017 | 21 | 740 | 30 | 490 | | | | 2000 | |
| 2/16/2017 | | | | | 2100 | 2500 | 3100 | | |
| 5/31/2017 | | 740 | | 820 | | | | 2500 | 98 |
| 6/1/2017 | 12 | | 27 | | | | | | |
| 6/2/2017 | | | | | 3100 | 2500 | 4600 | | |
| 8/2/2017 | | | | | | | | | 57 |
| 8/15/2017 | | 750 | | | | | | 2500 | 15 |
| 8/16/2017 | 14 | | | 1500 | | | | | |
| 8/17/2017 | | | 32 | | 2600 | 2700 | 4600 | | |
| 4/4/2018 | | | | | | | | | 69 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 72.3 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 24.4 | 760 | | 5180 | | | | 3050 | 17.3 |
| 6/20/2018 | | | 30 | | 1800 | 3100 | | | |
| 6/21/2018 | | | | | | | 3920 | | |
| 9/25/2018 | | 752 (D) | | 7220 | | | | | 31.3 |
| 9/26/2018 | 23.4 | | 28.4 | | | | | 3965 (D) | |
| 9/27/2018 | | | | | 1300 | 2510 (D) | 5660 (D) | | |
| 11/6/2018 | | | | 6020 | | | 6520 | 2230 | 9.8 |
| 11/7/2018 | 21.8 | 665 | 25.1 | | 1180 | 8860 | | | |
| 3/6/2019 | | | | | | 11700 | | | |
| 3/24/2019 | | 744 | | 7400 | 717 | 6470 | 8720 | 3960 | |
| 3/25/2019 | 19.4 | | 21.8 | | | | | | 12.9 |
| 10/15/2019 | | 744 | | 9050 | | | | | |
| 10/16/2019 | 21.4 | | 20 | | 941 (D) | | | 2181.5 (D) | 12.2 |
| 10/17/2019 | | | | | | 9930 | 8210 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | 1480 | | 9810 | | |
| 11/21/2019 | | | | 8330 | | | | 3890 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 23 | | | | | | | | |
| 3/27/2020 | | 675 | 23.6 | 7680 | | | | 4770 | 14.5 |
| 3/28/2020 | | | | | 693 | 9190 | 9070 | | |
| 10/12/2020 | | 552 | | | | | | | 13.9 |
| 10/13/2020 | 13.5 | | 23.3 | 6230 | | | | 3980 | |
| 10/14/2020 | | | | | | 6630 | 7910 | | |
| 10/15/2020 | | | | | 1660 | | | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|--------|-------------|--------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | 2460 | | | | |
| 3/2/2021 | | 459 | | <1 | | | | | |
| 3/3/2021 | 13.6 | | 27.6 | | | | | <1 | 9.4 |
| 3/4/2021 | | | | | 652 | 6310 | 7540 | | |
| 9/13/2021 | | 433 | | 5010 | | | | | |
| 9/14/2021 | 16.7 | | 30 | | 3940 | 5360 | 6300 | 4090 | 62.8 |
| 3/1/2022 | | | | | 1680 | 4150 | | | |
| 3/2/2022 | 13.4 | | | | | | 5630 | | 28.4 |
| 3/3/2022 | | 394 | 26.5 | 5040 | | | | 3540 | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 39 | | | | | |
| 6/1/2017 | | 22 | | | | |
| 6/2/2017 | | | 11 | | | |
| 8/2/2017 | 42 | 230 | 3.2 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 41 | | | | | |
| 8/17/2017 | | 210 | 12 | | | |
| 4/4/2018 | | 156 | 13.4 | | | |
| 4/5/2018 | 40.2 | | | | | |
| 5/8/2018 | | 140 | 13.2 | | | |
| 5/9/2018 | 40.6 | | | | | |
| 6/19/2018 | 37.7 | | 13.7 | | | |
| 6/20/2018 | | 27.5 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 33.4 | | 18.5 | | | |
| 9/27/2018 | | 101 | | | | |
| 11/6/2018 | | 107 | | | | |
| 11/7/2018 | 30.7 | | 20.2 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 33.5 | 78.5 | 19.7 | | | |
| 10/15/2019 | | 46 | 17.1 | | | |
| 10/16/2019 | 33.1 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 6170 | 2360 | 7880 |
| 11/18/2019 | | | | | 6970 | |
| 11/19/2019 | | | | 5650 | | 8130 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 6100 | | 7410 |
| 12/5/2019 | | | | | 2130 | |
| 12/17/2019 | | | | 5660 | | |
| 12/18/2019 | | | | | 2090 | 7170 |
| 1/8/2020 | | | | 5070 | | 6480 |
| 1/9/2020 | | | | | 1750 | |
| 1/21/2020 | | | | 5010 | 1630 | 6000 |
| 2/4/2020 | | | | 5030 | 1760 | 5700 |
| 2/13/2020 | | | | 6140 | 1850 | 7060 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 32.9 | | 14.1 | 6870 | 1450 | 7110 |
| 3/28/2020 | | 71.4 | | | | |
| 10/12/2020 | | | | | 1340 | |
| 10/13/2020 | 25.7 | 54.4 | 3.8 | 5260 | | 5980 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 4.2 | | | |
| 3/3/2021 | 20.5 | | | 5170 | 1230 | <1 |
| 3/4/2021 | | 69.6 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 21.8 | 28.5 | 13.6 | 7250 | 1020 | 5100 |
| 3/1/2022 | | | | 1870 | | 4900 |
| 3/2/2022 | 20.6 | | 14.3 | | 1420 | |
| 3/3/2022 | | 12.2 | | | | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|--------|-----------|-------------|-----------|-----------|--------|-----------|-------------|
| 8/30/2016 | 0.03 (J) | 1.5 | 0.5 | 0.04 (J) | | | | | |
| 8/31/2016 | | | | | 0.41 | 0.92 | 0.93 | | |
| 10/25/2016 | | | | | | | | 1.1 | |
| 11/30/2016 | 0.04 (J) | 1.4 | 0.49 | 0.18 (J) | 0.61 | 0.99 | 0.93 | 1.3 | |
| 2/15/2017 | 0.007 (J) | 1.3 | 0.58 | 0.02 (J) | | | | 1.3 | |
| 2/16/2017 | | | | | 0.3 (J) | 0.54 | 0.6 | | |
| 5/31/2017 | | 1.2 | 0.56 | | | | | 1.3 | 0.01 (J) |
| 6/1/2017 | <0.1 | | | 0.005 (J) | | | | | |
| 6/2/2017 | | | | | 0.19 (J) | 0.42 | 0.34 | | |
| 8/2/2017 | | | | | | | | | 0.14 (J) |
| 8/15/2017 | | 1.2 | | | | | | 1.2 | |
| 8/16/2017 | 0.03 (J) | | 0.45 | | | | | | 0.13 (J) |
| 8/17/2017 | | | | 0.04 (J) | 0.26 (J) | 0.27 (J) | 0.52 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | <0.1 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | <0.1 |
| 6/19/2018 | <0.1 | 0.91 | <0.1 | | | | | 0.6 | 0.065 (J) |
| 6/20/2018 | | | | 0.038 (J) | 0.22 (J) | | 0.5 | | |
| 6/21/2018 | | | | | | 0.28 (J) | | | |
| 9/25/2018 | | 1.1 | <0.1 | | | | | | |
| 9/26/2018 | 0.12 (J) | | | 0.029 | | | | 0.44 (D) | 0.029 |
| 9/27/2018 | | | | | 0.068 (J) | 0.32 (D) | 0.32 | | |
| 11/6/2018 | | | 0.084 (J) | | | 0.086 (J) | | 0.4 | |
| 11/7/2018 | <0.1 | <0.1 | | <0.1 | 10.3 (o) | | 0.35 | | <0.1 |
| 3/6/2019 | | | | | <0.1 | | | | |
| 3/24/2019 | | 0.99 | 0.14 (J) | | 0.19 (J) | 0.14 (J) | 0.32 | 0.31 | |
| 3/25/2019 | 0.038 (J) | | | 0.041 (J) | | | | | 0.039 (J) |
| 8/26/2019 | | | <0.1 | | | | | | |
| 8/27/2019 | <0.1 | 1.1 | | <0.1 | | | | <0.1 | |
| 8/28/2019 | | | | | <0.1 | <0.1 | 0.36 | | <0.1 |
| 10/15/2019 | | 1 | <0.1 | | | | | | |
| 10/16/2019 | 0.046 (JD) | | | 0.044 (J) | | | 0.41 | 0.083 (J) | 0.044 (JD) |
| 10/17/2019 | | | | | <0.1 | <0.1 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | <0.1 | 0.34 | | |
| 11/21/2019 | | | <0.1 | | | | | <0.1 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | <0.1 | | | | | | | | |
| 3/27/2020 | | 1.1 | <0.1 | <0.1 | | | | <0.1 | <0.1 |
| 3/28/2020 | | | | | <0.1 | <0.1 | 0.34 | | |
| 10/12/2020 | | 1.2 | | | | | | | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 10/13/2020 | <0.1 | | <0.1 | <0.1 | | | | <0.1 | <0.1 |
| 10/14/2020 | | | | | <0.1 | <0.1 | | | |
| 10/15/2020 | | | | | | | 0.22 | | |
| 1/4/2021 | | | | | | | <0.1 | | |
| 3/2/2021 | | 1 | <0.1 | | | | | | |
| 3/3/2021 | <0.1 | | | <0.1 | | | | <0.1 | <0.1 |
| 3/4/2021 | | | | | <0.1 | <0.1 | 0.45 | | |
| 9/13/2021 | | 1.4 | <0.1 | | | | | | |
| 9/14/2021 | <0.1 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 3/1/2022 | | | | | <0.1 | | <0.1 | | |
| 3/2/2022 | <0.1 | | | | | <0.1 | | | <0.1 |
| 3/3/2022 | | 0.95 | <0.1 | <0.1 | | | | <0.1 | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|-----------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 0.85 | | | | | |
| 6/1/2017 | | <0.1 | | | | |
| 6/2/2017 | | | <0.1 | | | |
| 8/2/2017 | 0.69 | 0.27 (J) | 0.05 (J) | | | |
| 8/15/2017 | 0.29 (J) | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 0.18 (J) | <0.1 | | | |
| 4/4/2018 | 0.32 | <0.1 | <0.1 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 0.63 | 0.56 | <0.1 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 0.17 (J) | | 0.057 (J) | | | |
| 6/20/2018 | | 0.033 (J) | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 0.15 (J) | | | | | |
| 9/26/2018 | | | 0.029 | | | |
| 9/27/2018 | | 0.12 (J) | | | | |
| 11/6/2018 | <0.1 | <0.1 | | | | |
| 11/7/2018 | | | <0.1 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 0.12 (J) | 0.055 (J) | 0.036 (J) | | | |
| 8/26/2019 | | | | | | |
| 8/27/2019 | | <0.1 | <0.1 | | | |
| 8/28/2019 | 0.068 (J) | | | | | |
| 10/15/2019 | | 0.095 (J) | 0.14 (J) | | | |
| 10/16/2019 | 0.1 (J) | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | <0.1 | 0.49 | 1.4 |
| 11/18/2019 | | | | | 0.52 | |
| 11/19/2019 | | | | 0.033 (J) | | 1.2 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 0.22 (J) | | 1.4 |
| 12/5/2019 | | | | | 0.5 | |
| 12/17/2019 | | | | <0.1 | | |
| 12/18/2019 | | | | | 0.33 | 1.5 |
| 1/8/2020 | | | | <0.1 | | <0.1 |
| 1/9/2020 | | | | | 0.12 (J) | |
| 1/21/2020 | | | | 0.11 (J) | 0.13 (J) | 0.53 |
| 2/4/2020 | | | | <0.1 | 0.18 (J) | <0.1 |
| 2/13/2020 | | | | <0.1 | 0.077 (J) | <0.1 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 0.066 (J) | | <0.1 | <0.1 | 0.06 (J) | <0.1 |
| 3/28/2020 | | <0.1 | | | | |
| 10/12/2020 | <0.1 | | | | 0.34 | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 10/13/2020 | | <0.1 | <0.1 | <0.1 | | <0.1 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | <0.1 | | | |
| 3/3/2021 | 0.082 (J) | | | <0.1 | 0.32 | <0.1 |
| 3/4/2021 | | <0.1 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 0.18 | 0.05 | <0.1 | <0.1 | <0.1 | <0.1 |
| 3/1/2022 | | | | <0.1 | | <0.1 |
| 3/2/2022 | 0.097 (J) | | <0.1 | | <0.1 | |
| 3/3/2022 | | <0.1 | | | | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-07 | MCM-06 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 8/30/2016 | 5.66 | 6.49 | 7.04 | 5.18 | | | | | |
| 8/31/2016 | | | | | 6.66 | 7.21 | 6.93 | | |
| 10/25/2016 | | | | | | | | 6.95 | |
| 11/30/2016 | 5.36 | 6.5 | 7.13 | 4.96 | 6.69 | 7.23 | 6.77 | 6.95 | |
| 2/15/2017 | 5.25 | 6.51 | 7.02 | 5.13 | | | | 6.85 | |
| 2/16/2017 | | | | | 6.72 | 7.27 | 6.89 | | |
| 5/31/2017 | | 6.45 | 7 | | | | | 6.96 | 5.06 |
| 6/1/2017 | 5.59 | | | 4.99 | | | | | |
| 6/2/2017 | | | | | 6.53 | 7.18 | 6.83 | | |
| 8/2/2017 | | | | | | | | | 5 |
| 8/15/2017 | | 6.41 | | | | | | 6.99 | |
| 8/16/2017 | 5.58 | | 6.88 | | | | | | 4.98 |
| 8/17/2017 | | | | 4.68 | 6.28 | 7.15 | 6.76 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | 5.02 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | 4.96 |
| 6/19/2018 | 5.51 | 6.32 | 6.78 | | | | | 6.91 | 5.02 |
| 6/20/2018 | | | | 4.77 | | 7.19 | 6.83 | | |
| 6/21/2018 | | | | | 6.45 | | | | |
| 9/25/2018 | | 6.31 | 6.75 | | | | | | |
| 9/26/2018 | 5.32 | | | 4.65 | | | | 6.81 | 5.06 |
| 9/27/2018 | | | | | 6.48 | 7.21 | 6.64 | | |
| 11/6/2018 | | | 6.92 | | 6.18 | | | 5.99 | |
| 11/7/2018 | 5.72 | 6.3 | | 4.99 | | 6.91 | 6.6 | | 5.03 |
| 3/24/2019 | | 6.4 | 6.59 | | 6.38 | 6.98 | 6.1 | 6.62 | |
| 3/25/2019 | 5.75 | | | 5.13 | | | | | 5.08 |
| 8/26/2019 | | | 6.62 | | | | | | |
| 8/27/2019 | 5.58 | 6.24 | | 4.88 | | | | 6.23 | |
| 8/28/2019 | | | | | 6.35 | 6.87 | 6.69 | | 4.99 |
| 10/15/2019 | | 6.19 | 6.58 | | | | | | |
| 10/16/2019 | 5.72 | | | 4.89 | | | 6.64 | 6.54 | 4.98 |
| 10/17/2019 | | | | | 6.4 | 6.86 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | 5.11 |
| 11/20/2019 | 5.77 | | | | 6.27 | | 6.58 | | |
| 11/21/2019 | | | 6.67 | | | | | 6.44 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 5.45 | | | | | | | | |
| 3/27/2020 | | 6.33 | 6.59 | 5.12 | | | | 6.93 | 5.12 |
| 3/28/2020 | | | | | 6.35 | 6.8 | 6.6 | | |
| 10/12/2020 | | 6.35 | | | | | | | |
| 10/13/2020 | 5.69 | | 6.56 | 5.17 | | | | 6.34 | 5.03 |
| 10/14/2020 | | | | | 6.32 | 6.93 | | | |
| 10/15/2020 | | | | | | | 6.53 | | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-07 | MCM-06 | MCM-05 | MCM-17 | MCM-02 (bg) |
|-----------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | | | 6.66 | | |
| 3/2/2021 | | 6.34 | 6.55 | | | | | | |
| 3/3/2021 | 5.81 | | | 5.71 | | | | 6.58 | 5.06 |
| 3/4/2021 | | | | | 6.33 | 6.94 | 6.52 | | |
| 9/13/2021 | | 6.24 | 6.3 | | | | | | |
| 9/14/2021 | 5.13 | | | 4.69 | 6.28 | 6.94 | 6.67 | 6.77 | 5.04 |
| 3/1/2022 | | | | | | 7.24 | 6.87 | | |
| 3/2/2022 | 5.32 | | | | 6.41 | | | | 5.16 |
| 3/3/2022 | | 6.51 | 6.49 | 4.88 | | | | 4.27 | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-18 (bg) | MCM-20 (bg) | MCM-19 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 5.29 | | | | | |
| 6/1/2017 | | 5.68 | | | | |
| 6/2/2017 | | | 5.31 | | | |
| 8/2/2017 | 5.19 | 5.2 | 5.05 | | | |
| 8/15/2017 | 5.19 | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 5.31 | 5.52 | | | |
| 4/4/2018 | 5.19 | 4.74 | 5.45 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 5.3 | 4.78 | 5.54 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 5.15 | | 5.6 | | | |
| 6/20/2018 | | 4.79 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 5.13 | | | | | |
| 9/26/2018 | | | 5.17 | | | |
| 9/27/2018 | | 5.14 | | | | |
| 11/6/2018 | 5.08 | 4.9 | | | | |
| 11/7/2018 | | | 5.47 | | | |
| 3/24/2019 | | | 5.4 | | | |
| 3/25/2019 | 5.05 | 4.93 | | | | |
| 8/26/2019 | | | | | | |
| 8/27/2019 | | 5.05 | 5.35 | | | |
| 8/28/2019 | 4.87 | | | | | |
| 10/15/2019 | | 4.89 | 5.32 | | | |
| 10/16/2019 | 5.05 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 4.25 | 3.79 | 5.21 |
| 11/18/2019 | | | | 4.12 | | |
| 11/19/2019 | | | | | 3.78 | 5.15 |
| 11/20/2019 | | 5.03 | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | | 3.87 (D) | 5.28 (D) |
| 12/5/2019 | | | | 4.17 (D) | | |
| 1/8/2020 | | | | | 3.77 | 5.04 |
| 1/9/2020 | | | | 4.19 | | |
| 1/21/2020 | | | | 4.28 | 3.73 | 5.1 |
| 2/4/2020 | | | | 4.26 | 3.72 | 5.15 |
| 2/13/2020 | | | | 4.2 | 3.75 | 5.07 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 5.09 | | 5.3 | 4.34 | 3.81 | 5.14 |
| 3/28/2020 | | 5.27 | | | | |
| 10/12/2020 | 5 | | | 4.29 | | |
| 10/13/2020 | | 5.25 | 5.02 | | 3.72 | 5.04 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: pH, field (Std. Units) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-18 (bg) | MCM-20 (bg) | MCM-19 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 5.16 | | | |
| 3/3/2021 | 5.07 | | | 4.37 | 3.36 | 5.1 |
| 3/4/2021 | | 5.31 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 5.5 | 5.09 | 5.39 | 4.28 | 3.72 | 5.31 |
| 3/1/2022 | | | | | 3.69 | 5.38 |
| 3/2/2022 | 5.11 | | 5.37 | 4.33 | | |
| 3/3/2022 | | 4.98 | | | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|------------|-------------|----------|--------|-------------|----------|---------|-----------|-----------|-------------|
| 8/30/2016 | 17 | 4.3 | 6.4 | 24 | | | | | |
| 8/31/2016 | | | | | 21 | 290 | 37 | | |
| 10/25/2016 | | | | | | | | 84 | |
| 11/30/2016 | 33 | 7.6 | 4.5 | 26 | 19 | 240 | 63 | 52 | |
| 2/15/2017 | 83 | 3 | 37 | 30 | | | | 190 | |
| 2/16/2017 | | | | | 22 | 220 | 90 | | |
| 5/31/2017 | | 2.5 | 61 | | | | | 260 | 46 |
| 6/1/2017 | 51 | | | 24 | | | | | |
| 6/2/2017 | | | | | 28 | 500 | 210 | | |
| 8/2/2017 | | | | | | | | | 43 |
| 8/15/2017 | | 3.2 | | | | | | 210 | |
| 8/16/2017 | 36 | | 130 | | | | | | 41 |
| 8/17/2017 | | | | 26 | 69 | 510 | 80 | | |
| 4/4/2018 | | | | | | | | | |
| 4/5/2018 | | | | | | | | | 33.4 |
| 5/8/2018 | | | | | | | | | |
| 5/9/2018 | | | | | | | | | 36 |
| 6/19/2018 | 50.3 | 1.6 | 498 | | | | | 218 | 35.5 |
| 6/20/2018 | | | | 31.2 | 33 | | 46 (J) | | |
| 6/21/2018 | | | | | | 481 | | | |
| 9/25/2018 | | 1 | 790 | | | | | | |
| 9/26/2018 | 54.1 | | | 36.8 | | | | 333 (D) | 39.6 |
| 9/27/2018 | | | | | 29.4 (D) | 777 (D) | 58.5 (J) | | |
| 11/6/2018 | | | 875 | | | 926 | | 182 | |
| 11/7/2018 | 45.6 | 0.41 (J) | | 35 | 734 | | 41.3 (J) | | 35.8 |
| 3/6/2019 | | | | | 1220 (J) | | | | |
| 3/24/2019 | | 1.5 | 1170 | | 413 | 1070 | 131 | 413 | |
| 3/25/2019 | 43 | | | 40.1 | | | | | 34.2 |
| 10/15/2019 | | 0.54 (J) | <5 | | | | | | |
| 10/16/2019 | 31.9 | | | 28.5 | | | 122.5 (D) | 312.5 (D) | 24.4 |
| 10/17/2019 | | | | | 507 | 1230 | | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | | 1550 | 132 | | |
| 11/21/2019 | | | 1070 | | | | | 428 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 36.2 | | | | | | | | |
| 3/27/2020 | | <5 | 899 | 31.2 | | | | 504 | 28.6 |
| 3/28/2020 | | | | | 701 | 1090 | 63.8 | | |
| 10/12/2020 | | <5 | | | | | | | |
| 10/13/2020 | 32.3 | | 695 | 26.8 | | | | 378 | 27.6 |
| 10/14/2020 | | | | | 510 | 904 | | | |
| 10/15/2020 | | | | | | | 147 | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-14 | MCM-16 (bg) | MCM-06 | MCM-07 | MCM-05 | MCM-17 | MCM-02 (bg) |
|-----------|-------------|--------|--------|-------------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | | | 262 | | |
| 3/2/2021 | | 1.2 | 97.5 | | | | | | |
| 3/3/2021 | 33.8 | | | 30.5 | | | | 420 | 27.6 |
| 3/4/2021 | | | | | 596 | 982 | 82.2 | | |
| 9/13/2021 | | <5 | 680 | | | | | | |
| 9/14/2021 | 34.2 | | | 24.4 | 490 | 819 | 459 | 460 | 30.4 |
| 3/1/2022 | | | | | 440 | | 143 | | |
| 3/2/2022 | 30.8 | | | | | 702 | | | 25.7 |
| 3/3/2022 | | <5 | 754 | 20.4 | | | | 324 | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 40 | | | | | |
| 6/1/2017 | | 42 | | | | |
| 6/2/2017 | | | 13 | | | |
| 8/2/2017 | 34 | 120 | 14 | | | |
| 8/15/2017 | 24 | | | | | |
| 8/16/2017 | | | | | | |
| 8/17/2017 | | 110 | 14 | | | |
| 4/4/2018 | 33.9 | 70.6 | 13.4 | | | |
| 4/5/2018 | | | | | | |
| 5/8/2018 | 35.7 | 61.4 | 14.8 | | | |
| 5/9/2018 | | | | | | |
| 6/19/2018 | 23.7 | | 15.5 | | | |
| 6/20/2018 | | 25.3 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | 25.6 | | | | | |
| 9/26/2018 | | | 23 | | | |
| 9/27/2018 | | 63.4 | | | | |
| 11/6/2018 | 25.2 | 136 | | | | |
| 11/7/2018 | | | 22.2 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 24.9 | 137 | 22.4 | | | |
| 10/15/2019 | | 105 | 17.9 | | | |
| 10/16/2019 | 17.4 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 1010 | 832 | 379 |
| 11/18/2019 | | | | | | 737 |
| 11/19/2019 | | | | 1140 | 795 | |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 1020 | 810 | |
| 12/5/2019 | | | | | | 351 |
| 12/17/2019 | | | | | 535 | |
| 12/18/2019 | | | | 8.1 | | |
| 1/8/2020 | | | | 747 | 603 | |
| 1/9/2020 | | | | | | 254 |
| 1/21/2020 | | | | 798 | 611 | 254 |
| 2/4/2020 | | | | 1120 | 599 | 432 |
| 2/13/2020 | | | | 833 | 761 | 300 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 23.4 | | 14.6 | 700 | 836 | 219 |
| 3/28/2020 | | 86.6 | | | | |
| 10/12/2020 | 19.3 | | | | | 191 |
| 10/13/2020 | | 92.3 | 7.6 | 638 | 609 | |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-11 (bg) | MCM-04 | MCM-15 (bg) | MCM-20 (bg) | MCM-19 (bg) | MCM-18 (bg) |
|-----------|-------------|-----------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 8 | | | |
| 3/3/2021 | 19.9 | | | 743 | <5 | 171 |
| 3/4/2021 | | 99.1 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 33.1 | 96.2 (M1) | 16.7 | 659 | 995 | 134 |
| 3/1/2022 | | | | 543 | 158 | |
| 3/2/2022 | 19.5 | | 16 | | | 186 |
| 3/3/2022 | | 50.6 | | | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|------------|-------------|--------|-------------|--------|--------|--------|--------|--------|-------------|
| 8/30/2016 | 86 | 1910 | 99 | 1310 | | | | | |
| 8/31/2016 | | | | | 3620 | 4160 | 5100 | | |
| 10/25/2016 | | | | | | | | 2900 | |
| 11/30/2016 | 131 | 1910 | 111 | 1050 | 4030 | 3950 | 4680 | 3970 | |
| 2/15/2017 | 212 | 1870 | 170 | 1440 | | | | 3820 | |
| 2/16/2017 | | | | | 4080 | 4600 | 5080 | | |
| 5/31/2017 | | 1920 | | 1740 | | | | 5050 | 257 |
| 6/1/2017 | 103 | | 98 | | | | | | |
| 6/2/2017 | | | | | 5560 | 4470 | 8000 | | |
| 8/2/2017 | | | | | | | | | 183 |
| 8/15/2017 | | 1840 | | | | | | 4820 | 90 |
| 8/16/2017 | 65 | | | 3010 | | | | | |
| 8/17/2017 | | | 84 | | 4620 | 5450 | 8320 | | |
| 4/4/2018 | | | | | | | | | 197 |
| 4/5/2018 | | | | | | | | | |
| 5/8/2018 | | | | | | | | | 225 |
| 5/9/2018 | | | | | | | | | |
| 6/19/2018 | 142 | 1820 | | 8630 | | | | 5640 | 112 |
| 6/20/2018 | | | 123 | | 3370 | 4940 | | | |
| 6/21/2018 | | | | | | | 7500 | | |
| 9/25/2018 | | 1760 | | 10700 | | | | | 137 |
| 9/26/2018 | 133 | | 117 | | | | | 6920 | |
| 9/27/2018 | | | | | 2360 | 4480 | 10200 | | |
| 11/6/2018 | | | | 11100 | | | 11000 | 4160 | 89 |
| 11/7/2018 | 121 | 1800 | 120 | | 2230 | 15100 | | | |
| 3/6/2019 | | | | | | 19000 | | | |
| 3/24/2019 | | 1770 | | 14200 | 1450 | 13700 | 13700 | 6840 | |
| 3/25/2019 | 116 | | 101 | | | | | | 74 |
| 10/15/2019 | | 1730 | | 15400 | | | | | |
| 10/16/2019 | 104 | | 95 | | 2860 | | | 7740 | 82 |
| 10/17/2019 | | | | | | 16100 | 13200 | | |
| 11/7/2019 | | | | | | | | | |
| 11/18/2019 | | | | | | | | | |
| 11/19/2019 | | | | | | | | | |
| 11/20/2019 | | | | | 2640 | | 16700 | | |
| 11/21/2019 | | | | 15800 | | | | 7720 | |
| 12/4/2019 | | | | | | | | | |
| 12/5/2019 | | | | | | | | | |
| 12/17/2019 | | | | | | | | | |
| 12/18/2019 | | | | | | | | | |
| 1/8/2020 | | | | | | | | | |
| 1/9/2020 | | | | | | | | | |
| 1/21/2020 | | | | | | | | | |
| 2/4/2020 | | | | | | | | | |
| 2/13/2020 | | | | | | | | | |
| 3/26/2020 | 114 | | | | | | | | |
| 3/27/2020 | | 1970 | 110 | 16400 | | | | 10200 | 87 |
| 3/28/2020 | | | | | 1470 | 18800 | 18300 | | |
| 10/12/2020 | | 1560 | | | | | | | 94 |
| 10/13/2020 | 113 | | 115 | 15600 | | | | 8750 | |
| 10/14/2020 | | | | | | 15200 | 18400 | | |
| 10/15/2020 | | | | | 5100 | | | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-01 (bg) | MCM-12 | MCM-16 (bg) | MCM-14 | MCM-05 | MCM-06 | MCM-07 | MCM-17 | MCM-11 (bg) |
|-----------|-------------|--------|-------------|--------|--------|--------|--------|--------|-------------|
| 1/4/2021 | | | | | 7750 | | | | |
| 3/2/2021 | | 1430 | | 12000 | | | | | |
| 3/3/2021 | 99 | | 122 | | | | | 8830 | 66 |
| 3/4/2021 | | | | | 1700 | 14200 | 17100 | | |
| 9/13/2021 | | 1450 | | 11400 | | | | | |
| 9/14/2021 | 66 | | <25 | | 8020 | 11800 | 13400 | 8820 | 191 |
| 3/1/2022 | | | | | 3780 | 9040 | | | |
| 3/2/2022 | 97 | | | | | | 12600 | | 124 |
| 3/3/2022 | | 1400 | 104 | 11500 | | | | 8120 | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|------------|-------------|--------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | | | |
| 8/31/2016 | | | | | | |
| 10/25/2016 | | | | | | |
| 11/30/2016 | | | | | | |
| 2/15/2017 | | | | | | |
| 2/16/2017 | | | | | | |
| 5/31/2017 | 123 | | | | | |
| 6/1/2017 | | 97 | | | | |
| 6/2/2017 | | | 69 | | | |
| 8/2/2017 | 136 | 538 | 35 | | | |
| 8/15/2017 | | | | | | |
| 8/16/2017 | 124 | | | | | |
| 8/17/2017 | | 445 | 51 | | | |
| 4/4/2018 | | 365 | 90 | | | |
| 4/5/2018 | 128 | | | | | |
| 5/8/2018 | | 304 | 89 | | | |
| 5/9/2018 | 127 | | | | | |
| 6/19/2018 | 143 | | 110 | | | |
| 6/20/2018 | | 114 | | | | |
| 6/21/2018 | | | | | | |
| 9/25/2018 | | | | | | |
| 9/26/2018 | 132 | | 124 | | | |
| 9/27/2018 | | 255 | | | | |
| 11/6/2018 | | 388 | | | | |
| 11/7/2018 | 134 | | 125 | | | |
| 3/6/2019 | | | | | | |
| 3/24/2019 | | | | | | |
| 3/25/2019 | 111 | 327 | 98 | | | |
| 10/15/2019 | | 237 | 107 | | | |
| 10/16/2019 | 96 | | | | | |
| 10/17/2019 | | | | | | |
| 11/7/2019 | | | | 10900 | 4140 | 13500 |
| 11/18/2019 | | | | | 4030 | |
| 11/19/2019 | | | | 10000 | | 13300 |
| 11/20/2019 | | | | | | |
| 11/21/2019 | | | | | | |
| 12/4/2019 | | | | 11000 | | 13200 |
| 12/5/2019 | | | | | 3840 | |
| 12/17/2019 | | | | 9860 | | |
| 12/18/2019 | | | | | 3880 | 12500 |
| 1/8/2020 | | | | 9760 | | 12300 |
| 1/9/2020 | | | | | 3520 | |
| 1/21/2020 | | | | 10100 | 3280 | 12000 |
| 2/4/2020 | | | | 10600 | 3220 | 12300 |
| 2/13/2020 | | | | 10900 | 3580 | 12400 |
| 3/26/2020 | | | | | | |
| 3/27/2020 | 119 | | 110 | 14300 | 3090 | 14600 |
| 3/28/2020 | | 284 | | | | |
| 10/12/2020 | | | | | 2920 | |
| 10/13/2020 | 118 | <25 | 63 | 6600 | | 13900 |
| 10/14/2020 | | | | | | |
| 10/15/2020 | | | | | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/4/2022 9:29 AM View: Appendix III - Interwells
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-02 (bg) | MCM-04 | MCM-15 (bg) | MCM-19 (bg) | MCM-18 (bg) | MCM-20 (bg) |
|-----------|-------------|--------|-------------|-------------|-------------|-------------|
| 1/4/2021 | | | | | | |
| 3/2/2021 | | | 40 | | | |
| 3/3/2021 | 84 | | | 11000 | 2620 | 11400 |
| 3/4/2021 | | 285 | | | | |
| 9/13/2021 | | | | | | |
| 9/14/2021 | 76 | 193 | 96 | 14600 | 2190 | 10300 |
| 3/1/2022 | | | | 4050 | | 10500 |
| 3/2/2022 | 94 | | 103 | | 3100 | |
| 3/3/2022 | | 146 | | | | |

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:31 AM

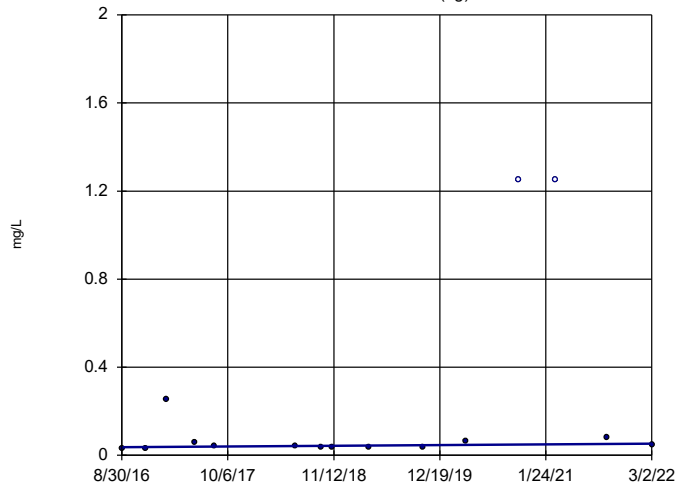
| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|------------------------|-------------|--------------|--------------|-----------------|-------------|----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MCM-06 | 0.1719 | 78 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 28.97 | 69 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -13.06 | -60 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -35.02 | -49 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -40.4 | -56 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1262 | -115 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.08928 | 39 | 38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.06599 | -39 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |

Appendix III Trend Tests - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:31 AM

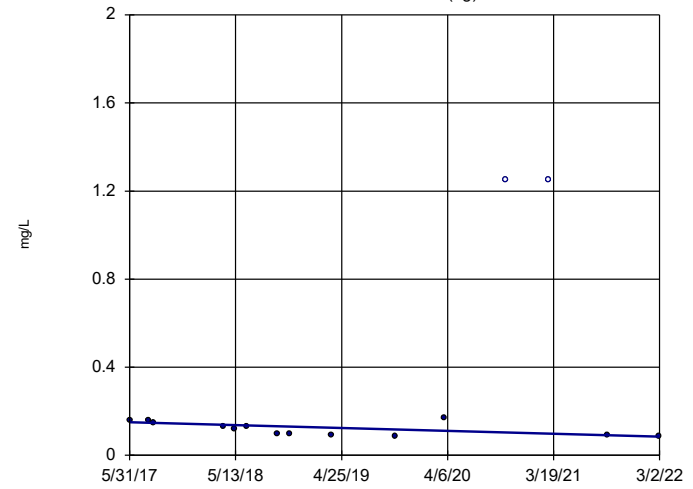
| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|-------------------------------|--------------------|-----------------|-------------|------------|------------|-----------|----------|------------|------------|-------------|-----------|
| Boron (mg/L) | MCM-01 (bg) | 0.002913 | 31 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-02 (bg) | -0.01364 | -30 | -53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-06 | 0.1719 | 78 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-11 (bg) | 0.002523 | 15 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-15 (bg) | 0.004516 | 31 | 53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-16 (bg) | -0.005844 | -34 | -53 | No | 15 | 13.33 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-17 | -0.07804 | -30 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-18 (bg) | -0.01671 | -26 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-19 (bg) | 0.01794 | 2 | 43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MCM-20 (bg) | -0.01931 | -9 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-01 (bg) | -0.214 | -8 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-02 (bg) | -0.2463 | -52 | -53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-07 | 28.97 | 69 | 58 | Yes | 16 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-11 (bg) | -1.311 | -37 | -53 | No | 15 | 6.667 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-14 | 30.49 | 40 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-15 (bg) | 0.21 | 16 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-16 (bg) | 0.09511 | 20 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-18 (bg) | -13.06 | -60 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-19 (bg) | -35.02 | -49 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MCM-20 (bg) | -40.4 | -56 | -43 | Yes | 13 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-01 (bg) | 0.02854 | 13 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-02 (bg) | 0.02156 | 50 | 63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-05 | -0.0553 | -60 | -68 | No | 18 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-06 | -0.06799 | -44 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-07 | -0.06195 | -60 | -63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-11 (bg) | -0.04644 | -46 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-12 | -0.04184 | -42 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-14 | -0.1262 | -115 | -63 | Yes | 17 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-15 (bg) | -0.04201 | -26 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-16 (bg) | 0 | -1 | -58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-18 (bg) | 0.08928 | 39 | 38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-19 (bg) | 0.008423 | 3 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| pH, field (Std. Units) | MCM-20 (bg) | -0.06599 | -39 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator
MCM-01 (bg)



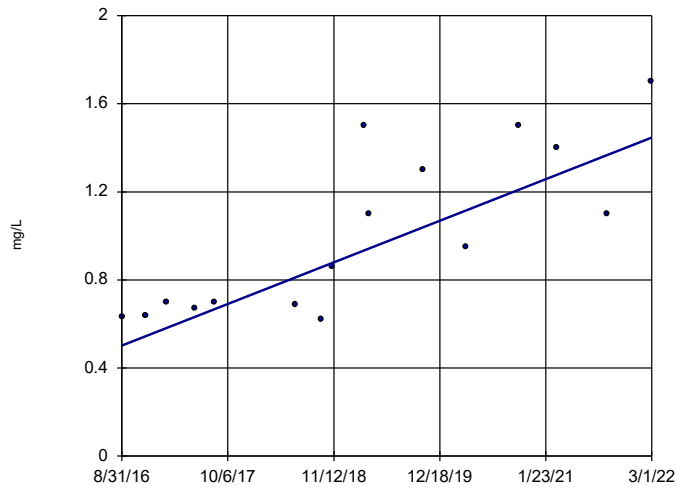
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-02 (bg)



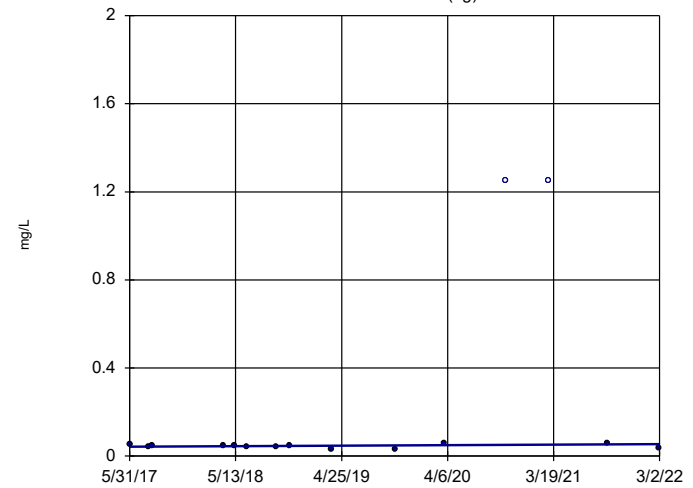
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-06



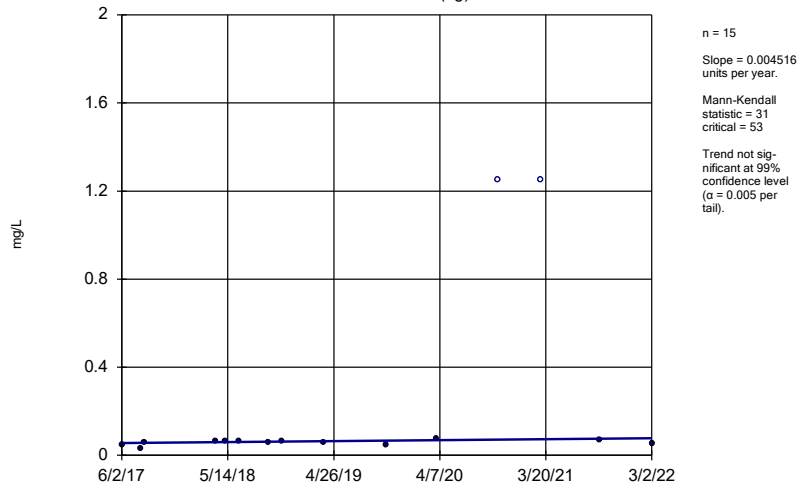
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



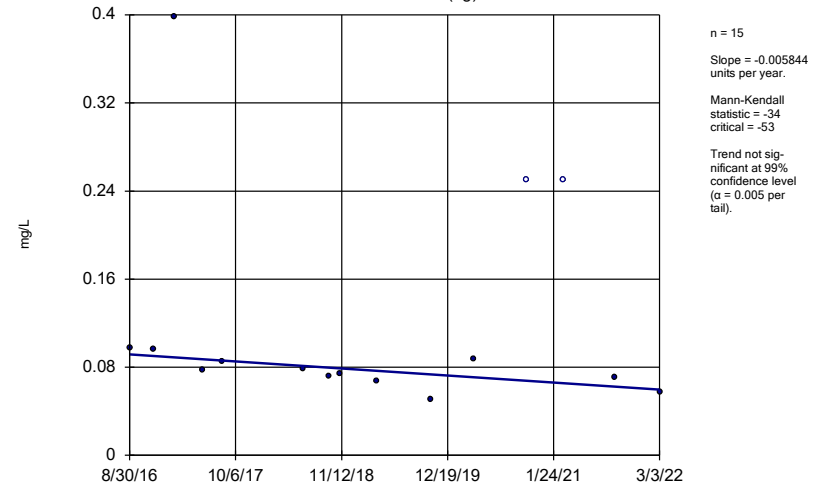
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-15 (bg)



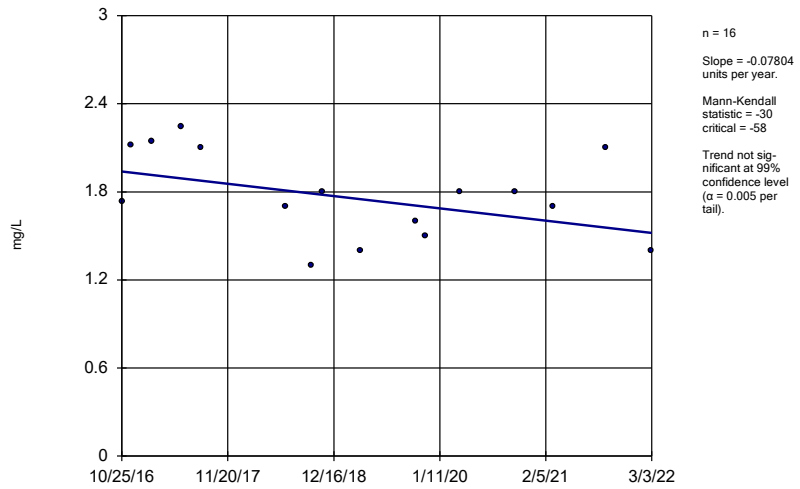
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-16 (bg)



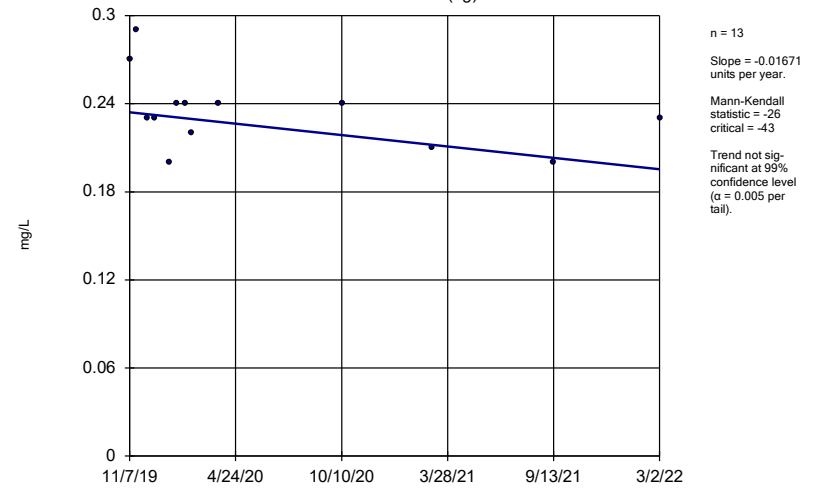
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-17



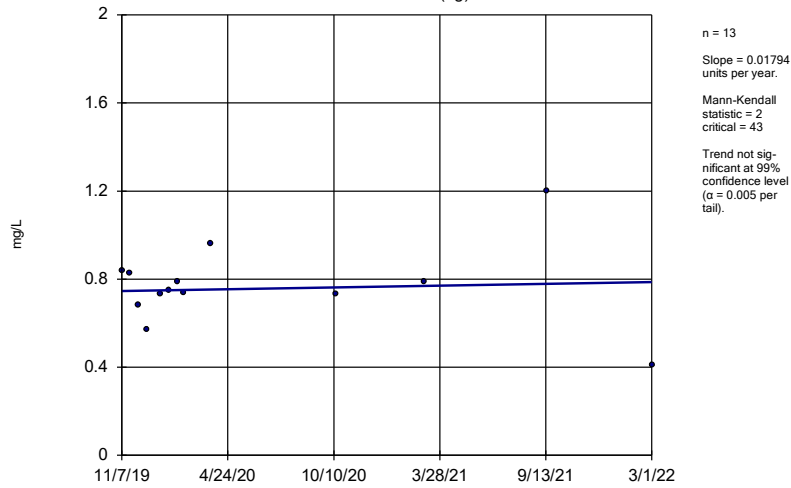
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-18 (bg)



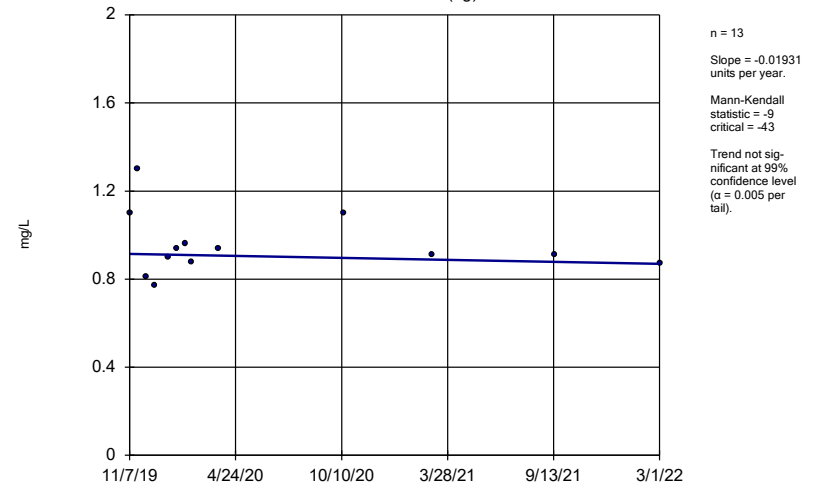
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-19 (bg)



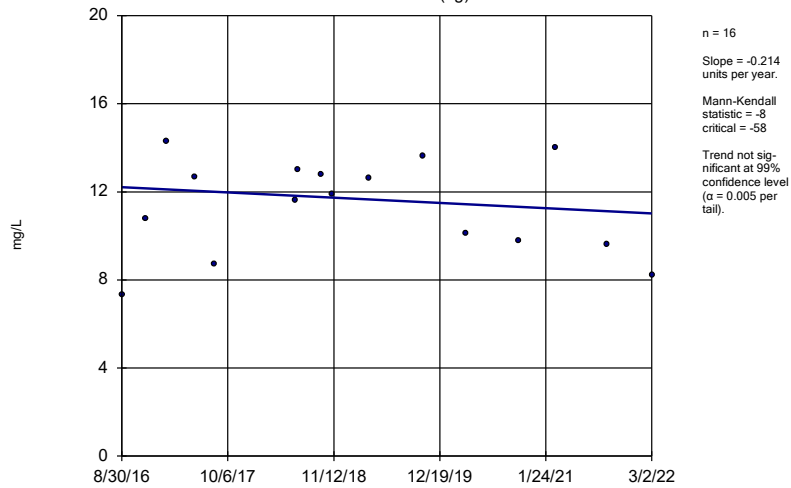
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-20 (bg)



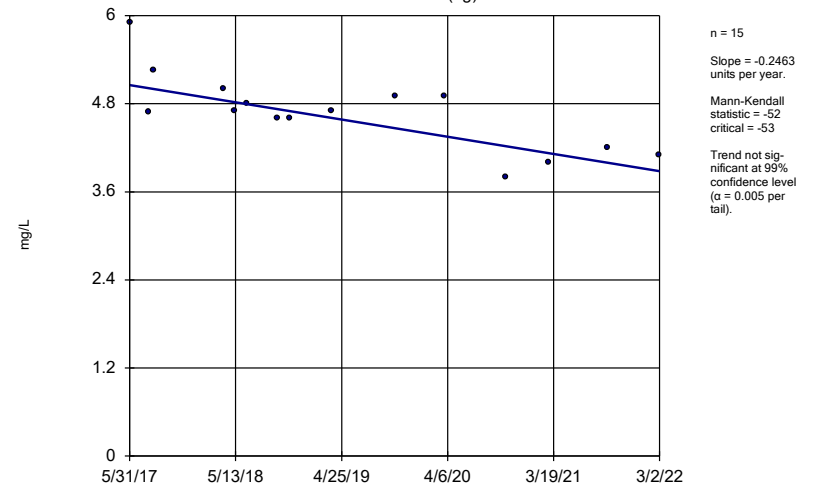
Constituent: Boron Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-01 (bg)



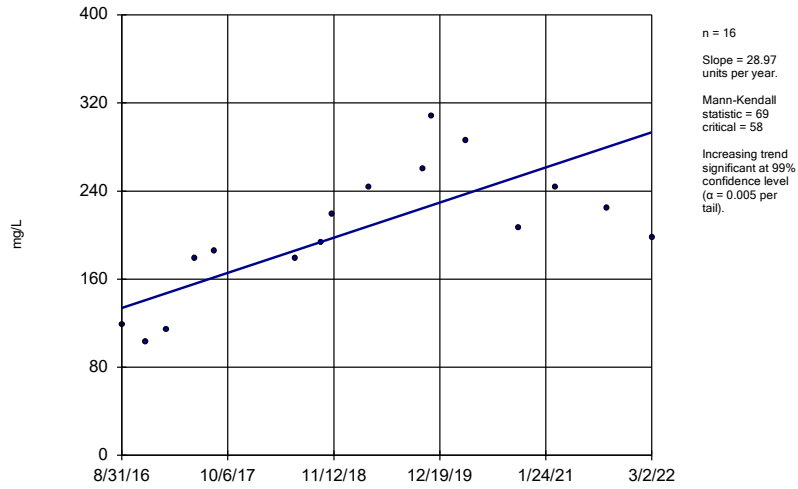
Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-02 (bg)



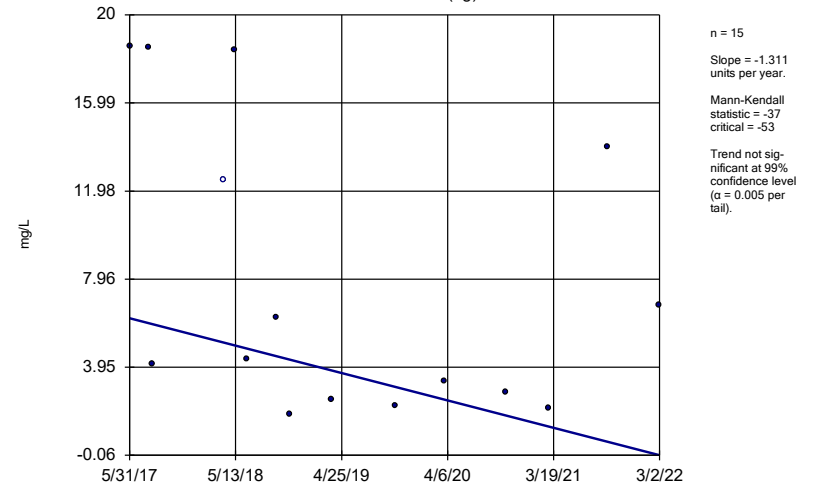
Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-07



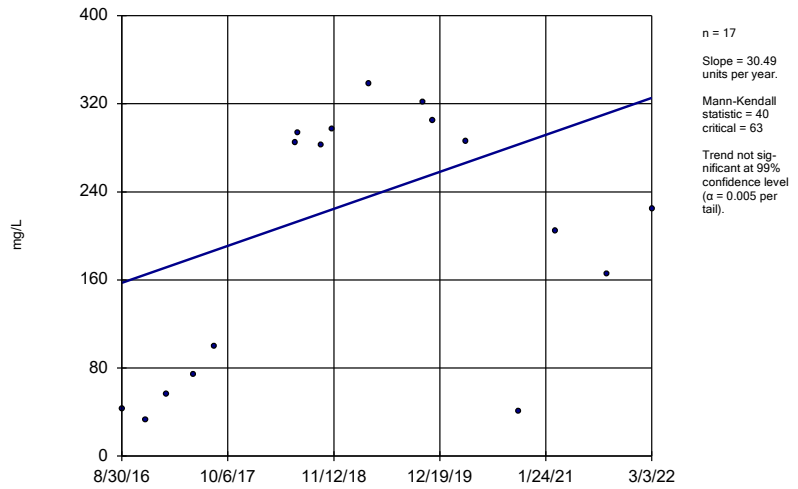
Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



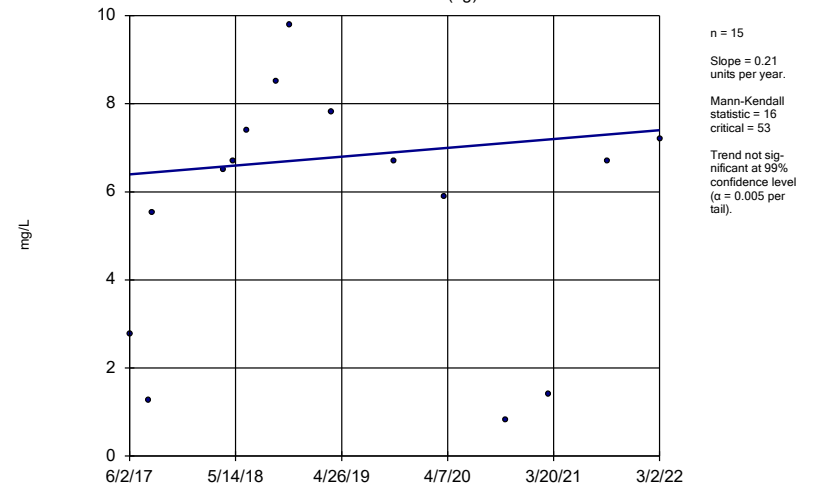
Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-14



Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

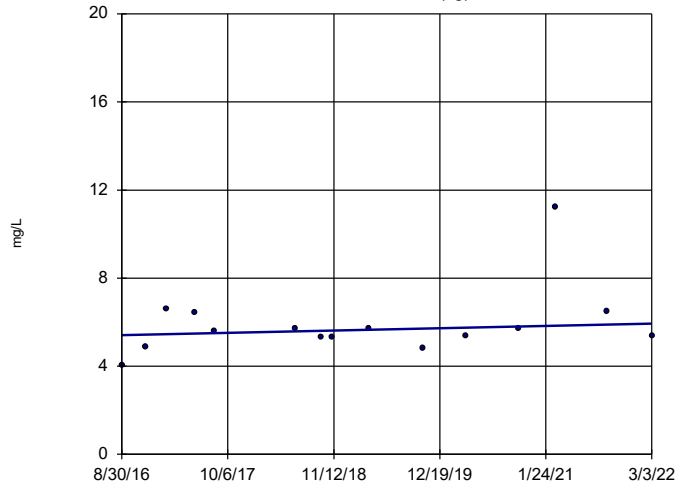
Sen's Slope Estimator
MCM-15 (bg)



Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-16 (bg)

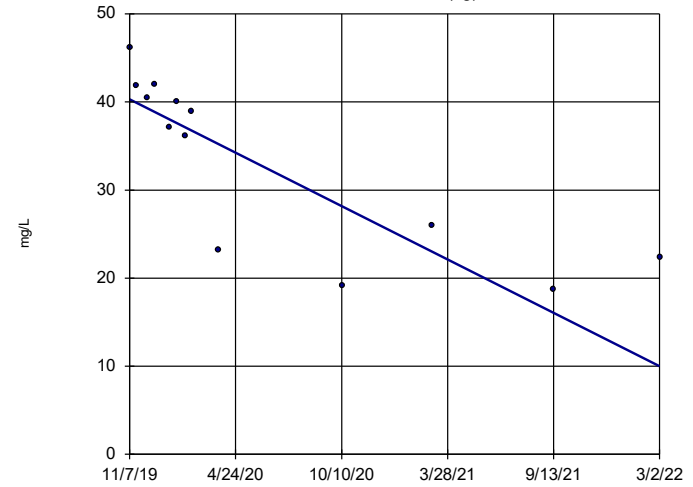


n = 15
 Slope = 0.09511
 units per year.
 Mann-Kendall
 statistic = 20
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

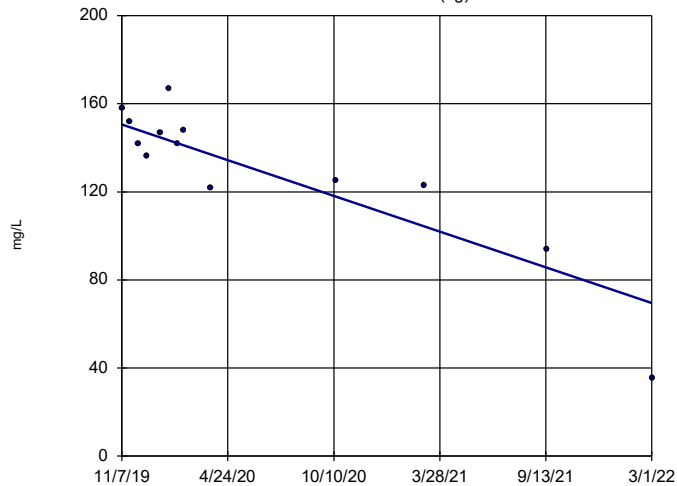


n = 13
 Slope = -13.06
 units per year.
 Mann-Kendall
 statistic = -60
 critical = -43
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

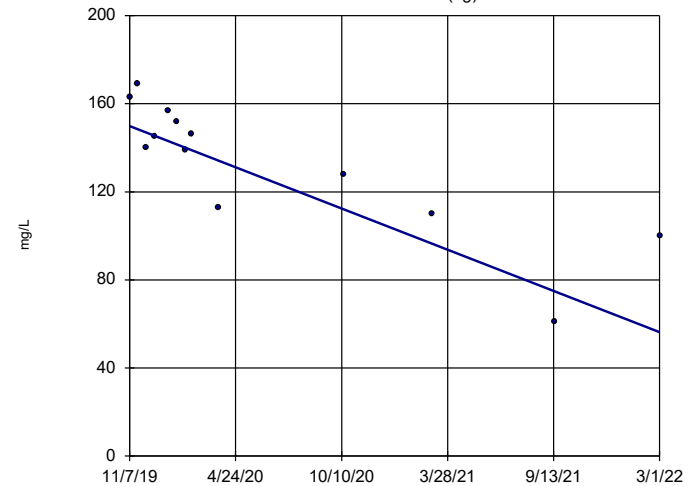


n = 13
 Slope = -35.02
 units per year.
 Mann-Kendall
 statistic = -49
 critical = -43
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

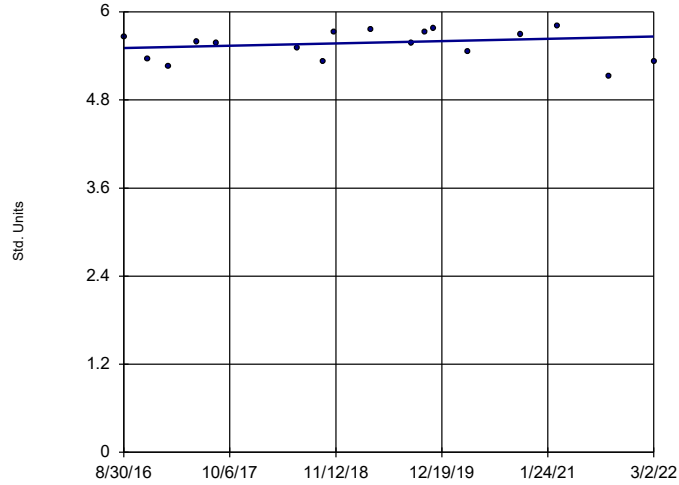


n = 13
 Slope = -40.4
 units per year.
 Mann-Kendall
 statistic = -56
 critical = -43
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-01 (bg)

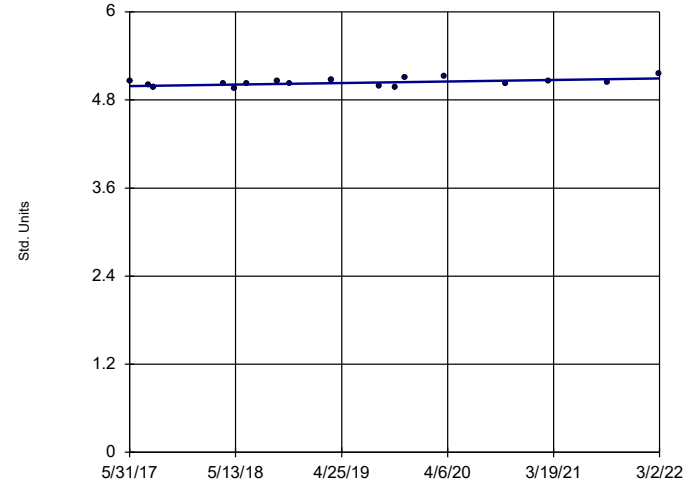


n = 17
 Slope = 0.02854
 units per year.
 Mann-Kendall
 statistic = 13
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-02 (bg)

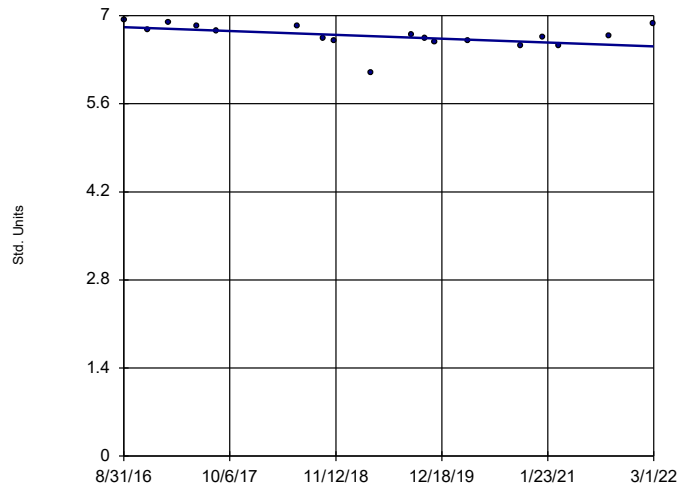


n = 17
 Slope = 0.02156
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-05

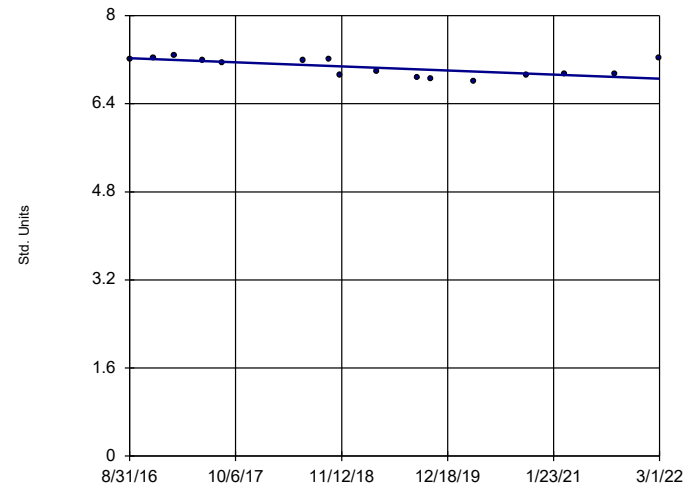


n = 18
 Slope = -0.0553
 units per year.
 Mann-Kendall
 statistic = -60
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

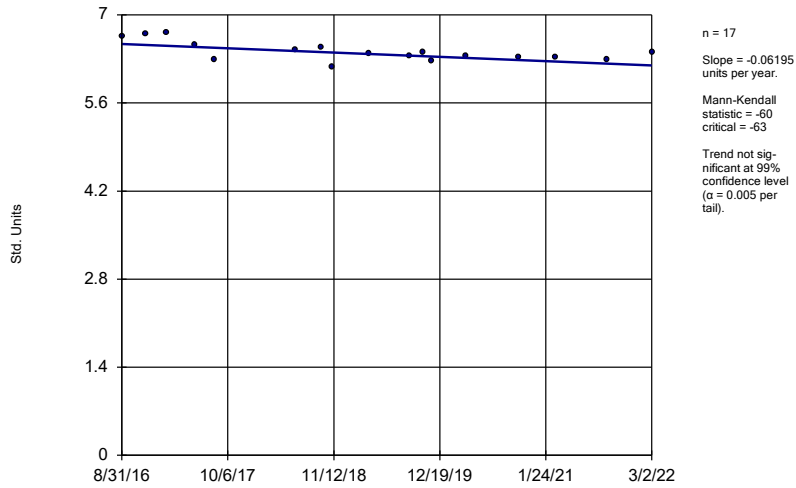
MCM-06



n = 16
 Slope = -0.06799
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

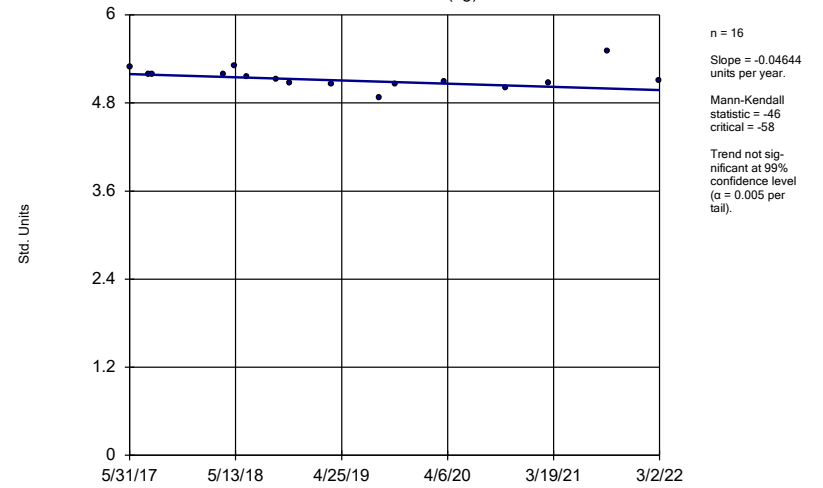
Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-07



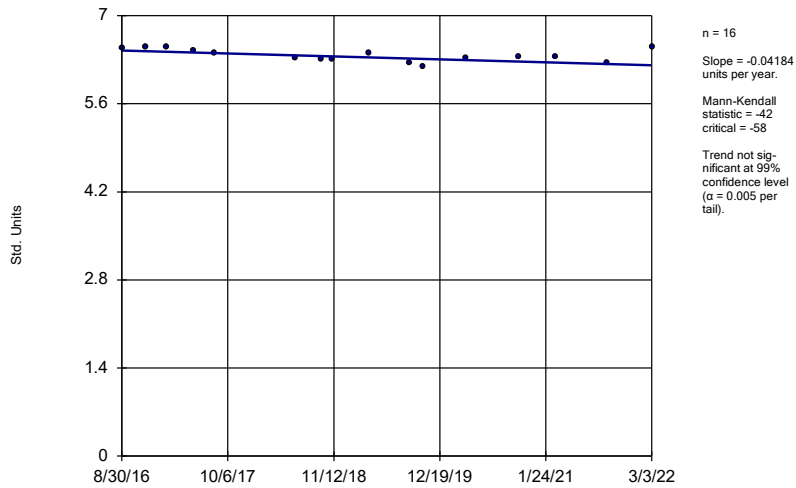
Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-11 (bg)



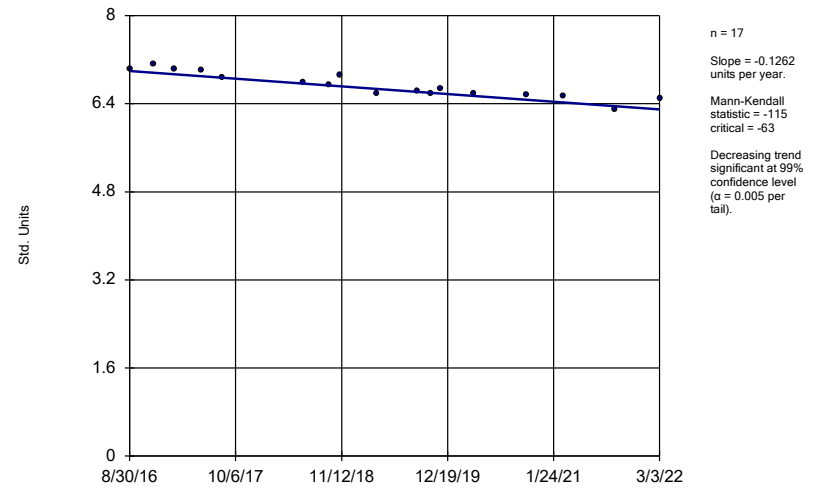
Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-12



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

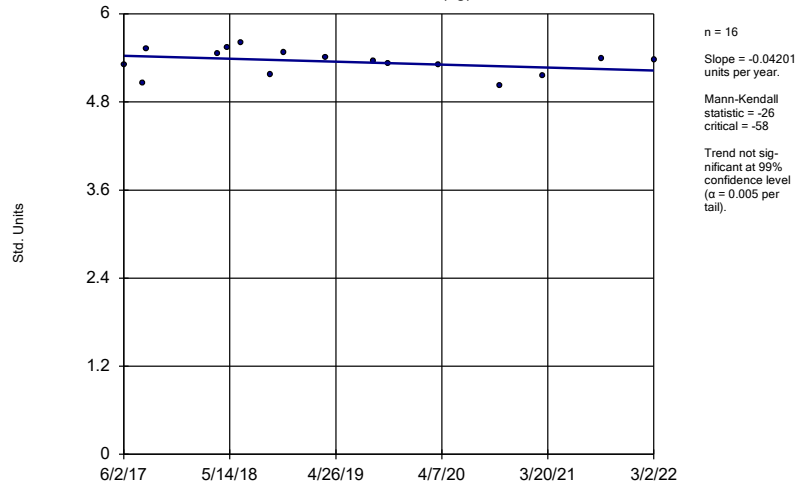
Sen's Slope Estimator
MCM-14



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

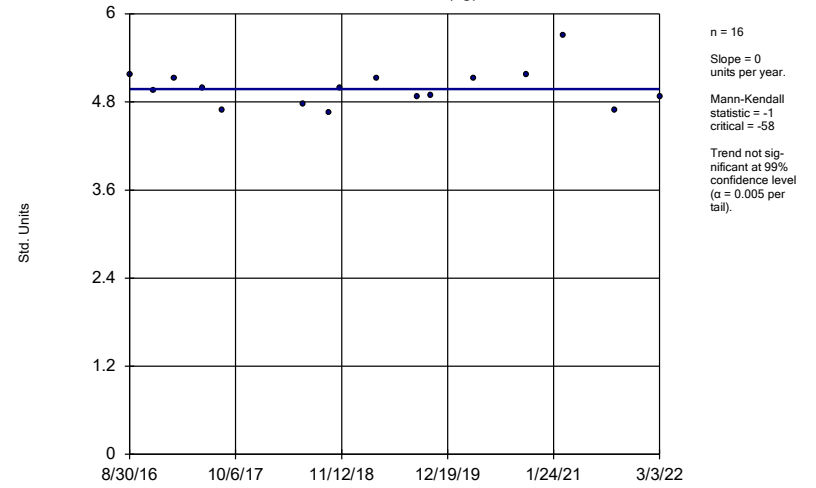
MCM-15 (bg)



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

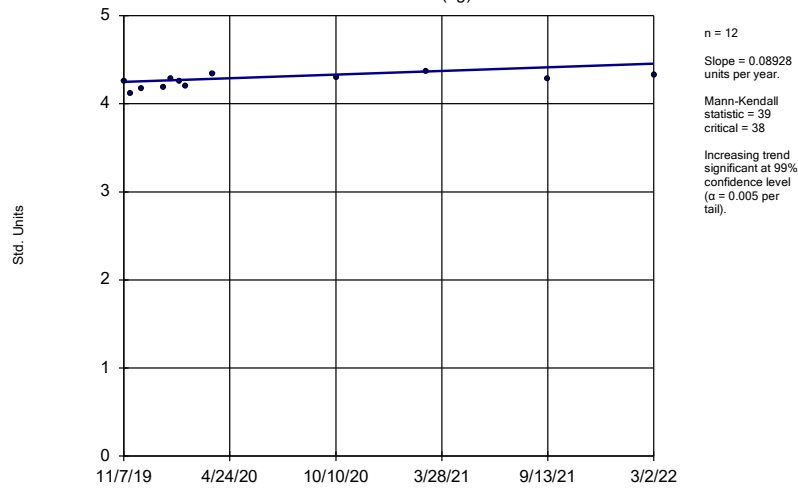
MCM-16 (bg)



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

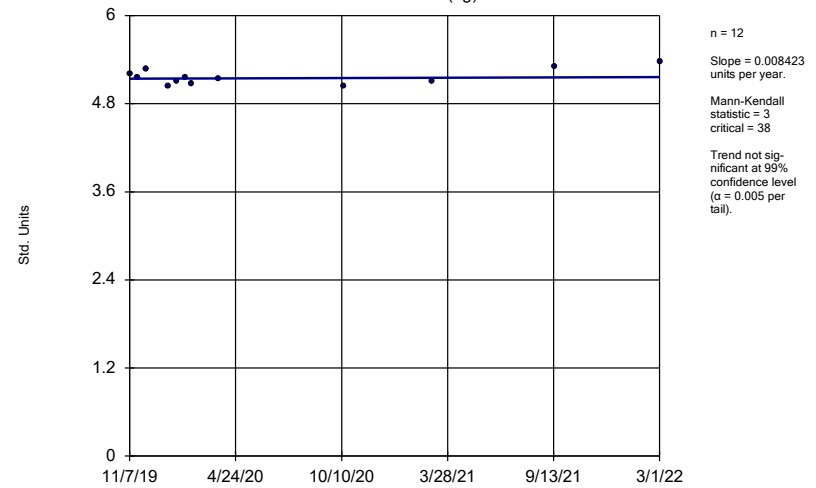
MCM-18 (bg)



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

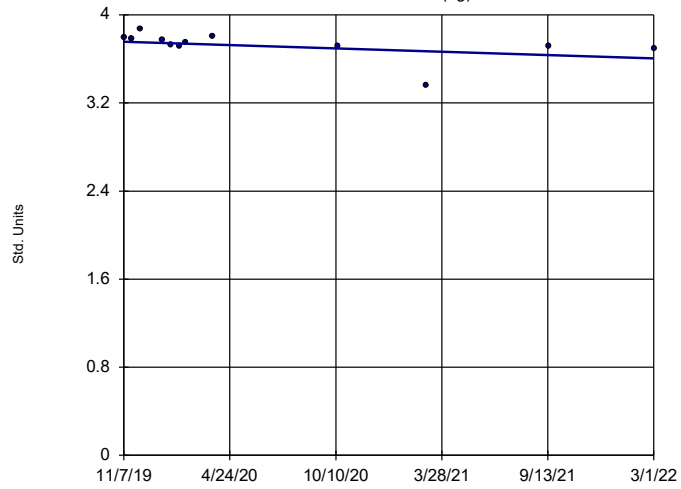
MCM-19 (bg)



Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)



n = 12
Slope = -0.06599
units per year.
Mann-Kendall
statistic = -39
critical = -38
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, field Analysis Run 5/4/2022 9:30 AM View: Appendix III - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

FIGURE F.

Upper Tolerance Limit Summary Table

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:33 AM

| Constituent | Well | Upper Lim. | Lower 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 | n/a | 99 | n/a | n/a | 94.95 | n/a | n/a | 0.006232 | NP Inter(NDs) |
| Arsenic (mg/L) | n/a | 0.032 | n/a | n/a | n/a | n/a | 118 | n/a | n/a | 13.56 | n/a | n/a | 0.002352 | NP Inter(normality) |
| Barium (mg/L) | n/a | 0.22 | n/a | n/a | n/a | n/a | 115 | n/a | n/a | 0 | n/a | n/a | 0.002743 | NP Inter(normality) |
| Beryllium (mg/L) | n/a | 0.021 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 24.56 | n/a | n/a | 0.002887 | NP Inter(normality) |
| Cadmium (mg/L) | n/a | 0.0025 | n/a | n/a | n/a | n/a | 93 | n/a | n/a | 93.55 | n/a | n/a | 0.008478 | NP Inter(NDs) |
| Chromium (mg/L) | n/a | 0.011 | n/a | n/a | n/a | n/a | 99 | n/a | n/a | 51.52 | n/a | n/a | 0.006232 | NP Inter(NDs) |
| Cobalt (mg/L) | n/a | 0.036 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 73.68 | n/a | n/a | 0.002887 | NP Inter(NDs) |
| Combined Radium 226 + 228 (pCi/L) | n/a | 55.8 | n/a | n/a | n/a | n/a | 113 | n/a | n/a | 0 | n/a | n/a | 0.003039 | NP Inter(normality) |
| Fluoride (mg/L) | n/a | 1.5 | n/a | n/a | n/a | n/a | 119 | n/a | n/a | 48.74 | n/a | n/a | 0.002234 | NP Inter(normality) |
| Lead (mg/L) | n/a | 0.005 | n/a | n/a | n/a | n/a | 114 | n/a | n/a | 83.33 | n/a | n/a | 0.002887 | NP Inter(NDs) |
| Lithium (mg/L) | n/a | 0.05 | n/a | n/a | n/a | n/a | 111 | n/a | n/a | 54.05 | n/a | n/a | 0.003368 | NP Inter(NDs) |
| Mercury (mg/L) | n/a | 0.0007 | n/a | n/a | n/a | n/a | 93 | n/a | n/a | 94.62 | n/a | n/a | 0.008478 | NP Inter(NDs) |
| Molybdenum (mg/L) | n/a | 0.01 | n/a | n/a | n/a | n/a | 98 | n/a | n/a | 90.82 | n/a | n/a | 0.00656 | NP Inter(NDs) |
| Selenium (mg/L) | n/a | 0.15 | n/a | n/a | n/a | n/a | 115 | n/a | n/a | 60.87 | n/a | n/a | 0.002743 | NP Inter(NDs) |
| Thallium (mg/L) | n/a | 0.002 | n/a | n/a | n/a | n/a | 98 | n/a | n/a | 91.84 | n/a | n/a | 0.00656 | NP Inter(NDs) |

FIGURE G.

| MCMANUS ASH POND 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 | | 0.032 | 0.032 |
| Barium, Total (mg/L) | 2 | | 0.22 | 2 |
| Beryllium, Total (mg/L) | 0.004 | | 0.021 | 0.021 |
| Cadmium, Total (mg/L) | 0.005 | | 0.0025 | 0.005 |
| Chromium, Total (mg/L) | 0.1 | | 0.011 | 0.1 |
| Cobalt, Total (mg/L) | n/a | 0.006 | 0.036 | 0.036 |
| Combined Radium, Total (pCi/L) | 5 | | 55.8 | 55.8 |
| Fluoride, Total (mg/L) | 4 | | 1.5 | 4 |
| Lead, Total (mg/L) | n/a | 0.015 | 0.005 | 0.015 |
| Lithium, Total (mg/L) | n/a | 0.04 | 0.05 | 0.05 |
| Mercury, Total (mg/L) | 0.002 | | 0.0007 | 0.002 |
| Molybdenum, Total (mg/L) | n/a | 0.1 | 0.01 | 0.1 |
| Selenium, Total (mg/L) | 0.05 | | 0.15 | 0.15 |
| Thallium, Total (mg/L) | 0.002 | | 0.002 | 0.002 |

**Grey cell indicates Background Limit is higher than MCL or CCR-Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Interval - Significant Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| <u>Constituent</u> | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Compliance</u> | <u>Sig.</u> | <u>N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>%NDs</u> | <u>ND Adj.</u> | <u>Transform</u> | <u>Alpha</u> | <u>Method</u> |
|--------------------|-------------|-------------------|-------------------|-------------------|-------------|----------|-------------|------------------|-------------|----------------|------------------|--------------|---------------|
| Arsenic (mg/L) | MCM-06 | 0.4289 | 0.2713 | 0.032 | Yes | 19 | 0.3501 | 0.1346 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | DPZ-2 | 0.09913 | 0.0812 | 0.05 | Yes | 6 | 0.09017 | 0.006524 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-06 | 0.09925 | 0.05705 | 0.05 | Yes | 16 | 0.07815 | 0.03243 | 0 | None | No | 0.01 | Param. |

Confidence Interval - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------------------|---------------|---------------|---------------|--------------|------------|-----------|---------------|---------------|----------|--------------|-----------|-------------|----------------|
| Antimony (mg/L) | MCM-06 | 0.003 | 0.0029 | 0.006 | No | 14 | 0.002699 | 0.0007457 | 78.57 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-14 | 0.003 | 0.0004 | 0.006 | No | 13 | 0.0028 | 0.0007211 | 92.31 | None | No | 0.01 | NP (NDs) |
| Antimony (mg/L) | MCM-17 | 0.003 | 0.00078 | 0.006 | No | 13 | 0.002829 | 0.0006157 | 92.31 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | DPZ-2 | 0.02354 | 0.01396 | 0.032 | No | 5 | 0.019 | 0.002915 | 20 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-04 | 0.007714 | 0.003016 | 0.032 | No | 16 | 0.005694 | 0.004121 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-05 | 0.01983 | 0.005206 | 0.032 | No | 18 | 0.01523 | 0.01186 | 16.67 | Kaplan-Meier | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-06 | 0.4289 | 0.2713 | 0.032 | Yes | 19 | 0.3501 | 0.1346 | 0 | None | No | 0.01 | Param. |
| Arsenic (mg/L) | MCM-07 | 0.02004 | 0.0106 | 0.032 | No | 18 | 0.01591 | 0.008069 | 0 | None | sqrt(x) | 0.01 | Param. |
| Arsenic (mg/L) | MCM-12 | 0.02 | 0.001 | 0.032 | No | 15 | 0.01151 | 0.009474 | 53.33 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | MCM-14 | 0.02 | 0.0014 | 0.032 | No | 15 | 0.01207 | 0.008922 | 53.33 | None | No | 0.01 | NP (NDs) |
| Arsenic (mg/L) | MCM-17 | 0.02 | 0.0017 | 0.032 | No | 16 | 0.0104 | 0.008848 | 43.75 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | DPZ-2 | 0.1061 | 0.05538 | 2 | No | 4 | 0.08075 | 0.01118 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-04 | 0.08496 | 0.03259 | 2 | No | 15 | 0.07027 | 0.07299 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-05 | 0.0442 | 0.01033 | 2 | No | 16 | 0.05021 | 0.1084 | 0 | None | ln(x) | 0.01 | Param. |
| Barium (mg/L) | MCM-06 | 0.16 | 0.0528 | 2 | No | 16 | 0.1064 | 0.05482 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-07 | 0.2 | 0.1 | 2 | No | 15 | 0.1614 | 0.09528 | 0 | None | No | 0.01 | NP (normality) |
| Barium (mg/L) | MCM-12 | 0.1275 | 0.1008 | 2 | No | 15 | 0.1141 | 0.01968 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-14 | 0.1311 | 0.05896 | 2 | No | 15 | 0.09501 | 0.0532 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MCM-17 | 0.1358 | 0.06446 | 2 | No | 15 | 0.1001 | 0.05264 | 0 | None | No | 0.01 | Param. |
| Beryllium (mg/L) | MCM-04 | 0.002 | 0.00021 | 0.021 | No | 15 | 0.0008707 | 0.0008389 | 33.33 | None | No | 0.01 | NP (normality) |
| Beryllium (mg/L) | MCM-05 | 0.002 | 0.000054 | 0.021 | No | 16 | 0.001878 | 0.0004865 | 93.75 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-07 | 0.002 | 0.00012 | 0.021 | No | 15 | 0.001618 | 0.0007906 | 80 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-12 | 0.001153 | 0.0005117 | 0.021 | No | 15 | 0.0008653 | 0.0005316 | 13.33 | None | sqrt(x) | 0.01 | Param. |
| Beryllium (mg/L) | MCM-14 | 0.002 | 0.0001 | 0.021 | No | 15 | 0.00137 | 0.000923 | 66.67 | None | No | 0.01 | NP (NDs) |
| Beryllium (mg/L) | MCM-17 | 0.002 | 0.0002 | 0.021 | No | 15 | 0.0009493 | 0.0008901 | 40 | None | No | 0.01 | NP (normality) |
| Cadmium (mg/L) | MCM-04 | 0.0025 | 0.00043 | 0.005 | No | 12 | 0.002327 | 0.0005976 | 91.67 | None | No | 0.01 | NP (NDs) |
| Cadmium (mg/L) | MCM-17 | 0.0025 | 0.000093 | 0.005 | No | 12 | 0.002299 | 0.0006948 | 91.67 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-04 | 0.01 | 0.00085 | 0.1 | No | 13 | 0.005296 | 0.004541 | 46.15 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-05 | 0.01 | 0.00057 | 0.1 | No | 13 | 0.005803 | 0.004724 | 53.85 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-06 | 0.01 | 0.001 | 0.1 | No | 14 | 0.006796 | 0.004463 | 64.29 | None | No | 0.01 | NP (NDs) |
| Chromium (mg/L) | MCM-07 | 0.01 | 0.002 | 0.1 | No | 13 | 0.005246 | 0.003917 | 38.46 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-12 | 0.01 | 0.0047 | 0.1 | No | 13 | 0.007185 | 0.002409 | 38.46 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-14 | 0.01 | 0.00076 | 0.1 | No | 13 | 0.005482 | 0.004379 | 46.15 | None | No | 0.01 | NP (normality) |
| Chromium (mg/L) | MCM-17 | 0.01266 | 0.007638 | 0.1 | No | 13 | 0.01096 | 0.002919 | 30.77 | Kaplan-Meier | No | 0.01 | Param. |
| Cobalt (mg/L) | MCM-04 | 0.02 | 0.0049 | 0.036 | No | 16 | 0.0123 | 0.007128 | 43.75 | None | No | 0.01 | NP (normality) |
| Cobalt (mg/L) | MCM-05 | 0.02 | 0.0019 | 0.036 | No | 16 | 0.01887 | 0.004525 | 93.75 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-06 | 0.02 | 0.0009 | 0.036 | No | 16 | 0.01757 | 0.006627 | 87.5 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-07 | 0.02 | 0.0011 | 0.036 | No | 15 | 0.01874 | 0.00488 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-12 | 0.02 | 0.00053 | 0.036 | No | 15 | 0.01352 | 0.009489 | 66.67 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-14 | 0.02 | 0.0006 | 0.036 | No | 15 | 0.01871 | 0.005009 | 93.33 | None | No | 0.01 | NP (NDs) |
| Cobalt (mg/L) | MCM-17 | 0.02 | 0.0007 | 0.036 | No | 15 | 0.01611 | 0.008057 | 80 | None | No | 0.01 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MCM-04 | 5.727 | 3.038 | 55.8 | No | 15 | 4.492 | 2.242 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-05 | 3.434 | 1.46 | 55.8 | No | 16 | 2.799 | 2.207 | 0 | None | ln(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-06 | 7.605 | 3.268 | 55.8 | No | 15 | 5.437 | 3.2 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-07 | 9.375 | 5.616 | 55.8 | No | 16 | 7.496 | 2.888 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-12 | 3.147 | 2.199 | 55.8 | No | 15 | 2.673 | 0.6995 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-14 | 7.679 | 4.405 | 55.8 | No | 16 | 5.453 | 3.174 | 0 | None | x^2 | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MCM-17 | 8.89 | 2.01 | 55.8 | No | 16 | 5.27 | 3.11 | 0 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | DPZ-2 | 0.11 | 0.1 | 4 | No | 4 | 0.1025 | 0.005 | 75 | None | No | 0.0625 | NP (NDs) |
| Fluoride (mg/L) | MCM-04 | 0.18 | 0.055 | 4 | No | 16 | 0.1352 | 0.1256 | 50 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-05 | 0.4377 | 0.1918 | 4 | No | 18 | 0.4017 | 0.2375 | 16.67 | Kaplan-Meier | sqrt(x) | 0.01 | Param. |
| Fluoride (mg/L) | MCM-06 | 0.3 | 0.1 | 4 | No | 16 | 0.1905 | 0.1466 | 50 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-07 | 0.42 | 0.1 | 4 | No | 17 | 0.2804 | 0.2871 | 47.06 | None | No | 0.01 | NP (normality) |
| Fluoride (mg/L) | MCM-12 | 1.278 | 0.9662 | 4 | No | 16 | 1.091 | 0.3162 | 6.25 | None | x^2 | 0.01 | Param. |
| Fluoride (mg/L) | MCM-14 | 0.49 | 0.084 | 4 | No | 17 | 0.2238 | 0.1965 | 58.82 | None | No | 0.01 | NP (NDs) |
| Fluoride (mg/L) | MCM-17 | 1.2 | 0.1 | 4 | No | 17 | 0.5137 | 0.5075 | 41.18 | None | No | 0.01 | NP (normality) |

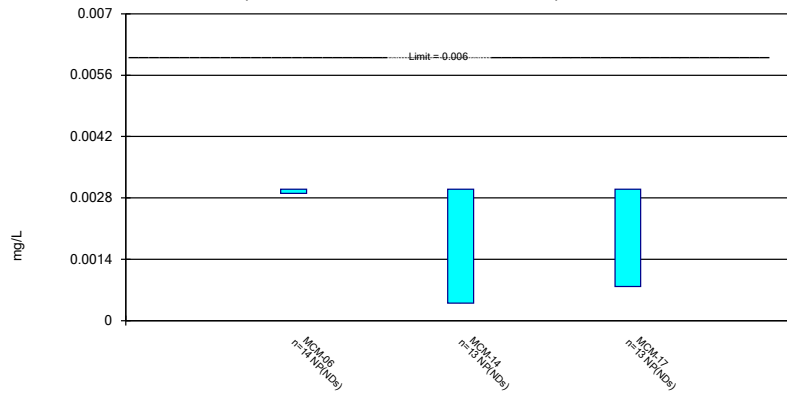
Confidence Interval - All Results

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 6/2/2022, 12:19 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. | N | Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-----------------------|---------------|----------------|----------------|-------------|------------|-----------|----------------|-----------------|----------|-------------|-----------|-------------|----------------|
| Lead (mg/L) | MCM-05 | 0.005 | 0.0002 | 0.015 | No | 16 | 0.0047 | 0.0012 | 93.75 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-06 | 0.005 | 0.00012 | 0.015 | No | 16 | 0.004695 | 0.00122 | 93.75 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-07 | 0.005 | 0.0002 | 0.015 | No | 15 | 0.004025 | 0.002018 | 80 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-12 | 0.005 | 0.0001 | 0.015 | No | 15 | 0.003698 | 0.002236 | 73.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-14 | 0.005 | 0.00008 | 0.015 | No | 15 | 0.004672 | 0.00127 | 93.33 | None | No | 0.01 | NP (NDs) |
| Lead (mg/L) | MCM-17 | 0.005 | 0.00027 | 0.015 | No | 15 | 0.00373 | 0.00218 | 73.33 | None | No | 0.01 | NP (NDs) |
| Lithium (mg/L) | DPZ-2 | 0.09913 | 0.0812 | 0.05 | Yes | 6 | 0.09017 | 0.006524 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-04 | 0.025 | 0.0015 | 0.05 | No | 15 | 0.0127 | 0.01192 | 46.67 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-05 | 0.042 | 0.021 | 0.05 | No | 16 | 0.06257 | 0.1356 | 0 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-06 | 0.09925 | 0.05705 | 0.05 | Yes | 16 | 0.07815 | 0.03243 | 0 | None | No | 0.01 | Param. |
| Lithium (mg/L) | MCM-07 | 0.05209 | 0.02029 | 0.05 | No | 16 | 0.04246 | 0.03592 | 0 | None | ln(x) | 0.01 | Param. |
| Lithium (mg/L) | MCM-12 | 0.025 | 0.0106 | 0.05 | No | 15 | 0.01411 | 0.005694 | 20 | None | No | 0.01 | NP (normality) |
| Lithium (mg/L) | MCM-14 | 0.04913 | 0.03069 | 0.05 | No | 16 | 0.03743 | 0.01719 | 6.25 | None | x^2 | 0.01 | Param. |
| Lithium (mg/L) | MCM-17 | 0.02605 | 0.01548 | 0.05 | No | 15 | 0.02077 | 0.007797 | 6.667 | None | No | 0.01 | Param. |
| Mercury (mg/L) | MCM-04 | 0.00071 | 0.0002 | 0.002 | No | 12 | 0.0002425 | 0.0001472 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-05 | 0.0002 | 0.000042 | 0.002 | No | 12 | 0.0001868 | 0.00004561 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-06 | 0.0002 | 0.00016 | 0.002 | No | 13 | 0.0001969 | 0.00001109 | 92.31 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-07 | 0.00067 | 0.0002 | 0.002 | No | 12 | 0.0002392 | 0.0001357 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-14 | 0.00066 | 0.0002 | 0.002 | No | 12 | 0.0002383 | 0.0001328 | 91.67 | None | No | 0.01 | NP (NDs) |
| Mercury (mg/L) | MCM-17 | 0.00064 | 0.000036 | 0.002 | No | 12 | 0.000223 | 0.0001395 | 83.33 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-04 | 0.01 | 0.00015 | 0.1 | No | 13 | 0.009242 | 0.002732 | 92.31 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-05 | 0.01 | 0.0099 | 0.1 | No | 13 | 0.009315 | 0.002439 | 84.62 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-06 | 0.01 | 0.0024 | 0.1 | No | 14 | 0.007736 | 0.003721 | 71.43 | None | No | 0.01 | NP (NDs) |
| Molybdenum (mg/L) | MCM-17 | 0.01 | 0.0019 | 0.1 | No | 13 | 0.009377 | 0.002247 | 92.31 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-04 | 0.04 | 0.0025 | 0.15 | No | 15 | 0.0322 | 0.01616 | 80 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-05 | 0.04 | 0.0023 | 0.15 | No | 16 | 0.03057 | 0.01687 | 75 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-06 | 0.04 | 0.002 | 0.15 | No | 16 | 0.02181 | 0.01886 | 50 | None | No | 0.01 | NP (normality) |
| Selenium (mg/L) | MCM-07 | 0.04 | 0.0023 | 0.15 | No | 15 | 0.02279 | 0.01907 | 53.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-12 | 0.04 | 0.0019 | 0.15 | No | 15 | 0.02221 | 0.01968 | 53.33 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-14 | 0.04 | 0.0019 | 0.15 | No | 15 | 0.02509 | 0.01893 | 60 | None | No | 0.01 | NP (NDs) |
| Selenium (mg/L) | MCM-17 | 0.04 | 0.0018 | 0.15 | No | 15 | 0.02055 | 0.01893 | 46.67 | None | No | 0.01 | NP (normality) |
| Thallium (mg/L) | MCM-06 | 0.002 | 0.000076 | 0.002 | No | 14 | 0.001863 | 0.0005142 | 92.86 | None | No | 0.01 | NP (NDs) |
| Thallium (mg/L) | MCM-17 | 0.002 | 0.00014 | 0.002 | No | 13 | 0.001857 | 0.0005159 | 92.31 | None | No | 0.01 | NP (NDs) |

Non-Parametric Confidence Interval

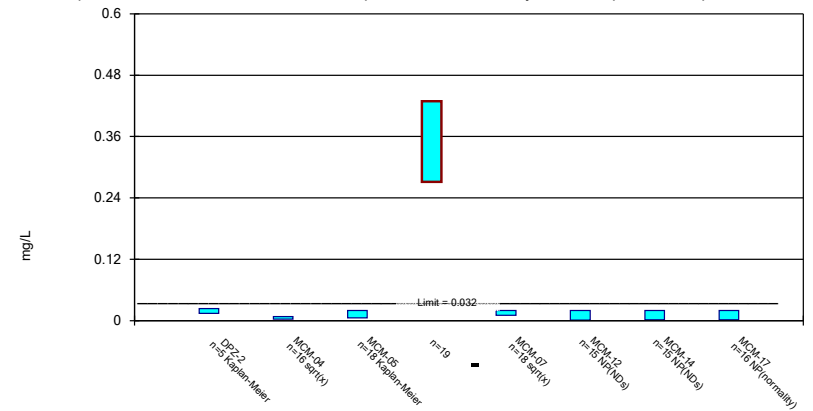
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

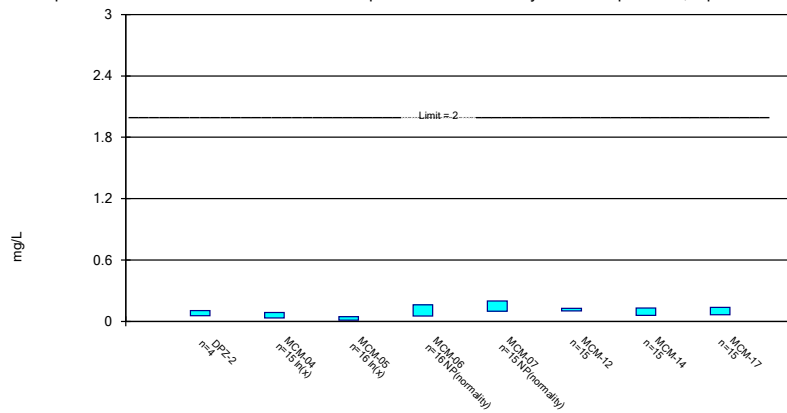
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

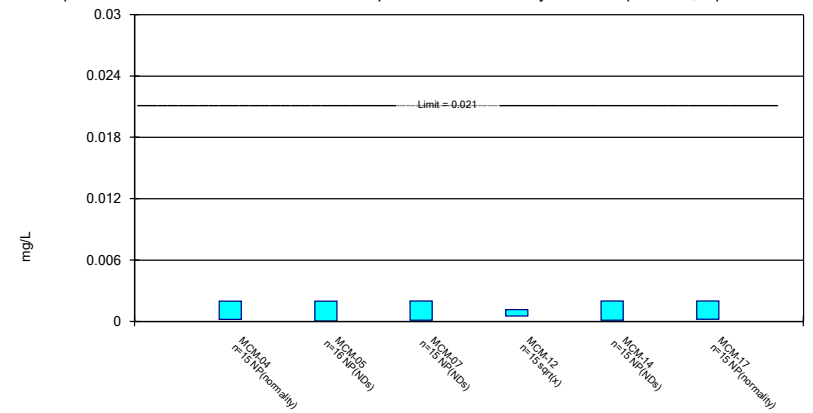
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



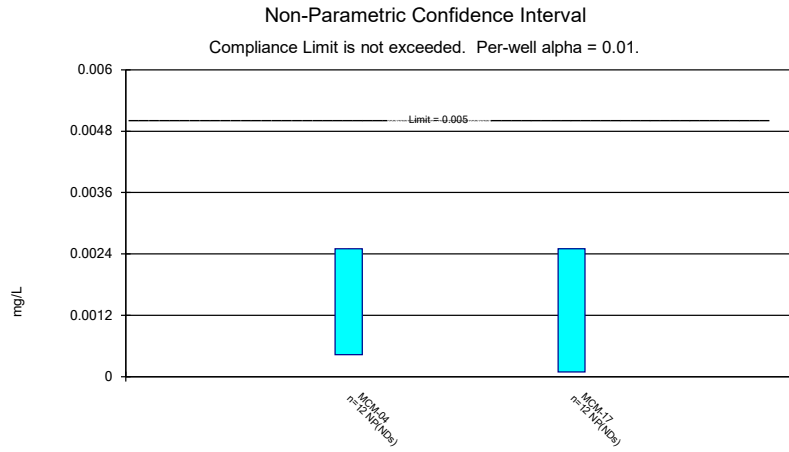
Constituent: Barium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

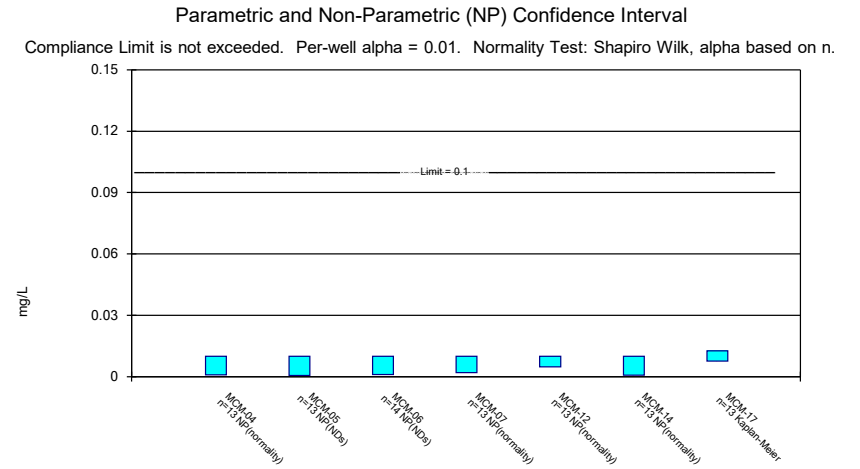
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



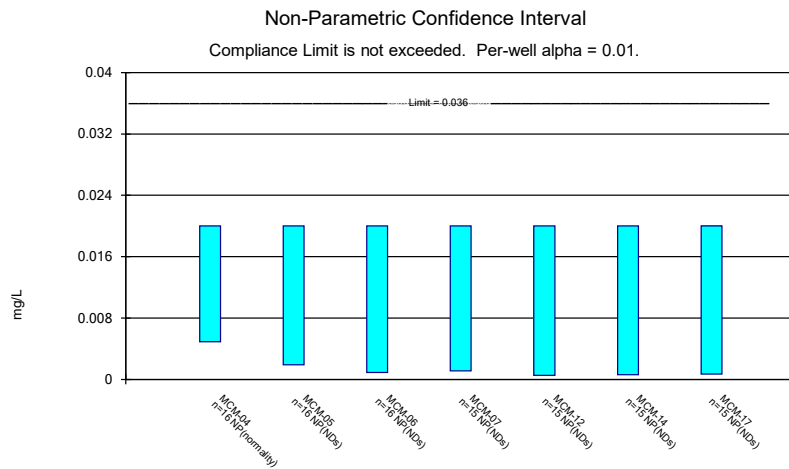
Constituent: Beryllium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



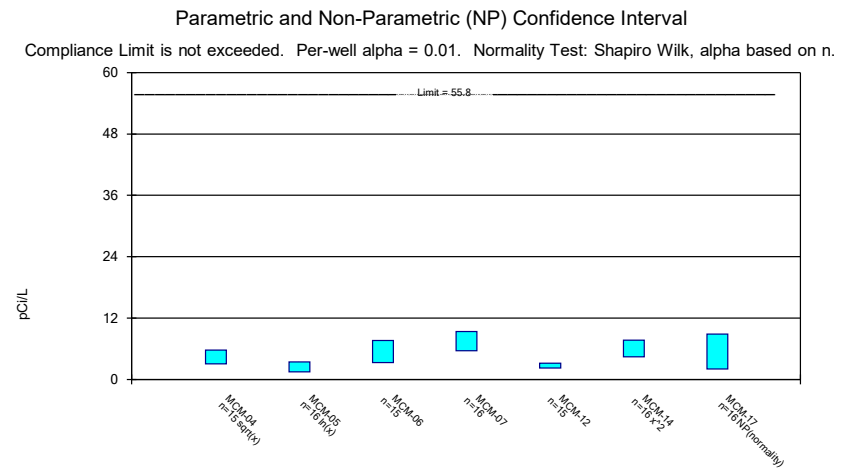
Constituent: Cadmium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Chromium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



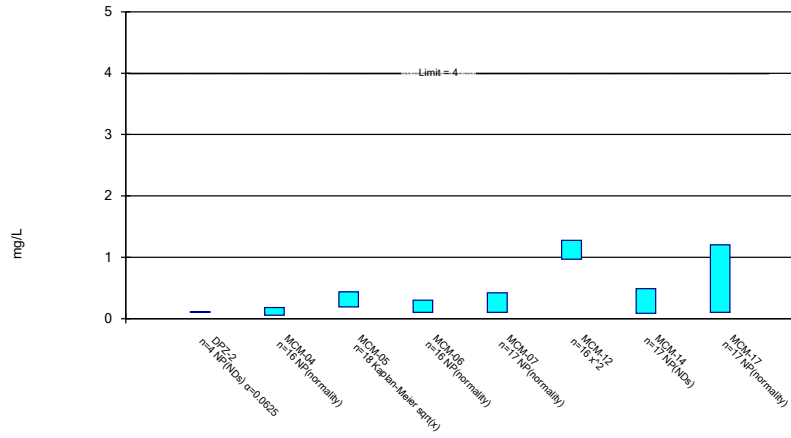
Constituent: Cobalt Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Combined Radium 226 + 228 Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confiden
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

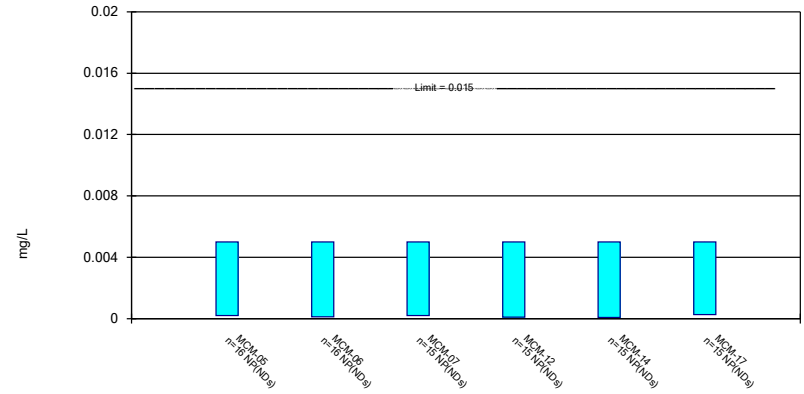
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

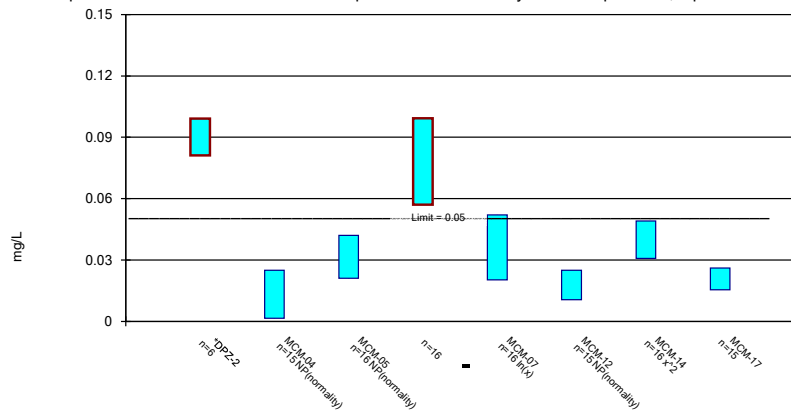
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Parametric and Non-Parametric (NP) Confidence Interval

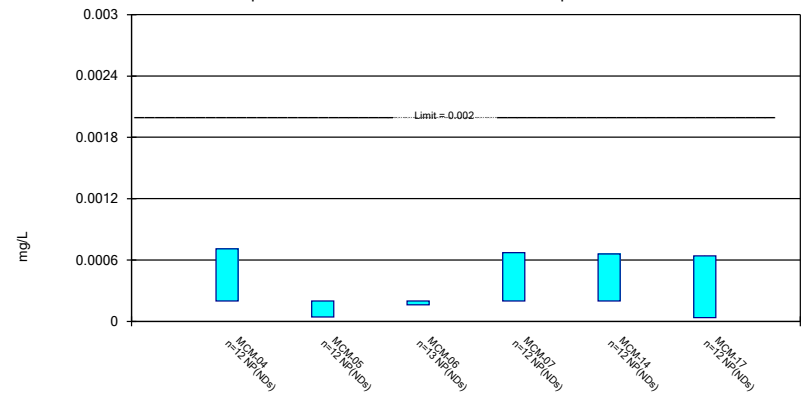
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



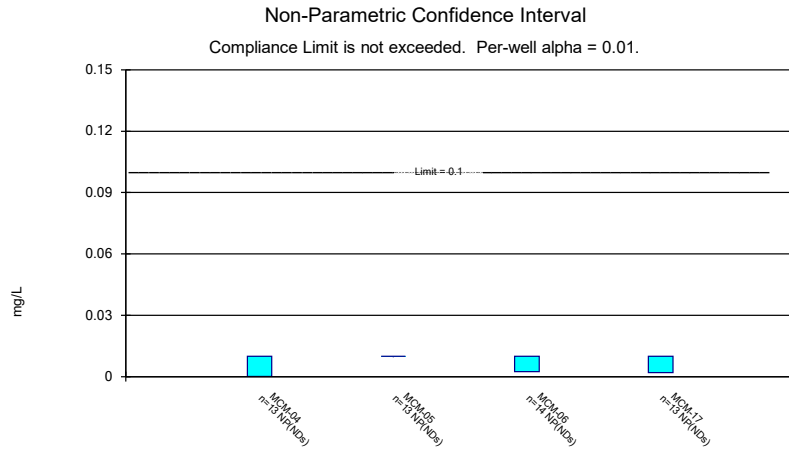
Constituent: Lithium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Non-Parametric Confidence Interval

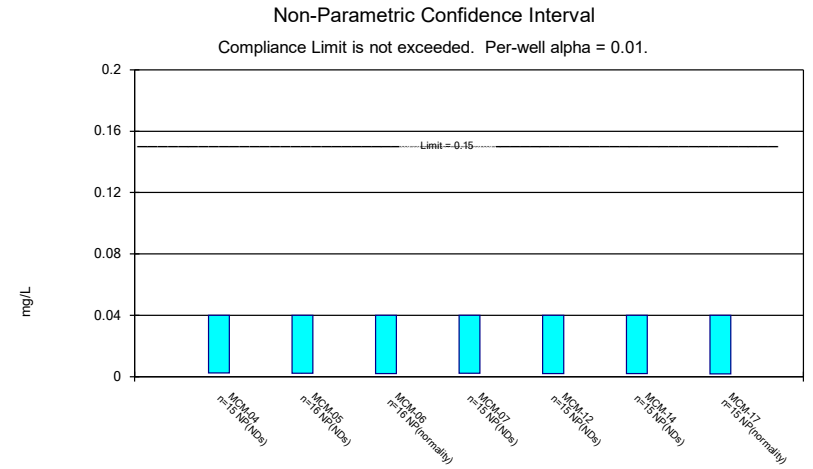
Compliance Limit is not exceeded. Per-well alpha = 0.01.



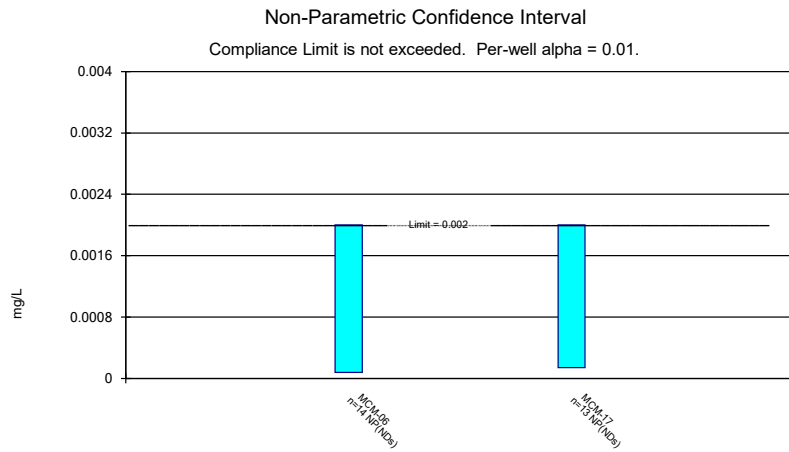
Constituent: Mercury Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Molybdenum Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Selenium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data



Constituent: Thallium Analysis Run 6/2/2022 12:17 PM View: Appendix IV - Confidence Intervals
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-14 | MCM-17 |
|------------|-------------|------------|-----------|
| 8/30/2016 | | <0.003 | |
| 8/31/2016 | <0.003 | | |
| 10/25/2016 | | | <0.003 |
| 11/30/2016 | <0.003 | <0.003 | <0.003 |
| 2/15/2017 | | <0.003 | <0.003 |
| 2/16/2017 | <0.003 | | |
| 5/31/2017 | | <0.003 | <0.003 |
| 6/2/2017 | <0.003 | | |
| 8/15/2017 | | | <0.003 |
| 8/16/2017 | | <0.003 | |
| 8/17/2017 | <0.003 | | |
| 6/19/2018 | | <0.003 | <0.003 |
| 6/20/2018 | <0.003 | | |
| 9/25/2018 | | <0.003 | |
| 9/26/2018 | | | 0.00078 |
| 9/27/2018 | <0.003 | | |
| 11/6/2018 | | <0.003 | <0.003 |
| 11/7/2018 | <0.003 | | |
| 3/6/2019 | <0.003 | | |
| 8/26/2019 | | 0.0004 (J) | |
| 8/27/2019 | | | <0.003 |
| 8/28/2019 | 0.00098 (J) | | |
| 10/15/2019 | | <0.003 | |
| 10/16/2019 | | | <0.003 |
| 10/17/2019 | 0.0009 (J) | | |
| 3/27/2020 | | <0.003 | <0.003 |
| 3/28/2020 | 0.0029 (J) | | |
| 9/13/2021 | | <0.003 | |
| 9/14/2021 | <0.003 | | <0.003 |
| 3/1/2022 | <0.003 | | |
| 3/3/2022 | | <0.003 | <0.003 |
| Mean | 0.002699 | 0.0028 | 0.002829 |
| Std. Dev. | 0.0007457 | 0.0007211 | 0.0006157 |
| Upper Lim. | 0.003 | 0.003 | 0.003 |
| Lower Lim. | 0.0029 | 0.0004 | 0.00078 |

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|--------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | <0.02 | <0.02 | |
| 8/31/2016 | | | <0.02 | 0.212 | 0.0066 | | | |
| 10/25/2016 | | | | | | | | <0.02 |
| 11/30/2016 | | | 0.0132 | 0.129 | 0.0281 | <0.02 | <0.02 | 0.0072 |
| 2/15/2017 | | | | | | <0.02 | <0.02 | 0.0017 (J) |
| 2/16/2017 | | | 0.0372 | 0.257 | 0.0295 | | | |
| 5/31/2017 | | | | | | 0.0007 (J) | 0.0008 (J) | 0.0018 (J) |
| 6/1/2017 | | 0.004 (J) | | | | | | |
| 6/2/2017 | | | 0.0335 | 0.0559 | 0.0286 | | | |
| 8/2/2017 | | 0.0028 (J) | | | | | | |
| 8/15/2017 | | | | | | 0.0006 (J) | | 0.0015 (J) |
| 8/16/2017 | | | | | | | 0.0007 (J) | |
| 8/17/2017 | | 0.0021 (J) | 0.0336 | 0.458 | 0.0211 | | | |
| 4/4/2018 | | 0.0023 (J) | | | | | | |
| 5/8/2018 | | 0.0048 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.001 (J) | 0.0062 (J) | 0.0029 (J) |
| 6/20/2018 | | 0.0099 | 0.019 | 0.44 | | | | |
| 6/21/2018 | | | | | 0.022 (J) | | | |
| 9/25/2018 | | | | | | 0.0011 (J) | 0.0031 (J) | |
| 9/26/2018 | | | | | | | | 0.0015 (J) |
| 9/27/2018 | | 0.01 | 0.0035 (J) | 0.27 | 0.015 | | | |
| 11/6/2018 | | 0.013 | | | 0.012 | | 0.0014 (J) | <0.02 |
| 11/7/2018 | | | 0.002 (J) | 0.5 | | 0.0057 | | |
| 11/27/2018 | | | 0.0016 (J) | 0.5 | 0.011 | | | |
| 3/6/2019 | | | | 0.49 | | | | |
| 3/26/2019 | | | 0.0018 (J) | 0.3 | 0.0078 | | | |
| 7/2/2019 | | 0.015 (J) | | 0.37 | 0.027 | | | |
| 8/26/2019 | | | | | | | 0.0022 (J) | |
| 8/27/2019 | | 0.0072 | | | | 0.0011 (J) | | 0.0024 (J) |
| 8/28/2019 | | | 0.0019 (J) | 0.5 | 0.011 | | | |
| 10/15/2019 | | 0.0038 (J) | | | | 0.0024 (J) | 0.0067 | |
| 10/16/2019 | | | 0.0047 (J) | | | | | 0.0043 (J) |
| 10/17/2019 | | | | 0.34 | 0.0046 (J) | | | |
| 11/21/2019 | | | | | | | | 0.0031 (J) |
| 3/27/2020 | | | | | | <0.02 | <0.02 | <0.02 |
| 3/28/2020 | <0.02 | 0.0034 (J) | <0.02 | 0.3 | 0.012 | | | |
| 10/12/2020 | | | | | | <0.02 | | |
| 10/13/2020 | | 0.0022 (J) | | | | | <0.02 | <0.02 |
| 10/14/2020 | | | | 0.43 | 0.013 | | | |
| 10/15/2020 | 0.021 | | 0.024 | | | | | |
| 1/4/2021 | | | 0.0072 | | | | | |
| 3/2/2021 | | | | | | <0.02 | <0.02 | |
| 3/3/2021 | | | | | | | | <0.02 |
| 3/4/2021 | 0.017 (J) | 0.0018 (J) | <0.02 | 0.35 | 0.015 (J) | | | |
| 9/13/2021 | | | | | | <0.02 | <0.02 | |
| 9/14/2021 | 0.022 | 0.0047 (J) | 0.02 (J) | 0.51 | 0.013 (J) | | | <0.02 |
| 3/1/2022 | 0.015 (J) | | 0.011 (J) | 0.24 | | | | |
| 3/2/2022 | | | | | 0.009 (J) | | | |
| 3/3/2022 | | 0.0041 | | | | <0.02 | <0.02 | <0.02 |
| Mean | 0.019 | 0.005694 | 0.01523 | 0.3501 | 0.01591 | 0.01151 | 0.01207 | 0.0104 |
| Std. Dev. | 0.002915 | 0.004121 | 0.01186 | 0.1346 | 0.008069 | 0.009474 | 0.008922 | 0.008848 |
| Upper Lim. | 0.02354 | 0.007714 | 0.01983 | 0.4289 | 0.02004 | 0.02 | 0.02 | 0.02 |

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|---------|----------|----------|--------|--------|--------|--------|--------|
| Lower Lim. | 0.01396 | 0.003016 | 0.005206 | 0.2713 | 0.0106 | 0.001 | 0.0014 | 0.0017 |

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|---------|---------|------------|---------|---------|---------|---------|----------|
| 8/30/2016 | | | | | | 0.108 | 0.0131 | |
| 8/31/2016 | | | 0.0289 | 0.0498 | 0.0771 | | | |
| 10/25/2016 | | | | | | | | 0.063 |
| 11/30/2016 | | | 0.0168 | 0.0528 | 0.101 | 0.121 | 0.0105 | 0.0628 |
| 2/15/2017 | | | | | | 0.111 | 0.0786 | 0.0102 |
| 2/16/2017 | | | 0.016 | 0.0555 | 0.0865 | | | |
| 5/31/2017 | | | | | | 0.131 | 0.0199 | 0.061 |
| 6/1/2017 | | 0.0195 | | | | | | |
| 6/2/2017 | | | 0.0393 (J) | 0.0508 | 0.123 | | | |
| 8/2/2017 | | 0.053 | | | | | | |
| 8/15/2017 | | | | | | 0.126 | | 0.0579 |
| 8/16/2017 | | | | | | | 0.033 | |
| 8/17/2017 | | 0.0475 | 0.0188 | 0.0596 | 0.124 | | | |
| 4/4/2018 | | 0.035 | | | | | | |
| 5/8/2018 | | 0.027 | | | | | | |
| 6/19/2018 | | | | | | 0.13 | 0.092 | 0.076 |
| 6/20/2018 | | 0.027 | 0.014 | 0.06 | | | | |
| 6/21/2018 | | | | | 0.1 | | | |
| 9/25/2018 | | | | | | 0.12 | 0.098 | |
| 9/26/2018 | | | | | | | | 0.099 |
| 9/27/2018 | | 0.14 | 0.0097 (J) | 0.06 | 0.12 | | | |
| 11/6/2018 | | 0.31 | | | 0.12 | | 0.1 | 0.052 |
| 11/7/2018 | | | 0.0085 (J) | 0.19 | | 0.11 | | |
| 3/6/2019 | | | | 0.16 | | | | |
| 8/26/2019 | | | | | | | 0.12 | |
| 8/27/2019 | | 0.083 | | | | 0.14 | | 0.11 |
| 8/28/2019 | | | 0.011 | 0.13 | 0.4 | | | |
| 10/15/2019 | | 0.082 | | | | 0.14 | 0.12 | |
| 10/16/2019 | | | 0.012 | | | | | 0.14 |
| 10/17/2019 | | | | 0.13 | 0.35 | | | |
| 3/27/2020 | | | | | | 0.12 | 0.13 | 0.16 |
| 3/28/2020 | | 0.039 | 0.0041 (J) | 0.12 | 0.11 | | | |
| 10/12/2020 | | | | | | 0.1 | | |
| 10/13/2020 | | 0.055 | | | | | 0.14 | 0.14 |
| 10/14/2020 | | | | 0.14 | 0.19 | | | |
| 10/15/2020 | 0.071 | | 0.45 | | | | | |
| 1/4/2021 | | | 0.051 | | | | | |
| 3/2/2021 | | | | | | 0.1 | 0.16 | |
| 3/3/2021 | | | | | | | | 0.17 |
| 3/4/2021 | 0.096 | 0.062 | 0.0082 (J) | 0.14 | 0.2 | | | |
| 9/13/2021 | | | | | | 0.086 | 0.16 | |
| 9/14/2021 | 0.082 | 0.043 | 0.08 | 0.22 | 0.2 | | | 0.2 (M1) |
| 3/1/2022 | 0.074 | | 0.035 | 0.084 | | | | |
| 3/2/2022 | | | | | 0.12 | | | |
| 3/3/2022 | | 0.031 | | | | 0.069 | 0.15 | 0.1 |
| Mean | 0.08075 | 0.07027 | 0.05021 | 0.1064 | 0.1614 | 0.1141 | 0.09501 | 0.1001 |
| Std. Dev. | 0.01118 | 0.07299 | 0.1084 | 0.05482 | 0.09528 | 0.01968 | 0.0532 | 0.05264 |
| Upper Lim. | 0.1061 | 0.08496 | 0.0442 | 0.16 | 0.2 | 0.1275 | 0.1311 | 0.1358 |
| Lower Lim. | 0.05538 | 0.03259 | 0.01033 | 0.0528 | 0.1 | 0.1008 | 0.05896 | 0.06446 |

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 8/30/2016 | | | | 0.0003 (J) | <0.002 | |
| 8/31/2016 | | <0.002 | <0.002 | | | |
| 10/25/2016 | | | | | | 0.0004 (J) |
| 11/30/2016 | | <0.002 | <0.002 | 0.0004 (J) | <0.002 | 0.0003 (J) |
| 2/15/2017 | | | | 0.0004 (J) | <0.002 | <0.002 |
| 2/16/2017 | | <0.002 | <0.002 | | | |
| 5/31/2017 | | | | 0.0005 (J) | 0.0001 (J) | 0.0002 (J) |
| 6/1/2017 | 0.0001 (J) | | | | | |
| 6/2/2017 | | <0.002 | <0.002 | | | |
| 8/2/2017 | 0.0003 (J) | | | | | |
| 8/15/2017 | | | | 0.0005 (J) | | 0.0002 (J) |
| 8/16/2017 | | | | | 0.0002 (J) | |
| 8/17/2017 | 0.0002 (J) | <0.002 | <0.002 | | | |
| 4/4/2018 | <0.002 | | | | | |
| 5/8/2018 | 0.00025 (J) | | | | | |
| 6/19/2018 | | | | 0.00065 (J) | <0.002 | 0.00032 (J) |
| 6/20/2018 | 0.00021 (J) | <0.002 | | | | |
| 6/21/2018 | | | <0.002 | | | |
| 9/25/2018 | | | | 0.00066 (J) | 5E-05 (J) | |
| 9/26/2018 | | | | | | 0.00024 (J) |
| 9/27/2018 | 0.00031 (J) | <0.002 | 7.4E-05 (J) | | | |
| 11/6/2018 | 0.00077 (J) | | 0.00012 (J) | | 9.7E-05 (J) | 0.00026 (J) |
| 11/7/2018 | | 5.4E-05 (J) | | 0.00058 (J) | | |
| 8/26/2019 | | | | | 0.0001 (J) | |
| 8/27/2019 | 0.00032 (J) | | | 0.0009 (J) | | 0.00018 (J) |
| 8/28/2019 | | <0.002 | <0.002 | | | |
| 10/15/2019 | 0.00035 (J) | | | 0.00079 (J) | <0.002 | |
| 10/16/2019 | | <0.002 | | | | 0.00014 (J) |
| 10/17/2019 | | | 7.8E-05 (J) | | | |
| 3/27/2020 | | | | <0.002 | <0.002 | <0.002 |
| 3/28/2020 | <0.002 | <0.002 | <0.002 | | | |
| 10/12/2020 | | | | 0.001 (J) | | |
| 10/13/2020 | <0.002 | | | | <0.002 | <0.002 |
| 10/14/2020 | | | <0.002 | | | |
| 10/15/2020 | | <0.002 | | | | |
| 1/4/2021 | | <0.002 | | | | |
| 3/2/2021 | | | | <0.002 | <0.002 | |
| 3/3/2021 | | | | | | <0.002 |
| 3/4/2021 | <0.002 | <0.002 | <0.002 | | | |
| 9/13/2021 | | | | 0.0011 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 | <0.002 | | | <0.002 |
| 3/1/2022 | | <0.002 | | | | |
| 3/2/2022 | | | <0.002 | | | |
| 3/3/2022 | 0.00025 | | | 0.0012 (J) | <0.002 | <0.002 |
| Mean | 0.0008707 | 0.001878 | 0.001618 | 0.0008653 | 0.00137 | 0.0009493 |
| Std. Dev. | 0.0008389 | 0.0004865 | 0.0007906 | 0.0005316 | 0.000923 | 0.0008901 |
| Upper Lim. | 0.002 | 0.002 | 0.002 | 0.001153 | 0.002 | 0.002 |
| Lower Lim. | 0.00021 | 5.4E-05 | 0.00012 | 0.0005117 | 0.0001 | 0.0002 |

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-17 |
|------------|-----------|-----------|
| 10/25/2016 | | <0.0025 |
| 11/30/2016 | | <0.0025 |
| 2/15/2017 | | <0.0025 |
| 5/31/2017 | | <0.0025 |
| 6/1/2017 | <0.0025 | |
| 8/2/2017 | <0.0025 | |
| 8/15/2017 | | <0.0025 |
| 8/17/2017 | <0.0025 | |
| 4/4/2018 | <0.0025 | |
| 5/8/2018 | <0.0025 | |
| 6/19/2018 | | <0.0025 |
| 6/20/2018 | <0.0025 | |
| 9/26/2018 | | 9.3E-05 |
| 9/27/2018 | <0.0025 | |
| 11/6/2018 | <0.0025 | <0.0025 |
| 8/27/2019 | <0.0025 | <0.0025 |
| 3/27/2020 | | <0.0025 |
| 3/28/2020 | <0.0025 | |
| 9/14/2021 | <0.0025 | <0.0025 |
| 3/3/2022 | 0.00043 | <0.0025 |
| Mean | 0.002327 | 0.002299 |
| Std. Dev. | 0.0005976 | 0.0006948 |
| Upper Lim. | 0.0025 | 0.0025 |
| Lower Lim. | 0.00043 | 9.3E-05 |

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|-------------|-------------|------------|------------|-------------|------------|
| 8/30/2016 | | | | | 0.0054 (J) | 0.0026 (J) | |
| 8/31/2016 | | 0.0013 (J) | 0.001 (J) | 0.0022 (J) | | | |
| 10/25/2016 | | | | | | | 0.016 |
| 11/30/2016 | | 0.0012 (J) | <0.01 | <0.01 | 0.0073 (J) | 0.0016 (J) | 0.0151 (J) |
| 2/15/2017 | | | | | 0.0045 (J) | 0.0018 (J) | 0.0137 |
| 2/16/2017 | | 0.0012 (J) | 0.0011 (J) | 0.0028 (J) | | | |
| 5/31/2017 | | | | | 0.0052 (J) | 0.0019 (J) | 0.0109 |
| 6/1/2017 | 0.0008 (J) | | | | | | |
| 6/2/2017 | | <0.01 | <0.01 | 0.0023 (J) | | | |
| 8/2/2017 | 0.0012 (J) | | | | | | |
| 8/15/2017 | | | | | 0.005 (J) | | 0.0117 |
| 8/16/2017 | | | | | | 0.0019 (J) | |
| 8/17/2017 | 0.0013 (J) | 0.0007 (J) | 0.0007 (J) | 0.0022 (J) | | | |
| 4/4/2018 | <0.01 | | | | | | |
| 5/8/2018 | <0.01 | | | | | | |
| 6/19/2018 | | | | | 0.0047 (J) | <0.01 | 0.013 (J) |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | | | | |
| 6/21/2018 | | | | <0.01 | | | |
| 9/25/2018 | | | | | <0.01 | <0.01 | |
| 9/26/2018 | | | | | | | 0.0092 (J) |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | 0.0024 (J) | | | |
| 11/6/2018 | 0.0017 (J) | | | 0.002 (J) | | <0.01 | <0.01 |
| 11/7/2018 | | <0.01 | <0.01 | | <0.01 | | |
| 3/6/2019 | | | <0.01 | | | | |
| 8/26/2019 | | | | | | 0.00071 (J) | |
| 8/27/2019 | 0.0018 (J) | | | | 0.0056 (J) | | 0.0066 (J) |
| 8/28/2019 | | 0.00047 (J) | 0.00085 (J) | 0.0024 (J) | | | |
| 10/15/2019 | 0.0012 (J) | | | | 0.0057 (J) | 0.00076 (J) | |
| 10/16/2019 | | 0.00057 (J) | | | | | 0.0063 (J) |
| 10/17/2019 | | | 0.0015 (J) | 0.0019 (J) | | | |
| 3/27/2020 | | | | | <0.01 | <0.01 | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| 9/13/2021 | | | | | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 |
| 3/1/2022 | | <0.01 | <0.01 | | | | |
| 3/2/2022 | | | | <0.01 | | | |
| 3/3/2022 | 0.00085 (J) | | | | <0.01 | <0.01 | <0.01 |
| Mean | 0.005296 | 0.005803 | 0.006796 | 0.005246 | 0.007185 | 0.005482 | 0.01096 |
| Std. Dev. | 0.004541 | 0.004724 | 0.004463 | 0.003917 | 0.002409 | 0.004379 | 0.002919 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01266 |
| Lower Lim. | 0.00085 | 0.00057 | 0.001 | 0.002 | 0.0047 | 0.00076 | 0.007638 |

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|------------|------------|------------|-------------|------------|------------|
| 8/30/2016 | | | | | <0.02 | 0.0006 (J) | |
| 8/31/2016 | | <0.02 | <0.02 | <0.02 | | | |
| 10/25/2016 | | | | | | | <0.02 |
| 11/30/2016 | | <0.02 | 0.0009 (J) | 0.0011 (J) | <0.02 | <0.02 | 0.0007 (J) |
| 2/15/2017 | | | | | <0.02 | <0.02 | <0.02 |
| 2/16/2017 | | <0.02 | <0.02 | <0.02 | | | |
| 5/31/2017 | | | | | 0.0005 (J) | <0.02 | <0.02 |
| 6/1/2017 | <0.02 | | | | | | |
| 6/2/2017 | | <0.02 | <0.02 | <0.02 | | | |
| 8/2/2017 | <0.02 | | | | | | |
| 8/15/2017 | | | | | 0.0005 (J) | | 0.0004 (J) |
| 8/16/2017 | | | | | | <0.02 | |
| 8/17/2017 | <0.02 | <0.02 | 0.0003 (J) | <0.02 | | | |
| 4/4/2018 | <0.02 | | | | | | |
| 5/8/2018 | <0.02 | | | | | | |
| 6/19/2018 | | | | | 0.00053 (J) | <0.02 | <0.02 |
| 6/20/2018 | <0.02 | <0.02 | <0.02 | | | | |
| 6/21/2018 | | | | <0.02 | | | |
| 9/25/2018 | | | | | <0.02 | <0.02 | |
| 9/26/2018 | | | | | | | 0.00052 |
| 9/27/2018 | <0.02 | <0.02 | <0.02 | <0.02 | | | |
| 11/6/2018 | 0.0048 (J) | | | <0.02 | | <0.02 | <0.02 |
| 11/7/2018 | | <0.02 | <0.02 | | <0.02 | | |
| 3/6/2019 | | | <0.02 | | | | |
| 8/26/2019 | | | | | | <0.02 | |
| 8/27/2019 | 0.0078 | | | | 0.0007 (J) | | <0.02 |
| 8/28/2019 | | <0.02 | <0.02 | <0.02 | | | |
| 10/15/2019 | 0.0085 | | | | 0.00054 (J) | <0.02 | |
| 10/16/2019 | | <0.02 | | | | | <0.02 |
| 10/17/2019 | | | <0.02 | <0.02 | | | |
| 11/20/2019 | 0.009 | | | | | | |
| 3/27/2020 | | | | | <0.02 | <0.02 | <0.02 |
| 3/28/2020 | 0.0041 (J) | <0.02 | <0.02 | <0.02 | | | |
| 10/12/2020 | | | | | <0.02 | | |
| 10/13/2020 | 0.0063 | | | | | <0.02 | <0.02 |
| 10/14/2020 | | | <0.02 | <0.02 | | | |
| 10/15/2020 | | 0.0019 (J) | | | | | |
| 1/4/2021 | | <0.02 | | | | | |
| 3/2/2021 | | | | | <0.02 | <0.02 | |
| 3/3/2021 | | | | | | | <0.02 |
| 3/4/2021 | 0.006 | <0.02 | <0.02 | <0.02 | | | |
| 9/13/2021 | | | | | <0.02 | <0.02 | |
| 9/14/2021 | 0.0054 | <0.02 | <0.02 | <0.02 | | | <0.02 |
| 3/1/2022 | | <0.02 | <0.02 | | | | |
| 3/2/2022 | | | | <0.02 | | | |
| 3/3/2022 | 0.0049 | | | | <0.02 | <0.02 | <0.02 |
| Mean | 0.0123 | 0.01887 | 0.01757 | 0.01874 | 0.01352 | 0.01871 | 0.01611 |
| Std. Dev. | 0.007128 | 0.004525 | 0.006627 | 0.00488 | 0.009489 | 0.005009 | 0.008057 |
| Upper Lim. | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Lower Lim. | 0.0049 | 0.0019 | 0.0009 | 0.0011 | 0.00053 | 0.0006 | 0.0007 |

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|--------|-----------|----------|----------|----------|-----------|----------|
| 8/30/2016 | | | | | 1.4 | 1.31 | |
| 8/31/2016 | | 2.39 (D) | 2.47 (D) | 5.4 (D) | | | |
| 10/25/2016 | | | | | | | 2.22 |
| 11/30/2016 | | 1.66 | 1.6 | 3.13 | 4.37 | 0.438 (U) | 2.01 |
| 2/15/2017 | | | | | 2.21 | 0.3 (U) | 1.56 |
| 2/16/2017 | | 2.71 | 1.83 | 3.09 | | | |
| 5/31/2017 | | | | | 2.62 | 1.77 | 1.92 |
| 6/1/2017 | 1.9 | | | | | | |
| 6/2/2017 | | 1.99 | 2.45 | 7.56 | | | |
| 8/2/2017 | 5.01 | | | | | | |
| 8/15/2017 | | | | | 2.69 | | 2.47 |
| 8/16/2017 | | | | | | 2.26 | |
| 8/17/2017 | 5.35 | 1.87 | 3.33 | 6.38 | | | |
| 4/4/2018 | 5.05 | | | | | | |
| 5/8/2018 | 3.25 | | | | | | |
| 6/19/2018 | | | | | 2.96 | 5.39 | 2.82 |
| 6/20/2018 | 3.53 | 1.95 | 2.84 | | | | |
| 6/21/2018 | | | | 5.24 | | | |
| 9/25/2018 | | | | | 2.23 | 6.22 | |
| 9/26/2018 | | | | | | | 3.15 (D) |
| 9/27/2018 | 7.07 | 0.629 (U) | 1.94 | 6.11 | | | |
| 11/6/2018 | 11 | | | 6.1 | | 5.38 | 2.95 |
| 11/7/2018 | | 1.41 (U) | 8.58 | | 2.14 | | |
| 8/26/2019 | | | | | | 7.68 | |
| 8/27/2019 | 4.4 | | | | 2.91 | | 5.82 |
| 8/28/2019 | | 1.67 | 6.86 | 8.73 | | | |
| 10/15/2019 | 4.92 | | | | 3.28 | 8.7 | |
| 10/16/2019 | | 1.92 | | | | | 7.5 |
| 10/17/2019 | | | 7.85 | 7.97 | | | |
| 11/20/2019 | | | | 9.8 | | | |
| 11/21/2019 | | | | | | 7.34 | 8.89 |
| 3/27/2020 | | | | | 2.33 | 9.63 | 9.54 |
| 3/28/2020 | 4.16 | 1.44 (U) | 11 (U) | 11.7 | | | |
| 10/12/2020 | | | | | 2.66 | | |
| 10/13/2020 | 3.71 | | | | | 7.43 | 7.75 |
| 10/14/2020 | | | 8.97 | 13.1 | | | |
| 10/15/2020 | | 2.56 | | | | | |
| 1/4/2021 | | 5.84 | | | | | |
| 4/6/2021 | 2.83 | 1.43 (U) | 7.89 | 9.66 | 2.2 | 7.02 | 7.8 |
| 9/13/2021 | | | | | 2.54 | 8.38 | |
| 9/14/2021 | 2.69 | 7.15 | 8.11 | 10.3 | | | 8.82 |
| 3/1/2022 | | 8.16 (U) | 5.83 (U) | | | | |
| 3/2/2022 | | | | 5.66 (U) | | | |
| 3/3/2022 | 2.51 | | | | 3.56 (U) | 8 | 9.1 |
| Mean | 4.492 | 2.799 | 5.437 | 7.496 | 2.673 | 5.453 | 5.27 |
| Std. Dev. | 2.242 | 2.207 | 3.2 | 2.888 | 0.6995 | 3.174 | 3.11 |
| Upper Lim. | 5.727 | 3.434 | 7.605 | 9.375 | 3.147 | 7.679 | 8.89 |
| Lower Lim. | 3.038 | 1.46 | 3.268 | 5.616 | 2.199 | 4.405 | 2.01 |

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|--------|-----------|--------|-----------|-----------|--------|-----------|-----------|
| 8/30/2016 | | | | | | 1.5 | 0.5 | |
| 8/31/2016 | | | 0.93 | 0.41 | 0.92 | | | |
| 10/25/2016 | | | | | | | | 1.1 |
| 11/30/2016 | | | 0.93 | 0.61 | 0.99 | 1.4 | 0.49 | 1.3 |
| 2/15/2017 | | | | | | 1.3 | 0.58 | 1.3 |
| 2/16/2017 | | | 0.6 | 0.3 (J) | 0.54 | | | |
| 5/31/2017 | | | | | | 1.2 | 0.56 | 1.3 |
| 6/1/2017 | | <0.1 | | | | | | |
| 6/2/2017 | | | 0.34 | 0.19 (J) | 0.42 | | | |
| 8/2/2017 | | 0.27 (J) | | | | | | |
| 8/15/2017 | | | | | | 1.2 | | 1.2 |
| 8/16/2017 | | | | | | | 0.45 | |
| 8/17/2017 | | 0.18 (J) | 0.52 | 0.26 (J) | 0.27 (J) | | | |
| 4/4/2018 | | <0.1 | | | | | | |
| 5/8/2018 | | 0.56 | | | | | | |
| 6/19/2018 | | | | | | 0.91 | <0.1 | 0.6 |
| 6/20/2018 | | 0.033 (J) | 0.5 | 0.22 (J) | | | | |
| 6/21/2018 | | | | | 0.28 (J) | | | |
| 9/25/2018 | | | | | | 1.1 | <0.1 | |
| 9/26/2018 | | | | | | | | 0.44 (D) |
| 9/27/2018 | | 0.12 (J) | 0.32 | 0.068 (J) | 0.32 (D) | | | |
| 11/6/2018 | | <0.1 | | | 0.086 (J) | | 0.084 (J) | 0.4 |
| 11/7/2018 | | | 0.35 | 10.3 (o) | <0.1 | | | |
| 3/6/2019 | | | | <0.1 | | | | |
| 3/24/2019 | | | 0.32 | 0.19 (J) | 0.14 (J) | 0.99 | 0.14 (J) | 0.31 |
| 3/25/2019 | | 0.055 (J) | | | | | | |
| 8/26/2019 | | | | | | | <0.1 | |
| 8/27/2019 | | <0.1 | | | | 1.1 | | <0.1 |
| 8/28/2019 | | | 0.36 | <0.1 | <0.1 | | | |
| 10/15/2019 | | 0.095 (J) | | | | 1 | <0.1 | |
| 10/16/2019 | | | 0.41 | | | | | 0.083 (J) |
| 10/17/2019 | | | | <0.1 | <0.1 | | | |
| 11/20/2019 | | | 0.34 | | <0.1 | | | |
| 11/21/2019 | | | | | | | <0.1 | <0.1 |
| 3/27/2020 | | | | | | 1.1 | <0.1 | <0.1 |
| 3/28/2020 | | <0.1 | 0.34 | <0.1 | <0.1 | | | |
| 10/12/2020 | | | | | | 1.2 | | |
| 10/13/2020 | | <0.1 | | | | | <0.1 | <0.1 |
| 10/14/2020 | | | | <0.1 | <0.1 | | | |
| 10/15/2020 | 0.11 | | 0.22 | | | | | |
| 1/4/2021 | | | <0.1 | | | | | |
| 3/2/2021 | | | | | | 1 | <0.1 | |
| 3/3/2021 | | | | | | | | <0.1 |
| 3/4/2021 | <0.1 | <0.1 | 0.45 | <0.1 | <0.1 | | | |
| 9/13/2021 | | | | | | 1.4 | <0.1 | |
| 9/14/2021 | <0.1 | 0.05 | <0.1 | <0.1 | <0.1 | | | <0.1 |
| 3/1/2022 | <0.1 | | <0.1 | <0.1 | | | | |
| 3/2/2022 | | | | | <0.1 | | | |
| 3/3/2022 | | <0.1 | | | | 0.95 | <0.1 | <0.1 |
| Mean | 0.1025 | 0.1352 | 0.4017 | 0.1905 | 0.2804 | 1.091 | 0.2238 | 0.5137 |
| Std. Dev. | 0.005 | 0.1256 | 0.2375 | 0.1466 | 0.2871 | 0.3162 | 0.1965 | 0.5075 |
| Upper Lim. | 0.11 | 0.18 | 0.4377 | 0.3 | 0.42 | 1.278 | 0.49 | 1.2 |

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------|--------|--------|--------|--------|--------|--------|--------|
| Lower Lim. | 0.1 | 0.055 | 0.1918 | 0.1 | 0.1 | 0.9662 | 0.084 | 0.1 |

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|------------|-------------|------------|-------------|-----------|-------------|
| 8/30/2016 | | | | 0.0001 (J) | <0.005 | |
| 8/31/2016 | <0.005 | <0.005 | <0.005 | | | |
| 10/25/2016 | | | | | | <0.005 |
| 11/30/2016 | 0.0002 (J) | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 2/15/2017 | | | | <0.005 | <0.005 | <0.005 |
| 2/16/2017 | <0.005 | <0.005 | 0.0002 (J) | | | |
| 5/31/2017 | | | | 9E-05 (J) | <0.005 | <0.005 |
| 6/2/2017 | <0.005 | <0.005 | <0.005 | | | |
| 8/15/2017 | | | | <0.005 | | 0.0002 (J) |
| 8/16/2017 | | | | | 8E-05 (J) | |
| 8/17/2017 | <0.005 | <0.005 | 8E-05 (J) | | | |
| 6/19/2018 | | | | <0.005 | <0.005 | <0.005 |
| 6/20/2018 | <0.005 | <0.005 | | | | |
| 6/21/2018 | | | <0.005 | | | |
| 9/25/2018 | | | | <0.005 | <0.005 | |
| 9/26/2018 | | | | | | 0.00027 |
| 9/27/2018 | <0.005 | <0.005 | <0.005 | | | |
| 11/6/2018 | | | <0.005 | | <0.005 | <0.005 |
| 11/7/2018 | <0.005 | <0.005 | | <0.005 | | |
| 3/6/2019 | | <0.005 | | | | |
| 8/26/2019 | | | | | <0.005 | |
| 8/27/2019 | | | | 0.00022 (J) | | 0.00014 (J) |
| 8/28/2019 | <0.005 | <0.005 | 0.0001 (J) | | | |
| 10/15/2019 | | | | 5.6E-05 (J) | <0.005 | |
| 10/16/2019 | <0.005 | | | | | 0.00034 (J) |
| 10/17/2019 | | 0.00012 (J) | <0.005 | | | |
| 3/27/2020 | | | | <0.005 | <0.005 | <0.005 |
| 3/28/2020 | <0.005 | <0.005 | <0.005 | | | |
| 10/12/2020 | | | | <0.005 | | |
| 10/13/2020 | | | | | <0.005 | <0.005 |
| 10/14/2020 | | <0.005 | <0.005 | | | |
| 10/15/2020 | <0.005 | | | | | |
| 1/4/2021 | <0.005 | | | | | |
| 3/2/2021 | | | | <0.005 | <0.005 | |
| 3/3/2021 | | | | | | <0.005 |
| 3/4/2021 | <0.005 | <0.005 | <0.005 | | | |
| 9/13/2021 | | | | <0.005 | <0.005 | |
| 9/14/2021 | <0.005 | <0.005 | <0.005 | | | <0.005 |
| 3/1/2022 | <0.005 | <0.005 | | | | |
| 3/2/2022 | | | <0.005 | | | |
| 3/3/2022 | | | | <0.005 | <0.005 | <0.005 |
| Mean | 0.0047 | 0.004695 | 0.004025 | 0.003698 | 0.004672 | 0.00373 |
| Std. Dev. | 0.0012 | 0.00122 | 0.002018 | 0.002236 | 0.00127 | 0.00218 |
| Upper Lim. | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| Lower Lim. | 0.0002 | 0.00012 | 0.0002 | 0.0001 | 8E-05 | 0.00027 |

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | DPZ-2 | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | | 0.0102 (J) | 0.0112 (J) | |
| 8/31/2016 | | | 0.0219 (J) | 0.0389 (J) | 0.0122 (J) | | | |
| 10/25/2016 | | | | | | | | 0.007 (J) |
| 11/30/2016 | | | 0.0333 (J) | 0.0303 (J) | 0.011 (J) | 0.0106 (J) | <0.05 | 0.0086 (J) |
| 2/15/2017 | | | | | | 0.0115 (J) | 0.0105 (J) | 0.0149 (J) |
| 2/16/2017 | | | 0.0376 (J) | 0.05 (J) | 0.0142 (J) | | | |
| 5/31/2017 | | | | | | 0.011 (J) | 0.0106 (J) | 0.019 (J) |
| 6/1/2017 | | <0.05 | | | | | | |
| 6/2/2017 | | | 0.0346 (J) | 0.0477 (J) | 0.0229 (J) | | | |
| 8/2/2017 | | <0.05 | | | | | | |
| 8/15/2017 | | | | | | 0.0123 (J) | | 0.016 (J) |
| 8/16/2017 | | | | | | | 0.0145 (J) | |
| 8/17/2017 | | <0.05 | 0.0367 (J) | 0.0645 | 0.0241 (J) | | | |
| 4/4/2018 | | 0.0013 (J) | | | | | | |
| 5/8/2018 | | 0.0012 (J) | | | | | | |
| 6/19/2018 | | | | | | 0.012 (J) | 0.044 (J) | 0.021 (J) |
| 6/20/2018 | | 0.0015 (J) | 0.034 (J) | 0.066 (J) | | | | |
| 6/21/2018 | | | | | 0.03 (J) | | | |
| 9/25/2018 | | | | | | 0.011 (J) | 0.041 (J) | |
| 9/26/2018 | | | | | | | | 0.02 (J) |
| 9/27/2018 | | 0.0021 (J) | 0.023 (J) | 0.045 (J) | 0.034 (J) | | | |
| 11/6/2018 | | 0.0038 (J) | | | 0.037 (J) | | 0.047 (J) | 0.017 (J) |
| 11/7/2018 | | | 0.022 (J) | 0.11 | | 0.013 (J) | | |
| 3/6/2019 | | | | 0.12 | | | | |
| 8/26/2019 | | | | | | | 0.059 | |
| 8/27/2019 | | 0.002 (J) | | | | 0.012 (J) | | 0.023 (J) |
| 8/28/2019 | | | 0.023 (J) | 0.13 | 0.12 | | | |
| 10/15/2019 | | 0.0019 (J) | | | | 0.012 (J) | 0.056 (J) | |
| 10/16/2019 | | | 0.021 (J) | | | | | 0.024 (J) |
| 10/17/2019 | | | | 0.12 | 0.096 | | | |
| 11/20/2019 | | | | | 0.12 | | | |
| 11/21/2019 | | | | | | | 0.052 | |
| 3/27/2020 | | | | | | <0.05 | 0.052 | 0.033 (J) |
| 3/28/2020 | 0.078 (J) | <0.05 | 0.014 (J) | 0.064 | 0.027 (J) | | | |
| 6/16/2020 | 0.096 (J) | | | | | | | |
| 10/12/2020 | | | | | | 0.011 (J) | | |
| 10/13/2020 | | <0.05 | | | | | 0.046 (J) | 0.028 (J) |
| 10/14/2020 | | | | 0.11 | 0.039 (J) | | | |
| 10/15/2020 | 0.093 | | 0.57 | | | | | |
| 1/4/2021 | | | 0.043 (J) | | | | | |
| 3/2/2021 | | | | | | <0.05 | 0.046 (J) | |
| 3/3/2021 | | | | | | | | <0.05 |
| 3/4/2021 | 0.094 (J) | <0.05 | 0.017 (J) | 0.096 (J) | 0.035 (J) | | | |
| 9/13/2021 | | | | | | 0.01 (J) | 0.047 | |
| 9/14/2021 | 0.092 | <0.05 | 0.042 (J) | 0.084 | 0.035 (J) | | | 0.035 (J) |
| 3/1/2022 | 0.088 (J) | | 0.028 (J) | 0.074 | | | | |
| 3/2/2022 | | | | | 0.022 (J) | | | |
| 3/3/2022 | | 0.0017 (J) | | | | <0.05 | 0.037 (J) | 0.02 (J) |
| Mean | 0.09017 | 0.0127 | 0.06257 | 0.07815 | 0.04246 | 0.01411 | 0.03743 | 0.02077 |
| Std. Dev. | 0.006524 | 0.01192 | 0.1356 | 0.03243 | 0.03592 | 0.005694 | 0.01719 | 0.007797 |
| Upper Lim. | 0.09913 | 0.025 | 0.042 | 0.09925 | 0.05209 | 0.025 | 0.04913 | 0.02605 |
| Lower Lim. | 0.0812 | 0.0015 | 0.021 | 0.05705 | 0.02029 | 0.0106 | 0.03069 | 0.01548 |

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-14 | MCM-17 |
|------------|-----------|-------------|-------------|-----------|-----------|-----------|
| 8/30/2016 | | | | | <0.0002 | |
| 8/31/2016 | | <0.0002 | <0.0002 | <0.0002 | | |
| 10/25/2016 | | | | | | <0.0002 |
| 11/30/2016 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| 2/15/2017 | | | | | <0.0002 | <0.0002 |
| 2/16/2017 | | <0.0002 | <0.0002 | <0.0002 | | |
| 5/31/2017 | | | | | <0.0002 | <0.0002 |
| 6/1/2017 | <0.0002 | | | | | |
| 6/2/2017 | | 4.2E-05 (J) | <0.0002 | <0.0002 | | |
| 8/2/2017 | <0.0002 | | | | | |
| 8/15/2017 | | | | | | <0.0002 |
| 8/16/2017 | | | | | <0.0002 | |
| 8/17/2017 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 4/4/2018 | <0.0002 | | | | | |
| 5/8/2018 | <0.0002 | | | | | |
| 6/19/2018 | | | | | <0.0002 | <0.0002 |
| 6/20/2018 | <0.0002 | <0.0002 | <0.0002 | | | |
| 6/21/2018 | | | | <0.0002 | | |
| 9/25/2018 | | | | | <0.0002 | |
| 9/26/2018 | | | | | | 3.6E-05 |
| 9/27/2018 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 11/6/2018 | 0.00071 | | | 0.00067 | 0.00066 | 0.00064 |
| 11/7/2018 | | <0.0002 | <0.0002 | | | |
| 3/6/2019 | | | <0.0002 | | | |
| 8/26/2019 | | | | | <0.0002 | |
| 8/27/2019 | <0.0002 | | | | | <0.0002 |
| 8/28/2019 | | <0.0002 | <0.0002 | <0.0002 | | |
| 3/27/2020 | | | | | <0.0002 | <0.0002 |
| 3/28/2020 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| 9/13/2021 | | | | | <0.0002 | |
| 9/14/2021 | <0.0002 | <0.0002 | 0.00016 (J) | <0.0002 | | <0.0002 |
| 3/1/2022 | | <0.0002 | <0.0002 | | | |
| 3/2/2022 | | | | <0.0002 | | |
| 3/3/2022 | <0.0002 | | | | <0.0002 | <0.0002 |
| Mean | 0.0002425 | 0.0001868 | 0.0001969 | 0.0002392 | 0.0002383 | 0.000223 |
| Std. Dev. | 0.0001472 | 4.561E-05 | 1.109E-05 | 0.0001357 | 0.0001328 | 0.0001395 |
| Upper Lim. | 0.00071 | 0.0002 | 0.0002 | 0.00067 | 0.00066 | 0.00064 |
| Lower Lim. | 0.0002 | 4.2E-05 | 0.00016 | 0.0002 | 0.0002 | 3.6E-05 |

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-17 |
|------------|-------------|------------|------------|----------|
| 8/31/2016 | | <0.01 | <0.01 | |
| 10/25/2016 | | | | <0.01 |
| 11/30/2016 | | <0.01 | <0.01 | <0.01 |
| 2/15/2017 | | | | <0.01 |
| 2/16/2017 | | <0.01 | <0.01 | |
| 5/31/2017 | | | | <0.01 |
| 6/1/2017 | <0.01 | | | |
| 6/2/2017 | | <0.01 | <0.01 | |
| 8/2/2017 | <0.01 | | | |
| 8/15/2017 | | | | <0.01 |
| 8/17/2017 | <0.01 | 0.0012 (J) | 0.0025 (J) | |
| 4/4/2018 | <0.01 | | | |
| 5/8/2018 | <0.01 | | | |
| 6/19/2018 | | | | <0.01 |
| 6/20/2018 | <0.01 | <0.01 | <0.01 | |
| 9/26/2018 | | | | 0.0019 |
| 9/27/2018 | <0.01 | <0.01 | <0.01 | |
| 11/6/2018 | <0.01 | | | <0.01 |
| 11/7/2018 | | <0.01 | 0.0024 (J) | |
| 3/6/2019 | | | <0.01 | |
| 8/27/2019 | <0.01 | | | <0.01 |
| 8/28/2019 | | <0.01 | 0.0017 (J) | |
| 10/15/2019 | <0.01 | | | |
| 10/16/2019 | | <0.01 | | <0.01 |
| 10/17/2019 | | | 0.0017 (J) | |
| 3/27/2020 | | | | <0.01 |
| 3/28/2020 | <0.01 | <0.01 | <0.01 | |
| 9/14/2021 | <0.01 | 0.0099 (J) | <0.01 | <0.01 |
| 3/1/2022 | | <0.01 | <0.01 | |
| 3/3/2022 | 0.00015 (J) | | | <0.01 |
| Mean | 0.009242 | 0.009315 | 0.007736 | 0.009377 |
| Std. Dev. | 0.002732 | 0.002439 | 0.003721 | 0.002247 |
| Upper Lim. | 0.01 | 0.01 | 0.01 | 0.01 |
| Lower Lim. | 0.00015 | 0.0099 | 0.0024 | 0.0019 |

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-04 | MCM-05 | MCM-06 | MCM-07 | MCM-12 | MCM-14 | MCM-17 |
|------------|-------------|------------|------------|------------|------------|------------|------------|
| 8/30/2016 | | | | | 0.0011 (J) | <0.04 | |
| 8/31/2016 | | 0.002 (J) | 0.0015 (J) | 0.0021 (J) | | | |
| 10/25/2016 | | | | | | | 0.003 (J) |
| 11/30/2016 | | 0.0023 (J) | 0.0054 (J) | <0.04 | 0.0023 (J) | <0.04 | 0.0087 (J) |
| 2/15/2017 | | | | | 0.0021 (J) | 0.0014 (J) | 0.0067 (J) |
| 2/16/2017 | | 0.002 (J) | 0.0022 (J) | 0.0025 (J) | | | |
| 5/31/2017 | | | | | <0.04 | <0.04 | 0.0018 (J) |
| 6/1/2017 | <0.04 | | | | | | |
| 6/2/2017 | | <0.04 | <0.04 | <0.04 | | | |
| 8/2/2017 | <0.04 | | | | | | |
| 8/15/2017 | | | | | 0.0021 (J) | | 0.0025 (J) |
| 8/16/2017 | | | | | | 0.0018 (J) | |
| 8/17/2017 | <0.04 | <0.04 | 0.002 (J) | 0.0033 (J) | | | |
| 4/4/2018 | <0.04 | | | | | | |
| 5/8/2018 | <0.04 | | | | | | |
| 6/19/2018 | | | | | 0.0017 (J) | <0.04 | <0.04 |
| 6/20/2018 | <0.04 | <0.04 | <0.04 | | | | |
| 6/21/2018 | | | | <0.04 | | | |
| 9/25/2018 | | | | | 0.002 (J) | 0.0019 (J) | |
| 9/26/2018 | | | | | | | 0.0016 (J) |
| 9/27/2018 | <0.04 | <0.04 | <0.04 | 0.0023 (J) | | | |
| 11/6/2018 | 0.0025 (J) | | | 0.0048 (J) | | 0.0057 (J) | <0.04 |
| 11/7/2018 | | <0.04 | 0.0075 (J) | | <0.04 | | |
| 3/6/2019 | | | 0.0024 (J) | | | | |
| 8/26/2019 | | | | | | 0.0025 (J) | |
| 8/27/2019 | <0.04 | | | | 0.0019 (J) | | 0.0018 (J) |
| 8/28/2019 | | <0.04 | 0.0014 (J) | 0.0019 (J) | | | |
| 10/15/2019 | <0.04 | | | | <0.04 | 0.003 (J) | |
| 10/16/2019 | | <0.04 | | | | | <0.04 |
| 10/17/2019 | | | 0.0066 (J) | 0.0049 (J) | | | |
| 3/27/2020 | | | | | <0.04 | <0.04 | <0.04 |
| 3/28/2020 | <0.04 | <0.04 | <0.04 | <0.04 | | | |
| 10/12/2020 | | | | | <0.04 | | |
| 10/13/2020 | <0.04 | | | | | <0.04 | <0.04 |
| 10/14/2020 | | | <0.04 | <0.04 | | | |
| 10/15/2020 | | 0.0028 (J) | | | | | |
| 1/4/2021 | | <0.04 | | | | | |
| 3/2/2021 | | | | | <0.04 | <0.04 | |
| 3/3/2021 | | | | | | | <0.04 |
| 3/4/2021 | 0.00038 (J) | <0.04 | <0.04 | <0.04 | | | |
| 9/13/2021 | | | | | <0.04 | <0.04 | |
| 9/14/2021 | <0.04 | <0.04 | <0.04 | <0.04 | | | 0.0021 |
| 3/1/2022 | | <0.04 | <0.04 | | | | |
| 3/2/2022 | | | | <0.04 | | | |
| 3/3/2022 | 0.00012 (J) | | | | <0.04 | <0.04 | <0.04 |
| Mean | 0.0322 | 0.03057 | 0.02181 | 0.02279 | 0.02221 | 0.02509 | 0.02055 |
| Std. Dev. | 0.01616 | 0.01687 | 0.01886 | 0.01907 | 0.01968 | 0.01893 | 0.01893 |
| Upper Lim. | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Lower Lim. | 0.0025 | 0.0023 | 0.002 | 0.0023 | 0.0019 | 0.0019 | 0.0018 |

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 6/2/2022 12:19 PM View: Appendix IV - Confidence Intervals

Plant McManus Client: Southern Company Data: McManus Ash Pond Data

| | MCM-06 | MCM-17 |
|------------|-------------|-----------|
| 8/31/2016 | <0.002 | |
| 10/25/2016 | | <0.002 |
| 11/30/2016 | <0.002 | <0.002 |
| 2/15/2017 | | <0.002 |
| 2/16/2017 | <0.002 | |
| 5/31/2017 | | <0.002 |
| 6/2/2017 | <0.002 | |
| 8/15/2017 | | <0.002 |
| 8/17/2017 | <0.002 | |
| 6/19/2018 | | <0.002 |
| 6/20/2018 | <0.002 | |
| 9/26/2018 | | 0.00014 |
| 9/27/2018 | <0.002 | |
| 11/6/2018 | | <0.002 |
| 11/7/2018 | <0.002 | |
| 3/6/2019 | <0.002 | |
| 8/27/2019 | | <0.002 |
| 8/28/2019 | <0.002 | |
| 10/16/2019 | | <0.002 |
| 10/17/2019 | 7.6E-05 (J) | |
| 3/27/2020 | | <0.002 |
| 3/28/2020 | <0.002 | |
| 9/14/2021 | <0.002 | <0.002 |
| 3/1/2022 | <0.002 | |
| 3/3/2022 | | <0.002 |
| Mean | 0.001863 | 0.001857 |
| Std. Dev. | 0.0005142 | 0.0005159 |
| Upper Lim. | 0.002 | 0.002 |
| Lower Lim. | 7.6E-05 | 0.00014 |

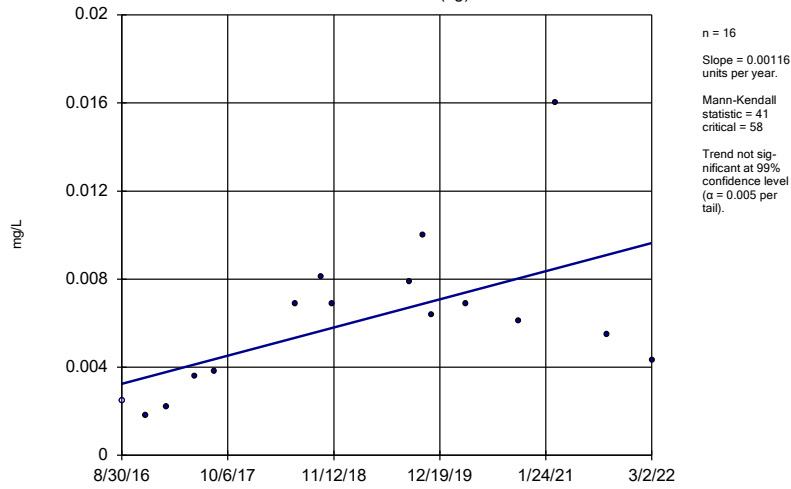
FIGURE I.

Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:40 AM

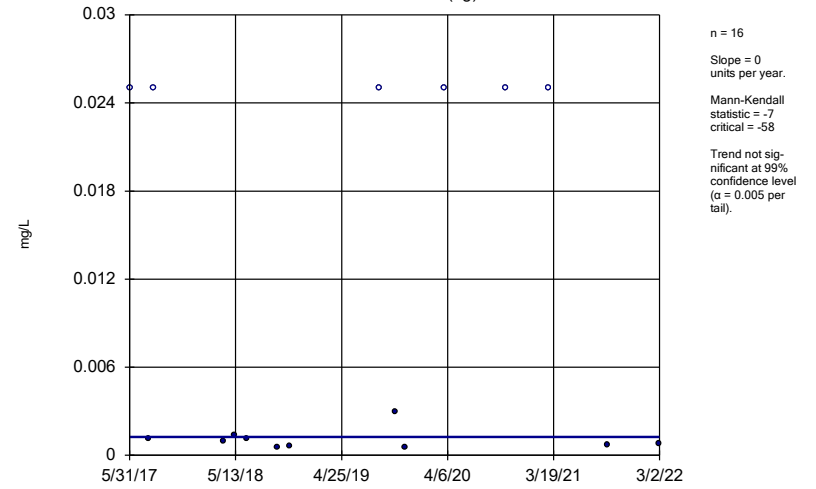
| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|----------------|-------------|-----------|-------|----------|------|----|-------|-----------|-------|-------|--------|
| Arsenic (mg/L) | MCM-01 (bg) | 0.00116 | 41 | 58 | No | 16 | 6.25 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-02 (bg) | 0 | -7 | -58 | No | 16 | 37.5 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-06 | 0.02574 | 41 | 74 | No | 19 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-11 (bg) | -0.002994 | -58 | -63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-15 (bg) | 0.0001396 | 14 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-16 (bg) | 0 | -15 | -53 | No | 15 | 46.67 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-18 (bg) | -0.001633 | -30 | -43 | No | 13 | 15.38 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-19 (bg) | -0.001694 | -19 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-20 (bg) | 0 | 0 | 43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | DPZ-2 | -0.002797 | -3 | -14 | No | 6 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-01 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-02 (bg) | 0 | 2 | 53 | No | 15 | 93.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-06 | 0.01129 | 50 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-11 (bg) | 0 | 4 | 53 | No | 15 | 40 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-15 (bg) | 0 | 10 | 53 | No | 15 | 53.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-16 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-18 (bg) | 0.02063 | 17 | 30 | No | 10 | 50 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-19 (bg) | 0.002313 | 18 | 43 | No | 13 | 7.692 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-20 (bg) | -0.001009 | -14 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator
 MCM-01 (bg)



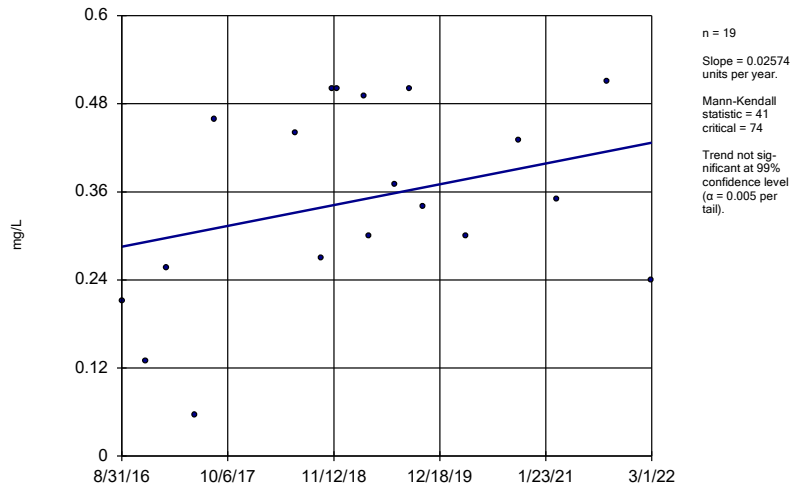
Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-02 (bg)



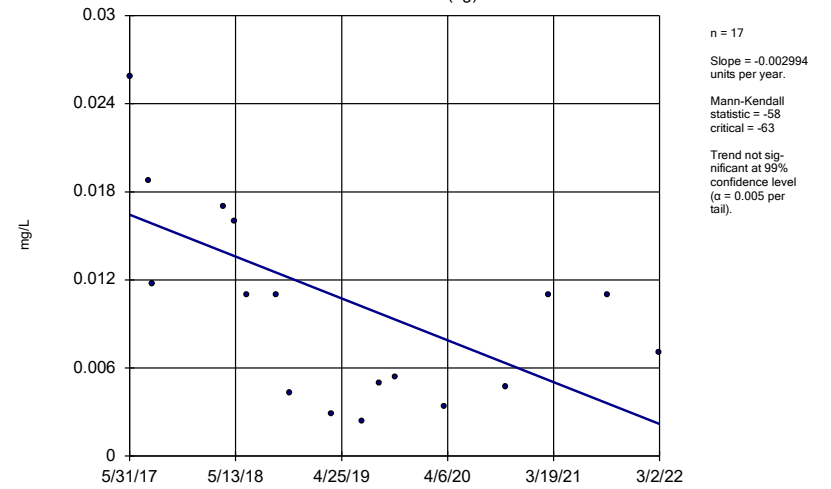
Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-06



Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

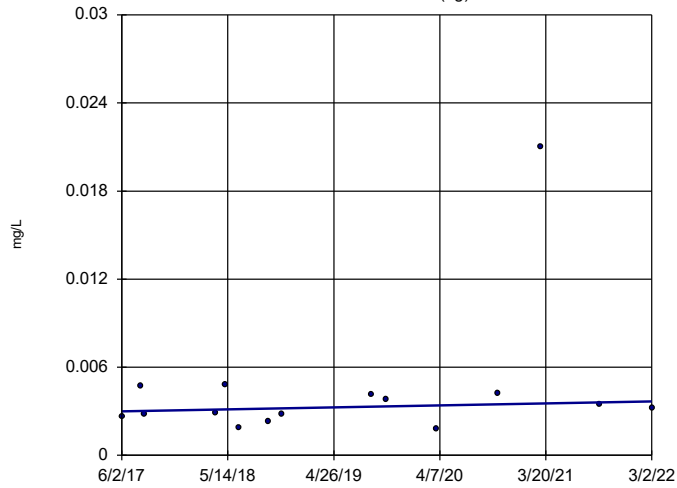
Sen's Slope Estimator
 MCM-11 (bg)



Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)

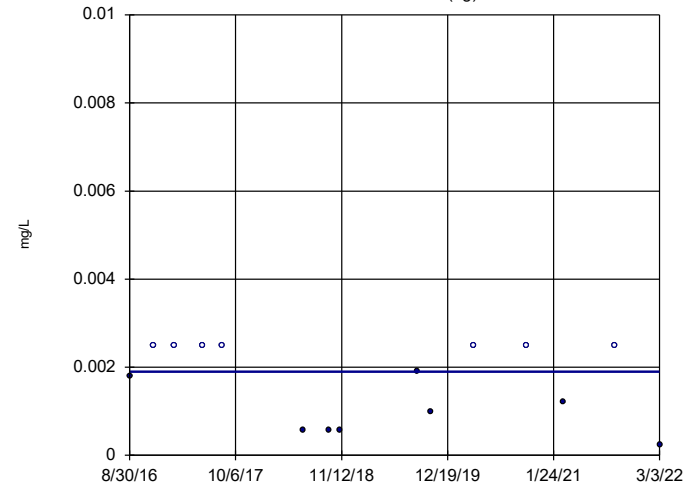


n = 15
 Slope = 0.0001396
 units per year.
 Mann-Kendall
 statistic = 14
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-16 (bg)

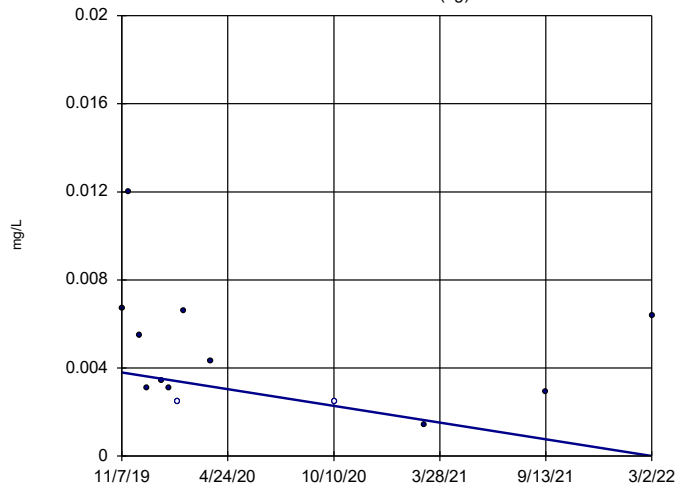


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

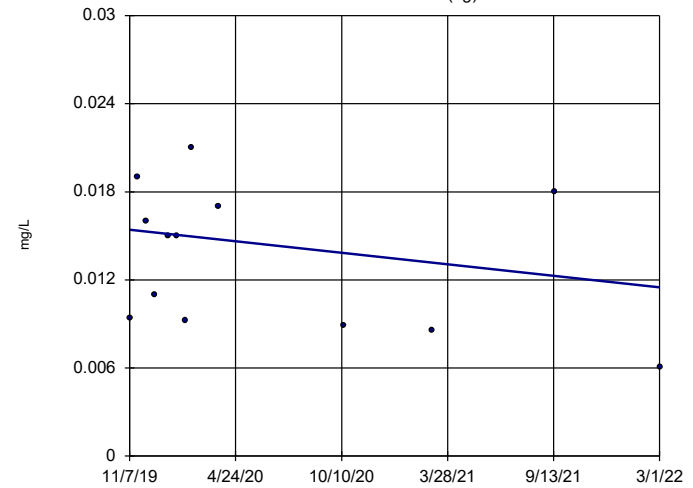


n = 13
 Slope = -0.001633
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

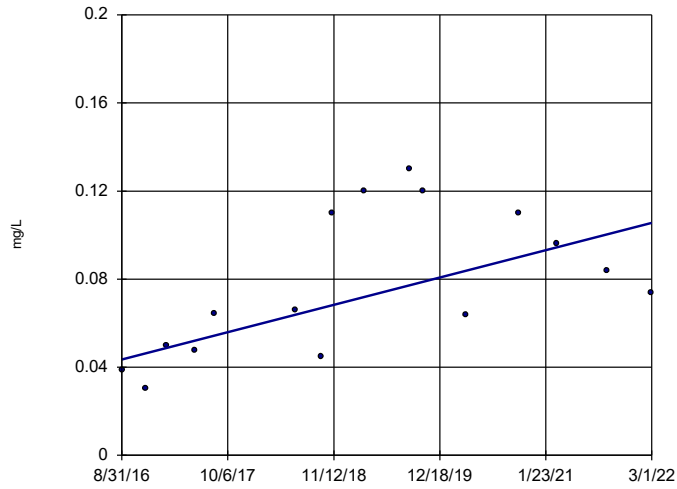


n = 13
 Slope = -0.001694
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

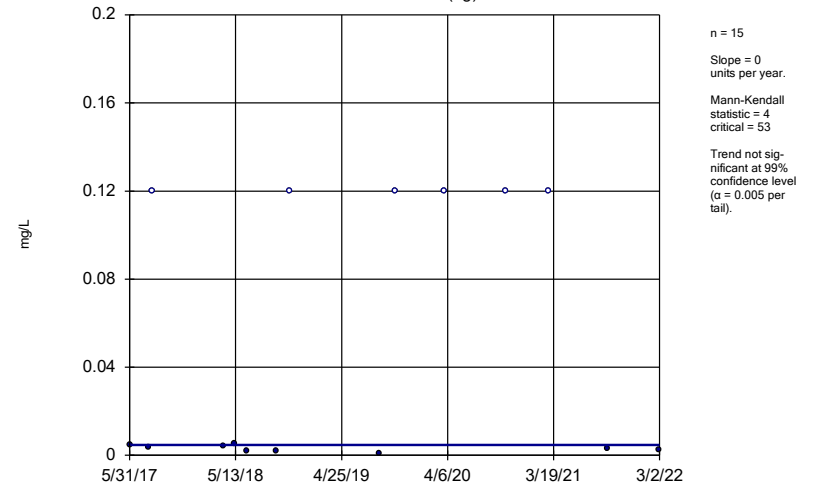
MCM-06



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

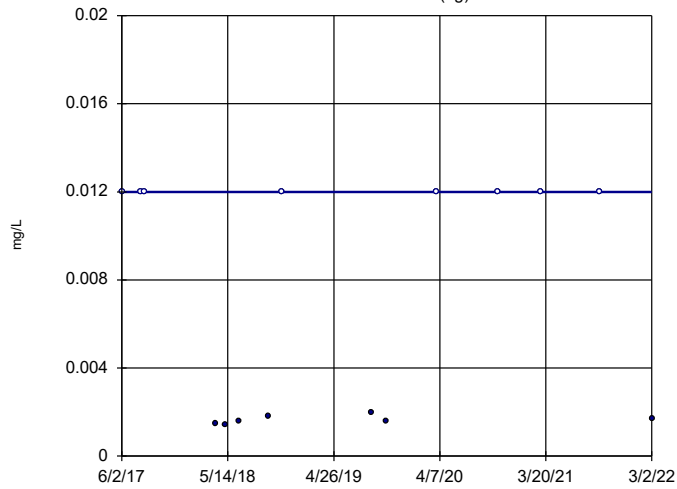
MCM-11 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

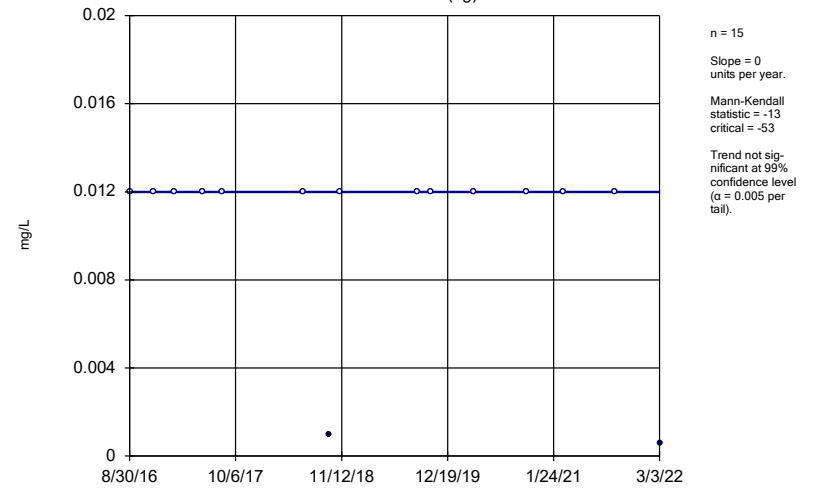
MCM-15 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

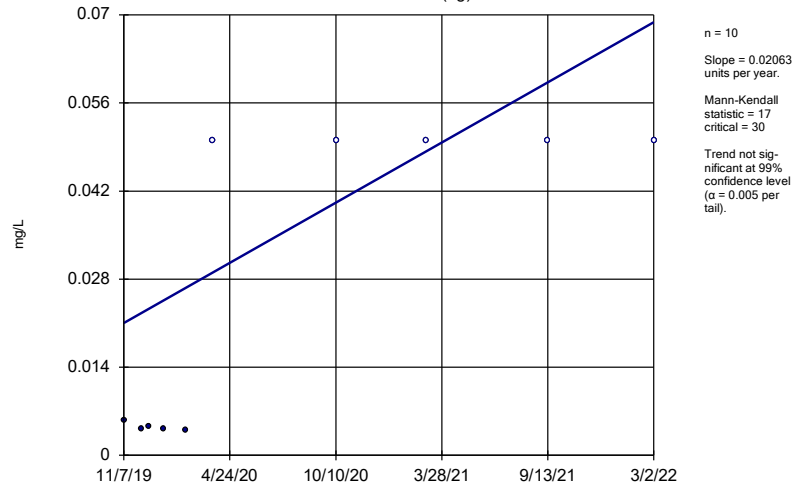
Sen's Slope Estimator

MCM-16 (bg)



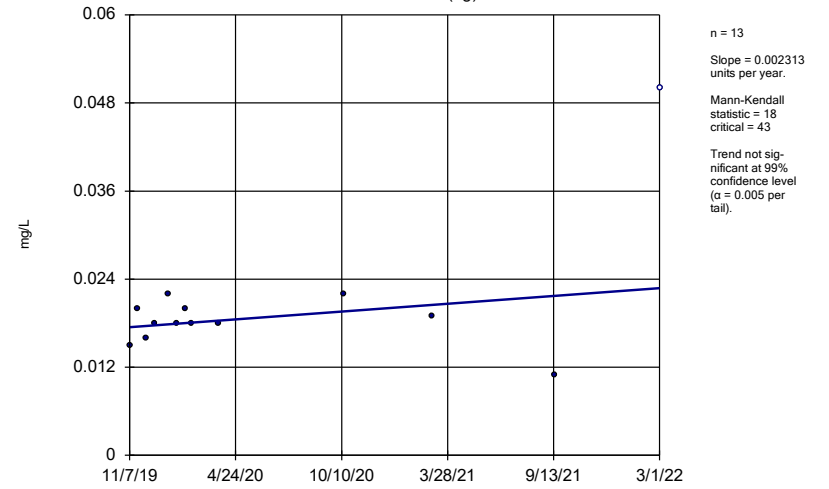
Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-18 (bg)



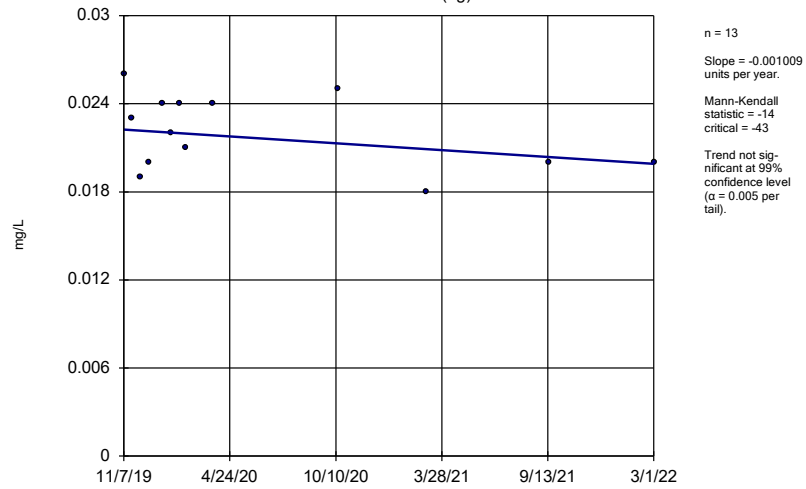
Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-19 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-20 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

APPENDIX E


LITHIUM ALTERNATE SOURCE DEMONSTRATION REPORTS



2021 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION

Plant McManus Former Ash Pond 1,
Brunswick, Georgia

October 25, 2021

A large, solid orange triangle is positioned in the bottom right corner of the page, pointing towards the top right. A thin white diagonal line runs from the bottom left corner of the triangle to its top right corner. A thin white horizontal line is also present, extending from the left edge of the page to the right edge of the triangle.

**2021 LITHIUM
ALTERNATIVE
SOURCE
DEMONSTRATION**

Plant McManus Former Ash Pond 1,
Brunswick, Georgia



Geoffrey Gay, PE
Project Manager

Prepared for:

Georgia Power Company

Prepared by:

Arcadis U.S., Inc.
2839 Paces Ferry Road
Suite 900
Atlanta
Georgia 30339
Tel 770 431 8666
Fax 770 435 2666



Margaret Gentile, PhD
Technical Expert

Date:

October 25, 2021



Kathryn Farris, M. Sc.
Environmental Engineer

CONTENTS

| | |
|--|-----|
| Professional Certification | iii |
| 1 Introduction..... | 1 |
| 2 Site Background..... | 1 |
| 2.1 Site Geology | 2 |
| 2.2 Site Hydrogeology | 2 |
| 2.3 Coal Ash Removal..... | 3 |
| 2.3.1 Coal Ash Removal Timeline..... | 3 |
| 2.3.2 Dewatering | 3 |
| 3 Alternative Source Demonstration | 3 |
| 3.1.1 Lithium in Surface Water | 4 |
| 3.1.2 Groundwater and Surface Water Geochemistry Markers..... | 4 |
| 3.1.3 Hydrogeologic Conditions | 6 |
| 3.1.4 Shifts in Hydraulic Conditions and Associated Water Quality Changes during Coal Ash
Removal | 6 |
| 4 Conclusion and Recommendation | 7 |
| 5 References | 8 |

TABLES

Table 1. Monitoring Well Network and Piezometers

Table 2. Lithium in Surface Water

Table 3. March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water

Table 4. Single Well Hydraulic Conductivity Test Results

FIGURES

- Figure 1. Site Location and Well Location Map
- Figure 2. Dewatering Progression Aerials
- Figure 3. Schematic: Dewatering Hydrologic Influence
- Figure 4. ASD Surface Water Sample Locations (March 2021)
- Figure 5. Surface and Groundwater Geochemistry
- Figure 6. Sodium to Chloride Versus Total Dissolved Solids
- Figure 7. Ion Composition Comparison
- Figure 8. Tidal Influence on Monitoring Wells
- Figure 9. Concentration Trends in MCM-14

APPENDICES

- A Resolute Potentiometric Maps
- B Sampling Log and Analytical Reports

PROFESSIONAL CERTIFICATION

This individual has Alternative Science Education in the field of Plant, Animal and Ocean Sciences. The applicant has been provided the necessary information with Applicable Code of Ethics, Requirements, and other Agency, State, and Federal Regulations and Georgia Environmental Education Code (Ga. Code Ann. Chapter 111-4) on the direction of a Georgia licensed professional employee.



J. Geoffrey Cook, P.E.
Executive Director and Registrar
Georgia Registration No. EC 11091

10.15.21
Date

1 INTRODUCTION

Arcadis U.S., Inc. (Arcadis) has prepared this alternate source demonstration (ASD) in accordance with the United States Environmental Protection Agency Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] Part 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This report presents an ASD for the statistically significant levels (SSLs) of lithium, an Appendix IV groundwater monitoring constituent, observed in groundwater at monitoring well MCM-14 at Georgia Power Company's Plant McManus former Ash Pond 1 (AP-1) (the site; **Figure 1**). The site and CCR monitoring well network are shown on **Figure 1** and well construction details are presented in **Table 1**.

Based on an evaluation of groundwater trends and surface water quality, the lithium SSL observed at MCM-14 is likely caused by the natural mixing of brackish surface water with the groundwater and variability in the chemistry resulting from dewatering activities in the ash pond during the removal of CCR in the ash pond during closure activities. Lithium is a naturally-occurring element in seawater, typically ranging from 0.1 - 0.2 milligrams per liter (mg/L) and is present in the brackish water that is a mix of seawater and freshwater surrounding the site (Riley and Tongudai 1964; Segar 1998).

To support this ASD, the following analyses are presented in Section 3.0:

1. Evaluation of lithium concentrations in surface waters. This evaluation demonstrates that the range of lithium concentrations observed in surface water is greater than the range of lithium concentrations observed at MCM-14.
2. Comparison of geochemistry markers in surface waters and groundwater. This comparison demonstrates that the monitoring wells where lithium is present in groundwater yield similar geochemistry to each other and the surface water, while being distinct from groundwater in monitoring wells with low estimated or non-detect lithium.
3. Evaluation of variation in hydraulic conductivity across the site and variable groundwater level response to tidal fluctuations which demonstrates the presence of variable mixing of brackish water with groundwater, resulting in spatial and temporal variability of groundwater lithium concentrations at the site.
4. Evaluation of groundwater flow conditions and concentration trends during CCR removal. Dewatering associated with CCR removal resulted in a consistent cone of depression and inward lateral gradient during high and low tides. The dewatered inward flow conditions correlate with a shift in groundwater quality at several monitoring wells, including MCM-14, toward the geochemistry of the surface water.

Combined, these lines of evidence demonstrate that the former CCR unit is not the source of lithium SSLs observed in well MCM-14.

2 SITE BACKGROUND

Plant McManus is an electrical power generation plant located on Crispen Island, near Brunswick, Georgia. Crispen Island originally consisted of several smaller islands that were joined to construct Plant McManus. The island was separated from the mainland to the northeast by tidal marsh and is bounded to

the west and southwest by the Turtle River. The Turtle River is a tidally influenced brackish estuary that can vary in height by more than 8 feet during a tidal cycle (Resolute Environmental & Water Resources Consulting [Resolute] 2020).

The plant was originally constructed in 1952. Use of coal for power production ceased in 1972, and Georgia Power Company retired all coal power generating assets at Plant McManus prior to April 16, 2015. During operation of the coal-fired units from 1959 until 1972, CCR was disposed in an approximately 80-acre surface impoundment (AP-1) on the Plant McManus site northeast of the plant (**Figure 1**).

2.1 Site Geology

Plant McManus is located within the Coastal Plain Province of Georgia. The soils that make up the surficial aquifer are comprised of very fine sands with discontinuous clay layers, from land surface (or beneath a shallow fill layer) to depths ranging from 33 to 43 feet below ground surface (bgs) (Resolute 2020). These very fine sands and discontinuous clay layers are interpreted to be the Upper Satilla Formation, which fines downward to a silty fine sand of either the Lower Satilla Formation (ATC Associates, Inc. 1997) or the Cypresshead Formation (Huddleston 1988).

Gamma logs performed in on-site borings indicate a lower permeability layer starting between 40 and 52 feet bgs (Resolute 2020). This is consistent with the depths of the upper confining unit of the Ebenezer Formation, described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones, extending down to approximately 185 feet bgs.

The surface of the tidal marsh is covered by silt and vegetation, except where scoured by tidal creeks with fine sands in their channels. The surficial aquifer formed in a similar depositional environment, with paleo tidal channels likely present throughout, and discontinuous layers/channels of fine sand or clay. The surficial aquifer is generally unconfined, but there may be localized layers of lower permeability soils, resulting in semi-confined conditions in some locations.

2.2 Site Hydrogeology

There are two components of groundwater flow at the site. The first is along a northeast to southwest axis and originates from the mainland to the northeast and Crispen Island to the southwest. The groundwater elevations in the monitoring wells and piezometers on the mainland (MCM-01, -02, -15, and -16) and Crispen Island (MCM-08 and -11) are consistently higher than the surface water elevation in former AP-1 and the monitoring wells along both dikes, despite tidal fluctuations. This indicates that groundwater flow is consistently towards former AP-1 from the northeast and southwest. Potentiometric maps are provided in **Appendix A – Figures A1 and A2**.

The second component of groundwater flow is along the northwest to southeast axis between former AP-1 and the tidal marsh. Under the present ambient conditions, without the influence of dewatering, the gradient changes direction with the tides. Based on the March 2021 high and low tide potentiometric surface maps presented in **Appendix A**, at low tide the gradient is from former AP-1 and at high tide the gradient is inwards towards former AP-1.

2.3 Coal Ash Removal

2.3.1 Coal Ash Removal Timeline

In 2016, Georgia Power initiated CCR removal activities at former AP-1. Parts of former AP-1 were subcategorized during excavation activities to facilitate removal (Areas A, B, and C [Figure 2]). In general, the progression of CCR material removal was conducted in the following sequence:

1. March 2016 – Began removal of bulk CCR material from Areas A, B, and C.
2. February 2017 – Began saturated CCR material removal from Area C.
3. March 2018 – Began saturated CCR material removal from Area B.
4. April 2018 – Began saturated CCR material removal from Area A.
5. October 2019 – Completed excavation activities.

2.3.2 Dewatering

Dewatering of AP-1 was required for CCR for removal and pond closure. Dewatering wells (RW-1 through RW-10) were installed along the northern dike and dewatering activities progressed with excavation activities. After Hurricane Irma interrupted excavation activities in fall 2017, dewatering occurred in a step-wise process according to which pond was excavated. During excavation of Area C, water was pumped using a submersible pump from Area C to Areas A and B, which were within the influence of the dewatering wells. Water from Areas A and B was captured by the dewatering system, treated, and discharged. Once Area C was cleared of CCR, dewatering and CCR removal began at Area B followed by Area A. **Appendix A** provides a series of groundwater potentiometric maps during and after dewatering and excavation (**Figures A3 and A4** and **Figures A1 and A2**, respectively). An illustration of the hydrologic impacts of dewatering is provided as **Figure 3**. Dewatering activities began in February 2017 and operated nearly continuously for a period of over 2 years until April 2019. After CCR removal and until April 2021, water was pumped from the pond in order to maintain pond water elevation. In April 2021 pumping at the pond stopped.

The prolonged pumping created a temporary shift in the hydrologic characteristics of the site. Further description of this hydraulic shift and its effect on lithium concentrations at monitoring well MCM-14 is discussed in Section 3.1.4.

3 ALTERNATIVE SOURCE DEMONSTRATION

To evaluate alternative sources, the site conceptual model was revisited and site geochemistry, hydrogeology, historical data, and CCR removal activities were reviewed. Based on the data evaluation, the SSLs for lithium have been attributed to influxes of brackish surface water from the estuary during excavation dewatering and tidal influence in wells along the dike.

3.1.1 Lithium in Surface Water

A comparison of surface water quality to groundwater quality demonstrates that the range of lithium concentrations observed in surface water at the site is comparable to those observed in groundwater and that surface water is a viable source for lithium observed in well MCM-14. As part of routine monitoring, surface water samples are collected semi-annually. The most recent surface water sampling was conducted concurrent with March 2021 groundwater sampling and is reported in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute 2021) and summarized in **Table 2**.

In March 2021, surface water samples were collected from four transects (T1 through T4), as shown on **Figures 4A and 4B**. Water at four sample locations was collected in each transect. Samples were also collected from two background locations (**Figure 5**). One background surface water location sampled was the low tide background location, BG-1, in Cowpen Creek, north of its confluence with Burnett Creek. The other surface water sample was collected at high tide from background location 2 (BG-2), located in the Turtle River, north of its confluence with Gibson Creek.

The lithium results from surface water sampling are presented in **Table 2**. Surface water sampling locations in the T4 transect are closest to MCM-14. The lithium concentrations in the samples collected from the T4 transect range from 0.066 to 0.083 mg/L (**Table 2**), while groundwater concentrations in MCM-14 ranged from 0.046 to 0.059 mg/L between 2019 and March 2021 when the SSL was identified. Greater surface water than groundwater concentrations indicate that surface water may be mixing with groundwater and represent a viable source for lithium in groundwater. An additional groundwater sample was collected at MCM-14 in July 2021, when water was no longer being removed from the pond. The lithium concentration in that sample is reported as non-detect below the reporting limit of 0.010 mg/L. Results from future sampling will be used to evaluate whether the analytical result for lithium observed in July 2021 is sustained and representative.

Based on review of surface water quality data collected near MCM-14, surface water is a viable source of lithium to groundwater. Lithium concentrations in surface water are greater than those observed in groundwater.

3.1.2 Groundwater and Surface Water Geochemistry Markers

Groundwater and surface water data from the site were evaluated for variability in chemical composition, ionic ratios, and CCR indicator parameters as markers to support this ASD. Comparison of geochemistry markers in surface water and groundwater demonstrate that the monitoring wells where lithium is present in groundwater yield similar geochemistry to each other and the surface water and are distinct from groundwater in monitoring wells with low or non-detect lithium. During the March 2021 sampling event, surface water from two background locations (BG-1 and BG-2) and groundwater from background, mainland, and southern dike wells (MCM-01, -02, -11, -12, -14, -15, -16, -17, -18, -19, and MCM-20) were analyzed for select cations, anions, metals, alkalinity, and total dissolved solids to evaluate geochemical markers (**Figure 5, Table 3**). The background surface water samples were collected from the two locations within Turtle River (BG-1 and BG-2), consistent with previous sampling events. Notes regarding field activities completed by Resolute and analytical reports for the March 2021 sampling event are provided in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute 2021).

Analytical reports and purge log for the July 2021 sample collected at MCM-14 are included as Appendix B of this report.

A comparison of surface water and monitoring well geochemical data provide support that the source of lithium is brackish surface water. Piper plots were developed from the March data from surface water and groundwater monitoring wells (**Figure 5**). Piper plots assess relative abundance of major cations and anions in groundwater and are a useful tool in differentiating water sources (Chu et al. 2017). Overall, the chemical compositions of groundwater and surface water reflect a sodium-chloride-type water source. However, **Figure 5** shows a tight cluster of southern dike wells (MCM-14 & MCM-17) with background surface water and groundwater. This tight cluster of sample points indicate similar major ion chemical compositions of groundwater in the dike wells and background groundwater and surface water.

Figure 6 shows a plot of sodium and chloride ratios versus total dissolved solids (TDS) for the same wells shown on the Piper diagram (MCM-01, -02, -11, -12, -14, -15, -16, -17, -18, -19, and MCM-20) as well as background surface water locations BG-1, BG-2 and the nearest surface water transect T4. The surface water samples from the background locations and T4 transect are high in TDS, plotting in two clusters along the right of the x-axis. The sodium-to-chloride ratios in these samples are clustered around one area of the plot. Monitoring wells with water quality clustered tightly to surface water on the Piper plot also showed sodium-to-chloride ratios near one over a range of TDS concentrations. MCM-14 plots close to the surface water samples with a sodium-to-chloride ratio of 0.9 and TDS concentration of 12,000 mg/L. This ratio is close to the sodium-to-chloride (molar) ratio of approximately 0.86 reported for average seawater composition (e.g., Hem 1989) and for brackish water in coastal regions (Klassen, et al. 2014; Shin et al. 2020). In contrast, mainland groundwater wells plotted with TDS less than 2,000 mg/L and sodium-to-chloride ratios equal or greater than 1. This higher proportion of sodium observed at mainland wells can be seen from continental (feldspar) weathering sources or exchange of sodium for calcium during the mixing process (Anders 2013; Shin et al. 2020). Thus, the sodium-to-chloride ratios reflect distinct sources and processes, with the ratio at MCM-14 showing a mixing signature of brackish with surface water.

To analyze several CCR indicator ions in conjunction with lithium simultaneously, concentrations for the ions are displayed on a star plot on **Figures 5 and 7** and provided in **Table 3**. This method uses ion composition to differentiate sources and assumes that select ions in groundwater from a CCR source, such as boron, sulfate, calcium, chloride, and lithium, are conservative in groundwater and not retarded due to processes such as sorption or precipitation. The star plots visualize the relative amounts of ions present at varying orders of magnitude. A similarity in shape represents similar ratios of ions, indicating a similar source. On each plot, the surface water chemistry collected from location BG-2 in March 2021 is shown as a black dashed line, while groundwater chemistry from the monitoring well is shown as a colorful solid line. Similar groundwater signatures are grouped by color. The star plots show that concentrations of boron, calcium, sulfate, lithium, and chloride in groundwater collected in March 2021 from MCM-14 are present in a composition that is similar to surface water and to each other. In contrast, groundwater collected from the island and mainland have compositions dissimilar to the surface water samples. Lithium concentrations at MCM-14 are similar to the range of surface water, as discussed in Section 3.1.1, and higher than at wells located on the mainland and island.

The July 2021 analytical results for groundwater collected at MCM-14 present different a composition than that observed in March 2021 (**Figure 7**). As discussed in Section 3.1.4, this sample was collected

after water was no longer being removed from the pond. No lithium was detected in this sample above the detection limit of 0.010 mg/L. The ion composition in this sample is more similar to those found in background wells MCM-19, and -20.

The comparison of geochemistry markers in surface waters and groundwater demonstrates that the groundwater chemistry at MCM-14 location yields a similar geochemistry to surface water. This supports the understanding that surface water influences the groundwater chemistry at MCM-14 location.

3.1.3 Hydrogeologic Conditions

Variation in hydraulic conductivity across the site and variable groundwater level response to tidal fluctuations show that locations such as MCM-14 are in closer hydraulic communication with the tidal marsh than other wells. Site data collected to date, including slug tests and tidal studies, demonstrate heterogeneous hydrogeologic conditions, with more groundwater flow in monitoring wells MCM-05, MCM-06, MCM-07, and MCM-14, located along the dikes (**Figure 1**).

Single well slug tests conducted in November 2019 identified a wide distribution of hydraulic conductivities across the site, from 8.67×10^{-5} centimeter per second (cm/sec) to 2.90×10^{-3} cm/sec (Resolute 2020). The highest hydraulic conductivities were found primarily within monitoring wells along the northern and southern dikes at monitoring wells MCM-05, MCM-06, MCM-14, and MCM-17 (**Table 4**), although wells exhibiting high conductivities are also present within the mainland.

A tidal study was conducted to evaluate sensitivities of groundwater to changes in tides (Resolute 2020). Transducers were deployed over a period of several months. Along the southern dike, MCM-14 was found to be more sensitive to tidal fluctuations during the study based on the magnitude of the tidal fluctuations (**Figure 8**). Together, the hydraulic conductivity and tidal data show MCM-14 is in hydraulic communication with the tidal marsh and surface water. As discussed previously, lithium has been shown to be naturally present in surface water near well MCM-14 at concentrations greater than groundwater. The demonstrated communication between MCM-14 and surface water, combined with the lithium concentrations in surface water, establish that surface water is a viable alternate source for lithium at this location.

3.1.4 Shifts in Hydraulic Conditions and Associated Water Quality Changes during Coal Ash Removal

Dewatering associated with CCR removal resulted in a consistent cone of depression and inward gradient during high and low tides. The dewatered conditions correlate with a shift in groundwater quality at several monitoring wells, including MCM-14, toward the chemical composition of the surface water.

During the dewatering and excavation process, the water level in AP-1 was depressed below the water level in the tidal marsh (see March 2019 high and low tide potentiometric surface maps in **Appendix A**). As a result, regardless of the tidal stage, there was a consistent cone of depression and gradient towards AP-1 during dewatering activities, favoring movement of surface water and groundwater flow into the cone of depression towards AP-1 and the dewatering wells (**Figure 3**).

The trend of lithium concentrations over time at MCM-14 aligns with dewatering activities. Lithium concentrations at MCM-14 increased in conjunction with the progression of excavation activities and

dewatering at Area C (**Figure 9**). The increase in lithium and other water quality parameters such as total dissolved solids, sulfate, and boron in MCM-14 likely reflects the point when the pond had been fully dewatered and the dewatering well system began to draw in more surface water as compared to pond water. As presented in the previous section, the shift in geochemistry became like that of surface water; therefore, the lithium is interpreted to be derived from the movement of brackish surface water towards well when pumping was occurring for dewatering.

After excavation and dewatering ceased, AP-1 was allowed to fill with water, however, water continued to be removed from the pond to maintain the pond elevation. In April 2021 pumping of water from the pond stopped, which allowed for an increase in pond water elevation. Following this change in the hydrogeologic conditions, lithium concentration decreased to less than the detection limit of 0.010 mg/L in July 2021. This decrease in lithium is potentially associated with the change in pond water management, but evaluation of future sampling results is needed to confirm.

The observation that shifts in groundwater chemistry and an increase in lithium concentrations at MCM-14 coincided with the establishment of inward gradients during pond dewatering activities, and the subsequent decrease in lithium concentrations after pond water elevation control ended provide further support that surface water influences the groundwater chemistry at MCM-14 location.

4 CONCLUSION AND RECOMMENDATION

This report serves as an ASD prepared in accordance with 40 CFR § 257.95(g)(3)(ii) and demonstrates that the SSL for lithium at Plant McManus former AP-1 monitoring well MCM-14 is attributed to the variability of naturally occurring lithium in the adjacent brackish estuary and not to a release from AP-1. This is demonstrated by:

- Presence of lithium in surface water in sampling transect T4 near MCM-14 at concentrations greater than groundwater in MCM-14;
- The groundwater zone screened by MCM-14 is in hydraulic communication with the tidal marsh and surface water based on tidal fluctuation;
- Similarity of geochemical markers in surface water and groundwater wells with elevated concentrations of lithium indicating that surface water and groundwater are in communication and that surface water chemistry is influencing groundwater chemistry; and
- Shifts in groundwater chemistry and an increase in lithium concentrations at MCM-14 that coincided with the establishment of inward gradients during pond dewatering activities and subsequent decrease in lithium concentrations after pond water elevation control ended.

The evidence supports the conclusion that the lithium SSL is attributable to the influx of brackish surface water and is not attributable to CCR storage or a release from former AP-1. Therefore, no further action for lithium is warranted.

5 REFERENCES

- Anders, R., Mendez, G., Futa, K., Danskin, W., 2013. A Geochemical Approach to Determine Sources and Movement of Saline Groundwater in a Coastal Aquifer. *Groundwater*. July.
- Arcadis. 2020. Lithium Alternative Source Demonstration – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. November.
- ATC Associates, Inc. 1997. Compliance Status Report, McManus Steam Electric Generating Plant, Brunswick, Georgia.
- Chu, J., P. Panzino, and L. Bradley. 2017. An Approach to Using Geochemical Analysis to Evaluate the Potential Presence of Coal Ash Constituents in Drinking Water. 2017 World of Coal Ash Conference. May 9-11.
- GAEPD. 2021. Subject: Georgia Power Company–Conditional Concurrence for Alternate Source Demonstration for Lithium at Plant McManus Ash Pond 1 (AP-1) GEOS Submittal 527116. April 22, 2021.
- Hem, J. 1989. Study and Interpretation of the Chemical Characteristics of Natural Waters. USGS Water Supply Paper 2254.
- Huddleston, P.F. 1988. A Revision of the Lithostratigraphic Units of the Coastal Plain of Georgia, The Miocene Through Holocene. *Georgia Geologic Survey Bulletin* 104.
- Klassen, J., Allen, D., Kirste, D. 2013. Chemical Indicators of Saltwater Intrusion for the Gulf Islands, British Columbia. Prepared for BC Ministry of Forests, Lands, and Natural Resource Operations and BC Ministry of Environment. June.
- Moller, D. 1990. The Na/Cl Ratio in Rainwater and the Seasalt Chloride Cycle. *Tellus*. Vol 42B. Pp 254-262.
- Resolute. 2019. Annual Groundwater Monitoring and Corrective Action Monitoring Report – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. August.
- Resolute. 2020. Hydrogeologic Assessment Report – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. November 2018, Revised April 2020.
- Resolute. 2021. 2021 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1. Prepared for Georgia Power Company. June.
- Riley, J., Tongudai, M., 1964. The lithium content of sea water. *Deep Sea Research and Oceanographic Abstracts*. Vol. 11. 4. Pp 563-568.
- Segar, D. 1998. Introduction to Ocean Sciences. Wadsworth Publishing. Belmont California.
- Shin, K., Koh, D., Jung, H., Lee, J. 2020. The Hydrogeochemical Characteristics of Groundwater Subjected to Seawater Intrusion in the Archipelago, Korea. *Water*. Vol 12. Pp 1542.
- Weems, R.E., and L.E. Edwards. 2001. Geology of Oligocene, Miocene, and Younger Deposits in the Coastal Area of Georgia, *Georgia Geologic Survey Bulletin* 131.

TABLES



Table 1
Monitoring Well Network and Piezometers
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Well ID | Hydraulic Location | Installation Date | Resurvey Date | Northing (ft) ¹ | Easting (ft) ¹ | Top of Casing Elevation ² (ft NAVD 88) | Total Depth (ft BTOC) | Top of Screen Elevation (ft NAVD 88) | Bottom of Screen Elevation (ft NAVD 88) |
|--------------------------------|----------------------|-------------------|---------------|----------------------------|---------------------------|---|-----------------------|--------------------------------------|---|
| Monitoring Well Network | | | | | | | | | |
| MCM-01 | Upgradient | 7/7/2016 | 4/16/2020 | 443727.31 | 852732.08 | 8.63 | 27.32 | -7.93 | -17.93 |
| MCM-02 | Upgradient | 7/6/2016 | 4/16/2020 | 444496.53 | 852663.64 | 11.25 | 27.35 | -5.22 | -15.22 |
| MCM-04 | Downgradient | 6/30/2016 | 4/16/2020 | 444804.73 | 851695.27 | 12.39 | 28.57 | -5.18 | -15.18 |
| MCM-05 | Downgradient | 7/9/2016 | 4/16/2020 | 444716.63 | 851309.91 | 10.04 | 28.05 | -7.25 | -17.25 |
| MCM-06 | Downgradient | 7/8/2016 | 4/16/2020 | 444407.22 | 850782.11 | 10.15 | 27.20 | -6.27 | -16.27 |
| MCM-07 | Downgradient | 7/8/2016 | 4/16/2020 | 444059.38 | 850195.96 | 10.20 | 23.75 | -2.76 | -12.76 |
| MCM-08 | Upgradient | 7/11/2016 | 4/16/2020 | 443758.8 | 849716.96 | 9.42 | 28.29 | -8.39 | -18.39 |
| MCM-11 | Upgradient | 7/12/2016 | 4/16/2020 | 442429.8 | 851072.91 | 10.23 | 24.00 | -3.34 | -13.34 |
| MCM-12 | Downgradient | 7/12/2016 | 4/16/2020 | 442821.17 | 851312.45 | 11.87 | 29.00 | -6.12 | -16.12 |
| MCM-14 | Downgradient | 7/9/2016 | 4/16/2020 | 443358.82 | 852317.59 | 11.50 | 28.11 | -6.23 | -16.23 |
| MCM-15 | Upgradient | 6/30/2016 | 4/16/2020 | 444825.53 | 851949.02 | 12.84 | 26.60 | -4.53 | -14.53 |
| MCM-16 | Upgradient | 7/6/2019 | 4/16/2020 | 444551.32 | 852716.6 | 16.02 | 28.39 | -1.72 | -11.72 |
| MCM-17 | Downgradient | 9/29/2016 | 4/16/2020 | 443074.41 | 851899.68 | 11.49 | 27.44 | -4.81 | -14.81 |
| MCM-18 | Upgradient | 10/30/2019 | 4/16/2020 | 442067.07 | 851698.41 | 9.00 | 27.86 | -8.76 | -18.76 |
| MCM-19 | Upgradient | 10/30/2019 | 4/16/2020 | 441157.82 | 852338.86 | 8.71 | 28.32 | -9.53 | -19.53 |
| MCM-20 | Upgradient | 10/30/2019 | 4/16/2020 | 440944.4 | 852185.15 | 10.07 | 23.05 | -2.98 | -12.98 |
| DPZ-02 | Vertical Delineation | 3/10/2020 | 4/16/2020 | 444391.02 | 850757.94 | 9.54 | 43.46 | -28.84 | -33.84 |
| Piezometer | | | | | | | | | |
| MCM-03 | Water Level | 7/6/2016 | 4/16/2020 | 444414.88 | 851984.67 | 9.97 | 27.70 | -7.73 | -17.73 |
| MCM-08 | Water Level | 7/11/2016 | 4/16/2020 | 443758.8 | 849716.96 | 9.42 | 28.29 | -8.39 | -18.39 |
| MCM-09 | Water Level | 7/10/2019 | NA | 443252.16 | 850147.75 | | | Abandoned | |
| MCM-10 | Water Level | 7/11/2016 | 4/16/2020 | 442791.88 | 850453.05 | 11.75 | 23.96 | -1.25 | -11.25 |
| MCM-13 | Water Level | 7/9/2016 | 4/16/2020 | 443030.23 | 851826.19 | 12.56 | 27.46 | -4.90 | -14.90 |
| PZ-09 | Water Level | 10/31/2019 | 4/16/2020 | 444082.13 | 849471.64 | 9.41 | 24.05 | -4.56 | -14.56 |
| PZ-10 | Water Level | 11/1/2019 | 4/16/2020 | 444949.09 | 851673.98 | 12.17 | 22.91 | -0.66 | -10.66 |
| PZ-11 | Water Level | 11/22/2019 | 4/16/2020 | 443222.86 | 849280.51 | 9.37 | 19.08 | -4.63 | -9.63 |
| PZ-12 | Water Level | 11/22/2019 | 4/16/2020 | 443593.34 | 849396.87 | 7.90 | 18.70 | -5.72 | -10.72 |
| DPZ-01 | Water Level | 3/10/2020 | 4/16/2020 | 444695.71 | 851277.4 | 9.71 | 40.78 | -25.99 | -30.99 |
| DPZ-03 | Water Level | 3/11/2020 | 4/16/2020 | 444073.16 | 850218.83 | 9.46 | 47.57 | -33.03 | -38.03 |
| DPZ-04 | Water Level | 3/12/2020 | 4/16/2020 | 443062.6 | 851881.94 | 11.45 | 51.23 | -34.70 | -39.70 |
| DPZ-05 | Water Level | 3/11/2020 | 4/16/2020 | 443376.32 | 852342.11 | 11.00 | 51.20 | -35.12 | -40.12 |
| DPZ-06 | Water Level | 3/12/2020 | 4/16/2020 | 444614.79 | 851846.27 | 12.04 | 40.50 | -23.38 | -28.38 |

Notes:

1. Georgia State Plane - East Coordinates.
 2. NAVD 88 - North American Vertical Datum of 1988
- ft BTOC - feet below top of casing
Data source: Resolute 2020a

Table 2
Lithium in Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Location | Date | Lithium (mg/L) |
|---|-----------|----------------|
| Groundwater Protection Standards | | |
| Federal GWPS | July 2021 | 0.04 |
| State GWPS | July 2021 | 0.03 |
| Groundwater | | |
| MCM-14 | 3/2/2021 | 0.046 J |
| MCM-14 | 7/1/2021 | < 0.010 |
| Background Surface Water | | |
| BG-1LT | 3/2/2021 | 0.074 J |
| BG-2HT | 3/3/2021 | 0.084 J |
| Surface Water Transects | | |
| T1-1HT | 3/2/2021 | 0.074 J |
| T1-1LT | 3/4/2021 | 0.066 J |
| T1-2HT | 3/2/2021 | 0.084 J |
| T1-2HTS | 3/2/2021 | 0.072 J |
| T1-2LT | 3/4/2021 | 0.063 J |
| T1-3HT | 3/2/2021 | 0.077 J |
| T1-3HTS | 3/2/2021 | 0.073 J |
| T1-3LT | 3/4/2021 | 0.061 J |
| T1-4HT | 3/2/2021 | 0.079 J |
| T1-4HTS | 3/2/2021 | 0.072 J |
| T1-4LT | 3/4/2021 | 0.067 J |
| T2-1HT | 3/2/2021 | 0.068 J |
| T2-2HT | 3/2/2021 | 0.070 J |
| T2-2HTS | 3/2/2021 | 0.063 J |
| T2-2LT | 3/4/2021 | 0.050 J |
| T2-3HT | 3/2/2021 | 0.070 J |
| T2-3HTS | 3/2/2021 | 0.062 J |
| T2-3LT | 3/4/2021 | 0.055 J |
| T2-4HT | 3/2/2021 | 0.065 J |
| T2-4HTS | 3/2/2021 | 0.070 J |
| T2-4LT | 3/4/2021 | 0.046 J |
| T3-1HT | 3/2/2021 | 0.068 J |
| T3-2HT | 3/2/2021 | 0.069 J |
| T3-2HTS | 3/2/2021 | 0.063 J |
| T3-2LT | 3/4/2021 | 0.043 J |
| T3-3HT | 3/2/2021 | 0.069 J |
| T3-3HTS | 3/2/2021 | 0.069 J |
| T3-3LT | 3/4/2021 | 0.046 J |
| T3-4HT | 3/2/2021 | 0.069 J |
| T3-4HTS | 3/2/2021 | 0.110 J |
| T3-4LT | 3/4/2021 | 0.055 J |
| T4-1L | 3/3/2021 | 0.076 J |
| T4-2L | 3/3/2021 | 0.066 J |
| T4-3L | 3/3/2021 | 0.079 J |

Table 2
Lithium in Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Location | Date | Lithium (mg/L) |
|----------|----------|----------------|
| T4-4L | 3/3/2021 | 0.075 J |
| T4-1HS | 3/3/2021 | 0.075 J |
| T4-2HS | 3/3/2021 | 0.078 J |
| T4-3HS | 3/3/2021 | 0.083 J |
| T4-4HS | 3/3/2021 | 0.080 J |
| T4-1HB | 3/3/2021 | 0.072 J |
| T4-2HB | 3/3/2021 | 0.067 J |
| T4-3HB | 3/3/2021 | 0.066 J |
| T4-4HB | 3/3/2021 | 0.075 J |

Abbreviations

GWPS- groundwater protection standards

HT- high tide

LT/L- low tide

HB - high tide bottom

HTS/HS - high tide surface

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

mg/L- milligrams per liter

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Surface Water | | | | |
|-----------------------------------|-------|--------------------|--------------------|--------------------|--------------------|-------------------|
| | | BG-1LT
3/2/2021 | BG-2HT
3/3/2021 | T4-1HB
3/3/2021 | T4-1HS
3/3/2021 | T4-1L
3/3/2021 |
| Alkalinity (as calcium carbonate) | mg/L | 83.6 | 92.4 | 84.5 | 85.2 | 82.4 |
| Alkalinity (bicarbonate) | mg/L | 83.6 | 92.4 | 84.5 | 85.2 | 82.4 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | 2.3 J | 2.4 J | 1.8 J | 2.0 J | 1.9 J |
| Calcium | mg/L | 157 | 178 | 112 | 133 | 104 |
| Chloride | mg/L | 6660 | 8060 | 7320 | 6780 | 6450 |
| Fluoride | mg/L | < 10.0 | < 10.0 | < 10.0 | < 10.0 | < 10.0 |
| Lithium | mg/L | 0.074 J | 0.084 J | 0.072 J | 0.075 J | 0.076 J |
| Magnesium | mg/L | 470 | 537 | 334 | 394 | 306 |
| Potassium | mg/L | 158 | 180 | 111 | 130 | 103 |
| Sodium | mg/L | 4130 | 4930 | 4410 | 4490 | 4390 |
| Sulfate | mg/L | 929 | 1150 | 1020 | 959 | 900 |
| Total Dissolved Solids (TDS) | mg/L | 16200 | 15900 | 13900 | 14300 | 13300 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Surface Water | | | | |
|-----------------------------------|-------|--------------------|--------------------|-------------------|--------------------|--------------------|
| | | T4-2HB
3/3/2021 | T4-2HS
3/3/2021 | T4-2L
3/3/2021 | T4-3HB
3/3/2021 | T4-3HS
3/3/2021 |
| Alkalinity (as calcium carbonate) | mg/L | 84.3 | 83.9 | 83.4 | 83.6 | 84.2 |
| Alkalinity (bicarbonate) | mg/L | 84.3 | 83.9 | 83.4 | 83.6 | 84.2 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | 2.0 J | 2.0 J | 2.0 J | 2.0 J | 2.1 J |
| Calcium | mg/L | 113 | 120 | 110 | 118 | 150 |
| Chloride | mg/L | 6850 | 7090 | 6620 | 6780 | 6910 |
| Fluoride | mg/L | < 10.0 | < 10.0 | < 10.0 | < 10.0 | < 10.0 |
| Lithium | mg/L | 0.067 J | 0.078 J | 0.066 J | 0.066 J | 0.083 J |
| Magnesium | mg/L | 335 | 360 | 331 | 355 | 446 |
| Potassium | mg/L | 112 | 119 | 111 | 118 | 149 |
| Sodium | mg/L | 4430 | 4170 | 4420 | 4010 | 4150 |
| Sulfate | mg/L | 980 | 988 | 929 | 966 | 990 |
| Total Dissolved Solids (TDS) | mg/L | 14900 | 14600 | 13900 | 13900 | 13600 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Surface Water | | | |
|-----------------------------------|-------|-------------------|--------------------|--------------------|-------------------|
| | | T4-3L
3/3/2021 | T4-4HB
3/3/2021 | T4-4HS
3/3/2021 | T4-4L
3/3/2021 |
| Alkalinity (as calcium carbonate) | mg/L | 86.0 | 87.1 | 75.8 | 87.9 |
| Alkalinity (bicarbonate) | mg/L | 86.0 | 87.1 | 75.8 | 87.9 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | 2.0 J | 2.1 J | 2.1 J | 2.0 J |
| Calcium | mg/L | 125 | 114 | 156 | 158 |
| Chloride | mg/L | 6880 | 7070 | 7040 | 6860 |
| Fluoride | mg/L | < 10.0 | < 10.0 | < 10.0 | < 10.0 |
| Lithium | mg/L | 0.079 J | 0.075 J | 0.08 J | 0.075 J |
| Magnesium | mg/L | 368 | 343 | 465 | 468 |
| Potassium | mg/L | 123 | 114 | 156 | 158 |
| Sodium | mg/L | 4290 | 4090 | 4200 | 4210 |
| Sulfate | mg/L | 991 | 1020 | 1020 | 990 |
| Total Dissolved Solids (TDS) | mg/L | 13700 | 15500 | 13900 | 14400 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Groundwater | | | |
|-----------------------------------|-------|--------------------|--------------------|--------------------|--------------------|
| | | MCM-01
3/3/2021 | MCM-02
3/3/2021 | MCM-11
3/3/2021 | MCM-12
3/2/2021 |
| Alkalinity (as calcium carbonate) | mg/L | 15.8 | < 5.0 | < 5.0 | 496 J |
| Alkalinity (bicarbonate) | mg/L | 15.8 | < 5.0 | < 5.0 | 496 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | < 0.42 | < 0.42 | < 0.42 | 1.4 J |
| Calcium | mg/L | 14.0 | 4.0 | 2.1 | 6.5 |
| Chloride | mg/L | 13.6 | 20.5 | 9.4 | 459 |
| Fluoride | mg/L | < 0.050 | < 0.050 | 0.082 J | 1.0 |
| Lithium | mg/L | < 0.025 | < 0.025 | < 0.025 | < 0.025 |
| Magnesium | mg/L | 1.7 | 2.3 | 1.3 | 12.5 |
| Potassium | mg/L | < 30.4 J | < 30.4 | < 30.4 | < 30.4 |
| Sodium | mg/L | 14.2 J | 18.7 J | 11.3 J | 497 |
| Sulfate | mg/L | 33.8 | 27.6 | 19.9 | 1.2 |
| Total Dissolved Solids (TDS) | mg/L | 99 | 84 | 66 | 1430 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Groundwater | | | | |
|-----------------------------------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | MCM-14
3/2/2021 | MCM-14
7/1/2021 | MCM-15
3/2/2021 | MCM-16
3/3/2021 | MCM-17
3/3/2021 |
| Alkalinity (as calcium carbonate) | mg/L | 170 | 263 | < 5.0 | 10.7 | 407 |
| Alkalinity (bicarbonate) | mg/L | 170 | 263 | < 5.0 | 10.7 | 407 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | 1.4 J | 0.26 J | < 0.42 | < 0.085 J | 1.7 J |
| Calcium | mg/L | 205 | 231 | 1.4 | 11.2 | 143 |
| Chloride | mg/L | 5680 | 5960 | 4.2 | 27.6 | < 0.60 |
| Fluoride | mg/L | < 0.050 | < 5.0 | < 0.050 | < 0.050 | < 0.050 |
| Lithium | mg/L | 0.046 J | < 0.010 | < 0.025 | < 0.0050 | < 0.025 |
| Magnesium | mg/L | 422 | 446 | 1.1 | 3.0 | 266 |
| Potassium | mg/L | 130 | 119 | < 30.4 | < 30.4 | 107 |
| Sodium | mg/L | 3320 | 3460 J | 11.9 J | 19.7 J | 2650 |
| Sulfate | mg/L | 97.5 | 693.0 | 8.0 | 30.5 | 420 |
| Total Dissolved Solids (TDS) | mg/L | 12000 | 11200 | 40 | 122 | 8830 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 3
March 2021 and July 2021 Result Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Analyte | Units | Background Groundwater | | |
|-----------------------------------|-------|------------------------|--------------------|--------------------|
| | | MCM-18
3/3/2021 | MCM-19
3/3/2021 | MCM-20
3/3/2021 |
| Alkalinity (as calcium carbonate) | mg/L | < 5.0 J | 5.6 | < 5.0 J |
| Alkalinity (bicarbonate) | mg/L | < 5.0 | 5.6 | < 5.0 |
| Alkalinity (carbonate) | mg/L | < 5.0 | < 5.0 | < 5.0 |
| Boron | mg/L | 0.21 J | 0.79 J | 0.91 J |
| Calcium | mg/L | 26 | 123 | 110 |
| Chloride | mg/L | 1230 | 5170 | < 0.60 |
| Fluoride | mg/L | 0.32 | < 0.050 | < 0.050 |
| Lithium | mg/L | < 0.0050 | 0.019 J | 0.018 J |
| Magnesium | mg/L | 86.5 | 377 | 334 |
| Potassium | mg/L | < 30.4 | 52.6 | 68.2 |
| Sodium | mg/L | 792 | 3150 | 3360 |
| Sulfate | mg/L | 171 | < 0.50 | 743 |
| Total Dissolved Solids (TDS) | mg/L | 2620 | 11000 | 11400 |

Notes:

-- = not sampled

< = analyte not detected in sample. Laboratory reporting limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021)

Analytical reports and purge log for the July 2021 sample at MCM-14 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

Table 4
Single Well Hydraulic Conductivity Test Results
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Well ID | Slug In (cm/sec) | Slug Out (cm/sec) | Average K (cm/sec) |
|---------|------------------|-------------------|--------------------|
| MCM-01 | not reported | 1.82E-03 | 1.82E-03 |
| MCM-02 | 9.82E-04 | 1.08E-03 | 1.03E-03 |
| MCM-04 | 4.65E-04 | 5.89E-04 | 5.27E-04 |
| MCM-05 | 2.47E-03 | 2.92E-03 | 2.70E-03 |
| MCM-06 | not reported | 1.86E-03 | 1.86E-03 |
| MCM-07 | not reported | 1.85E-04 | 1.85E-04 |
| MCM-08 | 2.44E-04 | 2.55E-04 | 2.49E-04 |
| MCM-09 | 9.31E-05 | 8.04E-05 | 8.67E-05 |
| MCM-10 | 1.89E-04 | 1.51E-04 | 1.70E-04 |
| MCM-12 | 9.19E-05 | 9.89E-05 | 9.54E-05 |
| MCM-13 | not reported | 9.59E-04 | 9.59E-04 |
| MCM-14 | not reported | 2.88E-03 | 2.88E-03 |
| MCM-15 | 1.61E-03 | 1.81E-03 | 1.71E-03 |
| MCM-16 | 2.35E-03 | 2.56E-03 | 2.46E-03 |
| MCM-17 | 2.35E-03 | 3.45E-03 | 2.90E-03 |
| MCM-18 | 1.12E-03 | 1.07E-03 | 1.09E-03 |
| MCM-19 | 9.73E-04 | 1.07E-03 | 1.02E-03 |
| MCM-20 | 4.45E-04 | 2.81E-04 | 3.63E-04 |

Notes:

Hydraulic conductivity (K) is shown in units of centimeter per second (cm/sec).

Slug tests conducted in July and August of 2018.

Source:

Resolute Environmental & Water Resources Consulting. 2020. Hydrogeologic Assessment Report - Plant McManus Former Ash Pond 1. Prepared for Georgia Power. April 2020.

FIGURES

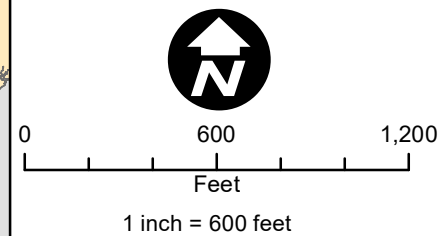




Legend

- CCR PERMITTED BOUNDARY
- ⊕ COMPLIANCE MONITORING WELL
- ⊕ DEEP PIEZOMETER
- ⊕ PIEZOMETER
- ⊕ DELINEATION WELL
- ⬠ DEWATERING WELLS

Note:
MCM-09 abandoned in 2019.



GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA

**SITE LOCATION AND WELL
LOCATION MAP**



FIGURE
1



Note:
 Aerial photos taken during coal ash removal activities by Aerial Innovations Southeast
 Photo Dates:
 I - November 2017; II - January 2018, III - March 2018, IV - May 2018.

GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

DEWATERING PROGRESSION AERIALS




FIGURE
2

I. During-Excavation Activities

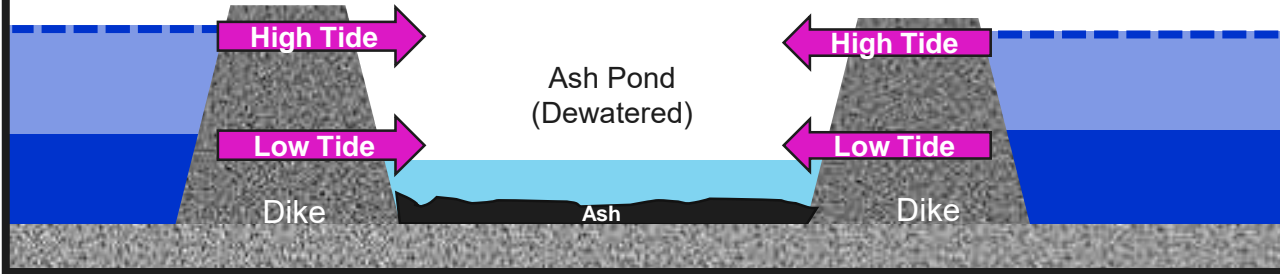


Photo source: Aerial Innovations Southeast, March 2019.

II. Post-Excavation Activities

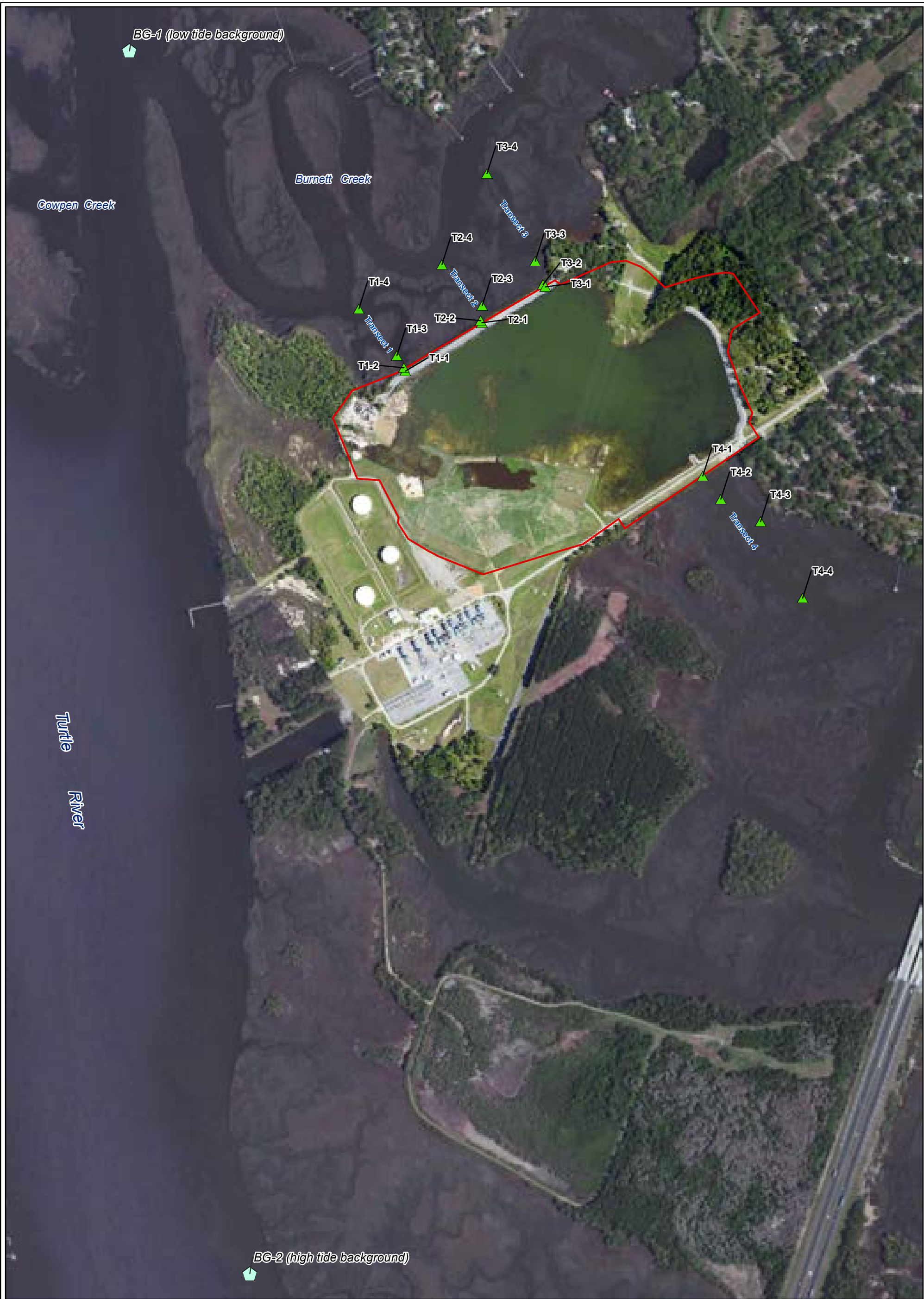


Photo source: Aerial Innovations Southeast, Jan. 2020.

GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA

SCHEMATIC: DEWATERING
HYDROLOGIC INFLUENCE

Notes: not to scale, provided for illustrative purposes



Legend

- ▭ CCR PERMITTED BOUNDARY
- ⬠ BACKGROUND SURFACE WATER SAMPLE LOCATION
- ▲ SURFACE WATER SAMPLE LOCATION

Notes:
 CCR - coal combustion residuals.
 ASD - alternative source demonstration.
 High tide and low tide samples collected at surface water sample location as shown on Table 2.



0 500
 Feet

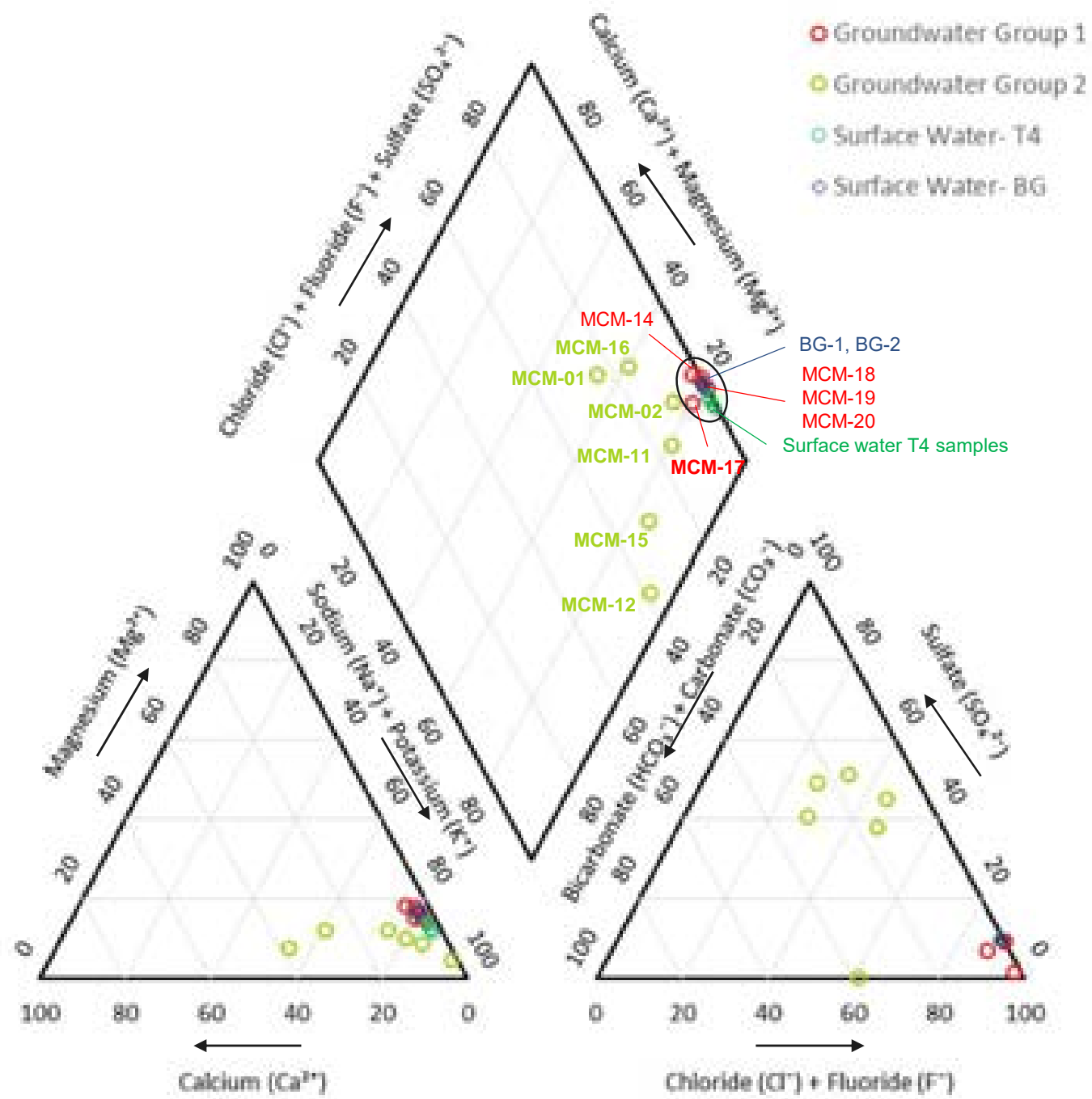
GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

**ASD SURFACE WATER SAMPLE
 LOCATIONS (MARCH 2021)**



FIGURE

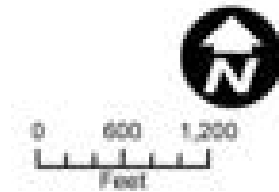
4



Notes:
 Units in mg/l
 Data presented in Piper plot include those locations sampled during the March 2021 sampling event.
 Service Layer Credit: Source Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



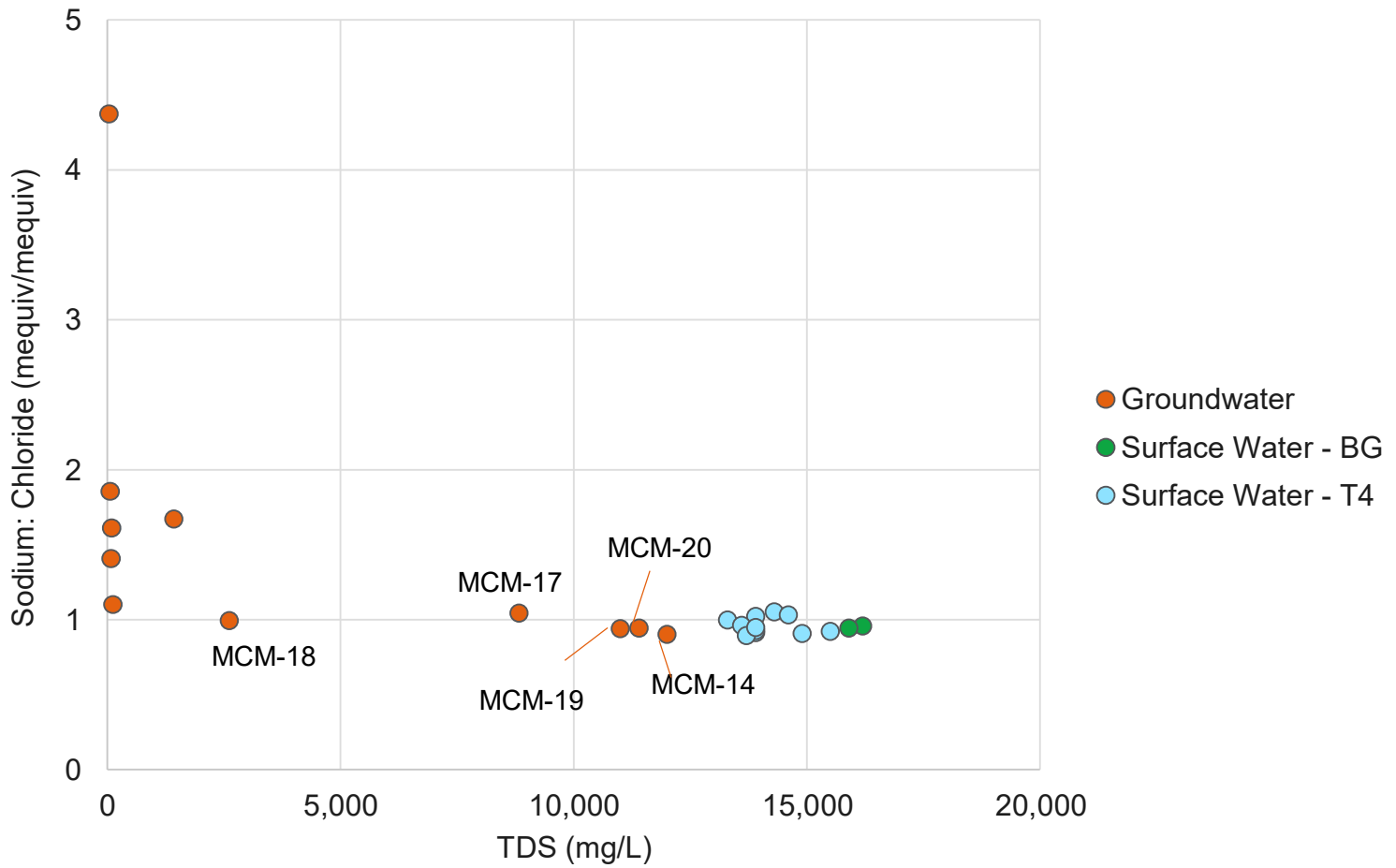
- OCR PERMITTED BOUNDARY
- SURFACE WATER SAMPLE LOCATIONS (JUNE 2020)
- MONITORING WELLS
- DEEP PIEZOMETER WELLS



GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

**SURFACE AND GROUNDWATER
 GEOCHEMISTRY**


ARCADIS | FIGURE 5

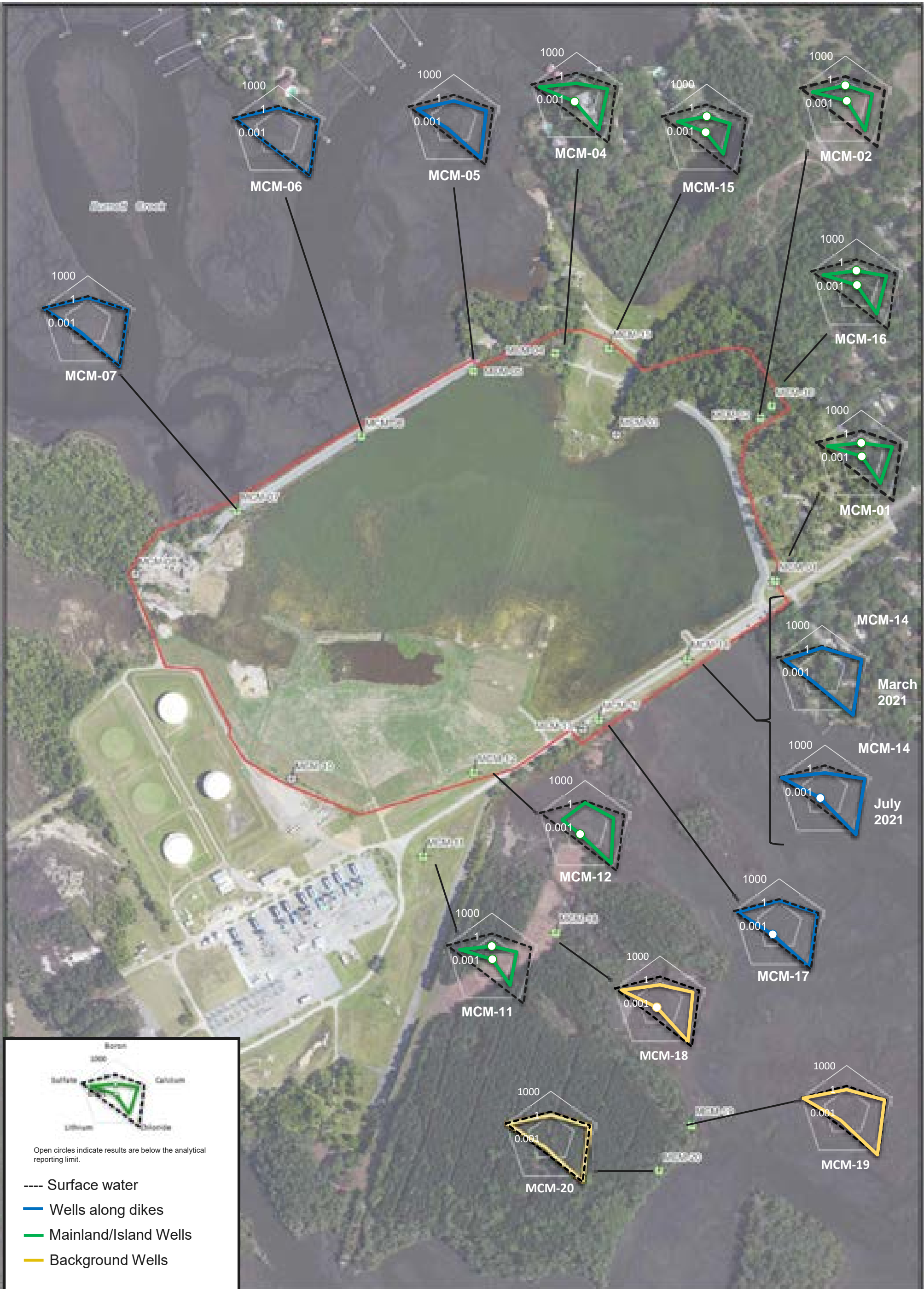


Notes
mequiv = milliequivalent
mg/L = milligrams per liter

GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA

SODIUM TO CHLORIDE RATIOS VERSUS
TOTAL DISSOLVED SOLIDS

 | FIGURE 6



Open circles indicate results are below the analytical reporting limit.

---- Surface water
 --- Wells along dikes
 --- Mainland/Island Wells
 --- Background Wells

Legend

--- CCR PERMITTED BOUNDARY

--- MONITORING WELL

--- PIEZOMETER

Note:
 CCR – Coal combustion residual
 Surface water sample BG-2HT collected March 2021 used for comparison.
 Recent data presented collected during March 2021 and July 2021 sampling events. Data reported in Resolute 2021 (March 2021 Event) and Appendix B of this report (July 2021 Event).

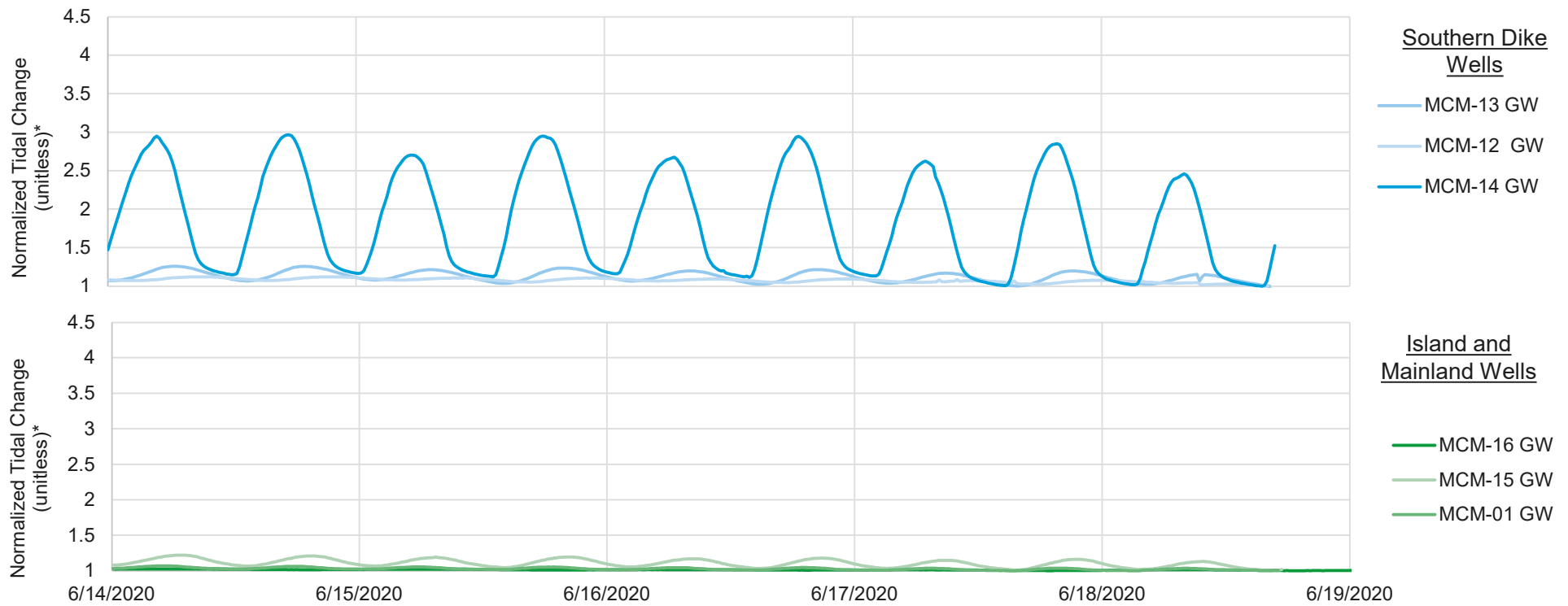


GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA


ION COMPOSITION COMPARISON

ARCADIS

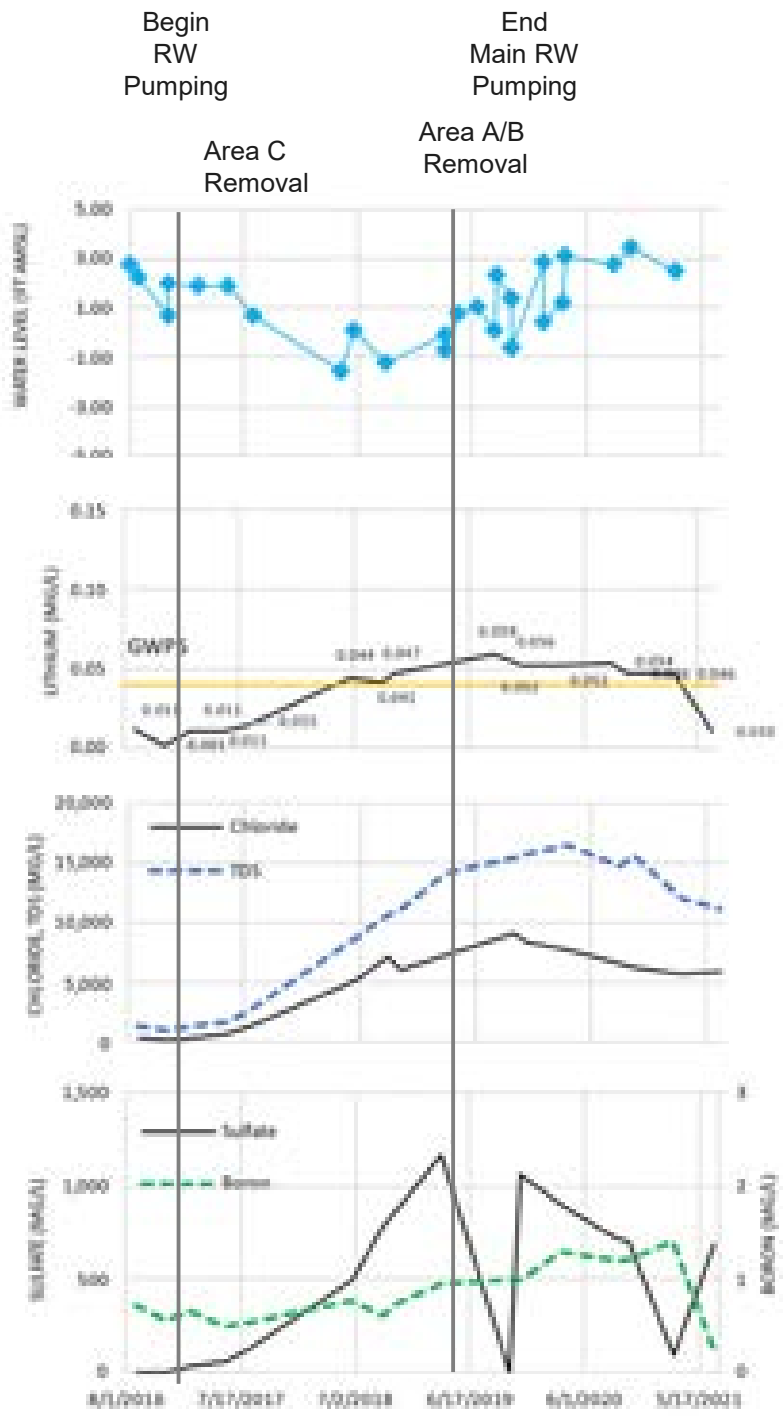
FIGURE
7



Notes:
 *Normalized Tidal Change determined by dividing water depth by minimum water depth over duration shown.
 GW – Groundwater Depths, shown by solid lines
 Data collected by Resolute Environmental and Water Resources Consulting June 2020.

| | |
|---|--------------------|
| GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA | |
| TIDAL INFLUENCE ON MONITORING WELLS | |
|  | FIGURE
8 |


MCM-14



2021 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION

GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

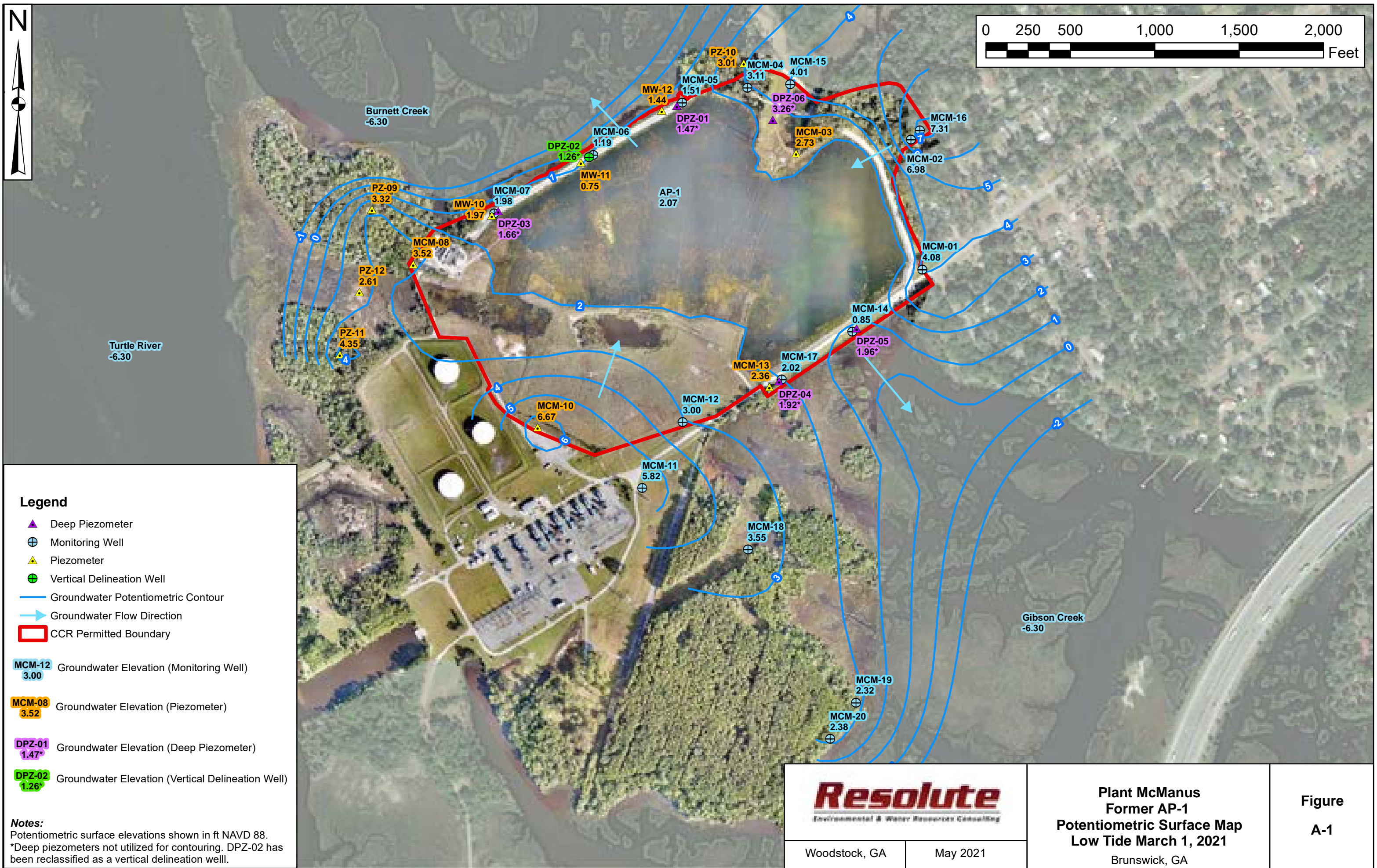
CONCENTRATION TRENDS AT MCM-14

 | FIGURE 9

APPENDIX A

Resolute Potentiometric Maps





Legend

- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Potentiometric Contour
- Groundwater Flow Direction
- CCR Permitted Boundary

MCM-12
3.00 Groundwater Elevation (Monitoring Well)

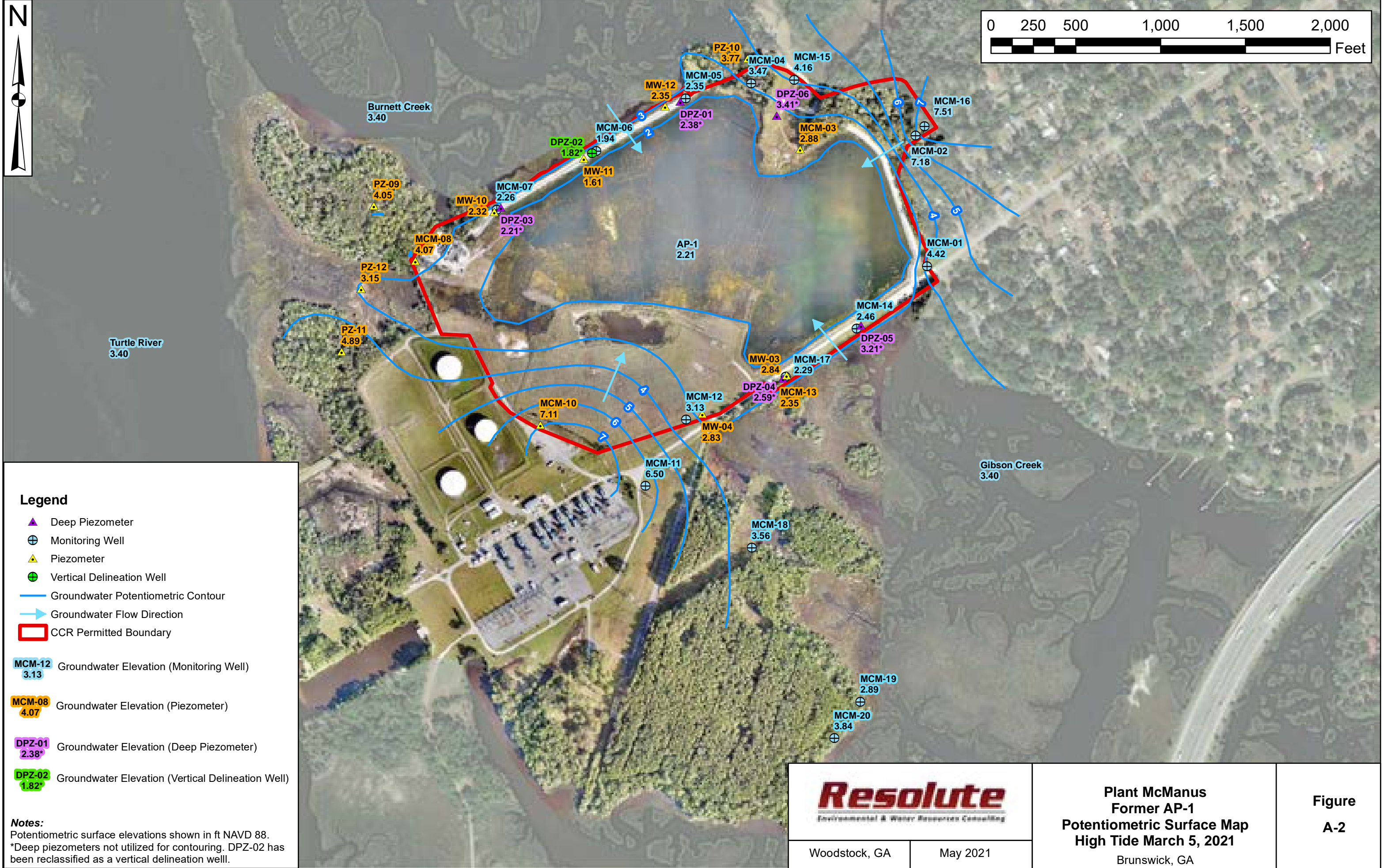
MCM-08
3.52 Groundwater Elevation (Piezometer)

DPZ-01
1.47* Groundwater Elevation (Deep Piezometer)

DPZ-02
1.26* Groundwater Elevation (Vertical Delineation Well)

Notes:
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

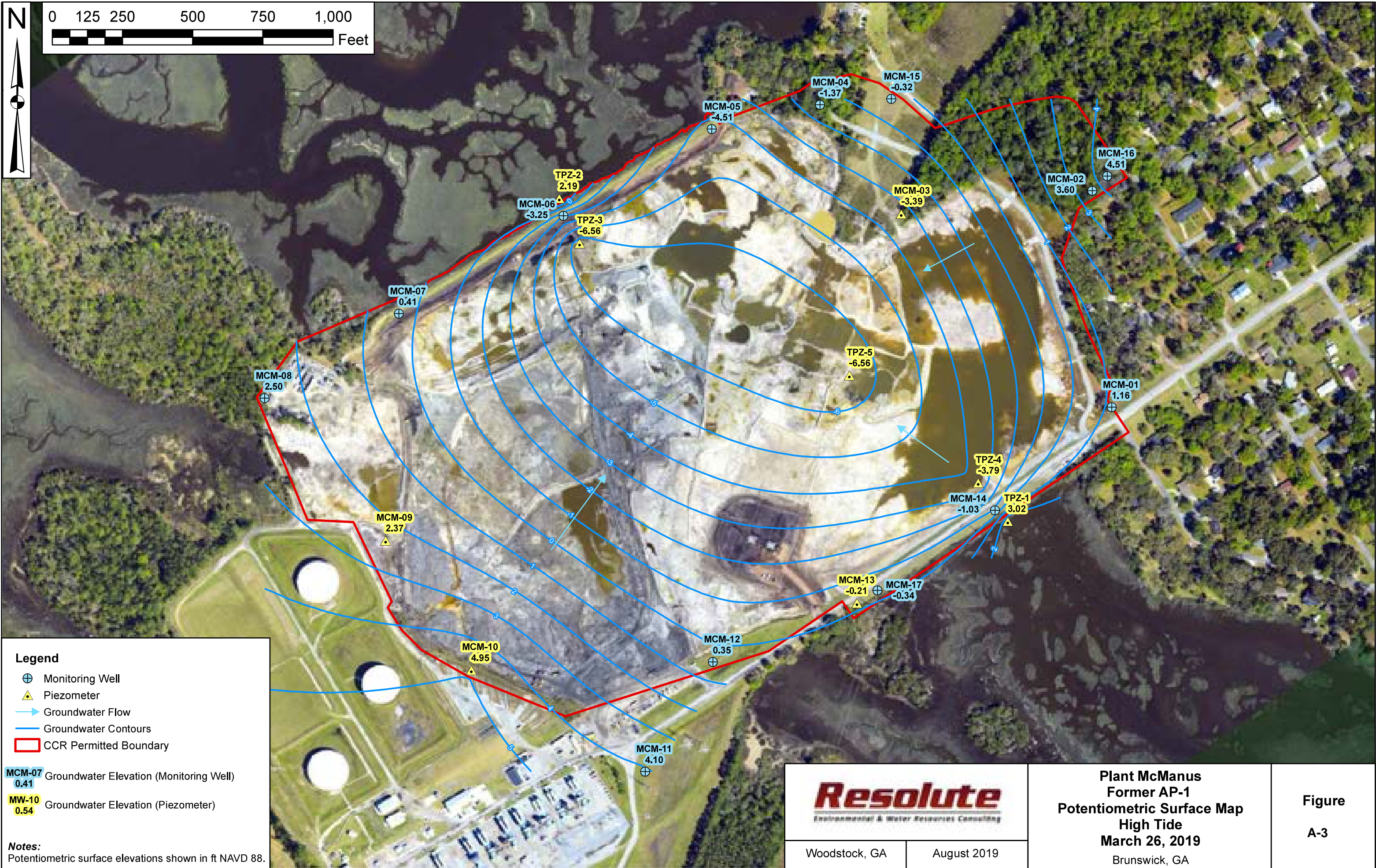
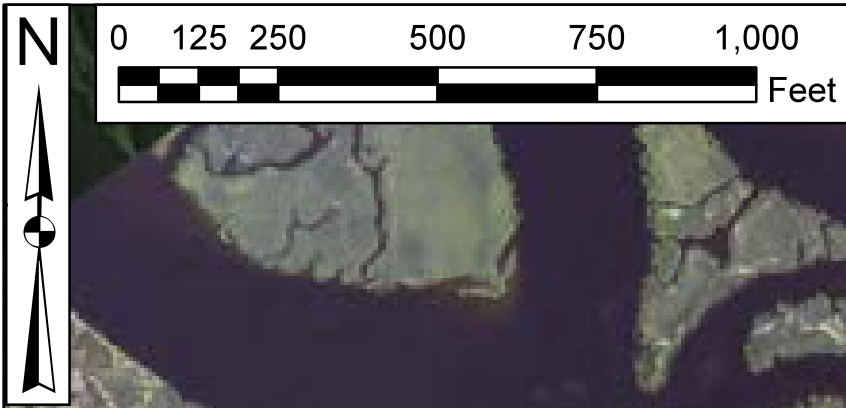
| | | | |
|--|----------|--|-----------------------|
| Resolute
<small>Environmental & Water Resources Consulting</small> | | Plant McManus
Former AP-1
Potentiometric Surface Map
Low Tide March 1, 2021 | Figure
A-1 |
| Woodstock, GA | May 2021 | Brunswick, GA | |



- Legend**
- ▲ Deep Piezometer
 - ⊕ Monitoring Well
 - ▲ Piezometer
 - ⊕ Vertical Delineation Well
 - Groundwater Potentiometric Contour
 - Groundwater Flow Direction
 - CCR Permitted Boundary
-
- MCM-12
3.13 Groundwater Elevation (Monitoring Well)
 - MCM-08
4.07 Groundwater Elevation (Piezometer)
 - DPZ-01
2.38* Groundwater Elevation (Deep Piezometer)
 - DPZ-02
1.82* Groundwater Elevation (Vertical Delineation Well)

Notes:
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

| | | | |
|---------------|----------|--|--|
| | | Plant McManus
 Former AP-1
 Potentiometric Surface Map
 High Tide March 5, 2021 | Figure
 A-2 |
| Woodstock, GA | May 2021 | Brunswick, GA | |



Legend

- ⊕ Monitoring Well
- ▲ Piezometer
- Groundwater Flow
- Groundwater Contours
- ▭ CCR Permitted Boundary

MCM-07 Groundwater Elevation (Monitoring Well)
0.41

MW-10 Groundwater Elevation (Piezometer)
0.54

Notes:
Potentiometric surface elevations shown in ft NAVD 88.

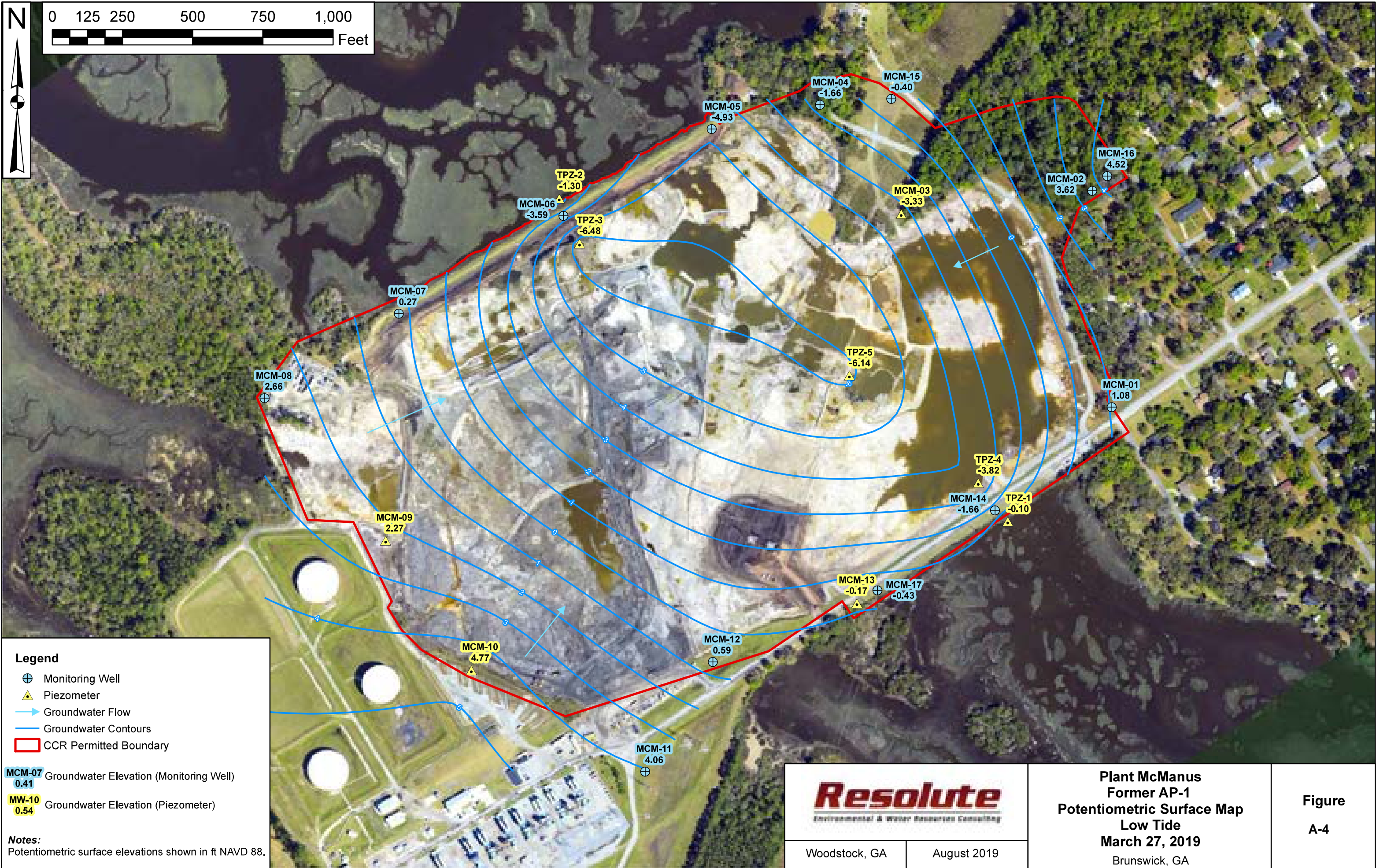
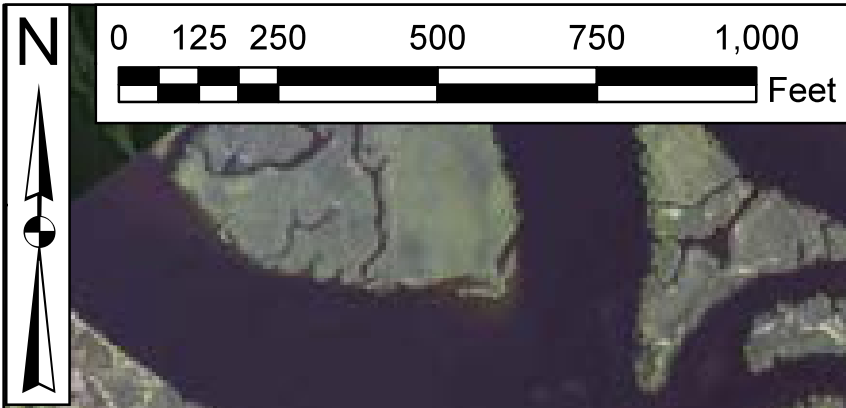
Resolute
Environmental & Water Resources Consulting

Woodstock, GA August 2019

**Plant McManus
Former AP-1
Potentiometric Surface Map
High Tide
March 26, 2019**

Brunswick, GA

**Figure
A-3**



Legend

- ⊕ Monitoring Well
- ▲ Piezometer
- Groundwater Flow
- Groundwater Contours
- ▭ CCR Permitted Boundary

MCM-07 Groundwater Elevation (Monitoring Well)
0.41

MW-10 Groundwater Elevation (Piezometer)
0.54

Notes:
Potentiometric surface elevations shown in ft NAVD 88.

Resolute
Environmental & Water Resources Consulting

Woodstock, GA August 2019

**Plant McManus
Former AP-1
Potentiometric Surface Map
Low Tide
March 27, 2019**

Brunswick, GA

**Figure
A-4**

APPENDIX B

Sampling Log and Analytical Reports





October 19, 2021

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

RE: Project: McManus CCR Sampling-Revised Report
Pace Project No.: 92526099

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 2021. 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

This revision was issued on 9/8/21 to update the chloride results for samples "MCM-17" (92526099-005) and "MCM-20" (92526099-008).

This revision was issued on 10/19/21 to report all requested metals by 6010 and 6020, per client request.

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

Sincerely,

Nicole D'Oleo for
Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company

Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

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 Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92526099001 | MCM-01 | Water | 03/03/21 15:04 | 03/06/21 11:15 |
| 92526099002 | MCM-02 | Water | 03/03/21 16:10 | 03/06/21 11:15 |
| 92526099003 | MCM-11 | Water | 03/03/21 13:35 | 03/06/21 11:15 |
| 92526099004 | MCM-16 | Water | 03/03/21 12:46 | 03/06/21 11:15 |
| 92526099005 | MCM-17 | Water | 03/03/21 10:48 | 03/06/21 11:15 |
| 92526099006 | MCM-18 | Water | 03/03/21 14:57 | 03/06/21 11:15 |
| 92526099007 | MCM-19 | Water | 03/03/21 10:38 | 03/06/21 11:15 |
| 92526099008 | MCM-20 | Water | 03/03/21 11:24 | 03/06/21 11:15 |
| 92526099009 | FB-2 | Water | 03/03/21 16:42 | 03/06/21 11:15 |
| 92526099010 | EB-1 | Water | 03/03/21 16:41 | 03/06/21 11:15 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92526099001 | MCM-01 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099002 | MCM-02 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099003 | MCM-11 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099004 | MCM-16 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099005 | MCM-17 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099006 | MCM-18 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099007 | MCM-19 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| 92526099008 | MCM-20 | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92526099009 | FB-2 | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| | | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| 92526099010 | EB-1 | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |
| | | EPA 6010D | SH1 | 4 | PASI-A |
| | | EPA 6020B | JOR | 8 | PASI-A |
| | | SM 2320B-2011 | ECH | 3 | PASI-A |
| | | SM 2540C-2011 | RED | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JLH | 3 | PASI-A |

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|----------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92526099001 | MCM-01 | | | | | |
| | Performed by | CUSTOMER | | | 03/11/21 14:01 | |
| | pH | 5.81 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 14.0 | mg/L | 1.0 | 03/13/21 01:14 | |
| EPA 6010D | Magnesium | 1.7 | mg/L | 1.0 | 03/13/21 01:14 | |
| EPA 6010D | Sodium | 14.2J | mg/L | 50.0 | 03/13/21 01:14 | |
| EPA 6020B | Arsenic | 0.016J | mg/L | 0.050 | 03/11/21 13:34 | |
| EPA 6020B | Barium | 0.14 | mg/L | 0.050 | 03/11/21 13:34 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 15.8 | mg/L | 5.0 | 03/12/21 13:57 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 15.8 | mg/L | 5.0 | 03/12/21 13:57 | |
| SM 2540C-2011 | Total Dissolved Solids | 99.0 | mg/L | 25.0 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 13.6 | mg/L | 1.0 | 03/08/21 07:11 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 33.8 | mg/L | 1.0 | 03/08/21 07:11 | |
| 92526099002 | MCM-02 | | | | | |
| | Performed by | CUSTOMER | | | 03/11/21 14:01 | |
| | pH | 5.06 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 4.0 | mg/L | 1.0 | 03/13/21 01:27 | |
| EPA 6010D | Magnesium | 2.3 | mg/L | 1.0 | 03/13/21 01:27 | |
| EPA 6010D | Sodium | 18.7J | mg/L | 50.0 | 03/13/21 01:27 | |
| EPA 6020B | Barium | 0.21 | mg/L | 0.050 | 03/11/21 13:37 | |
| SM 2540C-2011 | Total Dissolved Solids | 84.0 | mg/L | 25.0 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 20.5 | mg/L | 1.0 | 03/08/21 07:26 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 27.6 | mg/L | 1.0 | 03/08/21 07:26 | |
| 92526099003 | MCM-11 | | | | | |
| | Performed by | CUSTOMER | | | 03/11/21 14:01 | |
| | pH | 5.07 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 2.1 | mg/L | 1.0 | 03/13/21 01:30 | |
| EPA 6010D | Magnesium | 1.3 | mg/L | 1.0 | 03/13/21 01:30 | |
| EPA 6010D | Sodium | 11.3J | mg/L | 50.0 | 03/13/21 01:30 | |
| EPA 6020B | Arsenic | 0.011J | mg/L | 0.050 | 03/11/21 13:41 | |
| EPA 6020B | Barium | 0.090 | mg/L | 0.050 | 03/11/21 13:41 | |
| SM 2540C-2011 | Total Dissolved Solids | 66.0 | mg/L | 25.0 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 9.4 | mg/L | 1.0 | 03/08/21 07:40 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.082J | mg/L | 0.10 | 03/08/21 07:40 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 19.9 | mg/L | 1.0 | 03/08/21 07:40 | |
| 92526099004 | MCM-16 | | | | | |
| | Performed by | CUSTOMER | | | 03/11/21 14:01 | |
| | pH | 5.71 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 11.2 | mg/L | 1.0 | 03/13/21 01:34 | |
| EPA 6010D | Magnesium | 3.0 | mg/L | 1.0 | 03/13/21 01:34 | |
| EPA 6010D | Sodium | 19.7J | mg/L | 50.0 | 03/13/21 01:34 | |
| EPA 6020B | Arsenic | 0.0012J | mg/L | 0.010 | 03/22/21 14:36 | |
| EPA 6020B | Barium | 0.059 | mg/L | 0.010 | 03/22/21 14:36 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 10.7 | mg/L | 5.0 | 03/12/21 14:30 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92526099004 | MCM-16 | | | | | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 10.7 | mg/L | 5.0 | 03/12/21 14:30 | |
| SM 2540C-2011 | Total Dissolved Solids | 122 | mg/L | 25.0 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 27.6 | mg/L | 1.0 | 03/08/21 07:55 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 30.5 | mg/L | 1.0 | 03/08/21 07:55 | |
| 92526099005 | MCM-17 | | | | | |
| | Performed by | CUSTOME | | | 03/11/21 14:01 | |
| | | R | | | | |
| | pH | 6.58 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 143 | mg/L | 1.0 | 03/13/21 01:50 | |
| EPA 6010D | Magnesium | 266 | mg/L | 1.0 | 03/13/21 01:50 | |
| EPA 6010D | Potassium | 107 | mg/L | 50.0 | 03/13/21 01:50 | |
| EPA 6010D | Sodium | 2650 | mg/L | 500 | 03/13/21 00:15 | |
| EPA 6020B | Barium | 0.17 | mg/L | 0.050 | 03/22/21 14:49 | |
| EPA 6020B | Boron | 1.7J | mg/L | 2.5 | 03/22/21 14:49 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 407 | mg/L | 5.0 | 03/12/21 20:02 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 407 | mg/L | 5.0 | 03/12/21 20:02 | |
| SM 2540C-2011 | Total Dissolved Solids | 8830 | mg/L | 833 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 3920 | mg/L | 100 | 03/08/21 17:46 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.58J | mg/L | 0.90 | 03/08/21 14:24 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 420 | mg/L | 9.0 | 03/08/21 14:24 | |
| 92526099006 | MCM-18 | | | | | |
| | Performed by | CUSTOME | | | 03/11/21 14:01 | |
| | | R | | | | |
| | pH | 4.37 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 26.0 | mg/L | 1.0 | 03/13/21 01:53 | |
| EPA 6010D | Magnesium | 86.5 | mg/L | 1.0 | 03/13/21 01:53 | |
| EPA 6010D | Sodium | 792 | mg/L | 50.0 | 03/13/21 01:53 | |
| EPA 6020B | Arsenic | 0.0014J | mg/L | 0.010 | 03/22/21 14:53 | |
| EPA 6020B | Barium | 0.099 | mg/L | 0.010 | 03/22/21 14:53 | |
| EPA 6020B | Beryllium | 0.0030 | mg/L | 0.0010 | 03/22/21 14:53 | |
| EPA 6020B | Boron | 0.21J | mg/L | 0.50 | 03/22/21 14:53 | |
| EPA 6020B | Selenium | 0.0012J | mg/L | 0.020 | 03/22/21 14:53 | |
| SM 2540C-2011 | Total Dissolved Solids | 2620 | mg/L | 417 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 1230 | mg/L | 27.0 | 03/08/21 14:38 | |
| EPA 300.0 Rev 2.1 1993 | Fluoride | 0.32 | mg/L | 0.10 | 03/08/21 08:24 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 171 | mg/L | 27.0 | 03/08/21 14:38 | |
| 92526099007 | MCM-19 | | | | | |
| | Performed by | CUSTOME | | | 03/11/21 14:01 | |
| | | R | | | | |
| | pH | 5.10 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 123 | mg/L | 1.0 | 03/13/21 01:57 | |
| EPA 6010D | Magnesium | 377 | mg/L | 1.0 | 03/13/21 01:57 | |
| EPA 6010D | Potassium | 52.6 | mg/L | 50.0 | 03/13/21 01:57 | |
| EPA 6010D | Sodium | 3150 | mg/L | 500 | 03/13/21 00:28 | |
| EPA 6020B | Arsenic | 0.0086J | mg/L | 0.020 | 03/22/21 14:56 | |
| EPA 6020B | Barium | 0.14 | mg/L | 0.020 | 03/22/21 14:56 | |

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab Sample ID
Method | Client Sample ID
Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|-------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| 92526099007 | MCM-19 | | | | | |
| EPA 6020B | Beryllium | 0.015 | mg/L | 0.0020 | 03/22/21 14:56 | |
| EPA 6020B | Boron | 0.79J | mg/L | 1.0 | 03/22/21 14:56 | |
| EPA 6020B | Lithium | 0.019J | mg/L | 0.050 | 03/22/21 14:56 | |
| EPA 6020B | Selenium | 0.013J | mg/L | 0.040 | 03/22/21 14:56 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 5.6 | mg/L | 5.0 | 03/12/21 15:01 | |
| SM 2320B-2011 | Alkalinity, Total as CaCO3 | 5.6 | mg/L | 5.0 | 03/12/21 15:01 | |
| SM 2540C-2011 | Total Dissolved Solids | 11000 | mg/L | 1250 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5170 | mg/L | 100 | 03/08/21 18:00 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 708 | mg/L | 11.0 | 03/08/21 15:21 | |
| 92526099008 | MCM-20 | | | | | |
| | Performed by | CUSTOME | | | 03/11/21 14:01 | |
| | | R | | | | |
| | pH | 3.36 | Std. Units | | 03/11/21 14:01 | |
| EPA 6010D | Calcium | 110 | mg/L | 1.0 | 03/13/21 02:00 | |
| EPA 6010D | Magnesium | 334 | mg/L | 1.0 | 03/13/21 02:00 | |
| EPA 6010D | Potassium | 68.2 | mg/L | 50.0 | 03/13/21 02:00 | |
| EPA 6010D | Sodium | 3360 | mg/L | 500 | 03/13/21 00:32 | |
| EPA 6020B | Arsenic | 0.016J | mg/L | 0.020 | 03/22/21 14:59 | |
| EPA 6020B | Barium | 0.12 | mg/L | 0.020 | 03/22/21 14:59 | |
| EPA 6020B | Beryllium | 0.014 | mg/L | 0.0020 | 03/22/21 14:59 | |
| EPA 6020B | Boron | 0.91J | mg/L | 1.0 | 03/22/21 14:59 | |
| EPA 6020B | Cobalt | 0.033 | mg/L | 0.020 | 03/22/21 14:59 | |
| EPA 6020B | Lithium | 0.018J | mg/L | 0.050 | 03/22/21 14:59 | |
| EPA 6020B | Selenium | 0.0094J | mg/L | 0.040 | 03/22/21 14:59 | |
| SM 2540C-2011 | Total Dissolved Solids | 11400 | mg/L | 2500 | 03/09/21 18:56 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5500 | mg/L | 100 | 03/08/21 15:35 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 743 | mg/L | 100 | 03/08/21 15:35 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: MCM-01 **Lab ID: 92526099001** Collected: 03/03/21 15:04 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 5.81 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|------|------|----|----------------|----------------|-----------|----|
| Calcium | 14.0 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:14 | 7440-70-2 | |
| Magnesium | 1.7 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:14 | 7439-95-4 | |
| Potassium | ND | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:14 | 7440-09-7 | M6 |
| Sodium | 14.2J | mg/L | 50.0 | 6.1 | 10 | 03/09/21 01:10 | 03/13/21 01:14 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|---------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | 0.016J | mg/L | 0.050 | 0.0043 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7440-38-2 | |
| Barium | 0.14 | mg/L | 0.050 | 0.011 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7440-41-7 | |
| Boron | ND | mg/L | 2.5 | 0.42 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7440-48-4 | |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.12 | 0.025 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/09/21 01:07 | 03/11/21 13:34 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | 15.8 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 13:57 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 13:57 | | |
| Alkalinity, Total as CaCO3 | 15.8 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 13:57 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 99.0 | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 13.6 | mg/L | 1.0 | 0.60 | 1 | | 03/08/21 07:11 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 07:11 | 16984-48-8 | |
| Sulfate | 33.8 | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 07:11 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

Sample: MCM-02 **Lab ID: 92526099002** Collected: 03/03/21 16:10 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 5.06 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 4.0 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:27 | 7440-70-2 | |
| Magnesium | 2.3 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:27 | 7439-95-4 | |
| Potassium | ND | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:27 | 7440-09-7 | |
| Sodium | 18.7J | mg/L | 50.0 | 6.1 | 10 | 03/09/21 01:10 | 03/13/21 01:27 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7440-38-2 | |
| Barium | 0.21 | mg/L | 0.050 | 0.011 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7440-41-7 | |
| Boron | ND | mg/L | 2.5 | 0.42 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7440-48-4 | |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.12 | 0.025 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/09/21 01:07 | 03/11/21 13:37 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|----|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:22 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:22 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:22 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 84.0 | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 20.5 | mg/L | 1.0 | 0.60 | 1 | | 03/08/21 07:26 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 07:26 | 16984-48-8 | |
| Sulfate | 27.6 | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 07:26 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

Sample: MCM-11 **Lab ID: 92526099003** Collected: 03/03/21 13:35 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 5.07 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 2.1 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:30 | 7440-70-2 | |
| Magnesium | 1.3 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:30 | 7439-95-4 | |
| Potassium | ND | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:30 | 7440-09-7 | |
| Sodium | 11.3J | mg/L | 50.0 | 6.1 | 10 | 03/09/21 01:10 | 03/13/21 01:30 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|---------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | 0.011J | mg/L | 0.050 | 0.0043 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7440-38-2 | |
| Barium | 0.090 | mg/L | 0.050 | 0.011 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7440-41-7 | |
| Boron | ND | mg/L | 2.5 | 0.42 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7440-48-4 | |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.12 | 0.025 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/09/21 01:07 | 03/11/21 13:41 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|----|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:27 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:27 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:27 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 66.0 | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
|------------------------|-------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|---------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 9.4 | mg/L | 1.0 | 0.60 | 1 | | 03/08/21 07:40 | 16887-00-6 | |
| Fluoride | 0.082J | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 07:40 | 16984-48-8 | |
| Sulfate | 19.9 | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 07:40 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

Sample: MCM-16 **Lab ID: 92526099004** Collected: 03/03/21 12:46 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 5.71 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|--------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 11.2 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:34 | 7440-70-2 | |
| Magnesium | 3.0 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:34 | 7439-95-4 | |
| Potassium | ND | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:34 | 7440-09-7 | |
| Sodium | 19.7J | mg/L | 50.0 | 6.1 | 10 | 03/09/21 01:10 | 03/13/21 01:34 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|----------------|------|--------|---------|----|----------------|----------------|-----------|----|
| Arsenic | 0.0012J | mg/L | 0.010 | 0.00087 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7440-38-2 | |
| Barium | 0.059 | mg/L | 0.010 | 0.0021 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0010 | 0.00050 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7440-41-7 | |
| Boron | ND | mg/L | 0.50 | 0.085 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7440-42-8 | M6 |
| Cobalt | ND | mg/L | 0.010 | 0.00050 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7440-48-4 | |
| Lead | ND | mg/L | 0.010 | 0.00077 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.025 | 0.0050 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.020 | 0.00072 | 10 | 03/09/21 01:07 | 03/22/21 14:36 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | 10.7 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:30 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:30 | | |
| Alkalinity, Total as CaCO3 | 10.7 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:30 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 122 | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
|------------------------|------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|---|--|----------------|------------|--|
| Chloride | 27.6 | mg/L | 1.0 | 0.60 | 1 | | 03/08/21 07:55 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 07:55 | 16984-48-8 | |
| Sulfate | 30.5 | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 07:55 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: MCM-17 **Lab ID: 92526099005** Collected: 03/03/21 10:48 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 6.58 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 143 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:50 | 7440-70-2 | |
| Magnesium | 266 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:50 | 7439-95-4 | |
| Potassium | 107 | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:50 | 7440-09-7 | |
| Sodium | 2650 | mg/L | 500 | 61.1 | 100 | 03/09/21 01:10 | 03/13/21 00:15 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | ND | mg/L | 0.050 | 0.0043 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7440-38-2 | |
| Barium | 0.17 | mg/L | 0.050 | 0.011 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7440-41-7 | |
| Boron | 1.7J | mg/L | 2.5 | 0.42 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7440-48-4 | |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.12 | 0.025 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/09/21 01:07 | 03/22/21 14:49 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | 407 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 20:02 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 20:02 | | |
| Alkalinity, Total as CaCO3 | 407 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 20:02 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 8830 | mg/L | 833 | 833 | 1 | | 03/09/21 18:56 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|--------------|------|------|------|-----|--|----------------|------------|--|
| Chloride | 3920 | mg/L | 100 | 60.0 | 100 | | 03/08/21 17:46 | 16887-00-6 | |
| Fluoride | 0.58J | mg/L | 0.90 | 0.45 | 9 | | 03/08/21 14:24 | 16984-48-8 | |
| Sulfate | 420 | mg/L | 9.0 | 4.5 | 9 | | 03/08/21 14:24 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

Sample: MCM-18 **Lab ID: 92526099006** Collected: 03/03/21 14:57 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 4.37 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|----|----------------|----------------|-----------|--|
| Calcium | 26.0 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:53 | 7440-70-2 | |
| Magnesium | 86.5 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:53 | 7439-95-4 | |
| Potassium | ND | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:53 | 7440-09-7 | |
| Sodium | 792 | mg/L | 50.0 | 6.1 | 10 | 03/09/21 01:10 | 03/13/21 01:53 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|----------------|------|--------|---------|----|----------------|----------------|-----------|--|
| Arsenic | 0.0014J | mg/L | 0.010 | 0.00087 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7440-38-2 | |
| Barium | 0.099 | mg/L | 0.010 | 0.0021 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7440-39-3 | |
| Beryllium | 0.0030 | mg/L | 0.0010 | 0.00050 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7440-41-7 | |
| Boron | 0.21J | mg/L | 0.50 | 0.085 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.010 | 0.00050 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7440-48-4 | |
| Lead | ND | mg/L | 0.010 | 0.00077 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.025 | 0.0050 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7439-93-2 | |
| Selenium | 0.0012J | mg/L | 0.020 | 0.00072 | 10 | 03/09/21 01:07 | 03/22/21 14:53 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|----|------|-----|-----|---|--|----------------|--|----|
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:46 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:46 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 14:46 | | M1 |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 2620 | mg/L | 417 | 417 | 1 | | 03/09/21 18:56 | | |
|------------------------|-------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|----|--|----------------|------------|--|
| Chloride | 1230 | mg/L | 27.0 | 16.2 | 27 | | 03/08/21 14:38 | 16887-00-6 | |
| Fluoride | 0.32 | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 08:24 | 16984-48-8 | |
| Sulfate | 171 | mg/L | 27.0 | 13.5 | 27 | | 03/08/21 14:38 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: MCM-19 **Lab ID: 92526099007** Collected: 03/03/21 10:38 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 5.10 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 123 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 01:57 | 7440-70-2 | |
| Magnesium | 377 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 01:57 | 7439-95-4 | |
| Potassium | 52.6 | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 01:57 | 7440-09-7 | |
| Sodium | 3150 | mg/L | 500 | 61.1 | 100 | 03/09/21 01:10 | 03/13/21 00:28 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|----------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | 0.0086J | mg/L | 0.020 | 0.0017 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7440-38-2 | |
| Barium | 0.14 | mg/L | 0.020 | 0.0043 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7440-39-3 | |
| Beryllium | 0.015 | mg/L | 0.0020 | 0.0010 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7440-41-7 | |
| Boron | 0.79J | mg/L | 1.0 | 0.17 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.020 | 0.0010 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7439-92-1 | |
| Lithium | 0.019J | mg/L | 0.050 | 0.010 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7439-93-2 | |
| Selenium | 0.013J | mg/L | 0.040 | 0.0014 | 20 | 03/09/21 01:07 | 03/22/21 14:56 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Bicarbonate (CaCO3) | 5.6 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 15:01 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 15:01 | | |
| Alkalinity, Total as CaCO3 | 5.6 | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 15:01 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 11000 | mg/L | 1250 | 1250 | 1 | | 03/09/21 18:56 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|------|-----|--|----------------|------------|--|
| Chloride | 5170 | mg/L | 100 | 60.0 | 100 | | 03/08/21 18:00 | 16887-00-6 | |
| Fluoride | ND | mg/L | 1.1 | 0.55 | 11 | | 03/08/21 15:21 | 16984-48-8 | |
| Sulfate | 708 | mg/L | 11.0 | 5.5 | 11 | | 03/08/21 15:21 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: MCM-20 **Lab ID: 92526099008** Collected: 03/03/21 11:24 Received: 03/06/21 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 | | 03/11/21 14:01 | | |
| pH | 3.36 | Std. Units | | | 1 | | 03/11/21 14:01 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|------|------|-----|----------------|----------------|-----------|--|
| Calcium | 110 | mg/L | 1.0 | 0.94 | 10 | 03/09/21 01:10 | 03/13/21 02:00 | 7440-70-2 | |
| Magnesium | 334 | mg/L | 1.0 | 0.68 | 10 | 03/09/21 01:10 | 03/13/21 02:00 | 7439-95-4 | |
| Potassium | 68.2 | mg/L | 50.0 | 30.4 | 10 | 03/09/21 01:10 | 03/13/21 02:00 | 7440-09-7 | |
| Sodium | 3360 | mg/L | 500 | 61.1 | 100 | 03/09/21 01:10 | 03/13/21 00:32 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|----------------|------|--------|--------|----|----------------|----------------|-----------|--|
| Arsenic | 0.016J | mg/L | 0.020 | 0.0017 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7440-38-2 | |
| Barium | 0.12 | mg/L | 0.020 | 0.0043 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7440-39-3 | |
| Beryllium | 0.014 | mg/L | 0.0020 | 0.0010 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7440-41-7 | |
| Boron | 0.91J | mg/L | 1.0 | 0.17 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7440-42-8 | |
| Cobalt | 0.033 | mg/L | 0.020 | 0.0010 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7440-48-4 | |
| Lead | ND | mg/L | 0.020 | 0.0015 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7439-92-1 | |
| Lithium | 0.018J | mg/L | 0.050 | 0.010 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7439-93-2 | |
| Selenium | 0.0094J | mg/L | 0.040 | 0.0014 | 20 | 03/09/21 01:07 | 03/22/21 14:59 | 7782-49-2 | |

2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------------------------------|----|------|-----|-----|---|--|----------------|--|----|
| Alkalinity, Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:51 | | |
| Alkalinity, Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:51 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:51 | | M1 |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|
| Total Dissolved Solids | 11400 | mg/L | 2500 | 2500 | 1 | | 03/09/21 18:56 | | |
|------------------------|--------------|------|------|------|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|------|-------|-----|--|----------------|------------|--|
| Chloride | 5500 | mg/L | 100 | 60.0 | 100 | | 03/08/21 15:35 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 09:36 | 16984-48-8 | |
| Sulfate | 743 | mg/L | 100 | 50.0 | 100 | | 03/08/21 15:35 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: FB-2 **Lab ID: 92526099009** Collected: 03/03/21 16:42 Received: 03/06/21 11:15 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|---------|----------|----|----------------|----------------|------------|-------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/09/21 01:10 | 03/13/21 00:35 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/09/21 01:10 | 03/13/21 00:35 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/09/21 01:10 | 03/13/21 00:35 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/09/21 01:10 | 03/13/21 00:35 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/09/21 01:07 | 03/16/21 13:29 | 7782-49-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:58 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:58 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 16:58 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
| 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 | | 03/08/21 09:50 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 09:50 | 16984-48-8 | M1,R1 |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 09:50 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

Sample: EB-1 **Lab ID: 92526099010** Collected: 03/03/21 16:41 Received: 03/06/21 11:15 Matrix: Water

| Parameters | Results | Units | Report | | | Prepared | Analyzed | CAS No. | Qual |
|---|---------|-------|---------|----------|----|----------------|----------------|------------|------|
| | | | Limit | MDL | DF | | | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | ND | mg/L | 0.10 | 0.094 | 1 | 03/09/21 01:10 | 03/13/21 00:38 | 7440-70-2 | |
| Magnesium | ND | mg/L | 0.10 | 0.068 | 1 | 03/09/21 01:10 | 03/13/21 00:38 | 7439-95-4 | |
| Potassium | ND | mg/L | 5.0 | 3.0 | 1 | 03/09/21 01:10 | 03/13/21 00:38 | 7440-09-7 | |
| Sodium | ND | mg/L | 5.0 | 0.61 | 1 | 03/09/21 01:10 | 03/13/21 00:38 | 7440-23-5 | |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Arsenic | ND | mg/L | 0.0010 | 0.000087 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7440-38-2 | |
| Barium | ND | mg/L | 0.0010 | 0.00021 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.00010 | 0.000050 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7440-41-7 | |
| Boron | ND | mg/L | 0.050 | 0.0085 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7440-42-8 | |
| Cobalt | ND | mg/L | 0.0010 | 0.000050 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7440-48-4 | |
| Lead | ND | mg/L | 0.0010 | 0.000077 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7439-92-1 | |
| Lithium | ND | mg/L | 0.0025 | 0.00050 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7439-93-2 | |
| Selenium | ND | mg/L | 0.0020 | 0.000072 | 1 | 03/09/21 01:07 | 03/16/21 13:32 | 7782-49-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 17:16 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 17:16 | | |
| Alkalinity, Total as CaCO3 | ND | mg/L | 5.0 | 5.0 | 1 | | 03/12/21 17:16 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011 | | | | | | | | | |
| Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | ND | mg/L | 25.0 | 25.0 | 1 | | 03/09/21 18:56 | | |
| 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 | | 03/08/21 10:34 | 16887-00-6 | |
| Fluoride | ND | mg/L | 0.10 | 0.050 | 1 | | 03/08/21 10:34 | 16984-48-8 | |
| Sulfate | ND | mg/L | 1.0 | 0.50 | 1 | | 03/08/21 10:34 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 605089 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3187889 | Matrix: | Water |
| Associated Lab Samples: | 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/12/21 23:46 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/12/21 23:46 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/12/21 23:46 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/12/21 23:46 | |

LABORATORY CONTROL SAMPLE: 3187890

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.9 | 98 | 80-120 | |
| Magnesium | mg/L | 5 | 4.9 | 99 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 92 | 80-120 | |
| Sodium | mg/L | 5 | 5.1 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3187891 3187892

| Parameter | Units | 3187891 | | 3187892 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|-------|
| | | 92526099001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | |
| Calcium | mg/L | 14.0 | 5 | 5 | 18.4 | 18.9 | 88 | 98 | 75-125 | 3 | 20 |
| Magnesium | mg/L | 1.7 | 5 | 5 | 7.0 | 7.0 | 106 | 106 | 75-125 | 0 | 20 |
| Potassium | mg/L | ND | 5 | 5 | ND | ND | 0 | 0 | 75-125 | | 20 M6 |
| Sodium | mg/L | 14.2J | 5 | 5 | 18.7J | 19.4J | 91 | 104 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

QC Batch: 605091 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3010A Analysis Description: 6020 MET
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92526099001, 92526099002, 92526099003

METHOD BLANK: 3187897 Matrix: Water
 Associated Lab Samples: 92526099001, 92526099002, 92526099003

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/10/21 17:17 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/10/21 17:17 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/10/21 17:17 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/10/21 17:17 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/10/21 17:17 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/10/21 17:17 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/10/21 17:17 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/10/21 17:17 | |

LABORATORY CONTROL SAMPLE: 3187898

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.01 | 0.0099 | 99 | 80-120 | |
| Barium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Beryllium | mg/L | 0.01 | 0.0099 | 99 | 80-120 | |
| Boron | mg/L | 0.05 | 0.048J | 96 | 80-120 | |
| Cobalt | mg/L | 0.01 | 0.010 | 102 | 80-120 | |
| Lead | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3187899 3187900

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | 92526014042 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Arsenic | mg/L | ND | 0.01 | 0.01 | 0.013J | 0.013J | 94 | 98 | 75-125 | | 20 |
| Barium | mg/L | 0.022J | 0.05 | 0.05 | 0.072 | 0.077 | 99 | 110 | 75-125 | 7 | 20 |
| Beryllium | mg/L | ND | 0.01 | 0.01 | 0.0091 | 0.012 | 91 | 120 | 75-125 | 28 | 20 |
| Boron | mg/L | 2.0J | 0.05 | 0.05 | 2.0J | 2.0J | 46 | 79 | 75-125 | | 20 M6 |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.056 | 0.056 | 113 | 112 | 75-125 | 1 | 20 |
| Lithium | mg/L | 0.084J | 0.05 | 0.05 | 0.13 | 0.12J | 86 | 82 | 75-125 | | 20 |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.052J | 0.053J | 102 | 104 | 75-125 | | 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

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 605092 | Analysis Method: | EPA 6020B |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6020 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010

METHOD BLANK: 3187901 Matrix: Water

Associated Lab Samples: 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|----------|----------------|------------|
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/16/21 13:16 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/16/21 13:16 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/16/21 13:16 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/16/21 13:16 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/16/21 13:16 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/16/21 13:16 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/16/21 13:16 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/16/21 13:16 | |

LABORATORY CONTROL SAMPLE: 3187902

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.01 | 0.011 | 106 | 80-120 | |
| Barium | mg/L | 0.05 | 0.052 | 105 | 80-120 | |
| Beryllium | mg/L | 0.01 | 0.010 | 104 | 80-120 | |
| Boron | mg/L | 0.05 | 0.054 | 108 | 80-120 | |
| Cobalt | mg/L | 0.01 | 0.011 | 105 | 80-120 | |
| Lead | mg/L | 0.05 | 0.053 | 105 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.052 | 105 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.051 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3187903 3187904

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | Spike Conc. | Result | Spike Conc. | Result | | | | | | |
| Arsenic | mg/L | 0.0012J | 0.01 | 0.01 | 0.011 | 0.012 | 100 | 108 | 75-125 | 8 | 20 |
| Barium | mg/L | 0.059 | 0.05 | 0.05 | 0.11 | 0.11 | 103 | 102 | 75-125 | 1 | 20 |
| Beryllium | mg/L | ND | 0.01 | 0.01 | 0.0085 | 0.0098 | 84 | 97 | 75-125 | 14 | 20 |
| Boron | mg/L | ND | 0.05 | 0.05 | 0.11J | 0.097J | 93 | 74 | 75-125 | | 20 M6 |
| Cobalt | mg/L | ND | 0.01 | 0.01 | 0.011 | 0.011 | 106 | 113 | 75-125 | 6 | 20 |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.058 | 0.058 | 116 | 116 | 75-125 | 0 | 20 |
| Lithium | mg/L | ND | 0.05 | 0.05 | 0.041 | 0.048 | 81 | 96 | 75-125 | 17 | 20 |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.042 | 0.048 | 84 | 96 | 75-125 | 14 | 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

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

QC Batch: 606220 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007

METHOD BLANK: 3193657 Matrix: Water
 Associated Lab Samples: 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 03/12/21 12:40 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 03/12/21 12:40 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 03/12/21 12:40 | |

LABORATORY CONTROL SAMPLE: 3193658

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.4 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3193659 3193660

| Parameter | Units | 92526098001 | | 3193660 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | 496 | 50 | 506 | 510 | 20 | 28 | 80-120 | 1 | 25 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3193661 3193662

| Parameter | Units | 92526099006 | | 3193662 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | ND | 50 | 25.2 | 25.5 | 50 | 51 | 80-120 | 1 | 25 | 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

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| | | | |
|-------------------------|---------------------------------------|-----------------------|--------------------------------------|
| QC Batch: | 606222 | Analysis Method: | SM 2320B-2011 |
| QC Batch Method: | SM 2320B-2011 | Analysis Description: | 2320B Alkalinity |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92526099008, 92526099009, 92526099010 | | |

METHOD BLANK: 3193668 Matrix: Water

Associated Lab Samples: 92526099008, 92526099009, 92526099010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | ND | 5.0 | 5.0 | 03/12/21 16:41 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 03/12/21 16:41 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 03/12/21 16:41 | |

LABORATORY CONTROL SAMPLE: 3193669

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------------------|-------|-------------|------------|-----------|--------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 50 | 51.5 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3193670 3193671

| Parameter | Units | 92526099008 | | 3193671 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|----------------|-----------|-----------------|-------|-------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MS Result | MSD Spike Conc. | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | ND | 50 | ND | 50 | 0 | 0 | 80-120 | | 25 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3194100 3194101

| Parameter | Units | 92526099009 | | 3194101 | | % Rec | % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|-------------|----------------|-----------|-----------------|-------|-------|--------------|-----|---------|------|
| | | Result | MS Spike Conc. | MS Result | MSD Spike Conc. | | | | | | |
| Alkalinity, Total as CaCO3 | mg/L | ND | 50 | 51.4 | 51.6 | 103 | 103 | 80-120 | 0 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

QC Batch: 605313 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010

METHOD BLANK: 3189077 Matrix: Water
 Associated Lab Samples: 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/09/21 18:55 | |

LABORATORY CONTROL SAMPLE: 3189078

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 251 | 254 | 101 | 90-110 | |

SAMPLE DUPLICATE: 3189079

| Parameter | Units | 92526014031 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 13900 | 14300 | 3 | 25 | |

SAMPLE DUPLICATE: 3189080

| Parameter | Units | 92526099006 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 2620 | 2670 | 2 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| | | | |
|-------------------------|--|-----------------------|--------------------------------------|
| QC Batch: | 604773 | Analysis Method: | EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: | EPA 300.0 Rev 2.1 1993 | Analysis Description: | 300.0 IC Anions |
| | | Laboratory: | Pace Analytical Services - Asheville |
| Associated Lab Samples: | 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010 | | |

| | | | |
|-------------------------|--|---------|-------|
| METHOD BLANK: | 3186355 | Matrix: | Water |
| Associated Lab Samples: | 92526099001, 92526099002, 92526099003, 92526099004, 92526099005, 92526099006, 92526099007, 92526099008, 92526099009, 92526099010 | | |

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/08/21 05:16 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/08/21 05:16 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/08/21 05:16 | |

| LABORATORY CONTROL SAMPLE: 3186356 | | | | | | |
|------------------------------------|-------|-------------|------------|-----------|--------------|------------|
| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
| Chloride | mg/L | 50 | 49.7 | 99 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.5 | 101 | 90-110 | |
| Sulfate | mg/L | 50 | 50.4 | 101 | 90-110 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3186357 | | | | | | | | | | | | 3186358 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92526098004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
| Chloride | mg/L | 5520 | 50 | 50 | 5710 | 5750 | 381 | 460 | 90-110 | 1 | 10 | M6 | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | ND | ND | 0 | 0 | 90-110 | | 10 | M1 | |
| Sulfate | mg/L | 96.5 | 50 | 50 | 724 | 737 | 1260 | 1280 | 90-110 | 2 | 10 | M6 | |

| MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3186359 | | | | | | | | | | | | 3186360 | |
|--|-------|--------------------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|---------|--|
| Parameter | Units | 92526099009 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 | 49.2 | 49.2 | 97 | 97 | 90-110 | 0 | 10 | | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 3.2 | 2.8 | 129 | 113 | 90-110 | 13 | 10 | M1,R1 | |
| Sulfate | mg/L | ND | 50 | 50 | 50.1 | 49.8 | 99 | 99 | 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

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



QUALIFIERS

Project: McManus CCR Sampling-Revised Report
Pace Project No.: 92526099

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.
M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McManus CCR Sampling-Revised Report
 Pace Project No.: 92526099

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|-----------------|----------|-------------------|------------------|
| 92526099001 | MCM-01 | | | | |
| 92526099002 | MCM-02 | | | | |
| 92526099003 | MCM-11 | | | | |
| 92526099004 | MCM-16 | | | | |
| 92526099005 | MCM-17 | | | | |
| 92526099006 | MCM-18 | | | | |
| 92526099007 | MCM-19 | | | | |
| 92526099008 | MCM-20 | | | | |
| 92526099001 | MCM-01 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099002 | MCM-02 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099003 | MCM-11 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099004 | MCM-16 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099005 | MCM-17 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099006 | MCM-18 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099007 | MCM-19 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099008 | MCM-20 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099009 | FB-2 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099010 | EB-1 | EPA 3010A | 605089 | EPA 6010D | 605105 |
| 92526099001 | MCM-01 | EPA 3010A | 605091 | EPA 6020B | 605104 |
| 92526099002 | MCM-02 | EPA 3010A | 605091 | EPA 6020B | 605104 |
| 92526099003 | MCM-11 | EPA 3010A | 605091 | EPA 6020B | 605104 |
| 92526099004 | MCM-16 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099005 | MCM-17 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099006 | MCM-18 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099007 | MCM-19 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099008 | MCM-20 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099009 | FB-2 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099010 | EB-1 | EPA 3010A | 605092 | EPA 6020B | 605103 |
| 92526099001 | MCM-01 | SM 2320B-2011 | 606220 | | |
| 92526099002 | MCM-02 | SM 2320B-2011 | 606220 | | |
| 92526099003 | MCM-11 | SM 2320B-2011 | 606220 | | |
| 92526099004 | MCM-16 | SM 2320B-2011 | 606220 | | |
| 92526099005 | MCM-17 | SM 2320B-2011 | 606220 | | |
| 92526099006 | MCM-18 | SM 2320B-2011 | 606220 | | |
| 92526099007 | MCM-19 | SM 2320B-2011 | 606220 | | |
| 92526099008 | MCM-20 | SM 2320B-2011 | 606222 | | |
| 92526099009 | FB-2 | SM 2320B-2011 | 606222 | | |
| 92526099010 | EB-1 | SM 2320B-2011 | 606222 | | |
| 92526099001 | MCM-01 | SM 2540C-2011 | 605313 | | |
| 92526099002 | MCM-02 | SM 2540C-2011 | 605313 | | |
| 92526099003 | MCM-11 | SM 2540C-2011 | 605313 | | |
| 92526099004 | MCM-16 | SM 2540C-2011 | 605313 | | |
| 92526099005 | MCM-17 | SM 2540C-2011 | 605313 | | |
| 92526099006 | MCM-18 | SM 2540C-2011 | 605313 | | |
| 92526099007 | MCM-19 | SM 2540C-2011 | 605313 | | |
| 92526099008 | MCM-20 | SM 2540C-2011 | 605313 | | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: McManus CCR Sampling-Revised Report

Pace Project No.: 92526099

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92526099009 | FB-2 | SM 2540C-2011 | 605313 | | |
| 92526099010 | EB-1 | SM 2540C-2011 | 605313 | | |
| 92526099001 | MCM-01 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099002 | MCM-02 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099003 | MCM-11 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099004 | MCM-16 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099005 | MCM-17 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099006 | MCM-18 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099007 | MCM-19 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099008 | MCM-20 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099009 | FB-2 | EPA 300.0 Rev 2.1 1993 | 604773 | | |
| 92526099010 | EB-1 | EPA 300.0 Rev 2.1 1993 | 604773 | | |

REPORT OF LABORATORY ANALYSIS

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

Laboratory receiving samples:
 Asheville Eden Greenwood Huntersville Raleigh Mechanicville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power
 Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Project W0#: **92526099**



Custody Seal Present? Yes No Seals Intact? Yes No

one/follow Person Examining Contents 36-11 BK

Packing Material: Bubble Wrap Bubble Bags None Other
 Temperature: RT (see ID) Dry Ice Other Frozen

Biological Tissue Frozen?
 Yes No N/A

Cooler Temp: 2.7 Correction Factor: 0
 Type of Ice: 0

Temp should be above freezing to 6°C
 Compliance of temp criteria. Samples on ice, cooling process to begin

Cooler Temp Corrected (°C): 2.7

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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. | |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. | |
| Short Hold Time Analysis (<72 hr)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 3. | |
| Rush Turn-Around Time Requested? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 4. | |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. | |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 6. | |
| -Pace Containers Used? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 7. | |
| Dissolved Analysis: Samples Field Filtered? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 8. | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. | |
| -Includes Date/Time/ID/Analysis Matrix: <u>WT</u> | | | |
| Headspace in VOA Vials (>5-draw)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 10. | |
| Trig Blank Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 11. | |
| Trig Blank Custody Seals Present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | | |

COMMENTS/SAMPLE DISCREPANCY Field Data Required? Yes No

Lot ID of upb containers: _____

CLIENT NOTIFICATION/RESOLUTION _____

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAS-CI-003-Rev.07

Document Revised: October 26, 2020
 Page 2 of 2
 Issuing Authority:
 North Carolina Quality Office

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

Exceptions: VOA, Coliform, TDC, Oil and Grease, DRB/DBP (water), DOC, L/lig

**Bottom half of box is to list number of bottles

Project **W0# : 92526099**

PR: KLH1

Due Date: 03/15/21

CLIENT: GR-GR Power

| Method | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|----|----|----|---|---|---|---|---|---|---|---|---|
| BP10-120 ml, Plastic, Unpreserved (N/A) (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-150 ml, Plastic, Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-500 ml, Plastic, Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-1 liter, Plastic, Unpreserved (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-120 ml, Plastic HDPE (2) x 2 (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-150 ml, plastic HDPE (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-120 ml, Plastic 24 Acetate & Acetate (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-120 ml, Plastic 1200 (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| WSP1-1000-1000ml Glass Jar Unpreserved | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1 liter Amber Unpreserved (N/A) (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD200-1 liter Amber HD (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-120 ml Amber Unpreserved (N/A) (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1 liter Amber HDPE (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-150 ml Amber HDPE (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-120 ml Amber HDPE (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-1000ml 100 ml Amber HDPE (2) x 2 | / | / | / | / | / | / | / | / | / | / | / | / |
| DO10-40 ml, VOA HD (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-40 ml, VOA HDPE (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-40 ml, VOA Lign (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| DO10-40 ml, VOA HDPE (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-10 vials per 100-1000 ml (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-10 vials per 100-1000 ml (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-120 ml, Sterile Plastic (N/A - 100) | / | / | / | / | / | / | / | / | / | / | / | / |
| SP10-120 ml, Sterile Plastic (N/A - 100) | / | / | / | / | / | / | / | / | / | / | / | / |
| BP10-120 ml, Plastic (2) x 2 (2) | / | / | / | / | / | / | / | / | / | / | / | / |
| AD101-120 ml, Amber Unpreserved vials (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| VO10-10 ml, Sterilization vials (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |
| DO10-40 ml, Amber Unpreserved vials (N/A) | / | / | / | / | / | / | / | / | / | / | / | / |

pH Adjustment Log for Preserved Samples

| Sample ID | Type of Preservation | 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 Climate Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).



CHAIN-OF-CUSTODY / Analytical Request Document

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

| | | | | | |
|--|-----------------|--|-----------------|----------------------------------|-----------------|
| Section 1: Requested Project Information | | Section 2: Requested Project Information | | Section 3: Requested Information | |
| Requester Name | Requester Title | Requester Name | Requester Title | Requester Name | Requester Title |
| Requester Email | Requester Phone | Requester Email | Requester Phone | Requester Email | Requester Phone |
| Requester Address | Requester City | Requester Address | Requester City | Requester Address | Requester City |
| Requester State | Requester Zip | Requester State | Requester Zip | Requester State | Requester Zip |
| Requester Fax | Requester Faxes | Requester Fax | Requester Faxes | Requester Fax | Requester Faxes |

| SAMPLE ID | ANALYSIS REQUESTED | ANALYSIS METHOD | ANALYSIS UNIT | ANALYSIS DATE | ANALYSIS TIME | ANALYSIS LOCATION | ANALYSIS COMMENTS | ANALYSIS RESULTS | | ANALYSIS STATUS |
|-----------|--------------------|-----------------|---------------|---------------|---------------|-------------------|-------------------|------------------|---------------|-----------------|
| | | | | | | | | ANALYSIS VALUE | ANALYSIS UNIT | |
| 1 | MCN-01 | MCN-01 | MCN-01 | MCN-01 | MCN-01 | MCN-01 | MCN-01 | 5.31 | MCN | Y |
| 2 | MCN-02 | MCN-02 | MCN-02 | MCN-02 | MCN-02 | MCN-02 | MCN-02 | 5.06 | MCN | Y |
| 3 | MCN-03 | MCN-03 | MCN-03 | MCN-03 | MCN-03 | MCN-03 | MCN-03 | 5.07 | MCN | Y |
| 4 | MCN-04 | MCN-04 | MCN-04 | MCN-04 | MCN-04 | MCN-04 | MCN-04 | 5.79 | MCN | Y |
| 5 | MCN-05 | MCN-05 | MCN-05 | MCN-05 | MCN-05 | MCN-05 | MCN-05 | 4.58 | MCN | Y |
| 6 | MCN-06 | MCN-06 | MCN-06 | MCN-06 | MCN-06 | MCN-06 | MCN-06 | 4.87 | MCN | Y |
| 7 | MCN-07 | MCN-07 | MCN-07 | MCN-07 | MCN-07 | MCN-07 | MCN-07 | 5.12 | MCN | Y |
| 8 | MCN-08 | MCN-08 | MCN-08 | MCN-08 | MCN-08 | MCN-08 | MCN-08 | 3.72 | MCN | Y |
| 9 | MCN-09 | MCN-09 | MCN-09 | MCN-09 | MCN-09 | MCN-09 | MCN-09 | | | |
| 10 | MCN-10 | MCN-10 | MCN-10 | MCN-10 | MCN-10 | MCN-10 | MCN-10 | | | |
| 11 | MCN-11 | MCN-11 | MCN-11 | MCN-11 | MCN-11 | MCN-11 | MCN-11 | | | |
| 12 | MCN-12 | MCN-12 | MCN-12 | MCN-12 | MCN-12 | MCN-12 | MCN-12 | | | |

| | | | |
|----------------------------|---------------|----------------------|-----------------------------|
| ANALYST NAME AND SIGNATURE | ANALYST TITLE | ANALYST ORGANIZATION | ANALYST CONTACT INFORMATION |
| <i>[Signature]</i> | | | |
| ANALYST NAME AND SIGNATURE | ANALYST TITLE | ANALYST ORGANIZATION | ANALYST CONTACT INFORMATION |
| <i>[Signature]</i> | | | |
| ANALYST NAME AND SIGNATURE | ANALYST TITLE | ANALYST ORGANIZATION | ANALYST CONTACT INFORMATION |
| <i>[Signature]</i> | | | |

Low-Flow Test Report:

Test Date / Time: 7/1/2021 2:28:24 PM
Project: June 2021 McManus CCR Resample
Operator Name: Kevin Stephenson

| | | |
|--|--|--|
| Location Name: MCM-14
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 18.11 ft
Total Depth: 28.11 ft
Initial Depth to Water: 9.37 ft | Pump Type: QED Dedicated
Tubing Type: LDPE
Pump Intake From TOC: 23.11 ft
Estimated Total Volume Pumped: 3520 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 220 ml/min
Final Draw Down: 0.34 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789301 |
|--|--|--|

Test Notes:
Pre-purged 3 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Salinity | Flow |
|------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | +/- 1000 % | |
| 7/1/2021 2:28 PM | 00:00 | 6.62 pH | 25.01 °C | 18,957 µS/cm | 0.18 mg/L | 1.23 NTU | -112.1 mV | 9.70 ft | 11.42 PSU | 220.00 ml/min |
| 7/1/2021 2:32 PM | 04:00 | 6.64 pH | 24.33 °C | 18,896 µS/cm | 0.12 mg/L | 1.34 NTU | -110.0 mV | 9.71 ft | 11.37 PSU | 220.00 ml/min |
| 7/1/2021 2:36 PM | 08:00 | 6.64 pH | 24.26 °C | 18,873 µS/cm | 0.11 mg/L | 0.93 NTU | -108.9 mV | 9.71 ft | 11.36 PSU | 220.00 ml/min |
| 7/1/2021 2:40 PM | 12:00 | 6.64 pH | 24.37 °C | 18,784 µS/cm | 0.10 mg/L | 0.64 NTU | -106.3 mV | 9.71 ft | 11.30 PSU | 220.00 ml/min |
| 7/1/2021 2:44 PM | 16:00 | 6.64 pH | 24.60 °C | 18,746 µS/cm | 0.10 mg/L | 0.90 NTU | -105.8 mV | 9.71 ft | 11.28 PSU | 220.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| MCM-14 | Metals, Inorganics, TDS, Alk, Ions, Sulfide |



July 21, 2021

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

RE: Project: PLANT MCMANUS
Pace Project No.: 92547567

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on July 02, 2021. 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

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
Trent Godwin, Resolute Environmental & Water Resources
Kristen Jurinko
Ms. Lauren Petty, Southern Company
Kevin Stephenson, Resolute Environmental & Water
Resources Consulting, LLC
Stephen Wilson, Resolute Environmental & Water
Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: PLANT MCMANUS

Pace Project No.: 92547567

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

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 Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: PLANT MCMANUS
Pace Project No.: 92547567

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92547567001 | MCM-14 | Water | 07/01/21 14:48 | 07/02/21 11:10 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: PLANT MCMANUS

Pace Project No.: 92547567

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92547567001 | MCM-14 | EPA 6010D | CBV, SH1 | 4 | PASI-A |
| | | EPA 6020B | CRW | 2 | PASI-A |
| | | SM 2320B-2011 | ECH | 2 | PASI-A |
| | | SM 2540C-2011 | ZMC | 1 | PASI-A |
| | | SM 4500-S2D-2011 | JP1 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | CDC | 3 | PASI-A |

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: PLANT MCMANUS

Pace Project No.: 92547567

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92547567001 | MCM-14 | | | | | |
| | Performed by | CUSTOME | | | 07/02/21 13:38 | |
| | | R | | | | |
| | pH | 6.64 | Std. Units | | 07/02/21 13:38 | |
| EPA 6010D | Calcium | 231 | mg/L | 2.0 | 07/21/21 01:18 | |
| EPA 6010D | Magnesium | 446 | mg/L | 2.0 | 07/21/21 01:18 | |
| EPA 6010D | Potassium | 119 | mg/L | 100 | 07/21/21 01:18 | |
| EPA 6010D | Sodium | 3460 | mg/L | 500 | 07/21/21 11:22 | M1 |
| EPA 6020B | Boron | 0.26J | mg/L | 1.0 | 07/09/21 13:55 | |
| SM 2320B-2011 | Alkalinity,Bicarbonate (CaCO3) | 263 | mg/L | 5.0 | 07/02/21 18:28 | |
| SM 2540C-2011 | Total Dissolved Solids | 11200 | mg/L | 1250 | 07/06/21 14:30 | |
| SM 4500-S2D-2011 | Sulfide | 21.0 | mg/L | 2.5 | 07/08/21 05:01 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 5960 | mg/L | 100 | 07/03/21 18:57 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 693 | mg/L | 100 | 07/03/21 18:57 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: PLANT MCMANUS
 Pace Project No.: 92547567

| Sample: MCM-14 | Lab ID: 92547567001 | Collected: 07/01/21 14:48 | | Received: 07/02/21 11:10 | | 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 | | 07/02/21 13:38 | | |
| pH | 6.64 | Std. Units | | | 1 | | 07/02/21 13:38 | | |
| 6010 MET ICP | | | | | | | | | |
| Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Calcium | 231 | mg/L | 2.0 | 1.9 | 1 | 07/20/21 15:15 | 07/21/21 01:18 | 7440-70-2 | |
| Magnesium | 446 | mg/L | 2.0 | 1.4 | 1 | 07/20/21 15:15 | 07/21/21 01:18 | 7439-95-4 | |
| Potassium | 119 | mg/L | 100 | 60.8 | 1 | 07/20/21 15:15 | 07/21/21 01:18 | 7440-09-7 | |
| Sodium | 3460 | mg/L | 500 | 61.1 | 5 | 07/20/21 15:15 | 07/21/21 11:22 | 7440-23-5 | M1 |
| 6020 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville | | | | | | | | | |
| Boron | 0.26J | mg/L | 1.0 | 0.17 | 1 | 07/09/21 08:30 | 07/09/21 13:55 | 7440-42-8 | |
| Lithium | ND | mg/L | 0.050 | 0.010 | 1 | 07/09/21 08:30 | 07/09/21 13:55 | 7439-93-2 | |
| 2320B Alkalinity | | | | | | | | | |
| Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Alkalinity,Bicarbonate (CaCO3) | 263 | mg/L | 5.0 | 5.0 | 1 | | 07/02/21 18:28 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 5.0 | 1 | | 07/02/21 18:28 | | |
| 2540C Total Dissolved Solids | | | | | | | | | |
| Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Total Dissolved Solids | 11200 | mg/L | 1250 | 1250 | 1 | | 07/06/21 14:30 | | |
| 4500S2D Sulfide Water | | | | | | | | | |
| Analytical Method: SM 4500-S2D-2011
Pace Analytical Services - Asheville | | | | | | | | | |
| Sulfide | 21.0 | mg/L | 2.5 | 1.2 | 25 | | 07/08/21 05:01 | 18496-25-8 | |
| 300.0 IC Anions 28 Days | | | | | | | | | |
| Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville | | | | | | | | | |
| Chloride | 5960 | mg/L | 100 | 60.0 | 100 | | 07/03/21 18:57 | 16887-00-6 | |
| Fluoride | ND | mg/L | 10.0 | 5.0 | 100 | | 07/03/21 18:57 | 16984-48-8 | D3 |
| Sulfate | 693 | mg/L | 100 | 50.0 | 100 | | 07/03/21 18:57 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS

Pace Project No.: 92547567

| | | | |
|------------------|-----------|-----------------------|--------------------------------------|
| QC Batch: | 634582 | Analysis Method: | EPA 6010D |
| QC Batch Method: | EPA 3010A | Analysis Description: | 6010 MET |
| | | Laboratory: | Pace Analytical Services - Asheville |

Associated Lab Samples: 92547567001

METHOD BLANK: 3332622 Matrix: Water

Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 07/21/21 01:11 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 07/21/21 01:11 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 07/21/21 01:11 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 07/21/21 01:11 | |

LABORATORY CONTROL SAMPLE: 3332623

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 5.0 | 99 | 80-120 | |
| Magnesium | mg/L | 5 | 5.3 | 107 | 80-120 | |
| Potassium | mg/L | 5 | 5.2 | 104 | 80-120 | |
| Sodium | mg/L | 5 | 5.2 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3332624 3332625

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|--------------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|-------|
| | | 92547567001 Result | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 231 | 100 | 100 | 324 | 325 | 93 | 94 | 75-125 | 0 | 20 |
| Magnesium | mg/L | 446 | 100 | 100 | 537 | 536 | 91 | 89 | 75-125 | 0 | 20 |
| Potassium | mg/L | 119 | 100 | 100 | 221 | 218 | 101 | 99 | 75-125 | 1 | 20 |
| Sodium | mg/L | 3460 | 100 | 100 | 3420 | 3290 | -47 | -179 | 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

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS

Pace Project No.: 92547567

QC Batch: 631990

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92547567001

METHOD BLANK: 3320023

Matrix: Water

Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|---------|----------------|------------|
| Boron | mg/L | ND | 0.050 | 0.0085 | 07/09/21 14:05 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 07/09/21 14:05 | |

LABORATORY CONTROL SAMPLE: 3320024

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Boron | mg/L | 0.05 | 0.053 | 107 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.052 | 104 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3320025 3320026

| Parameter | Units | 92547567001 | | 3320026 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|--------|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Boron | mg/L | 0.26J | 1 | 1 | 1.2 | 1.2 | 95 | 98 | 75-125 | 3 | 20 |
| Lithium | mg/L | ND | 1 | 1 | 1.0 | 1.1 | 102 | 105 | 75-125 | 3 | 20 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS

Pace Project No.: 92547567

QC Batch: 631187

Analysis Method: SM 2320B-2011

QC Batch Method: SM 2320B-2011

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92547567001

METHOD BLANK: 3316049

Matrix: Water

Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity,Bicarbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 07/02/21 14:20 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 5.0 | 07/02/21 14:20 | |

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

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS
 Pace Project No.: 92547567

QC Batch: 631478 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92547567001

METHOD BLANK: 3317514 Matrix: Water
 Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 07/06/21 14:29 | |

LABORATORY CONTROL SAMPLE: 3317515

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 252 | 101 | 90-110 | |

SAMPLE DUPLICATE: 3317516

| Parameter | Units | 92547250001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 703 | 781 | 11 | 25 | |

SAMPLE DUPLICATE: 3317517

| Parameter | Units | 92547567001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 11200 | 10800 | 5 | 25 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS

Pace Project No.: 92547567

QC Batch: 632020

Analysis Method: SM 4500-S2D-2011

QC Batch Method: SM 4500-S2D-2011

Analysis Description: 4500S2D Sulfide Water

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92547567001

METHOD BLANK: 3320093

Matrix: Water

Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Sulfide | mg/L | ND | 0.10 | 0.050 | 07/08/21 04:58 | |

LABORATORY CONTROL SAMPLE: 3320094

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Sulfide | mg/L | 0.5 | 0.48 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3320095 3320096

| Parameter | Units | 3320095 | | 3320096 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|--------------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|------|------------|
| | | 92547552003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | MSD Result |
| Sulfide | mg/L | ND | 0.5 | 0.5 | 0.46 | 0.51 | 91 | 100 | 80-120 | 10 | 10 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3320097 3320098

| Parameter | Units | 3320097 | | 3320098 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|--------------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|------|------------|
| | | 92547919004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | | MSD Result |
| Sulfide | mg/L | ND | 0.5 | 0.5 | 0.49 | 0.49 | 97 | 98 | 80-120 | 1 | 10 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: PLANT MCMANUS

Pace Project No.: 92547567

| | |
|---|--|
| QC Batch: 631408 | Analysis Method: EPA 300.0 Rev 2.1 1993 |
| QC Batch Method: EPA 300.0 Rev 2.1 1993 | Analysis Description: 300.0 IC Anions |
| | Laboratory: Pace Analytical Services - Asheville |

Associated Lab Samples: 92547567001

METHOD BLANK: 3317347 Matrix: Water

Associated Lab Samples: 92547567001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 07/03/21 13:05 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 07/03/21 13:05 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 07/03/21 13:05 | |

LABORATORY CONTROL SAMPLE: 3317348

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 50.9 | 102 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 104 | 90-110 | |
| Sulfate | mg/L | 50 | 50.4 | 101 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3317349 3317350

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92547372001 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Chloride | mg/L | 35.9 | 50 | 50 | 87.8 | 88.4 | 104 | 105 | 90-110 | 1 | 10 | | |
| Fluoride | mg/L | 3.0 | 2.5 | 2.5 | 4.4 | 4.4 | 55 | 55 | 90-110 | 0 | 10 | M1 | |
| Sulfate | mg/L | 43.0 | 50 | 50 | 96.1 | 96.5 | 106 | 107 | 90-110 | 0 | 10 | | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3317351 3317352

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92547500001 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Chloride | mg/L | ND | 50 | 50 | 53.0 | 53.6 | 104 | 106 | 90-110 | 1 | 10 | | |
| Fluoride | mg/L | ND | 2.5 | 2.5 | 2.6 | 2.6 | 103 | 103 | 90-110 | 0 | 10 | | |
| Sulfate | mg/L | ND | 50 | 50 | 52.6 | 53.0 | 105 | 105 | 90-110 | 1 | 10 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALIFIERS

Project: PLANT MCMANUS

Pace Project No.: 92547567

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.

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.

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MCMANUS

Pace Project No.: 92547567

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92547567001 | MCM-14 | | | | |
| 92547567001 | MCM-14 | EPA 3010A | 634582 | EPA 6010D | 634701 |
| 92547567001 | MCM-14 | EPA 3010A | 631990 | EPA 6020B | 632455 |
| 92547567001 | MCM-14 | SM 2320B-2011 | 631187 | | |
| 92547567001 | MCM-14 | SM 2540C-2011 | 631478 | | |
| 92547567001 | MCM-14 | SM 4500-S2D-2011 | 632020 | | |
| 92547567001 | MCM-14 | EPA 300.0 Rev 2.1 1993 | 631408 | | |

REPORT OF LABORATORY ANALYSIS

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

Laboratory receiving samples:
 Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: Georgia Power
 Courier: Fed Ex UPS USPS Other Client
 Commercial Floor Other

Project ID: **WO# : 92547567**



Quoted/Daily Person Examining Contents: 7-2-21 YG

Conteuly Seal Present? Yes No Seal Intact? Yes No

Packing Material: Bubble Wrap Bubble bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: in (due ID: 927071) Type of box: Freez Dry None

Cooler Temp: 1.4°C Correction Factor: Add/Subtract (C) 0

Temp should be above freezing to 6°C
 Keep out of temp control. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.4°C
 VOA Regulated Soil (R/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, HI, 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? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 1. |
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 2. |
| Short Hold Time Analysis (<72 hr.)? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | 3. |
| Quick Turn Around Time Requested? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | 4. |
| Sufficient Volume? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 5. |
| Correct Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 6. |
| -Pac Containers Used? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | |
| Containers Intact? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 7. |
| Dissolved analysis: Samples Field Filtered? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 8. |
| Sample Labels Match CDC? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | 9. |
| -Includes Date/Time/ID/Analysis Matrix: | <u>WY</u> | | | |
| Headspace in VOA Vials (>1-gram)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 10. |
| Trip Blank Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | 11. |
| Trip Blank Contide Seal Present? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | |

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

SIGNATURE [Signature]
 / SEAL DATE 7/1/21

Lot ID of split containers:

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-CAR-CS-030-Rev.07

Document Revised: October 28, 2010
Page 3 of 3
Issuing Authority:
Pace Carolina Quality Office

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

Exceptions: VOA, Coliform, TOC, Cl and Ozone, DBO/DO5 (water) DOC, LUG

**Bottom half of box is to list number of bottles

Project # **W0# : 92547567**

PR: KLH1

Due Date: 07/19/21

CLIENT: GR-GR Power

| Sample | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| BP00-125 ml Plastic Unpreserved (N/A) (2) | | 2 | | | | | | | | | | |
| BP01-250 ml Plastic Unpreserved (N/A) | | 1 | | | | | | | | | | |
| BP02-500 ml Plastic Unpreserved (N/A) | | | | | | | | | | | | |
| BP03-1 liter Plastic Unpreserved (N/A) | | | | | | | | | | | | |
| BP04-125 ml Plastic (250ml per x 2) (2) | | | | | | | | | | | | |
| BP05-250 ml plastic (500 ml per x 2) | | | | | | | | | | | | |
| BP06-125 ml Plastic 2x Amber & NACM (2) | | | | | | | | | | | | |
| BP07-125 ml Plastic (500 ml per x 2) (2) | | | | | | | | | | | | |
| Weight-sterilized Glass jar Unpreserved | | | | | | | | | | | | |
| AD00-1 liter Amber Unpreserved (N/A) (2) | | | | | | | | | | | | |
| AD01-1 liter Amber (2) (2) | | | | | | | | | | | | |
| AD02-125 ml Amber Unpreserved (N/A) (2) | | | | | | | | | | | | |
| AD03-250 ml Amber (250ml per x 2) | | | | | | | | | | | | |
| AD04-500ml (500 ml) Amber (500ml per x 2) | | | | | | | | | | | | |
| VO00-40 ml VOA (2) | | | | | | | | | | | | |
| VO01-40 ml VOA (2) (2) | | | | | | | | | | | | |
| VO02-40 ml VOA (2) (2) | | | | | | | | | | | | |
| VO03-40 ml VOA (2) (2) | | | | | | | | | | | | |
| VO04 (B-vials per 100-500 ml (2)) | | | | | | | | | | | | |
| VO05 (B-vials per 100-500 ml (2)) | | | | | | | | | | | | |
| SP01-125 ml Sterile Plastic (2) (2) | | | | | | | | | | | | |
| SP02-250 ml Sterile Plastic (2) (2) | | | | | | | | | | | | |
| BP04-250 ml Plastic (2) (2) | | | | | | | | | | | | |
| AD00-125 ml Amber Unpreserved (N/A) | | | | | | | | | | | | |
| VO00-40 ml Amber Unpreserved (N/A) | | | | | | | | | | | | |

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 05-008 Certification Office (3-4 Out of field, incorrect preservative, out of temp, incorrect containers).

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

Section A: Requested Client Information
 Section B: Requested Project Information
 Section C: Section Information
 Page 1 of 1 of 1

Company: Georgia Power
 Address: 1000 Westchase Parkway
 City, State, Zip: Woodstock, GA 30188
 Project Name: Power Meters
 Requested Date: 7/2/2010

SAMPLE ID
 One Character per box.
 (A-Z, 0-9, -)
 Samples left must be unique

Matrix Code: (see field notes to left)
 Sample Type: (S-Soils C-Clean)

| START | END | COLLECTED | |
|--------|-------|-----------|------|
| | | DATE | TIME |
| 7/2/10 | 11:00 | | |

Sample Time at Collection: 5:30
 # of Containers: 5
 Preservation: 1
 Method: Other

Analysis Type: XRF

App. # Matrix: X
 Lithium: X
 TOC: X
 OLP, SO4: X
 Major ions: X
 Metals: X
 Volatiles: X

Received Onsite (Y/N):

| ITEM # | DATE | TIME | LOCATION | ANALYSIS | REMARKS | INITIALS |
|--------|--------|-------|---------------|----------|--------------|----------|
| 1 | 7/2/10 | 11:00 | Woodstock, GA | XRF | Power Meters | |

Site: Woodstock, GA
 Date: 7/2/10
 Time: 11:00
 Location: Woodstock, GA
 Analysis: XRF
 Remarks: Power Meters
 Initials: [Signature]

Arcadis U.S., Inc.

2839 Paces Ferry Road

Suite 900

Atlanta, Georgia 30339

Tel 770 431 8666

Fax 770 435 2666

www.arcadis.com



2022 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION FOR DPZ-02

Plant McManus Former Ash Pond 1,
Brunswick, Georgia

April 29, 2022

**2022 LITHIUM
ALTERNATIVE
SOURCE
DEMONSTRATION FOR
DPZ-02**



Geoffrey Gay, PE
Project Manager



Margaret Gentile, PhD
Technical Expert



Kathryn Farris, M. Sc.
Environmental Engineer

Plant McManus Former Ash Pond 1,
Brunswick, Georgia

Prepared for:

Georgia Power Company

Prepared by:

Arcadis U.S., Inc.

2839 Paces Ferry Road

Suite 900

Atlanta

Georgia 30339

Tel 770 431 8666

Fax 770 435 2666

Date:

April 29, 2022

CONTENTS

| | |
|--|-----|
| Professional Certification | iii |
| 1 Introduction..... | 1 |
| 2 Site Background..... | 1 |
| 2.1 Site Geology | 2 |
| 2.2 Site Hydrogeology | 2 |
| 2.3 Coal Ash Removal..... | 2 |
| 3 Alternative Source Demonstration | 3 |
| 3.1 Seawater Intrusion and Mixing in Coastal Aquifers and Estuaries..... | 3 |
| 3.2 Brackish Surface Water Quality..... | 4 |
| 3.3 Groundwater Signatures of Saltwater Intrusion and Mixing | 4 |
| 3.4 Lithium in Groundwater and Surface Water | 5 |
| 3.5 Geochemical Markers..... | 5 |
| 4 Conclusion and Recommendation | 8 |
| 5 References | 9 |

TABLES

Table 1. Monitoring Well Network and Piezometers

Table 2. Lithium, Chloride and TDS in Surface Water

Table 3. Analytical Results Summary of Select Wells and Background Surface Water

FIGURES


- Figure 1. Site and Well Location Map
- Figure 2. The Freshwater-Saltwater Transition Zone in an Idealized Coastal Aquifer
- Figure 3. Groundwater Discharge and Saltwater Infiltration at the Aquifer-Estuary Boundary
- Figure 4a. Surface Water Sample Collection Locations: Northern Dike Area
- Figure 4b. Surface Water Sample Collection Locations: Southern Dike Area
- Figure 5. Sodium to Chloride Versus Total Dissolved Solids
- Figure 6. Conceptual Diagram of Saltwater Wedge and Monitoring Well TDS Concentrations
- Figure 7. Surface and Groundwater Geochemistry
- Figure 8. Ion Composition Comparison

APPENDICES

- A Resolute Potentiometric Maps
- B Resolute Sampling Log and Analytical Report – March 2022

PROFESSIONAL CERTIFICATION

This 2022 Lithium Alternative Source Demonstration for DP2 02 for the Georgia Power Company Plant Morganus Former Ash Pond 1 has been prepared in compliance with applicable United States Environmental Protection Agency Coal Combustion Residuals Rule and Georgia Environmental Protection Division Solid Waste Rules (Chapter 291-2-41) under the direction of a Georgia-licensed professional engineer.



J. Geoffrey Cox

J. Geoffrey Cox, P.E.
Principal Environmental Engineer
Georgia Registration No. PE 02701

6/23/22

Date

1 INTRODUCTION

Arcadis U.S., Inc. (Arcadis) has prepared this alternate source demonstration (ASD) in accordance with the United States Environmental Protection Agency Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] Part 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This report presents an ASD for the statistically significant levels (SSLs) of lithium, an Appendix IV groundwater monitoring constituent, observed in groundwater at monitoring well DPZ-02 at Georgia Power Company's Plant McManus former Ash Pond 1 (AP-1) (the site; **Figure 1**). The site and CCR monitoring well network are shown on **Figure 1** and well construction details are presented in **Table 1**.

Based on an evaluation of groundwater trends and surface water quality, the lithium SSL observed at DPZ-02 is likely present due to a natural saltwater wedge inherent to brackish coastal estuary environments. Lithium is a naturally occurring element in seawater, typically ranging from 0.1 - 0.2 milligrams per liter (mg/L) and is present in the brackish water that is a mix of seawater and freshwater surrounding the site (Riley and Tongudai 1964; Segar 1998).

To support this ASD, the following analyses are presented in Section 3.0:

1. An evaluation of published literature on seawater intrusion and mixing in coastal aquifers and estuaries that causes stratification, with freshwater/less saline water remaining above the more saline/brackish deeper zones of the aquifer and creating what is called a saltwater wedge.
2. An evaluation of surface water quality to demonstrate that the environment is a brackish tidal marsh, likely influenced by the nearby Atlantic Ocean.
3. A comparison of lithium concentrations in DPZ-02 to typical literature seawater and brackish site estuary water, corroborating a potential saltwater source.
4. An evaluation of total dissolved solids (TDS), sodium, and chloride concentrations in groundwater demonstrating the presence of saltwater wedge.
5. An evaluation of the site groundwater geochemistry to demonstrate that site conditions match the pattern for saltwater intrusion documented in the literature and identifying ratios that support saltwater as the source of the lithium observed in site monitoring wells.

Combined, these lines of evidence demonstrate that the former CCR unit is not the source of the lithium SSLs observed in well DPZ-02.

2 SITE BACKGROUND

Plant McManus is an electrical power generation plant located on Crispin Island, near Brunswick, Georgia. Crispin Island originally consisted of several smaller islands that were joined to construct Plant McManus. The island was separated from the mainland to the northeast by tidal marsh and is bounded to the west and southwest by the Turtle River. The Turtle River is a tidally influenced brackish estuary that can vary in height by more than 8 feet during a tidal cycle (Resolute Environmental & Water Resources Consulting [Resolute] 2020).

The plant was originally constructed in 1952. Use of coal for power production ceased in 1972, and Georgia Power Company retired all coal power generating assets at Plant McManus prior to April 16, 2015. During operation of the coal-fired units from 1959 until 1972, CCRs were disposed in an approximately 80-acre surface impoundment (AP-1) on the Plant McManus site northeast of the plant (**Figure 1**).

2.1 Site Geology

Plant McManus is located within the Coastal Plain Province of Georgia. The soils that make up the surficial aquifer system are comprised of very fine sands and discontinuous clay units within the sands, from land surface (or beneath a shallow fill layer) to depths up to approximately 40 feet below ground surface (bgs) in the area nearest DPZ-02, with no presence of a clear aquitard.

These very fine sands and discontinuous clay units are interpreted to be the Upper Satilla Formation, which fines downward to a silty fine sand of either the Lower Satilla Formation (ATC Associates, Inc. 1997) or the Cypresshead Formation (Huddleston 1988).

Gamma logs performed in on-site borings indicate a lower permeability layer starting between 40 and 52 feet bgs (Resolute 2020a). This is consistent with the depths of the upper confining unit of the Ebenezer Formation, described by Weems and Edwards (2001) as two pairs of alternating confining units and water-bearing zones, extending down to approximately 185 feet bgs.

The surface of the tidal marsh is covered by silt and vegetation, except where scoured by tidal creeks with fine sands in their channels. The surficial aquifer formed in a similar depositional environment, with paleo tidal channels likely present throughout. The surficial aquifer is generally unconfined, but there may be localized layers of lower permeability soils, resulting in semi-confined conditions in some locations.

2.2 Site Hydrogeology

There are two primary components of groundwater flow at the site, determined by geography and the tidal river. The first is along a northeast to southwest axis and originates from the mainland to the northeast and Crispen Island to the southwest. The groundwater elevations in the monitoring wells and piezometers on the mainland (MCM-01, -02, -15, and -16) and Crispen Island (MCM-08 and -11) are consistently higher than the surface water elevation in former AP-1 and the monitoring wells along both dikes, despite tidal fluctuations. This indicates that groundwater flow is consistently towards former AP-1 from the northeast and southwest. Potentiometric maps are provided in **Appendix A – Figures A1 and A2**.

The second component of groundwater flow is along a northwest to southeast axis between former AP-1 and the tidal marsh. Under the present ambient conditions, without the influence of dewatering, the gradient changes direction with the tides. Based on the September 2021 high and low tide potentiometric surface maps presented in **Appendix A**, at low tide the gradient is from former AP-1 and at high tide the gradient is inwards towards former AP-1.

2.3 Coal Ash Removal

Georgia Power completed closure of AP-1 between 2016 and October 2019 by dewatering and removing the CCR material. A notification of intent to close the former CCR Unit was placed in the operating record

on December 7, 2015 and posted to the Plant McManus CCR Rule Compliance website within 30 days. The initial Closure Plan was submitted to GAEPD on April 17, 2018 as part of the permit application package describing the closure activities and requirements in accordance with 40 CFR § 257.102. The Closure Plan and notification of closure completion are posted on the Plant McManus CCR Rule Compliance website, available to the public. Source control has been implemented at the site by removing CCR material. The final CCR removal certification report was submitted in November 2019 (Arcadis 2019). GAEPD acknowledged the report and that the removal activities within the identified boundaries of AP-1 had occurred in a letter dated January 10, 2020 (GAEPD 2020). Closure Permit No. 063-030D(CCR) was approved by GAEPD on June 18, 2021.

3 ALTERNATIVE SOURCE DEMONSTRATION

To evaluate alternative sources, the site conceptual model was revisited, and site geochemistry, hydrogeology, and historical data were reviewed and considered. Based on the data evaluation, the SSLs for lithium are attributed to naturally occurring seawater intrusion and mixing in coastal waters and estuaries.

3.1 Seawater Intrusion and Mixing in Coastal Aquifers and Estuaries

An evaluation of published literature on seawater intrusion and mixing in coastal aquifers and estuaries suggests that these mechanisms influence site groundwater geochemistry. Because the site is located adjacent to a brackish tidal marsh, within 13 miles of the Atlantic Ocean, the flow and mixing of seawater and freshwater in the coastal aquifer are important processes to consider. In coastal aquifers, such as the Coastal Plain, fresh groundwater from inland recharge zones flows towards coastal discharge areas. Once at the coast, fresh groundwater then encounters and mixes with saline ocean-sourced tidally influenced groundwater (**Figure 2**). Because of freshwater's lower density, the water column is typically stratified, with freshwater/less saline water remaining above the more saline/brackish deeper zones of the aquifer, creating what is called a saltwater wedge.

The interface between the lower-salinity freshwater and the underlying saltwater wedge is called the transition zone and depth of this zone is controlled by several factors including the amount of freshwater recharge, the thickness of the aquifer, and the relative densities of saltwater and freshwater (USGS 2003). For example, the presence of a thicker zone of freshwater will push the transition zone deeper, whereas pumping of the freshwater will raise the elevation of the transition zone. Brackish waters, defined as waters having total dissolved solids (TDS) concentrations greater than 1,000 milligrams per liter (mg/L), but less than 35,000 mg/L, are characteristic of this transitional zone between the fresh inland-derived groundwater and saline ocean-derived groundwater (USGS 2003).

Transition zones between freshwater and brackish surface water are observed in coastal estuaries. Estuaries are partially enclosed, coastal water bodies where fresh surface water from rivers and streams mix with salt water from the ocean. Typically, lower density fresh/slightly brackish water will be present in the shallower zones of the surface water, with increasing salinity through the deeper surface water zones and into groundwater (**Figure 3**). In areas close to the coast, shallow surface water can exhibit brackish characteristics, but will still demonstrate stratification and increasing salinity with depth. In transition zones, tidal fluctuations enhance the mixing of freshwater and saltwater through a continual push and pull

the freshwater-saltwater interface towards the land, and then seaward throughout the tidal cycle (**Figure 3**).

3.2 Brackish Surface Water Quality

Surface water quality demonstrates the tidal brackish environment influenced by the nearby Atlantic Ocean. Surface water sampling locations are shown on **Figures 4A and 4B**. **Table 2** presents surface water data from the September and December 2021 sampling events. **Table 3** presents a subset of surface water data from September and December 2021 from the low tide and high tide background water sampling locations BG-1LT and BG-2HT as well as an example surface water transect, the T-2 transect, located near DPZ-02 and MCM-06. In these surface water samples, TDS concentrations range from 6,600 to 22,600 mg/L, which is characteristic of brackish surface water and consistent with the brackish estuary saltwater mixing conceptual model. In addition, the sodium-to-chloride ratios, shown on **Figure 5**, plot close to the sodium-to-chloride (molar) ratio of approximately 0.86 reported for average seawater composition (e.g., Hem 1989) and for brackish water in coastal regions (Klassen, et al. 2014; Shin et al. 2020).

3.3 Groundwater Signatures of Saltwater Intrusion and Mixing

TDS concentrations from MCM-06 and DPZ-02 along with sodium chloride ratios support the presence of a saltwater wedge. A historical review of TDS results for paired wells DPZ-02 and MCM-06 shows that DPZ-02 has had a consistently higher TDS (average of 18,700 mg/L) compared to shallower well MCM-06 (average of 14,980 mg/L), as shown on the graph on **Figure 6**. The observation of increasing salinity with water column depth, both in surface and groundwater, supports the presence of a saltwater wedge and that the SSLs for lithium are due to the presence of a naturally occurring saltwater wedge, characteristic of the coastal environment. **Figure 6** also provides a conceptual illustration of the salinity gradient demonstrated by the surface and groundwater data. Higher salinity is shown by an increase in color saturation. DPZ-02, screened between -29 and -34 feet above mean sea level [ft amsl]), is screened within a more shaded zone compared to MCM-06 (screened between -6.27 and -16.27 ft amsl), which is consistent with the presence of a saltwater wedge.

Figure 5, discussed above for seawater quality, also plots sodium and chloride ratios versus total dissolved solids (TDS) for the monitoring wells DPZ-02 and MCM-01, -02, -05, -06, -07, -11, -12, -14, -15, -16, -17, -18, -19, and MCM-20). Most groundwater across the site would be considered brackish, having a TDS concentration greater than 1,000 mg/L. Only mainland wells MCM-01, MCM-02, MCM-04, MCM-15, and MCM-16 had groundwater TDS concentrations that would be considered freshwater (**Table 3**). Wells located along the northern dike (MCM-06, MCM-07, and DPZ-02) have high TDS concentrations. Similar to the surface water, the groundwater samples from MCM-06, MCM-07 and DPZ-02, plot along the right of the x-axis of **Figure 5**. The sodium-to-chloride ratios in these samples are clustered around one area of the plot, with sodium-to-chloride ratios near one over a range of brackish-signature TDS concentrations (1,000 to 35,000 mg/L). DPZ-02 has a sodium-to-chloride ratio of 0.98 and TDS concentration of 15,600 mg/L. This ratio is close to the sodium-to-chloride (molar) ratio of approximately 0.86 reported for average seawater composition (e.g., Hem 1989) and for brackish water in coastal regions (Klassen, et al. 2014; Shin et al. 2020). In contrast, mainland groundwater wells plotted with TDS less than 2,000 mg/L and sodium-to-chloride ratios equal to or greater than 1. This higher proportion of

sodium observed at mainland wells can be seen from continental (feldspar) weathering sources or exchange of sodium for calcium during the mixing process (Anders 2013; Shin et al. 2020). Thus, the sodium-to-chloride ratios reflect distinct sources and processes, with the ratio at DPZ-02 showing a signature of a coastal transition zone, consistent with the conceptual illustration on **Figure 6**.

3.4 Lithium in Groundwater and Surface Water

The lithium concentrations detected at DPZ-02 are within the range of lithium concentrations found in surface water samples, suggesting that the lithium concentrations are associated with the seawater intrusion and mixing in coastal aquifers and estuaries. As part of routine monitoring, groundwater and surface water samples are collected semi-annually. DPZ-02 was installed in March 2020 and added to the well monitoring network as a vertical delineation well for MCM-06. Lithium concentrations at this well have ranged from 0.076 to 0.096 mg/L between March 2020 and September 2021 when the SSL was identified. DPZ-02 was also sampled in March 2022 in support of this ASD, the March 2022 lithium result 0.088 mg/L (estimated), was within the historical range for this location (**Table 2**).

The most recent complete surface water sampling event was conducted in September 2021. A subset of surface water locations was also collected in December 2021 to support additional site evaluations. Surface water samples were collected from four transects (T1 through T4), as shown on **Figures 4A and 4B**. Water at four sample locations was collected in each transect. Samples were also collected from two background locations (**Figure 5**). One background surface water location sampled was the low tide background location, BG-1, in Cowpen Creek, north of its confluence with Burnett Creek. The other surface water sample was collected at high tide from background location 2 (BG-2), located in the Turtle River, north of its confluence with Gibson Creek. As the high-tide background sample BG-2 is collected closer to the estuary outlet to the ocean, during high-tide it more closely reflects seawater characteristics compared to BG-1, which is collected at low-tide at the junction of two freshwater creeks to the north of the site. Surface and groundwater data from these events are reported in the 2021 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute 2022), with the exception of the March 2022 results for DPZ-02, which is provided as **Appendix B**.

The lithium results from the September and December 2021 surface water sampling events are presented in **Table 2** along with September 2021 and March 2022 groundwater results for DPZ-02. The lithium concentrations in the samples collected from example transect, T2 closest to MCM-06 and DPZ-02, range from 0.022 to 0.096 mg/L, consistent with historical concentrations (**Table 2**) and concentrations observed at DPZ-02. Lithium concentrations in samples collected at background locations during the sampling event in September¹ ranged from 0.06 mg/L at BG-1 to 0.14 mg/L at BG-2.

3.5 Geochemical Markers

An evaluation of the site groundwater geochemistry to demonstrate that site conditions match the pattern for saltwater intrusion documented in the literature and identifying ratios that support saltwater as the

¹ Surface water was also collected in December 2021. Lithium concentrations in the December background surface water samples at BG-1 and BG-2 were 0.01 (estimated) and 0.011 (estimated) mg/L, respectively. These concentrations are 10% to 20% of historical values, and the results appear to be anomalous. Prior to the December 2021 sampling event, lithium concentrations had ranged from 0.055 (estimated) to 0.14 mg/L.

source of the lithium observed in site monitoring wells. Groundwater and surface water data from the site were evaluated for variability in chemical composition, ionic ratios, and CCR indicator parameters as markers to support this ASD. Comparison of geochemistry markers in surface water and groundwater demonstrate that the monitoring wells where lithium is present in groundwater yield similar geochemistry to each other and the surface water and are distinct from groundwater in monitoring wells with low or non-detect lithium. Both surface water and brackish groundwater derived from the same source (seawater) would contain similar ratios of conservative species with varying degrees of dilution due to mixing with freshwater and stratification vertically in the water column due to varying densities. Therefore, it is suitable to compare the geochemical similarities identified between surface water and groundwater as they reflect the influence of the saltwater wedge.

During the September 2021 sampling event, surface water from two background locations (BG-1 and BG-2), dike wells (MCM-05, -06, -07, -14, and -17), and surface water from transects, were analyzed for select cations, anions, metals, alkalinity, and TDS to evaluate geochemical markers. An additional groundwater sample was collected at DPZ-02 in March 2022 and was similarly analyzed. Data from these sampling events were compiled with historical groundwater data collected from March 2021 at background, mainland, and southern dike wells (MCM-01, -02, -11, -12, -15, -16, -18, -19, and MCM-20) to complete a geochemical characterization of surface and groundwaters across the site (**Table 3**). Notes regarding field activities completed by Resolute and analytical reports for the September 2021 sampling event are provided in the 2021 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute 2022). Analytical reports and purge log for the March 2022 sample collected at DPZ-02 are included as **Appendix B** of this report.

A comparison of surface water and monitoring well geochemical data provide support that the source of lithium is brackish water present due to mixing of fresh groundwater from land and the deeper underlying ocean-sourced groundwater. Piper plots were developed from the compiled data from surface water and groundwater monitoring wells (**Figure 7**). Piper plots assess relative abundance of major cations and anions in groundwater and are a useful tool in differentiating water sources (Chu et al. 2017). Overall, the chemical compositions of groundwater and surface water reflect a sodium-chloride-type water source. Additionally, **Figure 7** shows a tight cluster of dike wells (e.g. MCM-06 and DPZ-02) with background surface water and groundwater. The tight clustering of sample locations indicates that these locations have similar major ion chemical compositions. These samples also have higher TDS compared to other locations (**Table 3**). The similarity in chemical composition of the wells to background surface and groundwater data, with a corresponding increase in salinity as demonstrated by elevated TDS, supports that the lithium identified at DPZ-02 is due to the natural presence of a saltwater wedge.

To analyze several CCR indicator ions in conjunction with lithium simultaneously, concentrations for the ions are displayed on a star plot, as shown in **Exhibit 1**. This method uses ion composition to differentiate sources and assumes that select ions in groundwater from a CCR source, such as boron, sulfate, calcium, chloride, and lithium, are conservative in groundwater and not retarded due to processes such as sorption or precipitation. The star plots visualize the relative amounts of ions present at varying orders of magnitude. A similarity in shape represents similar ratios of ions, indicating a similar source.

Exhibit 1 below shows the star plot for surface water, DPZ-02 and MCM-06 demonstrate the similar ratios of the ions in the three locations, as indicated by similar shapes of the plots. The similarity among samples suggests the ions in the water are of a similar saltwater source, consistent with the saltwater

wedge conceptual model. If the constituents in groundwater were sourced from CCR, it would be expected that the ratios, particularly boron, would be unique and characteristic of the CCR leachate. The diagram also shows slightly lower concentrations of boron, sulfate, chloride and lithium at MCM-06 in comparison to deeper monitoring well DPZ-02, while calcium is comparable in MCM-06 and DPZ-02. These constituent trends with depth generally support the conceptual model of the saltwater wedge, although individual constituents like calcium may vary in behavior from the overall conceptual model and the trend is not always discernable at the trace element level, such as when lithium is occasionally measured at concentrations comparable to or slightly higher in MCM-06 than DPZ-02.

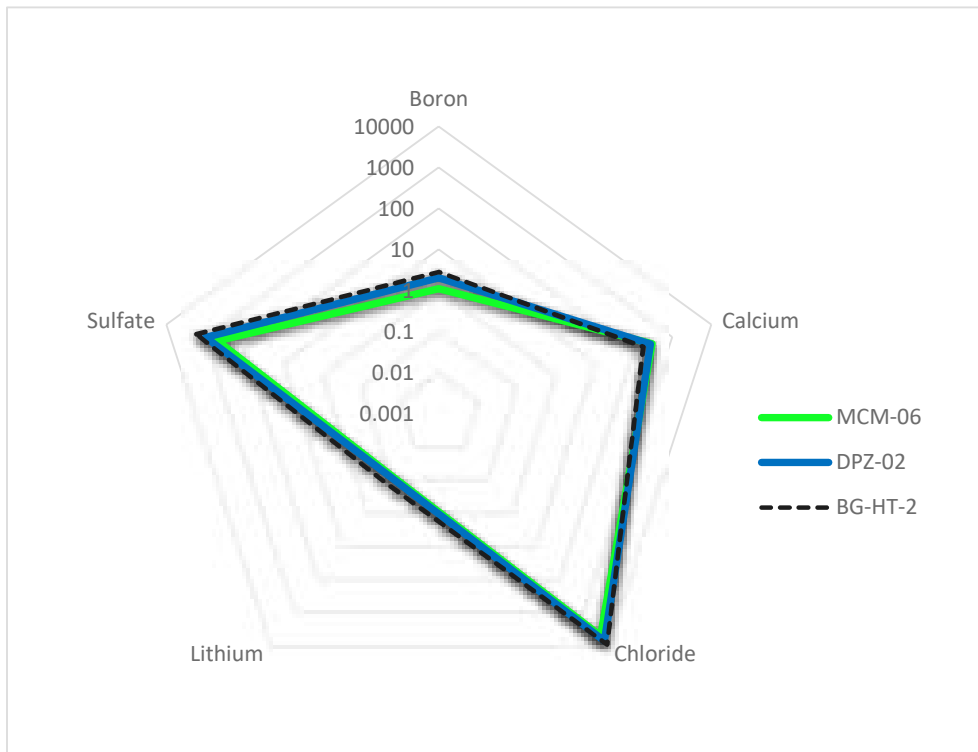


Exhibit 1. Water quality signature for BG-HT-2, DPZ-02, and MCM-06

For the larger monitoring well dataset, comparison signatures from monitoring wells across the site on **Figure 8**. On each plot, the surface water chemistry collected from background location BG-2 in September 2021 is shown as a black dashed line, while groundwater chemistry from the monitoring well is shown as a colorful solid line. Similar groundwater signatures are grouped by color. The star plots show that concentrations of boron, calcium, sulfate, lithium, and chloride in groundwater collected in September 2021 and March 2022 from DPZ-02 are present in a composition that is similar to the background surface water. In contrast, groundwater collected from the island and mainland wells have compositions dissimilar to the surface water samples. Lithium concentrations at DPZ-02 are within the range of lithium concentrations found in surface water, as discussed in Section 3.4, and higher than at wells located on the mainland and island.

The comparison of geochemistry markers in surface waters and groundwater demonstrates that the groundwater chemistry at the DPZ-02 location yields a similar geochemistry to estuary surface water. This

supports the understanding that the brackish estuary water and saltwater wedge influences the groundwater chemistry at DPZ-02.

4 CONCLUSION AND RECOMMENDATION

This report serves as an ASD prepared in accordance with 40 CFR § 257.95(g)(3)(ii) and demonstrates that the SSL for lithium at Plant McManus former AP-1 monitoring well DPZ-02 is attributed to the presence of a saltwater wedge, characteristic of the regional coastal environment, and not to a release from AP-1. This is demonstrated by:

1. An evaluation of published literature on seawater intrusion and mixing in coastal aquifers and estuaries that causes stratification, with freshwater/less saline water remaining above the more saline/brackish deeper zones of the aquifer and creating what is called a saltwater wedge.
2. An evaluation of surface water quality to demonstrate that the environment is a brackish tidal marsh, likely influenced by the nearby Atlantic Ocean.
3. A comparison of lithium concentrations in DPZ-02 to typical literature seawater and brackish site estuary water, corroborating a potential saltwater source.
4. An evaluation of total dissolved solids (TDS), sodium and chloride in groundwater demonstrating the presence of saltwater wedge.
5. An evaluation of the site groundwater geochemistry to demonstrate that site conditions match the pattern for saltwater intrusion documented in the literature and identifying ratios that support saltwater as the source of the lithium observed in site monitoring wells.

The evidence supports the conclusion that the lithium SSL is attributed to the presence of a saltwater mixing, characteristic of the regional coastal environment and is not attributable to CCR storage or a release from former AP-1. Therefore, no further action for lithium is warranted.

5 REFERENCES

- Anders, R., Mendez, G., Futa, K., Danskin, W., 2013. A Geochemical Approach to Determine Sources and Movement of Saline Groundwater in a Coastal Aquifer. Groundwater. July.
- Arcadis. 2020. Lithium Alternative Source Demonstration – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. November.
- Arcadis. 2021. Lithium Alternative Source Demonstration – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. October.
- ATC Associates, Inc. 1997. Compliance Status Report, McManus Steam Electric Generating Plant, Brunswick, Georgia.
- Chu, J., P. Panzino, and L. Bradley. 2017. An Approach to Using Geochemical Analysis to Evaluate the Potential Presence of Coal Ash Constituents in Drinking Water. 2017 World of Coal Ash Conference. May 9-11.
- GAEPD. 2021. Subject: Georgia Power Company–Conditional Concurrence for Alternate Source Demonstration for Lithium at Plant McManus Ash Pond 1 (AP-1) GEOS Submittal 527116. April 22, 2021.
- Hem, J. 1989. Study and Interpretation of the Chemical Characteristics of Natural Waters. USGS Water Supply Paper 2254.
- Huddleston, P.F. 1988. A Revision of the Lithostratigraphic Units of the Coastal Plain of Georgia, The Miocene Through Holocene. Georgia Geologic Survey Bulletin 104.
- Klassen, J., Allen, D., Kirste, D. 2013. Chemical Indicators of Saltwater Intrusion for the Gulf Islands, British Columbia. Prepared for BC Ministry of Forests, Lands, and Natural Resource Operations and BC Ministry of Environment. June.
- Moller, D. 1990. The Na/Cl Ratio in Rainwater and the Seasalt Chloride Cycle. Tellus. Vol 42B. Pp 254-262.
- Resolute. 2019. Annual Groundwater Monitoring and Corrective Action Monitoring Report – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. August.
- Resolute. 2020a. Hydrogeologic Assessment Report – Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. November 2018, Revised April 2020.
- Resolute. 2020b. 2020 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1. Prepared for Georgia Power Company. July.
- Resolute. 2021a. 2020 Semiannual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1. Prepared for Georgia Power Company. February.
- Resolute. 2021b. 2021 Annual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1. Prepared for Georgia Power Company. June.
- Resolute. 2022. 2021 Semiannual Groundwater Monitoring and Corrective Action Report – Plant McManus Inactive Ash Pond AP-1. Prepared for Georgia Power Company. February.

2022 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION
PLANT MCMANUS FORMER ASH POND 1 FOR DPZ-02

Riley, J., Tongudai, M., 1964. The lithium content of sea water. Deep Sea Research and Oceanographic Abstracts. Vol. 11. 4. Pp 563-568.

Segar, D. 1998. Introduction to Ocean Sciences. Wadsworth Publishing. Belmont California.

Shin, K., Koh, D., Jung, H., Lee, J. 2020. The Hydrogeochemical Characteristics of Groundwater Subjected to Seawater Intrusion in the Archipelago, Korea. Water. Vol 12. Pp 1542.

U.S. Geological Survey. 2003. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. Circular 1262. Reston VA. GB1197.83.A87B27.

Weems, R.E., and L.E. Edwards. 2001. Geology of Oligocene, Miocene, and Younger Deposits in the Coastal Area of Georgia, Georgia Geologic Survey Bulletin 131.

TABLES

Table 1
Monitoring Well Network and Piezometers
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Well ID | Hydraulic Location | Installation Date | Resurvey Date | Northing (ft) ¹ | Easting (ft) ¹ | Top of Casing Elevation ² (ft NAVD 88) | Total Depth (ft BTOC) | Top of Screen Elevation (ft NAVD 88) | Bottom of Screen Elevation (ft NAVD 88) |
|--------------------------------|----------------------|-------------------|---------------|----------------------------|---------------------------|---|-----------------------|--------------------------------------|---|
| Monitoring Well Network | | | | | | | | | |
| MCM-01 | Upgradient | 7/7/2016 | 4/16/2020 | 443727.31 | 852732.08 | 8.63 | 27.32 | -7.93 | -17.93 |
| MCM-02 | Upgradient | 7/6/2016 | 4/16/2020 | 444496.53 | 852663.64 | 11.25 | 27.35 | -5.22 | -15.22 |
| MCM-04 | Downgradient | 6/30/2016 | 4/16/2020 | 444804.73 | 851695.27 | 12.39 | 28.57 | -5.18 | -15.18 |
| MCM-05 | Downgradient | 7/9/2016 | 4/16/2020 | 444716.63 | 851309.91 | 10.04 | 28.05 | -7.25 | -17.25 |
| MCM-06 | Downgradient | 7/8/2016 | 4/16/2020 | 444407.22 | 850782.11 | 10.15 | 27.20 | -6.27 | -16.27 |
| MCM-07 | Downgradient | 7/8/2016 | 4/16/2020 | 444059.38 | 850195.96 | 10.20 | 23.75 | -2.76 | -12.76 |
| MCM-08 | Upgradient | 7/11/2016 | 4/16/2020 | 443758.8 | 849716.96 | 9.42 | 28.29 | -8.39 | -18.39 |
| MCM-11 | Upgradient | 7/12/2016 | 4/16/2020 | 442429.8 | 851072.91 | 10.23 | 24.00 | -3.34 | -13.34 |
| MCM-12 | Downgradient | 7/12/2016 | 4/16/2020 | 442821.17 | 851312.45 | 11.87 | 29.00 | -6.12 | -16.12 |
| MCM-14 | Downgradient | 7/9/2016 | 4/16/2020 | 443358.82 | 852317.59 | 11.50 | 28.11 | -6.23 | -16.23 |
| MCM-15 | Upgradient | 6/30/2016 | 4/16/2020 | 444825.53 | 851949.02 | 12.84 | 26.60 | -4.53 | -14.53 |
| MCM-16 | Upgradient | 7/6/2019 | 4/16/2020 | 444551.32 | 852716.6 | 16.02 | 28.39 | -1.72 | -11.72 |
| MCM-17 | Downgradient | 9/29/2016 | 4/16/2020 | 443074.41 | 851899.68 | 11.49 | 27.44 | -4.81 | -14.81 |
| MCM-18 | Upgradient | 10/30/2019 | 4/16/2020 | 442067.07 | 851698.41 | 9.00 | 27.86 | -8.76 | -18.76 |
| MCM-19 | Upgradient | 10/30/2019 | 4/16/2020 | 441157.82 | 852338.86 | 8.71 | 28.32 | -9.53 | -19.53 |
| MCM-20 | Upgradient | 10/30/2019 | 4/16/2020 | 440944.4 | 852185.15 | 10.07 | 23.05 | -2.98 | -12.98 |
| DPZ-02 | Vertical Delineation | 3/10/2020 | 4/16/2020 | 444391.02 | 850757.94 | 9.54 | 43.46 | -28.84 | -33.84 |
| Piezometer | | | | | | | | | |
| MCM-03 | Water Level | 7/6/2016 | 4/16/2020 | 444414.88 | 851984.67 | 9.97 | 27.70 | -7.73 | -17.73 |
| MCM-08 | Water Level | 7/11/2016 | 4/16/2020 | 443758.8 | 849716.96 | 9.42 | 28.29 | -8.39 | -18.39 |
| MCM-09 | Water Level | 7/10/2019 | NA | 443252.16 | 850147.75 | | | Abandoned | |
| MCM-10 | Water Level | 7/11/2016 | 4/16/2020 | 442791.88 | 850453.05 | 11.75 | 23.96 | -1.25 | -11.25 |
| MCM-13 | Water Level | 7/9/2016 | 4/16/2020 | 443030.23 | 851826.19 | 12.56 | 27.46 | -4.90 | -14.90 |
| PZ-09 | Water Level | 10/31/2019 | 4/16/2020 | 444082.13 | 849471.64 | 9.41 | 24.05 | -4.56 | -14.56 |
| PZ-10 | Water Level | 11/1/2019 | 4/16/2020 | 444949.09 | 851673.98 | 12.17 | 22.91 | -0.66 | -10.66 |
| PZ-11 | Water Level | 11/22/2019 | 4/16/2020 | 443222.86 | 849280.51 | 9.37 | 19.08 | -4.63 | -9.63 |
| PZ-12 | Water Level | 11/22/2019 | 4/16/2020 | 443593.34 | 849396.87 | 7.90 | 18.70 | -5.72 | -10.72 |
| DPZ-01 | Water Level | 3/10/2020 | 4/16/2020 | 444695.71 | 851277.4 | 9.71 | 40.78 | -25.99 | -30.99 |
| DPZ-03 | Water Level | 3/11/2020 | 4/16/2020 | 444073.16 | 850218.83 | 9.46 | 47.57 | -33.03 | -38.03 |
| DPZ-04 | Water Level | 3/12/2020 | 4/16/2020 | 443062.6 | 851881.94 | 11.45 | 51.23 | -34.70 | -39.70 |
| DPZ-05 | Water Level | 3/11/2020 | 4/16/2020 | 443376.32 | 852342.11 | 11.00 | 51.20 | -35.12 | -40.12 |
| DPZ-06 | Water Level | 3/12/2020 | 4/16/2020 | 444614.79 | 851846.27 | 12.04 | 40.50 | -23.38 | -28.38 |

Notes:
1. Georgia State Plane - East Coordinates.
2. NAVD 88 - North American Vertical Datum of 1988
ft BTOC - feet below top of casing
Data source: Resolute 2020a

Table 2
Lithium in Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Location | Date | Lithium (mg/L) | TDS (mg/L) |
|---|------------|----------------|------------|
| Groundwater Protection Standards | | | |
| Federal GWPS | July 2021 | 0.04 | NA |
| Groundwater | | | |
| DPZ-02 | 9/15/2021 | 0.092 | 16400 |
| | 3/1/2022 | 0.088 J | 15600 |
| Background Surface Water | | | |
| BG-1LT | 9/30/2021 | 0.060 | 13400 |
| | 12/15/2021 | 0.010 J | 19800 |
| BG-2HT | 9/22/2021 | 0.14 | 21100 |
| | 12/15/2021 | 0.011 J | 22600 |
| Surface Water Transects | | | |
| T1-1HT | 9/23/2021 | 0.060 | 11800 |
| T1-1LT | 9/30/2021 | 0.042 | 11600 |
| T1-2HT | 9/23/2021 | 0.076 | 18300 |
| T1-2HTS | 9/23/2021 | 0.057 | 12000 |
| T1-2LT | 9/30/2021 | 0.041 | 11200 |
| T1-3HT | 9/23/2021 | 0.073 | 15700 |
| T1-3HTS | 9/23/2021 | 0.060 | 12900 |
| T1-3LT | 9/30/2021 | 0.038 | 11900 |
| | 9/23/2021 | 0.069 | 15400 |
| T1-4HT | 12/15/2021 | 0.091 J | 21000 |
| | 9/23/2021 | 0.066 | 13000 |
| T1-4HTS | 12/15/2021 | 0.091 J | 21300 |
| | 9/30/2021 | 0.046 | 8100 |
| T1-4LT | 12/15/2021 | 0.099 J | 20400 |
| | 9/23/2021 | 0.054 | 11700 |
| T2-1HT | 12/15/2021 | 0.092 J | 18800 J |
| | 9/23/2021 | 0.071 | 16400 |
| T2-2HT | 12/15/2021 | 0.094 J | 17200 |
| | 9/23/2021 | 0.048 J | 10400 |
| T2-2HTS | 12/15/2021 | 0.096 J | 18600 |
| | 9/30/2021 | 0.036 J | 10000 |
| T2-2LT | 9/23/2021 | 0.078 | 16200 |
| | 12/15/2021 | 0.095 J | 19400 |
| T2-3HT | 9/23/2021 | 0.048 J | 10000 |
| | 12/15/2021 | 0.093 J | 19200 |
| T2-3HTS | 9/30/2021 | 0.041 | 11400 |
| | 9/23/2021 | 0.064 | 13600 |
| T2-3LT | 12/15/2021 | 0.092 J | 19100 |
| | 9/23/2021 | 0.053 | 12000 |
| T2-4HT | 12/15/2021 | 0.089 J | 20000 |
| | 9/30/2021 | 0.022 J | 6770 |
| T2-4HTS | 12/15/2021 | 0.085 J | 19200 |
| | 9/23/2021 | 0.040 J | 8300 |
| T3-1HT | 9/23/2021 | 0.071 | 13400 |
| T3-2HT | 9/23/2021 | 0.071 | 13400 |
| T3-2HTS | 9/23/2021 | 0.034 J | 7450 |
| T3-2LT | 9/30/2021 | 0.029 J | 9170 |
| T3-3HT | 9/23/2021 | 0.071 | 14100 |
| T3-3HTS | 9/23/2021 | 0.027 J | 6600 |
| T3-3LT | 9/30/2021 | 0.028 J | 8670 |
| T3-4HT | 9/23/2021 | 0.069 | 14200 |
| | 12/15/2021 | 0.091 J | 19800 |

Table 2
Lithium in Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Location | Date | Lithium (mg/L) | TDS (mg/L) |
|----------|------------|----------------|------------|
| T3-4HTS | 9/23/2021 | 0.041 J | 9850 |
| | 12/15/2021 | 0.089 J | 19000 |
| T3-4LT | 9/30/2021 | 0.025 J | 8070 |
| | 12/15/2021 | < 0.010 | 20800 |
| T4-1HB | 9/22/2021 | 0.077 | 15500 |
| | 12/15/2021 | 0.094 J | 20800 |
| T4-1HS | 9/22/2021 | 0.067 | 12900 |
| | 12/15/2021 | 0.095 J | 21200 |
| T4-1L | 9/22/2021 | 0.088 | 15600 |
| T4-2HB | 9/22/2021 | 0.076 | 15800 |
| | 12/15/2021 | 0.096 J | 21100 |
| T4-2HS | 9/22/2021 | 0.069 | 14800 |
| | 12/15/2021 | 0.10 J | 21100 |
| T4-2L | 9/22/2021 | 0.09 | 14800 |
| T4-3HB | 9/22/2021 | 0.076 | 16000 |
| | 12/15/2021 | 0.098 J | 21800 |
| T4-3HS | 9/22/2021 | 0.072 | 15400 |
| | 12/15/2021 | 0.10 J | 22200 |
| T4-3L | 9/22/2021 | 0.086 | 15200 |
| T4-4HB | 9/22/2021 | 0.081 | 16400 |
| | 12/15/2021 | 0.10 J | 21400 |
| T4-4HS | 9/22/2021 | 0.087 | 16200 |
| | 12/15/2021 | 0.10 J | 21500 |
| T4-4L | 9/22/2021 | 0.086 | 15200 |
| | 12/15/2021 | 0.010 J | 20700 |

Abbreviations

GWPS- groundwater protection standards

HT- high tide

LT/L- low tide

HB - high tide bottom

HTS/HS - high tide surface

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's

mg/L- milligrams per liter

Full analytical data reports and summary tables for September and December 2021 samples can be found in the 2021 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute, 2022). Analytical reports and purge log for the March 2022 sample at DPZ-02 is included as Appendix B of this report.

Table 3
Analytical Results Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Sample Type | Sample Location | Analyte
Units | Alkalinity
(calcium carbonate) | Alkalinity
(bicarbonate) | Alkalinity
(carbonate) | Boron | Calcium | Chloride | Fluoride | Lithium | Magnesium | Potassium | Sodium | Sulfate | Total
Dissolved
Solids (TDS) |
|-----------------------------|-----------------|------------------|-----------------------------------|-----------------------------|---------------------------|---------|---------|----------|----------|----------|-----------|-----------|--------|---------|------------------------------------|
| | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| Background
Surface Water | BG-1LT | 9/30/2021 | 78.2 | 78.2 | < 5.0 | 1.3 | 147 | 5520 | < 5.0 | 0.06 | 434 | 138 | 3720 | 725 | 13400 |
| | | 12/15/2021 | 103 | 103 | < 5.0 | 0.25 J | 235 | 9830 | < 5.0 | 0.01 J | 706 | 238 | 5730 | 1330 | 19800 |
| | BG-2HT | 9/22/2021 | 108 J | 108 J | < 5.0 J | 2.8 | 178 | 9780 | < 4.5 | 0.14 | 524 | 171 | 6380 | 1710 | 21100 |
| | | 12/15/2021 | 109 | 109 | < 5.0 | 0.28 J | 259 | 10600 | < 5.0 | 0.011 J | 796 | 268 | 7240 | 1540 | 22600 |
| Surface Water | T2-1HT | 9/23/2021 | 68.7 | 68.7 | < 5.0 | 1.4 J | 124 | 4750 | < 4.5 | 0.054 | 363 | 118 | 3100 | 638 | 11700 |
| | T2-2HT | 9/23/2021 | 83.1 | 83.1 | < 5.0 | 1.9 J | 165 | 6450 J | < 4.5 | 0.071 | 496 | 160 | 4250 | 884 J | 16400 |
| | T2-2HTS | 9/23/2021 | 65.2 | 65.2 | < 5.0 | 1.5 J | 113 | 4400 | < 4.5 | 0.048 J | 330 | 106 | 2810 | 585 | 10400 |
| | T2-2LT | 9/30/2021 | 69.9 | 69.9 | < 5.0 | 0.91 | 124 | 4530 | < 4.5 | 0.036 J | 358 | 115 | 3080 | 586 | 10000 |
| | T2-3HT | 9/23/2021 | 84 | 84 | < 5.0 | 2.2 J | 172 | 6700 | < 4.5 | 0.078 | 516 | 166 | 4370 | 918 | 16200 |
| | T2-3HTS | 9/23/2021 | 61.5 | 61.5 | < 5.0 | 1.4 | 104 | 4090 | < 4.5 | 0.048 J | 303 | 97.6 J | 2570 | 540 | 10000 |
| | T2-3LT | 9/30/2021 | 69 | 69 | < 5.0 | 1.1 | 129 | 5020 | < 5.0 | 0.041 | 372 | 119 | 3200 | 664 | 11400 |
| | T2-4HT | 9/23/2021 | 77.1 | 77.1 | < 5.0 | 1.9 J | 154 | 5670 | < 4.5 | 0.064 | 460 | 148 | 3930 | 768 | 13600 |
| | T2-4HTS | 9/23/2021 | 54.5 | 54.5 | < 5.0 | 1.4 J | 130 | 5130 | < 4.5 | 0.053 | 381 | 123 | 3230 | 694 | 12000 |
| T2-4LT | 9/30/2021 | 54.1 | 54.1 | < 5.0 | 0.58 J | 80.1 J | 2870 | < 5.0 | 0.022 J | 222 | 70.6 J | 1880 | 361 | 6770 | |
| Groundwater | DPZ-02 | 9/14/2021 | -- | -- | -- | 2.0 | 273 | 7610 | < 0.050 | 0.092 | -- | -- | -- | 971 | 16400 |
| | | 3/1/2022 | 372 | 372 | <1.8 | 1.6 J | 303 | 6750 | <0.050 | 0.088 J | 506 | 171 | 4320 | 755 | 15600 |
| | MCM-01 | 3/3/2021 | 15.8 | 15.8 | < 5.0 | < 0.42 | 14.0 | 13.6 | < 0.050 | < 0.025 | 1.7 | < 30.4 J | 14.2 J | 33.8 | 99 |
| | | 9/14/2021 | -- | -- | -- | 0.079 J | 9.6 | 16.7 | < 0.050 | < 0.0025 | -- | -- | -- | 34.2 | 66 |
| | MCM-02 | 3/3/2021 | < 5.0 | < 5.0 | < 5.0 | < 0.42 | 4.0 | 20.5 | < 0.050 | < 0.025 | 2.3 | < 30.4 | 18.7 J | 27.6 | 84 |
| | | 9/14/2021 | -- | -- | -- | 0.093 J | 4.2 | 21.8 | < 0.050 | < 0.0025 | -- | -- | -- | 30.4 | 76 |
| | MCM-04 | 9/14/2021 | -- | -- | -- | 0.070 J | 12.5 | 28.5 | < 0.050 | < 0.0025 | -- | -- | -- | 96.2 J | 193 |
| | MCM-05 | 9/14/2021 | 233 | 233 | < 5.0 | 0.95 J | 13.9 | 3940 | < 0.050 | 0.042 J | 32.4 | 10.7 | 2410 | 459 | 8020 |
| | MCM-06 | 3/4/2021 | -- | -- | -- | 1.4 J | 233.0 | 6310 | < 0.050 | 0.096 J | -- | -- | -- | 596 | 14200 |
| | | 9/14/2021 | 507 | 507 | < 5.0 | 1.1 | 299 | 5360 | < 0.050 | 0.084 | 515 | 117 | 3270 | 490 | 11800 |
| | MCM-07 | 3/4/2021 | -- | -- | -- | 1.6 J | 244.0 | 7540 | < 0.050 | 0.035 J | -- | -- | -- | 982 | 17100 |
| | | 9/14/2021 | 246 | 246 | < 5.0 | 1.5 | 225 | 6300 | < 0.050 | 0.035 J | 496 | 154 | 3860 | 819 | 13400 |
| | MCM-11 | 3/3/2021 | < 5.0 | < 5.0 | < 5.0 | < 0.42 | 2.1 | 9.4 | 0.082 J | < 0.025 | 1.3 | < 30.4 | 11.3 J | 19.9 | 66 |
| | | 9/14/2021 | -- | -- | -- | 0.060 J | 14 | 62.8 | 0.18 | 0.0033 J | -- | -- | -- | 33.1 | 191 |
| MCM-12 | 3/2/2021 | 496 J | 496 | < 5.0 | 1.4 J | 6.5 | 459 | 1.0 | < 0.025 | 12.5 | < 30.4 | 497 | 1.2 | 1430 | |
| | 9/13/2021 | -- | -- | -- | 1.4 J | 6 | 433 | 1.4 | 0.01 J | -- | -- | -- | < 0.5 | 1450 H | |

Table 3
Analytical Results Summary of Select Wells and Background Surface Water
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia

| Sample Type | Sample Location | Analyte
Units | Alkalinity
(calcium carbonate) | Alkalinity
(bicarbonate) | Alkalinity
(carbonate) | Boron | Calcium | Chloride | Fluoride | Lithium | Magnesium | Potassium | Sodium | Sulfate | Total
Dissolved
Solids (TDS) |
|---------------------------|-----------------|------------------|-----------------------------------|-----------------------------|---------------------------|-----------|---------|----------|----------|----------|-----------|-----------|--------|---------|------------------------------------|
| | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| Groundwater | MCM-14 | 3/2/2021 | 170 | 170 | < 5.0 | 1.4 J | 205 | 5680 | < 0.050 | 0.046 J | 422 | 130 | 3320 | 97.5 | 12000 |
| | | 9/13/2021 | 139 | 139 | < 5.0 | 1.2 | 165 | 5010 | < 0.050 | 0.047 | 393 | 123 | 2910 | 680 | 11400 H |
| | MCM-15 | 3/2/2021 | < 5.0 | < 5.0 | < 5.0 | < 0.42 | 1.4 | 4.2 | < 0.050 | < 0.025 | 1.1 | < 30.4 | 11.9 J | 8.0 | 40 |
| | | 9/14/2021 | -- | -- | -- | 0.068 J | 6.7 | 13.6 | < 0.050 | < 0.0025 | -- | -- | -- | 16.7 | 96 |
| | MCM-16 | 3/3/2021 | 10.7 | 10.7 | < 5.0 | < 0.085 J | 11.2 | 27.6 | < 0.050 | < 0.0050 | 3.0 | < 30.4 | 19.7 J | 30.5 | 122 |
| | | 9/14/2021 | -- | -- | -- | 0.071 J | 6.5 | 30 | < 0.05 | < 0.0025 | -- | -- | -- | 24.4 | < 25 |
| | MCM-17 | 3/3/2021 | 407 | 407 | < 5.0 | 1.7 J | 143 | < 0.60 | < 0.050 | < 0.025 | 266 | 107 | 2650 | 420 | 8830 |
| | | 9/14/2021 | 535 | 535 | < 5.0 | 2.1 J | 190 J | 4090 | < 0.050 | 0.035 J | 277 J | 143 J | 2600 J | 460 | 8820 |
| Background
Groundwater | MCM-18 | 3/3/2021 | < 5.0 J | < 5.0 | < 5.0 | 0.21 J | 26 | 1230 | 0.32 | < 0.0050 | 86.5 | < 30.4 | 792 | 171 | 2620 |
| | | 9/14/2021 | -- | -- | -- | 0.20 J | 18.8 | 1020 | < 0.050 | < 0.005 | -- | -- | -- | 134 | 2190 |
| | MCM-19 | 3/3/2021 | 5.6 | 5.6 | < 5.0 | 0.79 J | 123 | 5170 | < 0.050 | 0.019 J | 377 | 52.6 | 3150 | < 0.50 | 11000 |
| | | 9/14/2021 | -- | -- | -- | 1.2 | 93.6 | 7250 | < 0.050 | 0.011 J | -- | -- | -- | 995 | 14600 |
| | MCM-20 | 3/3/2021 | < 5.0 J | < 5.0 | < 5.0 | 0.91 J | 110 | < 0.60 | < 0.050 | 0.018 J | 334 | 68.2 | 3360 | 743 | 11400 |
| | | 9/14/2021 | -- | -- | -- | 0.91 J | 61.1 | 5100 | < 0.050 | 0.02 J | -- | -- | -- | 659 | 10300 |

Notes:

-- = analyte not evaluated

< = analyte not detected in sample. Method detection limit provided.

mg/L = milligrams per liter

Full analytical data reports and summary tables for March 2021 and September 2021 samples can be found in the 2021 Annual Groundwater Monitoring and Corrective Action Report (Resolute, 2021) and 2021 Semiannual Groundwater Monitoring and Corrective Action Report (Resolute, 2022), respectively

Analytical reports and purge log for the March 2022 sample at DPZ-02 is included as Appendix B of this report.

J- estimated concentration greater than the laboratory's method detection limit, but less than the laboratory's reporting limit.

H - Analysis conducted outside the EPA method holding time.

FIGURES



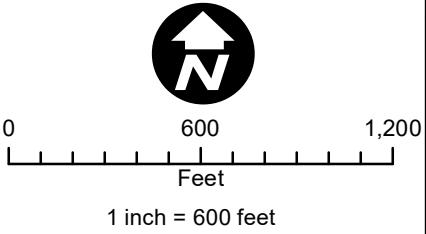
2022 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION
FOR DPZ-02 PLANT MCMANUS FORMER ASH POND 1



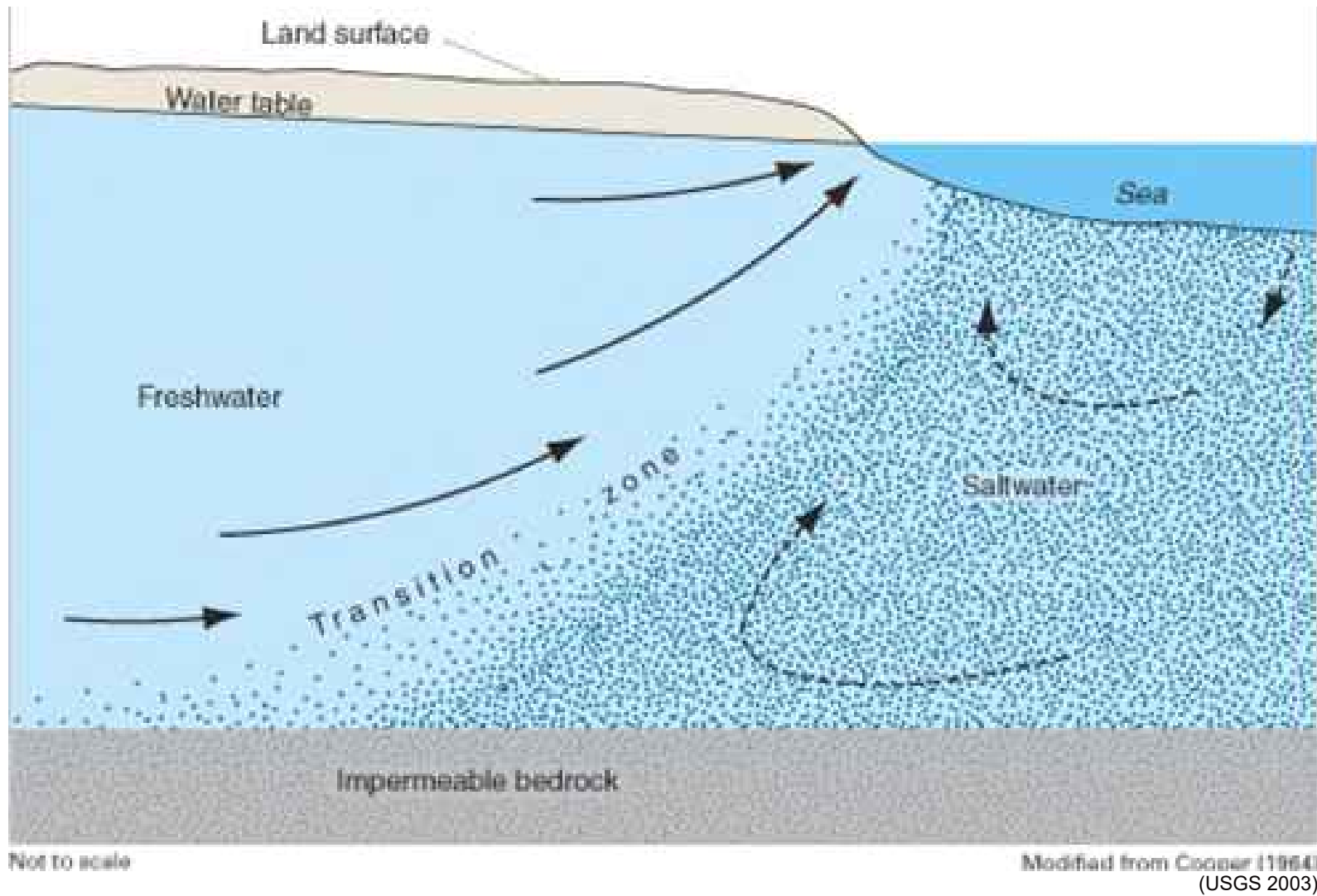
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2022 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION

- Legend**
- PROPERTY BOUNDARY
 - PERMITTED CCR BOUNDARY
 - COMPLIANCE MONITORING WELL
 - DELINEATION WELL
 - DEEP PIEZOMETER



| | |
|--|--------------------|
| GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA | |
| SITE AND WELL LOCATION MAP | |
| | FIGURE
1 |



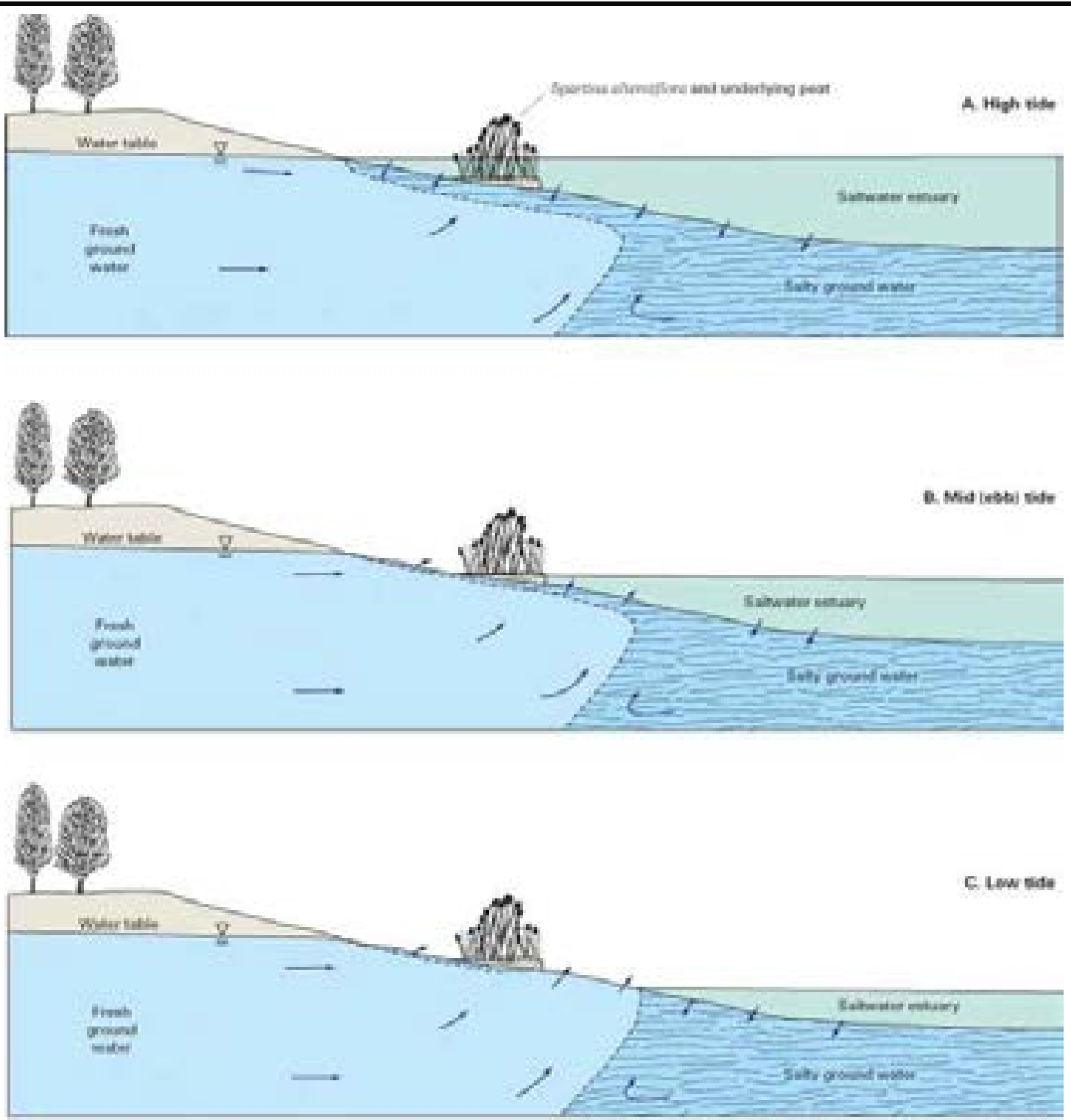
Note:

U.S. Geological Survey. 2003. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. Circular 1262. Reston VA. GB1197.83.A87B27 2003

GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA

THE FRESHWATER-SALTWATER
TRANSITION ZONE IN AN IDEALIZED
COASTAL AQUIFER





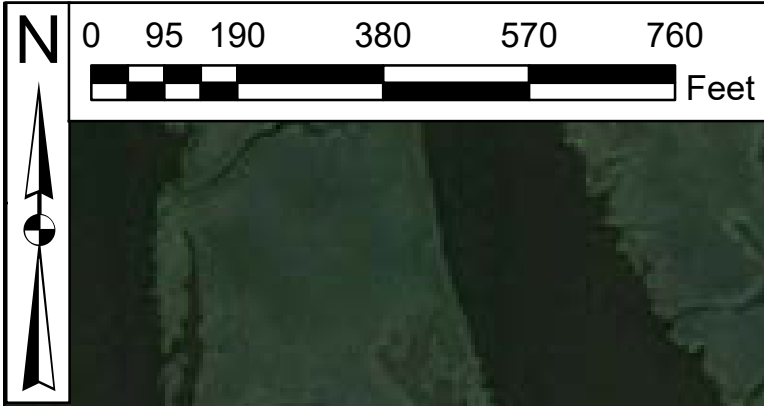
Figures modified from Fitts and others (1998) and Upton and Gannon (1988) (USGS 2003)



Note:

U.S. Geological Survey. 2003. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. Circular 1262. Reston VA. GB1197.83.A87B27 2003

| | |
|---|-----------------------------|
| <p>GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA</p> | |
| <p>GROUNDWATER DISCHARGE AND
 SALTWATER INFILTRATION AT THE
 AQUIFER-ESTUARY BOUNDARY</p> | |
| | <p>FIGURE
 3</p> |



X:\ArcGIS\McManus\ASD2020\AlternateSourceDemonstration\SamplingLocations



| Legend | |
|--|------------------------|
| ● | Surface Water Sample |
| ● | Pond Sample |
| | CCR Permitted Boundary |

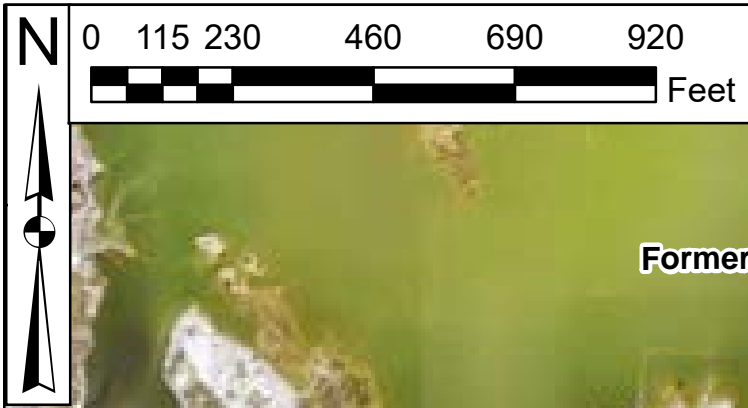
Resolute
Environmental & Water Resources Consulting

| | |
|---------------|------------|
| Woodstock, GA | April 2020 |
|---------------|------------|

**Plant McManus
Surface Water
Sample Collection Locations:
Northern Dike Area**

Brunswick, GA

**FIGURE
4A**



Former AP-1

POND 4L
POND 4H

T4-1L
T4-1HB
T4-1HS

T4-2L
T4-2HB
T4-2HS

T4-3L
T4-3HB
T4-3HS

T4-4L
T4-4HB
T4-4HS

Transect 4

Gibson Creek

Legend

- Surface Water Sample
- Pond Sample
- CCR Permitted Boundary



Woodstock, GA

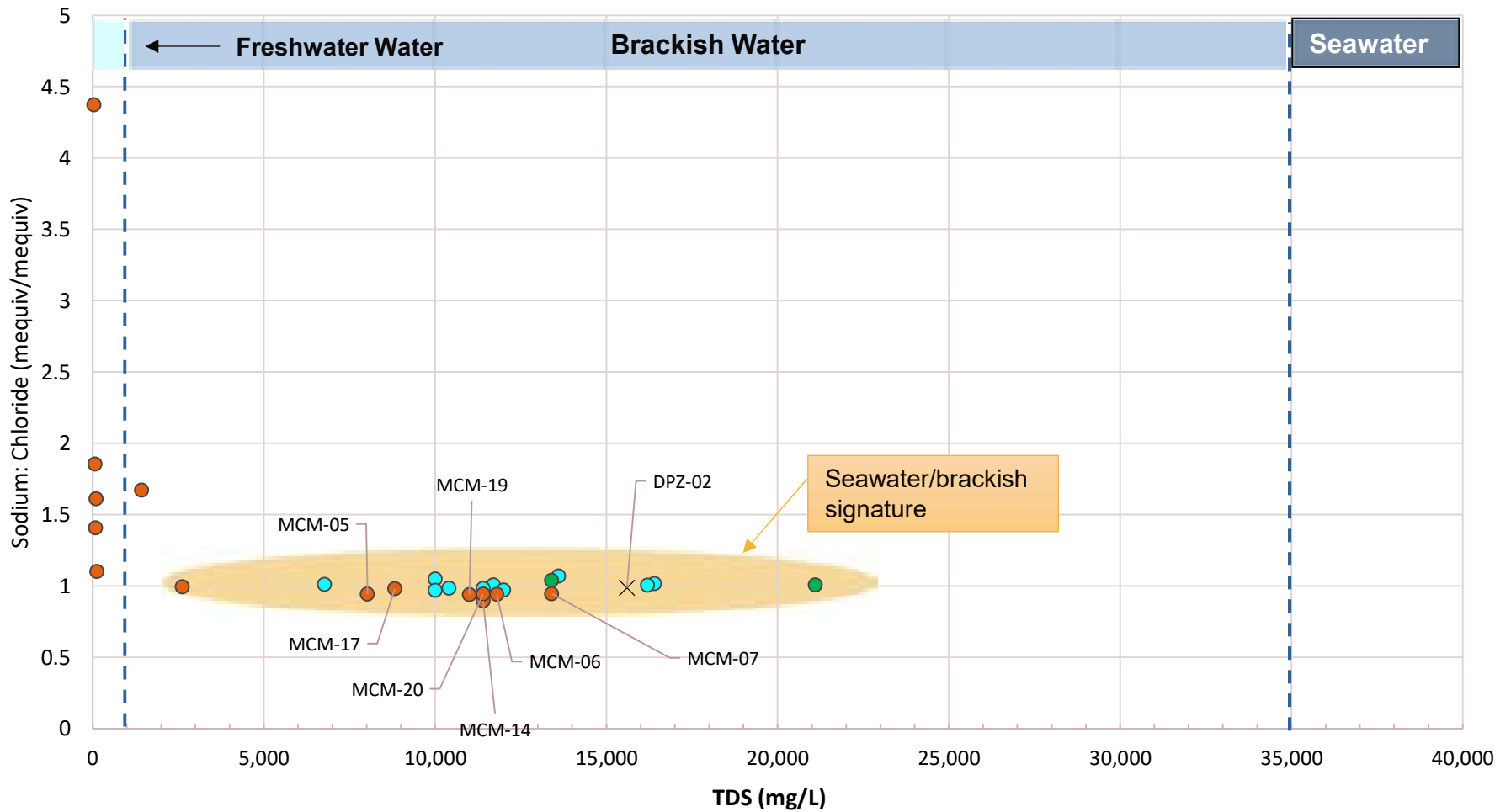
April 2020

**Plant McManus
Surface Water
Sample Collection Locations:
Southern Dike Area**

Brunswick, GA

**FIGURE
4B**

X:\ArcGIS\McManus\ASD2020\AlternateSourceDemonstration\SamplingLocations



- Surface Water Transect 2
- Surface Water - BG
- Groundwater
- × DPZ-02 - March 2022

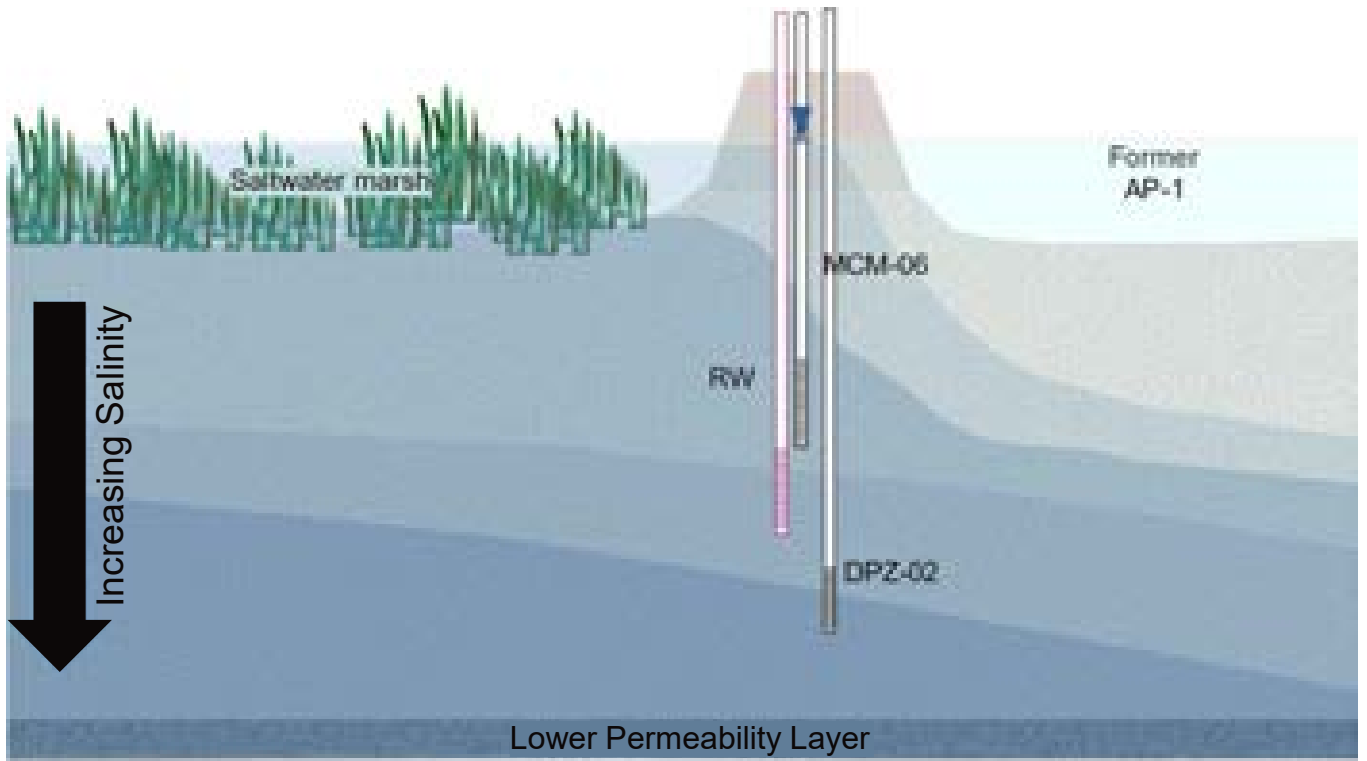
Notes:
 mequiv = milliequivalent
 TDS = total dissolved solids
 mg/L = milligrams per liter
 BG = background samples

September 2021 data posted

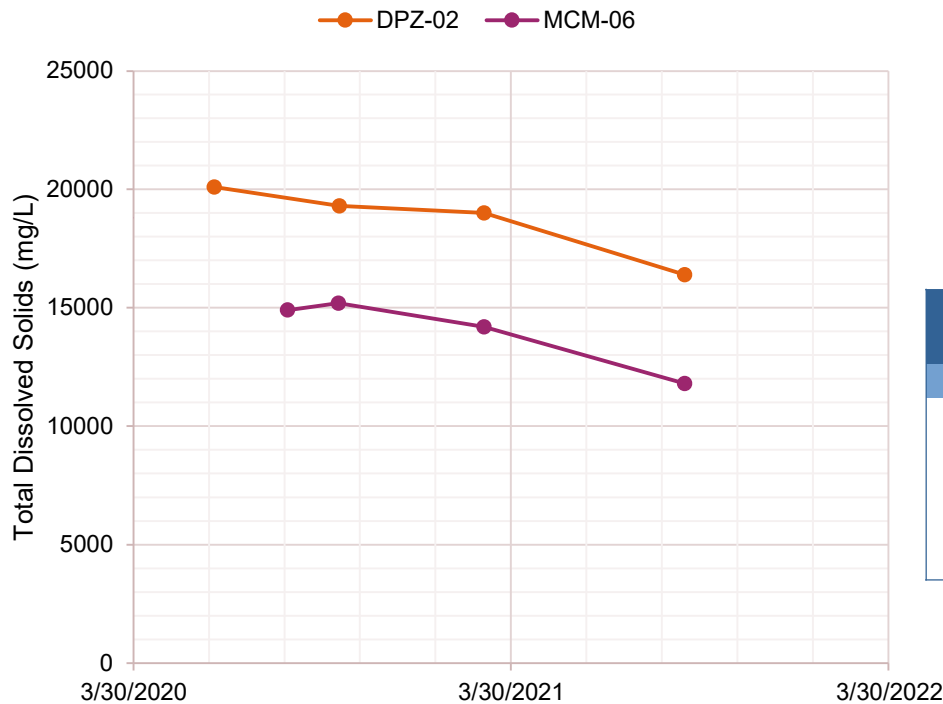
GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

SODIUM TO CHLORIDE RATIOS VERSUS
 TOTAL DISSOLVED SOLIDS





Not to scale



| Analyte | Total Dissolved Solids (mg/L) | | |
|---------|-------------------------------|--------|--------|
| | DATE | MCM-06 | DPZ-02 |
| | 3/28/2020 | 18800 | 20100 |
| | 8/26/2020 | 14900 | NM |
| | 10/14/2020 | 15200 | 19300 |
| | 3/4/2021 | 14200 | 19000 |
| | 9/14/2021 | 11800 | 16400 |

Note:

mg/L – milligrams per liter

NM – not measured

RW – Recovery well

Analytical reports for total dissolved solids data provided in Resolute 2020b, 2021a, 2021b, and 2022

GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

CONCEPTUAL DIAGRAM OF SALTWATER
 WEDGE AND MONITORING WELL TDS
 CONCENTRATIONS


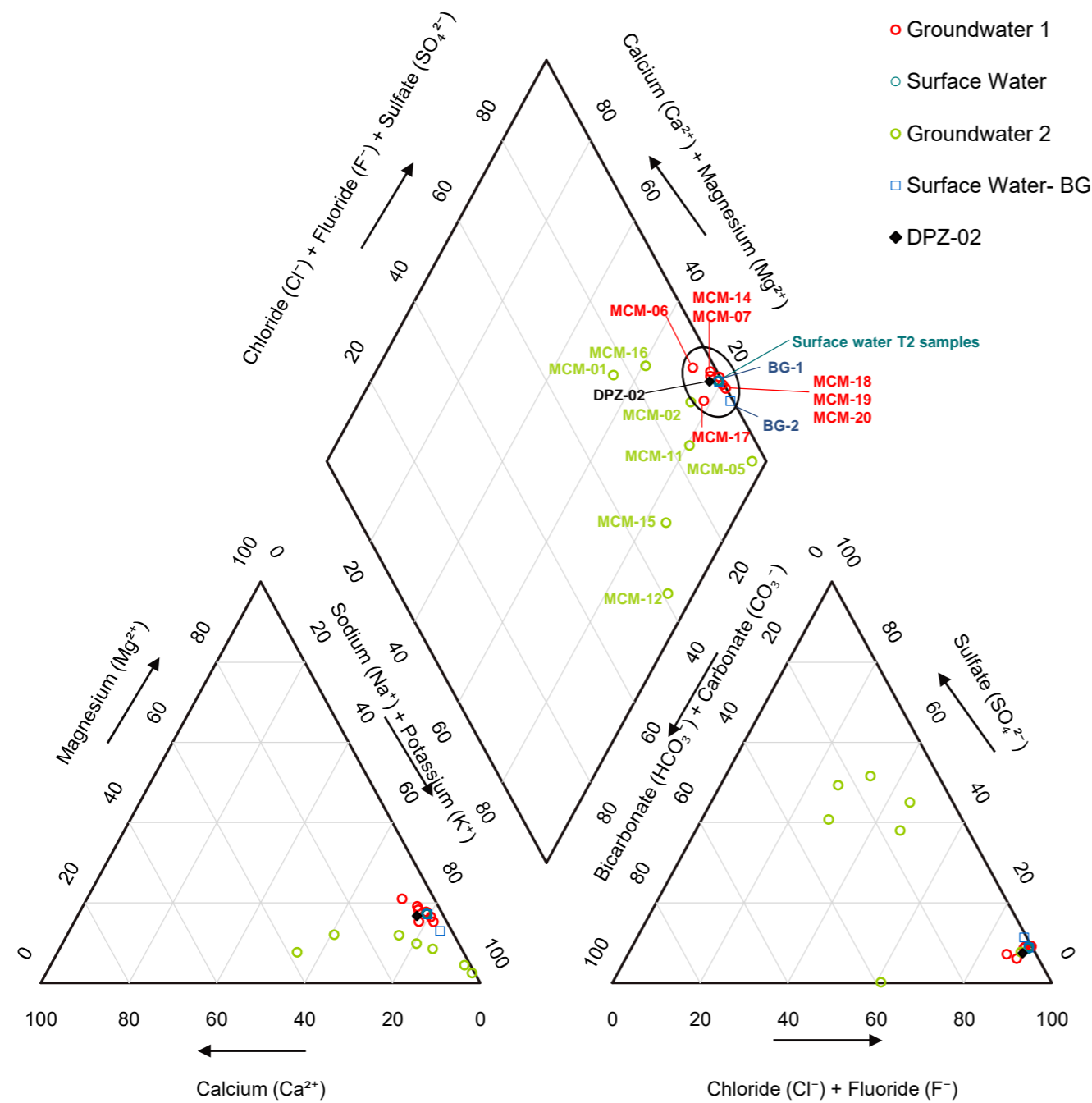


FIGURE
6



LEGEND

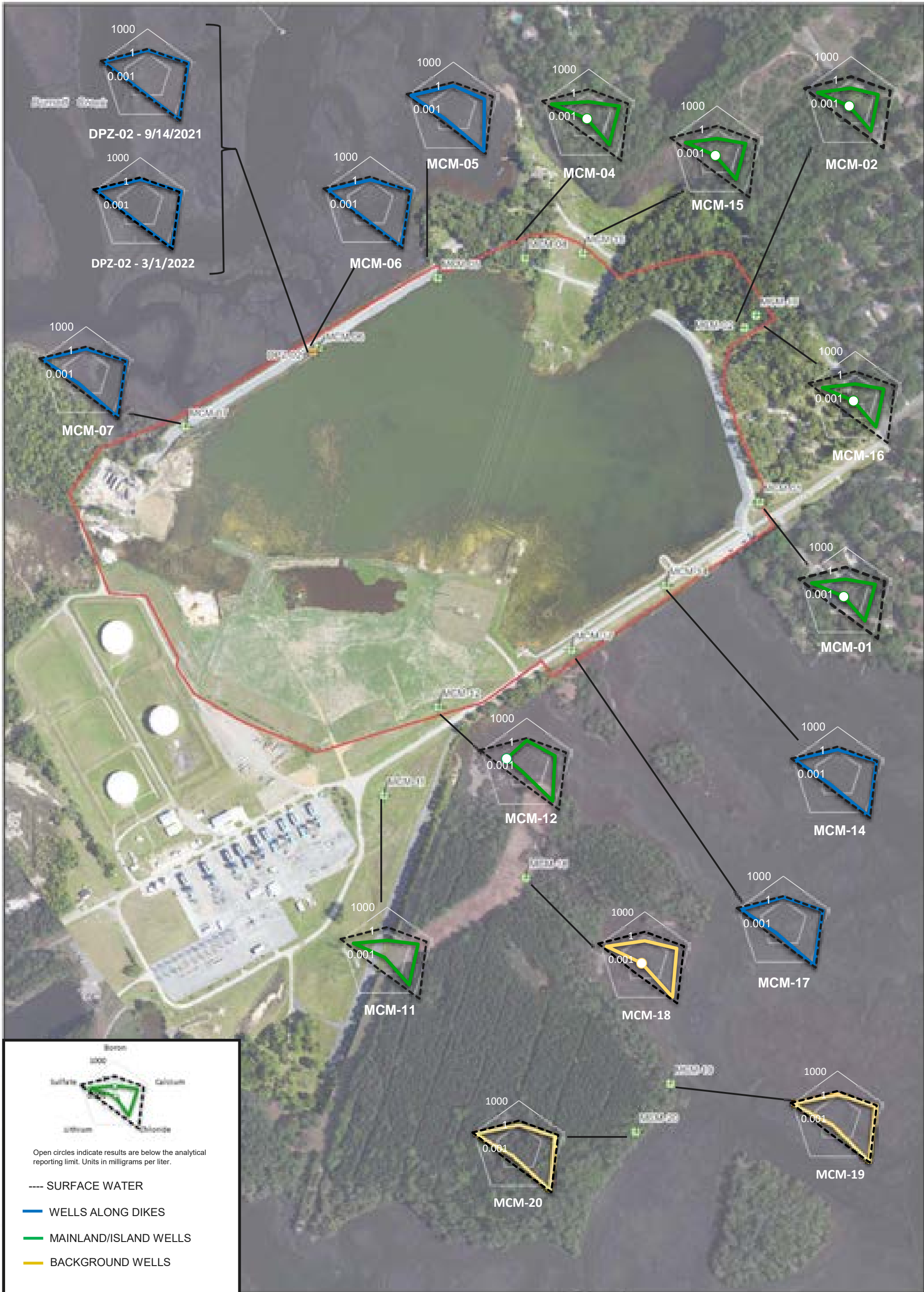
- CCR PERMITTED BOUNDARY
- ◆ BACKGROUND SURFACE WATER SAMPLE LOCATION
- ◆ PIEZOMETER
- ◆ DELINEATION WELL
- ◆ MONITORING WELL
- ◆ DEEP PIEZOMETER

Notes:
 Units in milligram per liter (mg/L)
 Data presented in Piper plot include those locations sampled during 2021 sampling events. DPZ-02 sampling data from March 2022.
 Service Layer Credit: Source Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

**SURFACE AND GROUNDWATER
 GEOCHEMISTRY**





Open circles indicate results are below the analytical reporting limit. Units in milligrams per liter.

- SURFACE WATER
- WELLS ALONG DIKES
- MAINLAND/ISLAND WELLS
- BACKGROUND WELLS

Legend

- DELINEATION WELL
- ⊕ CCR MONITORING POINTS
- ▭ CCR PERMITTED BOUNDARY

Note:
 CCR – Coal combustion residual
 Surface water sample BG-2HT collected September 2021 used for comparison.
 Recent data presented collected during March 2021, September 2021, and March 2022 (DPZ-02) sampling events. Data reported in Resolute 2021 (March 2021 Event), Resolute 2022 (September 2021 Event) and Appendix B of this report (March 2022 Event).

GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

ION COMPOSITION COMPARISON

ARCADIS

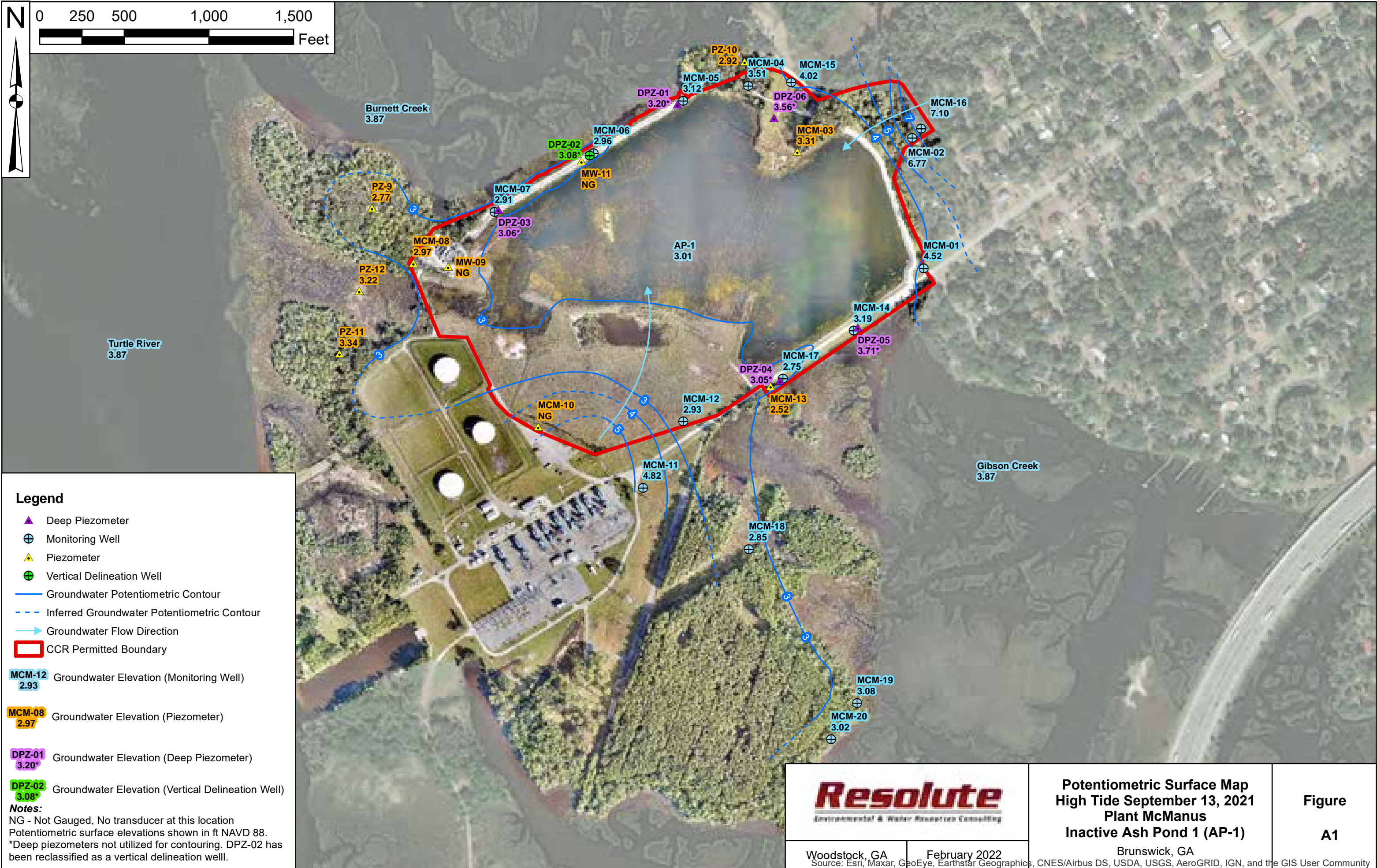
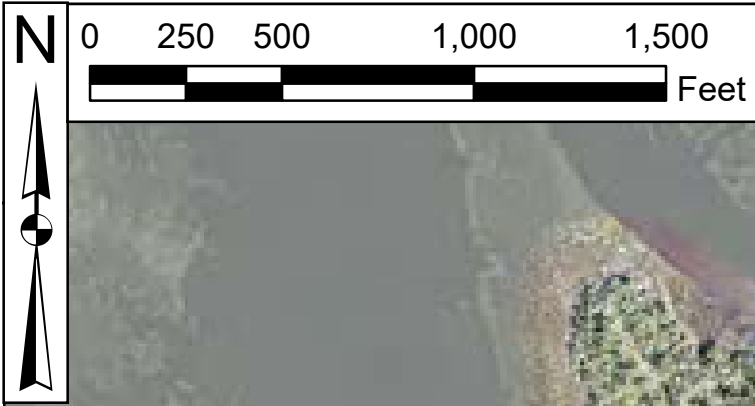
FIGURE
8

APPENDIX A

Resolute Potentiometric Maps



2022 LITHIUM ALTERNATIVE SOURCE DEMONSTRATION
FOR DPZ-02 PLANT MCMANUS FORMER ASH POND 1



Legend

- ▲ Deep Piezometer
- ⊕ Monitoring Well
- ▲ Piezometer
- ⊕ Vertical Delineation Well
- Groundwater Potentiometric Contour
- - - Inferred Groundwater Potentiometric Contour
- Groundwater Flow Direction
- ▭ CCR Permitted Boundary

MCM-12 2.93 Groundwater Elevation (Monitoring Well)

MCM-08 2.97 Groundwater Elevation (Piezometer)

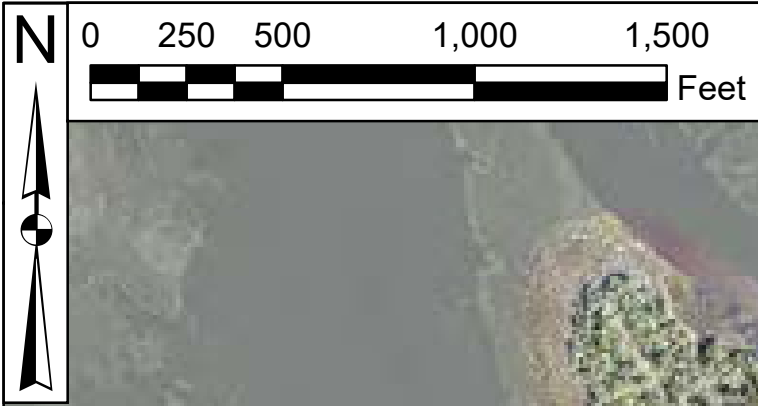
DPZ-01 3.20* Groundwater Elevation (Deep Piezometer)

DPZ-02 3.08* Groundwater Elevation (Vertical Delineation Well)

Notes:
 NG - Not Gauged, No transducer at this location
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

| | | | | |
|--|--|---|---------------|--------------------------------|
| | | Potentiometric Surface Map
High Tide September 13, 2021
Plant McManus
Inactive Ash Pond 1 (AP-1) | | Figure

A1 |
| | | Woodstock, GA
<small>Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community</small> | February 2022 | |



Legend

- Deep Piezometer
- Monitoring Well
- Piezometer
- Vertical Delineation Well
- Groundwater Flow Direction
- Inferred Groundwater Potentiometric Contour
- Groundwater Potentiometric Contour
- CCR Permitted Boundary

MCM-12 Groundwater Elevation (Monitoring Well)
2.99

MCM-08 Groundwater Elevation (Piezometer)
2.95

DPZ-01 Groundwater Elevation (Deep Piezometer)
1.45*

DPZ-02 Groundwater Elevation (Vertical Delineation Well)
1.12*

Notes:
 NG - Not Gauged, No transducer at this location
 Potentiometric surface elevations shown in ft NAVD 88.
 *Deep piezometers not utilized for contouring. DPZ-02 has been reclassified as a vertical delineation well.

| | | | |
|---|---------------|---|-------------------------|
| Resolute
Environmental & Water Resources Consulting | | Potentiometric Surface Map
Low Tide September 13, 2021
Plant McManus
Inactive Ash Pond 1 (AP-1)
Brunswick, GA | Figure

A2 |
| Woodstock, GA | February 2022 | | |

APPENDIX B

Resolute Sampling Log and Analytical Report – March 2022

Low-Flow Test Report:

Test Date / Time: 3/1/2022 11:22:14 AM
Project: March 2022 McManus CCR Event
Operator Name: Robert Mull

| | | |
|--|--|--|
| Location Name: DPZ-2
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 5 ft
Top of Screen: 38.46 ft
Total Depth: 43.46 ft
Initial Depth to Water: 6.36 ft | Pump Type: GeoTech Peristaltic
Tubing Type: LDPE
Pump Intake From TOC: 40.96 ft
Estimated Total Volume Pumped: 3000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 150 ml/min
Final Draw Down: 0.47 ft | Instrument Used: Aqua TROLL 400
Serial Number: 789310 |
|--|--|--|

Test Notes:
Pre-purged 2 liters

Low-Flow Readings:

| Date Time | Elapsed Time | pH | Temperature | Specific Conductivity | RDO Concentration | Turbidity | ORP | Depth To Water | Flow |
|----------------------|--------------|---------|-------------|-----------------------|-------------------|-----------|------------|----------------|---------------|
| | | +/- 0.1 | +/- 1000 % | +/- 5 % | +/- 10 % | +/- 5 | +/- 1000 % | +/- 0.3 | |
| 3/1/2022
11:22 AM | 00:00 | 7.03 pH | 22.19 °C | 24,661 µS/cm | 0.22 mg/L | 0.42 NTU | -162.2 mV | 6.61 ft | 150.00 ml/min |
| 3/1/2022
11:26 AM | 04:00 | 7.06 pH | 22.16 °C | 24,748 µS/cm | 0.14 mg/L | 0.39 NTU | -173.7 mV | 6.65 ft | 150.00 ml/min |
| 3/1/2022
11:30 AM | 08:00 | 7.07 pH | 22.21 °C | 24,781 µS/cm | 0.10 mg/L | 1.08 NTU | -178.0 mV | 6.69 ft | 150.00 ml/min |
| 3/1/2022
11:34 AM | 12:00 | 7.08 pH | 22.38 °C | 24,877 µS/cm | 0.08 mg/L | 0.02 NTU | -182.4 mV | 6.74 ft | 150.00 ml/min |
| 3/1/2022
11:38 AM | 16:00 | 7.08 pH | 21.85 °C | 24,857 µS/cm | 0.08 mg/L | 0.06 NTU | -185.8 mV | 6.79 ft | 150.00 ml/min |
| 3/1/2022
11:42 AM | 20:00 | 7.08 pH | 21.94 °C | 25,093 µS/cm | 0.08 mg/L | 0.13 NTU | -190.8 mV | 6.83 ft | 150.00 ml/min |

Samples

| Sample ID: | Description: |
|------------|---|
| DPZ-02 | Metals, inorganics, TDS, Alkalinity, radium |



March 14, 2022

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

RE: Project: MCMANUS CCR
Pace Project No.: 92590990

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 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 - Minneapolis

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

Sincerely,

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

Enclosures

cc: Joe Booth, Resolute Environmental & Water Resources
 Anna Bottum, ERM
 Andrea Brazell, ERM
 Trent Godwin, Resolute Environmental & Water Resources
 Kristen Jurinko
 Ms. Lauren Petty, Southern Company
 Lacy Smith, ERM
 Kevin Stephenson, Resolute Environmental & Water Resources Consulting, LLC
 Caitlin Tillema, ERM
 Christine Weaver, ERM

Stephen Wilson, Resolute Environmental & Water Resources Consulting, LLC



REPORT OF LABORATORY ANALYSIS

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



CERTIFICATIONS

Project: MCMANUS CCR

Pace Project No.: 92590990

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

- A2LA Certification #: 2926.01*
- Alabama Certification #: 40770
- Alaska Contaminated Sites Certification #: 17-009*
- Alaska DW Certification #: MN00064
- Arizona Certification #: AZ0014*
- Arkansas DW Certification #: MN00064
- Arkansas WW Certification #: 88-0680
- California Certification #: 2929
- Colorado Certification #: MN00064
- Connecticut Certification #: PH-0256
- EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
- Florida Certification #: E87605*
- Georgia Certification #: 959
- Hawaii Certification #: MN00064
- Idaho Certification #: MN00064
- Illinois Certification #: 200011
- Indiana Certification #: C-MN-01
- Iowa Certification #: 368
- Kansas Certification #: E-10167
- Kentucky DW Certification #: 90062
- Kentucky WW Certification #: 90062
- Louisiana DEQ Certification #: AI-03086*
- Louisiana DW Certification #: MN00064
- Maine Certification #: MN00064*
- Maryland Certification #: 322
- Michigan Certification #: 9909
- Minnesota Certification #: 027-053-137*
- Minnesota Dept of Ag Approval: via MN 027-053-137
- Minnesota Petrofund Registration #: 1240*
- Mississippi Certification #: MN00064

- Missouri Certification #: 10100
 - Montana Certification #: CERT0092
 - Nebraska Certification #: NE-OS-18-06
 - Nevada Certification #: MN00064
 - New Hampshire Certification #: 2081*
 - New Jersey Certification #: MN002
 - New York Certification #: 11647*
 - North Carolina DW Certification #: 27700
 - North Carolina WW Certification #: 530
 - North Dakota Certification #: R-036
 - Ohio DW Certification #: 41244
 - Ohio VAP Certification (1700) #: CL101
 - Ohio VAP Certification (1800) #: CL110*
 - Oklahoma Certification #: 9507*
 - Oregon Primary Certification #: MN300001
 - Oregon Secondary Certification #: MN200001*
 - Pennsylvania Certification #: 68-00563*
 - Puerto Rico Certification #: MN00064
 - South Carolina Certification #:74003001
 - Tennessee Certification #: TN02818
 - Texas Certification #: T104704192*
 - Utah Certification #: MN00064*
 - Vermont Certification #: VT-027053137
 - Virginia Certification #: 460163*
 - Washington Certification #: C486*
 - West Virginia DEP Certification #: 382
 - West Virginia DW Certification #: 9952 C
 - Wisconsin Certification #: 999407970
 - Wyoming UST Certification #: via A2LA 2926.01
 - USDA Permit #: P330-19-00208
- *Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey 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

REPORT OF LABORATORY ANALYSIS

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



SAMPLE SUMMARY

Project: MCMANUS CCR
Pace Project No.: 92590990

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-----------|--------|----------------|----------------|
| 92590990001 | DPZ-02 | Water | 03/01/22 11:50 | 03/02/22 10:03 |

REPORT OF LABORATORY ANALYSIS

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



SAMPLE ANALYTE COUNT

Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-----------|------------------------|----------|-------------------|------------|
| 92590990001 | DPZ-02 | EPA 6010D | CBV, CRW | 4 | PASI-A |
| | | EPA 6020B | JOR | 13 | PASI-A |
| | | EPA 7470A | DBB1 | 1 | PASI-A |
| | | SM 2320B | AB3 | 3 | PASI-M |
| | | SM 2540C-2011 | MAB2 | 1 | PASI-A |
| | | EPA 300.0 Rev 2.1 1993 | JCM | 3 | PASI-A |

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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



SUMMARY OF DETECTION

Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab Sample ID | Client Sample ID | Result | Units | Report Limit | Analyzed | Qualifiers |
|------------------------|--------------------------------|---------|------------|--------------|----------------|------------|
| Method | Parameters | | | | | |
| 92590990001 | DPZ-02 | | | | | |
| | Performed by | CUSTOME | | | 03/02/22 15:26 | |
| | | R | | | | |
| | pH | 7.08 | Std. Units | | 03/02/22 15:26 | |
| EPA 6010D | Calcium | 303 | mg/L | 2.0 | 03/14/22 11:25 | |
| EPA 6010D | Magnesium | 506 | mg/L | 2.0 | 03/14/22 11:25 | |
| EPA 6010D | Potassium | 171 | mg/L | 100 | 03/14/22 11:25 | |
| EPA 6010D | Sodium | 4320 | mg/L | 500 | 03/14/22 14:06 | |
| EPA 6020B | Arsenic | 0.015J | mg/L | 0.050 | 03/11/22 15:30 | |
| EPA 6020B | Barium | 0.074 | mg/L | 0.050 | 03/11/22 15:30 | |
| EPA 6020B | Boron | 1.6J | mg/L | 2.5 | 03/11/22 15:30 | |
| EPA 6020B | Lithium | 0.088J | mg/L | 0.12 | 03/11/22 15:30 | |
| SM 2320B | Alkalinity, Total as CaCO3 | 372 | mg/L | 5.0 | 03/10/22 11:27 | |
| SM 2320B | Alkalinity,Bicarbonate (CaCO3) | 372 | mg/L | 5.0 | 03/10/22 11:27 | |
| SM 2540C-2011 | Total Dissolved Solids | 15600 | mg/L | 500 | 03/04/22 11:30 | |
| EPA 300.0 Rev 2.1 1993 | Chloride | 6750 | mg/L | 100 | 03/05/22 03:47 | |
| EPA 300.0 Rev 2.1 1993 | Sulfate | 755 | mg/L | 100 | 03/05/22 03:47 | |

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92590990

Sample: DPZ-02 **Lab ID:** 92590990001 Collected: 03/01/22 11:50 Received: 03/02/22 10:03 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 | | 03/02/22 15:26 | | |
| pH | 7.08 | Std. Units | | | 1 | | 03/02/22 15:26 | | |

6010 MET ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|-----------|-------------|------|-----|------|-----|----------------|----------------|-----------|--|
| Calcium | 303 | mg/L | 2.0 | 1.9 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7440-70-2 | |
| Magnesium | 506 | mg/L | 2.0 | 1.4 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7439-95-4 | |
| Potassium | 171 | mg/L | 100 | 60.8 | 20 | 03/12/22 04:00 | 03/14/22 11:25 | 7440-09-7 | |
| Sodium | 4320 | mg/L | 500 | 61.1 | 100 | 03/12/22 04:00 | 03/14/22 14:06 | 7440-23-5 | |

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3010A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------|---------------|------|--------|--------|----|----------------|----------------|-----------|----|
| Antimony | ND | mg/L | 0.050 | 0.010 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-36-0 | D3 |
| Arsenic | 0.015J | mg/L | 0.050 | 0.0043 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-38-2 | |
| Barium | 0.074 | mg/L | 0.050 | 0.011 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-39-3 | |
| Beryllium | ND | mg/L | 0.0050 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-41-7 | D3 |
| Boron | 1.6J | mg/L | 2.5 | 0.42 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-42-8 | |
| Cadmium | ND | mg/L | 0.010 | 0.0030 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-43-9 | D3 |
| Chromium | ND | mg/L | 0.050 | 0.025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-47-3 | D3 |
| Cobalt | ND | mg/L | 0.050 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-48-4 | D3 |
| Lead | ND | mg/L | 0.050 | 0.0038 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-92-1 | D3 |
| Lithium | 0.088J | mg/L | 0.12 | 0.025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-93-2 | |
| Molybdenum | ND | mg/L | 0.050 | 0.0063 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7439-98-7 | D3 |
| Selenium | ND | mg/L | 0.10 | 0.0036 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7782-49-2 | D3 |
| Thallium | ND | mg/L | 0.024 | 0.0025 | 50 | 03/11/22 02:43 | 03/11/22 15:30 | 7440-28-0 | D3 |

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Asheville

| | | | | | | | | | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|
| Mercury | ND | ug/L | 0.20 | 0.12 | 1 | 03/07/22 17:30 | 03/09/22 09:28 | 7439-97-6 | |
|---------|----|------|------|------|---|----------------|----------------|-----------|--|

2320B Alkalinity

Analytical Method: SM 2320B
Pace Analytical Services - Minneapolis

| | | | | | | | | | |
|--------------------------------|------------|------|-----|-----|---|--|----------------|--|--|
| Alkalinity, Total as CaCO3 | 372 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |
| Alkalinity,Bicarbonate (CaCO3) | 372 | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |
| Alkalinity,Carbonate (CaCO3) | ND | mg/L | 5.0 | 1.8 | 1 | | 03/10/22 11:27 | | |

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2011
Pace Analytical Services - Asheville

| | | | | | | | | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|
| Total Dissolved Solids | 15600 | mg/L | 500 | 500 | 1 | | 03/04/22 11:30 | | |
|------------------------|--------------|------|-----|-----|---|--|----------------|--|--|

300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

| | | | | | | | | | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|
| Chloride | 6750 | mg/L | 100 | 60.0 | 100 | | 03/05/22 03:47 | 16887-00-6 | |
|----------|-------------|------|-----|------|-----|--|----------------|------------|--|

REPORT OF LABORATORY ANALYSIS

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



ANALYTICAL RESULTS

Project: MCMANUS CCR

Pace Project No.: 92590990

Sample: DPZ-02 Lab ID: 92590990001 Collected: 03/01/22 11:50 Received: 03/02/22 10:03 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 | | 03/04/22 16:55 | 16984-48-8 | |
| Sulfate | 755 | mg/L | 100 | 50.0 | 100 | | 03/05/22 03:47 | 14808-79-8 | |

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 682780

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3571431

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|------|----------------|------------|
| Mercury | ug/L | ND | 0.20 | 0.12 | 03/09/22 09:22 | |

LABORATORY CONTROL SAMPLE: 3571432

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Mercury | ug/L | 2.5 | 2.8 | 113 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3571433 3571434

| Parameter | Units | 92590990001 | | 3571434 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|----------------|-----------------|-----------|------------|----------|-----------|--------------|--------|---------|------|
| | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | | |
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.5 | 2.4 | 101 | 95 | 75-125 | 6 | 25 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92590990

QC Batch: 683540 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3575406 Matrix: Water
 Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Calcium | mg/L | ND | 0.10 | 0.094 | 03/14/22 12:05 | |
| Magnesium | mg/L | ND | 0.10 | 0.068 | 03/14/22 12:05 | |
| Potassium | mg/L | ND | 5.0 | 3.0 | 03/14/22 12:05 | |
| Sodium | mg/L | ND | 5.0 | 0.61 | 03/14/22 12:05 | |

LABORATORY CONTROL SAMPLE: 3575407

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Calcium | mg/L | 5 | 4.8 | 97 | 80-120 | |
| Magnesium | mg/L | 5 | 4.7 | 95 | 80-120 | |
| Potassium | mg/L | 5 | 4.6J | 91 | 80-120 | |
| Sodium | mg/L | 5 | 4.9J | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575408 3575409

| Parameter | Units | MS | | MSD | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|-------------|-------------|--------|----------|-----------|--------------|--------|---------|------|
| | | 92590280014 | Spike Conc. | Spike Conc. | Result | | | | | | |
| Calcium | mg/L | 959 ug/L | 5 | 5 | 5.9 | 6.0 | 99 | 100 | 75-125 | 1 | 20 |
| Magnesium | mg/L | 1740 ug/L | 5 | 5 | 6.7 | 6.8 | 99 | 102 | 75-125 | 2 | 20 |
| Potassium | mg/L | ND | 5 | 5 | 6.8 | 6.8 | 101 | 102 | 75-125 | 0 | 20 |
| Sodium | mg/L | 12700 ug/L | 5 | 5 | 17.9 | 18.5 | 104 | 116 | 75-125 | 3 | 20 E |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 683547

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3575445

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------|-------|--------------|-----------------|----------|----------------|------------|
| Antimony | mg/L | ND | 0.0010 | 0.00020 | 03/11/22 11:03 | |
| Arsenic | mg/L | ND | 0.0010 | 0.000087 | 03/11/22 11:03 | |
| Barium | mg/L | ND | 0.0010 | 0.00021 | 03/11/22 11:03 | |
| Beryllium | mg/L | ND | 0.00010 | 0.000050 | 03/11/22 12:12 | |
| Boron | mg/L | ND | 0.050 | 0.0085 | 03/11/22 11:03 | |
| Cadmium | mg/L | ND | 0.00020 | 0.000060 | 03/11/22 11:03 | |
| Chromium | mg/L | ND | 0.0010 | 0.00050 | 03/11/22 11:03 | |
| Cobalt | mg/L | ND | 0.0010 | 0.000050 | 03/11/22 11:03 | |
| Lead | mg/L | ND | 0.0010 | 0.000077 | 03/11/22 11:03 | |
| Lithium | mg/L | ND | 0.0025 | 0.00050 | 03/11/22 11:03 | |
| Molybdenum | mg/L | ND | 0.0010 | 0.00013 | 03/11/22 11:03 | |
| Selenium | mg/L | ND | 0.0020 | 0.000072 | 03/11/22 11:03 | |
| Thallium | mg/L | ND | 0.00047 | 0.000050 | 03/11/22 11:03 | |

LABORATORY CONTROL SAMPLE: 3575446

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------|-------|-------------|------------|-----------|--------------|------------|
| Antimony | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Arsenic | mg/L | 0.05 | 0.049 | 97 | 80-120 | |
| Barium | mg/L | 0.05 | 0.047 | 93 | 80-120 | |
| Beryllium | mg/L | 0.05 | 0.051 | 101 | 80-120 | |
| Boron | mg/L | 0.05 | 0.044J | 88 | 80-120 | |
| Cadmium | mg/L | 0.05 | 0.048 | 97 | 80-120 | |
| Chromium | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Cobalt | mg/L | 0.05 | 0.050 | 100 | 80-120 | |
| Lead | mg/L | 0.05 | 0.048 | 96 | 80-120 | |
| Lithium | mg/L | 0.05 | 0.049 | 98 | 80-120 | |
| Molybdenum | mg/L | 0.05 | 0.048 | 95 | 80-120 | |
| Selenium | mg/L | 0.05 | 0.048 | 95 | 80-120 | |
| Thallium | mg/L | 0.025 | 0.024 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3575447

3575448

| Parameter | Units | MS | | MSD | | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------|-------|-------------|--------|-------------|-------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | | 92590508001 | Result | Spike Conc. | Spike Conc. | | | | | | | | |
| Antimony | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 97 | 99 | 75-125 | 2 | 20 | | |
| Arsenic | mg/L | 3.8 ug/L | 0.05 | 0.05 | 0.053 | 0.055 | 98 | 102 | 75-125 | 3 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

| Parameter | Units | 3575447 | | 3575448 | | MS
Result | MSD
Result | MS
% Rec | MSD
% Rec | % Rec
Limits | RPD | Max
RPD | Qual |
|------------|-------|-----------------------|----------------------|-----------------------|--------------|--------------|---------------|-------------|--------------|-----------------|-----|------------|------|
| | | 92590508001
Result | MS
Spike
Conc. | MSD
Spike
Conc. | MS
Result | | | | | | | | |
| Barium | mg/L | 6.8 ug/L | 0.05 | 0.05 | 0.053 | 0.056 | 93 | 99 | 75-125 | 6 | 20 | | |
| Beryllium | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.051 | 98 | 102 | 75-125 | 3 | 20 | E | |
| Boron | mg/L | ND | 0.05 | 0.05 | 0.063 | 0.066 | 85 | 90 | 75-125 | 4 | 20 | | |
| Cadmium | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 96 | 99 | 75-125 | 3 | 20 | | |
| Chromium | mg/L | ND | 0.05 | 0.05 | 0.050 | 0.051 | 99 | 101 | 75-125 | 3 | 20 | | |
| Cobalt | mg/L | ND | 0.05 | 0.05 | 0.049 | 0.050 | 98 | 99 | 75-125 | 2 | 20 | | |
| Lead | mg/L | ND | 0.05 | 0.05 | 0.048 | 0.049 | 95 | 99 | 75-125 | 3 | 20 | | |
| Lithium | mg/L | 4.8 ug/L | 0.05 | 0.05 | 0.052 | 0.054 | 95 | 99 | 75-125 | 4 | 20 | | |
| Molybdenum | mg/L | 23.7 ug/L | 0.05 | 0.05 | 0.072 | 0.075 | 97 | 103 | 75-125 | 4 | 20 | | |
| Selenium | mg/L | ND | 0.05 | 0.05 | 0.047 | 0.049 | 95 | 98 | 75-125 | 4 | 20 | | |
| Thallium | mg/L | ND | 0.025 | 0.025 | 0.024 | 0.025 | 97 | 99 | 75-125 | 3 | 20 | | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 802971

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 92590990001

METHOD BLANK: 4263589

Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|--------------------------------|-------|--------------|-----------------|-----|----------------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 1.8J | 5.0 | 1.8 | 03/10/22 10:53 | |
| Alkalinity,Bicarbonate (CaCO3) | mg/L | 1.8J | 5.0 | 1.8 | 03/10/22 10:53 | |
| Alkalinity,Carbonate (CaCO3) | mg/L | ND | 5.0 | 1.8 | 03/10/22 10:53 | |

LABORATORY CONTROL SAMPLE & LCSD: 4263590

4263591

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|----------------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Alkalinity, Total as CaCO3 | mg/L | 40 | 42.2 | 43.8 | 106 | 109 | 90-110 | 4 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4263592

4263593

| Parameter | Units | 10599927001 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 | 22.5 | 40 | 40 | 64.7 | 63.6 | 106 | 103 | 80-120 | 2 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4263594

4263595

| Parameter | Units | 10599310004 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 | 174 | 40 | 40 | 216 | 216 | 104 | 104 | 80-120 | 0 | 20 | |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR
 Pace Project No.: 92590990

QC Batch: 682447 Analysis Method: SM 2540C-2011
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92590990001

METHOD BLANK: 3569612 Matrix: Water
 Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|------------------------|-------|--------------|-----------------|------|----------------|------------|
| Total Dissolved Solids | mg/L | ND | 25.0 | 25.0 | 03/04/22 11:30 | |

LABORATORY CONTROL SAMPLE: 3569613

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|------------------------|-------|-------------|------------|-----------|--------------|------------|
| Total Dissolved Solids | mg/L | 250 | 252 | 101 | 90-110 | |

SAMPLE DUPLICATE: 3569614

| Parameter | Units | 92590714002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------------|-------|--------------------|------------|-----|---------|------------|
| Total Dissolved Solids | mg/L | 98.0 | 97.0 | 1 | 25 | H3 |

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA

Project: MCMANUS CCR

Pace Project No.: 92590990

QC Batch: 682504 Analysis Method: EPA 300.0 Rev 2.1 1993
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92590990001

METHOD BLANK: 3569838 Matrix: Water

Associated Lab Samples: 92590990001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|-------|----------------|------------|
| Chloride | mg/L | ND | 1.0 | 0.60 | 03/04/22 12:48 | |
| Fluoride | mg/L | ND | 0.10 | 0.050 | 03/04/22 12:48 | |
| Sulfate | mg/L | ND | 1.0 | 0.50 | 03/04/22 12:48 | |

LABORATORY CONTROL SAMPLE: 3569839

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Chloride | mg/L | 50 | 48.5 | 97 | 90-110 | |
| Fluoride | mg/L | 2.5 | 2.6 | 105 | 90-110 | |
| Sulfate | mg/L | 50 | 47.7 | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3569840 3569841

| Parameter | Units | 92590802001 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 | ND | ND | 0 | 0 | 90-110 | | 10 | M1 |
| Fluoride | mg/L | 0.10 | 2.5 | 2.5 | ND | ND | -4 | -4 | 90-110 | | 10 | M1 |
| Sulfate | mg/L | ND | 50 | 50 | ND | ND | -1 | -1 | 90-110 | | 10 | 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

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



QUALIFIERS

Project: MCMANUS CCR

Pace Project No.: 92590990

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.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H3 Sample was received or analysis requested beyond the recognized method holding time.

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

REPORT OF LABORATORY ANALYSIS

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: MCMANUS CCR

Pace Project No.: 92590990

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-----------|------------------------|----------|-------------------|------------------|
| 92590990001 | DPZ-02 | | | | |
| 92590990001 | DPZ-02 | EPA 3010A | 683540 | EPA 6010D | 684307 |
| 92590990001 | DPZ-02 | EPA 3010A | 683547 | EPA 6020B | 684030 |
| 92590990001 | DPZ-02 | EPA 7470A | 682780 | EPA 7470A | 683136 |
| 92590990001 | DPZ-02 | SM 2320B | 802971 | | |
| 92590990001 | DPZ-02 | SM 2540C-2011 | 682447 | | |
| 92590990001 | DPZ-02 | EPA 300.0 Rev 2.1 1993 | 682504 | | |

REPORT OF LABORATORY ANALYSIS

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

| | | |
|---|--|--|
|  | Document Name:
Sample Condition Upon Receipt (SCUR) | Document Revised: November 15, 2003
Page 1 of 3 |
| | Document No.:
F-CAR-CL-003-Rev.08 | Issuing Authority:
Face Carolina Quality Office |

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #: **WO# : 92590990**



Courier: Commercial Fed Ex UPS USPS Other Client

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: JDE 3/2/21

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: If (See ID): 230 Type of Use: For Use None

Cooler Temp: 1.0 Correction Factor: Add/Subtract (C): +1.2

Temp should be above freezing to 6°C Samples out of temp criteria. Sampling on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.2

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

| Chain of Custody Present? | Yes | No | N/A | 1 | Comments/Discrepancy |
|--|-------------------------------------|-------------------------------------|--------------------------|----|----------------------|
| Samples Arrived within Hold Time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2 | |
| Short Hold Time Analysis (<72 hr)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 | |
| Batch Even Around Time Requested? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4 | |
| Sufficient Volume? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5 | |
| Correct Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6 | |
| Face Containers Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6 | |
| Containers Intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7 | |
| Dissolved analysis: Samples Field Filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8 | |
| Sample Labels Match COC? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9 | |
| Includes Date/Time/ID/Analysis Matrix: <u>GW</u> | | | | | |
| Headspace in VOA Vials (>6-8mm)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 | |
| Tri-Blank Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11 | |
| Tri-Blank Custody Seals Present? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | |

COMMENTS/SAMPLE DISCREPANCY _____ Field Data Required? Yes No

CLIENT NOTIFICATION/RESOLUTION _____ Lot ID of spike containers: _____

Person contacted: _____ Date/Time: _____

Project Manager SCUR Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Document Name:
 Sample Condition Upon Receipt (SCUR)
 Document No.:
 F-CAR-C3-033-Rev.08

Document Revised: November 15, 2021
 Page 2 of 2
 Issuing Authority:
 Pace Carolina Quality Office

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

Exceptions: VOA, Coliform, TOC, Oil and Grease, DOC/BOC5 (water) DOC, LUG

**Bottom half of box is to list number of bottles

Project #

WO# : 92590990

PR: NPG

Due Date: 03/09/22

CLIENT: GR-GR Power

| Sample ID | Type of Preservative | pH upon receipt | Date preservation adjusted | Time preservation adjusted | Amount of Preservative added | Lot # |
|---|----------------------|-----------------|----------------------------|----------------------------|------------------------------|-------|
| BP40-125 ml, Plastic Unpreserved (N/A) (D1) | | | | | | |
| BP40-250 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP50-500 ml, Plastic Unpreserved (N/A) | | | | | | |
| BP50-1 liter Plastic Unpreserved (N/A) | | | | | | |
| BP40-125 ml Plastic HClSO4 (pH < 2) (D1) | | | | | | |
| BP20-250 ml, plastic HClO4 (pH < 2) | | | | | | |
| BP40-125 ml Plastic 20 Acetate & NaOH (pH) | | | | | | |
| BP40-125 ml Plastic NaOH (pH > 12) (D1) | | | | | | |
| WFOU-white mouthed Glass Jar Unpreserved | | | | | | |
| AG100-1 liter Amber Unpreserved (N/A) (D1) | | | | | | |
| AG110-1 liter Amber 100 (pH < 2) | | | | | | |
| AG200-250 ml, Amber Unpreserved (N/A) (D1) | | | | | | |
| AG21-1 liter Amber HClSO4 (pH < 2) | | | | | | |
| AG20-250 ml, Amber HClSO4 (pH < 2) | | | | | | |
| AG100(200ml)-250 ml, Amber HClO4 (N/A)(D1) | | | | | | |
| DO200-40 ml, VOA HCl (N/A) | | | | | | |
| VO200-40 ml, VOA Na2S2O3 (N/A) | | | | | | |
| VO200-40 ml, VOA Unpreserved (N/A) | | | | | | |
| DO200-40 ml, VOA H2PO4 (N/A) | | | | | | |
| VO400 (3 vials per kit)-5000 L (N/A) | | | | | | |
| VO400 (3 vials per kit)-1000 L (N/A) | | | | | | |
| SP10-125 ml, Sterile Plastic (N/A - 100) | | | | | | |
| SP01-250 ml, Sterile Plastic (N/A - 100) | | | | | | |
| BRIN | | | | | | |
| BP50A-250 ml, Plastic (N/A)(2000 (P-3-18-7) | | | | | | |
| AG200-100 ml, Amber unpreserved vials (N/A) | | | | | | |
| VO200-40 ml, Sterilization vials (N/A) | | | | | | |
| DO200-40 ml, Amber unpreserved vials (N/A) | | | | | | |

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 DEHEM Certification Office (i.e. Out of hold, incorrect preservatives, out of temp, incorrect containers)

Paper Analysis

CHAIN-OF-CUSTOMER ANALYTICAL REQUEST DOCUMENT

Chain-of-Customer's INTERNAL DOCUMENT - Complete all relevant fields

ALL SHADED AREAS ARE FOR LAB USE ONLY

Company: Georgia Power
 Address: 1003 Peachtree Park Blvd, Atlanta, GA 30329
 Report To: Paul Johnson, O'Brien, Emerson
 Copy To: Kevin S. Haddock, Keville Ferguson
 Customer Project Name/Number: M. M. Morris, LLC
 Order # / Sample ID: 6
 Date: 11/15/08

Sample Information:
 Sample ID: 6
 Sample Description: Water from boiler
 Sample Location: Unit 1, 1003 Peachtree Park Blvd, Atlanta, GA 30329

Order Information:
 Order # / Sample ID: 6
 Date: 11/15/08
 Customer Project Name/Number: M. M. Morris, LLC

Analysis Requested:
 Analyte: Alkalinity, Conductivity, TDS
 Method: Standard Methods
 Units: mg/L

Customer Sample ID: DP2-02
 Matrix: Water
 Volume: 6
 Container: 250 mL HDPE

| Customer Sample ID | Matrix | Volume | Container | Analysis Requested | Method | Units |
|--------------------|--------|--------|-------------|-------------------------------|------------------|-------|
| DP2-02 | Water | 6 | 250 mL HDPE | Alkalinity, Conductivity, TDS | Standard Methods | mg/L |

Customer Remarks / Special Conditions / Provider Remarks:
 Type of Use: Water
 Method: Standard Methods
 Random Sample(s) screened: 1 2 3 4 5 6

| Customer Reference Type | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------|---|---|---|---|---|---|
| Reference Type | | | | | | |

Lab Project Manager: 2655911
 Lab Sample # / Comments: 2.02

Lab Sample Temperature Info:
 Sample received at: 11/22/08
 Sample received at: 11/22/08
 Lab Sample # / Comments: 2655911

Arcadis U.S., Inc.

2839 Paces Ferry Road

Suite 900

Atlanta, Georgia 30339

Tel 770 431 8666

Fax 770 435 2666

www.arcadis.com



Richard E. Dunn, Director

Land Protection Branch
4244 International Parkway
Suite 104
Atlanta, Georgia 30354
404-362-2537

June 17, 2022

Aaron Mitchell
Director of Environmental Affairs
241 Ralph McGill Boulevard
Atlanta, GA 30308

**SUBJECT: Georgia Power Company–Plant McManus Ash Pond 1 (AP-1)
Alternate Source Demonstration: Lithium at DPZ-02 - Conditional Approval
GEOS Submittal: 659078**

Dear Mr. Mitchell:

The Georgia Environmental Protection Division (EPD) has reviewed the subject Alternate Source Demonstration (ASD) for Lithium at groundwater monitoring well DPZ-02 submitted on April 29, 2022. The ASD attributed lithium detected at statistically significant levels (SSL) above groundwater protection standards at groundwater monitoring well DPZ-02 to a natural source.

In accordance with Georgia Solid Waste Rule 394-3-4-.10(6)(d) and based upon information included in the submittal, EPD hereby conditionally approves this alternate source demonstration for lithium in monitoring well DPZ-02.

If future monitoring data does not continue to support this alternate source demonstration, EPD will require additional supporting evidence for continued concurrence.

If you have any questions regarding this letter, please contact Mark Wescott at mark.wescott@dnr.ga.gov or (470) 763-6344.

Sincerely,

Mark Wescott, P.G
Geologist
Environmental Monitoring Unit
Solid Waste Management Program

Beverly Tipton
Manager
Environmental Monitoring Unit
Solid Waste Management Program

cc: Ben Hodges, Lauren Petty, Tim Earle, Georgia Power Company via e-mail.
William Cook, Beverly Tipton, Keith Stevens, Rima Naji, GA EPD via e-mail.

File: S:\Land\LANDDOCS\SW\CCR Applications\GP Plant McManus\EPD Correspondence

APPENDIX F

SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT



2022 SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

Plant McManus – Former Ash Pond 1
Brunswick, Georgia

July 29, 2022

2022 SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

Plant McManus – Former Ash Pond 1
Brunswick, Georgia



Kathryn Farris, M.Sc.
Environmental Engineer

Prepared for:
Georgia Power Company



Margaret Gentile, Ph.D.
Technical Expert

Prepared by:
Arcadis U.S., Inc.
2389 Paces Ferry Road
Suite 900
Atlanta
Georgia 30339
Tel 770 431 8666
Fax 770 435 2666



Geoffrey Gay, P.E.
Georgia Registration No. 27801
Technical Expert (Eng)
Project Manager

Date:
July 29, 2022

CONTENTS

| | |
|---|-----|
| Professional Certification | ii |
| Acronyms and Abbreviations | iii |
| 1 Introduction | 1 |
| 2 Screening of Corrective Measures | 2 |
| 2.1 Site Location and Description..... | 3 |
| 2.2 Closure Activities | 3 |
| 2.3 Nature and Extent of Appendix IV Constituents | 4 |
| 2.4 Trend Analysis..... | 4 |
| 3 Summary of Work Completed | 4 |
| 4 Conceptual Site Model Update/Summary | 5 |
| 5 Evaluation of Corrective Measures..... | 5 |
| 6 Planned Activities and Schedule | 7 |
| 7 References | 8 |

TABLES

Table 1. Remedy Evaluation Summary

Table 2. Dose Response and Downgradient Monitoring Well Design

FIGURES

Figure 1. Site Map and Compliance Monitoring Well Network

Figure 2. Isoconcentration Map Arsenic March 2022

Figure 3. Observation Well Layout

ATTACHMENT

Attachment 1 Plant McManus Ash Pond Statistical Analysis –March 2022 Sampling Event

Attachment 2 Soil Boring and Well Construction Logs

PROFESSIONAL CERTIFICATION

The Semianual Remedy Selection and Design Progress Report for the Georgia Power Company Plant Millmanus Former Ash Pond 1 in Brunswick, Georgia, has been prepared in accordance with the United States Environmental Protection Agency local contribution regulation (specified by 40 Code of Federal Regulations (CFR) Regulations 261.97(b), and the Georgia Environmental Protection Division Rules for Solid Waste Management 291-3-4-10(6)(a). The report describes the progress made during the first semi-annual period of 2022 in selecting and designing a remedy previously documented in the Assessment of Corrective Measures Report - Former Ash Pond 1 Brunswick, Georgia, dated December 4, 2020 (Appendix 2022a). I hereby certify that I am a qualified groundwater scientist in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 268.50(g):



J. Geoffrey Guy, P.E.
Technical Expert (Eng)
Georgia Registration No. PE 77501

7.29.22
Date

ACRONYMS AND ABBREVIATIONS

| | |
|------------------|--|
| Arcadis | Arcadis U.S., Inc. |
| ACM | Assessment of Corrective Measures |
| ASD | alternate source demonstration |
| AP-1 | former Ash Pond 1 |
| CCR | Coal Combustion Residuals |
| CFR | Code of Federal Regulations |
| CSM | conceptual site model |
| DR | dose response |
| FeS ₂ | pyrite |
| FH | colloidal iron oxide/ferrihydrate |
| ft bgs | feet below ground surface |
| GAEPD | Georgia Environmental Protection Division |
| Georgia Power | Georgia Power Company |
| GWPS | Groundwater Protection Standard |
| ISS | in situ stabilization/solidification |
| K | hydraulic conductivity |
| mg/L | milligrams per liter |
| MNA | monitored natural attenuation |
| PT | pilot test |
| P&T | pump and treat |
| PRB | permeable reactive barrier |
| Progress Report | Semiannual Remedy Selection and Design Progress Report |
| redox | oxidation-reduction |
| SSL | statistically significant level |
| USEPA | United States Environmental Protection Agency |
| ZVI | zero valent iron |
| < | Not detected, method detection limit shown |

1 INTRODUCTION

This first Semiannual Remedy Selection and Design Progress Report for 2022 (Progress Report) has been prepared for the Georgia Power Company (Georgia Power) Plant McManus former Ash Pond 1 (AP-1) (the site; **Figure 1**) in accordance with the United States Environmental Protection Agency (USEPA) coal combustion residuals (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 Fed. Reg. 21302-21501, April 17, 2015), and pursuant to 40 CFR § 257.97(a) and the Georgia Environmental Protection Division Rule 391-3-4.10(6)(a). The Progress Report was prepared to document activities conducted from January 2022 through June 2022 (the reporting period) in support of the Assessment of Corrective Measures (ACM) Report (Arcadis U.S., Inc. [Arcadis] 2020a). On February 22, 2022, Georgia Environmental Protection Division (GAEPD) updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal groundwater protection standard (GWPS) where a maximum contaminant level has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents are higher. Statistical evaluation for the Spring 2022 event was updated to reflect these changes and is reflected in this Progress Report.

As required by the rules, this Progress Report describes the progress made in selecting and designing a remedy for the site. This Progress Report has been included as an appendix to the 2022 Annual Groundwater Monitoring and Corrective Action Report (hereinafter referred to as 2022 Annual Report; Resolute 2022). Groundwater was collected as part of semiannual groundwater monitoring, and data are reported in the 2022 Annual Report (Resolute 2022). Georgia Power will continue to include future semiannual remedy selection progress reports as an appendix to routine groundwater monitoring and corrective action reports until a remedy is selected.

Georgia Power completed the ACM Report on December 4, 2020, to address the occurrence of statistically significant levels (SSLs) of arsenic in groundwater at compliance well MCM-06 greater than the applicable arsenic GWPS. The ACM Report was placed in the site's operating record and posted to the site's CCR Rule Compliance website. Lithium has also been identified as an SSL at former AP-1. Two alternate source demonstrations (ASDs) were completed for lithium and submitted under separate covers addressing the SSL at MCM-06 (Arcadis 2020b; Resolute 2021) and DPZ-02 (Arcadis, 2022b). The ASD results indicated that concentrations of lithium in groundwater are naturally occurring. Conditional approval for the MCM-06 and DPZ-02 lithium ASDs were given by the GAEPD on April 22, 2021 and June 17, 2022, respectively (GAEPD 2021 and GAEPD 2022).

Georgia Power conducted a human health and ecological risk evaluation to evaluate constituents that exhibit SSLs in groundwater including arsenic and lithium at former AP-1 (Wood Environment & Infrastructure Solutions, Inc. 2020). The evaluation provides one of many lines of evidence that will be evaluated and factored into the remedy selection process, which will be completed in accordance with 40 CFR § 257.97. Based on this risk evaluation, concentrations of arsenic and lithium detected in groundwater at former AP-1 between August 2016 through March 2020 are not expected to pose a risk to human health or the environment. Data collected since March 2020 are consistent with data used in the risk evaluation; therefore, the conclusions provided in the 2020 Risk Evaluation Report are supported by current conditions.

As requested by EPD, a survey of water wells was conducted within a two-mile radius from the site. The survey incorporated records from federal, state, and county sources cited in the previous well survey; however, no information (e.g., septic tank permit records) was received from the Glynn County Health Department. The results of this evaluation were provided and discussed in the February 2022 Progress Report (Arcadis 2022). The findings with the available data are consistent with the 2020 well survey.

2 SCREENING OF CORRECTIVE MEASURES

Pursuant to 40 CFR § 257.97, Georgia Power is evaluating the potential corrective measures initially presented in the ACM Report (Arcadis 2020a) to identify an appropriate remedy or combination of remedies as soon as feasible. This report presented the following corrective measures as potentially feasible for use at the site:

1. Geochemical Manipulation (In Situ Injection);
2. Hydraulic Containment (Pump and Treat [P&T]);
3. In Situ Stabilization/Solidification (ISS);
4. Monitored Natural Attenuation (MNA);
5. Permeable Reactive Barrier (PRB);
6. Phytoremediation;
7. Subsurface Vertical Barrier Walls.

This evaluation was updated based on data obtained during site investigations and evaluations of corrective action alternatives in 2020 and 2021 (**Table 1**). ISS and phytoremediation corrective measures have since been removed from consideration based on data evaluations presented in the July 2021 Semiannual Progress Report (Arcadis, 2021b).

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Arcadis 2020a) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate. The adaptive site management approach takes existing site conditions, including natural attenuation mechanisms, into account. Characterization activities at the site include collection of the data necessary to evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the USEPA guidelines for MNA (USEPA 1999, 2007, 2015). The 1999 MNA guidance originally introduced the “tiered approach” with three tiers of site-specific information, or lines of evidence, to evaluate the appropriate use of MNA at certain sites (USEPA 1999). In 2007, the USEPA issued MNA technical guidance specific to inorganic contaminants (USEPA 2007) that contained four “tiers.” The 2015 MNA guidance retains these four “tiers,” but describes them as “phases” as described below (USEPA 2015). This 2015 MNA document for inorganic contaminants expands on and is designed to be a companion to the 1999 and 2007 MNA guidance.

- Phase I: Demonstration that the groundwater plume is *not expanding*.
- Phase II: Determination that the *mechanism and rate* of the attenuation process are sufficient.

- Phase III: Determination that the *capacity* of the aquifer is sufficient to attenuate the mass of contaminant within the plume and the *stability* of the immobilized contaminant is sufficient to resist re-mobilization.
- Phase IV: Design of a *performance monitoring program* based on an understanding of the mechanism of the attenuation process, and establishment of contingency remedies tailored to site-specific characteristics.

Georgia Power will address Phase IV, as appropriate, during the development of the future corrective action monitoring plan, after the final remedy selection report.

2.1 Site Location and Description

Plant McManus is an electrical power generation plant located on Crispen Island in Glynn County, near Brunswick, Georgia (**Figure 1**). The physical address of the plant is 1 Crispen Island Drive, Brunswick, GA 31523. Crispen Island originally consisted of several smaller islands that were joined to construct Plant McManus. It was separated from the mainland to the northeast by tidal marsh and bound to the west and southwest by the Turtle River.

The plant was originally constructed in 1952 and consisted of two boilers and nine diesel-fired combustion turbines. Use of coal for production ceased in 1972, and Georgia Power retired all coal power generating assets at Plant McManus prior to April 16, 2015. During operation of the coal-fired units from 1959 until 1972, CCR was disposed in an approximately 80-acre surface impoundment (i.e., AP-1) on the Plant McManus Site northeast of the plant.

AP-1 was formed by the construction of a dike from the northeast corner of Crispen Island to the mainland. This dike formed the northwest side of AP-1, while Crispen Island, the mainland, and a southern roadway and dike (Crispen Boulevard) formed the other sides of AP-1.

2.2 Closure Activities

Georgia Power completed closure of AP-1 between 2016 and October 2019 by dewatering and removing the CCR material. A notification of intent to close the former CCR Unit was placed in the operating record on December 7, 2015 and posted to the Plant McManus CCR Rule Compliance website within 30 days. The initial Closure Plan was submitted to GAEPD on April 17, 2018 as part of the permit application package describing the closure activities and requirements in accordance with 40 CFR § 257.102. The Closure Plan and notification of closure completion are posted on the Plant McManus CCR Rule Compliance website, available to the public. The final CCR removal certification report was submitted in November 2019 (Arcadis 2019). GAEPD acknowledged the report and that the removal activities within the identified boundaries of AP-1 had occurred in a letter dated January 10, 2020 (GAEPD 2020). Closure Permit No. 063-030D(CCR) was approved by GAEPD on June 18, 2021.

Source control has been implemented at the site by removing CCR material. While it is not specifically intended as a groundwater corrective measure, there is a strong potential for source control to limit future impacts and improve groundwater quality.

2.3 Nature and Extent of Appendix IV Constituents

Groundwater monitoring of the surficial aquifer has been performed for former AP-1 since 2016. Consistent with the ACM Report, statistical analyses of the March 2022 groundwater data identified arsenic concentrations greater than the applicable Groundwater Protection Standard (GWPS) at compliance monitoring well MCM-06 (0.24 mg/L). Lithium has been previously identified at concentrations greater than the GWPS at MCM-06 and DPZ-02. The recent groundwater assessment data is provided in the 2022 Annual Report (Resolute 2022).

The SSL identified for arsenic at MCM-06 is vertically delineated to below the GWPS by delineation well DPZ-02 (**Figure 2**). Details regarding statistical analysis and delineation are provided in Section 2.4 and the statistical analysis report is provided in the 2022 Annual Report (Resolute 2022).

To assess horizontal delineation of arsenic, Georgia Power has proactively completed additional sampling to assess concentrations of arsenic in surface water in the tidal salt marsh since February 2020, with the most recent semiannual surface water sampling completed in March 2022. The March 2022 results are reported in the 2022 Annual Report (Resolute 2022). March 2022 arsenic surface water results were less than the laboratory reporting limit of 0.0026 mg/L in surface water samples (Table 7 of 2022 Annual Report). All historical arsenic data collected since 2020 have been less than the Georgia instream water quality standard for marine estuary environments (0.036 mg/L), and generally less than the laboratory's reporting limits. Based on these results, no impacts to surface water have been detected and horizontal delineation is complete.

As discussed above, two ASDs have been completed to address lithium SSLs at MCM-06 and DPZ-02. The ASD results indicated that concentrations of lithium in groundwater are naturally occurring and conditional approval for the MCM-06 and DPZ-02 lithium ASDs were given by the GAEPD on April 22, 2021, and June 17, 2022, respectively (GAEPD 2021 and GAEPD 2022).

2.4 Trend Analysis

Based on EPD guidance, groundwater trends at wells with SSLs were further evaluated by Groundwater Stats Consulting (GSC) using the Sen's Slope/Mann Kendall trend tests. Trend plots for Appendix IV constituents in groundwater on the site are provided as **Attachment 1**. The full report generated from the analyses is provided in the 2022 Annual Report (Resolute 2022). No statistically significant trends were identified for Appendix IV constituents.

3 SUMMARY OF WORK COMPLETED

In order to prepare for a potential future injection pilot study, an observation well network was installed around MCM-06 between May 25 and June 2, 2022. The observation well network consists of two dose response wells (DR-01 and DR-02) installed adjacent to MCM-06, and four monitoring wells (PT-01, PT-02, PT-03, and PT-04D) installed across the dike to the north (**Figure 3**). Wells were installed in a manner consistent with other monitoring wells installed across the site. Soil cores were logged by an Arcadis geologist and well construction and soil boring logs for the newly installed wells are provided as **Attachment 2**. Well construction details are provided in **Table 2**.

Dose response (DR) wells were installed near MCM-06 where potential future injections may occur. The wells were screened across the approximate zone where previous high resolution investigation activities identified arsenic concentrations greater than GWPS (16-31 feet below ground surface [ft bgs]), which is the anticipated injection interval.

Additional pilot test (PT) monitoring wells were installed across the dike to the north and in an area appropriate for monitoring downgradient of potential future injections in the vicinity of MCM-06. These PT wells are screened between 15 and 25 ft bgs, consistent with MCM-06. An additional deep monitoring well (PT-04D) was constructed across the dike from existing delineation well DPZ-02. Its screened interval is consistent with DPZ-02.

During well installation, select soil samples were collected and analyzed for grain size (ASTM D422) and/or total organic carbon (SM5310). These results will be reported in a future remedy selection progress report.

4 CONCEPTUAL SITE MODEL UPDATE/SUMMARY

The current conceptual site model (CSM) is summarized below. Additional data collected during the reporting period supported the current CSM.

- Hydraulic conductivity (K) along the dike is generally uniformly high (range of 8.67×10^{-5} to 2.67×10^{-3} centimeter per second) (Resolute 2020). However, a zone of more heterogeneous material and variable K was identified in the area near MCM-06. K generally decreased with depth.
- Dissolved arsenic concentrations do not correlate with areas of high K, but do generally increase with reducing conditions, and sulfide and alkalinity concentrations. The arsenic present is predominantly in the form of reduced, sulfur-containing arsenic complexes (soluble thioarsenic species) that are found in highly reducing, sulfide-enriched environments.
- The lateral extent of arsenic above GWPS is estimated at approximately 95 ft along the northern dike around MCM-06 based on the results of the high resolution investigation (Arcadis 2021b) and continued monitoring.
- Total arsenic results in soil indicate that arsenic concentrations within the soil along the dike are low (range of 0.52 to 8.4 milligram per kilogram) (Arcadis 2021b).

5 EVALUATION OF CORRECTIVE MEASURES

Remedial measures first presented in the ACM (Arcadis 2020a) have been re-evaluated based on the data collected to date (**Table 1**). As discussed during the last progress report, the potential for ISS and phytoremediation were eliminated for further evaluation to treat the site-specific conditions in groundwater. The remaining five potential corrective measures were retained for further evaluation. Data collected during the past six months reported in the current progress report have not resulted in the elimination of additional corrective measures. Therefore, the following five potential corrective measures will be retained for further evaluation:

In Situ Injection In situ injection technology is the application of reagents in the subsurface to influence the solubility, mobility, and/or toxicity of inorganic constituents. The hydraulic conductivity data across the

dike from the high resolution investigation (Arcadis 2021b) suggest that distribution of reagent is favorable, specifically near MCM-06. The presence of the thioarsenic species, elevated sulfide concentrations, and highly reducing conditions must be considered in selection of in situ injection reagents. Bench testing results suggest that ZVI and colloidal iron oxide/ferrihydrite (FH)-based amendments may be effective under the geochemical conditions on site. Based on data collected to date, in situ injection technology is retained. However, site-specific pilot-scale testing is necessary to evaluate reagent distribution and effectiveness under site conditions.

Hydraulic Containment Hydraulic control/containment (P&T) uses groundwater extraction to establish a hydraulic gradient to capture and control the migration of groundwater that is impacted by a constituent of concern. Results of the Hydraulic Profiling Tool investigation and dewatering during source removal have demonstrated that targeted groundwater extraction is feasible (Arcadis 2021b). Therefore, hydraulic containment technology is retained.

PRB PRBs are defined as in situ permeable treatment zones, designed to intercept and remediate a contaminant plume (ITRC 2011). PRB technology is a feasible remedial option based on investigation results obtained to date. However, designs for a PRB would need to take into account the presence of higher K-zones. Similar to In Situ Injection technology, PRB technology is sensitive to geochemical conditions. The presence of the thioarsenic species, elevated sulfide concentrations, and highly reducing conditions must be considered in the selection of PRB media. Elevated total dissolved solids and alkalinity concentrations can also influence the effectiveness of PRB implementation by altering reaction chemistry, potentially leading to formation of fouling precipitates, such as carbonates, which can reduce barrier lifetime. Bench testing results suggest that ZVI and granular ferric hydroxide-based amendments may be effective under the geochemical conditions on site (Arcadis, 2022a). Based on data collected to date, PRB technology is retained. However, further site-specific bench-scale testing would be needed to evaluate the fouling potential of PRB media options prior to full-scale design and implementation.

Subsurface Vertical Barrier Walls Subsurface vertical barrier walls have been used for seep control and groundwater cutoff. Installation of an effective barrier to required depths is technically feasible and may be useful to direct groundwater flow through designated treatment zones. However, its use as a sole remedial measure is challenged by tidal fluctuations and groundwater flow pathways. As such, subsurface vertical barrier walls are retained only in conjunction with other remedial measures (e.g., PRB).

MNA MNA is defined as the reliance on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a timeframe that is reasonable compared to that offered by other more active methods (USEPA 2007). MNA is a remedial solution that takes advantage of natural attenuation processes to reduce constituents in soil and groundwater. Natural attenuation mechanisms were evaluated during the first half of 2021 as part of adaptive site management. Data collected as part of the high resolution investigation and semiannual groundwater sampling will support the evaluation of USEPA guidelines for MNA (USEPA 2007, 2015). The evaluation results are summarized below.

Phase I: Demonstration that the groundwater plume is not expanding. Sampling to date has demonstrated that the arsenic at MCM-06 is delineated. Consistent with previous monitoring events, arsenic concentrations exceeded the GWPS in only one compliance monitoring well (MCM-06). The arsenic concentration (0.24 mg/L) detected during the March 2022 sampling event was consistent with

the historical range at this location. Surface water and groundwater data will continue to be collected and monitored to evaluate plume stability.

Phase II/III: Attenuation mechanisms, capacity and stability The fate and transport of arsenic is dependent primarily on oxidation-reduction (redox) conditions and pH, which control the presence and/or dissolution and precipitation cycling of sorptive mineral phases and the species of the arsenic present. Arsenic can attenuate through sorption or co-precipitation. Several solids analyses, including acid volatile sulfide/simultaneous extracted metals, X-ray diffraction, and sequential selective extractions, were conducted during the high resolution investigation (Arcadis 2021b) to look at minerals and solid phases that may contribute to attenuation. Acid volatile sulfides were present in the soils, especially in the area near MCM-06. These sulfides yielded measurable arsenic concentrations during simultaneous extracted metals analysis, supporting that arsenic precipitation with and sorption to sulfide minerals are potential attenuation mechanisms for arsenic at this site. The measurable presence of other sorptive sulfide minerals, such as pyrite (FeS_2), measured through X-ray diffraction, also provides further support for attenuation.

Based on data collected to date, MNA is retained.

6 PLANNED ACTIVITIES AND SCHEDULE

AP-1 closure was completed in late 2019 (Arcadis 2019; GAEPD 2020). The closure provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. Active management of the water levels in former AP-1 was halted during 2021. As the aquifer adjusts to the closed conditions, concentrations of arsenic may improve. Georgia Power will implement an adaptive site management approach to support the remedial strategy and address potential changes in site conditions as appropriate. The adaptive site management approach may be adjusted over the site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary to support refinement of the CSM and to further evaluate the feasibility of the retained list of potential corrective measures proposed in the ACM Report. Once sufficient data are available to make technically-sound decisions regarding the ability to implement one or more specific corrective measures, necessary steps will be taken to design and implement a remedy for former AP-1 in accordance with 40 CFR § 257.98.

Given that groundwater conditions continue to change as the aquifer adjusts to the closed conditions, an adaptive site management approach will also continue to be used to address groundwater impacts. The data collection efforts outlined below will further refine the CSM and allow a more detailed evaluation of the five potential groundwater corrective measures retained for additional evaluation and consideration. To enhance the understanding of site conditions in support of remedy selection, the following activities are recommended to be completed during the next semiannual reporting period:

- Continue routine groundwater and surface water sampling for Appendix III and Appendix IV constituents at compliance monitoring wells and delineation monitoring well DPZ-02 to analyze and evaluate trends for effectiveness of source control and plume stability. Multiple datasets will be needed to assess temporal variations in conditions.
- Complete groundwater sampling for select parameters at newly installed monitoring and dose response wells to evaluate groundwater conditions within the potential injection area.

- Continue to evaluate MNA as a potential remedy using the USEPA phased analysis framework (USEPA 2007, 2015).
- Further review potential feasibility of in situ injection.

Future activities may include pilot studies, further bench-scale testing, geochemical modeling, and a constructability review to evaluate remedies. Georgia Power will include future semiannual remedy selection progress reports in routine groundwater monitoring reports to document groundwater conditions, results associated with additional data gathering, and progress in selecting and designing the remedy in accordance with 40 CFR § 257.97(a). Record keeping, notifications, and publicly accessible internet site requirements for the semiannual remedy selection progress reports will be provided in accordance with 40 CFR §§ 257.105(h)(12), 257.106(h)(9), and 257.107(h)(9), respectively.

7 REFERENCES

- Arcadis. 2019. Final CCR Removal Certification Report. Plant McManus Inactive Ash Pond AP-1. November 20.
- Arcadis. 2020a. Assessment of Corrective Measures Report. Plant McManus Former Ash Pond 1, Brunswick, Georgia. December 4.
- Arcadis. 2020b. Lithium Alternative Source Demonstration. Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. October.
- Arcadis. 2021a. Semiannual Remedy Selection and Design Progress Report. Plant McManus Former Ash Pond 1, Brunswick, Georgia. February 26.
- Arcadis. 2021b. Semiannual Remedy Selection and Design Progress Report. Plant McManus Former Ash Pond 1, Brunswick, Georgia. July 30.
- Arcadis. 2021. 2021 Lithium Alternative Source Demonstration. Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. October 25.
- Arcadis. 2022a. 2021 Semiannual Remedy Selection and Design Progress Report. Plant McManus Former Ash Pond 1, Brunswick, Georgia. February 28.
- Arcadis. 2022b. 2022 Lithium Alternative Source Demonstration for DPZ-02. Plant McManus Former Ash Pond 1. Prepared for Georgia Power Company. April 29.
- GAEPD. 2020. Final Closure through Removal Certification. Glynn- County – Plant McManus Ash Pond AP-1 APL 0631. January 10.
- GAEPD. 2021. Georgia Power Company–Conditional Concurrence for Alternate Source Demonstration for Lithium at Plant McManus Ash Pond 1 (AP-1), GEOS Submittal 527116. April 22.
- GAEPD. 2022. Georgia Power Company– Plant McManus Ash Pond 1 (AP-1) Alternate Source Demonstration: Lithium at DPZ-02 – Conditional Approval, GEOS Submittal: 659078. June 17.
- ITRC. 2011. Permeable Reactive Barrier: Technology Update. Interstate Technology and Regulatory Council. June. Available online at: <https://clu-in.org/download/techfocus/prb/PRB-5-ITRC.pdf>. Accessed October 8, 2020.

2022 SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT
PLANT MCMANUS - FORMER ASH POND 1

- Resolute. 2020. Hydrogeologic Assessment Report Revision 4. Plant McManus Former Ash Pont 1. Prepared for Georgia Power Company. June 2020.
- Resolute. 2021. 2021 Annual Groundwater Monitoring and Corrective Action Report, Plant McManus Inactive Ash Pond AP-1. July 30.
- Resolute. 2022. 2022 Annual Groundwater Monitoring and Corrective Action Report, Plant McManus Inactive Ash Pond AP-1. July 29.
- USEPA. 1999. Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites. U.S. Environmental Protection Agency, Washington, DC, OSWER Directive 9200.4-17P. April.
- USEPA. 2007. Monitored Natural Attenuation of Inorganic Contaminants in Ground Water. Volume 1 – Technical Basis for Assessment. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-07/139. October.
- USEPA. 2015. Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites. Office of Solid Waste and Emergency Response Directive 9283.1-36. August.
- Villacis-Garcia, M. M. Ugalde-Arzate, K. Vaca-Escobar, M. Villalobos, R. Zanella, N. Martinez-Villegas. 2015. Laboratory synthesis of goethite and ferrihydrite of controlled particle sizes. Boletín de la Sociedad Geológica Mexicana. Volume 67. No. 3. pp. 433-446.
- Wood Environment & Infrastructure Solutions, Inc. 2020. Risk Evaluation Report. Plant McManus Inactive Ash Pond AP-1, Glynn County, Georgia. December.

TABLES



Table 1
Remedy Evaluation Summary
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Technology | Description | Evaluation Criteria | | |
|---|---|---|--|--|
| | | Performance
40 CFR 257.96(c)(1) | Reliability
40 CFR 257.96(c)(1) | Ease of Implementation
40 CFR 257.96(c)(1) |
| <i>Geochemical Manipulation (In Situ Injection)</i> | Injection of a chemical or organic substrate to alter geochemical conditions to those more favorable for immobilization of arsenic. | <i>Moderate to High:</i> Bench scale testing has demonstrated that injectable zero valent iron (ZVI) and iron oxides are effective in immobilizing arsenic under similar geochemical conditions to the site. Field testing will be required to understand effectiveness in reagent distribution. Remedial approaches to reducing constituents are typically more compatible with groundwater geochemistry and, therefore, are more viable than oxic remedial approaches. | <i>Moderate:</i> Reliability depends on: (i) the amendment distribution as a function of properties (reactivity, particle size, etc.) of the selected reagents and the permeability and heterogeneity of the subsurface; and (ii) the effectiveness of reagent chemistries for arsenic immobilization, which vary according to site-specific conditions. The approach has not been extensively used in field applications, and the most applicable methodology would require bench- and/or pilot-scale treatability testing. Stability of the precipitated phase may vary based on conditions of precipitation versus ambient conditions. Immobilization under similar conditions to ambient, reducing in this case, would promote long-term stability of the immobilized arsenic. | <i>Moderate:</i> The installation of an injection well network or placement of reagents via other injection methods would be required. Injection of reagents along the existing northern dike is likely feasible, although the workspace is narrow. The ability and scale over which reagents can be distributed depends on reagent properties, such as reactivity and, in the case of solid reagents, particle size. The feasibility of implementation will vary with scale. There is potential for clogging. An evaluation of the amendment distribution during injections (i.e., radius of influence) is needed to support full-scale design. |
| <i>In Situ Stabilization/Solidification (ISS)</i> | Use of amendments such as cement to reduce the bioavailability and mobility of contaminants through either physical encapsulation (solidification) or a reduction in solubility/mobility (stabilization). | <i>Moderate:</i> ISS is a proven technology for reducing the leachability and mobility of inorganic constituents above and below the water table but may be limited due to the potential size of the treatment area. Treatability depth limitations vary with application method. Within the context of former AP-1, ISS may be used either as a spot-treatment or as an impermeable barrier along the boundary of the former impoundment. Due to the size of the potential treatment area, and anticipated diffuse nature of residual arsenic, the performance of ISS is expected to be moderate. It may be used in conjunction with other treatment methods to achieve standards. | <i>Moderate to High:</i> Monitoring is typically needed to confirm ISS effectiveness. Reagents such as Portland cement can cause pH changes, which may cause a release of secondary contaminants, which should also be monitored during implementation. | <i>Difficult:</i> The difficulty of ISS implementation increases with scale. If ISS is applied over a small area in the vicinity of MCM-06, the technology could be viable, whereas application over a greater scale would become difficult and impractical. ISS implementation along the narrow dike would be difficult and likely require widening. ISS is not typically used to remediate dilute contaminant plumes, such as found near MCM-06. |
| <i>Hydraulic Containment</i> | Use of a groundwater extraction system with a surface treatment system to remove target analytes from the subsurface and/or to control/prevent constituent migration. | <i>High:</i> Pump and treat (P&T) is an effective, demonstrated technology for hydraulic control. The design of the P&T system requires groundwater modeling for the well network and, potentially, design of an above-ground treatment system. However, this remedy typically is not immediately effective for the treatment of trace level metals. There is also a possibility of rebounding when operations cease. | <i>Moderate to High:</i> Reliability may also depend on the operation and performance of an ex-situ treatment system, if needed. System downtime for maintenance may impact reliability. | <i>Difficult:</i> P&T is a longstanding, proven approach that requires installation of extraction wells/trenches. A variety of treatment technologies exist for ex-situ treatment of arsenic. The level of effort for construction and O&M is relatively high compared to other options and requires onsite staff. |

Acronyms and abbreviations are defined on the last page.

Table 1
Remedy Evaluation Summary
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Technology | Description | Evaluation Criteria | | |
|--|--|--|---|---|
| | | Performance
40 CFR 257.96(c)(1) | Reliability
40 CFR 257.96(c)(1) | Ease of Implementation
40 CFR 257.96(c)(1) |
| <i>Monitored Natural Attenuation (MNA)</i> | A remedial solution that takes advantage of natural attenuation processes to reduce constituents in soil and groundwater. | <i>Moderate:</i> Under the conditions of site groundwater, potential arsenic attenuation mechanisms include sorption, precipitation, oxidation-reduction reactions, dilution, and dispersion. Under the reducing conditions present at MCM-06, sorption of arsenic species, are likely occurring, as well as potential precipitation in reduced iron and sulfide minerals. Downgradient of MCM-06, there are likely redox gradients where aerobic conditions promote oxidation of arsenic, enhanced sorption, and potential for co-precipitation with iron oxides. The slow groundwater velocity and tidal gradient fluctuations further promote attenuation of arsenic concentrations with distance from MCM-06. Natural attenuation is being evaluated under the tiered framework. | <i>Moderate to High:</i> The reliability of MNA is moderate to high when aquifer attenuation capacity is present and aquifer conditions that result in attenuation remain favorable and/or are being enhanced. Long-term monitoring well rehabilitation, replacement, or repair may be needed. Due to its location along the coast, large weather events such as hurricanes may cause fluctuations in groundwater conditions that affect attenuation processes (Northrup et al. 2017). ¹ | <i>Easy:</i> A well network for MNA is already in place. Additional wells may be needed to monitor progress in select areas. Additional data would be needed to show that the existing aquifer attenuation capacity is sufficient to achieve the GWPS within a reasonable timeframe. |
| <i>Permeable Reactive Barrier (PRB)</i> | Use of reactive material that extends below the water table to intercept and treat groundwater. | <i>Moderate to High:</i> PRBs have been shown to effectively address arsenic in groundwater. Performance may be affected by tidal cycles. Due to the elevated salts and alkalinity in groundwater at MCM-06, there is a risk for scaling and fouling of the reactive media, which will need to be considered during design.

Bench scale testing has demonstrated that specific amendments are effective in treating arsenic under site-comparable conditions. | <i>Moderate to High:</i> A PRB has been demonstrated effective for arsenic. Loss of reactivity over time, potentially exacerbated by brackish groundwater at the site, may require media replacement depending on the duration of the remedy. Additional data collection, including conducting a laboratory treatability test and/or field pilot study, would be needed to select the appropriate reactive media for a PRB. | <i>Moderate to difficult:</i> The practical location for the PRB is along the northern dike. Construction using trenching methods would be difficult on the narrow dike and would potentially require widening the dike. The PRB can be keyed into a relatively low permeability unit at 37 to 45 feet bgs in the vicinity of MCM-06 (Resolute, 2021a), but continuity must be confirmed. The presence of flowing sands may complicate the trenching process. Injection-style emplacements would likely be more feasible along the dike. Once installed, treatment would be passive and O&M requirements would be minimal and include media replacement. |
| <i>Phytoremediation</i> | Use of plants to remove, transfer, or stabilize constituents in soil or groundwater. | <i>Low:</i> While phytoremediation has been shown to have a degree of success treating deep contamination, site features may prove challenging for implementation of these deeper phytoremediation technologies. Brackish groundwater quality may limit the types of hyper-accumulative plants that are able to grow. A phytoremediation system may also be susceptible to damage and disruption by high winds associated with hurricanes. | <i>Low to Moderate:</i> The depth of the contamination and challenges for implementation at depth at the site make this option low to moderate in reliability. The well where SSLs for arsenic were identified (MCM-06) is screened at approximately 25 feet bgs, which is outside the typical rooting depth for common arsenic hyperaccumulators. | <i>Difficult:</i> The practical location for use of phytoremediation to capture arsenic and reduce concentrations at the compliance boundary is along the northern dike. Given the depths of the impacts, a TreeWell® system would be required. TreeWells® are installed in 3- to 5-foot-diameter boreholes extending to the target depth. Drilling borings within the narrow width of the dike may be challenging and require widening the dike. Depending on the number of TreeWells® and borings required, the construction could impact the stability of the dike. The presence of flowing sands and brackish water chemistry may complicate the installation process and viability of plants. |
| <i>Subsurface Barrier Walls</i> | Use of barriers to physically control the migration of impacted groundwater either directly or through manipulation of groundwater flow. | <i>Moderate:</i> Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Sheet pile walls are limited by the depth of installation, which is typically approximately 60 to 65 feet bgs with a single sheet. Within the context of former AP-1, a barrier wall as the sole remedial measure would likely be moderately effective. An alternative use of this strategy is in a “funnel and gate” system with a PRB. As such, groundwater with arsenic above the GWPS could be directed to “treatment gates” for passive treatment (in a PRB). Additional subsurface investigations and compatibility testing with groundwater from former AP-1 would be needed prior to selection and implementation. Performance may be affected by the fluctuating groundwater flow directions during tidal cycles. | <i>High – With proper installation:</i> O&M requirements can range significantly, depending on whether groundwater extraction and subsequent treatment from inside the wall is required. | <i>Moderate to difficult:</i> Limited space for construction activities along the dike makes implementation moderate to difficult. Widening the dike would likely be necessary prior to implementation. A relatively low permeability unit at 37 to 45 feet bgs in the vicinity of MCM-06 is present to key the barrier into (Resolute, 2021a), but continuity needs to be confirmed. The presence of flowing sands may complicate the trenching process. Jet grouting is another alternative but is typically more difficult compared to other barrier wall installation methods. Depending on design, groundwater extraction may be needed because of the inflow of water from the mainland and island. |

¹ Northrup, K., M. Capooici, and A. Seyfferth. 2017. Effects of Extreme Events on Arsenic Cycling in Salt Marshes. *Journal of Geophysical Research: Biogeosciences*. 123, 1086-1100. <https://doi.org/10.1002/2017JG004259>.

Table 1
Remedy Evaluation Summary
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Technology | Evaluation Criteria | | | | Retain Technology for Further Evaluation? |
|---|---|--|---|---|---|
| | Potential Impact
40 CFR 257.96(c)(1) | Estimated Time to Begin/Complete Remedy
40 CFR 257.96(c)(2) | Institutional Requirements and Other Env or Public Health Requirements
40 CFR 257.96(c)(3) | Relative Costs | |
| <i>Geochemical Manipulation (In Situ Injection)</i> | <i>Low:</i> Low impacts are expected if the remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Consideration of groundwater flow to nearby sensitive environments may be needed. This remedial alternative may unintentionally alter the geochemistry within the aquifer, which may result in the mobilization of other constituents that require treatment. Short-term risks during remedial activities such as drilling and operating pressurized injection equipment can be mitigated through appropriate planning and H&S measures. | A thorough pre-design investigation, geochemical modeling, and/or bench scale treatability study and/or field-scale pilot testing may take up to 24 months to obtain the design parameters needed for design and construction of the corrective measure. Well construction is relatively quick (i.e., 1 to 2 months; potentially longer depending on the scale of the remedy) and time for an injection event is variable. Time to achieve the GWPS for arsenic is dependent on the attenuation process kinetics of the constituent as well as amendment longevity, injection layout, and arsenic transport properties. Additional injection events may be needed to maintain redox conditions and/or address additional flux of impacted groundwater into the treatment area. | An Underground Injection Control Permit would be required to implement this corrective measure. No other institutional expected.

Based on the Risk Evaluation Report (Wood 2020) ² , the arsenic SSL is not expected to pose a risk to human health or the environment. Potential mobilization of redox constituents may occur with in situ injections. | Medium | Yes |
| <i>In Situ Stabilization/Solidification (ISS)</i> | <i>Low:</i> Short-term impacts during remedy construction can be mitigated through appropriate planning and H&S measures. Changes to groundwater flow patterns due to stabilized media can occur, which can affect other aspects of the groundwater corrective action. Application of ISS mixture can also alter the geochemistry and may result in the mobilization of other constituents that require treatment. In addition, bulk mixing with reagents can occur. | Design phase and additional compatibility testing may be required, which may take up to 18 months. Completion of ISS may take an additional 12 to 18 months, depending on the final design, mixing method, and scale. Since this approach would likely not be applied to all impacted groundwater, but rather applied to a specific source area to prevent migration, it may take an extended timeframe to complete the remedy. | No institutional requirements are expected at this time.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. | Medium to high (depending on area stabilized) | No. ISS is not typically used to remediate dilute contaminant plumes. |
| <i>Hydraulic Containment</i> | <i>Low:</i> Potential impacts are anticipated to be low. Short-term impacts during the construction of the remedy and long-term impacts during O&M can be mitigated through appropriate planning and H&S measures. Groundwater extraction may unintentionally alter the geochemistry within the hydraulic capture zone. | A thorough pre-design investigation, flow modeling, bench-scale treatability studies, and/or field-scale pilot testing may be needed. These activities may take 12 to 24 months prior to design, permitting, and construction of the corrective measure. Installation of extraction wells and/or trenches can be accomplished relatively quickly, while the time until startup is contingent on ex-situ treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system. However, uncertainty exists with respect to the time to achieve and maintain the GWPS and complete operations; additional data collection may be needed to better understand site mobility and attenuation mechanisms for arsenic. | A revision to the current permit may be required to withdraw water (e.g., water or consumptive use permit). Depending on the effluent management strategy, modifications to the existing National Pollutant Discharge Elimination System permit may be required for surface water discharge.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. Potential mobilization of redox constituents may occur with in situ injections. Treatment system residuals require proper disposal. | Medium to high (depending on remedy duration and complexity of above-ground treatment system) | Yes |
| <i>Monitored Natural Attenuation (MNA)</i> | <i>Negligible:</i> Potential impacts of the remedy will be negligible because MNA relies on natural processes active in the aquifer matrix without significant disturbance to the surface or subsurface. | Implementation of the MNA remedy would require time for additional data collection and documentation, even though an existing monitoring network is already in place. Additional data collection activities may take up to 24 months to complete. The additional data would be needed for statistical analysis and to evaluate whether additional monitoring wells need to be installed to supplement the existing monitoring network. MNA timeframes range from a few years to a few decades. | No institutional requirements are expected at this time.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. Minimally disruptive technology. | Low | Yes |

² Wood Environment & Infrastructure Solutions, Inc. (Wood). 2020. Risk Evaluation Report. Plant McManus Inactive Ash Pond AP-1, Glynn County, Georgia. December.

Table 1
Remedy Evaluation Summary
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Technology | Evaluation Criteria | | | | Retain Technology for Further Evaluation? |
|---|--|--|--|---|---|
| | Potential Impact
40 CFR 257.96(c)(1) | Estimated Time to Begin/Complete Remedy
40 CFR 257.96(c)(2) | Institutional Requirements and Other Env or Public Health Requirements
40 CFR 257.96(c)(3) | Relative Costs | |
| <i>Permeable Reactive Barrier (PRB)</i> | <i>Low:</i> Impacts are expected to be low if the remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and geophysical testing. Short-term impacts during construction of the remedy can be mitigated through appropriate planning and H&S measures. Consideration of groundwater flow to nearby sensitive environments may be needed. This remedial alternative may unintentionally alter the geochemistry within the wall, which may result in the mobilization of other constituents that require treatment. | Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench-scale treatability studies and/or compatibility testing would be required to obtain design parameters prior to design and construction of the remedy. These processes may take up to 24 months. Media may need to be replaced periodically to maintain reactive conditions and/or address additional flux of impacted groundwater into the PRB. | No institutional requirements are expected at this time.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. Passive remedy with minimal disruption after installation. | Medium (for installation) with minimal O&M requirements | Yes |
| <i>Phytoremediation</i> | <i>Low:</i> Phytoremediation typically has low expected impacts. Depending on the phytoremediation strategy, disposal methods for vegetation with bioaccumulated arsenic may need to be considered. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and H&S measures. | Installation of a phytoremediation system can be accomplished relatively quickly (within 6 to 12 months), depending on the final location and configuration. However, treatability studies and pilot testing would be required to ensure effective treatment. These studies may take up to 24 months. Once installed, the time to achieve the GWPS downgradient of the phytoremediation system is anticipated to be long and can take multiple years before system is treating at design capacity. | No institutional requirements are expected at this time.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. Passive remedy with minimal disruption after installation. | Medium (for installation) with minimal O&M requirements | No. Site-specific construction constraints, hydrogeology, and chemistry limits implementability, performance and effectiveness. |
| <i>Subsurface Barrier Walls</i> | <i>Low:</i> Impacts are expected to be low following construction of the remedy. Short-term impacts during remedy construction can be mitigated through appropriate planning and H&S measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected and may require dewatering. | Design phase and additional compatibility testing may be required, which may take up to 24 months. Installation of a barrier wall can be accomplished relatively quickly (i.e., 6 to 12 months), depending on the final location and configuration. Once installed, preventing migration of constituents in groundwater is anticipated to be similar to a companion technology (e.g., PRBs or P&T). Since this approach does not treat the downgradient area of impacted groundwater but rather prevents migration from a source area, it will likely have to be maintained long-term and coupled with other approaches. | No institutional requirements are expected at this time.

Based on the Risk Evaluation Report (Wood 2020), the arsenic SSL is not expected to pose a risk to human health or the environment. Passive remedy with minimal disruption after installation. If implemented in conjunction with P&T, treatment system residuals require proper disposal. | Medium (for installation) with minimal O&M requirements | Retained only in conjunction with other remedial alternatives. |

Acronyms and Abbreviations:

- AP-1 = Plant McManus former Ash Pond 1
- bgs = below ground surface
- CFR = Code of Federal Regulations
- GWPS = Groundwater Protection Standard
- H&S = health and safety
- ISS = in situ stabilization/solidification
- MNA = monitored natural attenuation
- O&M = operation and maintenance
- P&T = pump and treat
- PRB = permeable reactive barrier
- SSL = statistically significant level

Acronyms and abbreviations are defined on the last page.

Table 2
Dose Response and Downgradient Monitoring Well Design
Georgia Power Company
Plant McManus Former Ash Pond 1
Brunswick, Georgia



| Purpose | | Dose Response Well | | New Northern Monitoring Wells | | | |
|-----------------------------|---------|--|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Well ID | | DR-01 | DR-02 | PT-01 | PT-02 | PT-03 | PT-04D |
| Well Finished As: | | Flush-mount with 2 ft x 2 ft pad | Flush-mount with 2 ft x 2 ft pad | Flush-mount with 2 ft x 2 ft pad | Flush-mount with 2 ft x 2 ft pad | Flush-mount with 2 ft x 2 ft pad | Flush-mount with 2 ft x 2 ft pad |
| Screen Type: | | 2-inch 0.010" slotted Upack with coupler | 2-inch 0.010" slotted Upack with coupler | 2-inch 0.010" slotted Upack | 2-inch 0.010" slotted Upack | 2-inch 0.010" slotted Upack | 2-inch 0.010" slotted Upack |
| Casing and Screen Material: | | Schedule 40 PVC | Schedule 40 PVC | Schedule 40 PVC | Schedule 40 PVC | Schedule 40 PVC | Schedule 40 PVC |
| Approximate elevation | ft amsl | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| Total Depth | ft bgs | 31 | 31 | 25 | 24.5 | 25.2 | 41 |
| Screened Length | ft | 15 | 15 | 10 | 10 | 10 | 5 |
| Top of Screened Interval | ft bgs | 16 | 16 | 15 | 14.5 | 15.2 | 36 |
| Bottom of Screened Interval | ft bgs | 31 | 31 | 25 | 24.5 | 25.2 | 41 |

Notes:

Approximate elevation based on survey data collected as part of High Resolution study, final survey in progress.

Acronyms and Abbreviations:

ft amsl - feet above mean sea-level
ft - feet
ft bgs - feet below ground surface
" - inches

FIGURES

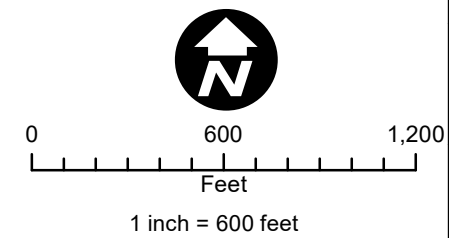




Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- PROPERTY BOUNDARY
- PERMITTED CCR BOUNDARY
- COMPLIANCE MONITORING WELL
- DELINEATION WELL



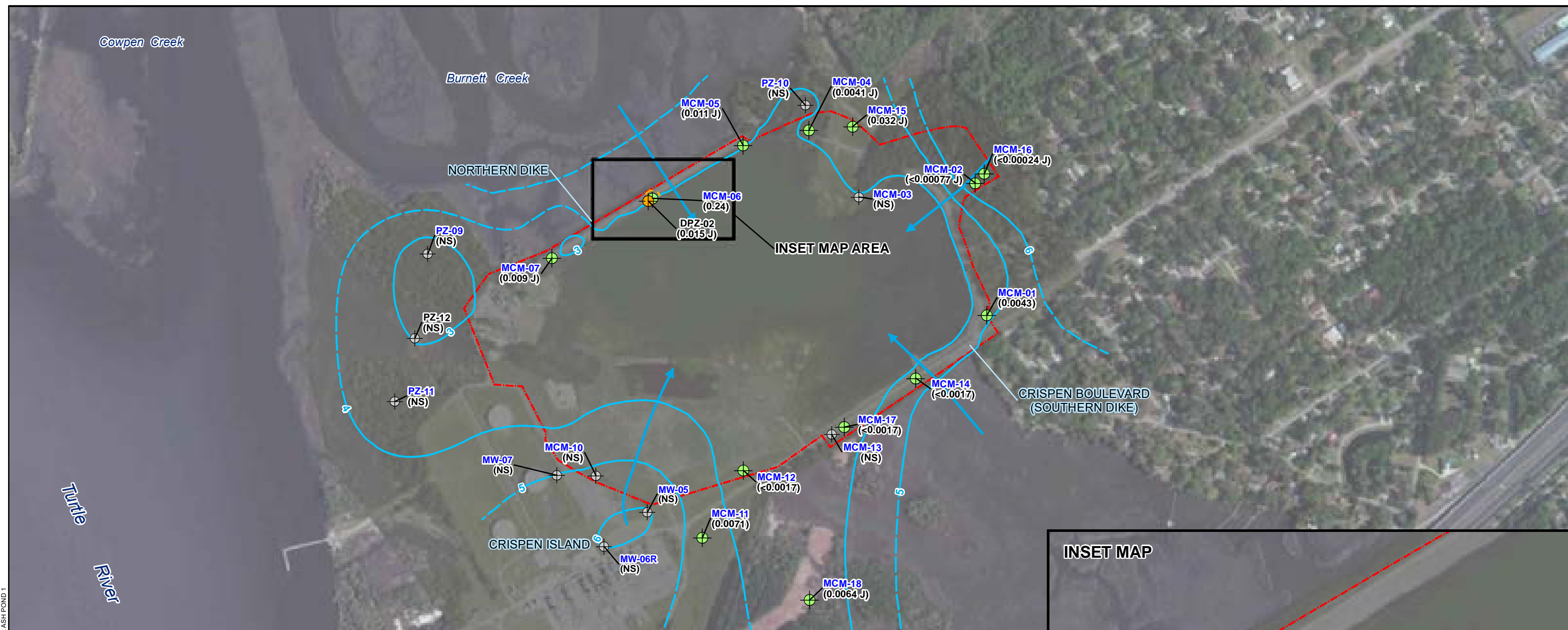
GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA

**SITE MAP AND COMPLIANCE
MONITORING WELL NETWORK**



FIGURE

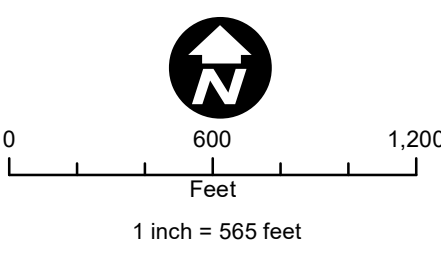
1



NOTES:
 BLUE LABELS INDICATE WELL WAS USED FOR GROUNDWATER ELEVATION CONTOURING.
 BLACK LABELS ARE ARSENIC CONCENTRATIONS.
 DATA SHOWN FROM GROUNDWATER SAMPLING EVENT CONDUCTED MARCH 1-3, 2022
 ISOCONTOUR DASHED WHERE APPROXIMATE.
 CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (MG/L).
 DELINEATION WELL DPZ-02 DATA ARE NOT USED IN ISOCONTOUR DEVELOPMENT.
 NS = NOT SAMPLED.
 < = NOT DETECTED AT OR ABOVE ADJUSTED REPORTING LIMIT.
 ARSENIC GROUNDWATER PROTECTION STANDARD = 0.032 MILLIGRAMS PER LITER.
 PZ-01 THROUGH PZ-08, MW-08, AND MCM-09 WERE ABANDONED IN 2019.
 GROUNDWATER CONTOURS BASED ON INTERPRETATION PRESENTED IN
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 (RESOLUTE, 2022).



- LEGEND**
- PERMITTED CCR BOUNDARY
 - COMPLIANCE MONITORING WELL
 - ⊕ PIEZOMETER
 - DELINEATION WELL
 - ARSENIC ISOCONCENTRATION LINE
DASHED WHERE INFERRED
 - MARCH 2022 HIGH TIDE
GROUNDWATER CONTOURS
(DASHED WHERE INFERRED)
 - DIRECTION OF GROUNDWATER FLOW








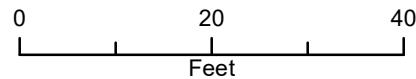
| | |
|--|--------------------|
| GEORGIA POWER
PLANT MCMANUS FORMER ASH POND 1
BRUNSWICK, GEORGIA | |
| ISOCONCENTRATION MAP ARSENIC
 MARCH 2022 | |
| | FIGURE
2 |

2022 SECOND SEMIANNUAL REMEDIATION DESIGN AND DESIGN PROGRESS REPORT PLANT MCMANUS FORMER ASH POND 1



LEGEND

-  COMPLIANCE MONITORING WELL
-  DEWATERING WELL
-  DOSE RESPONSE WELL
-  PILOT TEST MONITORING WELL
-  PERMITTED CCR BOUNDARY



GEORGIA POWER
 PLANT MCMANUS FORMER ASH POND 1
 BRUNSWICK, GEORGIA

OBSERVATION WELL LAYOUT



FIGURE

3

ATTACHMENT 1

Plant McManus Ash Pond Statistical Analysis –March 2022 Sampling
Event

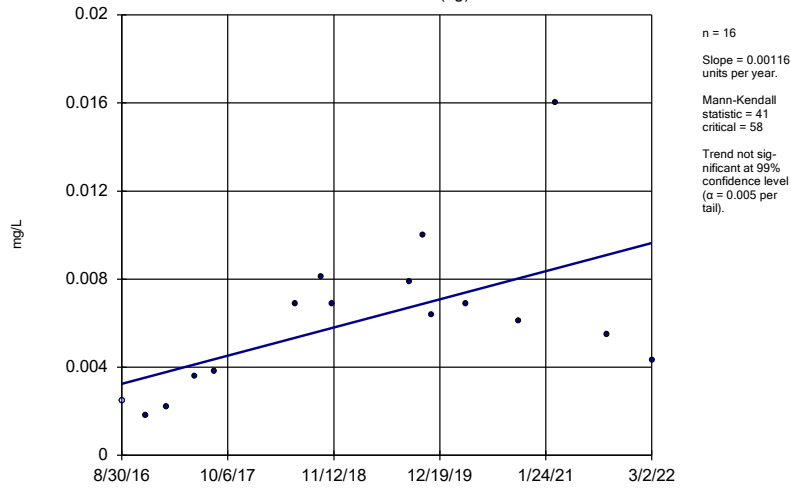


Appendix IV Trend Tests - All Results (No Significant)

Plant McManus Client: Southern Company Data: McManus Ash Pond Data Printed 5/4/2022, 9:40 AM

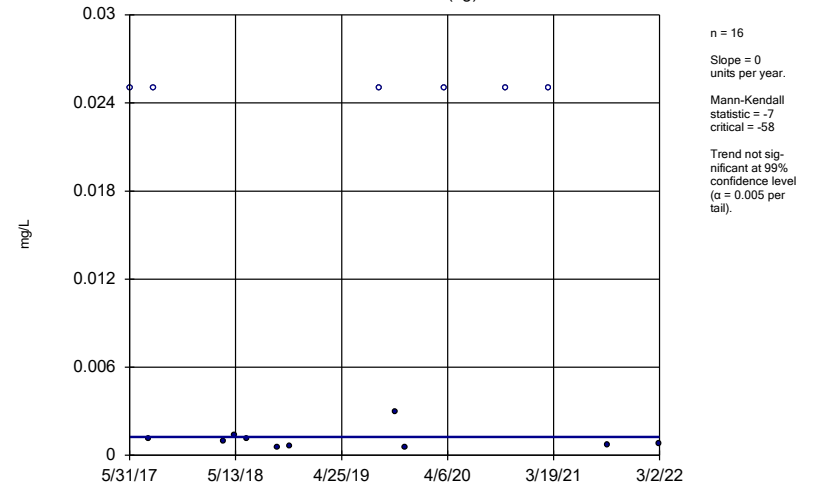
| Constituent | Well | Slope | Calc. | Critical | Sig. | N | %NDs | Normality | Xform | Alpha | Method |
|----------------|-------------|-----------|-------|----------|------|----|-------|-----------|-------|-------|--------|
| Arsenic (mg/L) | MCM-01 (bg) | 0.00116 | 41 | 58 | No | 16 | 6.25 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-02 (bg) | 0 | -7 | -58 | No | 16 | 37.5 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-06 | 0.02574 | 41 | 74 | No | 19 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-11 (bg) | -0.002994 | -58 | -63 | No | 17 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-15 (bg) | 0.0001396 | 14 | 53 | No | 15 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-16 (bg) | 0 | -15 | -53 | No | 15 | 46.67 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-18 (bg) | -0.001633 | -30 | -43 | No | 13 | 15.38 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-19 (bg) | -0.001694 | -19 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Arsenic (mg/L) | MCM-20 (bg) | 0 | 0 | 43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | DPZ-2 | -0.002797 | -3 | -14 | No | 6 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-01 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-02 (bg) | 0 | 2 | 53 | No | 15 | 93.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-06 | 0.01129 | 50 | 58 | No | 16 | 0 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-11 (bg) | 0 | 4 | 53 | No | 15 | 40 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-15 (bg) | 0 | 10 | 53 | No | 15 | 53.33 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-16 (bg) | 0 | -13 | -53 | No | 15 | 86.67 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-18 (bg) | 0.02063 | 17 | 30 | No | 10 | 50 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-19 (bg) | 0.002313 | 18 | 43 | No | 13 | 7.692 | n/a | n/a | 0.01 | NP |
| Lithium (mg/L) | MCM-20 (bg) | -0.001009 | -14 | -43 | No | 13 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator
 MCM-01 (bg)



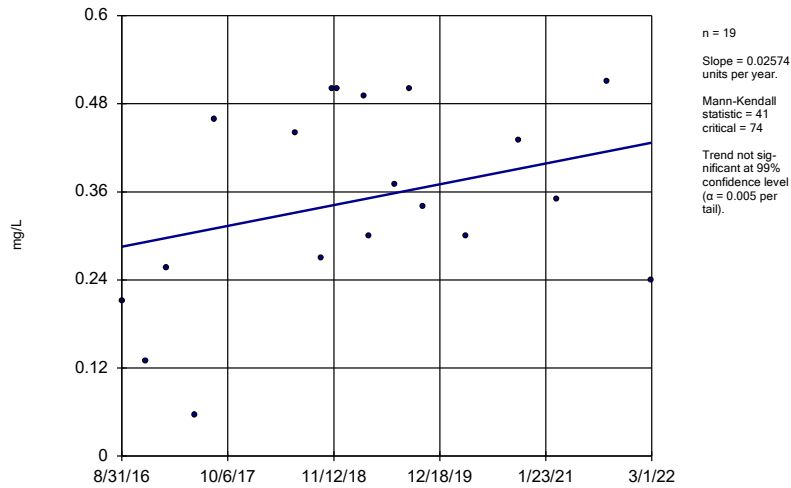
Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-02 (bg)



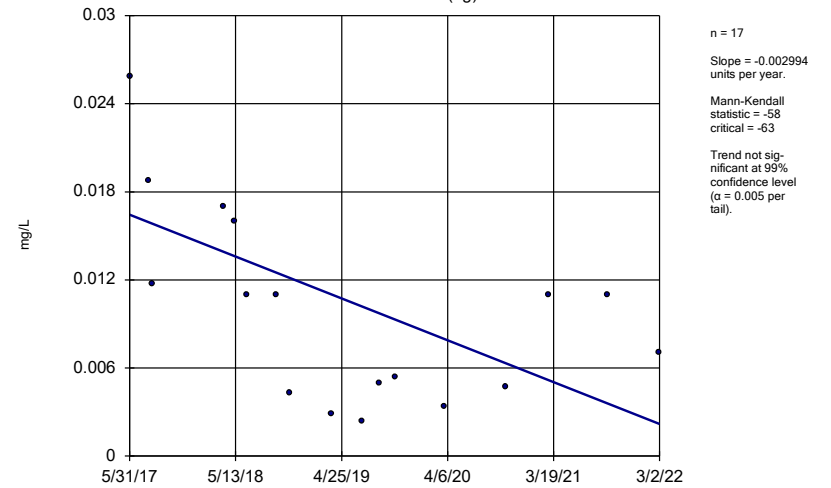
Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
 MCM-06



Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

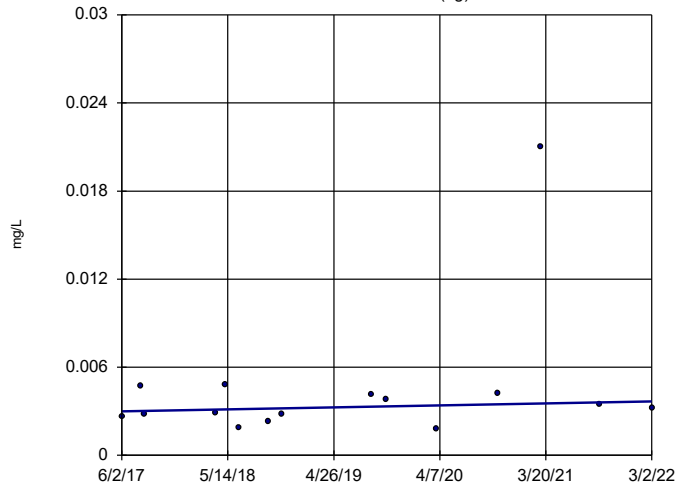
Sen's Slope Estimator
 MCM-11 (bg)



Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)

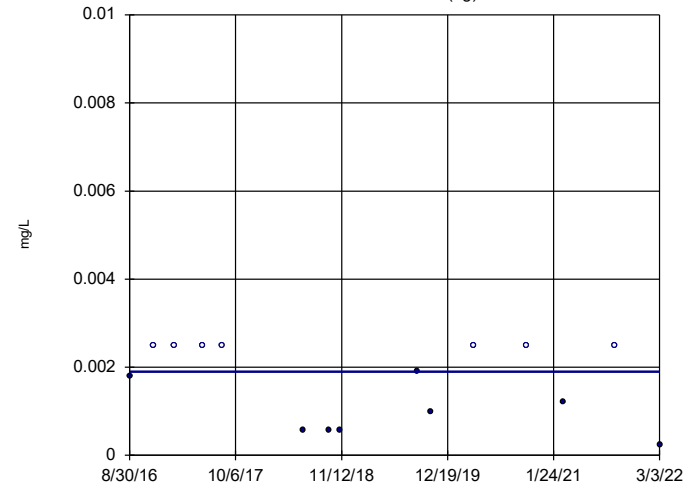


n = 15
 Slope = 0.0001396
 units per year.
 Mann-Kendall
 statistic = 14
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-16 (bg)

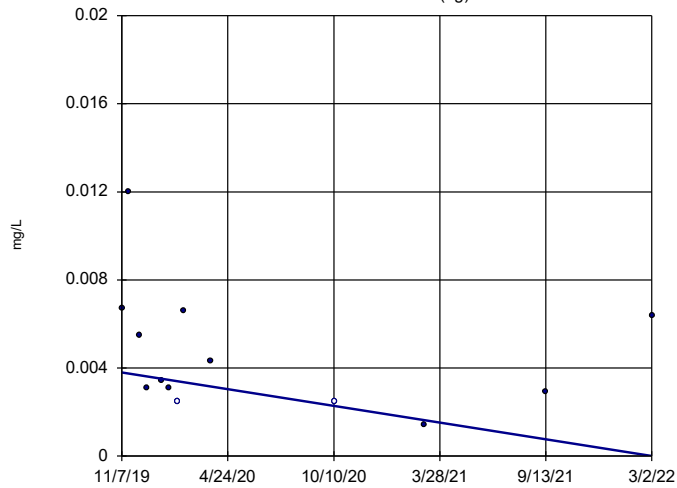


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-18 (bg)

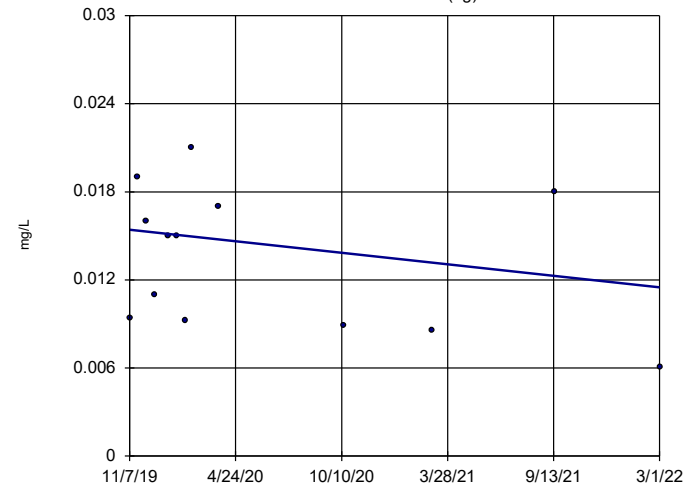


n = 13
 Slope = -0.001633
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-19 (bg)

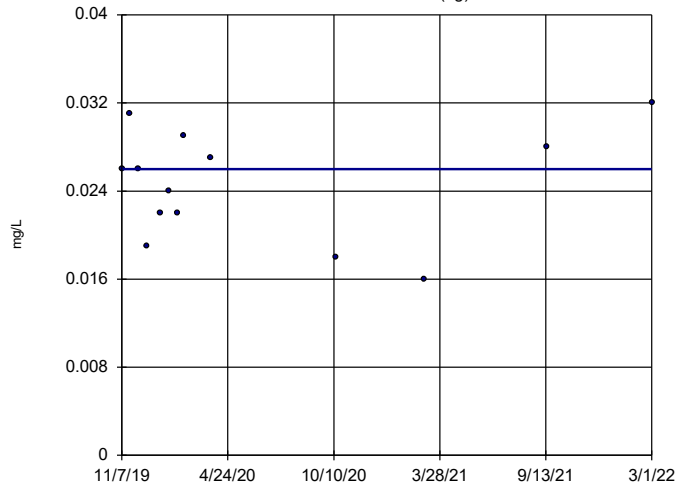


n = 13
 Slope = -0.001694
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-20 (bg)

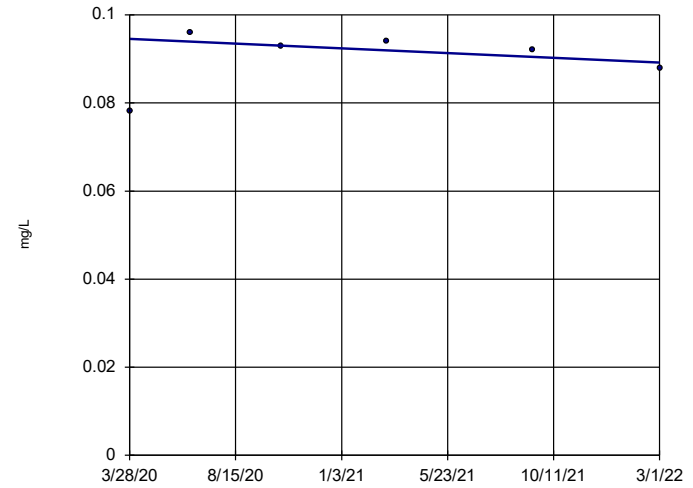


n = 13
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 0
 critical = 43
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Arsenic Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

DPZ-2

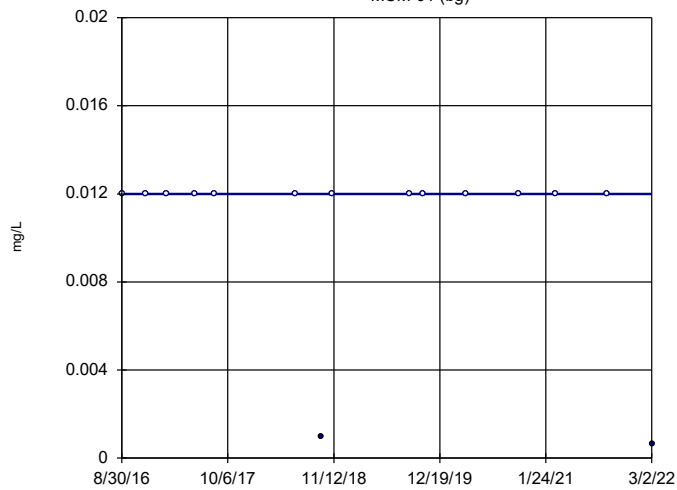


n = 6
 Slope = -0.002797
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -14
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-01 (bg)

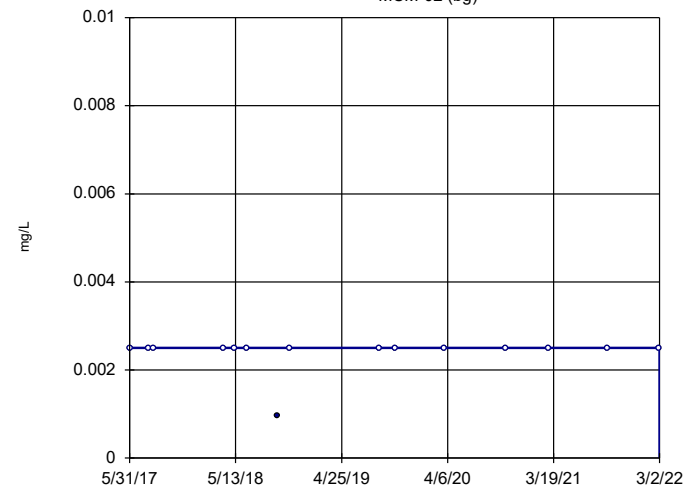


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-02 (bg)

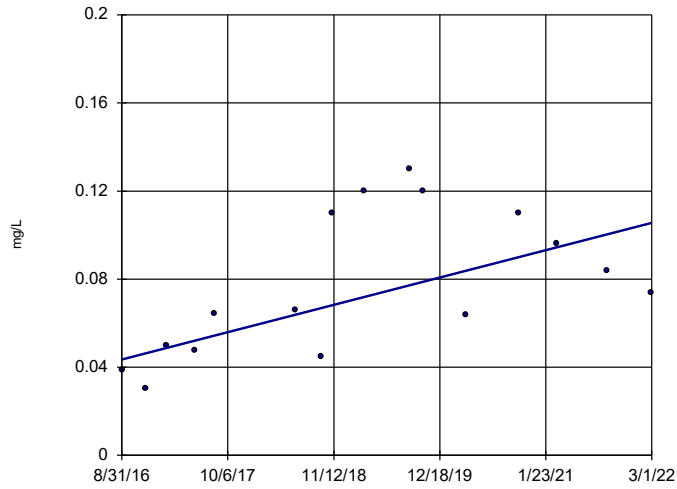


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-06

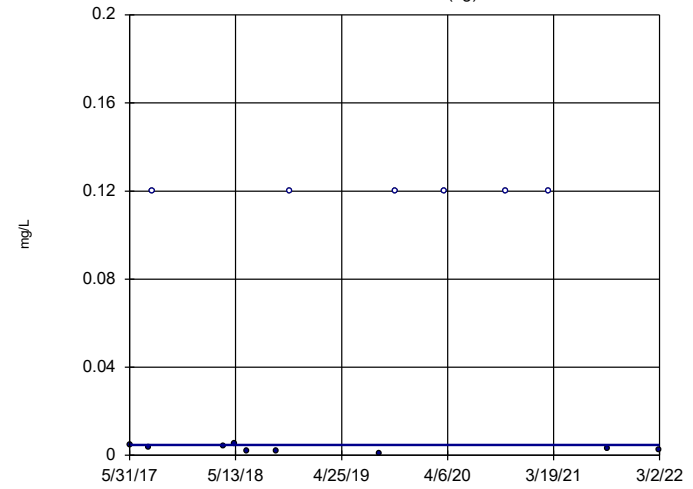


n = 16
 Slope = 0.01129
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 58
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-11 (bg)

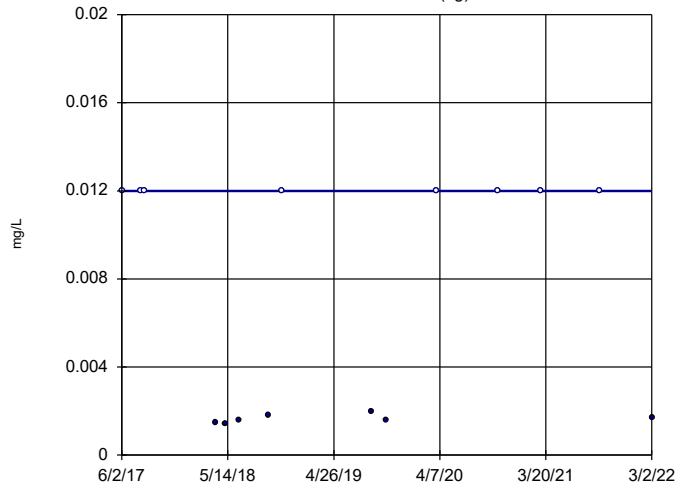


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator

MCM-15 (bg)

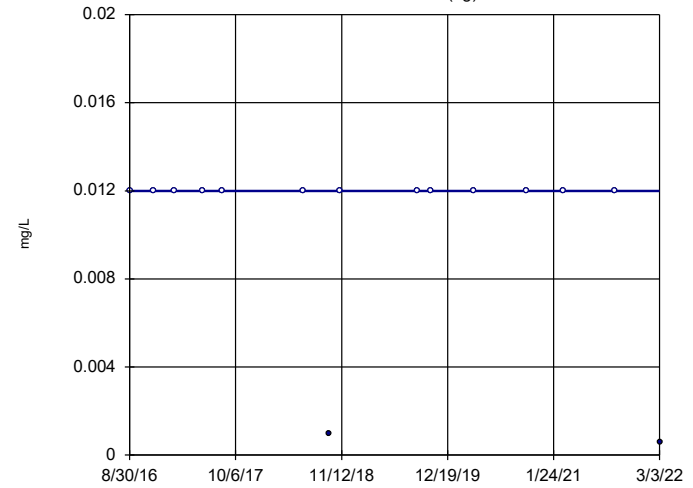


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 10
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
 Plant McManus Client: Southern Company Data: McManus Ash Pond Data

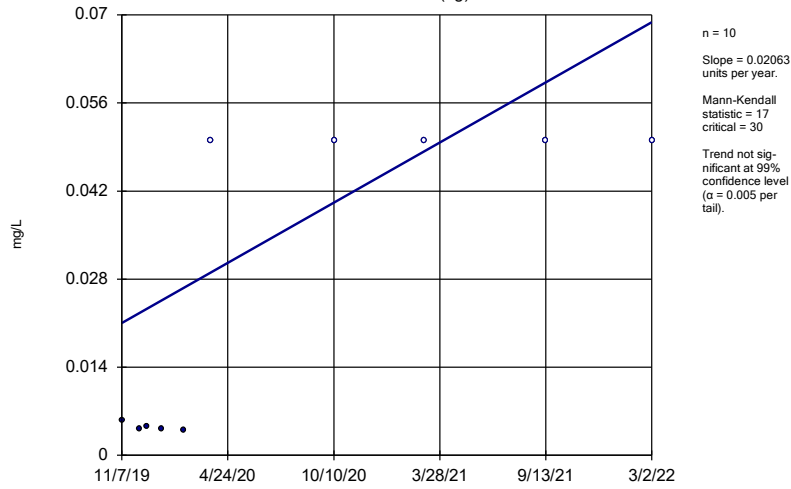
Sen's Slope Estimator

MCM-16 (bg)



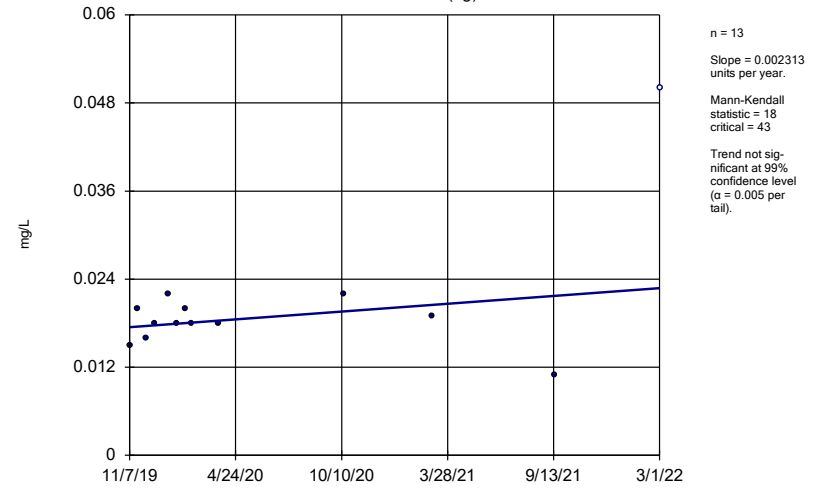
n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -13
 critical

Sen's Slope Estimator
MCM-18 (bg)



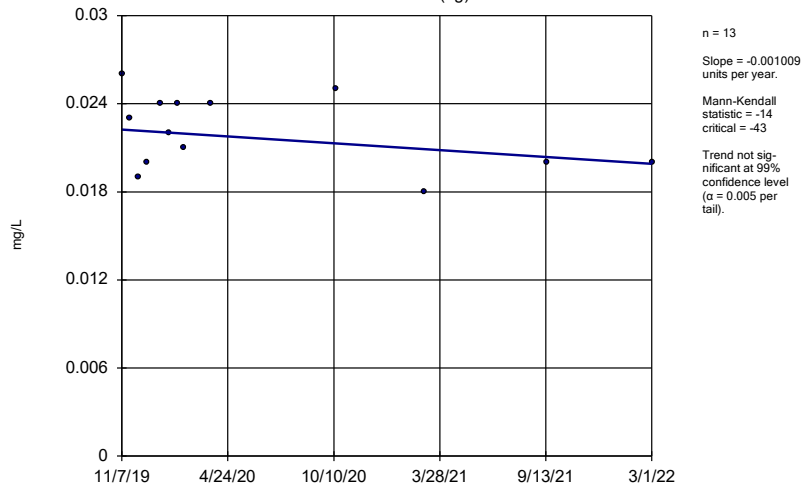
Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-19 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

Sen's Slope Estimator
MCM-20 (bg)



Constituent: Lithium Analysis Run 5/4/2022 9:40 AM View: Appendix IV - Trend Tests
Plant McManus Client: Southern Company Data: McManus Ash Pond Data

ATTACHMENT 2

Soil Boring and Well Construction Logs





Boring No.: DR-01

Soil Boring and Construction Log

Sheet: 1 of 2

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|---|---|----------------------|
| 1 | | | | | (0.0-0.5 ft) Gravel. | (0 ft) Drilling fluid of potable water-used approximately 150 gallons | |
| 2 | | | | | (0.5-11 ft) Silty Sand: fine-grained sand (75%), silt (25%), tan to brown; Fill. | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | (5.0-11 ft) Density soft, no visual porosity. | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | (11-14.5 ft) Clay: 50% clay, 40% fine-grained sand, 10% silt, consistency firm, moist, no visual porosity, dark gray. | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | (14.5-17 ft) Silty Sand: 60% silt, 20% fine-grained sand, 20% clay, consistency soft, moist, no visual porosity. | | |
| 16 | | | | | (15-17 ft) Mixture of silty sand to poorly sorted fine-grained sand, density soft, saturated, no shell fragments, dark gray to black. | | |
| 17 | | | | | (17-31 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, no clay, dark gray to black | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA
 Drill Rig: _____ Static Water Level (ft bgs): 4.37
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.58
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.86
= recovery. North Coordinate: 444407.62
 East Coordinate: 850777.93

SOIL BORING AND CONSTRUCTION LOG - ARCADIS/WOODSON/DRIVE - ARCADIS/FULCRUM-GINT PROJECTS/MC/MANUS/GINT PROJECT/GPJ GINT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------------------|-----------|-----------|-------------|---------|--|--------------------------|----------------------|
| 21 | | | | | (17-31 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, no clay, dark gray to black | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 31 ft. bgs End of Boring | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GPI GINT DATA TEMPLATE.GDT 7/1/22



Boring No.: DR-02

Soil Boring and Construction Log

Sheet: 1 of 2

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|---|---|----------------------|
| 1 | | | | | (0.0-0.5 ft) Gravel. | (0 ft) Drilling fluid of potable water-used approximately 150 gallons | |
| 2 | | | | | (0.5-13 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, brown to tan, moist to very moist at 5-6 ft; Fill. | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | (9.0-13 ft) Increase to 10% clay. | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | (13-15 ft) Clay: 80% clay, consistency firm, moist, no visual porosity, 2.5YR 3/1 dark gray to black. | | |
| 14 | | | | | | | |
| 15 | | | | | (15-18 ft) Silty Sand: 60% silt, 20% fine-grained sand, 20% clay, density soft, very moist, no visual porosity, 2.5YR 3/1 dark gray to black. | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | (18-31 ft) Poorly Sorted Sand: 90% fine-grained sand, 10% silt, density firm, no visual porosity, 2.5YR 3/1 dark gray to black. | | |

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA
 Drill Rig: _____ Static Water Level (ft bgs): 4.24
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.58
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.90
= recovery. North Coordinate: 444411.68
 East Coordinate: 850784.46

SOIL BORING AND CONSTRUCTION LOG - ARCADIS/FULCRUM-GINT PROJECTS/MCMANUS/GINT DATA TEMPLATE GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 31.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details | | |
|--------------|-----------|-----------|-------------|---------|---|--|----------------------|---------------------|-------------------|
| 21 | | | | | (18-31 ft) Poorly Sorted Sand: 90% fine-grained sand, 10% silt, density firm, no visual porosity, 2.5YR 3/1 dark gray to black.
(20-25 ft) Density soft, very moist, poor visual porosity, GLEY2 5/1 blueish gray. | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | (25-31 ft) Increase to 100% fine-grained sand. | | 2" 10-Slot U Screen | Filter Sand 20/30 |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

31 ft. bgs End of Boring

| | | | | | | | |
|----|--|--|--|--|--|--|--|
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GPGJ GINT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

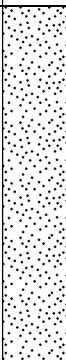
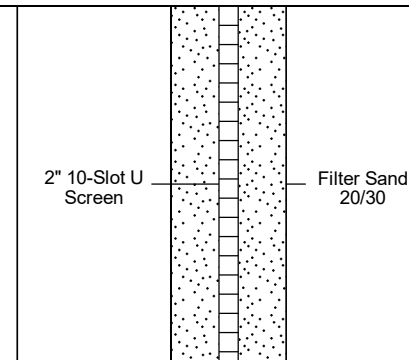
| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|--|--|---|
| 1 | | | | | (0.0-0.5 ft) Gravel. | (0 ft) Drilling fluid of potable water-used approximately 75 gallons | 6-inch Flush steel manhole cover with 2'x2' cement pad
Portland Cement |
| 2 | | | | | (0.5-12 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, moist, 2.5YR 5/8 tan to brown; Fill. | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | (5.0-12 ft) Increase to 5% clay, consistency soft, no visual porosity. | | |
| 7 | | | | | | | |
| 8 | | | | | | | 2" PVC Casing |
| 9 | | | | | | | Bentonite Pellets |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | Fine Sand 30/65 |
| 13 | | | | | (12-17 ft) Silty Clay: 50% clay, 50% silt, consistency firm, moist, no visual porosity, 5Y 3/1 dark gray to black, no fines, no shell fragments, more of a silty sand at 17 ft with less clay. | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | Filter Sand 20/30 |
| 17 | | | | | | | |
| 18 | | | | | (17-25 ft) Poorly Sorted Sand: 90% fine-grained sand, density soft, moist, poor visual porosity, 5Y 3/1 dark gray to black. | | 2" 10-Slot U Screen |
| 19 | | | | | | | |
| 20 | | | | | | | |

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA
 Drill Rig: _____ Static Water Level (ft bgs): 4.38
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.49
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.82
= recovery. North Coordinate: 444408.70
 East Coordinate: 850768.53

SOIL BORING AND CONSTRUCTION LOG - ARCADIS\WOODSTONE\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GJT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-26-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-26-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---|---|--------------------------|---|
| 21 | | | |  | (17-25 ft) Poorly Sorted Sand: 90% fine-grained sand, density soft, moist, poor visual porosity, 5Y 3/1 dark gray to black. | | 
2" 10-Slot U Screen Filter Sand 20/30 |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | 25 ft. bgs End of Boring | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT PROJECT\GPI GINT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-27-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-31-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

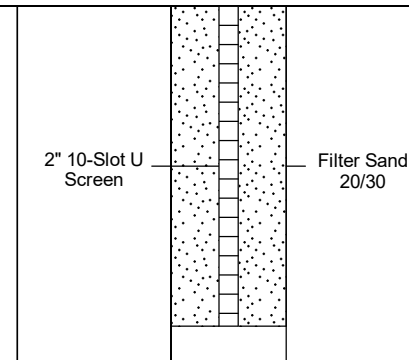
| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|--|---|---|
| 1 | | | | | (0.0-0.5 ft) Gravel. | (0 ft) Drilling fluid of potable water-used approximately 100 gallons | 6-inch Flush steel manhole cover with 2'x2' cement pad
Portland Cement |
| 2 | | | | | (0.5-8.0 ft) Silty Sand: fine-grained sand, tan to brown, moist; Fill. | | |
| 3 | | | | | (8.0-17 ft) Clayey Sand: 40% silt, 30% clay, 30% fine-grained sand, consistency firm, moist, no visual porosity, tan to brown. | 2" PVC Casing | Bentonite Pellets |
| 4 | | | | | (10-17 ft) Clay content slightly higher, no hard clay present. | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | (17-18 ft) Silty Sand: 75% fine-grained sand, 25% silt, density firm, moist, no visual porosity, dark gray to black. | 2" 10-Slot U Screen | Fine Sand 30/65 |
| 8 | | | | | (18-25 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, dark gray to black. | | |
| 9 | | | | | | | Filter Sand 20/30 |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA
 Drill Rig: _____ Static Water Level (ft bgs): 4.56
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.64
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.91
= recovery. North Coordinate: 444414.19
 East Coordinate: 850777.91

SOIL BORING AND CONSTRUCTION LOG - ARCADIS\WOODSTONE\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-27-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-31-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|--|--------------------------|---|
| 21 | | | | ••••• | (18-25 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, moist, poor visual porosity, dark gray to black. | |  |
| 22 | | | | ••••• | | | |
| 23 | | | | ••••• | | | |
| 24 | | | | ••••• | | | |
| 25 | | | | ••••• | | | |
| | | | | | 25 ft. bgs End of Boring | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 7/1/22



Soil Boring and Construction Log

Client Name: McManus Date Started: 06-01-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 06-01-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

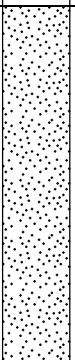
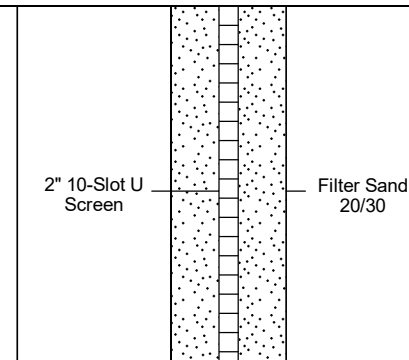
| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|--|--|----------------------|
| 1 | | | | | (0.0-0.5 ft) Gravel. | (0 ft) Drilling fluid of potable water-used approximately 75 gallons | |
| 2 | | | | | (0.5-8.0 ft) Silty Sand: 75% fine-grained sand, 25% silt, density soft, dry, Fill. | | |
| 3 | | | | | (5.0-8.0 ft) Tan to brown. | 2" PVC Casing | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | (8.0-13 ft) Silty Sand with Clay: 50% fine-grained sand, 40% silt, 10% clay, consistency soft, moist, poor visual porosity. | 2" 10-Slot U Screen | |
| 8 | | | | | | | |
| 9 | | | | | (10-13 ft) Increase to 15% clay. | 2" 10-Slot U Screen | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | (13-15.5 ft) Clay: 90% stiff clay, 10% fine-grained sand, consistency firm, moist, no visual porosity, black to dark gray. | 2" 10-Slot U Screen | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | (15.5-16 ft) Silty Sand: 75% sand, 15% silt, 10% clay, density firm, moist, no visual porosity, dark gray to black. | 2" 10-Slot U Screen | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | (16-25 ft) Poorly Sorted Sands: 90% sand, density soft, saturated, dark gray to black.
(17-17.3 ft) Small lenses of silty sand. | 2" 10-Slot U Screen | |
| | | | | | | | |

Drilling Company: Cascade Drilling Sampling Method: Sonic Core Barrel
 Driller: J. Reynolds Sampling Dimensions: 5' x 6"
 Drilling Method: Rotosonic First Encountered Water (ft bgs): NA
 Drill Rig: _____ Static Water Level (ft bgs): 4.17
 Remarks: bgs = below ground surface; ft = feet; PID = Top of Casing Elevation: 7.45
photo-ionization detector; ppm = parts per million; Rec. Surface Elevation: 7.93
= recovery. North Coordinate: 444418.92
 East Coordinate: 850785.95

SOIL BORING AND CONSTRUCTION LOG - ARCADIS\WOODSTONE\DRIVE - ARCADIS\FULCRUM\GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 7/1/22

Soil Boring and Construction Log

Client Name: McManus Date Started: 06-01-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 06-01-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 25.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---|--|--------------------------|---|
| 21 | | | |  | (16-25 ft) Poorly Sorted Sands: 90% sand, density soft, saturated, dark gray to black. | |  <p>2" 10-Slot U Screen</p> <p>Filter Sand 20/30</p> |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| | | | | | 25 ft. bgs End of Boring | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

SOIL BORING AND CONSTRUCTION LOG - C:\USERS\WOODSON\DRIVE - ARCADIS\FULCRUM-GINT PROJECTS\MCMANUS\GINT DATA TEMPLATE.GDT 7/1/22



Boring No.: PT-04D

Soil Boring and Construction Log

Sheet: 1 of 2

Client Name: McManusDate Started: 05-25-2022Logger: C. LawsonProject Number: 30050105Date Completed: 05-25-2022

Reviewer: _____

Project Name: Brunswick, GATotal Depth: 41.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details | |
|--------------|-----------|-----------|-------------|--|---|--|----------------------|--|
| 1 | | | | | (0.0-0.5 ft) Mainly gravel. | (0-5 ft) Hand auger. Drilling fluid of potable water-used approximately 150 gallons. | | Completed well with 6-inch steel manhole cover within 2'x2' cement pad |
| 2 | | | | (0.5-12 ft) Silty Sand: 75% sand, 20% silt, 5% clay, consistency firm, brown to tan, very moist; Fill. | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | (5.0-12 ft) Increase to 90% fine-grained sand, density soft, 5YR 6/6 light tan. | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | 2" PVC Casing | |
| 11 | | | | | | | | |
| 12 | | | | | (12-15.5 ft) Silty Clay: 40% silt, 40% fine-grained sand, 20% clay, consistency soft, no visual porosity, 5YR 2/3 dark gray. | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | (15.5-19 ft) Silty Sand: 80% fine-grained sand, 10% silt, 10% clay, density firm, no visual porosity, 5YR 2/3 dark gray to black. | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | Bentonite Pellets |

Drilling Company: Cascade DrillingSampling Method: Sonic Core BarrelDriller: J. ReynoldsSampling Dimensions: 5' x 6"Drilling Method: Mini SonicFirst Encountered Water (ft bgs): NA

Drill Rig: _____

Static Water Level (ft bgs): 4.39Remarks: bgs = below ground surface; ft = feet; PID =Top of Casing Elevation: 7.51photo-ionization detector; ppm = parts per million; Rec.Surface Elevation: 7.80= recovery.North Coordinate: 444400.23East Coordinate: 850753.07

Soil Boring and Construction Log

Client Name: McManus Date Started: 05-25-2022 Logger: C. Lawson
 Project Number: 30050105 Date Completed: 05-25-2022 Reviewer: _____
 Project Name: Brunswick, GA Total Depth: 41.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | Blow Counts | Graphic | Description | Drilling Fluid and Notes | Construction Details |
|--------------|-----------|-----------|-------------|---------|--|--------------------------|----------------------|
| 21 | | | | | (19-28 ft) Poorly Sorted Sand: 95% fine-grained sand, density soft, poor visual porosity, large piece of woods at depth, top foot of sample has shell fragments ~1/8 to 1/4 inch. | | |
| 22 | | | | | (20-28 ft) Increase to 100% fine-grained sand, moist, GLEY2 0/1 blueish to light brown, no clays. | | |
| 23 | | | | | | | |
| 24 | | | | | (24 ft) Shell fragments. | | |
| 25 | | | | | | | Bentonite Pellets |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | (28-28.4 ft) Silty Sand: minor clay, consistency firm, moist. | | 2" PVC Casing |
| 29 | | | | | (28.4-41 ft) Poorly Sorted Sand: 100% sand with shell fragments, density soft, moderate visual porosity, GLEY2 3/1 dark gray to black gray, no clays, shell fragments only at 24 ft. | | |
| 30 | | | | | (30-35 ft) Shell fragments throughout. | | |
| 31 | | | | | | | Fine Sand 30/65 |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | (35-41 ft) Shell fragments are large to ~1 inch, density firm, poor visual porosity. | | |
| 36 | | | | | | | |
| 37 | | | | | | | Filter Sand 20/30 |
| 38 | | | | | | | |
| 39 | | | | | | | 2" 10-Slot U Screen |
| 40 | | | | | | | |
| 41 | | | | | | | |
| | | | | | 41 ft. bgs End of Boring | | |
| 42 | | | | | | | |

Remarks: bgs = below ground surface; ft = feet; PID = photo-ionization detector; ppm = parts per million; Rec. = recovery.

Arcadis, Inc.

2389 Paces Ferry Road SE

Suite 900

Atlanta, Georgia 30339

Tel 770 431 8666

Fax 770 435 2666

