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2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

BYPRODUCT STORAGE AREA, C.D. MCINTOSH POWER PLANT

Prepared for

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Project FR3715G

January 16, 2025

Geosyntec consultants

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Byproduct Storage Area, C.D. Mcintosh Power Plants

This 2024 Annual Groundwater Monitoring and Corrective Action Report for the Byproduct Storage Area at C.D. McIntosh Power Plant has been prepared to meet the requirements of 40 Code of Federal Regulations §257.90(e)

Prepared for

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January 16, 2025

EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency ("USEPA") coal combustion residuals ("CCR") rule (40 Code of Federal Regulations ("CFR") Part 257, Subpart D: Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments) ("CCR Rule"), this *2024 Annual Groundwater Monitoring and Corrective Action Report* documents CCR unit groundwater monitoring and corrective action activities completed in 2024 at the Lakeland Electric ("LE") C.D. McIntosh Power Plant ("MPP") Byproduct Storage Area ("BSA").

LE established a CCR unit groundwater monitoring well network to monitor groundwater quality within the uppermost aquifer in the vicinity of the BSA. Monitoring wells currently in the CCR unit groundwater monitoring well network are listed below:

- background wells (2): CCR-1 and CCR-2;
- downgradient wells (9): CCR-4, CCR-5, CCR-6, CCR-7, CCR-8, CCR-9, CCR-11, CCR-12, and CCR-13.

Statistical evaluation of CCR unit groundwater monitoring data collected through October 2017 identified statistically significant increases ("SSIs") of certain CCR Rule Appendix III groundwater monitoring constituents above background concentrations – boron, calcium, fluoride, pH, sulfate, and total dissolved solids ("TDS"). In accordance with the CCR Rule, LE initiated an assessment monitoring program for the BSA in April 2018 and continued assessment monitoring activities through 2024. LE completed an alternate source demonstration ("ASD") for total radium in June 2019 documenting that total radium statistically significant levels ("SSLs") are not associated with a release from the BSA. As a result of the ASD, groundwater samples have not been analyzed for total radium thereafter.

LE initiated an assessment of corrective measures ("ACM") in January 2019 which was completed in June 2019. In 2021, LE continued to evaluate groundwater corrective measures to support remedy selection for groundwater downgradient of the BSA. LE conducted the public meeting required in 40 CFR §257.96(e) on February 3, 2021. Following receipt of public input, LE finalized the remedy selection report for the BSA on March 31, 2021, which documented a remedy consisting of source control, including beneficial off-site use of CCR, and capping and closing the BSA in place following shutdown of Unit No. 3.

Samples collected during the first 2024 semi-annual assessment monitoring event (conducted in February) and the second 2024 semi-annual monitoring event (conducted in July) were analyzed for CCR Rule Appendix III and Appendix IV constituents. Appendix IV analytical data from the first and second semi-annual 2024 sampling events were evaluated in accordance with the *Statistical Analysis Plan* (Golder, 2017b). The analyses indicated SSLs above applicable groundwater protection standards of the following Appendix IV constituents:

SSL Constituent	Semi-annual assessment monitoring events			
	1st Semi-annual 2024		2nd Semi-annual 2024	
Arsenic	CCR-11	CCR-12	CCR-11	CCR-12
Lithium	CCR-4 CCR-6	CCR-5 CCR-13	CCR-4 CCR-6	CCR-5 CCR-13

SSLs observed in 2024 were consistent with those observed in 2023.

LE continued evaluating the nature and extent (N&E) of arsenic and lithium SSLs in groundwater downgradient of the BSA. Delineation activities completed in 2024 included sampling of N&E monitoring wells CCR-15 through CCR-23, property boundary well SW-106, and sampling surface water from Fish Lake and Lake D to evaluate the nature and extent of SSL constituents.

In September 2022, LE applied to the Florida Department of Environmental Protection ("FDEP") to close the BSA pursuant to Rule 62-701.805(11) and 62-701.805(8), Florida Administrative Code (F.A.C.). On August 18, 2023, FDEP issued Permit Number 0425997-001-CP-01 (Permit) to close the BSA.

During the closure design process, LE selected a final cover system for the BSA that differed from what was outlined in the BSA's Closure and Post Closure Care Plan (Closure Plan) and approved Permit. Therefore, LE revised the Closure Plan to include the revised final cover system and submitted a Permit modification application to the FDEP. FDEP furnished a Notice of Intent to issue the modified permit No. 0425997-002-CP-IM on October 28, 2024. The public notice required by Rule 62-701.805, F.A.C. was published in a newspaper of general circulation on November 5, 2024.

In 2024, LE procured a qualified subcontractor to complete the BSA closure construction and closure has been initiated. However, due to factors out of LE's control (multiple adverse weather events delaying construction) a closure timeframe extension was submitted to the FDEP since closure would not be complete within six months of initiation. LE anticipates BSA closure to be complete by September 2025.

Groundwater assessment monitoring will continue in 2025.

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1. INTRODUCTION

1.1 Overview

On behalf of Lakeland Electric ("LE"), Geosyntec Consultants, Inc. ("Geosyntec") prepared this *2024 Annual Groundwater Monitoring and Corrective Action Report* for the Byproduct Storage Area ("BSA") at the C.D. McIntosh Jr. Power Plant ("MPP" or "Site"). The purpose of this report is to present a summary of coal combustion residuals ("CCR") unit groundwater monitoring activities conducted in 2024 in accordance with the annual reporting requirements of the United States Environmental Protection Agency ("USEPA") CCR rule (40 Code of Federal Regulations Part 257 ("CFR"), Subpart D: Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments) ("CCR Rule"), Section 257.90(e). In addition, this report describes the status of corrective actions being undertaken at the CCR unit to address statistically significant levels ("SSLs") of CCR Rule Appendix IV constituents.

The Site is located at 3030 East Lake Parker Drive in Lakeland, Florida and is bordered by undeveloped lakes and marsh land to the north and east and Lake Parker to the south and west (**Figure 1**). The undeveloped lakes and marsh land were created from phosphate mining in the late 1960s to early 1970s. The BSA is in the eastern portion of the Site and encompasses approximately 44 acres.

1.2 Regional Geology & Hydrogeologic Setting

The regional geology and hydrogeology were presented in the *2019 Assessment of Corrective Measures Report* and *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2019a and b, respectively). A brief summary is included here. Geologic units present near the MPP include (in descending order; youngest to oldest):

- Holocene to Pliocene-age sands and clays up to 25 feet thick occur in the Lakeland area (Florida Geological Survey, 1991).
- The clayey-sand soils of the Miocene to Oligocene-age Hawthorn Group underly the Holocene to Pliocene sands with an approximate thickness of 40 to 60 ft in the vicinity of the MPP (Cathcart, 1964).
- Older units, comprised primarily of limestone and/or dolostone, underlying the Hawthorn group in the region include the Suwannee Limestone, Ocala Limestone, Avon Park Formation, and Oldsmar Formation.

The regional and Site-specific hydrogeology is comprised of three major hydrostratigraphic units: the unconfined surficial aquifer, the intermediate aquifer/confining unit, and the Floridan aquifer. The surficial aquifer represents the "uppermost aquifer" as defined in the CCR Rule. Groundwater flow in the surficial aquifer at the Site generally flows from topographic highs to topographic lows discharging to the numerous lakes surrounding the Site (Golder, 2005). Groundwater in the vicinity of the BSA has been observed to flow semi-radially away from the BSA, with flow to the west toward Fish Lake, and to the east toward Lakes C and D. There is a lesser component of groundwater flow in the surficial aquifer that is vertically downgradient toward the intermediate

confining unit and Floridan aquifer. This vertical flow component is restricted by the clayey materials of the intermediate confining unit.

1.3 CCR Unit and Groundwater Monitoring System Descriptions

The BSA CCR unit encompasses approximately 44 acres, but no longer receives CCR. Pursuant to the CCR Rule, LE installed a CCR unit groundwater monitoring system around the BSA to monitor groundwater within the uppermost aquifer at the Site (Golder, 2017a). Background monitoring wells were installed upgradient of the Site to establish Site-wide background water quality. The downgradient monitoring well network was installed at the waste boundary. The BSA groundwater monitoring network is comprised of the following wells:

- background wells (2): CCR-1 and CCR-2;
- downgradient wells (9): CCR-4, CCR-5, CCR-6, CCR-7, CCR-8, CCR-9, CCR-11, CCR-12, and CCR-13.

CCR-3, CCR-10, and CCR-14 were removed from the CCR unit monitoring well network in 2021 following five or more semi-annual groundwater monitoring events prior to January 2021 with no CCR constituent concentrations above CCR Rule groundwater protection standards ("GWPS"). These wells are not needed to evaluate the nature and extent of CCR constituents at other wells and are utilized as piezometers to supplement groundwater flow interpretations.

In February 2019, LE installed delineation wells (CCR-15 through CCR-23) to evaluate the nature and extent (N&E) of SSL constituents (Golder, 2019b). In June 2019, LE completed an alternate source demonstration ("ASD") for total radium documenting that total radium SSLs are not associated with a release from the BSA (see Section 5.0 for additional details regarding the total radium ASD). As a result of the total radium ASD, groundwater samples have not been analyzed for total radium. In 2024, LE sampled the delineation wells around the BSA, the downgradient property boundary well (SW-106), Fish Lake, and Lake D. These samples were analyzed for CCR Rule Appendix IV constituents (except for radium since an ASD established that radium is from a source other than the CCR unit).

Monitoring well details, including installation dates, coordinates, elevations, screen intervals, and designations are summarized in **Table 1**. The BSA groundwater monitoring network and delineation wells are depicted on **Figure 2.**

2. WATER MONITORING ACTIVITIES

The following section describes the methods used to conduct CCR unit groundwater monitoring at the BSA, including groundwater level gauging and sampling of monitoring wells and surface water bodies. Groundwater and surface water monitoring activities were conducted in general accordance with FDEP Standard Operating Procedures (SOPs) for Field Activities dated January 2017 (effective April 2018).

2.1 Water Monitoring Station Installation, Maintenance, and Abandonment

Water monitoring stations at the BSA are routinely maintained to confirm they can accurately monitor water conditions near the BSA.

2.2 Groundwater and Surface Water Elevation Measurement

Prior to each semi-annual sampling event, the depth to groundwater was recorded at CCR unit groundwater monitoring wells, delineation wells, piezometers, and staff gauges within a 12-hour period.

2.3 Groundwater and Surface Water Sampling

Groundwater and surface water at the BSA was monitored on a semi-annual basis in 2024. The first semi-annual assessment monitoring event was conducted in February 2024, and the second semi-annual monitoring event was conducted in July 2024.

During the 2024 semi-annual assessment monitoring events, groundwater samples were collected from CCR unit monitoring wells, select nature and extent ("N&E") monitoring wells (CCR-15 through CCR-23 and SW-106), and select surface water bodies (Fish Lake and Lake D) to assess the N&E of lithium and arsenic (i.e., constituents with SSLs). Monitoring well locations and surface water bodies are shown on **Figure 2**.

Water quality parameters (pH, conductivity, dissolved oxygen, temperature, and turbidity) were documented during well purging to evaluate stabilization prior to sample collection. Following sample collection, samples were placed in ice-packed coolers and submitted for laboratory analysis following chain-of-custody protocol.

Samples were analyzed for Appendix III and Appendix IV constituents (except for radium since an ASD established that radium is from a source other than the CCR unit).

2.4 Statistical Methods

Statistical analysis of Appendix IV constituents was performed on CCR unit groundwater monitoring data collected during the 2024 semi-annual assessment monitoring events in accordance with the *Statistical Analysis Plan* (Golder, 2017b). The *Statistical Analysis Plan* (SAP) describes Site-specific statistical methods that were used to evaluate CCR unit groundwater data. In accordance with the CCR Rule, GWPS for Appendix IV constituents were established. In 2023, Site-specific GWPS were updated in accordance with the timeline outlined in the SAP and are presented in **Table 6**.

To evaluate SSLs of Appendix IV constituents, a confidence interval approach was used to evaluate if downgradient groundwater concentrations were above the GWPS at SSLs. As recommended in the *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, a confidence interval around the mean was employed for normal or normalized data (USEPA, 2009). If downgradient well data is not normally distributed and cannot be transformed to a normal distribution, the non-parametric confidence interval around the median was employed. There is evidence of an SSL if the lower confidence limit ("LCL") exceeds the GWPS at the 95% confidence level.

2.5 Quality Assurance & Quality Control

During each sampling event, quality assurance/quality control ("QA/QC") samples including field equipment blanks were collected. Data from these QA/QC samples were evaluated during data validation.

Groundwater quality data in this report were independently validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences ("RPDs"), laboratory duplicate RPDs, equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017).

3. RESULTS

The following sections describe the results of water monitoring activities performed in 2024. Field sampling data sheets and analytical laboratory reports are provided in **Appendix A**.

3.1 Water Monitoring Station Installation, Maintenance, and Abandonment

No additional monitoring wells or piezometers were installed at the BSA in 2024. No monitoring well maintenance or abandonment activities were completed at the BSA in 2024. New staff gauges were installed in Lakes B and D in April 2024.

3.2 Groundwater and Surface Water Elevation Measurement

Groundwater depth to water and surface water staff gauge measurements were converted to elevations and are summarized in **Table 4**. Site-wide groundwater elevation contour maps developed for the first and second semi-annual assessment monitoring events in February and July 2024 are presented on **Figure 3** and **Figure 4**, respectively. Shallow groundwater beneath the BSA generally flows in a semi-radial pattern towards the surrounding lakes. Shallow groundwater flow patterns observed during 2024 assessment monitoring events were generally consistent with historical observations.

3.2.1 Groundwater Gradient and Flow Velocity

Groundwater flow rates were calculated based on hydraulic gradients from the 2024 groundwater sampling events and hydraulic conductivity measured via slug tests. The maximum Site-specific surficial aquifer horizontal hydraulic conductivity was calculated to be 52 feet (ft)/day (Golder, 2005). Horizontal flow velocity was calculated using a form of Darcy's Law:

$$V=(K*i)/n_e$$

Where:

V=groundwater velocity (ft/day);

K=measured hydraulic conductivity (ft/day);

i=horizontal hydraulic gradient (ft/ft);

n_e=effective porosity (unitless), which was assumed to be 0.15 (Golder, 2005).

Table 5 provides a summary of horizontal hydraulic gradients and groundwater flow velocities associated with well pairs CCR-8/CCR-3, CCR-5/CCR-16, and CCR-11/CCR-20 and were calculated based on groundwater measurements from the February and July 2024 sampling events. These velocities are consistent with historical groundwater velocities documented at the BSA.

3.3 Appendix IV Constituents Statistical Analysis Results

Analytical data from the first and second semi-annual assessment monitoring events are summarized in **Table 3**. These data were analyzed in accordance with the SAP. The results from the Appendix IV constituent data collected during the first and second semi-annual monitoring events were evaluated statistically to evaluate exceedances of the established GWPS. Statistical results associated with the first and second semi-annual monitoring data are included in **Appendix B** and **Appendix C**, respectively.

Based on the statistical analysis of Appendix IV constituents, the following CCR unit monitoring wells exhibited SSLs for arsenic or lithium:

SSL Constituent	**Semi-annual assessment monitoring events**	
	1st Semi-annual 2024	**2nd Semi-annual 2024**
Arsenic	CCR-11 CCR-12	CCR-11 CCR-12
Lithium	CCR-4 CCR-5 CCR-6 CCR-13	CCR-4 CCR-5 CCR-6 CCR-13

3.4 Quality Assurance and Quality Control

Data validation reports for the first and second semi-annual assessment monitoring events are included in **Appendix A**. In general, data validation reports indicate that most of the data are usable to support project objectives.

4. ALTERNATE SOURCE DEMONSTRATION

In accordance with the CCR Rule, LE prepared an ASD for total radium (**Appendix D**). The key conclusions of the ASD are briefly summarized below:

- Radionuclides including radium-226 and radium-228 (total radium) are naturally occurring in the study area and are associated with minerals in the phosphate matrix that was mined by the phosphate mining industry during the 1970s at the BSA prior to its construction.
- Uranium concentrations in phosphate-bearing rocks exhibit typical uranium concentrations of up to 300 parts per million, which is approximately 1 to 2 orders of magnitude higher than U.S. coals and fly ash, respectively (USGS, 1997).
- Detailed mineralogical assessment of the underlying soils conducted by Petrologic Solutions, Inc. revealed significant uranium and other accessory constituents associated with the phosphate ore mined at and near the BSA.

Due to the abundance of naturally occurring uranium in sediments underlying the MPP, LE ceased analysis of total radium in CCR unit groundwater samples collected following 2019.

5. CORRECTIVE MEASURES

This section describes the corrective measures that are being implemented at the BSA.

5.1 Remedy Design and Implementation

LE completed an assessment of corrective measures ("ACM") in June 2019 in accordance with 40 CFR §257.96(a). LE evaluated groundwater corrective measures to support remedy selection for groundwater downgradient of the BSA in 2020 and 2021 and conducted the public meeting required by 40 CFR §257.96(e) on February 3, 2021. Following receipt of public input, LE completed the *Remedy Selection Report - Byproduct Storage Area* to document a remedy consisting of source control, including beneficial off-site use of CCR material, and capping and closing the BSA in place following the shutdown of Unit No. 3 (Geosyntec, 2021).

In September 2022, LE applied to the FDEP to close the BSA pursuant to Rule 62-701.805(11) and 62-701.805(8), F.A.C. On August 18, 2023, FDEP issued the Permit to close the BSA pursuant to Rule 62-701.805(11) and 62-701.805(8), F.A.C.

During the closure design process, LE selected a final cover system for the BSA that differed from what was outlined in the BSA's Closure and Post Closure Care Plan (Closure Plan) and approved Permit. Therefore, LE revised the Closure Plan to include the revised final cover system and submitted a Permit modification application to the FDEP. FDEP furnished a Notice of Intent to issue the modified permit No. 0425997-002-CP-IM on October 28, 2024. The public notice required by Rule 62-701.805, F.A.C. was published in a newspaper of general circulation on November 5, 2024.

In 2024, LE procured a qualified subcontractor to complete the BSA closure construction and closure has been initiated. Closure is approximately 95% complete. However, due to factors out of LE's control (multiple adverse weather events delaying construction) a closure timeframe extension was submitted to the FDEP since closure would not be complete within six months of initiation. LE anticipates BSA closure to be complete by September 2025.

6. SUMMARY AND FUTURE ACTIONS

In accordance with the CCR Rule, LE continued assessment monitoring in 2024 and initiated closure activities at the BSA. Statistical analysis identified SSLs of arsenic and lithium downgradient of the BSA. Monitoring well data collected in 2024 indicated SSLs remain in groundwater for arsenic (CCR-11 and CCR-12) and lithium (CCR-4, CCR-5, CCR-6, and CCR-13). LE collected surface water samples from Fish Lake and Lake D, which are downgradient from monitoring wells with SSLs to evaluate the downgradient N&E of SSL constituents. Arsenic and lithium concentrations in these water bodies were below GWPS providing delineation for upgradient monitoring wells with SSLs.

LE intends to close the BSA in accordance with FDEP's intended issuance of permit No. 0425997-002-CP-IM and anticipates completion of closure activities by September 2025.

Groundwater assessment monitoring will continue in 2025.

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TABLES

TABLE 1: GROUNDWATER MONITORING LOCATION DETAILS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Designation
CCR Groundwater Monitoring Network								
CCR-1	6/24/2016	1362405.2	681287.2	138.3	141.3	122.6	113.1	Background
CCR-2	6/23/2016	1362203.9	681787.6	137.6	140.6	121.9	112.4	Background
CCR-4	6/24/2016	1362450.0	683042.7	140.3	143.1	124.7	115.2	Monitoring
CCR-5	6/22/2016	1362716.0	683376.9	138.6	141.1	122.4	112.9	Monitoring
CCR-6	6/22/2016	1363168.4	683578.6	138.5	141.3	122.8	113.3	Monitoring
CCR-7	6/22/2016	1363631.9	683772.2	139.1	142.1	123.4	113.9	Monitoring
CCR-8	6/22/2016	1363917.6	683411.6	139.4	142.1	123.5	114.0	Monitoring
CCR-9	6/21/2016	1364085.2	683045.3	138.6	141.7	123.1	113.6	Monitoring
CCR-11	6/20/2016	1363835.5	682577.2	134.3	137.1	118.7	109.2	Monitoring
CCR-12	6/20/2016	1363353.1	682430.5	134.1	137.0	118.4	108.9	Monitoring
CCR-13	6/21/2016	1362936.6	682164.1	135.0	138.0	119.4	109.9	Monitoring
Groundwater Monitoring Locations for Nature and Extent								
CCR-15	2/18/2019	1362341.3	683123.5	141.8	144.7	126.4	116.8	Delineation
CCR-16	2/18/2019	1362533.2	683385.6	141.2	144.1	125.9	116.3	Delineation
CCR-17	2/19/2019	1363019.9	683712.7	142.9	145.8	127.5	117.9	Delineation
CCR-18	2/18/2019	1363631.1	683869.7	138.2	140.8	122.6	113.0	Delineation
CCR-19	2/15/2019	1364205.4	683064.5	133.8	136.5	118.3	108.7	Delineation
CCR-20	2/14/2019	1363855.5	682474.9	133.1	136.1	118.2	108.6	Delineation
CCR-21	2/13/2019	1363454.0	682331.4	134.5	137.1	118.9	109.3	Delineation
CCR-22	2/13/2019	1363017.4	682078.7	134.0	137.5	119.2	109.6	Delineation
CCR-23	2/12/2019	1362812.1	681744.7	136.2	135.8	121.1	111.5	Delineation
SW-106	--	1359388.5	685658.4	145.6	148.6	130.2	120.2	Delineation
Groundwater Piezometers								
CCR-3	6/23/2016	1362334.6	682451.3	137.5	137.0	121.6	112.2	Piezometer
CCR-10R	3/13/2018	1364262.1	682706.3	133.8	133.6	119.2	109.7	Piezometer
CCR-14	6/21/2016	1362771.1	681761.2	135.8	138.7	120.4	110.9	Piezometer
MW-24S	--	1363278.5	683727.0	--	143.9	--	--	Piezometer
MW-25S	--	1362906.6	683555.1	--	144.4	--	--	Piezometer

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983, Florida West.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. "--" indicates not available.

TABLE 2: SUMMARY OF 2024 SAMPLING EVENTS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	2024 Semi-Annual Assessment Monitoring Event 1	2024 Semi-Annual Assessment Monitoring Event 2
CCR Groundwater Monitoring Network		
CCR-1	2/8/2024	7/23/2024
CCR-2	2/8/2024	7/23/2024
CCR-4	2/9/2024	7/25/2024
CCR-5	2/9/2024	7/24/2024
CCR-6	2/9/2024	7/25/2024
CCR-7	2/13/2024	7/23/2024
CCR-8	2/12/2024	7/25/2024
CCR-9	2/9/2024	7/25/2024
CCR-11	2/13/2024	7/24/2024
CCR-12	2/12/2024	7/23/2024
CCR-13	2/9/2024	7/23/2024
Groundwater Monitoring Locations for Nature and Extent		
CCR-15	2/8/2024	7/22/2024
CCR-16	2/8/2024	7/22/2024
CCR-17	2/8/2024	7/22/2024
CCR-18	2/13/2024	7/24/2024
CCR-19	2/13/2024	7/24/2024
CCR-20	2/13/2024	7/24/2024
CCR-21	2/13/2024	7/24/2024
CCR-22	2/13/2024	7/24/2024
CCR-23	2/13/2024	7/23/2024
SW-106	2/12/2024	7/23/2024
Surface Water Monitoring Locations for Nature and Extent		
Fish Lake	2/12/2024	7/19/2024
Lake D	2/12/2024	7/19/2024

TABLE 3: SUMMARY OF 2024 LABORATORY ANALYTICAL DATA
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Well Designation	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Combined Radium (pCi/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	pH (SU)	Selenium (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Thallium (mg/L)
Site-Specific GWPS (mg/L)			0.006	0.01	2	0.004	--	0.005	--	--	0.1	0.006	--	4	0.015	0.04	0.002	0.1	--	0.05	--	--	0.002
Semi-Annual Assessment Monitoring Event 1																							
CCR-1	Background	2/8/2024	0.0010 U	**0.00084 I**	**0.014**	0.0010 U	**0.041 I**	0.00025 U	**33**	**4.3 I**	0.0050 U	0.00025 U	NA	**0.052 I**	0.00050 U	0.02 U	0.000011 U	0.00050 U	5.7	0.0012 U	**55**	**200**	0.00025 U
CCR-2	Background	2/8/2024	0.0010 U	**0.00030 I**	**0.0048 I**	0.0010 U	**0.037 I**	0.00025 U	**24**	**3.5 I**	0.0050 U	0.00025 U	NA	**0.088 I**	0.00050 U	0.02 U	0.000011 U	**0.00079 I**	5.8	0.0012 U	**17**	**170**	0.00025 U
CCR-4	Monitoring	2/9/2024	0.0010 U	**0.00056 I**	**0.27**	0.0010 U	**0.64**	**0.00071 I**	**1,800**	**4,300**	0.0050 U	**0.0012**	NA	0.50 U	0.00050 U	**0.28**	0.000011 U	0.00050 U	5.0	0.0012 U	**1,100**	**8,300**	0.00025 U
CCR-5	Monitoring	2/9/2024	0.0010 U	**0.00038 I**	**0.16**	0.0010 U	**0.51**	0.00025 U	**2,900**	**5,300**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	**4.8**	0.000011 U	**0.0014 I**	5.9	0.0012 U	**550**	**12,000**	0.00025 U
CCR-6	Monitoring	2/9/2024	0.0010 U	0.00025 U	0.0030 U	0.0010 U	**0.092**	0.00025 U	**79**	**5.0**	0.0050 U	0.00025 U	NA	**0.32 I**	0.00050 U	0.02 U	0.000011 U	**0.0060**	6.6	0.0012 U	**72**	**330**	0.00025 U
CCR-7	Monitoring	2/13/2024	0.0010 U	**0.00026 I**	**0.0079 I**	0.0010 U	**0.28**	0.00025 U	**52**	**26**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	**0.035**	0.000011 U	**0.00050 I**	5.4	0.0012 U	**94**	**350**	0.00025 U
CCR-8	Monitoring	2/12/2024	0.0010 U	**0.00095 I**	**0.027**	0.0010 U	**0.063**	0.00025 U	**96**	2.0 U	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	0.02 U	0.000011 U	**0.011**	6.4	**0.0018 I**	**46**	**400**	0.00025 U
CCR-9	Monitoring	2/9/2024	0.0010 U	**0.00098 I**	**0.11**	0.0010 U	**0.54**	0.00025 U	**840**	**220**	0.0050 U	0.00025 U	NA	0.25 U	0.00050 U	**0.052**	0.000011 U	0.00050 U	5.4	0.0012 U	**1,300**	**2,400**	0.00025 U
CCR-11	Monitoring	2/13/2024	0.0010 U	**0.070**	**0.06**	0.0010 U	**0.36**	0.00025 U	**780**	**1,100**	0.0050 U	0.00025 U	NA	5.0 U*	0.00050 U	0.02 U	0.000011 U	0.00050 U	4.9	0.0012 U	**2,300**	**4,400**	0.00025 U
CCR-12	Monitoring	2/12/2024	0.0010 U	**0.047**	**0.022**	0.0010 U	**0.41**	0.00025 U	**680**	**18 I**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	0.02 U	0.000011 U	**0.0089**	6.8	0.0012 U	**1,200**	**2,400**	0.00025 U
CCR-13	Monitoring	2/9/2024	0.0010 U	0.00025 U	**0.037**	0.0010 U	**0.41**	0.00025 U	**630**	**120**	0.0050 U	**0.0011**	NA	**0.84 I**	0.00050 U	**0.16**	0.000011 U	0.00050 U	4.3	0.0012 U	**1,400**	**2,200**	0.00025 U
CCR-15	Delineation	2/8/2024	0.0010 U	0.00025 U	**0.025**	0.0010 U	**0.036 I**	0.00025 U	**44**	**17**	0.0050 U	0.00025 U	NA	**0.071 I**	0.00050 U	0.02 U	0.000011 U	0.00050 U	4.7	0.0012 U	**86**	**230**	0.00025 U
CCR-16	Delineation	2/8/2024	0.0010 U	**0.00040 I**	**0.05**	0.0010 U	**0.70**	0.00025 U	**1,000**	**2,700**	0.0050 U	**0.00086 I**	NA	1.0 U	0.00050 U	0.02 U	0.000011 U	0.00050 U	4.8	0.0012 U	**1,200**	**7,400**	0.00025 U
CCR-17	Delineation	2/8/2024	0.0010 U	**0.0057**	0.0030 U	0.0010 U	**0.098**	0.00025 U	**84**	**31**	0.0050 U	0.00025 U	NA	**0.052 I**	0.00050 U	0.02 U	0.000011 U	**0.0022**	6.6	0.0012 U	**82**	**430**	0.00025 U
CCR-18	Delineation	2/13/2024	0.0010 U	0.00025 U	0.0030 U	0.0010 U	**0.045 I**	0.00025 U	**81**	2.0 U	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	0.02 U	0.000011 U	**0.0032**	6.4	0.0012 U	**29**	**500**	0.00025 U
CCR-19	Delineation	2/13/2024	0.0010 U	**0.0024**	**0.046**	0.0010 U	**0.23**	0.00025 U	**350**	**620**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	0.02 U	0.000011 U	0.00050 U	5.0	0.0012 U	**590**	**2,200**	0.00025 U
CCR-20	Delineation	2/13/2024	0.0010 U	**0.062**	**0.042**	0.0010 U	**0.23**	0.00025 U	**460**	**430**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	0.02 U	0.000011 U	0.00050 U	5.1	0.0012 U	**1,700**	**3,400**	0.00025 U
CCR-21	Delineation	2/13/2024	0.0010 U	**0.0061**	**0.051**	0.0010 U	**0.33**	0.00025 U	**600**	**16 I**	0.0050 U	**0.00041 I**	NA	2.0 U	NA	0.02 U	0.000011 U	**0.027**	6.5	0.0012 U	**1,000**	**2,100**	0.00025 U
CCR-22	Delineation	2/13/2024	0.0010 U	0.00025 U	**0.039**	0.0010 U	**0.42**	0.00025 U	**370**	**180**	0.0050 U	**0.00090 I**	NA	2.0 U	0.00050 U	**0.065**	0.000011 U	0.00050 U	4.7	0.0012 U	**1,100**	**2,300**	0.00025 U
CCR-23	Delineation	2/13/2024	0.0010 U	0.00025 U	**0.0093 I**	0.0010 U	**0.61**	0.00025 U	**330**	**110**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	0.02 U	0.000011 U	0.00050 U	5.3	0.0012 U	**1,000**	**1,800**	0.00025 U
SW-106	Delineation	2/12/2024	0.0010 U	0.00025 U	**0.011**	0.0010 U	**0.046 I**	0.00025 U	**12**	2.0 U	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	0.02 U	0.000011 U	**0.0018 I**	5.7	0.0012 U	**25**	**160**	0.00025 U
Fish Lake	Delineation	2/12/2024	0.0010 U	**0.0019**	**0.0040 I**	0.0010 U	**0.15**	0.00025 U	**120**	**75**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	**0.026**	0.000011 U	**0.0012 I**	7.3	0.0012 U	**240**	**680**	0.00025 U
Lake D	Delineation	2/12/2024	0.0010 U	**0.00037 I**	**0.018**	0.0010 U	**0.057**	0.00025 U	**62**	**97**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	0.02 U	0.000011 U	0.00050 U	6.4	0.0012 U	**22**	**410**	0.00025 U
Semi-Annual Assessment Monitoring Event 2																							
CCR-1	Background	07/23/2024	0.0010 U	**0.00076 I**	**0.014**	0.0020 U	**0.037 I**	0.00025 U	**29**	**4.4 I**	0.0050 U	0.00025 U	NA	0.40 U**	0.00050 U	NA	0.000011 U	0.00050 U	5.4	0.0012 U	**69**	**130**	0.00025 U
CCR-2	Background	07/23/2024	0.0010 U	**0.00030 I**	**0.0044 I**	0.0020 U	**0.029 I**	0.00025 U	**35**	**7.3 I**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	NA	**0.00021**	**0.0021**	6.0	0.0012 U	**38**	**120**	0.00025 U
CCR-4	Monitoring	07/25/2024	0.0010 U	0.00025 U	**0.018**	0.0020 U	**0.055**	**0.00029 I**	**330**	**35**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	NA	0.000011 U	**0.011**	4.4	0.0012 U	**850**	**1,300**	0.00025 U
CCR-5	Monitoring	07/24/2024	0.0010 U	**0.00047 I**	**0.15**	0.0020 U	**0.33**	0.00025 U	**870**	**7,800**	0.0050 U	0.00025 U	NA	20 U*	0.0010 U	NA	0.000011 U	**0.0050**	5.8	0.0012 U	**1,100**	**12,000**	0.00050 U
CCR-6	Monitoring	07/25/2024	0.0010 U	0.00025 U	**0.0077 I**	0.0020 U	**0.085**	0.00025 U	**170**	**64**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	NA	0.000011 U	**0.0046**	6.6	0.0012 U	**200**	**630**	0.00025 U
CCR-7	Monitoring	07/23/2024	0.0010 U	**0.00033 I**	**0.0044 I**	0.0020 U	**0.11**	0.00025 U	**37**	**5.5 I**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	NA	0.000011 U	0.00050 U	5.1	0.0012 U	**200**	**270**	0.00025 U
CCR-8	Monitoring	07/25/2024	0.0010 U	**0.0011**	**0.025**	0.0020 U	**0.057**	0.00025 U	**97**	2.0 U	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	NA	0.000011 U	**0.015**	6.8	0.0012 U	**140**	**530**	0.00025 U
CCR-9	Monitoring	07/25/2024	0.0010 U	**0.0033**	**0.045**	0.0020 U	**0.35**	0.00025 U	**690**	**890**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	NA	0.000011 U	0.00050 U	5.5	0.0012 U	**1,200**	**3,000**	0.00025 U
CCR-11	Monitoring	07/24/2024	0.0010 U	**0.067**	**0.055**	0.0020 U	**0.27**	0.00025 U	**670**	**830**	0.0050 U	0.00025 U	NA	5.0 U*	0.00050 U	NA	0.000011 U	0.00050 U	4.4	0.0012 U	**1,800**	**3,500**	0.00025 U
CCR-12	Monitoring	07/23/2024	0.0010 U	**0.055**	**0.023**	0.0020 U	**0.31**	0.00025 U	**410**	**10 I**	0.0050 U	0.00025 U	NA	**1.1 I**	0.00050 U	NA	**0.000099 I**	**0.025**	6.7	0.0012 U	**810**	**1,200**	0.00025 U
CCR-13	Monitoring	07/23/2024	0.0010 U	**0.00062 I**	**0.0040 I**	0.0020 U	**0.26**	0.00025 U	**380**	**5.3 I**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	NA	0.000011 U	**0.026**	5.9	0.0012 U	**940**	**1,700**	0.00025 U
CCR-15	Delineation	07/22/2024	0.0010 U	0.00025 U	**0.013**	0.0020 U	0.025 U	0.00025 U	**6.9**	**3.5 I**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	NA	0.000011 U	**0.0011 I**	4.2	0.0012 U	**28**	**120**	0.00025 U
CCR-16	Delineation	07/22/2024	0.0010 U	**0.00046 I**	**0.13**	0.0020 U	**0.53**	0.00025 U	**1,400**	**4,100**	0.0050 U	**0.0014**	NA	5.0 U*	0.00050 U	NA	0.000011 U	0.00050 U	4.1	0.0012 U	**1,300**	**5,400**	0.00025 U
CCR-17	Delineation	07/22/2024	0.0010 U	**0.0091**	0.0030 U	0.0020 U	**0.13**	0.00025 U	**150**	**71**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	NA	0.000011 U	**0.0031**	6.6	0.0012 U	**210**	**650**	0.00025 U
CCR-18	Delineation	07/24/2024	0.0010 U	0.00025 U	**0.0037 I**	0.0020 U	**0.047 I**	0.00025 U	**100**	**3.3 I**	0.0050 U	0.00025 U	NA	**0.45 I**	0.00050 U	NA	0.000011 U	**0.0015 I**	6.5	0.0012 U	**110**	**320**	0.00025 U
CCR-19	Delineation	07/24/2024	0.0010 U	**0.0031**	**0.058**	0.0020 U	**0.22**	0.00025 U	**500**	**940**	0.0050 U	0.00025 U	NA	2.0 U	0.00050 U	NA	0.000011 U	0.00050 U	4.9	0.0012 U	**970**	**2,000**	0.00025 U
CCR-20	Delineation	07/24/2024	0.0010 U	**0.079**	**0.056**	0.0020 U	**0.22**	0.00025 U	**650**	**600**	0.0050 U	0.00025 U	NA	5.0 U*	0.00050 U	NA	0.000011 U	0.00050 U	5.2	0.0012 U	**2,300**	**2,800**	0.00025 U
CCR-21	Delineation	07/24/2024	0.0010 U	**0.0065**	**0.045**	0.0020 U	**0.28**	0.00025 U	**600**	**18 I**	0.0050 U	**0.00047 I**	NA	2.0 U	0.00050 U	NA	0.000011 U	**0.032**	6.5	0.0012 U	**1,500**	**1,800**	0.00025 U
CCR-22	Delineation	07/24/2024	0.0010 U	0.00025 U	**0.038**	0.0020 U	**0.35**	0.00025 U	**460**	**250**	0.0050 U	**0.00038 I**	NA	2.0 U	0.00050 U	NA	0.000011 U	0.00050 U	4.8	0.0012 U	**1,700**	**2,200**	0.00025 U
CCR-23	Delineation	07/23/2024	0.0010 U	**0.00038 I**	**0.011**	0.0020 U	**0.62**	0.00025 U	**340**	**130**	0.0050 U	0.00025 U	NA	1.0 U	0.00050 U	NA	0.000011 U	0.00050 U	5.3	0.0012 U	**950**	**1,300**	0.00025 U
SW-106	Delineation	07/23/2024	0.0010 U	0.00025 U	**0.0087 I**	0.0020 U	**0.048 I**	0.00025 U	**10**	**2.7 I**	0.0050 U	0.00025 U	NA	0.40 U	0.00050 U	NA	**0.000018 I**	**0.0010 I**	5.3	0.0012 U	**33**	10 U	0.00025 U
Fish Lake	Delineation	07/19/2024	0.0010 U	**0.0026**	**0.048**	0.0020 U	**0.16**	0.00025 U	**130**	**81**	0.0050 U	0.00025 U	NA	1.0 U	**0.00064 I**	NA	0.000011 U	**0.0016 I**	7.6	0.0012 U	**320**	**620**	0.00025 U
Lake D	Delineation	07/19/2024	0.0010 U	**0.00063 I**	**0.0094 I**	0.0020 U	**0.061**	**0.00032 I**	**61**	**150**	0.0050 U	0.00025 U	NA	0.40 U	**0.00066 I**	NA	0.000011 U	0.00050 U	6.4	0.0012 U	**33**	**370**	0.00025 U

Notes:

1. "mg/L" indicates milligrams per liter, "pCi/L" indicates picoCuries per liter, "SU" indicates standard units.
2. "TDS" indicates Total Dissolved Solids.
3. "U" indicates analyte was analyzed but not detected.
4. "GWPS" indicates Groundwater Protection Standard.
5. "NA" indicates not analyzed or not available.
6. "I" indicates the reported value is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
7. Bold text indicates concentrations detected above the MDL.
8. "*" indicate MDL concentration reported above the GWPS. Assumed GWPS compliant based on historical analytical results.
9. "**" indicates matrix spike recoveries less than 35%; therefore, not usable. Assumed GWPS compliant based on historical analytical results.

bold, highlighted text indicates concentration above the Groundwater Protection Standard.

TABLE 4: SUMMARY OF 2024 GROUNDWATER AND SURFACE WATER ELEVATIONS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
CCR-1	1362405.2	681287.1	141.3	2/5/2024	10.75	130.55
CCR-2	1362203.9	681787.6	140.6	2/5/2024	10.42	130.15
CCR-3	1362334.6	682451.3	137.0	2/5/2024	7.24	129.80
CCR-4	1362450.0	683042.7	143.1	2/5/2024	14.67	128.46
CCR-5	1362716.0	683376.9	141.1	2/5/2024	10.89	130.18
CCR-6	1363168.4	683578.6	141.3	2/5/2024	9.58	131.76
CCR-7	1363631.9	683772.2	142.1	2/5/2024	9.91	132.19
CCR-8	1363917.6	683411.6	142.1	2/5/2024	9.67	132.45
CCR-9	1364085.2	683045.3	141.7	2/5/2024	10.08	131.59
CCR-10R	1364262.1	682706.3	133.6	2/5/2024	3.22	130.34
CCR-11	1363835.4	682577.2	137.1	2/5/2024	7.03	130.09
CCR-12	1363353.1	682430.5	137.0	2/5/2024	6.83	130.16
CCR-13	1362936.6	682164.1	138.0	2/5/2024	7.63	130.32
CCR-14	1362771.1	681761.2	138.7	2/5/2024	8.09	130.61
CCR-15	1362341.3	683123.5	144.7	2/5/2024	16.98	127.67
CCR-16	1362533.2	683385.6	144.1	2/5/2024	15.52	128.58
CCR-17	1363019.9	683712.7	145.8	2/5/2024	14.49	131.31
CCR-18	1363631.1	683869.7	140.8	2/5/2024	8.82	131.99
CCR-19	1364205.4	683064.5	136.5	2/5/2024	5.29	131.18
CCR-20	1363855.5	687474.9	136.1	2/5/2024	6.29	129.76
CCR-21	1363454.0	682331.4	137.1	2/5/2024	7.64	129.48
CCR-22	1363017.4	682078.7	137.5	2/5/2024	7.77	129.74
CCR-23	1362812.1	681744.7	135.8	2/5/2024	5.22	130.56
MW-24S	1363278.5	683727.0	143.9	2/5/2024	12.03	131.88
MW-25S	1362906.6	683555.1	144.4	2/5/2024	14.97	129.43
SW-106	1359388.5	685658.4	148.6	2/5/2024	13.07	135.54
Fish Lake	--	--	--	2/5/2024	NA	128.56
Lake B	--	--	--	2/5/2024	NA	NM*
Lake C	--	--	--	2/5/2024	NA	129.98
Lake D	--	--	--	2/5/2024	NA	NM*

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983, Florida West.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.
4. "NM*" indicates that the field measurement not utilized due to suspected compromised staff gauge.
   Lakeland Electric plans to install replacement gauge.
5. "NA" indicates not applicable

TABLE 4: SUMMARY OF 2024 GROUNDWATER AND SURFACE WATER ELEVATIONS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
CCR-1	1362405.2	681287.1	141.3	7/19/2024	9.26	132.04
CCR-2	1362203.9	681787.6	140.6	7/19/2024	9.03	131.54
CCR-3	1362334.6	682451.3	137.0	7/19/2024	7.00	130.04
CCR-4	1362450.0	683042.7	143.1	7/19/2024	14.01	129.12
CCR-5	1362716.0	683376.9	141.1	7/19/2024	10.02	131.05
CCR-6	1363168.4	683578.6	141.3	7/19/2024	7.60	133.74
CCR-7	1363631.9	683772.2	142.1	7/19/2024	7.34	134.76
CCR-8	1363917.6	683411.6	142.1	7/19/2024	8.88	133.24
CCR-9	1364085.2	683045.3	141.7	7/19/2024	9.65	132.02
CCR-10R	1364262.1	682706.3	133.6	7/19/2024	2.32	131.24
CCR-11	1363835.4	682577.2	137.1	7/19/2024	6.24	130.88
CCR-12	1363353.1	682430.5	137.0	7/19/2024	6.22	130.77
CCR-13	1362936.6	682164.1	138.0	7/19/2024	6.92	131.03
CCR-14	1362771.1	681761.2	138.7	7/19/2024	7.37	131.33
CCR-15	1362341.3	683123.5	144.7	7/19/2024	16.56	128.09
CCR-16	1362533.2	683385.6	144.1	7/19/2024	14.67	129.43
CCR-17	1363019.9	683712.7	145.8	7/19/2024	12.74	133.06
CCR-18	1363631.1	683869.7	140.8	7/19/2024	5.71	135.10
CCR-19	1364205.4	683064.5	136.5	7/19/2024	4.80	131.67
CCR-20	1363855.5	687474.9	136.1	7/19/2024	5.64	130.41
CCR-21	1363454.0	682331.4	137.1	7/19/2024	7.14	129.98
CCR-22	1363017.4	682078.7	137.5	7/19/2024	7.27	130.24
CCR-23	1362812.1	681744.7	135.8	7/19/2024	4.48	131.30
MW-24S	1363278.5	683727.0	143.9	7/19/2024	9.53	134.38
MW-25S	1362906.6	683555.1	144.4	7/19/2024	14.40	130.00
SW-106	1359388.5	685658.4	148.6	7/19/2024	13.28	135.33
Fish Lake	--	--	--	7/19/2024	NA	129.79
Lake B	--	--	--	7/19/2024	NA	131.30
Lake C	--	--	--	7/19/2024	NA	131.15
Lake D	--	--	--	7/19/2024	NA	116.57

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983, Florida West.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.
4. "NA" indicates not applicable

TABLE 5: SUMMARY OF 2024 HYDRAULIC GRADIENTS AND GROUNDWATER VELOCITIES

Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Well Pairs	Date	Water Elevation	Horizontal Distance Between Wells	Head Difference (Δ h)	Horizontal Hydraulic Gradient	n_e	K	V	V
		(ft NGVD29)	(ft)	(ft)	(ft/ft)		(ft/day)	(ft/day)	(ft/yr)
CCR-8	2/5/2024	132.45	1,851	2.65	0.001	0.15	52	0.50	181
CCR-3		129.80							
CCR-5		130.18	955	1.60	0.002			0.58	212
CCR-16		128.58							
CCR-11		130.09	104	0.33	0.003			1.10	401
CCR-20		129.76							
CCR-8	7/19/2024	133.24	1,851	3.20	0.002			0.60	219
CCR-3		130.04							
CCR-5		131.05	955	1.62	0.002			0.59	215
CCR-16		129.43							
CCR-11		130.88	104	0.47	0.005			1.56	570
CCR-20		130.41							

Notes: $V = (K*i)/n_e$ where;

V = groundwater velocity

K = measured hydraulic conductivity

i = horizontal hydraulic gradient

n_e = effective porosity, which was assumed to be 0.15 (Golder, 2015)

TABLE 6: SUMMARY OF GROUNDWATER PROTECTION STANDARDS

Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Analyte	Units	Site-Specific GWPS[4]
Antimony	mg/L	0.006
Arsenic	mg/L	0.01
Barium	mg/L	2
Beryllium	mg/L	0.004
Cadmium	mg/L	0.005
Chromium	mg/L	0.1
Cobalt[2]	mg/L	0.006
Fluoride	mg/L	4
Lead[2]	mg/L	0.015
Lithium[2]	mg/L	0.04
Mercury	mg/L	0.002
Molybdenum[2]	mg/L	0.1
Selenium	mg/L	0.05
Thallium	mg/L	0.002
Combined Radium - 226+228	pCi/L	7.94

Notes:

1. "USEPA" indicates United States Environmental Protection Agency;
   "GWPS" indicates Groundwater Protection Standard; "mg/L" indicates milligrams per liter;
   "pCi/L" indicates picoCuries per liter; "NA" indicates not applicable;
   "CCR" indicates Coal Combustion Residuals; "NC" indicates not calculated.
2. USEPA CCR Rule Specified Limit established in the USEPA CCR Rule Amendment dated July 30, 2018.
3. Background indicates the statistically derived upper tolerance limit.
4. Site-Specific GWPS derivation is available in the *Statistical Evaluation for Assessment Monitoring* for the Byproduct Storage Area by Geosyntec dated June 29, 2023.

FIGURES

Legend

- BSA Boundary
- Approximate BSA Perimeter Ditch
- City of Lakeland Property
- C.D. McIntosh Power Plant Boundary
- Approximate Lake Boundary

Note:
1. BSA indicates byproduct storage area.
2. 2023 ESRI World Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
3. ESRI Street Map Source (inset image): Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community.

N

0 1,250 Feet

Site Location - Byproduct Storage Area

C.D. McIntosh Power Plant
Lakeland, Polk County, Florida

Geosyntec consultants

Tampa, FL | November 2024

Figure 1

Path: (Titusville-01\DATA) \\Titusville-01\Data\0GIS\FR3715_Lakeland_Electric\MXDs\202407\SiteLocation_BSA_202410.mxd 11 November 2024. Last Edited by: janelle.roach

Legend

- Piezometer
- CCR Monitoring Well
- Nature and Extent Monitoring Well
- BSA Boundary
- Approximate BSA Perimeter Ditch
- City of Lakeland Property
- C.D. McIntosh Power Plant Boundary
- Approximate Lake Boundary

Note:
1. CCR indicates Coal Combustion Residual.
2. BSA indicates byproduct storage area.
3. The location of SW-106 is approximate.
4. 2023 ESRI World Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

N

0 1,000 Feet

Well Locations - Byproduct Storage Area

C.D. McIntosh Power Plant
Lakeland, Polk County, Florida

Geosyntec consultants

Tampa, FL | November 2024

Figure 2

Path: (Titusville-01\DATA) \\Titusville-01\Data\0GIS\FR3715_Lakeland_Electric\MXDs\202407\CCR_Well_locs_202410.mxd 11 November 2024. Last Edited by: janelle.roach

Legend

- Surface Water Gauge
- Piezometer
- CCR Monitoring Well
- Nature and Extent Monitoring Well
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Groundwater Flow Direction
- BSA Boundary
- Approximate BSA Perimeter Ditch
- City of Lakeland Property
- C.D. McIntosh Power Plant Boundary
- Approximate Lake Boundary
- [131.30] Groundwater Elevation (ft NAVD 88)

Notes:
1. * indicates measurement not used for contouring purposes.
2. "**" indicates staff gauge suspected to be compromised. Field measurement not utilized. Lakeland Electric plans to replace the gauge.
3. BSA indicates byproduct storage area.
4. ft NAVD88 indicates an elevation in feet relative to the North American Vertical Datum of 1988.
5. CCR indicates Coal Combustion Residual.
6. NM indicates not measured.
7. Well locations were obtained from the Golder 2019 Assessment of Corrective Measures Report.
8. 2023 ESRI World Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

N

0 300 Feet

Surficial Aquifer Water Table Map
5 February 2024

C.D. McIntosh Power Plant
Lakeland, Polk County, Florida

Geosyntec consultants

Tampa, FL | November 2024

Figure 3

Path: {Titusville-01\DATA} \\Titusville-01\Data\0GIS\FR3715_Lakeland_Electric\MXDs\202402\GW_CCRElev_Feb2024.mxd 11 November 2024. Last Edited by: janelle.roach

Legend

- Surface Water Gauge
- Piezometer
- CCR Monitoring Well
- Nature and Extent Monitoring Well
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Groundwater Flow Direction
- BSA Boundary
- Approximate BSA Perimeter Ditch
- City of Lakeland Property
- C.D. McIntosh Power Plant Boundary
- Approximate Lake Boundary
- [132.80] Groundwater Elevation (ft NAVD 88)

Notes:
1. * indicates measurement not used for contouring purposes.
2. BSA indicates byproduct storage area.
3. ft NAVD88 indicates an elevation in feet relative to the North American Vertical Datum of 1988.
4. CCR indicates Coal Combustion Residual.
5. NM indicates not measured.
6. Well locations were obtained from the Golder 2019 Assessment of Corrective Measures Report.
7. 2023 ESRI World Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

N

0 300 Feet

Surficial Aquifer Water Table Map
19 July 2024

C.D. McIntosh Power Plant
Lakeland, Polk County, Florida

Geosyntec consultants

Tampa, FL | November 2024

Figure 4

Path: {Titusville-01\DATA} \\Titusville-01\Data\0GIS\FR3715_Lakeland_Electric\MXDs\202407\GW_CCRelev_Jul2024r2.mxd 11 November 2024. Last Edited by: janelle.roach

APPENDIX A

Laboratory Analytical Reports, Field Sampling Logs, and Data Validation

Geosyntec consultants

Water Level Measurement Field Form

Site: Lakeland Electric CCR Wells

Project No.: FR3715G:01/[redacted]123B

Page 1 of 1

Date 2/5/24
Weather overcast → raining → sunny
Initials CH + RM

Well ID	Status Comments	Control Point	Measurement	
			Time of Measurement	Depth to Water BTOC
CCR-1	ok	N	1131	10.75
CCR-2	ok		1127	10.42
CCR-3	ok		1428 5	7.24
CCR-4	ok		1416	14.67
CCR-5	ok		1413	10.89
CCR-6	ok		1410	9.58
CCR-7	ok		1405	9.91
CCR-8	ok		1357	9.67
CCR-9	ok		1354	10.08
CCR-10R	ok		1350	3.22
CCR-11	ok		1344	7.03
CCR-12	ok		1338	6.83
CCR-13	ok		1336	7.63
CCR-14	ok		1326	8.09
CCR-15	ok		1114	16.98
CCR-16	ok		1111	15.52
CCR-17	ok		1101	14.49
CCR-18	ok		1400	8.82
CCR-19	ok		1214	5.29
CCR-20	ok		1347	6.79
CCR-21	ok		1341	7.64
CCR-22	ok		1332	7.77
CCR-23	ok		1328	5.22
SW-106	ok		1020	13.07 BTOC

Notes

*Hydrolab pine rentals water level meter used to collect measurements

Geosyntec consultants

Water Level Measurement Field Form

Site: Lakeland Electric CoC Wells

Project No.: FR3715G/01/****/123B (01)

Date: 2/5/24

Weather: overcast/raining → sunny

Page 1 of 1

Well ID	Status Comments	Control Point	Measurement: Time of Measurement	Measurement: Depth to Water (BTOC)
2S	ok	N	1212	5.25
2D (R)	ok	↓	1211	19.57
10S	ok		1123	7.70
10I	ok		1124	8.12
10D	ok		1126	23.65
17S	ok		0921	6.78
17D	ok		0927	21.67
* 18S (R)	ok		0920	red 4.82 / yellow 4.84
* 18I	ok		0922	red 10.20 / yellow 10.18
21S	OK		1203	5.04
21D	ok		1204	19.52
22S	ok		1152	4.04
22I	ok		1153	4.45
23S	ok		1145	6.15
23I	ok		1144	6.32
25S	ok		1056	12.03
25S	ok		1106	14.97
26S	ok		1118	14.29
* W-14	ok	↓	0907	red 7.18 / yellow 7.16
Fish Lake	ok	unit ft. AMSL	1139	129.44' AMSL
~~Lake A~~		Staff gauge ↓		
Lake B	Staff gauge moved		1040	~130.89' AMSL
Lake C	OK		1052	130.86' AMSL
Lake D	Knocked over, (see photo - value estimated)	↓	1004	~~Ring~~ ~119' AMSL / ~118.5' AMSL

red water level meter → property of LE

yellow water level meter → Geosyntec rental from Pine

Used after water level calibration

ft. amsl = feet above mean sea level

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-1	SAMPLE ID: CCR-1-20240208	DATE: 2-8-2024

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH 10.7 feet to 20.7 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 10.88	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only if not if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH; + FLOW CELL VOLUME
(only if not if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = 149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~24	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~24	PURGING INITIATED AT: 1358	PURGING ENDED AT: 1407	TOTAL VOLUME PURGED (gallons): .90

TIME	VOLUME PURGED (gallons)	CUMULATIVE VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1403	.50	.50	.1	10.95	5.69	24.6	197.7	0.44	0.63	clear	-47.7
1405	.20	.70	.1	10.95	5.69	24.6	197.8	0.44	0.77	"	-48.8
1407	.20	.90	.1	10.95	5.69	24.6	197.9	0.44	0.91	"	-49.6

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
RIK MATHIAS /Geosyntec	Rik Mathias	1408	1413

PUMP OR TUBING DEPTH (feet) BTOC: ~24	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-1-20240208	2	PP	250mL	1:1 HNO3	None	NA	Metals	APP	~380
1	1	PP	250mL	Ice	None	NA	B, Ca, Cl, F-, SO4, TDS, bicarbonate, ~~alkalinity~~ (PWS)	1	1

REMARKS: Sample Time: 1408

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2), optionally ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings < 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-2-20240208	SAMPLE ID: CCR-2	DATE: 2/8/24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 18.7 feet to 28.7 feetBTOC	STATIC DEPTH TO WATER (feet) BTOC: 10.50	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + [TUBING CAPACITY X TUBING LENGTH] + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.02 M gallons/foot X 30 feet) + 0.1 gallons = 0.476 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.7	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.7	PURGING INITIATED AT: 1349	PURGING ENDED AT: 1407	TOTAL VOLUME PURGED (gallons): 1.32

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1353	0.48	0.48	0.06	10.63	5.82	24.7	168.0	2.87	5.89	Clear	Nm
1403	0.60	1.08	0.06	10.63	5.78	25.2	166.8	0.69	4.33	"	Nm
1405	0.12	1.20	0.06	10.63	5.79	25.3	166.0	0.64	4.87	"	Nm
1407	0.12	1.32	0.06	10.63	5.76	25.2	164.0	0.65	4.75	"	Nm

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Olivia Hall, Geosyntec		1407	1418

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: — µm
~23.7			

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-2-20240208	1	PP	250mL	1:1 HNO3	NA	<2 a	Metals 6020	APP	<400
	1	PP	250mL	Ice	None a	NA	B, Ca, Cl, F, SO4, TDS, ~~bicarbonate alkalinity~~ a		
	1	PP	250mL	HNO3	NA	<2	6020 metals/Hg		

REMARKS
*sampled at 1407

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR	SITE LOCATION: Lakeland, FL	
WELL NO: CCR-4	SAMPLE ID: CCR-4-20240209	DATE: 2/9/24

PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 18.5 feet to 28.5 feet BTOC | STATIC DEPTH TO WATER (feet) BTOC: 14.84 | PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (NA feet – NA feet) X NA gallons/foot = NA gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME [illegible]
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot X 30 feet) + .1 gallons = 0.426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.5 | FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.5 | PURGING INITIATED AT: 0928 | PURGING ENDED AT: 0940 | TOTAL VOLUME PURGED (gallons): 0.72

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
0936	0.48	0.48	0.06	14.92	4.99	22.8	12,940	0.26	0.66	clear	-1.4
0938	0.12	0.60	0.06	14.92	4.99	22.8	12,941	0.25	1.87	clear	-2.8
0940	0.12	0.72	0.06	14.92	4.98	22.8	12,945	0.21	0.86	clear	-34

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Mandi Mohr/Geosyntec | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 0941 | SAMPLING ENDED AT: 0947

PUMP OR TUBING DEPTH (feet) BTOC: ~23.5 | TUBING MATERIAL CODE: HDPE, S | FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A | FILTER SIZE: ___ μm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N (replaced)) | DUPLICATE: Y (N)

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-4-[illegible]	2	PP	250mL	1:1 HNO3	None	NA	Metals (6010/Hg)(6020)	APP	~230
↓	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, ~~F~~, SO4, TDS, ~~bicarbonate~~, alkalinity	↓	↓

REMARKS: sampled @ 0941

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-5	SAMPLE ID: CCR-5-20240209	DATE: 2/9/24

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH (feet) BTOC	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	3/16	18.7 feet - 33.7 feet	11.25	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (NA feet – NA feet) X NA gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME 0.449x3
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot X 0.0019 35 feet) + .1 gallons = .447 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~23.7	~23.7	1010	1037	2.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1015	0.50	0.50	0.10	11.31	5.79	24.2	14,870	1.06	12.8	clear	-76.8
1025	1.00	1.50	0.10	11.31	5.85	24.0	15,847	0.80	2.92	clear	-86.2
1027	0.20	1.70	0.10	11.31	5.84	24.0	15,830	0.77	4.76	clear	-86.0
1029	0.20	1.90	0.10	11.31	5.86	24.0	15,822	0.80	6.24	clear	-86.1
1033	0.40	2.30	0.10	11.31	5.85	23.9	15,801	0.63	5.11	clear	-86.8
1035	0.20	2.50	0.10	11.31	5.85	24.0	15,830	0.61	3.79	clear	-86.9
1037	0.20	2.70	0.10	11.31	5.85	23.9	15,842	0.60	2.72	clear	-87.2

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.85
TUBING (INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.015

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Mandi Mow /Geosyntec		1038	1042

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: ___ µm
~23.7			

FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-5-20240209	2	PP	250mL	1:1 HNO3	None	NA	Metals 6010Ha, 6020	APP	~380
1	2	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F, SO4, TDS, ~~bicarbonate~~, alkalinity	1	1

REMARKS

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Alec Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION
Lakeland Electric MPP CCR	Lakeland, FL

WELL NO	SAMPLE ID	DATE
CCR-6	CCR-6-20140209	2/9/14

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH (feet)	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	3/16	18 to 28 feet BTOC	9.97	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

NA = (NA - NA) feet x NA gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME 1.49 x 3
(only fill out if applicable)

= 0 gallons + (0.0014 gallons/foot X 35 feet) + 0.1 gallons = 0.447 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~23.0	~23.0	1105	1115	0.80

TIME	VOLUME PURGED (gallons)	CUMULATIVE VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1111	0.40	0.48	0.08	9.91	6.60	24.5	386.5	0.21	2.43	clear	-78.1
1113	0.16	0.64	0.08	9.91	6.56	24.7	389.4	0.15	2.14	clear	-78.6
1115	0.16	0.80	0.08	9.91	6.57	24.6	390.5	0.13	2.45	clear	-85.4

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Nando Mohr /Geosyntec	Nando Mohr	1116	1124

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: ___ µm
~23.0			

FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-6 20140209	2	PP	250mL	1:1 HNO3	None	NA	Metals (200.7)	APP	~300
	2	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F, SO4, TDS, ~~bicarbonate~~, alkalinity		

REMARKS

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Alter. Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-7	SAMPLE ID: CCR-7-20240209	DATE: 2/9/24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 8.7 feet to 18.8 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 10.25	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only if not a flowthrough)
NA = (NA feet - NA feet) X NA gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME 2.14283
(only if not a flowthrough)
= 0 gallons + (0.0014 gallons/foot X 35 feet) + 0.1 gallons = .447 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.75	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.75	PURGING INITIATED AT: 1140	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units: µmhos/cm or mS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1145	0.48	0.48	0.040	10.20	5.58	24.8	190.6	0.15	14.4	clear	-30.8
1200	0.72	1.2	0.060	10.30	5.54	24.5	194.4	0.06	16.2	clear	-56.8
1240	2.88	4.08	0.080	10.30	5.57	25.1	195.7	0.05	19.41	clear	-69.1
1300	2.00	6.08	0.10	10.30	5.57	25.1	216.5	0.04	22.10	clear	-71.5
1320	1.2	7.28	0.06	10.30	5.57	25.10	230.7	0.04	19.1	clear	-75.5
1408	1.2	8.48	0.03	10.30	5.52	26.5	263.0	0.05	19.7	clear	-76.9
1430	3.9	12.38	0.13	10.30	5.54	25.4	284.3	0.04	20.1	clear	-80.1
stopped purge. will attempt to re-sample w/ ESP.											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Mandie Molin / Geosyntec	Mandie Molin		

PUMP OR TUBING DEPTH (feet) BTOC: ~23.75	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-7-20240209	2	PP	250mL	1:1 HNO3	None	NA	Metals 6010 Hg, 6020	APP	230
	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, ~~bicarbonate~~, alkalinity		

REMARKS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Alternative Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO CCR-7	SAMPLE ID CCR-7-20240213	DATE 2-13-2024

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH (feet) to BTOC	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	1/2	18.8 to 28.8	10.32	GSP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.010 gallons/foot X 35 feet) + .1 gallons = 45 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~24	~24	0854	1335	266.0

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
0901	7.00	7.00	1.0	11.28	5.44	24.4	329.0	0.16	635	Brown	11.5
0921	20.0	27.0	1.0	11.28					52.0		
0933	12.0	39.0	1.0	11.28					34.6		
0959	26.0	65.0	1.0	11.28	5.53	24.4	346.4	0.05	23.6	slight tint	-57.8
1112	73.0	138.0	1.0	11.28	5.53	24.4	362.5	0.04	17.0	"	-69.1
1142	15.0	153.0	.5		5.52	24.5	376.8	0.03	28.5	"	-69.6
1252	70	223.0	1.0	11.28	5.46	24.6	372.9	0.02	13.9	"	-36.7
1331	39.0	262.0	1.0	11.28	5.41	24.5	380.6	0.02	12.4	"	-79.6
1333	2.0	264.0	1	11.28	5.40	24.5	379.0	0.02	12.8	"	-79.7
1335	2.0	266.0	1	11.28	5.40	24.5	377.3	0.02	13.1	"	-79.6

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.005, 1/2" = 0.010, 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
RW MATHIAS /Geosyntec	Rick Mathias	1336	1338

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED Y (N) Filtration Equipment Type N/A	FILTER SIZE ___ µm
~24			

FIELD DECONTAMINATION PUMP Y (N) TUBING Y N (replaced) DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-7-20240213	2	PP	250mL	1:1 HNO3	None	NA	Low Level Metals 6020	ESP	~3800
	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, bicarbonate alkalinity		

REMARKS: Sample Time: 1336

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO CCR-B	SAMPLE ID CCR-B-20240212	DATE 2-12-2024

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH 18.7 feet to 28.7 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC 9.85	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet - feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~24	~24	1430	1455	2.50

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units: µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1435	.50	.50	.1	9.96	6.34	24.7	380.9	0.51	22.0	clear	-17.6
1451	1.60	2.10	1	9.96	6.39	24.7	381.9	0.23	5.06	"	-59.4
1453	.20	2.30	1	9.96	6.40	24.7	382.8	0.24	4.41	"	-60.9
1455	.20	2.50	1	9.96	6.39	24.7	382.6	0.23	3.37	"	-62.7

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Rik Mathias /Geosyntec	Rik Mathias	1456	1500

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED Y (N) Filtration Equipment Type N/A	FILTER SIZE
~24			

FIELD DECONTAMINATION PUMP Y (N) TUBING Y (N replaced) DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-B-20240212	2	PP	250mL	1:1 HNO3	None	NA	6010 Metals 6020	APP	~380
1	1	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, bicarbonate, ~~alkalinity~~ (Alk)	1	1

REMARKS: Sample Time: 1456

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Steel; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-9	SAMPLE ID: CCR-9-20210209	DATE: 2/9/21

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 8.7 feet to 28.7 feetBTOC	STATIC DEPTH TO WATER (feet) BTOC: 10.75	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (28 feet - feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.004 gallons + (0.004 gallons/foot X 30 feet) + 0.1 (x3) gallons = .426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.7	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.7	PURGING INITIATED AT: 0923	PURGING ENDED AT: 1246	TOTAL VOLUME PURGED (gallons): 10.15

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units: µmhos/cm or mS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV) (describe odor)
0932	0.45	0.45	0.05	10.83	5.36	22.9	7827	0.01	5.73	Clear	Odor present
0942	0.5	0.95	0.05	10.83	5.35	22.7	2911	0.03	32.6	"	"
1012	1.5	2.45	0.05	10.83	5.39	23.3	3046	0.01	18.00	"	"
1042	1.5	3.95	0.05	10.83	5.41	23.3	3125	0.01	12.10	"	"
1112	1.5	5.45	0.05	10.83	5.38	23.7	3181	0.01	13.0	"	"
1142	1.5	6.95	0.05	10.83	5.35	24.0	3208	0.01	9.30	"	"
1212	1.5	8.45	0.05	10.83	5.37	24.2	3218	0.01	7.65	"	"
1242	1.5	9.95	0.05	10.83	5.40	24.2	3231	0.01	3.85	"	"
1244	0.1	10.05	0.05	10.83	5.56	24.3	3227	0.01	3.96	"	"
1246	0.1	10.15	0.05	10.83	5.36	24.3	3237	0.01	3.22	"	"
					dup						

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT: 1246	SAMPLING ENDED AT: 1253
Olivia Hollingsworth /Geosyntec	Olivia Hollingsworth		

PUMP OR TUBING DEPTH (feet) BTOC: ~23.7
TUB ING MATERIAL CODE: HDPE S
FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A
FILTER SIZE: ... µm
FIELD DECONTAMINATION: PUMP Y (N) TUB NG Y N (replaced)
DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-9-20210209	1	PP	250mL	1:1 HNO3	None	<2 NA	Metals, Hg	APP	400
	1	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, ~~bicarbonate~~, alkalinity		
	1	PP	250mL	HNO3		<2	Hg Metals		
	1	PP	250ml	Ice		N/A	Alkalinity		

REMARKS: Sampled at 1246

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR	SITE LOCATION: Lakeland, FL
WELL NO: CCR-11	SAMPLE ID: CCR-11-20240213
DATE: 2/13/24	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 8.5 feet to 18.5 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 7.39	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot X 30 feet) + 0.1 gallons = .126 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.5	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.5	PURGING INITIATED AT: 0840	PURGING ENDED AT: 1058	TOTAL VOLUME PURGED (gallons): 7.92

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV) / odor
0854	0.48	0.48	0.06	7.46	5.01	21.9	5458	0.17	25.2	Clear	odor present
0924	1.8	2.28	0.06	7.46	4.95	22.0	5512	0.27	14.5	"	"
0954	1.8	4.08	0.06	7.46	4.94	22.0	5522	0.27	11.3	"	"
1024	1.8	5.88	0.06	7.46	4.89	22.1	5525	0.27	8.20	"	"
1054	1.8	7.68	0.06	7.46	4.94	22.1	5498	0.27	5.23	"	"
1056	0.12	7.80	0.06	7.46	4.87	22.1	5519	0.27	4.92	"	"
1058	0.12	7.92	0.06	7.46	4.86	22.1	5521	0.27	4.72	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Olivia Hollingsworth /Geosyntec	SAMPLER(S) SIGNATURE(S): Olivia Hollingsworth	SAMPLING INITIATED AT: 1058	SAMPLING ENDED AT: 1103
PUMP OR TUBING DEPTH (feet) BTOC: ~23.5	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: NA	FILTER SIZE: --- μm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-11-20240213	1	PP	250mL	1:1 HNO3	N/A ~~None~~	<2 ~~NA~~	6020 Metals / Hg	APP	400
↓	1	PP	250mL	Ice	↓ ~~None~~	NA	~~B, Ca,~~ Cl, F, SO4, TDS, ~~bicarbonate, alkalinity~~	↓	↓
↓	1	PP	250mL	HNO3	↓	<2	Ra226/228	↓	↓
↓	1	PP	250mL	Ice	↓	N/A	Alkalinity	↓	↓

REMARKS:
*Sampled at [illegible] 1058

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO CCR-12	SAMPLE ID CCR-12-20240212	DATE: 2/12/24

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH 18 feet to 28 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	3/16		7.25	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.024 gallons/foot X 30 feet) + 0.1 gallons (.426 gallons)

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~23.6	~23.6	1155	1359	3.72

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units: µmhos/cm or mS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1210	0.45	0.45	0.03	7.53	6.82	23.2	1940	0.16	14.3	Clear	Nm
1230	0.6	1.05	0.03	7.53	6.82	23.6	2151	0.09	25.6	Cloudy	"
1300	0.9	1.95	0.05	7.53	6.78	23.5	2337	0.12	14.7	"	"
1330	0.9	2.85	0.03	7.53	6.78	23.7	2359	0.12	6.87	"	"
~~1350~~ 1400	0.75	3.60	0.03	7.53	6.79	23.7	2387	0.12	4.48	"	"
1357	0.06	3.66	0.03	7.53	6.79	23.6	2378	0.12	4.46	"	"
1359	0.06	3.72	0.03	7.53	6.79	23.6	2382	0.13	3.54	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Dennis Hollingsworth /Geosyntec	Olivia A Hollingsworth	1359	1408

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE	FIELD-FILTERED Y (N)	FILTER SIZE
~23.6	HDPE, S	Filtration Equipment Type N/A	

FIELD DECONTAMINATION PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-12-20240212	1	PP	250mL	1:1 HNO3	None	<2 NA	6010 Metals/Hg	APP	1400
	1	PP	250mL	Ice	None	NA	~~B, Ca, Cl, F, SO4, TDS, bicarbonate, alkalinity~~		
	1	PP	250mL	HNO3		<2	6010 metals		
	1	PP	250mL	Ice		N/A	Alkalinity		

REMARKS: Sampled at 1359

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = S. steel; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR	SITE LOCATION: Lakeland, FL	
WELL NO: CCR-13	SAMPLE ID: CCR-13-20240709	DATE: 7/9/24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feetBTOC	STATIC DEPTH TO WATER (feet) BTOC: 8.00	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 28 feet – STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons
(only fill out if applicable)

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.04 gallons/foot X 30 feet) + 0.1 gallons (x3) = 1.426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.6	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.6	PURGING INITIATED AT: 1356	PURGING ENDED AT: 1409	TOTAL VOLUME PURGED (gallons): 0.65

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units: µmhos/cm or mS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1405	0.45	0.45	0.05	8.08	4.30	23.6	3320	0.07	7.20	Clear	NM
1407	0.1	0.55	0.05	8.08	4.30	23.5	3331	0.09	7.13	"	"
1409	0.1	0.65	0.05	8.08	4.30	23.5	3332	0.10	7.07	"	NM

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Olivia Hollingsworth /Geosyntec	SAMPLER(S) SIGNATURE(S): Olivia Hollingsworth	SAMPLING INITIATED AT: 1409	SAMPLING ENDED AT: 1415
PUMP OR TUBING DEPTH (feet) BTOC: ~23.6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filter Size: N/A µm	Filtration Equipment Type: N/A
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR13-20240709	1	PP	250mL	1:1 HNO3	N/A None	<2	6010 Metals, Hg	PPO	400
	1	PP	250mL	Ice	None	NA	~~B, Ca, Cl, F, SO4, TDS, bicarbonate, alkalinity~~		
	1	PP	250mL	HNO3		<2	6020 Metals		

REMARKS: *Sampled @ 1409

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL ID CCR-15	SAMPLE ID CCR-15-20240208	DATE 2-8-2024

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH 18.5 feet to 28.5 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC 17.04	PURGE PUMP TYPE OR BAILER P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet - feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC ~23	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23	PURGING INITIATED AT 1204	PURGING ENDED AT 1248	TOTAL VOLUME PURGED (gallons) 4.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (lpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units: µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1209	.50	.50	.1	17.07	4.79	25.1	133.3	0.47	20.7	Clear	178.5
~~1214~~	~~.20~~	~~.70~~									
~~1219~~	~~.20~~	~~.90~~	(PM)								
1230	2.10	3.00	.1	17.07	4.74	25.1	207.0	0.17	6.85	Clear	69.9
1244	1.40	4.00		17.07	4.75	24.9	254.9	0.16	3.28	"	61.1
1246	.20	4.20		17.07	4.74	24.9	257.3	0.16	3.06	"	60.8
1248	.20	4.40		17.07	4.73	24.9	259.2	0.16	2.88	"	60.5

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT 1249	SAMPLING ENDED AT 1254
RIK MATHIAS /Geosyntec	R. K Mathias		

PUMP OR TUBING DEPTH (feet) BTOC ~23	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED Y (N) Filtration Equipment Type N/A	FILTER SIZE ___ µm
FIELD DECONTAMINATION PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE Y (N)	

SAMPLE ID CODE	SAMPLE CONTAINER SPECIFICATION: # CONTAINERS	MATERIAL CODE	VOLUME	SAMPLE PRESERVATION: PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-15-20240208	2	PP	250mL	1:1 HNO3	None	NA	6010 Metals 6020	APP	~380
1	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F-, SO4, TDS, bicarbonate, alkalinity	1	1

REMARKS
Sample Time: 1249

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO CCR-116	SAMPLE ID CCR-116-20240208	DATE 2-8-2024

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH (feet)	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	3/16	18.5 feet to 28.5 feet BTOC	15.65	P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet - feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~24	~24	1125	1134	.90

TIME	VOLUME PURGED (gallons)	CUM'L VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1130	.50	.50	.10	15.71	4.84	25.1	9339	0.17	1.74	clear	65.4
1132	.20	.70	1	15.71	4.83	25.1	9325	0.17	1.11	"	64.1
1134	.20	.90	1	15.71	4.83	25.1	9302	0.16	0.67	"	63.3

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.87
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
RIK MATHIAS /Geosyntec	Rik Mathias	1135	1140

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE	FIELD-FILTERED Y (N)	FILTER SIZE
~24	HDPE	Filtration Equipment Type N/A	µm

FIELD DECONTAMINATION: PUMP Y (N); TUBING Y (N replaced); DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-116-20240208	2	PP	250mL	1:1 HNO3	None	NA	DMO Metals 6020	APP	~380
"	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, bicarbonate alkalinity	"	"

REMARKS: Sample Time: 1135

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units. Temperature: ± 0.2 °C. Specific Conductance: ± 5%. Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater). Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR		SITE LOCATION: Lakeland, FL
WELL NO: CCR-17	SAMPLE ID: CCR-17-20240208	DATE: 2-8-2024

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 14.74	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet − feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23	PURGING INITIATED AT: 1003	PURGING ENDED AT: 1102	TOTAL VOLUME PURGED (gallons): 5.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1008	.50	.50	.1	14.79	6.69	24.3	628	0.13	54.3	clear	-47.4
~~1010~~	~~.20~~	~~.70~~	RM								
~~1012~~	~~.20~~	~~.90~~									
1032	2.40	2.90	.1	14.79	6.68	24.3	615	0.09	7.16	"	-86.4
1038	.60	3.50	.1	14.79	6.64	24.3	611	0.08	5.76	"	-97.1
1049	1.10	4.60	.1	14.79	6.60	24.5	599	0.05	5.44	"	-112.2
1058	.90	5.50	.1	14.79	6.60	24.6	609	0.06	4.17	"	-122.8
1100	.20	5.70	|	14.79	6.59	24.6	605	0.06	4.41	"	-122.5
1102	.20	5.90	|	14.79	6.59	24.6	607	0.06	4.32	"	-123.2

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Rik Mathias /Geosyntec	SAMPLER(S) SIGNATURE(S): Rik Mathias	SAMPLING INITIATED AT: 1103	SAMPLING ENDED AT: 1108
PUMP OR TUBING DEPTH (feet) BTOC: ~23	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: NA	FILTER SIZE: ___ μm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-17-20240208	2	PP	250mL	1:1 HNO3	None	NA	6010 Metals 6020	APP	~380
↓	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F-, SO4, TDS, ~~bicarbonate, alkalinity~~	↓	↓

REMARKS:
Sample Time: 1103

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-1B	SAMPLE ID: CCR-1B-20240213	DATE: 2-13-2024

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet): 18.5 to 28.5 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 9.15	PURGE PUMP TYPE OR BAILER: P.P.
2	3/16			

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet - feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 85 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC:	FINAL PUMP OR TUBING DEPTH (feet) BTOC:	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
~23	~23	1458	1507	.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units: µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle units: mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1503	.50	.50	.1	9.23	6.40	23.5	416.0	0.23	1.55	clear	-173.1
1505	.70	.70	1	9.23	6.39	23.6	412.7	0.27	1.63	"	-175.5
1507	.20	.90	1	9.23	6.38	23.6	410.8	0.26	2.11	"	-178.0

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias /Geosyntec	Rik Mathias	1508	1513

PUMP OR TUBING DEPTH (feet) BTOC:	TUBING MATERIAL CODE: HDPE S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: µm
~23			

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID:	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-1B-20240213	2	PP	250mL	1:1 HNO3	None	NA	6010 Metals 6020	APP	~380
1	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, bicarbonate, alkalinity	1	1

REMARKS: Sample Time: 1508

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland FL	
WELL NO: CCR-19	SAMPLE ID: CCR-19-20240213	DATE: 2-13-2024

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH (feet) to (feet) BTOC	STATIC DEPTH TO WATER (feet) BTOC	PURGE PUMP TYPE OR BAILER
2	3/16	8.5 to 18.5	5.68	P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) − STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot)
(only fill out if applicable)
= (feet − feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X .35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~23	~23	1417	1426	.90

TIME	VOLUME PURGED (gallons)	CUMULATIVE VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units: µmhos/cm or (uS/cm)	DISSOLVED OXYGEN (circle units: (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1422	.50	.50	.1	5.73	5.00	22.5	2525	0.32	2.67	clear	-89.7
1424	.20	.70	1	5.73	5.00	22.5	2587	0.27	2.79	"	-89.0
1426	.20	.90	1	5.73	5.00	22.5	2530	0.23	2.81	"	-88.5

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Rik Mathias /Geosyntec	R.E Mathias	1427	1432

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: — µm
~23			

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-19-20240213	2	PP	250mL	1:1 HNO_3	None	NA	6010 Metals 6020	APP	~380
1	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F^-, SO_4, TDS, carbonate, alkalinity	1	1

REMARKS: Sample Time: 1427

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO CCR-20	SAMPLE ID CCR-20-20230713	DATE 7/13/24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feetBTOC	STATIC DEPTH TO WATER (feet) BTOC 6.54	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only if out * applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only if out * applicable)
= 0 gallons + (0.004 gallons/foot X 30 feet) + 0.1 gallons (x3) = 0.426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons)
~23.2	~23.2	1444	1622	5.88

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (+/-V)
1452	0.48	0.48	0.006	6.58	5.06	23.0	4611	0.20	18.3	Clear	NM
1502	0.6	1.08	0.06	6.58	5.18	23.3	4618	0.30	13.0	"	"
1512	1.2	2.28	0.06	6.58	5.04	23.2	4614	0.29	13.7	"	"
1542	1.2	3.48	0.06	6.58	5.06	23.0	4612	0.27	10.9	"	"
1602	1.2	4.68	0.06	6.58	5.07	23.1	4631	0.27	10.6	"	"
1622	1.2	5.88	0.06	6.58	5.07	23.0	4673	0.27	10.5	"	"
a-					(EW)						

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT	SAMPLING ENDED AT
Olivia Hollingsworth/Geosyntec	Olivia A. Hollingsworth	1622	1628

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED Y (N) Filtration Equipment Type N/A	FILTER SIZE ... µm
~23.2			

FIELD DECONTAMINATION PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-20-20230713	1	PP	250mL	1:1 HNO3	N/A None	<2	Metals/HG	PPP	400
	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F, SO4, TDS, ~~bicarbonate, alkalinity~~		
	1	PP	250mL	HNO3		<2	Cation Metals		
	1	PP	250mL	Ice		N/A	Alkalinity		

REMARKS
A sampled at 1622

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2 STABILIZATION CRITERIA / OR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: CCR-21	SAMPLE ID: CCR-21-20210213	DATE: 2/12/21

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet) BTOC:	PURGE PUMP TYPE OR BAILER:
2	3/16	5 feet to 15 feet BTOC	7.82	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only if not if applicable)
= ( ) feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only if not if applicable)
= 0 gallons + 0.0014 gallons/foot X 30 feet + 0.1 (x3) gallons = .426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC	FINAL PUMP OR TUBING DEPTH (feet) BTOC	PURGING INITIATED AT	PURGING ENDED AT	TOTAL VOLUME PURGED (gallons):
~23.5	~23.5	1116	1129	0.65

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (lpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1125	0.45	0.45	0.05	7.88	6.54	22.0	2447	0.11	4.14	clear	NM
1127	0.1	0.55	0.05	7.88	6.51	21.9	2442	0.11	2.54	"	"
1129	0.1	0.65	0.05	7.88	6.51	21.9	2434	0.11	2.43	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02 1" = 0.04 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006 3/16" = 0.0014 1/4" = 0.0026 5/16" = 0.0034 3/8" = 0.006 1/2" = 0.010 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT	SAMPLING ENDED AT
Olivia Hollingsworth / Geosyntec	Olivia Hollingsworth	1129	1136

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE, S	FIELD FILTERED Y (N) Filtration Equipment Type: N/A	FILTER SIZE: --- µm
~23.5			

FIELD DECONTAMINATION	PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-21-20210213	1	PP	250mL	1:1 HNO3	None	<2	6020 Metals/Hg	APP	400
	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F-, SO4, TDS, ~~bicarbonate, alkalinity~~		
	1	PP	250ml	HNO3		<2	6020 Metals		
	1	PP	250ml	Ice		N/A	Alkalinity		

REMARKS
Stopped at 1129

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Alternative Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR	SITE LOCATION: Lakeland, FL
WELL NO: CCR-22	SAMPLE ID: CCR-22-20240213	DATE: 2/13/24

PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 15 feet to 25 feet BTOC | STATIC DEPTH TO WATER (feet) BTOC: 8.03 | PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet − feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot X 30 feet) + 0.1 gallons = (x3) = .426 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.6 | FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23.6 | PURGING INITIATED AT: 1149 | PURGING ENDED AT: 1211 | TOTAL VOLUME PURGED (gallons): 1.1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1158	0.45	0.45	0.05	8.03	4.31	22.2	1960	0.13	1.59	Clear	NM
1200	0.1	0.55	0.05	8.03	4.52	22.1	2368	0.13	2.43	"	"
1202	0.1	0.65	0.05	8.03	4.04	22.4	2657	0.13	0.97	"	"
1207	0.25	0.90	0.05	8.03	4.66	22.6	2733	0.14	1.18	"	"
1209	0.1	1.00	0.05	8.03	4.67	22.6	2745	0.14	2.84	"	"
1211	0.1	1.10	0.05	8.03	4.67	22.7	2752	0.14	2.01	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Olivia Hollingsworth /Geosyntec | SAMPLER(S) SIGNATURE(S): Olivia A. Hollingsworth | SAMPLING INITIATED AT: 1211 | SAMPLING ENDED AT: 1218

PUMP OR TUBING DEPTH (feet) BTOC: ~23.6 | TUBING MATERIAL CODE: HDPE, S | FIELD FILTERED: Y (N) | FILTER SIZE: — μm
Filtration Equipment Type: N/A

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N (replaced)) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-22-20240213	3	PP	250mL	1:1 HNO3	~~None~~ N/A	~~NA~~ <2	~~200~~ Metals/Hg	APP	400
↓	1	PP	250mL	Ice	~~None~~ ↓	NA	~~B, Ca~~, Cl, F-, SO4, TDS, ~~bicarbonate, alkalinity~~	↓	↓
↓	1	PP	250ml	HNO_3	↓	<2	Gold monitor	↓	↓
↓	1	PP	250ml	Ice	↓	N/A	Alkalinity	↓	↓

REMARKS: Sampled at 1211

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR		SITE LOCATION: Lakeland, FL
WELL NO: CCR-23	SAMPLE ID: CCR-23-20230213	DATE: 2/13/23

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 15 feet to 25 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 5.39	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot X 25 feet) + 0.1 (x3) gallons = .405 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~20	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~20	PURGING INITIATED AT: 1326	PURGING ENDED AT: 1411	TOTAL VOLUME PURGED (gallons): 1.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1337	0.44	0.44	0.04	5.70	5.30	22.1	2071	0.1	10.1	Clear	None
1347	0.4	0.84	0.04	5.70	5.29	23.0	2056	0.12	11.1	"	"
1407	0.8	1.64	0.04	5.70	5.40	23.4	2035	0.13	3.70	"	"
1409	0.08	1.72	0.04	5.70	5.31	23.4	2034	0.13	3.05	"	"
1411	0.08	1.80	0.04	5.70	5.30	23.4	2031	0.13	2.83	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Olivia Hollingsworth/Geosyntec	SAMPLER(S) SIGNATURE(S): Olivia A Hollingsworth	SAMPLING INITIATED AT: 1411	SAMPLING ENDED AT: 1419
PUMP OR TUBING DEPTH (feet) BTOC: ~20	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
CCR-23-20230213	1	PP	250mL	1:1 HNO3	~~None~~ N/A	~~NA~~ <2	~~Metals~~ 6020/Hg	APP	<400
↓	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F-, SO4, TDS, ~~bicarbonate, alkalinity~~	↓	↓
↓	1	PP	250ml	HNO_3	↓	<2	6020 metals	↓	↓
↓	1	PP	250ml	Ice	↓	N/A	Alkalinity	↓	↓

REMARKS: * Sampled at 1411

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Lakeland Electric MPP CCR	SITE LOCATION: Lakeland, FL	
WELL NO: SW-106	SAMPLE ID: SW-106-20240212	DATE: 2-12-2024

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 18.4 feet to 28.4 feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: 13.39	PURGE PUMP TYPE OR BAILER: P.P.

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet − feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (.0014 gallons/foot X 35 feet) + .1 gallons = .149 gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC: ~23	FINAL PUMP OR TUBING DEPTH (feet) BTOC: ~23	PURGING INITIATED AT: 1205	PURGING ENDED AT: 1349	TOTAL VOLUME PURGED (gallons): 5.20

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1215	.50	.50	.05	13.50	6.04	23.6	116.5	1.68	37.7	clear	154.3
				(purge extra to try & reduce turbidity) RM							
1240	1.25	1.75	.05	13.50	5.82	24.0	120.9	0.78	17.4	clear	149.1
1323	2.15	3.90	.05	13.50	5.67	24.0	117.4	0.39	7.62	"	146.7
1345	1.10	5.00	.05	13.50	5.65	24.2	115.8	0.31	5.65	"	143.1
1347	.10	5.10	|	13.50	5.65	24.2	115.9	0.31	6.49	"	143.1
1349	.10	5.20	|	13.50	5.65	24.2	115.8	0.32	5.86	"	142.9

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Rik Mathias /Geosyntec	SAMPLER(S) SIGNATURE(S): Rik Mathias	SAMPLING INITIATED AT: 1350	SAMPLING ENDED AT: 1357
PUMP OR TUBING DEPTH (feet) BTOC: ~23	TUBING MATERIAL CODE: HDPE S	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A	FILTER SIZE: — μm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SW-106	2	PP	250mL	1:1 HNO3	None	NA	~~6010~~ Metals 6020	APP	~190
|	2	PP	250mL	Ice	None	NA	B, Ca, Cl, F, SO4, TDS, bicarbonate, ~~alkalinity~~	|	|

REMARKS:
Sample Time: 1350

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

surface water

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland FL	
WELL NO: Fish Lake	SAMPLE ID: Fish Lake - 20240212	DATE: 2/12/24

PURGING DATA

elevation AMSL

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
N/A	3/16	N/A feet to feet BTOC	129.40	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only if pump applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons + gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC:	FINAL PUMP OR TUBING DEPTH (feet) BTOC:	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
a	a	a	a	a

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1011	—	—	—	129.40	7.33	23.3	857	7.99	377	clear	65.0

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Chris Hollingsworth / Geosyntec		1012	N/A

PUMP OR TUBING DEPTH (feet) BTOC:	TUBING MATERIAL CODE: HDPE S	FIELD-FILTERED: Y (N)	FILTER SIZE: µm
N/A		Filtration Equipment Type: N/A	

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N (replaced)) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml per minute)
Fish Lake 20240212	1	PP	250mL	1:1 HNO3	None N/A	<2	Metals 6010	APP	400
	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F, SO4, TDS, ~~bicarbonate, alkalinity~~		
	1	PP	250ml	HNO3		<2	6020 metals		
	1	PP	250ml	Ice		N/A	Alkalinity		

REMARKS: * sampled at 1012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = Alpha Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: Lake D	SAMPLE ID: Lake D-20240212	DATE: 2/12/24

PURGING DATA

Elevation AMSL

WELL DIAMETER (inches)	TUBING DIAMETER (inches)	WELL SCREEN INTERVAL DEPTH	STATIC DEPTH TO WATER (feet BTOC)	PURGE PUMP TYPE OR BAILER
N/A	3/16	N/A to N/A feet BTOC	~118.5	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC:	FINAL PUMP OR TUBING DEPTH (feet) BTOC:	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
0939	—	—	—	~118.5	6.40	21.5	531.8	0.54	10.3	Clear	-90.6

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT	SAMPLING ENDED AT
Olivia Hollingsworth / Geosyntec		0940	N/A

PUMP OR TUBING DEPTH (feet) BTOC	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N)	FILTER SIZE: ___ µm
N/A		Filter Equipment Type: N/A	

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) DUPLICATE Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
Lake D-20240212	1	PP	250mL	1:1 HNO3	N/A None	<2 N/A	Metals/Hg Cold	PP	400
	1	PP	250mL	Ice	None	NA	~~B, Ca, Cl, F-, SO4, TDS, bicarbonate, alkalinity~~		
	1	PP	250mL	HNO3		<2	Cold metals		
	1	PP	250mL	Ice		N/A	Alkalinity		

REMARKS: *Sampled at 0940 *Staff gauge Compromised – elevation estimated (see Photo)

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After-Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME	SITE LOCATION	
Lakeland Electric MPP CCR	Lakeland, FL	
WELL NO: FDB-1	SAMPLE ID: FDB-1-20240212	DATE: 2/12/24

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: N/A to feet BTOC	STATIC DEPTH TO WATER (feet) BTOC: N/A	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
(–) feet X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH (feet) BTOC:	FINAL PUMP OR TUBING DEPTH (feet) BTOC:	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) mmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
1420	—	—	—	—	8.08	25.7	22.6	2.99	4.32	clear	NM

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.15; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING INITIATED AT: 1420	SAMPLING ENDED AT: 1424
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth		

PUMP OR TUBING DEPTH (feet) BTOC: N/A	TUBING MATERIAL CODE: HDPE, S	FIELD-FILTERED: Y (N) Filter Size: — µm	Filtration Equipment Type: N/A
FIELD QC CONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml per minute)
FDB-1-20240212	1	PP	250mL	1:1 HNO_3	None N/A	<2	Metals 6010 / H_2O	MPP	400
	1	PP	250mL	Ice	None	NA	~~B, Ca~~, Cl, F, SO4, TDS, ~~bicarbonate, alkalinity~~		
	1	PP	250ml	HNO_3		<2	6020 Metals		
	1	PP	250ml	Ice		N/A	Alkalinity		

REMARKS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; FPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2) optionally ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: FR3715G / Lakeland Electric   Project #: ______   Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial #: YSI ProDSS / [illegible]   Turbidimeter - Model/Serial #: HACH 2100Q / 21080D00084

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3mg/L		
CAL (ICV) CCV		2/6/24	0841	18.9	9.35	9.30	99.8	(P) F
~~CAL ICV (CCV)~~		~~2/7/24~~	~~[illegible]~~	~~[illegible]~~	~~10.64~~	~~10.65~~	~~[illegible]~~	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/-5%		
CAL (ICV) CCV		2/6/24	0848	1.413	3GJ1475	10/24	1.414	(P) F
~~CAL ICV (CCV)~~		2/7/24		"	"	"		(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/-0.2 SU		
CAL (ICV) CCV		2/6/24	0856	4.00	3GL0108	12/25	4.03	(P) F
~~CAL ICV (CCV)~~		2/7/24	~~[illegible]~~	~~4.00~~	"	"		P F
CAL (ICV) CCV		2/6/24	0900	7.00	3GK0382	11/25	6.95	(P) F
~~CAL ICV (CCV)~~		2/7/24	~~[illegible]~~	7.00	"	"		P F
CAL (ICV) CCV		2/6/24	0908	10.00	3GD1010	9/25	10.00	(P) F
~~CAL ICV (CCV)~~		2/7/24		10.00	"	"		P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/-5%		
~~CAL (ICV) CCV~~		~~2/6/24~~	@	~~240 @ [illegible]~~	~~3GL0424~~	~~9/24~~		P F
~~CAL ICV CCV~~				@				P F
~~CAL ICV CCV~~								P F

Specific Conductance Probe Cleaned? Yes (No)   Dissolved Oxygen membrane Changed? Yes (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/-10%		
CAL (ICV) CCV	2/6/24	9.71	(P) F
CAL ICV (CCV)	2/7/24	9.76	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/-8%		
CAL (ICV) CCV	2/6/24	20.3	(P) F
CAL ICV (CCV)	2/7/24	20.0	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/-6.5%		
CAL (ICV) CCV	2/6/24	102	(P) F
CAL ICV (CCV)	2/7/24	99.5	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/-5%		
CAL (ICV) CCV	2/6/24	788	(P) F
CAL ICV (CCV)	2/7/24	794	(P) F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification

Comments: ______

Allow adequate time for the dissolved oxygen sensor to equilibrate during calibration.
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings. Unless readings < 0.1 mS/cm then one standard of 0.1 mS/cm is acceptable.
Calibrate pH using at least two standards (i.e., pH 4 and 7) that bracket the range of expected sample readings. Always start with pH 7, add a third calibration point if needed (i.e., pH 10).
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier.

Geosyntec consultants

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric　　Project #: FR3745G　　Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial #: YSI Pro Plus/ 19D103568　　Turbidimeter - Model/Serial #: N/A

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/- 0.3 mg/L		
CAL (ICV) CCV		2/7/24	1024	20.5	9.01	8.98	99.8	(P) F
CAL ICV (CCV)		″	1417	25.9	8.13	8.15	100.3	(P) F
~~CAL ICV CCV~~								P F
~~CAL ICV CCV~~								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		2/7/24	1028	1.413	3651478	10/24	1.414	(P) F
CAL ICV (CCV)		″	1506	″	″	″	1.429	(P) F
~~CAL ICV CCV~~								P F
~~CAL ICV CCV~~								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/-0.2 SU		
CAL (ICV) CCV		2/7/24	1032	4.00	3GL0108	12/23	4.04	(P) F
CAL ICV (CCV)		″	1451	″	″	″	4.00	(P) F
~~CAL ICV CCV~~								P F
CAL (ICV) CCV		2/7/24	1034	7.00	3GK132	11/25	7.02	(P) F
CAL ICV (CCV)		″	1454	″	″	″	7.01	(P) F
~~CAL ICV CCV~~								P F
CAL (ICV) CCV		2/7/24	1037	10.0	3GJ0100	9/25	10.00	(P) F
CAL ICV (CCV)		″	1458	″	″	″	9.84	(P) F
~~CAL ICV CCV~~								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		2/7/24	1540	240.0	3GL0404	9/24	240.6	(P) F
CAL ICV (CCV)		″	1502	″	″	″	236.5	(P) F
~~CAL ICV CCV~~								P F

Specific Conductance Probe Cleaned? Yes (No)　　Dissolved Oxygen membrane Changed? Yes (No)

0.1 - 10 NTU Std ___ NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%	
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std ___ NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%	
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std ___ NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%	
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std ___ NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%	
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form.
CAL = Initial Calibration
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration.
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings, unless readings < 0.1 mS/cm then one standard of 0.1 mS/cm is acceptable.
Calibrate pH using at least two standards (e.g., pH 4 and 7) that bracket the range of expected sample readings; always run the 7 pH 1 add a third calibration point if needed (e.g., pH > 7).
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier.

Comments: ______

Geosyntec consultants

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715G Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial #: YSI Pro DSS/ 21G102289 Turbidimeter - Model/Serial #: HACH 2100Q/ 21030D000604

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/- 0.3 mg/L		
CAL (ICV) CCV		2/8/24	0823	14.5	10.2	10.24	100.5	(P) F
CAL ICV (CCV)		2/9/24	0854	15.4	11.00	10.01	100.3	(P) F
CAL ICV (CCV)		2/1/24	1428	24.3	8.29	8.41	101.8	(P) F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		2/8/24	0830	1.413	3GL1475	10/24	1.414	(P) F
CAL ICV (CCV)		2/9/24	0858	"	"	"	1.415	(P) F
CAL ICV CCV		"	1433	"	"	"	1.412	(P) F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/- 0.2 SU		
CAL (ICV) CCV		2/8/24	0833	4.00	3GL0108	12/25	4.00	(P) F
CAL ICV (CCV)		2/9/24	0906	"	"	"	4.00	(P) F
CAL ICV (CCV)		"	1439	"	"	"	4.2	(P) F
CAL (ICV) CCV		2/8/24	0836	7.00	3GK1332	11/25	7.00	(P) F
CAL ICV (CCV)		2/9/24	0911	"	"	"	7.00	P F
CAL ICV (CCV)		"	1443	"	"	"	7.05	P F
CAL (ICV) CCV		2/8/24	0840	10.00	3GJ0100	9/25	10.00	(P) F
CAL ICV (CCV)		2/9/24	0916	"	"	"	10.00	(P) F
CAL ICV (CCV)		"	1443	"	"	"	9.96	P F

ORP	SOP NA	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
~~CAL (ICV) CCV~~		~~2/8/24~~	~~@~~	~~240 @ 25°C~~				~~P F~~
CAL ICV CCV								P F
CAL ICV CCV								~~P F~~

Specific Conductance Probe Cleaned? Yes No Dissolved Oxygen Membrane Changed? Yes No

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
CAL (ICV) CCV	2/8/24	9.93	(P) F
CAL ICV (CCV)	2/9/24	9.86	(P) F
CAL ICV (CCV)	"	9.47	(P) F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
CAL (ICV) CCV	2/8/24	20.0	(P) F
CAL ICV (CCV)	2/9/24	20.0	(P) F
CAL ICV (CCV)	"	19.3	(P) F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
CAL (ICV) CCV	2/8/24	99.8	(P) F
CAL ICV (CCV)	2/9/24	97.1	(P) F
CAL ICV (CCV)	"	97.3	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
CAL (ICV) CCV	2/8/24	803	(P) F
CAL ICV (CCV)	2/9/24	801	(P) F
CAL ICV (CCV)	"	798	(P) F

1. See Table FS 2200-2 on the back of the form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration

Comments:

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings < 0.1 mS/cm then one standard of 0.1 mS/cm is acceptable)

Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if needed (i.e. pH > 7)

If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Geosyntec

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric   Project #: FR3715G   Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial #: YSI ProDSS / 21G1[illegible]   Turbidimeter - Model/Serial #: HACH 2100Q 21030D001064

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3mg/L		
CAL ICV (CCV)		2/12/24	0805	20.1	8.93	8.93	100.4	(P) F
CAL ICV (CCV)		2/13/24	0815	18.8	9.32	9.33	100.1	(P) F
CAL ICV (CCV)		//	1653	[illegible]	9.37	9.30	98.7	(P) F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL ICV (CCV)		2/12/24	0813	1.413	3GJ1475	10/24	1.413	(P) F
CAL ICV (CCV)		2/13/24	0819	1.413	//	//	1.413	(P) F
CAL ICV (CCV)		//	1643	//	//	//	1.485	(P) F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/-0.2 SU		
CAL ICV (CCV)		2/12/24	0817	4.00	3GL0108	12/25	4.00	(P) F
CAL ICV (CCV)		2/13/24	0823	//	//	//	4.00	(P) F
CAL ICV (CCV)		//	1647	//	//	//	4.2	(P) F
CAL ICV (CCV)		2/12/24	0820	7.00	[illegible]1332	11/25	7.00	(P) F
CAL ICV (CCV)		2/13/24	0829	//	//	//	7.00	(P) F
CAL ICV (CCV)		//	1650	//	//	//	7.05	P F
CAL ICV (CCV)		2/12/24	0824	10.00	3GI0100	9/25	10.00	(P) F
CAL ICV (CCV)		2/13/24	0833	//	//	//	10.00	(P) F
CAL ICV (CCV)		//	1654	//	//	//	9.90	(P) F

ORP	SOP NA	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
				NA		Geosyntec Acceptance Criteria: +/- 5%		
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes No   Dissolved Oxygen Membrane Changed? Yes No

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
CAL ICV (CCV)	2/12/24	9.29	P F
CAL ICV (CCV)	2/13/24*	10.1	(P) F
CAL ICV (CCV)	//	10.4	(P) F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
CAL ICV (CCV)	2/12/24	20.0	(P) F
CAL ICV (CCV)	2/13/24*	20.8	(P) F
CAL ICV (CCV)	//	20.1	(P) F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
CAL ICV (CCV)	2/12/24	100	(P) F
CAL ICV (CCV)	2/13/24*	104	(P) F
CAL ICV (CCV)	//	102	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
CAL ICV (CCV)	2/12/24	807	(P) F
CAL ICV (CCV)	2/13/24*	820	(P) F
CAL ICV (CCV)	//	800	(P) F

1. See Table FS 2000-2 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

[illegible]

[illegible]

[illegible]

[illegible]

Comments: *2/13/24 - encountered battery issue w/ other turbidimeter. Had to switch to turbidimeter

Geosyntec

Geosyntec Consultants

Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715C1 Field Personnel: Mando MDM

Water Quality Meter - Model/Serial #: YSI Pro Plus 44720 Turbidimeter - Model/Serial #: HACH 2100Q (11020071477

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: ± 0.2 mg/L		
CAL ICV CCV		2/9/24	0855	17.3	9.61	9.68	101.2	P F
CAL ICV CCV			0950	32	7.5	2.41	101.4	P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
							Acceptance Criteria: ± 5%	
CAL ICV CCV		2/9/24	0858	1.413	3G31975	10/24	1.421	P F
CAL ICV CCV		1	1453	1	1	1	1.409	P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
							Acceptance Criteria: ± 0.2 SU	
CAL ICV CCV		2/9/24	0901	7	3G10389	9/25	7.09	P F
CAL ICV CCV			1456				10.94	P F
CAL ICV CCV			0904	4	3G10485	9/25	4.03	P F
CAL ICV CCV			1459				4.06	P F
CAL ICV CCV			0909	10	3G10100	9/25	9.81	P F
CAL ICV CCV			1502				9.91	P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: ± 20 mV		
CAL ICV CCV		2/9/24	0910	240.0 @ 25	3G30994	7/24	238.4	P F
CAL ICV CCV			1505				237.1	P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes (No) Dissolved Oxygen membrane Changed? Yes (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: ± 10%	
CAL (ICV) CCV	2/9/24	9.84	P F
CAL ICV (CCV)	1	10.02	P F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: ± 5%	
CAL (ICV) CCV	2/9/24	20.7	P F
CAL ICV (CCV)	1	19.9	P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: ± 5%	
CAL (ICV) CCV	2/9/24	96.0	P F
CAL ICV (CCV)	1	99.8	P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: ± 10%	
CAL (ICV) CCV	2/9/24	791	P F
CAL ICV (CCV)	1	789	P F
CAL ICV CCV			P F

*: See Table FS 3200-2 on the back of this form

ICAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during calibration

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings (unless readings < 0.1 mS/cm then one standard of 0.1 mS/cm is acceptable)

Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7; add a third calibration point if needed (i.e. pH > 7)

If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Comments:

Geosyntec

WQ Cal Form Version 2.

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: LAKELAND ELECTRIC   Project #: FR3715G   Field Personnel: RIK MATHIAS

Water Quality Meter - Model/Serial #: YSI Pro Plus 18M102991   Turbidimeter - Model/Serial #: HACH 2100Q 21810D 000170

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria ± 0.3 mg/L		
ICV		2-6-24	0815	11.6	—	10.76	98.9	P
CCV		2-7-24	0750	16.5	9.767	9.80	100.4	P
CCV		2-8-24	0800	[illegible] 14.7	—	10.17	100.1	P
CAL ICV CCV		"	1440	21.6	8.812	8.83	100.1	P

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria ± 5%		
ICV		2-6-24	0820	1.413	3GJ1475	10/24	1413	P
CCV		2-7-24	0755	"	"	"	1415	P
CCV		2-8-24	0805	"	"	"	1410	P
CCV		"	1444	"	"	"	1412	P

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria ± 0.2 SU		
ICV		2-6-24	0825	7.00	3GI0389	9/25	6.94	P
ICV		|	0830	4.00	3GI0465	9/25	3.95	P
ICV		|	0835	10.00	3GI0180	9/25	9.93	P
CCV		2-7-24	0800	7.00	3GI0389	9/25	6.99	P
CCV		2-8-24	0810	7.00	3GI0389	9/25	6.98	P
CCV		"	1447	7.00	3GI0389	9/25	6.97	P
CAL ICV CCV								P / F
CAL ICV CCV								P / F
CAL ICV CCV								P / F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria ± 5		
ICV		2-6-24	0839	240.0	3GJ0994	7/24	240.0	P
CCV		2-7-24	0805	"	"	"	238.1	P
CCV		2-8-24	0815	"	"	"	239.8	P
		"	1450	"	"	"	237.6	P

Specific Conductance Probe Cleaned? Yes No   Dissolved Oxygen membrane Changed? Yes No

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 10%		
ICV	2-6-24	9.97	P
CCV	2-7-24	10.1	P
CCV	2-8-24	9.99	P
CCV	"	9.98	P

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 8%		
ICV	2-6-24	20.2	P
CCV	2-7-24	20.1	P
CCV	2-8-24	20.0	P
CCV	"	20.1	P

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 6.5%		
ICV	2-6-24	100	P
CCV	2-7-24	99.8	P
CCV	2-8-24	101	P
CCV	"	100	P
CAL ICV CCV			P / F
CAL ICV CCV			P / F
CAL ICV CCV			P / F
CAL ICV CCV			P / F
CAL ICV CCV			P / F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 5%		
ICV	2-6-24	793	P
CAL ICV CCV			P / F
CAL ICV CCV			P / F

1. See Table FS 2200-2 on the back of this form
CAL - Initial Calibration
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification
Allow adequate time for the dissolved oxygen sensor to equilibrate during calibration.
[illegible]
[illegible]
[illegible]

Comments:

Geosyntec consultants

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: LAKELAND ELECTRIC   Project #: FR3745G   Field Personnel: RIK MATHIAS

Water Quality Meter - Model/Serial #: YSI Pro Plus 18M102991   Turbidimeter - Model/Serial #: HACH 2100Q 21010D 000170

Dissolved Oxygen (DEP SOP FT 1500)	Date	Time	Temp (°C)	Saturation (mg/L)*	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria ± 0.3 mg/L		
CAL **ICV** CCV	2-12-24	0800	21.6	8.812	99.3	8.75	**P** F
CAL ICV **CCV**	2-13-24	0735	17.9	9.486	99.5	9.46	**P** F
CAL ICV **CCV**	"	1520	16.9	9.685	99.9	9.75	**P** F
CAL ICV CCV							P F

Specific Conductance (DEP SOP FT 1200)	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
					Acceptance Criteria ± 5%		
CAL **ICV** CCV	2-12-24	0805	1,413	36J1475	10/24	1416	**P** F
CAL ICV **CCV**	2-13-24	0740	"	"	"	1409	**P** F
CAL ICV **CCV**	"	1524	"	"	"	1410	**P** F
CAL ICV CCV							P F

pH (DEP SOP FT 1100)	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
					Acceptance Criteria ± 0.2 SU		
CAL **ICV** CCV	2-12-24	0810	7.00	36I0389	9/25	7.00	**P** F
CAL **ICV** CCV	|	0814	4.00	36I0465	9/25	4.01	**P** F
CAL **ICV** CCV	|	0819	10.00	36I0100	9/25	10.05	**P** F
CAL ICV **CCV**	2-13-24	0745	7.00	36I0389	9/25	6.94	**P** F
CAL ICV **CCV**	"	1528	7.00	36I0389	9/25	6.98	**P** F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F
CAL ICV CCV							P F

ORP (SOP N/A)	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
					Geosyntec Acceptance Criteria ± 5%		
CAL **ICV** CCV	2-12-24	0825	240.0	36J0994	7/24	240.0	**P** F
CAL ICV **CCV**	2-13-24	0749	"	"	"	242.3	**P** F
CAL ICV **CCV**	"	1532	"	"	"	242.1	**P** F

Specific Conductance Probe Cleaned? Yes No   Disolved Oxygen membrane Changed? Yes No

0.5 - 10 NTU, Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 10%		
CAL **ICV** CCV	2-12-24	10.1	**P** F
CAL ICV **CCV**	2-13-24	9.98	**P** F
CAL ICV **CCV**	"	10.0	**P** F
CAL ICV CCV			P F

11 - 40 NTU, Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 5%		
CAL **ICV** CCV	2-12-24	20.3	**P** F
CAL ICV **CCV**	2-13-24	20.1	**P** F
CAL ICV **CCV**	"	20.1	**P** F
CAL ICV CCV			P F

41 - 100 NTU, Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 5%		
CAL **ICV** CCV	2-12-24	99.4	**P** F
CAL ICV **CCV**	2-13-24	101	**P** F
CAL ICV **CCV**	"	102	**P** F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU, Std ___ NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria ± 5%		
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

*: See Table FS 2200-2 on the back of this form.
CAL - Initial Calibration
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification
Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration.
Calibrate specific conductance using at least two standards that bracket the range of expected sample readings. Unless readings < 0.1 mS/cm, then one standard of 0.1 mS/cm is acceptable.
Calibrate pH using at least two standards (typically 4 and 7) that bracket the range of expected sample readings. Always start with 7 ... add a third standard (10) if needed (i.e., pH > 7).
If parameter fails to calibrate within SOP acceptance criteria, then append sample results with a "J" qualifier.

Comments: ______

Geosyntec consultants

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 38201
Description YSI Professional Plus
Calibrated 2/1/2024 3:36:32PM

Manufacturer YSI
Model Number Professional Plus
Serial Number/ Lot Number 19D103568
Location Florida
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 23
Humidity % 46

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.05	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.04	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.88	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 1.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.403	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	227.60	240.00	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	103.20	100.40	0.40%	Pass

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 38201
Description YSI Professional Plus
Calibrated 2/1/2024 3:36:32PM

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
FL 1413	FL 1413 Conductivity Standard	AquaPhoenix Scientific	Code: 31986	Lot #: 3GJ1475		10/31/2024
FL ORP 240MV	FL ORP Standard 240mV	AquaPhoenix Scientific	Code: 32001	Lot #: 3GJ0994		7/31/2024
FL PH 10	FL pH 10 Buffer Solution	AquaPhoenix Scientific	Code: 32034	Lot #: 3GI0100		9/30/2025
FL PH 4	FL pH 4 Buffer Solution	AquaPhoenix Scientific	Code: 32017	Lot #: 3GI.0108		12/31/2025
FL PH 7	FL pH 7 Buffer Solution	AquaPhoenix Scientific	Code: 32025	Lot #: 3GK1332		11/30/2025

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Robert DeVirgilio

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 44759
Description HACH 2100Q Turbidimeter
Calibrated 2/12/2024 2:11:53PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 18080C068800
Location Florida
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 23
Humidity % 39

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0 0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.0 / 10.0	NTU	10.0	NTU	9.9	9.9	-1.00%	Pass
20.0 / 20.0	NTU	20.0	NTU	19.8	20.0	0.00%	Pass
100.0 / 100.0	NTU	100.0	NTU	97.4	100.0	0.00%	Pass
800.0 / 800.0	NTU	800.0	NTU	790.0	800.0	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
FL HACH 100NTU	100 NTU Turbidity Standard	HACH	2684901	A3212		11/30/2024
FL HACH 10NTU	10 NTU Turbidity Standard	HACH	2961801	A3206		11/30/2024
FL HACH 20NTU	20 NTU Turbidity Standard	HACH	2684801	A3212		11/30/2024
FL HACH 800NTU	800 NTU Turbidity Standard	HACH	2660501	A3214		11/30/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Robert DeVirgilio

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 44759
Description HACH 2100Q Turbidimeter
Calibrated 2/12/2024 2:11:53PM

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 50397
Description HACH 2100Q Turbidity meter
Calibrated 1/26/2024 12:27:18PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 21010D000170
Location Florida
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 23
Humidity % 59

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	10.20	9.70	-3.00%	Pass
20.00 / 20.00	NTU	20.00	NTU	21.00	20.00	0.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	105.00	100.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	829.00	800.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
FL HACH 100NTU	100 NTU Turbidity Standard	HACH	2684901	A3212		11/30/2024
FL HACH 10NTU	10 NTU Turbidity Standard	HACH	2961801	A3206		11/30/2024
FL HACH 20NTU	20 NTU Turbidity Standard	HACH	2684801	A3212		11/30/2024
FL HACH 800NTU	800 NTU Turbidity Standard	HACH	2660501	A3214		11/30/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Robert DeVirgilio

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 50397
Description HACH 2100Q Turbidity meter
Calibrated 1/26/2024 12:27:18PM

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Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 44720
Description YSI Professional Plus
Calibrated 1/18/2024 3:58:34PM

Manufacturer YSI
Model Number Professional Plus
Serial Number/ Lot Number 18M102991
Location Florida
Department

State Certified
Status Pass
Temp °C 23
Humidity % 50

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	6.98	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.22	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.66	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.411	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	222.40	240.00	0.00%	Pass

Group # 4
Group Name Dissolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 4.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	110.20	100.40	0.40%	Pass

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
3901 Coconut Palm Dr. Ste 107
Tampa, FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 44720
Description YSI Professional Plus
Calibrated 1/18/2024 3:58:34PM

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
FL 1413	FL 1413 Conductivity Standard	AquaPhoenix Scientific	Code: 31986	Lot #: 3GJ1475		10/31/2024
FL ORP 240MV	FL ORP Standard 240mV	AquaPhoenix Scientific	Code: 32001	Lot #: 3GJ0994		7/31/2024
FL PH 10	FL pH 10 Buffer Solution	AquaPhoenix Scientific	Code: 32034	Lot #: 3GJ0100		9/30/2025
FL PH 4	FL pH 4 Buffer Solution	AquaPhoenix Scientific	Code: 32017	Lot #: 3GJ0465		9/30/2025
FL PH 7	FL pH 7 Buffer Solution	AquaPhoenix Scientific	Code: 32025	Lot #: 3GJ0389		9/30/2025

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Robert DeVirgilio

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Geosyntec consultants

180A Marketplace Blvd
Knoxville, TN 37922
PH 865.330.0037
www.geosyntec.com

Memorandum

Date: 11 April 2024

To: Luke Varner

From: Molly Becia

CC: K. Henderson

Subject: Stage 2A Data Validation - Level II Data Deliverable – Advanced Environmental Laboratories Work Order # T2403566

SITE: Lakeland 2024 Semi-Annual CCR Event

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-three groundwater samples and one equipment blank, collected 8, 9, 12, and 13 February 2024, as part of the site investigation activities for the Lakeland 2024 Semi-Annual CCR sampling event.

The samples were analyzed at Advanced Environmental Laboratories, Inc., Tampa, Florida and Eurofins, Altamonte Springs, Florida, for the following analytical tests:

- Metals by United States Environmental Protection Agency (USEPA) Methods 3010A/6010
- Metals by USEPA Methods 3010A/6020
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Alkalinity by SM 2320B
- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives.

The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and validated at a Stage 2A level in the data set:

Laboratory IDs	Client IDs
T2403566001	CCR-19
T2403566002	CCR-20
T2403566003	CCR-21
T2403566004	CCR-22
T2403566005	CCR-23
T2403566006	SW-106
T2403566007	Fishlake
T2403566008	Lake D
T2403566009	EQ Blank 1
T2403566010	CCR-12
T2403566011	CCR-8
T2403566012	CCR-11

Laboratory IDs	Client IDs
T2403566013	CCR-7
T2403566014	CCR-18
T2403566015	CCR-1
T2403566016	CCR-2
T2403566017	CCR-4
T2403566018	CCR-13
T2403566019	CCR-5
T2403566020	CCR-6
T2403566021	CCR-9
T2403566022	CCR-15
T2403566023	CCR-16
T2403566024	CCR-17

The laboratory reported results for the analytical method(s) requested for each sample on the chains of custody (COCs).

Incorrect error corrections were observed on the COCs instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

The samples were received within 0-6 degrees Celsius (°C), with the following exception.

Samples were received by the laboratory for lithium analysis at 24°C. Since samples outside the temperature criteria were analyzed for metals and samples collected for metals analysis do not require 0-6°C, no qualifications were applied to the data.

No sample preservation issues were noted by the laboratory.

The laboratory applied I flags to indicate the results were between the method detection limits (MDLs) and practical quantitation limits (PQLs). Therefore, these results were J qualified as estimated.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010D and USEPA methods 3005A/6020B. (Mercury and lithium were evaluated separately in Section 2.0 and Section 3.0, respectively).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank Matrix
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches ICMj/4027, ICMj/4032, ICMj/4054, ICPt/4524, and ICPt/4534). The metals were not detected in the method blanks at or above the MDLs.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample CCR-19. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of silver in the MS/MSD pair, using sample CCR-19 was low and outside the laboratory specified acceptance criteria. Since silver was not an analyte on concern in the sample, no qualifications were applied to the silver result in sample CCR-19.

Four batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, EQ Blank 1. Metals were not detected in the equipment blank at or above the MDLs.

1.7 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.8 Electronic Data Deliverable Review

Results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20%. The laboratory flags that were used in the level II report were not used in the EDD. No other discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (□) indicates an area of review in which the data were acceptable. A preceding crossed circle (□) signifies areas where

issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches CVAt/2151, CVAt/2158, and CVAt/2160). Mercury was not detected in the method blanks at or above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pairs was reported, using sample CCR-7. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, EQ Blank 1. Mercury was not detected in the equipment blank at or above the MDL.

2.7 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.8 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 LITHIUM

The samples were analyzed for lithium by USEPA method 3005A/6010D.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The lithium data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of

valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

3.2 Holding Time

The holding time for lithium analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 77584 and 76560). Lithium was not detected in the method blanks at or above the MDL.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were not reported.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCSs and one LCS/LCS duplicate (LCSD) pair was reported. The recovery results were within the laboratory specified acceptance criteria.

3.6 Equipment Blank

One equipment blank was collected with the sample set, EQ Blank 1. Lithium was not detected in the equipment blank at or above the MDL.

3.7 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

3.8 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

4.0 WET CHEMISTRY

The samples were analyzed for alkalinity by Standard method 2320B, TDS by Standard method

2540C, and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time and Preservation
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicates
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

4.1 Overall Assessment

The wet chemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 100%.

The laboratory noted that due to low sample pH for samples CCR-22, CCR-19, and CCR-11, the alkalinity was undetected. No qualifications were applied to the data.

4.2 Holding Time & Preservation

The holding times for the wet chemistry parameters are listed below. The holding times were met for the sample analyses.

Analyte	Method	Holding Time
Anions	US EPA Method 300	28 days from collection to analysis
Alkalinity	SM 2320B	14 days from collection to analysis
TDS	SM 2540C	7 days from collection to analysis

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for TDS (batches WCAt/27422 and WCAt/27523), eight method blanks were reported for alkalinity (batches WCAt/27533, WCAt/27536, WCAt/27599, WCAt/27601, WCAt/27622, WCAt/27673, WCAt/27674, WCAt/27711), and four method blanks were reported for anions (batches WCAm/15601, WCAm/15632, WCAt/27982, and WCAt/28154). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

4.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported for anions, using samples CCR-13 and CCR-18. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recovery of sulfate in the MS using sample CCR-13, was low and outside the laboratory specified acceptance criteria. Therefore, the concentration of sulfate in sample CCR-13 was J-qualified as estimated with low bias, based on professional and technical judgment.

The recovery of fluoride and chloride in the MS/MSD pair using sample CCR-18 were high and outside of laboratory acceptance criteria. Since chloride and fluoride were not detect in sample CCR-18, no qualifications were applied to the data.

MS/MSD pairs for TDS and alkalinity were not reported. Precision and accuracy were assessed using the sample/sample duplicate pairs listed in section 4.6 for TDS and alkalinity. No additional qualifications were applied to the data.

Two additional batch MS/MSD were reported for anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
CCR-13	Sulfate	1400	NA	1400	J-	4

mg/L- milligram per liter
NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported for TDS, eight LCSs were reported for alkalinity, and four LCSs were reported for anions. The recovery results were within the laboratory specified acceptance criteria.

4.6 Laboratory Duplicates

Two sample set specific laboratory duplicates were reported for alkalinity, using samples Lake D and CCR-6. All RPDs were within the laboratory specified acceptance criteria.

Ten batch duplicates were also reported for alkalinity and two batch duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

4.7 Equipment Blank

One equipment blank was collected with the sample set, EQ Blank 1. The wet chemistry parameters were not detected in the equipment blank at or above the MDLs.

4.8 Sensitivity

The samples were reported to the MDLs. No elevated non- detect results were reported.

4.9 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * **

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result."

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample
duplicate RPD - Relative percent difference

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL - REVISION

Workorder: 2024 Semi Annual (T2403566)

March 24, 2024

Thomas Johnston
Lakeland Electric
501 E Lemon St
Lakeland, FL 33801

RE: Workorder: T2403566 2024 Semi Annual

Dear Thomas Johnston:

Enclosed are the analytical results for sample(s) received by the laboratory between Friday February 9, 2024 and Wednesday February 14, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Heidi Parker

Heidi Parker, Project Manager
HParker@aellab.com

Certificate of Analysis

NELAP Accredited E84589

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL - REVISION

Workorder: 2024 Semi Annual (T2403566)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2403566001	CCR-19	WA	EPA 300.0	02/13/2024 14:27	02/14/2024 10:08	3	NA
T2403566001	CCR-19	WA	SM 2320B	02/13/2024 14:27	02/14/2024 10:08	2	NA
T2403566001	CCR-19	WA	SM 2540 C	02/13/2024 14:27	02/14/2024 10:08	1	NA
T2403566001	CCR-19	WA	SW-846 6010	02/13/2024 14:27	02/14/2024 10:08	7	NA
T2403566001	CCR-19	WA	SW-846 6020	02/13/2024 14:27	02/14/2024 10:08	9	NA
T2403566001	CCR-19	WA	SW-846 7470A	02/13/2024 14:27	02/14/2024 10:08	1	NA
T2403566002	CCR-20	WA	EPA 300.0	02/13/2024 16:22	02/14/2024 10:08	3	NA
T2403566002	CCR-20	WA	SM 2320B	02/13/2024 16:22	02/14/2024 10:08	2	NA
T2403566002	CCR-20	WA	SM 2540 C	02/13/2024 16:22	02/14/2024 10:08	1	NA
T2403566002	CCR-20	WA	SW-846 6010	02/13/2024 16:22	02/14/2024 10:08	7	NA
T2403566002	CCR-20	WA	SW-846 6020	02/13/2024 16:22	02/14/2024 10:08	9	NA
T2403566002	CCR-20	WA	SW-846 7470A	02/13/2024 16:22	02/14/2024 10:08	1	NA
T2403566003	CCR-21	WA	EPA 300.0	02/13/2024 11:29	02/14/2024 10:08	3	NA
T2403566003	CCR-21	WA	SM 2320B	02/13/2024 11:29	02/14/2024 10:08	2	NA
T2403566003	CCR-21	WA	SM 2540 C	02/13/2024 11:29	02/14/2024 10:08	1	NA
T2403566003	CCR-21	WA	SW-846 6010	02/13/2024 11:29	02/14/2024 10:08	7	NA
T2403566003	CCR-21	WA	SW-846 6020	02/13/2024 11:29	02/14/2024 10:08	9	NA
T2403566003	CCR-21	WA	SW-846 7470A	02/13/2024 11:29	02/14/2024 10:08	1	NA
T2403566004	CCR-22	WA	EPA 300.0	02/13/2024 12:11	02/14/2024 10:08	3	NA
T2403566004	CCR-22	WA	SM 2320B	02/13/2024 12:11	02/14/2024 10:08	2	NA
T2403566004	CCR-22	WA	SM 2540 C	02/13/2024 12:11	02/14/2024 10:08	1	NA
T2403566004	CCR-22	WA	SW-846 6010	02/13/2024 12:11	02/14/2024 10:08	7	NA
T2403566004	CCR-22	WA	SW-846 6020	02/13/2024 12:11	02/14/2024 10:08	9	NA
T2403566004	CCR-22	WA	SW-846 7470A	02/13/2024 12:11	02/14/2024 10:08	1	NA
T2403566005	CCR-23	WA	EPA 300.0	02/13/2024 14:11	02/14/2024 10:08	3	NA
T2403566005	CCR-23	WA	SM 2320B	02/13/2024 14:11	02/14/2024 10:08	2	NA
T2403566005	CCR-23	WA	SM 2540 C	02/13/2024 14:11	02/14/2024 10:08	1	NA
T2403566005	CCR-23	WA	SW-846 6010	02/13/2024 14:11	02/14/2024 10:08	7	NA
T2403566005	CCR-23	WA	SW-846 6020	02/13/2024 14:11	02/14/2024 10:08	9	NA
T2403566005	CCR-23	WA	SW-846 7470A	02/13/2024 14:11	02/14/2024 10:08	1	NA
T2403566006	SW-106	WA	EPA 300.0	02/12/2024 13:50	02/14/2024 10:08	3	NA
T2403566006	SW-106	WA	SM 2320B	02/12/2024 13:50	02/14/2024 10:08	2	NA
T2403566006	SW-106	WA	SM 2540 C	02/12/2024 13:50	02/14/2024 10:08	1	NA
T2403566006	SW-106	WA	SW-846 6010	02/12/2024 13:50	02/14/2024 10:08	7	NA
T2403566006	SW-106	WA	SW-846 6020	02/12/2024 13:50	02/14/2024 10:08	9	NA

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Workorder: 2024 Semi Annual (T2403566)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2403566006	SW-106	WA	SW-846 7470A	02/12/2024 13:50	02/14/2024 10:08	1	NA
T2403566007	Fishlake	WA	EPA 300.0	02/12/2024 10:12	02/14/2024 10:08	3	NA
T2403566007	Fishlake	WA	SM 2320B	02/12/2024 10:12	02/14/2024 10:08	2	NA
T2403566007	Fishlake	WA	SM 2540 C	02/12/2024 10:12	02/14/2024 10:08	1	NA
T2403566007	Fishlake	WA	SW-846 6010	02/12/2024 10:12	02/14/2024 10:08	7	NA
T2403566007	Fishlake	WA	SW-846 6020	02/12/2024 10:12	02/14/2024 10:08	9	NA
T2403566007	Fishlake	WA	SW-846 7470A	02/12/2024 10:12	02/14/2024 10:08	1	NA
T2403566008	Lake D	WA	EPA 300.0	02/12/2024 09:40	02/14/2024 10:08	3	NA
T2403566008	Lake D	WA	SM 2320B	02/12/2024 09:40	02/14/2024 10:08	2	NA
T2403566008	Lake D	WA	SM 2540 C	02/12/2024 09:40	02/14/2024 10:08	1	NA
T2403566008	Lake D	WA	SW-846 6010	02/12/2024 09:40	02/14/2024 10:08	7	NA
T2403566008	Lake D	WA	SW-846 6020	02/12/2024 09:40	02/14/2024 10:08	9	NA
T2403566008	Lake D	WA	SW-846 7470A	02/12/2024 09:40	02/14/2024 10:08	1	NA
T2403566009	EQ Blank 1	WA	EPA 300.0	02/12/2024 14:20	02/14/2024 10:08	3	NA
T2403566009	EQ Blank 1	WA	SM 2320B	02/12/2024 14:20	02/14/2024 10:08	2	NA
T2403566009	EQ Blank 1	WA	SM 2540 C	02/12/2024 14:20	02/14/2024 10:08	1	NA
T2403566009	EQ Blank 1	WA	SW-846 6010	02/12/2024 14:20	02/14/2024 10:08	7	NA
T2403566009	EQ Blank 1	WA	SW-846 6020	02/12/2024 14:20	02/14/2024 10:08	9	NA
T2403566009	EQ Blank 1	WA	SW-846 7470A	02/12/2024 14:20	02/14/2024 10:08	1	NA
T2403566010	CCR-12	WA	EPA 300.0	02/12/2024 13:59	02/14/2024 10:08	3	NA
T2403566010	CCR-12	WA	SM 2320B	02/12/2024 13:59	02/14/2024 10:08	2	NA
T2403566010	CCR-12	WA	SM 2540 C	02/12/2024 13:59	02/14/2024 10:08	1	NA
T2403566010	CCR-12	WA	SW-846 6010	02/12/2024 13:59	02/14/2024 10:08	7	NA
T2403566010	CCR-12	WA	SW-846 6020	02/12/2024 13:59	02/14/2024 10:08	9	NA
T2403566010	CCR-12	WA	SW-846 7470A	02/12/2024 13:59	02/14/2024 10:08	1	NA
T2403566011	CCR-8	WA	EPA 300.0	02/12/2024 14:56	02/14/2024 10:08	3	NA
T2403566011	CCR-8	WA	SM 2540 C	02/12/2024 14:56	02/14/2024 10:08	1	NA
T2403566011	CCR-8	WA	SW-846 6010	02/12/2024 14:56	02/14/2024 10:08	4	NA
T2403566011	CCR-8	WA	SW-846 6020	02/12/2024 14:56	02/14/2024 10:08	9	NA
T2403566011	CCR-8	WA	SW-846 7470A	02/12/2024 14:56	02/14/2024 10:08	1	NA
T2403566012	CCR-11	WA	EPA 300.0	02/13/2024 10:58	02/14/2024 10:08	3	NA
T2403566012	CCR-11	WA	SM 2320B	02/13/2024 10:58	02/14/2024 10:08	2	NA
T2403566012	CCR-11	WA	SM 2540 C	02/13/2024 10:58	02/14/2024 10:08	1	NA
T2403566012	CCR-11	WA	SW-846 6010	02/13/2024 10:58	02/14/2024 10:08	7	NA
T2403566012	CCR-11	WA	SW-846 6020	02/13/2024 10:58	02/14/2024 10:08	9	NA

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Workorder: 2024 Semi Annual (T2403566)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2403566012	CCR-11	WA	SW-846 7470A	02/13/2024 10:58	02/14/2024 10:08	1	NA
T2403566013	CCR-7	WA	EPA 300.0	02/13/2024 13:36	02/14/2024 10:08	3	NA
T2403566013	CCR-7	WA	SM 2320B	02/13/2024 13:36	02/14/2024 10:08	2	NA
T2403566013	CCR-7	WA	SM 2540 C	02/13/2024 13:36	02/14/2024 10:08	1	NA
T2403566013	CCR-7	WA	SW-846 6010	02/13/2024 13:36	02/14/2024 10:08	7	NA
T2403566013	CCR-7	WA	SW-846 6020	02/13/2024 13:36	02/14/2024 10:08	9	NA
T2403566013	CCR-7	WA	SW-846 7470A	02/13/2024 13:36	02/14/2024 10:08	1	NA
T2403566014	CCR-18	WA	EPA 300.0	02/13/2024 15:08	02/14/2024 10:08	3	NA
T2403566014	CCR-18	WA	SM 2320B	02/13/2024 15:08	02/14/2024 10:08	2	NA
T2403566014	CCR-18	WA	SM 2540 C	02/13/2024 15:08	02/14/2024 10:08	1	NA
T2403566014	CCR-18	WA	SW-846 6010	02/13/2024 15:08	02/14/2024 10:08	7	NA
T2403566014	CCR-18	WA	SW-846 6020	02/13/2024 15:08	02/14/2024 10:08	9	NA
T2403566014	CCR-18	WA	SW-846 7470A	02/13/2024 15:08	02/14/2024 10:08	1	NA
T2403566015	CCR-1	WA	EPA 300.0	02/08/2024 14:08	02/09/2024 16:01	3	NA
T2403566015	CCR-1	WA	SM 2540 C	02/08/2024 14:08	02/09/2024 16:01	1	NA
T2403566015	CCR-1	WA	SW-846 6010	02/08/2024 14:08	02/09/2024 16:01	4	NA
T2403566015	CCR-1	WA	SW-846 6020	02/08/2024 14:08	02/09/2024 16:01	9	NA
T2403566015	CCR-1	WA	SW-846 7470A	02/08/2024 14:08	02/09/2024 16:01	1	NA
T2403566016	CCR-2	WA	EPA 300.0	02/08/2024 14:07	02/09/2024 16:01	3	NA
T2403566016	CCR-2	WA	SM 2540 C	02/08/2024 14:07	02/09/2024 16:01	1	NA
T2403566016	CCR-2	WA	SW-846 6010	02/08/2024 14:07	02/09/2024 16:01	4	NA
T2403566016	CCR-2	WA	SW-846 6020	02/08/2024 14:07	02/09/2024 16:01	9	NA
T2403566016	CCR-2	WA	SW-846 7470A	02/08/2024 14:07	02/09/2024 16:01	1	NA
T2403566017	CCR-4	WA	EPA 300.0	02/09/2024 09:41	02/09/2024 16:01	3	NA
T2403566017	CCR-4	WA	SM 2540 C	02/09/2024 09:41	02/09/2024 16:01	1	NA
T2403566017	CCR-4	WA	SW-846 6010	02/09/2024 09:41	02/09/2024 16:01	4	NA
T2403566017	CCR-4	WA	SW-846 6020	02/09/2024 09:41	02/09/2024 16:01	9	NA
T2403566017	CCR-4	WA	SW-846 7470A	02/09/2024 09:41	02/09/2024 16:01	1	NA
T2403566018	CCR-13	WA	EPA 300.0	02/09/2024 14:09	02/09/2024 16:01	3	NA
T2403566018	CCR-13	WA	SM 2540 C	02/09/2024 14:09	02/09/2024 16:01	1	NA
T2403566018	CCR-13	WA	SW-846 6010	02/09/2024 14:09	02/09/2024 16:01	4	NA
T2403566018	CCR-13	WA	SW-846 6020	02/09/2024 14:09	02/09/2024 16:01	9	NA
T2403566018	CCR-13	WA	SW-846 7470A	02/09/2024 14:09	02/09/2024 16:01	1	NA
T2403566019	CCR-5	WA	EPA 300.0	02/09/2024 10:38	02/09/2024 16:01	3	NA
T2403566019	CCR-5	WA	SM 2320B	02/09/2024 10:38	02/09/2024 16:01	2	NA

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Workorder: 2024 Semi Annual (T2403566)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2403566019	CCR-5	WA	SM 2540 C	02/09/2024 10:38	02/09/2024 16:01	1	NA
T2403566019	CCR-5	WA	SW-846 6010	02/09/2024 10:38	02/09/2024 16:01	7	NA
T2403566019	CCR-5	WA	SW-846 6020	02/09/2024 10:38	02/09/2024 16:01	9	NA
T2403566019	CCR-5	WA	SW-846 7470A	02/09/2024 10:38	02/09/2024 16:01	1	NA
T2403566020	CCR-6	WA	EPA 300.0	02/09/2024 11:16	02/09/2024 16:01	3	NA
T2403566020	CCR-6	WA	SM 2320B	02/09/2024 11:16	02/09/2024 16:01	2	NA
T2403566020	CCR-6	WA	SM 2540 C	02/09/2024 11:16	02/09/2024 16:01	1	NA
T2403566020	CCR-6	WA	SW-846 6010	02/09/2024 11:16	02/09/2024 16:01	7	NA
T2403566020	CCR-6	WA	SW-846 6020	02/09/2024 11:16	02/09/2024 16:01	9	NA
T2403566020	CCR-6	WA	SW-846 7470A	02/09/2024 11:16	02/09/2024 16:01	1	NA
T2403566021	CCR-9	WA	EPA 300.0	02/09/2024 12:46	02/09/2024 16:01	3	NA
T2403566021	CCR-9	WA	SM 2320B	02/09/2024 12:46	02/09/2024 16:01	2	NA
T2403566021	CCR-9	WA	SM 2540 C	02/09/2024 12:46	02/09/2024 16:01	1	NA
T2403566021	CCR-9	WA	SW-846 6010	02/09/2024 12:46	02/09/2024 16:01	7	NA
T2403566021	CCR-9	WA	SW-846 6020	02/09/2024 12:46	02/09/2024 16:01	9	NA
T2403566021	CCR-9	WA	SW-846 7470A	02/09/2024 12:46	02/09/2024 16:01	1	NA
T2403566022	CCR-15	WA	EPA 300.0	02/08/2024 12:49	02/09/2024 16:01	3	NA
T2403566022	CCR-15	WA	SM 2320B	02/08/2024 12:49	02/09/2024 16:01	2	NA
T2403566022	CCR-15	WA	SM 2540 C	02/08/2024 12:49	02/09/2024 16:01	1	NA
T2403566022	CCR-15	WA	SW-846 6010	02/08/2024 12:49	02/09/2024 16:01	7	NA
T2403566022	CCR-15	WA	SW-846 6020	02/08/2024 12:49	02/09/2024 16:01	9	NA
T2403566022	CCR-15	WA	SW-846 7470A	02/08/2024 12:49	02/09/2024 16:01	1	NA
T2403566023	CCR-16	WA	EPA 300.0	02/08/2024 11:35	02/09/2024 16:01	3	NA
T2403566023	CCR-16	WA	SM 2320B	02/08/2024 11:35	02/09/2024 16:01	2	NA
T2403566023	CCR-16	WA	SM 2540 C	02/08/2024 11:35	02/09/2024 16:01	1	NA
T2403566023	CCR-16	WA	SW-846 6010	02/08/2024 11:35	02/09/2024 16:01	7	NA
T2403566023	CCR-16	WA	SW-846 6020	02/08/2024 11:35	02/09/2024 16:01	9	NA
T2403566023	CCR-16	WA	SW-846 7470A	02/08/2024 11:35	02/09/2024 16:01	1	NA
T2403566024	CCR-17	WA	EPA 300.0	02/08/2024 11:03	02/09/2024 16:01	3	NA
T2403566024	CCR-17	WA	SM 2320B	02/08/2024 11:03	02/09/2024 16:01	2	NA
T2403566024	CCR-17	WA	SM 2540 C	02/08/2024 11:03	02/09/2024 16:01	1	NA
T2403566024	CCR-17	WA	SW-846 6010	02/08/2024 11:03	02/09/2024 16:01	7	NA
T2403566024	CCR-17	WA	SW-846 6020	02/08/2024 11:03	02/09/2024 16:01	9	NA
T2403566024	CCR-17	WA	SW-846 7470A	02/08/2024 11:03	02/09/2024 16:01	1	NA

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Workorder: 2024 Semi Annual (T2403566)

Workorder Summary

Batch Comments

CVAt/2151 - HG Analysis,CVAA,Aqueous

The matrix spike (MS) and matrix spike duplicate (MSD) recoveries of Hg for T2403314003 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action is required.

CVAt/2158 - HG Analysis,CVAA,Aqueous

The analysis of T2401833001 through -007 was initially performed past the recommended holding time. An internal laboratory failure occurred which resulted in the missed holding time. Efforts were made to analyze the sample as soon as the error was identified. The data is qualified to indicate the holding time violation.

The matrix spike (MS) and matrix spike duplicate (MSD) recoveries of Hg for T2401833001 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action is required.

ICPt/4524 - ICP 6010B Analysis

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of iron and sodium for T2403916001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. No further corrective action is required.

WCAt/27533 - Alkalinity,SM2320B,Water

The sample T2403354009 had a starting pH value (3.9) that is lower than the ending point of the titration (4.5), resulting in a reading of 0 and a result of undetectable.

WCAt/27536 - Alkalinity,SM2320B,Water

The sample T2403396003 had a starting pH value (3.2) that is lower than the ending point of the titration (4.5), resulting in a reading of 0 and a result of undetectable.

WCAt/27673 - Alkalinity,SM2320B,Water

The starting pH of sample T2403566004 (3.82) was below the final pH of the titration (4.5), returning an undetectable result for Alkalinity.

WCAt/27674 - Alkalinity,SM2320B,Water

The starting pH of samples T2403566001 and T2403566012 were below or at the final pH of the titration (4.5), returning an undetectable result for Alkalinity.

WCAt/28154 - IC,E300.0,Water

The matrix spike recovery of Chloride and Fluoride for T2403566014 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

The matrix spike recovery of Chloride and Sulfate for T2403624001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.

Analysis Results Comments

T2403566001 (CCR-19) - Alkalinity, Total

CN|See Case Narration

T2403566004 (CCR-22) - Alkalinity, Total

CN|See Case Narration

T2403566012 (CCR-11) - Alkalinity, Total

CN|See Case Narration

T2403566018 (CCR-13) - Sulfate

The control criteria for matrix spike recoveries of sulfate for T2403354004 are not applicable. The analyte concentration in the sample was greater than 4 times the added spike concentrations, preventing accurate evaluation of the spike recovery. No further corrective action was required.

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Workorder: 2024 Semi Annual (T2403566)

Workorder Summary

Analysis Results Comments

T2403566023 (CCR-16) - Alkalinity, Total

The sample T2403354009 had a starting pH value (3.9) that is lower than the ending point of the titration (4.5), resulting in a reading of 0 and a result of undetectable.

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results Qualifiers

Parameter Qualifiers

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result
CN	See Case Narration

Lab Qualifiers

J	DOH Certification #E82574 (FL NELAC) AEL-Jacksonville DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
M	DOH Certification #E82535 (FL NELAC) AEL-Miami
T	DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566001 **Date Collected:** 02/13/2024 14:27 **Matrix:** Water
Sample ID: CCR-19 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**46**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:40	T
Boron	**230**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:40	T
Calcium	**350**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:40	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:40	T
Magnesium	**33**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:40	T
Potassium	**83**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:40	T
Sodium	**91**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:40	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:02	J
Arsenic	**2.4**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:02	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:02	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:02	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:02	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:02	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:02	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:02	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:02	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:03	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**620**	mg/L	50	10	10	03/04/2024 23:46	03/04/2024 23:46	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/04/2024 23:46	03/04/2024 23:46	T
Sulfate	**590**	mg/L	50	10	10	03/04/2024 23:46	03/04/2024 23:46	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/22/2024 20:07	02/22/2024 20:07	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/22/2024 20:07	02/22/2024 20:07	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566001 **Date Collected:** 02/13/2024 14:27 **Matrix:** Water
Sample ID: CCR-19 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2200**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566002 **Date Collected:** 02/13/2024 16:22 **Matrix:** Water
Sample ID: CCR-20 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**42**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:43	T
Boron	**230**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:43	T
Calcium	**460**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:43	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:43	T
Magnesium	**8.1**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:43	T
Potassium	**250**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:43	T
Sodium	**140**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:43	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:08	J
Arsenic	**62**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:08	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:08	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:08	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:08	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:08	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:08	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:08	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:08	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:06	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**430**	mg/L	50	10	10	03/05/2024 00:02	03/05/2024 00:02	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/05/2024 00:02	03/05/2024 00:02	T
Sulfate	**1700**	mg/L	50	10	10	03/05/2024 00:02	03/05/2024 00:02	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/25/2024 17:31	02/25/2024 17:31	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/25/2024 17:31	02/25/2024 17:31	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566002 **Date Collected:** 02/13/2024 16:22 **Matrix:** Water
Sample ID: CCR-20 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**3400**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566003 **Date Collected:** 02/13/2024 11:29 **Matrix:** Water
Sample ID: CCR-21 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**51**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:45	T
Boron	**330**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:45	T
Calcium	**600**	mg/L	2.0	0.40	2	02/27/2024 11:30	02/28/2024 14:40	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:45	T
Magnesium	**19**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:45	T
Potassium	**24**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:45	T
Sodium	**20**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:45	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:13	J
Arsenic	**6.1**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:13	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:13	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:13	J
Cobalt	**0.41 I**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:13	J
Molybdenum	**27**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:13	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:13	J
Silver	0.50 U	ug/L	2.0	0.50	1	02/22/2024 07:15	02/22/2024 19:52	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:13	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:09	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**16 I**	mg/L	50	10	10	03/05/2024 00:18	03/05/2024 00:18	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/05/2024 00:18	03/05/2024 00:18	T
Sulfate	**1000**	mg/L	50	10	10	03/05/2024 00:18	03/05/2024 00:18	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**280**	mg/L	20	5.0	1	02/22/2024 21:52	02/22/2024 21:52	T
Alkalinity, Total	**280**	mg/L	20	5.0	1	02/22/2024 21:52	02/22/2024 21:52	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566003 **Date Collected:** 02/13/2024 11:29 **Matrix:** Water
Sample ID: CCR-21 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2100**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566004 **Date Collected:** 02/13/2024 12:11 **Matrix:** Water
Sample ID: CCR-22 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**39**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:47	T
Boron	**420**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:47	T
Calcium	**370**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:47	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:47	T
Magnesium	**23**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:47	T
Potassium	**160**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:47	T
Sodium	**49**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:47	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:19	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:19	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:19	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:19	J
Cobalt	**0.90 I**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:19	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:19	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:19	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:19	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:19	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:12	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**180**	mg/L	50	10	10	03/05/2024 00:34	03/05/2024 00:34	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/05/2024 00:34	03/05/2024 00:34	T
Sulfate	**1100**	mg/L	50	10	10	03/05/2024 00:34	03/05/2024 00:34	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/22/2024 19:51	02/22/2024 19:51	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/22/2024 19:51	02/22/2024 19:51	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566004 **Date Collected:** 02/13/2024 12:11 **Matrix:** Water
Sample ID: CCR-22 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2300**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566005 **Date Collected:** 02/13/2024 14:11 **Matrix:** Water
Sample ID: CCR-23 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**9.3 I**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:54	T
Boron	**610**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:54	T
Calcium	**330**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:54	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:54	T
Magnesium	**30**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:54	T
Potassium	**14**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:54	T
Sodium	**36**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:54	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:36	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:36	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:36	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:36	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 17:34	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:36	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:36	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:36	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:36	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:14	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**110**	mg/L	50	10	10	03/05/2024 16:57	03/05/2024 16:57	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/05/2024 16:57	03/05/2024 16:57	T
Sulfate	**1000**	mg/L	50	10	10	03/05/2024 16:57	03/05/2024 16:57	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**16 I**	mg/L	20	5.0	1	02/22/2024 19:35	02/22/2024 19:35	T
Alkalinity, Total	**16 I**	mg/L	20	5.0	1	02/22/2024 19:35	02/22/2024 19:35	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566005 **Date Collected:** 02/13/2024 14:11 **Matrix:** Water
Sample ID: CCR-23 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**1800**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566006 **Date Collected:** 02/12/2024 13:50 **Matrix:** Water
Sample ID: SW-106 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**11**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:56	T
Boron	**46 I**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:56	T
Calcium	**12**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:56	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:56	T
Magnesium	**2.6**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:56	T
Potassium	**8.6**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:56	T
Sodium	**3.4**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:56	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:42	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:42	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:42	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:42	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 17:40	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:42	J
Molybdenum	**1.8 I**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:42	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:42	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:42	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:17	T
WET CHEMISTRY (EPA 300.0)								
Chloride	2.0 U	mg/L	10	2.0	2	03/05/2024 17:13	03/05/2024 17:13	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 17:13	03/05/2024 17:13	T
Sulfate	**25**	mg/L	10	2.0	2	03/05/2024 17:13	03/05/2024 17:13	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**17 I**	mg/L	20	5.0	1	02/20/2024 18:46	02/20/2024 18:46	T
Alkalinity, Total	**17 I**	mg/L	20	5.0	1	02/20/2024 18:46	02/20/2024 18:46	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566006 **Date Collected:** 02/12/2024 13:50 **Matrix:** Water
Sample ID: SW-106 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**160**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566007 **Date Collected:** 02/12/2024 10:12 **Matrix:** Water
Sample ID: Fishlake **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**4.0 I**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 09:59	T
Boron	**150**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 09:59	T
Calcium	**120**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 09:59	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 09:59	T
Magnesium	**6.8**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 09:59	T
Potassium	**39**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 09:59	T
Sodium	**30**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 09:59	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:48	J
Arsenic	**1.9**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:48	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:48	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:48	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 17:45	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:48	J
Molybdenum	**1.2 I**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:48	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:48	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:48	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:26	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**75**	mg/L	10	2.0	2	03/05/2024 17:29	03/05/2024 17:29	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 17:29	03/05/2024 17:29	T
Sulfate	**240**	mg/L	10	2.0	2	03/05/2024 17:29	03/05/2024 17:29	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**62**	mg/L	20	5.0	1	02/20/2024 15:13	02/20/2024 15:13	T
Alkalinity, Total	**62**	mg/L	20	5.0	1	02/20/2024 15:13	02/20/2024 15:13	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566007 **Date Collected:** 02/12/2024 10:12 **Matrix:** Water
Sample ID: Fishlake **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**680**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566008 **Date Collected:** 02/12/2024 09:40 **Matrix:** Water
Sample ID: Lake D **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**18**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:01	T
Boron	**57**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:01	T
Calcium	**62**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 10:01	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:01	T
Magnesium	**16**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:01	T
Potassium	**11**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:01	T
Sodium	**25**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:01	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:53	J
Arsenic	**0.37 I**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:53	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:53	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:53	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 17:51	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:53	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:53	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:53	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:53	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:28	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**97**	mg/L	10	2.0	2	03/05/2024 17:45	03/05/2024 17:45	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 17:45	03/05/2024 17:45	T
Sulfate	**22**	mg/L	10	2.0	2	03/05/2024 17:45	03/05/2024 17:45	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**83**	mg/L	20	5.0	1	02/20/2024 14:50	02/20/2024 14:50	T
Alkalinity, Total	**83**	mg/L	20	5.0	1	02/20/2024 14:50	02/20/2024 14:50	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2403566008 **Date Collected:** 02/12/2024 09:40 **Matrix:** Water
Sample ID: Lake D **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**410**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566009 **Date Collected:** 02/12/2024 14:20 **Matrix:** Water
Sample ID: EQ Blank 1 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:03	T
Boron	25 U	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:03	T
Calcium	0.20 U	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 10:03	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:03	T
Magnesium	0.080 U	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:03	T
Potassium	0.50 U	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:03	T
Sodium	0.80 U	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:03	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:59	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:59	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 18:59	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:59	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 17:57	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:59	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 18:59	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 18:59	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 18:59	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:31	T
WET CHEMISTRY (EPA 300.0)								
Chloride	1.0 U	mg/L	5.0	1.0	1	03/05/2024 18:01	03/05/2024 18:01	T
Fluoride	0.20 U	mg/L	0.50	0.20	1	03/05/2024 18:01	03/05/2024 18:01	T
Sulfate	1.0 U	mg/L	5.0	1.0	1	03/05/2024 18:01	03/05/2024 18:01	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/22/2024 18:36	02/22/2024 18:36	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/22/2024 18:36	02/22/2024 18:36	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566009 **Date Collected:** 02/12/2024 14:20 **Matrix:** Water
Sample ID: EQ Blank 1 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	10 U	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566010 **Date Collected:** 02/12/2024 13:59 **Matrix:** Water
Sample ID: CCR-12 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**22**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:05	T
Boron	**410**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:05	T
Calcium	**680**	mg/L	2.0	0.40	2	02/27/2024 11:30	02/28/2024 14:44	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:05	T
Magnesium	**7.1**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:05	T
Potassium	**82**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:05	T
Sodium	**18**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:05	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:05	J
Arsenic	**47**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:05	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:05	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:05	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 18:02	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:05	J
Molybdenum	**8.9**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:05	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 19:05	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:05	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:34	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**18 I**	mg/L	50	10	10	03/05/2024 18:16	03/05/2024 18:16	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	03/05/2024 18:16	03/05/2024 18:16	T
Sulfate	**1200**	mg/L	50	10	10	03/05/2024 18:16	03/05/2024 18:16	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**270**	mg/L	20	5.0	1	02/20/2024 18:51	02/20/2024 18:51	T
Alkalinity, Total	**280**	mg/L	20	5.0	1	02/20/2024 18:51	02/20/2024 18:51	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2403566010 **Date Collected:** 02/12/2024 13:59 **Matrix:** Water
Sample ID: CCR-12 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2400**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Analytical Results

Lab ID: T2403566011 **Date Collected:** 02/12/2024 14:56 **Matrix:** Water
Sample ID: CCR-8 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**27**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:08	T
Boron	**63**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:08	T
Calcium	**96**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 10:08	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:08	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:10	J
Arsenic	**0.95 I**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:10	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:10	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:10	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 18:08	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:10	J
Molybdenum	**11**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:10	J
Selenium	**1.8 I**	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 19:10	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:10	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/20/2024 10:00	02/22/2024 13:37	T
WET CHEMISTRY (EPA 300.0)								
Chloride	2.0 U	mg/L	10	2.0	2	03/05/2024 18:32	03/05/2024 18:32	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 18:32	03/05/2024 18:32	T
Sulfate	**46**	mg/L	10	2.0	2	03/05/2024 18:32	03/05/2024 18:32	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**400**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Analytical Results

Lab ID: T2403566012 **Date Collected:** 02/13/2024 10:58 **Matrix:** Water
Sample ID: CCR-11 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**60**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:10	T
Boron	**360**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:10	T
Calcium	**780**	mg/L	2.0	0.40	2	02/27/2024 11:30	02/28/2024 14:47	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:10	T
Magnesium	**18**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:10	T
Potassium	**390**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:10	T
Sodium	**270**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:10	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:16	J
Arsenic	**70**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:16	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:16	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:16	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 18:14	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:16	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:16	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 19:16	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:16	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/23/2024 15:00	02/27/2024 12:42	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**1100**	mg/L	120	25	25	03/05/2024 18:48	03/05/2024 18:48	T
Fluoride	5.0 U	mg/L	12	5.0	25	03/05/2024 18:48	03/05/2024 18:48	T
Sulfate	**2300**	mg/L	120	25	25	03/05/2024 18:48	03/05/2024 18:48	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/22/2024 21:20	02/22/2024 21:20	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/22/2024 21:20	02/22/2024 21:20	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2403566012 **Date Collected:** 02/13/2024 10:58 **Matrix:** Water
Sample ID: CCR-11 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**4400**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566013 **Date Collected:** 02/13/2024 13:36 **Matrix:** Water
Sample ID: CCR-7 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**7.9 I**	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:12	T
Boron	**280**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:12	T
Calcium	**52**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 10:12	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:12	T
Magnesium	**2.7**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:12	T
Potassium	**38**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:12	T
Sodium	**20**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:12	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:22	J
Arsenic	**0.26 I**	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:22	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:22	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:22	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 18:20	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:22	J
Molybdenum	**0.50 I**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:22	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 19:22	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:22	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/23/2024 15:00	02/27/2024 12:45	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**26**	mg/L	10	2.0	2	03/05/2024 20:24	03/05/2024 20:24	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 20:24	03/05/2024 20:24	T
Sulfate	**94**	mg/L	10	2.0	2	03/05/2024 20:24	03/05/2024 20:24	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**8.5 I**	mg/L	20	5.0	1	02/25/2024 17:03	02/25/2024 17:03	T
Alkalinity, Total	**8.5 I**	mg/L	20	5.0	1	02/25/2024 17:03	02/25/2024 17:03	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2403566013 **Date Collected:** 02/13/2024 13:36 **Matrix:** Water
Sample ID: CCR-7 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**350**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

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Analytical Results

Lab ID: T2403566014 **Date Collected:** 02/13/2024 15:08 **Matrix:** Water
Sample ID: CCR-18 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	02/27/2024 11:30	02/28/2024 10:15	T
Boron	**45 I**	ug/L	50	25	1	02/27/2024 11:30	02/28/2024 10:15	T
Calcium	**81**	mg/L	1.0	0.20	1	02/27/2024 11:30	02/28/2024 10:15	T
Chromium	5.0 U	ug/L	10	5.0	1	02/27/2024 11:30	02/28/2024 10:15	T
Magnesium	**4.6**	mg/L	0.10	0.080	1	02/27/2024 11:30	02/28/2024 10:15	T
Potassium	**3.6**	mg/L	1.0	0.50	1	02/27/2024 11:30	02/28/2024 10:15	T
Sodium	**1.7**	mg/L	1.0	0.80	1	02/27/2024 11:30	02/28/2024 10:15	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:28	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:28	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/16/2024 02:30	02/16/2024 19:28	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:28	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/19/2024 18:25	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:28	J
Molybdenum	**3.2**	ug/L	2.0	0.50	1	02/16/2024 02:30	02/16/2024 19:28	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/16/2024 02:30	02/16/2024 19:28	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/16/2024 02:30	02/16/2024 19:28	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/23/2024 15:00	02/27/2024 12:56	T
WET CHEMISTRY (EPA 300.0)								
Chloride	2.0 U	mg/L	10	2.0	2	03/05/2024 19:04	03/05/2024 19:04	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	03/05/2024 19:04	03/05/2024 19:04	T
Sulfate	**29**	mg/L	10	2.0	2	03/05/2024 19:04	03/05/2024 19:04	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**170**	mg/L	20	5.0	1	02/25/2024 17:27	02/25/2024 17:27	T
Alkalinity, Total	**170**	mg/L	20	5.0	1	02/25/2024 17:27	02/25/2024 17:27	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2403566014 **Date Collected:** 02/13/2024 15:08 **Matrix:** Water
Sample ID: CCR-18 **Date Received:** 02/14/2024 10:08

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**500**	mg/L	10	10	1	02/15/2024 17:00	02/15/2024 17:00	T

Analysis Results Comments

Chloride

J4|Estimated Result

Fluoride

J4|Estimated Result

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Analytical Results

Lab ID: T2403566015 **Date Collected:** 02/08/2024 14:08 **Matrix:** Water
Sample ID: CCR-1 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**14**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:06	T
Boron	**41 I**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:06	T
Calcium	**33**	mg/L	1.0	0.20	1	02/22/2024 11:30	02/23/2024 15:06	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:06	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:37	J
Arsenic	**0.84 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:37	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:37	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:37	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:37	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:37	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:37	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 17:37	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:37	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:28	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**4.3 I**	mg/L	5.0	0.50	1	03/02/2024 04:00	03/02/2024 04:00	M
Fluoride	**0.052 I**	mg/L	0.50	0.050	1	03/02/2024 04:00	03/02/2024 04:00	M
Sulfate	**55**	mg/L	5.0	0.50	1	03/02/2024 04:00	03/02/2024 04:00	M
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**200**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Analytical Results

Lab ID: T2403566016 **Date Collected:** 02/08/2024 14:07 **Matrix:** Water
Sample ID: CCR-2 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**4.8 I**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:08	T
Boron	**37 I**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:08	T
Calcium	**24**	mg/L	1.0	0.20	1	02/22/2024 11:30	02/23/2024 15:08	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:08	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:43	J
Arsenic	**0.30 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:43	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:43	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:43	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:43	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:43	J
Molybdenum	**0.79 I**	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:43	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 17:43	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:43	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 12:57	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**3.5 I**	mg/L	5.0	0.50	1	03/02/2024 04:22	03/02/2024 04:22	M
Fluoride	**0.088 I**	mg/L	0.50	0.050	1	03/02/2024 04:22	03/02/2024 04:22	M
Sulfate	**17**	mg/L	5.0	0.50	1	03/02/2024 04:22	03/02/2024 04:22	M
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**170**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Analytical Results

Lab ID: T2403566017 **Date Collected:** 02/09/2024 09:41 **Matrix:** Water
Sample ID: CCR-4 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**270**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:10	T
Boron	**640**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:10	T
Calcium	**1800**	mg/L	10	2.0	10	02/22/2024 11:30	02/26/2024 14:00	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:10	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:49	J
Arsenic	**0.56 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:49	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 17:49	J
Cadmium	**0.71 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:49	J
Cobalt	**1.2**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:49	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:49	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 17:49	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 17:49	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 17:49	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:00	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**4300**	mg/L	100	10	20	03/02/2024 04:43	03/02/2024 04:43	M
Fluoride	0.50 U	mg/L	5.0	0.50	10	03/05/2024 19:39	03/05/2024 19:39	M
Sulfate	**1100**	mg/L	100	10	20	03/02/2024 04:43	03/02/2024 04:43	M
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**8300**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Analytical Results

Lab ID: T2403566018 **Date Collected:** 02/09/2024 14:09 **Matrix:** Water
Sample ID: CCR-13 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**37**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:13	T
Boron	**410**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:13	T
Calcium	**630**	mg/L	2.0	0.40	2	02/22/2024 11:30	02/26/2024 14:07	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:13	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:06	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:06	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:06	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:06	J
Cobalt	**1.1**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:06	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:06	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:06	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:06	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:06	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:03	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**120**	mg/L	25	2.5	5	03/02/2024 05:04	03/02/2024 05:04	M
Fluoride	**0.84 I**	mg/L	2.5	0.25	5	03/02/2024 05:04	03/02/2024 05:04	M
Sulfate	**1400**	mg/L	25	2.5	5	03/02/2024 05:04	03/02/2024 05:04	M
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**2200**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Analytical Results

Lab ID: T2403566019 **Date Collected:** 02/09/2024 10:38 **Matrix:** Water
Sample ID: CCR-5 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**160**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:20	T
Boron	**510**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:20	T
Calcium	**2900**	mg/L	10	2.0	10	02/22/2024 11:30	02/26/2024 14:12	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:20	T
Magnesium	**44**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:20	T
Potassium	**800**	mg/L	2.0	1.0	2	02/22/2024 11:30	02/26/2024 14:10	T
Sodium	**1400**	mg/L	10	8.0	10	02/22/2024 11:30	02/26/2024 14:12	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:12	J
Arsenic	**0.38 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:12	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:12	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:12	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:12	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:12	J
Molybdenum	**1.4 I**	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:12	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:12	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:12	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:06	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**5300**	mg/L	250	25	50	03/02/2024 06:08	03/02/2024 06:08	M
Fluoride	1.0 U	mg/L	10	1.0	20	03/05/2024 20:00	03/05/2024 20:00	M
Sulfate	**550**	mg/L	250	25	50	03/02/2024 06:08	03/02/2024 06:08	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**40**	mg/L	20	5.0	1	02/20/2024 13:34	02/20/2024 13:34	T
Alkalinity, Total	**40**	mg/L	20	5.0	1	02/20/2024 13:34	02/20/2024 13:34	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566019 **Date Collected:** 02/09/2024 10:38 **Matrix:** Water
Sample ID: CCR-5 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**12000**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566020 **Date Collected:** 02/09/2024 11:16 **Matrix:** Water
Sample ID: CCR-6 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:22	T
Boron	**92**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:22	T
Calcium	**79**	mg/L	1.0	0.20	1	02/22/2024 11:30	02/23/2024 15:22	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:22	T
Magnesium	**3.4**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:22	T
Potassium	**9.5**	mg/L	1.0	0.50	1	02/22/2024 11:30	02/23/2024 15:22	T
Sodium	**3.2**	mg/L	1.0	0.80	1	02/22/2024 11:30	02/23/2024 15:22	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:17	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:17	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:17	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:17	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:17	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:17	J
Molybdenum	**6.0**	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:17	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:17	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:17	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:08	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**5.0**	mg/L	5.0	0.50	1	03/02/2024 06:30	03/02/2024 06:30	M
Fluoride	**0.32 I**	mg/L	0.50	0.050	1	03/02/2024 06:30	03/02/2024 06:30	M
Sulfate	**72**	mg/L	5.0	0.50	1	03/02/2024 06:30	03/02/2024 06:30	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**130**	mg/L	20	5.0	1	02/20/2024 13:47	02/20/2024 13:47	T
Alkalinity, Total	**130**	mg/L	20	5.0	1	02/20/2024 13:47	02/20/2024 13:47	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566020 **Date Collected:** 02/09/2024 11:16 **Matrix:** Water
Sample ID: CCR-6 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**330**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566021 **Date Collected:** 02/09/2024 12:46 **Matrix:** Water
Sample ID: CCR-9 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**110**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:25	T
Boron	**540**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:25	T
Calcium	**840**	mg/L	10	2.0	10	02/22/2024 11:30	02/26/2024 14:14	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:25	T
Magnesium	**14**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:25	T
Potassium	**470**	mg/L	1.0	0.50	1	02/22/2024 11:30	02/23/2024 15:25	T
Sodium	**500**	mg/L	1.0	0.80	1	02/22/2024 11:30	02/23/2024 15:25	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:23	J
Arsenic	**0.98 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:23	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:23	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:23	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:23	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:23	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:23	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:23	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:23	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:17	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**220**	mg/L	25	2.5	5	03/02/2024 06:51	03/02/2024 06:51	M
Fluoride	0.25 U	mg/L	2.5	0.25	5	03/02/2024 06:51	03/02/2024 06:51	M
Sulfate	**1300**	mg/L	25	2.5	5	03/02/2024 06:51	03/02/2024 06:51	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**8.5 I**	mg/L	20	5.0	1	02/20/2024 13:55	02/20/2024 13:55	T
Alkalinity, Total	**8.5 I**	mg/L	20	5.0	1	02/20/2024 13:55	02/20/2024 13:55	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566021 **Date Collected:** 02/09/2024 12:46 **Matrix:** Water
Sample ID: CCR-9 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2400**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566022 **Date Collected:** 02/08/2024 12:49 **Matrix:** Water
Sample ID: CCR-15 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**25**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:27	T
Boron	**36 I**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:27	T
Calcium	**44**	mg/L	1.0	0.20	1	02/22/2024 11:30	02/23/2024 15:27	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:27	T
Magnesium	**1.0**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:27	T
Potassium	**5.6**	mg/L	1.0	0.50	1	02/22/2024 11:30	02/23/2024 15:27	T
Sodium	**5.4**	mg/L	1.0	0.80	1	02/22/2024 11:30	02/23/2024 15:27	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:29	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:29	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:29	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:29	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:29	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:29	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:29	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:29	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:29	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:20	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**17**	mg/L	5.0	0.50	1	03/02/2024 07:12	03/02/2024 07:12	M
Fluoride	**0.071 I**	mg/L	0.50	0.050	1	03/02/2024 07:12	03/02/2024 07:12	M
Sulfate	**86**	mg/L	5.0	0.50	1	03/02/2024 07:12	03/02/2024 07:12	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/16/2024 14:35	02/16/2024 14:35	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/16/2024 14:35	02/16/2024 14:35	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566022 **Date Collected:** 02/08/2024 12:49 **Matrix:** Water
Sample ID: CCR-15 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**230**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566023 **Date Collected:** 02/08/2024 11:35 **Matrix:** Water
Sample ID: CCR-16 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**50**	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:29	T
Boron	**700**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:29	T
Calcium	**1000**	mg/L	5.0	1.0	5	02/22/2024 11:30	02/27/2024 14:37	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:29	T
Magnesium	**41**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:29	T
Potassium	**130**	mg/L	1.0	0.50	1	02/22/2024 11:30	02/23/2024 15:29	T
Sodium	**99**	mg/L	1.0	0.80	1	02/22/2024 11:30	02/23/2024 15:29	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:34	J
Arsenic	**0.40 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:34	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:34	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:34	J
Cobalt	**0.86 I**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:34	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:34	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:34	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:34	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:34	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:22	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**2700**	mg/L	100	10	20	03/02/2024 07:33	03/02/2024 07:33	M
Fluoride	1.0 U	mg/L	10	1.0	20	03/02/2024 07:33	03/02/2024 07:33	M
Sulfate	**1200**	mg/L	100	10	20	03/02/2024 07:33	03/02/2024 07:33	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	02/16/2024 13:50	02/16/2024 13:50	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	02/16/2024 13:50	02/16/2024 13:50	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566023 **Date Collected:** 02/08/2024 11:35 **Matrix:** Water
Sample ID: CCR-16 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**7400**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566024 **Date Collected:** 02/08/2024 11:03 **Matrix:** Water
Sample ID: CCR-17 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	02/22/2024 11:30	02/23/2024 15:32	T
Boron	**98**	ug/L	50	25	1	02/22/2024 11:30	02/23/2024 15:32	T
Calcium	**84**	mg/L	1.0	0.20	1	02/22/2024 11:30	02/23/2024 15:32	T
Chromium	5.0 U	ug/L	10	5.0	1	02/22/2024 11:30	02/23/2024 15:32	T
Magnesium	**11**	mg/L	0.10	0.080	1	02/22/2024 11:30	02/23/2024 15:32	T
Potassium	**12**	mg/L	1.0	0.50	1	02/22/2024 11:30	02/23/2024 15:32	T
Sodium	**11**	mg/L	1.0	0.80	1	02/22/2024 11:30	02/23/2024 15:32	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:40	J
Arsenic	**5.7**	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:40	J
Beryllium	1.0 U	ug/L	4.0	1.0	1	02/15/2024 02:00	02/15/2024 18:40	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:40	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:40	J
Lead	0.50 U	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:40	J
Molybdenum	**2.2**	ug/L	2.0	0.50	1	02/15/2024 02:00	02/15/2024 18:40	J
Selenium	1.2 U	ug/L	5.0	1.2	1	02/15/2024 02:00	02/15/2024 18:40	J
Thallium	0.25 U	ug/L	1.0	0.25	1	02/15/2024 02:00	02/15/2024 18:40	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	02/13/2024 12:00	02/15/2024 13:25	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**31**	mg/L	5.0	0.50	1	03/02/2024 07:55	03/02/2024 07:55	M
Fluoride	**0.052 I**	mg/L	0.50	0.050	1	03/02/2024 07:55	03/02/2024 07:55	M
Sulfate	**82**	mg/L	5.0	0.50	1	03/02/2024 07:55	03/02/2024 07:55	M
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**180**	mg/L	20	5.0	1	02/16/2024 13:47	02/16/2024 13:47	T
Alkalinity, Total	**180**	mg/L	20	5.0	1	02/16/2024 13:47	02/16/2024 13:47	T
WET CHEMISTRY (SM 2540 C)								

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FINAL - REVISION

Workorder: 2024 Semi Annual (T2403566)

Analytical Results

Lab ID: T2403566024 **Date Collected:** 02/08/2024 11:03 **Matrix:** Water
Sample ID: CCR-17 **Date Received:** 02/09/2024 16:01

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**430**	mg/L	10	10	1	02/13/2024 17:00	02/13/2024 17:00	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: CVAt/2151 **Analysis Method:** SW-846 7470A
Preparation Method: SW-846 7470A
Associated Lab IDs: T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024

Method Blank(5170914)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5170915)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	1	100	80 - 120	T

Matrix Spike (5170916); Matrix Spike Duplicate (5170917); Original (T2403422027); Parent Lab Sample (T2403422027)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	ug/L	1	0.67	**67**	80 - 120	0.69	**69**	3	20	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: CVAt/2158 **Analysis Method:** SW-846 7470A
Preparation Method: SW-846 7470A
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011

Method Blank(5178990)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5178991)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	0.9	90	80 - 120	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: CVAt/2160
Preparation Method: SW-846 7470A
Associated Lab IDs: T2403566012, T2403566013, T2403566014
Analysis Method: SW-846 7470A

Method Blank(5185328)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5185329)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	1	102	80 - 120	T

Matrix Spike (5185330); Matrix Spike Duplicate (5185331); Original (T2403566013); Parent Lab Sample (T2403566013)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	ug/L	1	1.1	112	80 - 120	1.1	108	4	20	T

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QC Results

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Workorder: 2024 Semi Annual (T2403566)

QC Batch: ICMj/4027 **Analysis Method:** SW-846 6020
Preparation Method: SW-846 3010A
Associated Lab IDs: T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024

Method Blank(5170068)

Parameter	Results	Units	PQL	MDL	Lab
Beryllium	1.0 U	ug/L	4.0	1.0	J
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5170069)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Beryllium	ug/L	20	18	91	80 - 120	J
Cobalt	ug/L	20	18	91	80 - 120	J
Arsenic	ug/L	20	19	97	80 - 120	J
Selenium	ug/L	20	19	97	80 - 120	J
Molybdenum	ug/L	20	19	95	80 - 120	J
Cadmium	ug/L	20	19	97	80 - 120	J
Antimony	ug/L	20	20	99	80 - 120	J
Thallium	ug/L	20	19	96	80 - 120	J
Lead	ug/L	20	19	94	80 - 120	J

Matrix Spike (5170070); Matrix Spike Duplicate (5170071); Original (T2403422027); Parent Lab Sample (T2403422027)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Beryllium	ug/L	20	21	103	75 - 125	19	95	8	20	J
Cobalt	ug/L	20	18	92	75 - 125	18	92	0	20	J
Arsenic	ug/L	20	20	98	75 - 125	20	98	0	20	J
Selenium	ug/L	20	19	97	75 - 125	19	97	0	20	J
Molybdenum	ug/L	20	20	99	75 - 125	20	99	1	20	J
Cadmium	ug/L	20	19	97	75 - 125	20	98	0	20	J
Antimony	ug/L	20	21	107	75 - 125	21	107	0	20	J
Thallium	ug/L	20	20	100	75 - 125	20	99	1	20	J
Lead	ug/L	20	19	96	75 - 125	19	96	0	20	J

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Workorder: 2024 Semi Annual (T2403566)

QC Batch: ICMj/4032 **Analysis Method:** SW-846 6020
Preparation Method: SW-846 3010A
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014

Method Blank(5172117)

Parameter	Results	Units	PQL	MDL	Lab
Beryllium	1.0 U	ug/L	4.0	1.0	J
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5172118)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Beryllium	ug/L	20	19	93	80 - 120	J
Cobalt	ug/L	20	18	88	80 - 120	J
Arsenic	ug/L	20	19	97	80 - 120	J
Selenium	ug/L	20	19	95	80 - 120	J
Molybdenum	ug/L	20	19	94	80 - 120	J
Cadmium	ug/L	20	19	96	80 - 120	J
Antimony	ug/L	20	21	103	80 - 120	J
Thallium	ug/L	20	20	99	80 - 120	J
Lead	ug/L	20	20	100	80 - 120	J

Matrix Spike (5172119); Matrix Spike Duplicate (5172120); Original (T2403422020); Parent Lab Sample (T2403422020)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Beryllium	ug/L	20	19	97	75 - 125	20	98	1	20	J
Cobalt	ug/L	20	17	85	75 - 125	17	86	2	20	J
Arsenic	ug/L	20	18	92	75 - 125	19	93	2	20	J
Selenium	ug/L	20	16	78	75 - 125	16	78	0	20	J
Molybdenum	ug/L	20	18	90	75 - 125	18	90	1	20	J
Cadmium	ug/L	20	19	96	75 - 125	19	96	0	20	J
Antimony	ug/L	20	22	109	75 - 125	21	107	2	20	J
Thallium	ug/L	20	20	100	75 - 125	20	100	0	20	J
Lead	ug/L	20	20	101	75 - 125	20	101	0	20	J

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QC Results

QC Batch: ICMj/4054 **Analysis Method:** SW-846 6020
Preparation Method: SW-846 3010A
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014

Method Blank(5178611)

Parameter	Results	Units	PQL	MDL	Lab
Silver	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5178612)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Silver	ug/L	20	18	90	80 - 120	J

Matrix Spike (5178613); Matrix Spike Duplicate (5178614); Original (T2403566001); Parent Lab Sample (T2403566001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Silver	ug/L	20	15	**73**	75 - 125	14	**70**	4	20	J

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: ICPt/4524 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3010A
Associated Lab IDs: T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024

Method Blank(5182990)

Parameter	Results	Units	PQL	MDL	Lab
Boron	25 U	ug/L	50	25	T
Barium	3.0 U	ug/L	10	3.0	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	5.0 U	ug/L	10	5.0	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (5182991)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Boron	ug/L	100	100	101	80 - 120	T
Barium	ug/L	1000	980	98	80 - 120	T
Calcium	mg/L	10	9.8	98	80 - 120	T
Chromium	ug/L	1000	1000	101	80 - 120	T
Potassium	mg/L	10	9.4	94	80 - 120	T
Magnesium	mg/L	10	9.7	97	80 - 120	T
Sodium	mg/L	10	9.5	95	80 - 120	T

Matrix Spike (5182992); Matrix Spike Duplicate (5182993); Original (T2403916001); Parent Lab Sample (T2403916001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Boron	ug/L	100	93	**10**	75 - 125	90	**8**	3	20	T
Barium	ug/L	1000	1300	**129**	75 - 125	1300	**129**	0	20	T
Calcium	mg/L	10	60	**336**	75 - 125	60	**337**	0	20	T
Chromium	ug/L	1000	1300	**132**	75 - 125	1300	**131**	0	20	T
Potassium	mg/L	10	32	**288**	75 - 125	32	**289**	0	20	T
Magnesium	mg/L	10	16	76	75 - 125	16	77	1	20	T
Sodium	mg/L	10	340	**3310**	75 - 125	340	**3320**	0	20	T

QC Result Comments

Method Blank - 5182990 - Barium

V|Method Blank Contamination

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QC Result Comments
Method Blank - 5182990 - Boron
V|Method Blank Contamination
Method Blank - 5182990 - Calcium
V|Method Blank Contamination
Method Blank - 5182990 - Magnesium
V|Method Blank Contamination
Method Blank - 5182990 - Potassium
V|Method Blank Contamination
Method Blank - 5182990 - Sodium
V|Method Blank Contamination
Lab Control Sample - 5182991 - Barium
J3|Lab QC Failure
Lab Control Sample - 5182991 - Calcium
J3|Lab QC Failure
Lab Control Sample - 5182991 - Chromium
J3|Lab QC Failure
Lab Control Sample - 5182991 - Magnesium
J3|Lab QC Failure
Lab Control Sample - 5182991 - Potassium
J3|Lab QC Failure
Lab Control Sample - 5182991 - Sodium
J3|Lab QC Failure

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: ICPt/4534 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3010A
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014

Method Blank(5187903)

Parameter	Results	Units	PQL	MDL	Lab
Boron	25 U	ug/L	50	25	T
Barium	3.0 U	ug/L	10	3.0	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	5.0 U	ug/L	10	5.0	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (5187904)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Boron	ug/L	100	110	108	80 - 120	T
Barium	ug/L	1000	970	97	80 - 120	T
Calcium	mg/L	10	11	107	80 - 120	T
Chromium	ug/L	1000	1000	104	80 - 120	T
Potassium	mg/L	10	9.8	98	80 - 120	T
Magnesium	mg/L	10	10	100	80 - 120	T
Sodium	mg/L	10	10	105	80 - 120	T

Matrix Spike (5187905); Matrix Spike Duplicate (5187906); Original (T2404144004); Parent Lab Sample (T2404144004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Boron	ug/L	100	23	**23**	75 - 125	23	**23**	1	20	T
Barium	ug/L	1000	1100	105	75 - 125	1100	105	0	20	T
Calcium	mg/L	10	38	118	75 - 125	38	117	0	20	T
Chromium	ug/L	1000	1100	114	75 - 125	1100	114	0	20	T
Potassium	mg/L	10	20	115	75 - 125	20	113	1	20	T
Magnesium	mg/L	10	14	120	75 - 125	14	119	0	20	T
Sodium	mg/L	10	17	123	75 - 125	17	123	0	20	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAm/15601 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024

Method Blank(5195173)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.050 U	mg/L	0.50	0.050	M
Chloride	0.50 U	mg/L	5.0	0.50	M
Sulfate	0.50 U	mg/L	5.0	0.50	M

Lab Control Sample (5195174)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	2.50	2.5	99	90 - 110	M
Chloride	mg/L	25	25	99	90 - 110	M
Sulfate	mg/L	25	24	98	90 - 110	M

Matrix Spike (5195175); Matrix Spike Duplicate (5195176); Original (T2403566018); Parent Lab Sample (T2403566018)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	25	25	98	90 - 110	24	94	3	10	M
Chloride	mg/L	250	370	98	90 - 110	370	100	2	10	M
Sulfate	mg/L	250	1600	**87**	90 - 110	1600	102	2	10	M

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAm/15632
Preparation Method: EPA 300.0
Associated Lab IDs: T2403566017, T2403566019
Analysis Method: EPA 300.0

Method Blank(5199393)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.050 U	mg/L	0.50	0.050	M

Lab Control Sample (5199394)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	2.50	2.5	100	90 - 110	M

Matrix Spike (5199395); Matrix Spike Duplicate (5199396); Original (M2401429001); Parent Lab Sample (M2401429001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	5	5.1	101	90 - 110	5.3	104	3	10	M

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27422 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024

Method Blank(5168598)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5168599)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	670	101	85 - 115	T

Sample Duplicate (5168600); Original (T2403422026); Parent Lab Sample (T2403566015, T2403566016, T2403566017, T2403566018, T2403566019, T2403566020, T2403566021, T2403566022, T2403566023, T2403566024)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	0	0	mg/L	0	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27523 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014

Method Blank(5174020)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5174021)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	670	102	85 - 115	T

Sample Duplicate (5174022); Original (T2403540001); Parent Lab Sample (T2403566001, T2403566002, T2403566003, T2403566004, T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	526	504	mg/L	4	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27533
Preparation Method: SM 2320B
Associated Lab IDs: T2403566023, T2403566024
Analysis Method: SM 2320B

Method Blank(5174603)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5174604)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	105	85 - 115	T

Sample Duplicate (5174606); Original (T2403140001); Parent Lab Sample (T2403566023, T2403566024)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	24.08837	25.09582	mg/L	4	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27536
Preparation Method: SM 2320B
Associated Lab IDs: T2403566022
Analysis Method: SM 2320B

Method Blank(5174617)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5174618)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	103	85 - 115	T

Sample Duplicate (5174619); Original (T2403813006); Parent Lab Sample (T2403566022)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	150.6825	150.1173	mg/L	0	10	T

Sample Duplicate (5174620); Original (T2403813009); Parent Lab Sample (T2403566022)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	150.6351	150.9202	mg/L	0	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27599
Analysis Method: SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2403566019, T2403566020

Sample Duplicate (5177851); Original (F2400986001); Parent Lab Sample (T2403566019, T2403566020)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	93.17944	93.72606	mg/L	1	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27599 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2403566019, T2403566020, T2403566021

Method Blank(5177849)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5177850)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	100	85 - 115	T

Sample Duplicate (5177852); Original (T2403566020); Parent Lab Sample (T2403566019, T2403566020, T2403566021)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	133.9236	135.2723	mg/L	1	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27601
Preparation Method: SM 2320B
Associated Lab IDs: T2403566007, T2403566008
Analysis Method: SM 2320B

Method Blank(5177876)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5177877)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	101	85 - 115	T

Sample Duplicate (5177878); Original (T2403566008); Parent Lab Sample (T2403566007, T2403566008)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	82.62165	82.47977	mg/L	0	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27622
Preparation Method: SM 2320B
Associated Lab IDs: T2403566006, T2403566010
Analysis Method: SM 2320B

Method Blank(5179337)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5179338)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	101	85 - 115	T

Sample Duplicate (5179339); Original (A2401719007); Parent Lab Sample (T2403566006, T2403566010)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	123.0336	123.9154	mg/L	1	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27673 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2403566004, T2403566005, T2403566009, T2403566011

Method Blank(5182332)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5182333)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	102	85 - 115	T

Sample Duplicate (5182335); Original (F2400882001); Parent Lab Sample (T2403566004, T2403566005, T2403566009, T2403566011)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	260.7113	261.4852	mg/L	0	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27673
Preparation Method: SM 2320B
Associated Lab IDs: T2403566009, T2403566011
Analysis Method: SM 2320B

Sample Duplicate (5182334); Original (M2401107001); Parent Lab Sample (T2403566009, T2403566011)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	241.5183	245.2729	mg/L	2	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27674
Preparation Method: SM 2320B
Associated Lab IDs: T2403566001
Analysis Method: SM 2320B

Sample Duplicate (5182339); Original (G2401628001); Parent Lab Sample (T2403566001)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	174.2582	175.5887	mg/L	1	10	T

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QC Results

QC Batch: WCAt/27674 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2403566001, T2403566003, T2403566012

Method Blank(5182337)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5182338)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	103	85 - 115	T

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QC Results

QC Batch: WCAt/27674
Preparation Method: SM 2320B
Associated Lab IDs: T2403566003, T2403566012
Analysis Method: SM 2320B

Sample Duplicate (5182340); Original (A2401781001); Parent Lab Sample (T2403566003, T2403566012)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	149.3782	156.0521	mg/L	4	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27711 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2403566002, T2403566013, T2403566014

Method Blank(5184945)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5184946)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	99	99	85 - 115	T

Sample Duplicate (5184948); Original (G2401647006); Parent Lab Sample (T2403566002, T2403566013, T2403566014)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	205.0594	205.7363	mg/L	0	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/27982 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2403566001, T2403566002, T2403566003, T2403566004

Method Blank(5197789)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5197790)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5	99	90 - 110	T
Chloride	mg/L	50	50	100	90 - 110	T
Sulfate	mg/L	50	46	93	90 - 110	T

Matrix Spike (5197791); Matrix Spike Duplicate (5197792); Original (T2404812001); Parent Lab Sample (T2404812001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	3	105	90 - 110	2.9	100	3	10	T
Chloride	mg/L	20	49	100	90 - 110	48	94	3	10	T
Sulfate	mg/L	20	130	**78**	90 - 110	130	**72**	1	10	T

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Workorder: 2024 Semi Annual (T2403566)

QC Results

QC Batch: WCAt/28154 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2403566005, T2403566006, T2403566007, T2403566008, T2403566009, T2403566010, T2403566011, T2403566012, T2403566013, T2403566014

Method Blank(5207144)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5207145)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	4.9	98	90 - 110	T
Chloride	mg/L	50	49	98	90 - 110	T
Sulfate	mg/L	50	45	91	90 - 110	T

Matrix Spike (5207146); Matrix Spike Duplicate (5207147); Original (T2403566014); Parent Lab Sample (T2403566014)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.5	**123**	90 - 110	2.4	**122**	1	10	T
Chloride	mg/L	20	23	**114**	90 - 110	23	**113**	0	10	T
Sulfate	mg/L	20	48	94	90 - 110	47	92	1	10	T

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
CVAt/2151 - SW-846 7470A			
T2403566015	CCR-1	DGMt/7334	SW-846 7470A
T2403566016	CCR-2	DGMt/7334	SW-846 7470A
T2403566017	CCR-4	DGMt/7334	SW-846 7470A
T2403566018	CCR-13	DGMt/7334	SW-846 7470A
T2403566019	CCR-5	DGMt/7334	SW-846 7470A
T2403566020	CCR-6	DGMt/7334	SW-846 7470A
T2403566021	CCR-9	DGMt/7334	SW-846 7470A
T2403566022	CCR-15	DGMt/7334	SW-846 7470A
T2403566023	CCR-16	DGMt/7334	SW-846 7470A
T2403566024	CCR-17	DGMt/7334	SW-846 7470A
CVAt/2158 - SW-846 7470A			
T2403566001	CCR-19	DGMt/7358	SW-846 7470A
T2403566002	CCR-20	DGMt/7358	SW-846 7470A
T2403566003	CCR-21	DGMt/7358	SW-846 7470A
T2403566004	CCR-22	DGMt/7358	SW-846 7470A
T2403566005	CCR-23	DGMt/7358	SW-846 7470A
T2403566006	SW-106	DGMt/7358	SW-846 7470A
T2403566007	Fishlake	DGMt/7358	SW-846 7470A
T2403566008	Lake D	DGMt/7358	SW-846 7470A
T2403566009	EQ Blank 1	DGMt/7358	SW-846 7470A
T2403566010	CCR-12	DGMt/7358	SW-846 7470A
T2403566011	CCR-8	DGMt/7358	SW-846 7470A
CVAt/2160 - SW-846 7470A			
T2403566012	CCR-11	DGMt/7377	SW-846 7470A
T2403566013	CCR-7	DGMt/7377	SW-846 7470A
T2403566014	CCR-18	DGMt/7377	SW-846 7470A

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/4027 - SW-846 6020			
T2403566015	CCR-1	DGMj/7597	SW-846 3010A
T2403566016	CCR-2	DGMj/7597	SW-846 3010A
T2403566017	CCR-4	DGMj/7597	SW-846 3010A
T2403566018	CCR-13	DGMj/7597	SW-846 3010A
T2403566019	CCR-5	DGMj/7597	SW-846 3010A
T2403566020	CCR-6	DGMj/7597	SW-846 3010A
T2403566021	CCR-9	DGMj/7597	SW-846 3010A
T2403566022	CCR-15	DGMj/7597	SW-846 3010A
T2403566023	CCR-16	DGMj/7597	SW-846 3010A
T2403566024	CCR-17	DGMj/7597	SW-846 3010A
ICMj/4032 - SW-846 6020			
T2403566001	CCR-19	DGMj/7605	SW-846 3010A
T2403566002	CCR-20	DGMj/7605	SW-846 3010A
T2403566003	CCR-21	DGMj/7605	SW-846 3010A
T2403566004	CCR-22	DGMj/7605	SW-846 3010A
T2403566005	CCR-23	DGMj/7605	SW-846 3010A
T2403566006	SW-106	DGMj/7605	SW-846 3010A
T2403566007	Fishlake	DGMj/7605	SW-846 3010A
T2403566008	Lake D	DGMj/7605	SW-846 3010A
T2403566009	EQ Blank 1	DGMj/7605	SW-846 3010A
T2403566010	CCR-12	DGMj/7605	SW-846 3010A
T2403566011	CCR-8	DGMj/7605	SW-846 3010A
T2403566012	CCR-11	DGMj/7605	SW-846 3010A
T2403566013	CCR-7	DGMj/7605	SW-846 3010A
T2403566014	CCR-18	DGMj/7605	SW-846 3010A
ICMj/4054 - SW-846 6020			
T2403566003	CCR-21	DGMj/7639	SW-846 3010A

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICPt/4524 - SW-846 6010			
T2403566015	CCR-1	DGMt/7371	SW-846 3010A
T2403566016	CCR-2	DGMt/7371	SW-846 3010A
T2403566017	CCR-4	DGMt/7371	SW-846 3010A
T2403566018	CCR-13	DGMt/7371	SW-846 3010A
T2403566019	CCR-5	DGMt/7371	SW-846 3010A
T2403566020	CCR-6	DGMt/7371	SW-846 3010A
T2403566021	CCR-9	DGMt/7371	SW-846 3010A
T2403566022	CCR-15	DGMt/7371	SW-846 3010A
T2403566023	CCR-16	DGMt/7371	SW-846 3010A
T2403566024	CCR-17	DGMt/7371	SW-846 3010A
ICPt/4534 - SW-846 6010			
T2403566001	CCR-19	DGMt/7386	SW-846 3010A
T2403566002	CCR-20	DGMt/7386	SW-846 3010A
T2403566003	CCR-21	DGMt/7386	SW-846 3010A
T2403566004	CCR-22	DGMt/7386	SW-846 3010A
T2403566005	CCR-23	DGMt/7386	SW-846 3010A
T2403566006	SW-106	DGMt/7386	SW-846 3010A
T2403566007	Fishlake	DGMt/7386	SW-846 3010A
T2403566008	Lake D	DGMt/7386	SW-846 3010A
T2403566009	EQ Blank 1	DGMt/7386	SW-846 3010A
T2403566010	CCR-12	DGMt/7386	SW-846 3010A
T2403566011	CCR-8	DGMt/7386	SW-846 3010A
T2403566012	CCR-11	DGMt/7386	SW-846 3010A
T2403566013	CCR-7	DGMt/7386	SW-846 3010A
T2403566014	CCR-18	DGMt/7386	SW-846 3010A

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAm/15601 - EPA 300.0			
T2403566015	CCR-1		
T2403566016	CCR-2		
T2403566017	CCR-4		
T2403566018	CCR-13		
T2403566019	CCR-5		
T2403566020	CCR-6		
T2403566021	CCR-9		
T2403566022	CCR-15		
T2403566023	CCR-16		
T2403566024	CCR-17		
WCAm/15632 - EPA 300.0			
T2403566017	CCR-4		
T2403566019	CCR-5		
WCAt/27422 - SM 2540 C			
T2403566015	CCR-1		
T2403566016	CCR-2		
T2403566017	CCR-4		
T2403566018	CCR-13		
T2403566019	CCR-5		
T2403566020	CCR-6		
T2403566021	CCR-9		
T2403566022	CCR-15		
T2403566023	CCR-16		
T2403566024	CCR-17		

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/27523 - SM 2540 C			
T2403566001	CCR-19		
T2403566002	CCR-20		
T2403566003	CCR-21		
T2403566004	CCR-22		
T2403566005	CCR-23		
T2403566006	SW-106		
T2403566007	Fishlake		
T2403566008	Lake D		
T2403566009	EQ Blank 1		
T2403566010	CCR-12		
T2403566011	CCR-8		
T2403566012	CCR-11		
T2403566013	CCR-7		
T2403566014	CCR-18		
WCAt/27533 - SM 2320B			
T2403566023	CCR-16		
T2403566024	CCR-17		
WCAt/27536 - SM 2320B			
T2403566022	CCR-15		
WCAt/27599 - SM 2320B			
T2403566019	CCR-5		
T2403566020	CCR-6		
T2403566021	CCR-9		
WCAt/27601 - SM 2320B			
T2403566007	Fishlake		
T2403566008	Lake D		
WCAt/27622 - SM 2320B			
T2403566006	SW-106		
T2403566010	CCR-12		

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL - REVISION

Workorder: 2024 Semi Annual (T2403566)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/27673 - SM 2320B			
T2403566004	CCR-22		
T2403566005	CCR-23		
T2403566009	EQ Blank 1		
WCAt/27674 - SM 2320B			
T2403566001	CCR-19		
T2403566003	CCR-21		
T2403566012	CCR-11		
WCAt/27711 - SM 2320B			
T2403566002	CCR-20		
T2403566013	CCR-7		
T2403566014	CCR-18		
WCAt/27982 - EPA 300.0			
T2403566001	CCR-19		
T2403566002	CCR-20		
T2403566003	CCR-21		
T2403566004	CCR-22		
WCAt/28154 - EPA 300.0			
T2403566005	CCR-23		
T2403566006	SW-106		
T2403566007	Fishlake		
T2403566008	Lake D		
T2403566009	EQ Blank 1		
T2403566010	CCR-12		
T2403566011	CCR-8		
T2403566012	CCR-11		
T2403566013	CCR-7		
T2403566014	CCR-18		

Advanced Environmental Laboratories, Inc.

☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: Lakeland Electric	Project Name: 2024 Semi Annual CCR
Address: 501 E Lemon St	Project Number: FR3715G
Lakeland, FL	PO Number:
Phone: 863-834-6623	FDEP Facility No:
FAX:	FDEP Facility Addr:
Contact: Thomas Johnston	
Sampled By: Olivia Hollingsworth + Rick Mathias	Special Instructions: ~~[illegible]~~
Turn Around Time: Standard Rush	ADaPT (EQuIS) Other
AEL Profile #: 72419	

T2403566

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	Chloride/TDS/SO4/F (250ml plastic)	6010 Metals (250ml plastic)	6020 metals (250ml plastic)	Hg (1L plastic)	Alk (125ml plastic)	LABORATORY I.D. NUMBER
Preservation							I	N	N	N	I	
Field-Filtered?							No	No	No	No	No	
CCR-19-20240213	CCR-19	G	2/13/24	1427	GW	4	X	X	X	X	X	001
CCR-20-20240213	CCR-20	G	2/13/24	1622	GW	4	X	X	X	X	X	002
CCR-21-20240213	CCR-21	G	2/13/24	1129	GW	4	X	X	X	X	X	003
CCR-22-20240213	CCR-22	G	2/13/24	1211	GW	4	X	X	X	X	X	004
CCR-23-20240213	CCR-23	G	2/13/24	1411	GW	4	X	X	X	X	X	005
SW-106-20240212	SW-106	G	2/12/24	1350	GW	4	X	X	X	X	X	006
Fish Lake-20240212	Fishlake	G	2/12/24	1012	SW	4	X	X	X	X	X	007
Lake D-20240212	Lake D	G	2/12/24	0940	SW	4	X	X	X	X	X	008
EQB-1-20240212	EQ Blank 1	G	2/12/24	1420	GW	4	X	X	X	X	X	009

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Temp. when received (observed) 6 °C Temp. when received (corrected)____ °C

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☑ Where required, pH checked

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 (T: 10A) A: 3A M: 3A S: 1V F: 1A

DCN: AD-D051web Form last revised 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Rick Mathias	2-14-24	1008	C Woolwood	2-14-24	1008
2						
3						
4						

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: ____

Contact Person: ____

Supplier of Water: ____

Site-Address: ____

Advanced Environmental Laboratories, Inc.

☐ Altamonte Springs: 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
☐ Fort Myers: 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ Jacksonville: 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ Gainesville: 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: Lakeland Electric
Address: 501 E Lemon St.
Lakeland, FL
Phone: 863-834-6623
FAX:
Contact: Thomas Johnston
Sampled By: Chris Hollingshead & Rick Matthews

Project Name: 2024 Semi-Annual CCR
Project Number: FR3715G
PO Number:
FDEP Facility No:
FDEP Facility Addr:
Special Instructions:

Standard / Rush
AEL Profile #: 72419
ADaPT / EQuIS / Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	LABORATORY I.D. NUMBER
CCR-12-20240212	CCR-12	G	2/12/24	1359	GW	4	010
CCR-8-20240212	CCR-8	G	2/12/24	1456	GW	3	011
CCR-11-20240213	CCR-11	G	2/13/24	1058	GW	4	012
CCR-7-20240213	CCR-7	G	2/13/24	336	GW	4	013
CCR-18-20240213	CCR-18	G	2/13/24	1508	GW	4	014

ANALYSIS REQUIRED

BOTTLE SIZE & TYPE	250 ml Plastic	250 ml Plastic	250 ml Plastic	1L Plastic	250 ml Plastic						
	Cl⁻, TDS, SO4, F⁻	6010 Metals	6020 Metals	Hg	RIK						
Preservation	H	N	N	N	H						
Field-Filtered?	No	No	No	No	No						
	X	X	X	X	X						
	X	X	X	X							
	X	X	X	X	X						
	X	X	X	X	X						
	X	X	Y	X	X						

Matrix Code: WW=wastewater, SW=surface water, GW=ground water, DW=drinking water, MW=marine water, O=oil, A=air, SO=soil, SL=sludge

Preservation Code: I=ice, H=HCl, S=H2SO4, N=HNO3, T=Sodium Thiosulfate, AA=Ascorbic/HCl, AB=Ascorbic/NaOH

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 10 °C Temp. when received (corrected) _____ °C

DCN: AD-D051web Form last revised 07/26/2022 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 (T: 10A) A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Rick Matthews	2-14-24	1008	Woodward	2.14.24	1008
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____
Supplier of Water: _____
Site-Address:

Advanced Environmental Laboratories, Inc.

☐ Fort Myers ☐ Jacksonville ☐ Tallahassee ☐ Gainesville ☐ Miramar ☑ Tampa

Client Name: Lakeland Electric	Project Name: 2024 Semi Annual CCR
Address: 501 E Lemon St	Project Number: PR3715 g
Lakeland, FL	PO Number:
Phone: 863-834-6623	FDEP Facility No:
FAX:	FDEP Facility Addr:
Contact: Thomas Johnston	
Sampled By: Olivia Hollingsworth & Erik Mathis	Special Instructions: *CCR-1 may require additional preservative
Turn Around Time: (Standard) Rush	
AEL Profile #: 72419	ADaPT (EQuIS) Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab/Comp	DATE	TIME	MATRIX	NO. COUNT	Chloride/TDS/SO4/F (250ml plastic; I)	6010 Metals (250ml plastic; N)	6020 metals (250ml plastic; N)	Hg (1L plastic; N)	LABORATORY I.D. NUMBER
Field Filtered?							No	No	No	No	
CCR-1-20240208	CCR-1	G	2/8/24	1408	GW	3	X	X	X	X	~~001~~ 015
CCR-2-20240208	CCR-2	G	2/8/24	1407	GW	3	X	X	X	X	~~002~~ 016
CCR-4-20240209	CCR-4	G	2/9/24	0941	GW	3	X	X	X	X	~~003~~ 017
~~CCR-~~	~~CCR-~~						~~X~~	~~X~~	~~X~~	~~X~~	
CCR-13-20240209	CCR-13	G	2/9/24	1409	GW	3	X	X	X	X	~~004~~ 018

T2403~~354~~ 3566 HP

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice: ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed): ____ °C Temp. when received (corrected): ____ °C

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-D051web Form last revised 06/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Olivia Hollingsworth	2/9/24	1601	[signature]		1601
2						
3						
4						

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: ____

Contact Person: ____

Supplier of Water: ____

Site-Address: ____

Advanced Environmental Laboratories, Inc.

Fort Myers: 13100 Reading Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84482
Jacksonville: 6621 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E80574
Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E81105
Gainesville: 4953 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E84481
Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82529
Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

T2403566

Client Name:	Lakeland Electric
Address:	501 E Lemon St
	Lakeland, FL
Phone:	863-834-6623
FAX:	
Contact:	Thomas Johnston
Sampled By:	Olivia Hollingsworth + RK Mathis
Turn Around Time:	Standard / Rush
AEL Profile #:	72419

Project Name:	2024 Semi Annual CCR
Project Number:	FR3715G
PO Number:	
FDEP Facility No:	
FDEP Facility Addr:	
Special Instructions:	
	ADaPT / EQuIS / Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT
CCR-5-20240209	CCR-5	G	2/9/24	1038	GW	4
CCR-6-20240209	CCR-6	G	2/9/24	1116	GW	4
CCR-7-20240209	CCR-7	G	2/9/24		GW	4
CCR-9-20240209	CCR-9	G	2/9/24	1246	GW	4
	CCR-11					
	CCR-12					
CCR-15-20240208	CCR-15	G	2/8/24	1249	GW	4
CCR-16-20240208	CCR-16	G	2/8/24	1135	GW	4
CCR-17-20240208	CCR-17	G	2/8/24	1103	GW	4
	CCR-18					

ANALYSIS REQUIRED

BOTTLE SIZE & TYPE	250ml plastic	250ml plastic	250ml plastic	1L plastic	125ml plastic						LABORATORY I.D. NUMBER
	Chloride/TDS/SO4/F	6010 Metals	6020 metals	Hg	Alk						
Preservation	I	N	N	N	I						
Field-Filtered?	No	No	No	No	No						
	X	X	X	X	X						019
	X	X	X	X	X						020
	X	X	X	X	X						
	X	X	X	X	X						021
	X	X	X	X	X						
	X	X	X	X	X						
	X	X	X	X	X						022
	X	X	X	X	X						023
	X	X	X	X	X						024
	X	X	X	X	X						HP

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Temp. when received (observed)_____ °C Temp. when received (corrected)_____ °C

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-005 tweb Form last revised: 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Olivia Hollingsworth	2/9/24	1601			1601
2						
3						
4						

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: _____

Contact Person: _____

Supplier of Water: _____

Site Address: _____

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Michael Cammarata
Advanced Environmental Laboratory Inc
9610 Princess Palm Avenue
Tampa, Florida 33619

Generated 2/26/2024 10:42:50 AM

JOB DESCRIPTION

T2403566

JOB NUMBER

670-35338-1

Eurofins Orlando
481 Newburyport Avenue
Altamonte Springs FL 32701

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization

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2/26/2024 10:42:50 AM

Authorized for release by
Matt Jones, Project Manager I
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Definitions/Glossary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-35338-1
Project/Site: T2403566

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Job ID: 670-35338-1 — Eurofins Orlando

Job Narrative
670-35338-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/22/2024 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 24.0°C.

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

Detection Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Client Sample ID: T2403566-001 — Lab Sample ID: 670-35338-1

No Detections.

Client Sample ID: T2403566-002 — Lab Sample ID: 670-35338-2

No Detections.

Client Sample ID: T2403566-003 — Lab Sample ID: 670-35338-3

No Detections.

Client Sample ID: T2403566-004 — Lab Sample ID: 670-35338-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.065		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403566-005 — Lab Sample ID: 670-35338-5

No Detections.

Client Sample ID: T2403566-006 — Lab Sample ID: 670-35338-6

No Detections.

Client Sample ID: T2403566-007 — Lab Sample ID: 670-35338-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403566-008 — Lab Sample ID: 670-35338-8

No Detections.

Client Sample ID: T2403566-009 — Lab Sample ID: 670-35338-9

No Detections.

Client Sample ID: T2403566-0010 — Lab Sample ID: 670-35338-10

No Detections.

Client Sample ID: T2403566-0011 — Lab Sample ID: 670-35338-11

No Detections.

Client Sample ID: T2403566-0012 — Lab Sample ID: 670-35338-12

No Detections.

Client Sample ID: T2403566-0013 — Lab Sample ID: 670-35338-13

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.035		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403566-0014 — Lab Sample ID: 670-35338-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Orlando

Client Sample ID: T2403566-001 — **Lab Sample ID: 670-35338-1**
Date Collected: 02/13/24 14:27 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:27	1

Client Sample ID: T2403566-002 — **Lab Sample ID: 670-35338-2**
Date Collected: 02/13/24 16:22 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:30	1

Client Sample ID: T2403566-003 — **Lab Sample ID: 670-35338-3**
Date Collected: 02/13/24 11:29 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:32	1

Client Sample ID: T2403566-004 — **Lab Sample ID: 670-35338-4**
Date Collected: 02/13/24 12:11 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.065**		0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:35	1

Client Sample ID: T2403566-005 — **Lab Sample ID: 670-35338-5**
Date Collected: 02/13/24 14:11 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:38	1

Client Sample ID: T2403566-006 — **Lab Sample ID: 670-35338-6**
Date Collected: 02/12/24 13:50 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:40	1

Client Sample ID: T2403566-007 — **Lab Sample ID: 670-35338-7**
Date Collected: 02/12/24 10:12 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.026**		0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:43	1

Client Sample ID: T2403566-008 — **Lab Sample ID: 670-35338-8**
Date Collected: 02/12/24 09:40 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 16:51	1

Client Sample ID: T2403566-009 — **Lab Sample ID: 670-35338-9**
Date Collected: 02/12/24 14:20 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:02	1

Client Sample ID: T2403566-0010 — **Lab Sample ID: 670-35338-10**
Date Collected: 02/12/24 13:59 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:04	1

Client Sample ID: T2403566-0011 — **Lab Sample ID: 670-35338-11**
Date Collected: 02/13/24 14:56 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:07	1

Client Sample ID: T2403566-0012 — **Lab Sample ID: 670-35338-12**
Date Collected: 02/13/24 10:58 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:10	1

Client Sample ID: T2403566-0013 — **Lab Sample ID: 670-35338-13**
Date Collected: 02/13/24 13:36 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.035**		0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:12	1

Client Sample ID: T2403566-0014 — **Lab Sample ID: 670-35338-14**
Date Collected: 02/13/24 15:08 — **Matrix: Water**
Date Received: 02/22/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/23/24 08:56	02/23/24 17:15	1

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 670-77584/3-A
Matrix: Water
Analysis Batch: 77728

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 77584

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		02/23/24 08:56	02/23/24 16:14	1

Lab Sample ID: LCS 670-77584/1-A
Matrix: Water
Analysis Batch: 77728

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 77584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.10	1.09		mg/L		99	80 - 120

Metals

Prep Batch: 77584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-35338-1	T2403566-001	Total Recoverable	Water	3005A	
670-35338-2	T2403566-002	Total Recoverable	Water	3005A	
670-35338-3	T2403566-003	Total Recoverable	Water	3005A	
670-35338-4	T2403566-004	Total Recoverable	Water	3005A	
670-35338-5	T2403566-005	Total Recoverable	Water	3005A	
670-35338-6	T2403566-006	Total Recoverable	Water	3005A	
670-35338-7	T2403566-007	Total Recoverable	Water	3005A	
670-35338-8	T2403566-008	Total Recoverable	Water	3005A	
670-35338-9	T2403566-009	Total Recoverable	Water	3005A	
670-35338-10	T2403566-0010	Total Recoverable	Water	3005A	
670-35338-11	T2403566-0011	Total Recoverable	Water	3005A	
670-35338-12	T2403566-0012	Total Recoverable	Water	3005A	
670-35338-13	T2403566-0013	Total Recoverable	Water	3005A	
670-35338-14	T2403566-0014	Total Recoverable	Water	3005A	
MB 670-77584/3-A	Method Blank	Total Recoverable	Water	3005A	
LCS 670-77584/1-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 77728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-35338-1	T2403566-001	Total Recoverable	Water	6010D	77584
670-35338-2	T2403566-002	Total Recoverable	Water	6010D	77584
670-35338-3	T2403566-003	Total Recoverable	Water	6010D	77584
670-35338-4	T2403566-004	Total Recoverable	Water	6010D	77584
670-35338-5	T2403566-005	Total Recoverable	Water	6010D	77584
670-35338-6	T2403566-006	Total Recoverable	Water	6010D	77584
670-35338-7	T2403566-007	Total Recoverable	Water	6010D	77584
670-35338-8	T2403566-008	Total Recoverable	Water	6010D	77584
670-35338-9	T2403566-009	Total Recoverable	Water	6010D	77584
670-35338-10	T2403566-0010	Total Recoverable	Water	6010D	77584
670-35338-11	T2403566-0011	Total Recoverable	Water	6010D	77584
670-35338-12	T2403566-0012	Total Recoverable	Water	6010D	77584
670-35338-13	T2403566-0013	Total Recoverable	Water	6010D	77584
670-35338-14	T2403566-0014	Total Recoverable	Water	6010D	77584
MB 670-77584/3-A	Method Blank	Total Recoverable	Water	6010D	77584
LCS 670-77584/1-A	Lab Control Sample	Total Recoverable	Water	6010D	77584

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Client Sample ID: T2403566-001

Lab Sample ID: 670-35338-1

Date Collected: 02/13/24 14:27

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:27

Client Sample ID: T2403566-002

Lab Sample ID: 670-35338-2

Date Collected: 02/13/24 16:22

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:30

Client Sample ID: T2403566-003

Lab Sample ID: 670-35338-3

Date Collected: 02/13/24 11:29

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:32

Client Sample ID: T2403566-004

Lab Sample ID: 670-35338-4

Date Collected: 02/13/24 12:11

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:35

Client Sample ID: T2403566-005

Lab Sample ID: 670-35338-5

Date Collected: 02/13/24 14:11

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:38

Client Sample ID: T2403566-006

Lab Sample ID: 670-35338-6

Date Collected: 02/12/24 13:50

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:40

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Job ID: 670-35338-1
Project/Site: T2403566

Client Sample ID: T2403566-007
Lab Sample ID: 670-35338-7
Date Collected: 02/12/24 10:12
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:43

Client Sample ID: T2403566-008
Lab Sample ID: 670-35338-8
Date Collected: 02/12/24 09:40
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 16:51

Client Sample ID: T2403566-009
Lab Sample ID: 670-35338-9
Date Collected: 02/12/24 14:20
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:02

Client Sample ID: T2403566-0010
Lab Sample ID: 670-35338-10
Date Collected: 02/12/24 13:59
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:04

Client Sample ID: T2403566-0011
Lab Sample ID: 670-35338-11
Date Collected: 02/13/24 14:56
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:07

Client Sample ID: T2403566-0012
Lab Sample ID: 670-35338-12
Date Collected: 02/13/24 10:58
Matrix: Water
Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:10

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Client Sample ID: T2403566-0013

Lab Sample ID: 670-35338-13

Date Collected: 02/13/24 13:36

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:12

Client Sample ID: T2403566-0014

Lab Sample ID: 670-35338-14

Date Collected: 02/13/24 15:08

Matrix: Water

Date Received: 02/22/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			77584	JR	EET ORL	02/23/24 08:56
Total Recoverable	Analysis	6010D		1	77728	AS	EET ORL	02/23/24 17:15

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Accreditation/Certification Summary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-35338-1
Project/Site: T2403566

Laboratory: Eurofins Orlando

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E83018	06-30-24

Method Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET ORL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET ORL

Protocol References:

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

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Sample Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403566

Job ID: 670-35338-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
670-35338-1	T2403566-001	Water	02/13/24 14:27	02/22/24 17:15
670-35338-2	T2403566-002	Water	02/13/24 16:22	02/22/24 17:15
670-35338-3	T2403566-003	Water	02/13/24 11:29	02/22/24 17:15
670-35338-4	T2403566-004	Water	02/13/24 12:11	02/22/24 17:15
670-35338-5	T2403566-005	Water	02/13/24 14:11	02/22/24 17:15
670-35338-6	T2403566-006	Water	02/12/24 13:50	02/22/24 17:15
670-35338-7	T2403566-007	Water	02/12/24 10:12	02/22/24 17:15
670-35338-8	T2403566-008	Water	02/12/24 09:40	02/22/24 17:15
670-35338-9	T2403566-009	Water	02/12/24 14:20	02/22/24 17:15
670-35338-10	T2403566-0010	Water	02/12/24 13:59	02/22/24 17:15
670-35338-11	T2403566-0011	Water	02/13/24 14:56	02/22/24 17:15
670-35338-12	T2403566-0012	Water	02/13/24 10:58	02/22/24 17:15
670-35338-13	T2403566-0013	Water	02/13/24 13:36	02/22/24 17:15
670-35338-14	T2403566-0014	Water	02/13/24 15:08	02/22/24 17:15

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name:	Advanced Environmental Lab
Address:	Tampa Fl 33619
Phone:	813-630-9616
FAX:	813-630-4327
Contact:	mcammarata@aellab.com
Sampled By:	
Turn Around Time:	☐ STANDARD ☐ RUSH
AEL Profile #:	

Project Number: T2403566
Project Number:
T-PO-25036
FDEP Facility No:
FDEP Facility Address:
Even though matrix WA please include DW report along with EVN report
☐ADaPT ☐ EQuIS ☐ Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	BOTTLE SIZE & TYPE	ANALYSIS REQUIRED: Lithium 6010	LABORATORY I.D. NUMBER
							Preservation		
							Field-Filtered?		
	T2403566-001		02.13.24	14;27	WA	1		X	
	T2403566-002		02.13.24	16:22	WA	1		X	
	T2403566-003		02.13.24	11:29	WA	1		X	
	T2403566-004		02.13.24	12:11	WA	1		X	
	T2403566-005		02.13.24	14:11	WA	1		X	
	T2403566-006		02.12.24	13:50	WA	1		X	
	T2403566-007		02.12.24	10:12	WA	1		X	
	T2403566-008		02.12.24	9:40	WA	1		X	
	T2403566-009		02.12.24	14:20	WA	1		X	
	T2403566-010		02.12.24	13;59	WA	1		X	

670-35338 Chain of Custody

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge **Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐Yes ☐No ☐Temp taken from sample ☐ Temp from blank ☐Where required, pH checked Temp. when received (observed)_____ °C Temp. when received (corrected)_____°C

DCN: AD-D051 Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Kaitlyn Pasqualini	02.21.24	16:00		2/22/24	0800
2		2/22/24				
3						
4					2/22/24	1715

2.0 / 2.0 556

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name:	Advanced Environmental Lab
Address:	Tampa Fl 33619
Phone:	813-630-9616
FAX:	813-630-4327
Contact:	mcammarata@aellab.com
Sampled By:	
Turn Around Time:	☐ STANDARD ☐ RUSH
AEL Profile #:	

Project Number: T2403566
Project Number:
T-PO-25036
FDEP Facility No:
FDEP Facility Address:
Even though matrix WA please include DW report along with EVN report
☐ADaPT ☐ EQuIS ☐ Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	ANALYSIS REQUIRED: Lithium 6010	LABORATORY I.D. NUMBER
						BOTTLE SIZE & TYPE		
						Preservation		
						Field-Filtered?		
	T2403566-011		02.13.24	14:56	WA	1	X	
	T2403566-012		02.13.24	10:58	WA	1	X	
	T2403566-013		02.13.24	13:36	WA	1	X	
	T2403566-014		02.13.24	15:08	WA	1	X	

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

Preservation Code: I = ice H=(HCl) S = (H_2SO_4) N = (HNO_3) T = (Sodium Thiosulfate)

Received on Ice ☐Yes ☐No ☐Temp taken from sample ☐ Temp from blank ☐Where required, pH checked Temp. when received (observed)_____ °C Temp. when received (corrected)_____°C

DCN: AD-D051 Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Kaitlyn Pasqualini	02.21.24	16:00			
2						
3						
4					2/22/24	1715

24.0 / 24.0

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

Login Sample Receipt Checklist

Client: Advanced Environmental Laboratory Inc

Job Number: 670-35338-1

Login Number: 35338

List Source: Eurofins Orlando

List Number: 1

Creator: Bittle, David W

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Michael Cammarata
Advanced Environmental Laboratory Inc
9610 Princess Palm Avenue
Tampa, Florida 33619

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JOB DESCRIPTION

T2403354

JOB NUMBER

670-34872-1

Eurofins Orlando
481 Newburyport Avenue
Altamonte Springs FL 32701

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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Authorized for release by
Matt Jones, Project Manager I
Matthew.Jones@et.eurofinsus.com
(850)284-4486

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Definitions/Glossary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-34872-1
Project/Site: T2403354

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Job ID: 670-34872-1 — Eurofins Orlando

Job Narrative
670-34872-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/15/2024 4:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

Metals
Method 6010D - Total Recoverable: The continuing calibration verification (CCV) associated with batch 76560 exhibited % difference of > 30% for the following analyte(s) lithium; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

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

Detection Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Client Sample ID: T2403354-001 T2403566015 HP **Lab Sample ID: 670-34872-1**

No Detections.

Client Sample ID: T2403354-002 T2403566016 HP **Lab Sample ID: 670-34872-2**

No Detections.

Client Sample ID: T2403354-003 T2403566017 HP **Lab Sample ID: 670-34872-3**

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.28		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403354-004 T2403566018 HP **Lab Sample ID: 670-34872-4**

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.16		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403354-005 T2403566019 HP **Lab Sample ID: 670-34872-5**

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	4.8		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403354-006 T2403566020 HP **Lab Sample ID: 670-34872-6**

No Detections.

Client Sample ID: T2403354-007 T2403566021 HP **Lab Sample ID: 670-34872-7**

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.052		0.022	0.020	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2403354-008 T2403566022 HP **Lab Sample ID: 670-34872-8**

No Detections.

Client Sample ID: T2403354-009 HP T2403566023 **Lab Sample ID: 670-34872-9**

No Detections.

Client Sample ID: T2403354-010 T2403566024 HP **Lab Sample ID: 670-34872-10**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: T2403354-001 T2403566015 HP
Lab Sample ID: 670-34872-1
Date Collected: 02/08/24 14:08
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 20:57	1

Client Sample ID: T2403354-002 T2403566016 HP
Lab Sample ID: 670-34872-2
Date Collected: 02/08/24 14:07
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:00	1

Client Sample ID: T2403354-003 T2403566017 HP
Lab Sample ID: 670-34872-3
Date Collected: 02/09/24 09:41
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.28		0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:02	1

Client Sample ID: T2403354-004 T2403566018 HP
Lab Sample ID: 670-34872-4
Date Collected: 02/09/24 14:06
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.16		0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:05	1

Client Sample ID: T2403354-005 T2403566019 HP
Lab Sample ID: 670-34872-5
Date Collected: 02/09/24 10:38
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	4.8		0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:08	1

Client Sample ID: T2403354-006 T2403566020 HP
Lab Sample ID: 670-34872-6
Date Collected: 02/09/24 11:16
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:10	1

Client Sample ID: T2403354-007 T2403566021 HP
Lab Sample ID: 670-34872-7
Date Collected: 02/09/24 12:46
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.052		0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:13	1

Client: Advanced Environmental Laboratory Inc
Job ID: 670-34872-1
Project/Site: T2403354

Client Sample ID: T2403354-008 T2403566022 HP
Lab Sample ID: 670-34872-8
Date Collected: 02/08/24 12:49
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:16	1

Client Sample ID: T2403354-009 T2403566023 HP
Lab Sample ID: 670-34872-9
Date Collected: 02/08/24 11:35
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:18	1

Client Sample ID: T2403354-010 T2403566024 HP
Lab Sample ID: 670-34872-10
Date Collected: 02/08/24 11:03
Matrix: Water
Date Received: 02/15/24 16:52

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020	U	0.022	0.020	mg/L		02/16/24 11:05	02/16/24 21:21	1

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 670-76560/3-A
Matrix: Water
Analysis Batch: 76902

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 76560

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		02/16/24 11:05	02/16/24 20:15	1

Lab Sample ID: LCS 670-76560/1-A
Matrix: Water
Analysis Batch: 76902

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 76560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.10	0.978		mg/L		89	80 - 120

Lab Sample ID: LCSD 670-76560/2-A
Matrix: Water
Analysis Batch: 76902

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 76560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	1.10	0.986		mg/L		90	80 - 120	1	20

QC Association Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Metals

Prep Batch: 76560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-34872-1	T2403354-001	Total Recoverable	Water	3005A	
670-34872-2	T2403354-002	Total Recoverable	Water	3005A	
670-34872-3	T2403354-003	Total Recoverable	Water	3005A	
670-34872-4	T2403354-004	Total Recoverable	Water	3005A	
670-34872-5	T2403354-005	Total Recoverable	Water	3005A	
670-34872-6	T2403354-006	Total Recoverable	Water	3005A	
670-34872-7	T2403354-007	Total Recoverable	Water	3005A	
670-34872-8	T2403354-008	Total Recoverable	Water	3005A	
670-34872-9	T2403354-009	Total Recoverable	Water	3005A	
670-34872-10	T2403354-010	Total Recoverable	Water	3005A	
MB 670-76560/3-A	Method Blank	Total Recoverable	Water	3005A	
LCS 670-76560/1-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 670-76560/2-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

T2403566015
T2403566016
T2403566017
T2403566018
T2403566019
T2403566020
T2403566021
T2403566022
T2403566023
T2403566024
HP

Analysis Batch: 76902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-34872-1	T2403354-001	Total Recoverable	Water	6010D	76560
670-34872-2	T2403354-002	Total Recoverable	Water	6010D	76560
670-34872-3	T2403354-003	Total Recoverable	Water	6010D	76560
670-34872-4	T2403354-004	Total Recoverable	Water	6010D	76560
670-34872-5	T2403354-005	Total Recoverable	Water	6010D	76560
670-34872-6	T2403354-006	Total Recoverable	Water	6010D	76560
670-34872-7	T2403354-007	Total Recoverable	Water	6010D	76560
670-34872-8	T2403354-008	Total Recoverable	Water	6010D	76560
670-34872-9	T2403354-009	Total Recoverable	Water	6010D	76560
670-34872-10	T2403354-010	Total Recoverable	Water	6010D	76560
MB 670-76560/3-A	Method Blank	Total Recoverable	Water	6010D	76560
LCS 670-76560/1-A	Lab Control Sample	Total Recoverable	Water	6010D	76560
LCSD 670-76560/2-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	76560

T2403566015
T2403566016
T2403566017
T2403566018
T2403566019
T2403566020
T2403566021
T2403566022
T2403566023
T2403566024
HP

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Client Sample ID: T2403354-001 T2403566015
Lab Sample ID: 670-34872-1
Date Collected: 02/08/24 14:08
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 20:57

Client Sample ID: T2403354-002 T2403566016
Lab Sample ID: 670-34872-2
Date Collected: 02/08/24 14:07
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:00

Client Sample ID: T2403354-003 T2403566017
Lab Sample ID: 670-34872-3
Date Collected: 02/09/24 09:41
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:02

Client Sample ID: T2403354-004 T2403566018
Lab Sample ID: 670-34872-4
Date Collected: 02/09/24 14:06
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:05

Client Sample ID: T2403354-005 T2403566019
Lab Sample ID: 670-34872-5
Date Collected: 02/09/24 10:38
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:08

Client Sample ID: T2403354-006 T2403566020
Lab Sample ID: 670-34872-6
Date Collected: 02/09/24 11:16
Matrix: Water
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:10

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Job ID: 670-34872-1
Project/Site: T2403354

Client Sample ID: T2403354-007 T2403566021 Lab Sample ID: 670-34872-7

Date Collected: 02/09/24 12:46 **Matrix: Water**
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:13

Client Sample ID: T2403354-008 T2403566022 Lab Sample ID: 670-34872-8

Date Collected: 02/08/24 12:49 **Matrix: Water**
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:16

Client Sample ID: T2403354-009 T2403566023 Lab Sample ID: 670-34872-9

Date Collected: 02/08/24 11:35 **Matrix: Water**
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:18

Client Sample ID: T2403354-010 T2403566024 Lab Sample ID: 670-34872-10

Date Collected: 02/08/24 11:03 **Matrix: Water**
Date Received: 02/15/24 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			76560	EB	EET ORL	02/16/24 11:05
Total Recoverable	Analysis	6010D		1	76902	NR	EET ORL	02/16/24 21:21

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Accreditation/Certification Summary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-34872-1
Project/Site: T2403354

Laboratory: Eurofins Orlando

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E83018	06-30-24

Method Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET ORL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET ORL

Protocol References:

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

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Sample Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2403354

Job ID: 670-34872-1

Lab Sample ID	Client Sample ID		Matrix	Collected	Received
670-34872-1	T2403354-001	T2403566015	Water	02/08/24 14:08	02/15/24 16:52
670-34872-2	T2403354-002	T2403566016	Water	02/08/24 14:07	02/15/24 16:52
670-34872-3	T2403354-003	T2403566017	Water	02/09/24 09:41	02/15/24 16:52
670-34872-4	T2403354-004	T2403566018	Water	02/09/24 14:06	02/15/24 16:52
670-34872-5	T2403354-005	T2403566019	Water	02/09/24 10:38	02/15/24 16:52
670-34872-6	T2403354-006	T2403566020	Water	02/09/24 11:16	02/15/24 16:52
670-34872-7	T2403354-007	T2403566021	Water	02/09/24 12:46	02/15/24 16:52
670-34872-8	T2403354-008	T2403566022	Water	02/08/24 12:49	02/15/24 16:52
670-34872-9	T2403354-009	T2403566023	Water	02/08/24 11:35	02/15/24 16:52
670-34872-10	T2403354-010	T2403566024	Water	02/08/24 11:03	02/15/24 16:52

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name:	Advanced Environmental Lab
Address:	Tampa Fl 33619
Phone:	813-630-9616
FAX:	813-630-4327
Contact:	mcammarata@aellab.com
Sampled By:	
Turn Around Time:	☐ STANDARD ☐ RUSH
AEL Profile #:	

Project Number: T2403354
Project Number:
T-PO-24932
FDEP Facility No:
FDEP Facility Address:
Even though matrix WA please include DW report along with EVN report
☐ADaPT ☐ EQuIS ☐ Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	BOTTLE SIZE & TYPE	ANALYSIS REQUIRED: Lithium 6010	Preservation	Field-Filtered?	LABORATORY I.D. NUMBER
	T2403354-001		02.08.24	14:08	WA	1		X			T2403566015
	T2403354-002		02.08.24	14:07	WA	1		X			T2403566016
	T2403354-003		02.09.24	9:41	WA	1		X			T2403566017 HP
	T2403354-004		02.09.24	14:06	WA	1		X			T2403566018
	T2403354-005		02.09.24	10:38	WA	1		X			T2403566019
	T2403354-006		02.09.24	11:16	WA	1		X			T2403566020
	T2403354-007		02.09.24	12:46	WA	1		X			T2403566021
	T2403354-008		02.08.24	12:49	WA	1		X			T2403566022
	T2403354-009		02.08.24	11:35	WA	1		X			T2403566023
	T2403354-010		02.08.24	11:03	WA	1		X			T2403566024

670-34872 Chain of Custody

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐Yes ☐No ☐Temp taken from sample ☐ Temp from blank ☐Where required, pH checked Temp. when received (observed)_____ °C Temp. when received (corrected)_____°C

DCN: AD-D051 Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Kaitlyn Pasqualini	02.14.24	16:00		2/15/24	0800
2		2/15/24				
3						
4					2/19/24	1652

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

Login Sample Receipt Checklist

Client: Advanced Environmental Laboratory Inc

Job Number: 670-34872-1

Login Number: 34872

List Source: Eurofins Orlando

List Number: 1

Creator: Bittle, David W

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Geosyntec
consultants

Water Level Measurement Field Form

Site: Lakeland Electric CCR Wells

Project No.: FR3715G/01/02/123B

Date: 7/19/24

Weather: Clear

Initials: [illegible] & KM

Page 1

Well ID	Status Comments	Control Point	Time of Meas. (hours)	Depth to Water (BTOC)
CCR-1	OK	N	1040	9.26'
CCR-2	OK	↓	1035	9.03'
CCR-3	OK		1445	7.00'
CCR-4	OK		1488	14.01'
CCR-5	(partially buried + covered in mud)		1432	10.02
CCR-6	OK (partially buried) - stick up ~2' ALS		1429	7.60
CCR-7	OK (partially buried)		1422	7.34'
CCR-8	OK - stick up [illegible] ALS		1412	8.88'
CCR-9	OK		1409	9.65'
CCR-10R	OK		1348	2.52'
CCR-11	OK		1335	6.24'
CCR-12	OK		1327	6.22'
CCR-13	OK		1323	6.92'
CCR-14	OK		1256	7.37'
CCR-15	OK		1020	16.56'
CCR-16	OK		1024	14.67'
CCR-17	OK (lock rusted)		1022	~~[illegible]~~ 12.74'
CCR-18	~~[illegible]~~ base underwater		1418	5.71'
CCR-19	OK		1355	4.80'
CCR-20	OK		1844	5.64'
CCR-21	OK		1332	7.14'
CCR-22	OK		1319	7.27'
CCR-23	partially buried + full of mud		1300	4.48'
SW-[illegible]	OK	↓	0919	13.28'
Lake B	OK	N/A	1007	131.28' NAVD88
Lake C	OK	↓	0953	131.12' NAVD88
Lake D	OK		0815	116.73' ~~AMSL~~ NAVD88
Fish Lake	OK	↓	1055	129.80' NAVD88

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-1	SAMPLE ID:	CCR-1-20240723	DATE: 2024-07-23

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.7 to 28.7 feet BTOC	STATIC DEPTH TO WATER (feet): 9.18	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 30 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.7	PURGING INITIATED AT: 09:27	PURGING ENDED AT: 10:05	TOTAL VOLUME PURGED (gallons): 2.28

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
9:35	0.48	0.48	0.06	9.21	5.20	26.79	185	0.53	1.85	Clear	-19.30	-
9:37	0.12	0.60	0.06	9.21	5.23	26.79	189	1.17	1.56	Clear	-28.10	-
9:47	0.60	1.20	0.06	9.21	5.39	26.79	195	0.68	1.44	Clear	-34.30	-
9:57	0.60	1.80	0.06	9.21	5.42	26.92	197	0.37	1.38	Clear	-52.40	-
9:59	0.12	1.92	0.06	9.21	5.42	27.15	198	0.48	1.02	Clear	-49.40	-
10:01	0.12	2.04	0.06	9.21	5.43	27.01	198	0.43	0.90	Clear	-50.20	-
10:03	0.12	2.16	0.06	9.21	5.43	26.91	198	0.37	0.71	Clear	-51.00	-
10:05	0.12	2.28	0.06	9.21	5.43	26.86	199	0.34	1.11	Clear	-53.60	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	10:05	10:13

PUMP OR TUBING DEPTH IN WELL (feet): 23.7	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-1-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-1-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-1-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227
CCR-1-20240723	1	PP	250 mL	Ice	--	5.43	Cl-/TDS/SO4/F	APP	227

REMARKS: No alkalinity analysis

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-2	SAMPLE ID:	CCR-2-20240723	DATE: 2024-07-23

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 15.7 to 25.2 feet BTOC	STATIC DEPTH TO WATER (feet): 8.91	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 25 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 20.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 20.5	PURGING INITIATED AT: 08:37	PURGING ENDED AT: 09:02	TOTAL VOLUME PURGED (gallons): 1.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:46	0.45	0.45	0.05	8.96	6.03	27.35	215	0.20	5.10	Clear	-45.20	-
8:48	0.10	0.55	0.05	8.96	6.04	27.32	215	0.17	5.19	Clear	-52.30	-
8:58	0.50	1.05	0.05	8.96	5.98	27.34	222	0.12	4.52	Clear	-68.30	-
9:00	0.10	1.15	0.05	8.96	5.98	27.33	224	0.11	4.85	Clear	-70.10	-
9:02	0.10	1.25	0.05	8.96	5.98	27.34	225	0.10	4.64	Clear	-70.20	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	09:02	09:13

PUMP OR TUBING DEPTH IN WELL (feet): 20.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-2-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-2-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-2-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189
CCR-2-20240723	1	PP	250 mL	Ice	--	5.98	Cl-/TDS/SO4/F	APP	189

REMARKS: No alkalinity analysis

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant			SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL
WELL NO:	CCR-4	SAMPLE ID:	CCR-4-20240725	DATE:	2024-07-25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.5 to 28.5 feet BTOC	STATIC DEPTH TO WATER (feet): 13.79	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) =(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	PURGING INITIATED AT: 08:40	PURGING ENDED AT: 08:54	TOTAL VOLUME PURGED (gallons): 0.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:50	0.50	0.50	0.05	13.86	4.39	27.23	1464	1.94	1.67	Clear	53.20	-
8:52	0.10	0.60	0.05	13.86	4.40	27.23	1468	1.93	1.50	Clear	50.40	-
8:54	0.10	0.70	0.05	13.86	4.40	27.23	1472	1.93	1.31	Clear	47.60	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	08:55	08:59

PUMP OR TUBING DEPTH IN WELL (feet): 23.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-4-20240725	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-4-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-4-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189
CCR-4-20240725	1	PP	250 mL	Ice	--	4.40	Cl-/TDS/SO4/F	APP	189

REMARKS: 0.70 gal purged;

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-5	SAMPLE ID:	CCR-5-20240724	DATE: 2024-07-24

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.7 to 28.7 feet BTOC	STATIC DEPTH TO WATER (feet): 9.92	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 34 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.7	PURGING INITIATED AT: 11:49	PURGING ENDED AT: 12:10	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
12:03	1.40	1.40	0.1	9.97	5.81	26.37	15589	0.48	4.49	Clear	-52.10	-
12:06	0.30	1.70	0.1	9.97	5.83	26.33	15579	0.46	3.62	Clear	-56.70	-
12:09	0.30	2.00	0.1	9.98	5.81	26.38	15576	0.42	2.46	Clear	-61.00	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	12:11	12:16

PUMP OR TUBING DEPTH IN WELL (feet): 23.7	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-5-20240724	1	PP	250 mL	Ice	--	5.81	Alkalinity	APP	375
CCR-5-20240724	1	PP	250 mL	Ice	--	5.81	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	375
CCR-5-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	375
CCR-5-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	375
CCR-5-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	375

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-6	SAMPLE ID:	CCR-6-20240725	DATE: 2024-07-25

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.6 to 28.6 feet BTOC	STATIC DEPTH TO WATER (feet): 7.85	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	PURGING INITIATED AT: 10:33	PURGING ENDED AT: 1047	TOTAL VOLUME PURGED (gallons): 0.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
10:43	0.50	0.50	0.05	7.87	6.61	28.06	427	1.17	1.80	Clear	-167.90	-
10:45	0.10	0.60	0.05	7.87	6.61	28.04	433	1.15	2.62	Clear	-169.30	-
10:47	0.10	0.70	0.05	7.87	6.61	28.03	444	1.13	2.40	Clear	-170.30	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	10:48	10:54

PUMP OR TUBING DEPTH IN WELL (feet): 23.6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-6-20240725	1	PP	250 mL	Ice	--	6.61	Alkalinity	APP	189
CCR-6-20240725	1	PP	250 mL	Ice	--	6.61	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	189
CCR-6-20240725	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-6-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-6-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189

REMARKS: 0.07 gal purged;

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-7	SAMPLE ID:	CCR-7-20240723	DATE:	2024-07-23

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	DEPTH: 18.7 to 28.8 feet BTOC	7.35	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(25.2 ft - 7.35 ft) x 0.16 gallons/foot = 2.9

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= N/A gallons + (N/A gallons/foot x N/A feet)+ N/A gallons = N/A

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23	23	14:54	15:10	0.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
15:04	0.50	0.50	0.05	7.40	5.09	27.67	302	0.42	5.36	Clear	-37.90	-
15:06	0.10	0.60	0.05	7.40	5.09	27.64	302	0.41	5.11	Clear	-39.70	-
15:08	0.10	0.70	0.05	7.40	5.10	27.61	302	0.41	6.61	Clear	-40.60	-
15:10	0.10	0.80	0.05	7.40	5.11	27.63	301	0.38	6.58	Clear	-42.10	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	15:11	15:15

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-7-20240723	1	PP	250 mL	Ice	--	5.17	Alkalinity	APP	189
CCR-7-20240723	1	PP	250 mL	Ice	--	5.17	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	189
CCR-7-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-7-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-7-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-8	SAMPLE ID:	CCR-8-20240725	DATE:	2024-07-25

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	18.7 to 28.7 feet BTOC	8.76	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
24	24	14:05	14:19	0.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
14:15	0.50	0.50	0.05	8.82	6.78	28.95	558	2.79	3.37	Clear	-43.00	-
14:17	0.10	0.60	0.05	8.82	6.78	28.93	557	2.81	3.71	Clear	-46.80	-
14:19	0.10	0.70	0.05	8.82	6.78	28.93	556	2.83	4.04	Clear	-48.70	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	14:20	14:24

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
24	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
CCR-8-20240725	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-8-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-8-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189
CCR-8-20240725	1	PP	250 mL	Ice	--	6.78	Cl-/TDS/SO4/F	APP	189

REMARKS: Little to no preservatives in bottles due to loose caps. "Li" had pea size, 6010 had small pea size, 6020 had little to no preservative. Noted the COC for the lab

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)
SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-9	SAMPLE ID:	CCR-9-20240725	DATE:	2024-07-25

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	18.7 to 28.7 feet BTOC	9.51	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.7	23.7	12:33	13:21	1.95

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
12:43	0.05	0.05	0.05	9.58	5.55	28.92	4581	1.78	40.50	Clear	-232.30	-
13:17	1.70	1.75	0.05	9.58	5.50	28.85	4488	1.63	4.44	Clear	-234.50	-
13:19	0.10	1.85	0.05	9.58	5.50	28.84	4488	1.63	3.31	Clear	-234.30	-
13:21	0.10	1.95	0.05	9.58	5.50	28.84	4487	1.65	1.82	Clear	-233.40	Strong sulfur

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	13:22	13:28

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.7	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-9-20240725	1	PP	250 mL	Ice	--	5.5	Alkalinity	APP	189
CCR-9-20240725	1	PP	250 mL	Ice	--	5.5	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	189
CCR-9-20240725	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-9-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-9-20240725	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189

REMARKS: Strong sulfur odor;

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-11	SAMPLE ID:	CCR-11-20240724	DATE: 2024-07-24

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.5 to 28.5 feet BTOC	STATIC DEPTH TO WATER (feet): 6.14	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 30 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	PURGING INITIATED AT: 07:57	PURGING ENDED AT: 12:10	TOTAL VOLUME PURGED (gallons): 12.65

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:06	0.45	0.45	0.05	6.19	4.66	26.50	4936	0.62	21.40	Clear	-208.40	-
8:26	1.00	1.45	0.05	6.19	4.65	26.46	4899	0.18	27.30	Clear	-199.00	-
8:46	1.00	2.45	0.05	6.19	4.64	26.65	4917	0.12	38.30	Clear	-181.00	-
9:06	1.00	3.45	0.05	6.19	4.64	26.43	4908	0.10	25.40	Clear	-204.60	-
9:26	1.00	4.45	0.05	6.19	4.63	26.70	4928	0.09	29.60	Clear	-217.80	-
9:46	1.00	5.45	0.05	6.19	4.62	27.78	4915	0.18	21.80	Clear	-202.70	-
10:06	1.00	6.45	0.05	6.19	4.60	27.80	4951	0.10	27.80	Clear	-206.20	-
10:26	1.00	7.45	0.05	6.19	4.57	26.21	4956	0.10	22.00	Clear	-227.30	-
10:46	1.00	8.45	0.05	6.19	4.52	26.40	4966	0.09	14.40	Clear	-225.30	-
11:06	1.00	9.45	0.05	6.19	4.40	26.65	4969	0.08	10.40	Clear	-223.50	-
11:26	1.00	10.45	0.05	6.19	4.43	26.91	4974	0.14	8.39	Clear	-226.50	-
11:46	1.00	11.45	0.05	6.19	4.42	26.80	4968	0.08	6.78	Clear	-228.70	-
12:06	1.00	12.45	0.05	6.19	4.42	26.88	4961	0.08	4.98	Clear	-229.20	-
12:08	0.10	12.55	0.05	6.19	4.42	26.98	4956	0.08	4.82	Clear	-229.60	-
12:10	0.10	12.65	0.05	6.19	4.42	26.91	4958	0.07	4.74	Clear	-230.20	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth	12:10	12:11

PUMP OR TUBING DEPTH IN WELL (feet): 23.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-11-20240724	1	PP	250 mL	Ice	--	4.42	Alkalinity	APP	189
CCR-11-20240724	1	PP	250 mL	Ice	--	4.42	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	189
CCR-11-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
CCR-11-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
CCR-11-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-12	SAMPLE ID:	CCR-12-20240723	DATE: 2024-07-23

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.6 to 28.6 feet BTOC	STATIC DEPTH TO WATER (feet): 5.92	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 30 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	PURGING INITIATED AT: 14:19	PURGING ENDED AT: 15:17	TOTAL VOLUME PURGED (gallons): 1.74

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
14:33	0.42	0.42	0.03	6.13	6.74	28.66	1635	0.18	13.00	Clear	-153.60	-
14:43	0.3	0.72	0.03	6.13	6.73	28.97	1731	0.08	7.85	Clear	-186.10	-
14:53	0.3	1.02	0.03	6.13	6.73	29.82	1758	0.08	10.00	Clear	-177.30	-
15:13	0.6	1.62	0.03	6.13	6.73	28.23	1738	0.05	3.02	Clear	-192.40	-
15:15	0.06	1.68	0.03	6.13	6.73	28.30	1739	0.05	2.14	Clear	-194.40	-
15:17	0.06	1.74	0.03	6.13	6.73	28.35	1748	0.04	2.66	Clear	-195.70	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	15:17	15:33

PUMP OR TUBING DEPTH IN WELL (feet): 23.6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-12-20240723	1	PP	250 mL	Ice	--	6.73	Alkalinity	APP	114
CCR-12-20240723	1	PP	250 mL	Ice	--	6.73	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	114
CCR-12-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	114
CCR-12-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	114
CCR-12-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	114

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-13	SAMPLE ID:	CCR-13-20240723	DATE: 2024-07-23

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.6 to 28.6 feet BTOC	STATIC DEPTH TO WATER (feet): 6.02	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 30 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	PURGING INITIATED AT: 10:31	PURGING ENDED AT: 10:43	TOTAL VOLUME PURGED (gallons): 0.72

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
10:39	0.48	0.48	0.06	6.11	5.94	27.52	1589	0.16	2.15	Clear	-137.60	-
10:41	0.12	0.60	0.06	6.11	5.93	27.47	1587	0.12	2.17	Clear	-139.20	-
10:43	0.12	0.72	0.06	6.11	5.92	27.50	1588	0.09	1.46	Clear	-141.70	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	10:43	10:51

PUMP OR TUBING DEPTH IN WELL (feet): 23.6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-13-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-13-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-13-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227
CCR-13-20240723	1	PP	250 mL	Ice	--	5.92	Cl-/TDS/SO4/F	APP	227

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-15	SAMPLE ID:	CCR-15-20240722	DATE: 2024-07-22

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.5 to 28.5 feet BTOC	STATIC DEPTH TO WATER (feet): 16.49	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.5	PURGING INITIATED AT: 08:24	PURGING ENDED AT: 09:03	TOTAL VOLUME PURGED (gallons): 2.34

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:32	0.48	0.48	0.06	16.52	4.28	26.71	124	0.41	15.70	Clear	270.70	-
8:34	0.12	0.60	0.06	16.52	4.21	26.66	120	0.35	15.10	Clear	255.00	-
8:44	0.60	1.20	0.06	16.52	4.20	26.75	109	0.20	9.13	Clear	108.00	-
8:49	0.30	1.50	0.06	16.52	4.20	26.81	108	0.17	6.82	Clear	81.80	-
8:54	0.30	1.80	0.06	16.52	4.21	26.84	107	0.14	5.59	Clear	67.40	-
8:59	0.30	2.10	0.06	16.52	4.21	26.86	107	0.15	4.28	Clear	63.10	-
9:01	0.12	2.22	0.06	16.52	4.21	26.83	106	0.15	4.30	Clear	60.00	-
9:03	0.12	2.34	0.06	16.52	4.21	26.85	107	0.14	4.02	Clear	59.00	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	09:03	09:15

PUMP OR TUBING DEPTH IN WELL (feet): 23.5	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-15-20240722	1	PP	250 mL	Ice	--	4.21	Alkalinity	APP	227
CCR-15-20240722	1	PP	250 mL	Ice	--	4.21	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	227
CCR-15-20240722	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-15-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-15-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)
SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-16	SAMPLE ID:	CCR-16-20240722	DATE:	2024-07-22

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	18.5 to 28.5 feet BTOC	14.72	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.5	23.5	09:50	10:02	0.72

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
9:58	0.48	0.48	0.06	14.76	4.06	27.31	11222	0.09	1.26	Clear	47.30	-
10:00	0.12	0.60	0.06	14.76	4.06	27.28	11251	0.08	0.61	Clear	44.50	-
10:02	0.12	0.72	0.06	14.76	4.06	27.20	11279	0.10	3.44	Clear	46.90	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth	10:02	10:15

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.5	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-16-20240722	1	PP	250 mL	Ice	--	4.06	Alkalinity	APP	227
CCR-16-20240722	1	PP	250 mL	Ice	--	4.06	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	227
CCR-16-20240722	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-16-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-16-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1 The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL	
WELL NO:	CCR-17	SAMPLE ID:	CCR-17-20240722	DATE: 2024-07-22

PURGING DATA

WELL DIAMETER (inches): 2'	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 18.6 to 28.6 feet BTOC	STATIC DEPTH TO WATER (feet): 13.03	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 30 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 23.6	PURGING INITIATED AT: 10:32	PURGING ENDED AT: 10:44	TOTAL VOLUME PURGED (gallons): 0.72

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
10:40	0.48	0.48	0.06	13.06	6.58	28.73	961	0.19	3.06	Clear	-89.10	-
10:42	0.12	0.60	0.06	13.06	6.58	28.67	940	0.14	2.05	Clear	-91.10	-
10:44	0.12	0.72	0.06	13.06	6.59	28.61	932	0.13	1.09	Clear	-92.50	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	10:44	10:55

PUMP OR TUBING DEPTH IN WELL (feet): 23.6	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-17-20240722	1	PP	250 mL	Ice	--	6.59	Alkalinity	APP	227
CCR-17-20240722	1	PP	250 mL	Ice	--	6.59	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	227
CCR-17-20240722	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-17-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-17-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1 The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-18	SAMPLE ID:	CCR-18-20240724	DATE:	2024-07-24

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	3/16"	18.5 to 28.5 feet BTOC	6.04	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 74 feet)+ 0.1 gallons = 0.20

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.5	23.5	10:39	10:59	2.09

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
10:52	1.43	1.43	0.11	6.11	6.56	30.75	547	0.25	0.77	Clear	-175.50	-
10:55	0.33	1.76	0.11	6.11	6.57	30.83	545	0.19	0.98	Clear	-172.30	-
10:58	0.33	2.09	0.11	6.11	6.52	30.93	542	0.14	0.80	Clear	-172.70	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	11:00	11:08

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.5	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-18-20240724	1	PP	250 mL	Ice	--	6.52	Alkalinity	APP	425
CCR-18-20240724	1	PP	250 mL	Ice	--	6.52	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	425
CCR-18-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	425
CCR-18-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	425
CCR-18-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	425

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-19	SAMPLE ID:	CCR-19-20240724	DATE:	2024-07-24

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	3/16"	18.5 to 28.5 feet BTOC	4.61	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 26 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.5	23.5	09:33	09:52	1.52

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
9:43	0.80	0.80	0.08	4.64	4.89	26.71	3657	0.57	1.78	Clear	-187.90	-
9:46	0.24	1.04	0.08	4.64	4.87	26.56	3788	0.42	1.39	Clear	-186.30	-
9:49	0.24	1.28	0.08	4.64	4.87	26.54	3822	0.41	0.74	Clear	-188.90	-
9:52	0.24	1.52	0.08	4.64	4.88	26.45	3830	0.35	0.80	Clear	-193.70	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	09:53	10:00

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.5	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-19-20240724	1	PP	250 mL	Ice	--	4.88	Alkalinity	APP	300
CCR-19-20240724	1	PP	250 mL	Ice	--	4.88	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	300
CCR-19-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	300
CCR-19-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	300
CCR-19-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	300

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1 The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-20	SAMPLE ID:	CCR-20-20240724	DATE:	2024-07-24

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	3/16"	18.2 to 28.2 feet BTOC	5.36	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 25 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.2	23.2	08:05	08:50	3.15

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:44	2.73	2.73	0.07	5.40	5.16	26.07	4173	0.37	4.78	Clear	-228.40	-
8:47	0.21	2.94	0.07	5.40	5.16	26.07	4183	0.37	3.93	Clear	-220.80	-
8:50	0.21	3.15	0.07	5.41	5.16	26.06	4204	0.36	4.06	Clear	-220.10	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	08:52	09:00

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.2	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-20-20240724	1	PP	250 mL	Ice	--	5.16	Alkalinity	APP	250
CCR-20-20240724	1	PP	250 mL	Ice	--	5.16	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	250
CCR-20-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	250
CCR-20-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	250
CCR-20-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	250

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-21	SAMPLE ID:	CCR-21-20240724	DATE:	2024-07-24

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	3/16"	18.5 to 28.5 feet BTOC	6.93	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 26 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.5	23.5	13:27	14:00	2.24

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
13:53	1.82	1.82	0.07	6.98	6.52	27.44	2298	0.39	0.90	Clear	-16.30	-
13:56	0.21	2.03	0.07	6.98	6.45	27.42	2297	0.31	0.52	Clear	-17.70	-
13:59	0.21	2.24	0.07	6.98	6.45	27.36	2299	0.31	0.44	Clear	-18.90	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	14:01	14:09

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.5	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-21-20240724	1	PP	250 mL	Ice	--	6.45	Alkalinity	APP	250
CCR-21-20240724	1	PP	250 mL	Ice	--	6.45	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	250
CCR-21-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	250
CCR-21-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	250
CCR-21-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	250

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	CCR-22	SAMPLE ID:	CCR-22-20240724	DATE:	2024-07-24

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2"	3/16"	18.6 to 28.6 feet BTOC	7.00	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 26 feet)+ 0.1 gallons = 0.14

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23.6	23.6	14:28	14:50	1.26

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
14:40	0.72	0.72	0.06	7.03	4.91	28.20	2897	0.42	1.90	Clear	-95.20	-
14:43	0.18	0.90	0.06	7.03	4.87	28.04	2899	0.33	2.42	Clear	-94.90	-
14:46	0.18	1.08	0.06	7.03	4.86	27.94	2899	0.28	1.82	Clear	-94.40	-
14:49	0.18	1.26	0.06	7.03	4.84	27.94	2895	0.23	1.99	Clear	-97.40	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jacob Adam/Geosyntec	Jacob Adam	14:51	14:59

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23.6	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-22-20240724	1	PP	250 mL	Ice	--	4.84	Alkalinity	APP	230
CCR-22-20240724	1	PP	250 mL	Ice	--	4.84	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	230
CCR-22-20240724	1	PP	250 mL	HNO3	--	< 2	Hg	APP	230
CCR-22-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	230
CCR-22-20240724	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	230

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)
SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant			SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL
WELL NO:	CCR-23	SAMPLE ID:	CCR-23-20240723	DATE:	2024-07-23

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	15 to 25 feet BTOC	4.23	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 40 feet)+ 0.1 gallons = 0.16

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
20	20	11:36	12:29	3.18

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
11:45	0.54	0.54	0.06	4.43	5.25	29.10	1829	0.16	10.00	Clear	-172.60	-
11:55	0.60	1.14	0.06	4.43	5.25	28.76	1832	0.08	9.79	Clear	-177.10	-
12:05	0.60	1.74	0.06	4.43	5.25	28.68	1825	0.13	6.61	Clear	-185.70	-
12:15	0.60	2.34	0.06	4.43	5.25	28.84	1835	0.11	5.47	Clear	-185.40	-
12:25	0.60	2.94	0.06	4.43	5.25	29.12	1845	0.11	4.99	Clear	-187.50	-
12:27	0.12	3.06	0.06	4.43	5.26	29.07	1849	0.10	4.75	Clear	-187.20	-
12:29	0.12	3.18	0.06	4.43	5.26	29.04	1850	0.10	3.69	Clear	-186.90	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	*Olivia Hollingsworth*	12:29	12:38

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
20	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
CCR-23-20240723	1	PP	250 mL	Ice	--	5.26	Alkalinity	APP	227
CCR-23-20240723	1	PP	250 mL	Ice	--	5.26	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	227
CCR-23-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	227
CCR-23-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	227
CCR-23-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	227

REMARKS:

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)
SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1 The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	SW-106	SAMPLE ID:	SW-106-20240723	DATE:	2024-07-23

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2'	3/16"	18.4 to 28.4 feet	13.06	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
=(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0014 gallons/foot x 35 feet)+ 0.1 gallons = 0.15

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
23	23	10:56	11:30	1.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
11:06	0.50	0.50	0.05	13.14	5.48	25.50	132	0.75	11.10	Clear	-13.70	-
11:16	0.50	1.00	0.05	13.14	5.52	25.46	133	0.50	6.26	Clear	-10.30	-
11:26	0.50	1.50	0.05	13.14	5.33	25.50	133	0.44	4.70	Clear	-4.30	-
11:28	0.10	1.60	0.05	13.14	5.32	25.51	133	0.42	4.66	Clear	-4.20	-
11:30	0.10	1.70	0.05	13.14	5.34	25.48	133	0.42	4.71	Clear	-5.50	-

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Rik Mathias/Geosyntec	Rik Mathias	11:31	11:34

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
23	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
SW-106-20240723	1	PP	250 mL	Ice	--	5.34	Alkalinity	APP	189
SW-106-20240723	1	PP	250 mL	Ice	--	5.34	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	189
SW-106-20240723	1	PP	250 mL	HNO3	--	< 2	Hg	APP	189
SW-106-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	189
SW-106-20240723	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	189

REMARKS: Turbidity started at 11.1 ntu, purged a little extra to clear below 5 ntu;

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)
SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	Fishlake	SAMPLE ID:	Fishlake-20240719	DATE:	2024-07-19

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
N/A	N/A	N/A	129.8 NAVD88	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) N/A =(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = N/A gallons + (N/A gallons/foot x N/A feet)+ N/A gallons = N/A

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
N/A	N/A	10:56	10:57	N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
10:56	N/A	0.00	N/A	N/A	7.55	32.02	952	5.50	12.50	Clear	61.70	N/A

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth	10:57	11:04

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
N/A	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
Fishlake-20240719	1	PP	250 mL	Ice	--	7.55	Alkalinity	APP	200
Fishlake-20240719	1	PP	250 mL	Ice	--	7.55	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	200
Fishlake-20240719	1	PP	250 mL	HNO3	--	< 2	Hg	APP	200
Fishlake-20240719	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	200
Fishlake-20240719	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	200

REMARKS: Surface Water Sample

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	LakeD	SAMPLE ID:	LakeD-20240719	DATE:	2024-07-19

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: N/A	STATIC DEPTH TO WATER(feet):116.73 NAVD88	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) N/A =(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = N/A gallons + (N/A gallons/foot x N/A feet)+ N/A gallons = N/A

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: 08:51	PURGING ENDED AT: 08:52	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
8:51	N/A	0.00	N/A	116.73	6.43	28.39	629	2.76	9.93	Clear yellow	-112.40	N/A

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth	08:52	09:01

PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	N/A µm

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
LakeD-20240719	1	PP	250 mL	Ice	--	6.43	Alkalinity	APP	200
LakeD-20240719	1	PP	250 mL	Ice	--	6.43	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	200
LakeD-20240719	1	PP	250 mL	HNO3	--	< 2	Hg	APP	200
LakeD-20240719	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	200
LakeD-20240719	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	200

REMARKS: Surface water sample.

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Lakeland Electric – C.D. McIntosh Power Plant	SITE LOCATION:	3030 E Lake Parker Dr, Lakeland FL		
WELL NO:	FieldQC	SAMPLE ID:	EB-1-20240722	DATE:	2024-07-22

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
N/A	N/A	N/A	N/A	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) N/A =(N/A ft - N/A ft) x N/A gallons/foot = N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) N/A = N/A gallons + (N/A gallons/foot x N/A feet)+ N/A gallons = N/A

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
N/A	N/A	N/A	N/A	N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (uS/cm)	OXYGEN (mg/l)	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)	NOTES:
9:25	N/A	N/A	N/A	N/A	5.82	28.49	7	5.00	0.69	Clear	187.80	N/A

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Olivia Hollingsworth/Geosyntec	Olivia Hollingsworth	09:25	09:33

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: N Filtration Equipment Type:	FILTER SIZE: N/A	µm
N/A	HDPE		N/A	

FIELD DECONTAMINATION: PUMP N TUBING N DUPLICATE: N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per min)
EB-1-20240722	1	PP	250 mL	Ice	--	6.43	Alkalinity	APP	200
EB-1-20240722	1	PP	250 mL	Ice	--	6.43	B, Ca, Cl-, F-, SO4, TDS, Bicarbonate, Alkalinity	APP	200
EB-1-20240722	1	PP	250 mL	HNO3	--	< 2	Hg	APP	200
EB-1-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6010)	APP	200
EB-1-20240722	1	PP	250 mL	HNO3	--	< 2	Metals (6020)	APP	200

REMARKS: All regular default analyses for Lakeland electric CCR Wells. CCR-15 sampled prior. CCR-16 sampled after

MATERIAL CODES: AG = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1 **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2 STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: + 0.2 units **Temperature:** + 0.2 oC **Specific Conductance:** + 5% **Dissolved Oxygen:** all readings < 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Geosyntec Consultants

Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715G/01.52/13 Field Personnel: Jacob Adam

Water Quality Meter - Model/Serial #: YSI556/14A100106 Turbid Meter - Model/Serial #: HACH2100Q / 215532

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3 mg/L		
CAL (ICV) CCV		7/17/24	0752	27.0	7.35	7.21	90.4	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		7/17/24	0757	1413	HG10036	04/25	1418	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/- 0.2 SU		
CAL (ICV) CCV		7/17/24	0759	4.00	HG10036	04/26	3.99	(P) F
CAL (ICV) CCV		"	0802	7.00	HG[illegible]526	03/26	6.98	(P) F
CAL (ICV) CCV		"	0806	10.00	HGL0100	3/26	9.94	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		7/17/24	0812	240.0	HGD1116	01/25	231.7	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes (No) Dissolved Oxygen Membrane Changed? Yes (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%	
CAL (ICV) CCV	7/17/24	10.1	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%	
CAL (ICV) CCV	7/17/24	20.3	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%	
CAL (ICV) CCV	7/17/24	99.1	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%	
CAL (ICV) CCV	7/17/24	801	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 1200-3 on the back of this form
CAL - Initial Calibration
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification
Allow adequate time for the dissolved oxygen sensor to equilibrate during calibration
Calibrate specific conductance using at least two standards that bracket the range of expected surface readings (unless reading <0.1 mS/cm is acceptable)
Calibrate pH using at least two standards (typ. pH 4 and 7) that bracket the range of expected surface readings. Always start with pH 7, add a third calibration point if needed (i.e. pH 4, 7, 10)
If parameter fails to calibrate within SOP acceptance criteria then append sample results with a "J" qualifier

Comments: _____

Geosyntec consultants

Field Revisions

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Geosyntec Consultants

Water Quality Instrument Calibration Form

Project/Site: LAKELAND ELECTRIC Project #: FR3715G/01/02/12 Field Personnel: RIK MATHIAS

Water Quality Meter - Model/Serial #: YSI 556 14A100616 Turbidimeter Model/Serial#: HACH 2100 Q 23010D000774

Dissolved Oxygen DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria: +/-0.3 mg/L		
CAL [ICV] CCV	7-18-24	0720	25.33	8.218	8.21	100.0	[P] F
CAL ICV [CCV]	7-19-24	0705	24.33	8.371	8.38	100.1	[P] F
CAL ICV [CCV]	7-22-24	0715	27.38	7.926	7.91	99.9	[P] F
CAL ICV [CCV]	7-23-24	0710	27.53	7.898	7.90	100.0	[P] F

Specific Conductance DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
					Acceptance Criteria: +/- 5%		
CAL [ICV] CCV	7-18-24	0725	1.413	4GB0036	04/25	1413	[P] F
CAL ICV [CCV]	7-19-24	0710	"	"	"	1419	[P] F
CAL ICV [CCV]	7-22-24	0720	"	"	"	1413	[P] F
CAL ICV [CCV]	7-23-24	0715	"	"	"	1420	[P] F
CAL ICV CCV							P F
CAL ICV CCV							P F

pH DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
					Acceptance Criteria: +/- 0.2 SU		
CAL [ICV] CCV	7-18-24	0730	7.00	4GC0526	03/26	7.00	[P] F
CAL [ICV] CCV	|	0735	4.00	4GD0076	04/26	4.01	[P] F
CAL [ICV] CCV	|	0740	10.00	4GC0600	03/26	9.99	[P] F
CAL ICV [CCV]	7-19-24	0715	7.00	4GC0526	3/26	6.97	[P] F
CAL ICV [CCV]	7-22-24	0725	7.00	4GC0526	3/26	7.00	[P] F
CAL ICV [CCV]	7-23-24	0720	7.00	4GC0526	3/26	7.03	[P] F

ORP SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
					Geosyntec Acceptance Criteria: +/- 5%		
CAL [ICV] CCV	7-18-24	0745	240.0	4GD1716	01/25	240.0	[P] F
CAL ICV [CCV]	7-19-24	0720	"	"	"	240.3	[P] F
CAL ICV [CCV]	7-22-24	0730	"	"	"	240.0	[P] F
CAL ICV [CCV]	7-23-24	0725	"	"	"	239.8	[P] F

Specific Conductance Probe Cleaned? Yes [No] Dissolved Oxygen Membrane Changed? Yes [No]

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
CAL [ICV] CCV	7-18-24	9.94	[P] F
CAL ICV [CCV]	7-19-24	9.98	[P] F
CAL ICV [CCV]	7-22-24	10.1	[P] F
CAL ICV [CCV]	7-23-24		P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
CAL [ICV] CCV	7-18-24	19.9	[P] F
CAL ICV [CCV]	7-19-24	20	[P] F
CAL ICV [CCV]	7-22-24	19.9	[P] F
CAL ICV [CCV]	7-23-24		P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
CAL [ICV] CCV	7-18-24	99.8	[P] F
CAL ICV [CCV]	7-19-24	99.7	[P] F
CAL ICV [CCV]	7-22-24	99.4	[P] F
CAL ICV [CCV]	7-23-24		P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
CAL [ICV] CCV	7.18.24	810	[P] F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during calibration

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings [illegible]

Calibrate pH using at least two standards (e.g. pH 4 and 7) that bracket the range of expected sample readings [illegible]

If a parameter fails to calibrate within SOP acceptance criteria then [illegible]

Comments:

Geosyntec consultants

Field Readiness

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715E/01/02/12 Field Personnel: Jacob Alam, Rik Mathias

Water Quality Meter - Model/Serial#: YSI 556 / 14A100106 Turbidimeter - Model/Serial#: HACH 2100 / 216533

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3 mg/L		
ICV		7/24/24	0702	25.03	8.63	8.62	104.6	P
CCV		7-25-24	0725	28.37	7.784	7.89	101.7	P
CCV		"	1400	32.05	—	7.23	101.2	P
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
ICV		7/24/24	0706	1413	4910036	04/25	1410	P
CCV		7-25-24	0730	"	"	"	1415	P
CCV		"	1454	"	"	"	1413	P
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/-0.2 SU		
ICV		7/24/24	0710	4.00	4GD0076	04/26	4.15	P
ICV		"	0713	7.00	4GC0526	03/26	7.12	P
ICV		"	0716	10.00	4EC0100	05/26	10.14	P
CCV		7-26-24	0735	7.00	4GC0526	03/26	7.06	P
CCV		"	1458	7.00	4GC0526	03/26	7.04	P
CAL ICV CCV								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
ICV		7/24/24	0719	240	4GB1116	01/25	242.7	P
CCV		7-25-24	0739	"	"	"	237.5	P
CCV		"	1504	"	"	"	239.1	P
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes **No** (circled) Dissolved Oxygen Membrane Changed? Yes **No** (circled)

0 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
ICV	7/24/24	9.72	P F
CCV	7-25-24	10.1	P
CCV	"	10	P
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
ICV	7/24/24	20.5	P
CCV	7-25-24	20.2	P
CCV	"	20.2	P
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
ICV	7/24/24	98.9	P
CCV	7-25-24	100	P
CCV	"	102	P
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
ICV	7/24/24	800	P
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form.

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Comments:

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration.

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings, unless readings < 1 mS/cm is acceptable.

Calibrate pH using at least two standards (e.g. pH 4 and 7) that bracket the range of expected sample readings; always start with pH 7, add a third calibration point if needed (i.e. pH 10).

If parameter fails to calibrate within SOP acceptance criteria then assess sample results with a "J" qualifier.

Geosyntec Consultants

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000, FT 1500, FD 1000-FD 4000)

Geosyntec Consultants

Water Quality Instrument Calibration Form

* 22090D000115

Project/Site: Lakeland Electric   Project #: FR3715G/01/02/12   Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial#: YSI 550 / 12D100439   Turbidimeter - Model/Serial#: HACH 2100Q / 21*30D001064

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3 mg/L		
CAL (ICV) CCV		7/17/24	0842	29.01	7.69	7.69	100.1	(P) F
CAL ICV (CCV)		7/18/24	0725	26.94	7.97	7.97	99.4	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

0.1 - 10 NTU Std 1 NTU	Date	Reading (NTU)	Pass or Fail
Acceptance Criteria: +/- 10%			
CAL (ICV) CCV	7/17/24	10.6	(P) F
(CAL) ICV CCV	"	9.40	(P) F
CAL ICV (CCV)	7/18/24	10.4	(P) F
CAL ICV CCV			P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		7/17/24	0848	1.413	4GC1194	~~15/03/25~~	1.413	(P) F
CAL ICV (CCV)		7/18/24	0730	"	"	"	1.413	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
Acceptance Criteria: +/- 8%			
CAL (ICV) CCV	7/17/24	21.3	(P) F
(CAL) ICV CCV	"	20.3	(P) F
CAL ICV (CCV)	7/18/24	20.7	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/- 0.2 SU		
CAL (ICV) CCV		7/17/24	0851	4.00	4GD0076	4/26	4.00	(P) F
CAL ICV (CCV)		7/18/24	0736	"	"	"	4.00	(P) F
CAL (ICV) CCV		7/17/24	0855	7.00	4GA0071	1/26	7.00	(P) F
CAL ICV (CCV)		7/18/24	0740	"	"	"	7.00	(P) F
CAL (ICV) CCV		7/17/24	0902	10.00	4GC0000	3/26	9.99	(P) F
CAL ICV (CCV)		7/18/24	0744	"	"	"	9.97	(P) F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
Acceptance Criteria: +/- 6.5%			
CAL (ICV) CCV	7/17/24	101	(P) F
(CAL) ICV CCV	"	101	(P) F
CAL ICV (CCV)	7/18/24	106	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL (ICV) CCV		7/17/24	0905	240@28	4GD716	1/25	240.0	(P) F
CAL ICV (CCV)		7/18/24	0749	"	"	"	240.0	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
Acceptance Criteria: +/- 5%			
CAL (ICV) CCV	7/17/24	795	(P) F
(CAL) ICV CCV	"	795	(P) F
CAL ICV (CCV)	7/18/24	832	(P) F
CAL ICV CCV			P F

Specific Conductance Probe Cleaned? Yes (No)   Dissolved Oxygen Membrane Changed? Yes (No)

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during air calibration.

Calibrate specific conductance using at least two standards that bracket the range of expected sample readings. [illegible]

Calibrate pH using at least two standards [illegible]

If parameter fails to calibrate within the SOP acceptance criteria then qualify sample results with a "J" qualifier.

Comments: *Switched turbidimeter after 1st one malfunctioned on 7/17/24

Geosyntec[®] consultants

* Required

Form FD9000-6 CALIBRATION LOG (FDEP SOP FT 1000 FT 1500, FD 1000-FD 4000)

Geosyntec Consultants

Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715G/01/02/12 Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial#: YSI 556/12H 05409 Turbid meter - Model/Serial#: Hach 2100Q / 22070D000015

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3 mg/L		
CAL ICV (CCV)		7/19/24	0728	26.42	8.05	9.01	99.5	(P) F
CAL ICV (CCV)		7/22/24	0741	19.35	8.92	8.93	100.1	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL ICV (CCV)		7/19/24	0732	1.413	4GC144	3/25	1.418	(P) F
CAL ICV (CCV)		7/22/24	0747	"	"	"	1.411	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/- 0.2 SU		
CAL ICV (CCV)		7/19/24	0736	4.0	4GD076	4/26	4.00	(P) F
CAL ICV (CCV)		7/22/24	0751	"	"	"	4.00	(P) F
CAL ICV (CCV)		7/19/24	0740	7.0	4GA0071	1/26	7.00	(P) F
CAL ICV (CCV)		7/22/24	0755	"	"	"	7.00	(P) F
CAL ICV (CCV)		7/19/24	0745	10.0	4GC0620	3/26	10.00	(P) F
CAL ICV (CCV)		7/22/24	0800	"	"	"	10.00	(P) F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL ICV (CCV)		7/19/24	0747	240 @ 25°	4GD1716	1/25	240.1	(P) F
CAL ICV (CCV)		7/22/24	0804	"	"	"	238.9	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes (No) Dissolved Oxygen Membrane Changed? Yes (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
CAL ICV (CCV)	7/19/24	10.7	(P) F
CAL ICV (CCV)	7/22/24	10.4	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
CAL ICV (CCV)	7/19/24	21.4	(P) F
CAL ICV (CCV)	7/22/24	19.4	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
CAL ICV (CCV)	7/19/24	98.7	(P) F
CAL ICV CCV	7/22/24	95.7	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
CAL (ICV) (CCV)	7/19/24	803	(P) F
CAL ICV CCV	7/22/24	798	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Comments:

[illegible]

Geosyntec consultants

Field Readiness

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Geosyntec Consultants
Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric   Project #: FR3735G/01/02/12   Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial#: YSI 556 / 17H20439   Turbidimeter - Model/Serial#: Hach 2100Q / 22070D000115

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)[1]	Reading (mg/L)	Reading (%)	Pass or Fail
					Acceptance Criteria: +/-0.3 mg/L			
CAL ICV (CCV)		7/23/24	0920	19.20	7.8	7.90	100.0	(P) F
CAL ICV (CCV)		7/24/24	0719	26.30	8.07	8.10	99.9	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
					Acceptance Criteria: +/- 5%			
CAL ICV (CCV)		7/23/24	0710	1.413	4GC1194	3/25	1.413	(P) F
CAL ICV (CCV)		7/24/24	0723	"	"	"	1.413	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
					Acceptance Criteria: +/- 0.2 SU			
CAL ICV (CCV)		7/23/24	0744	4.00	4GD0516	4/26	4.00	(P) F
CAL ICV (CCV)		7/24/24	0720	"	"	"	4.00	(P) F
CAL ICV (CCV)		7/23/24	0747	7.00	4GA0071	1/26	7.00	(P) F
CAL ICV (CCV)		7/24/24	0730	"	"	"	7.00	(P) F
CAL ICV (CCV)		7/23/24	0750	10.00	4GC0500	3/26	10.00	(P) F
CAL ICV (CCV)		7/24/24	0735	"	"	"	9.99	(P) F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
					Geosyntec Acceptance Criteria: +/- 5%			
CAL ICV (CCV)		7/23/24	0754	240@25°C	LGFRC	1/25	240	(P) F
CAL ICV (CCV)		7/24/24	0739	"	"	"	240	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes / (No)   Dissolved Oxygen Membrane Changed? Yes / (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 10%		
CAL ICV (CCV)	7/23/24	10.4	(P) F
CAL ICV (CCV)	7/24/24	10.2	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 8%		
CAL ICV (CCV)	7/23/24	20.6	(P) F
CAL ICV (CCV)	7/24/24	21.0	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 6.5%		
CAL ICV (CCV)	7/23/24	98.2	P F
CAL ICV (CCV)	7/24/24	98.0	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
	Acceptance Criteria: +/- 5%		
(CAL) ICV (CCV)	7/23/24	785	(P) F
CAL ICV (CCV)	7/24/24	788	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F

1: See Table FS 2200-1 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

Allow adequate time for the dissolved oxygen sensor to equilibrate during all calibration

Calibrate specific conductance using at least two standards that bracket the range of expected sample field [illegible]

Calibrate pH using at least two standards [illegible]

If parameter fails to calibrate within SOP acceptance criteria then append all [illegible] results [illegible]

Comments:

Geosyntec consultants

Field Readiness

Form FD9000-8 CALIBRATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Geosyntec Consultants

Water Quality Instrument Calibration Form

Project/Site: Lakeland Electric Project #: FR3715G/01/02/12 Field Personnel: Olivia Hollingsworth

Water Quality Meter - Model/Serial#: YSI 556 / 11H100439 Turbidimeter - Model/Serial#: H2CN71000/ 12[illegible]

Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L)	Reading (mg/L)	Reading (%)	Pass or Fail
						Acceptance Criteria: +/-0.3 mg/L		
CAL ICV CCV (CCV circled)		7/24/24	1226	18.5	7.76	7.57	98.0	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail
						Acceptance Criteria: +/- 5%		
CAL ICV CCV (CCV circled)		7/24/24	1229	1.413	4GL1984	3/25	1.415	(P) F
CAL ICV CCV (CCV circled)		~~7/24~~	~~1232~~					P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

pH	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail
						Acceptance Criteria: +/- 0.2 SU		
CAL ICV CCV (CCV circled)		7/24/24	1232	4.00	4GD0076	4/26	3.99	(P) F
CAL ICV CCV (CCV circled)		"	1235	7.00	4GM0071	1/[illegible]	6.91	(P) F
CAL ICV CCV (CCV circled)		"	1239	10.00	4GC0580	3/26	9.89	(P) F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail
						Geosyntec Acceptance Criteria: +/- 5%		
CAL ICV CCV (CCV circled)		7/24/24	1242	240@25	4GD1716	1/25	232.3	P F
CAL ICV CCV								P F
CAL ICV CCV								P F
CAL ICV CCV								P F

Specific Conductance Probe Cleaned? Yes (No) Dissolved Oxygen Membrane Changed? Yes (No)

0.1 - 10 NTU Std 10 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 10%	
CAL ICV CCV (CCV circled)	7/24/24	10.0	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

11 - 40 NTU Std 20 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 8%	
CAL ICV CCV (CCV circled)	7/24/24	19.9	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

41 - 100 NTU Std 100 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 6.5%	
CAL ICV CCV (CCV circled)	7/24/24	94.0	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

>100 NTU Std 800 NTU	Date	Reading (NTU)	Pass or Fail
		Acceptance Criteria: +/- 5%	
CAL ICV CCV (CCV circled)	7/24/24	776	(P) F
CAL ICV CCV			P F
CAL ICV CCV			P F
CAL ICV CCV			P F

1. See Table FS 2200-2 on the back of this form

CAL - Initial Calibration

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

[illegible]

Comments: ______

Geosyntec consultants

Field Readiness

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3225 South 116th St
Building 1 Suite 181
Tukwila, WA 98168
425-285-9102

Pine Environmental Services, Inc.

Instrument ID 216532
Description HACH 2100Q Turbidity meter
Calibrated 7/9/2024 2:56:48PM

Manufacturer	HACH	**State Certified**	NJ Cert#: 11034
Model Number	2100Q	**Status**	Pass
Serial Number/ Lot Number	23010D000774	**Temp °C**	28
Location	Seattle	**Humidity %**	32
Department			

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 10.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 : 10.00	NTU	10.00	NTU	9.22	10.00	0.00%	Pass
20.00 : 20.00	NTU	20.00	NTU	20.10	20.00	0.00%	Pass
100.00 : 100.00	NTU	100.00	NTU	105.00	100.00	0.00%	Pass
800.00 : 800.00	NTU	800.00	NTU	777.00	800.00	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Dzung Pham

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

9611 Coconut Palm Dr Ste 107
Tampa FL 33619
Direct: 813-620-4001

Pine Environmental Services, Inc.

Instrument ID	26639
Description	YSI 556
Calibrated	7/11/2024 10:32:15AM

Manufacturer	YSI	**State Certified**	
Model Number	556	**Status**	Pass
Serial Number/ Lot Number	15A100106	**Temp °C**	22
Location	Florida	**Humidity %**	57
Department			

Calibration Specifications

Group # 1 — **Group Name** PH — **Stated Accy** Per of Reading — **Range Acc %** 0.0500 — **Reading Acc %** 3.0000 — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.37	7.00	0.02%	Pass
4.00 / 4.00	PH	4.00	PH	4.30	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.10	10.00	0.00%	Pass

Group # 2 — **Group Name** Conductivity — **Stated Accy** Per of Reading — **Range Acc %** 0.0000 — **Reading Acc %** 3.0000 — **Plus/Minus** 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	mS/cm	1.413	mS/cm	1.424	1.413	0.00%	Pass

Group # 3 — **Group Name** Redox (ORP) — **Stated Accy** Per of Reading — **Range Acc %** 0.0000 — **Reading Acc %** 3.0000 — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	204.40	240.00	0.00%	Pass

Group # 4 — **Group Name** Dissolved Oxygen Sats — **Stated Accy** Per of Reading — **Range Acc %** 0.0000 — **Reading Acc %** 3.0000 — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.00	%	100.00	%	104.90	99.80	-0.20%	Pass

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1901 Crescent Palm Dr, Ste 107
Largo, FL 33619
Direct: 813-620-0001

Pine Environmental Services, Inc.

Instrument ID 20659
Description YSI 556
Calibrated 7/11/2024 10:42:15 AM

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date / Opened Date	Next Cal Date / Expiration Date
FL 1413	FL 1413 Conductivity Standard	AquaPhoenix Scientific	Code: 31986	Lot #: 4GD30036		4/30/2025
FL ORP 240MV	FL ORP Standard 240mV	AquaPhoenix Scientific	Code: 32001	Lot #: 4GD31716		8/31/2025
FL pH 10	FL pH 10 Buffer Solution	AquaPhoenix Scientific	Code: 32034	Lot #: 4HC00610		3/31/2026
FL pH 4	FL pH 4 Buffer Solution	AquaPhoenix Scientific	Code: 32017	Lot #: 4GD36076		4/30/2026
FL PH 7	FL pH 7 Buffer Solution	AquaPhoenix Scientific	Code: 32025	Lot #: 4HC05226		3/31/2026

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Evan McClanahan

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coconut Palm Dr. Ste 107
Tampa FL 33619
Direct: 813-620-1001

Pine Environmental Services, Inc.

Instrument ID 23003
Description YSI 556
Calibrated 7/12/2024 10:43:13AM

Manufacturer YSI
Model Number 556
Serial Number/ Lot Number 12L800439
Location Florida
Department

State Certified
Status Pass
Temp °C 22
Humidity % 59

Calibration Specifications

Group # 1
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 1.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev %	Pass/Fail
1.413 / 1.413	mS/cm	1.413	mS/cm	1.415	1.413	0.04%	Pass

Group # 2
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev %	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.25	7.00	0.05%	Pass
4.00 / 4.00	PH	4.00	PH	4.03	4.00	0.01%	Pass
10.00 / 10.00	PH	10.00	PH	9.94	10.00	0.05%	Pass

Group # 3
Group Name Dissolved Oxygen Sgain
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev %	Pass/Fail
100.0 / 100.0	%	100.0	%	106.9	99.9	-0.10%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev %	Pass/Fail
240.0 / 240.0	mv	240.0	mv	225.0	240.0	0.00%	Pass

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

3901 Coastal Palm Dr Ste 107
Tampa, FL 33619
Direct: 813-629-1001

Pine Environmental Services, Inc.

Instrument ID 23005
Description YSI 556
Calibrated 2/12/2024 10:43:13AM

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date / Opened Date	Next Cal Date / Expiration Date
FL 1413	FL 1413 Conductivity Standard	AquaPhoenix Scientific	Code: 31986	Lot #: 4H030056		4/30/2025
FL ORP 240MV	FL ORP Standard 240mV	AquaPhoenix Scientific	Code: 32002	Lot #: 4GD12316		1/31/2025
FL PH 10	FL pH 10 Buffer Solution	AquaPhoenix Scientific	Code: 32034	Lot #: 4GC06091		3/31/2026
FL PH 4	FL pH 4 Buffer Solution	AquaPhoenix Scientific	Code: 32017	Lot #: 4G180076		3/30/2024
FL PH 7	FL pH 7 Buffer Solution	AquaPhoenix Scientific	Code: 32025	Lot #: 4G180576		3/31/2026

Notes about the calibration

Calibration Result Calibration Successful
Who Calibrated Jason McClenahan

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Geosyntec consultants

180A Marketplace Blvd
Knoxville, TN 37922
PH 865.330.0037
www.geosyntec.com

Memorandum

Date: 25 September 2024

To: Thomas Johnston

From: Ashley Wilson

CC: K. Henderson

Subject: Stage 2A Data Validation - Level II Data Deliverable – Advanced Environmental Laboratories Work Orders #T2417072 and T2417511

SITE: Lakeland 2024 Semi Annual CCR Event

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-three groundwater samples and one equipment blank, collected 19 and 22-25 July 2024, as part of the site investigation activities for the Lakeland 2024 CCR semiannual sampling event.

The samples were analyzed at Advanced Environmental Laboratories, Inc., Tampa, Florida, for the following analytical tests:

- Metals by United States Environmental Protection Agency (USEPA) Methods 3010A/6010
- Metals by USEPA Methods 3010A/6020
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Alkalinity by SM 2320B
- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0

The samples were analyzed at Eurofins Orlando, Florida, for the following analytical test:

- Lithium by USEPA Methods 3005A/6010D

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives, with the following exception.

The non-detect result of fluoride for sample CCR-1 was R qualified as rejected due to the matrix spike (MS)/MS duplicate (MSD) recoveries being less than 35%.

The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS- 41.5-2012).

The following samples were analyzed and validated at a Stage 2A level in the data set:

Laboratory ID	Client ID
T2417511-001	CCR-1
T2417511-002	CCR-2
T2417511-003	CCR-4
T2417511-004	CCR-8
T2417511-005	CCR-13
T2417511-006	SW-106
T2417511-007	CCR-23
T2417511-008	CCR-12
T2417511-009	CCR-7
T2417511-010	CCR-20
T2417511-011	CCR-19
T2417511-012	CCR-18

Laboratory ID	Client ID
T2417511-013	CCR-5
T2417511-014	CCR-11
T2417511-015	CCR-21
T2417511-016	CCR-22
T2417511-017	CCR-6
T2417511-018	CCR-9
T2417072-001	FishLake
T2417072-002	Lake D
T2417072-003	EQB-1
T2417072-004	CCR-15
T2417072-005	CCR-16
T2417072-006	CCR-17

The laboratory reported results for the analytical method(s) requested for each sample on the chains of custody (COCs).

Incorrect error corrections were observed on the COCs instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The laboratory applied I flags to indicate the results were between the method detection limits (MDLs) and practical quantitation limits (PQLs). Therefore, these results were J qualified as estimated.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010 and USEPA methods 3010A/6020 and lithium by USEPA methods 3005A/6010D. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank Matrix
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches ICMj/4551, ICMj/4554, ICPt/4925, ICMj/4558 and ICPt/4940. One method blank was reported for lithium (batch 103946). The metals were not detected in the method blanks at or above the MDLs.

1.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed

(one per batch of 20 samples). Three sample set specific MS/MSD pairs were reported, using samples CCR-17, CCR-6 and CCR-1. One sample set specific MS/MSD pair was reported for lithium, using sample CCR-1. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. One LCS/LCS duplicate (LCSD) pair was reported for lithium. The recovery and RPD results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, EQB-1. It was noted the equipment blank was not analyzed for lithium. Metals were not detected in the equipment blank at or above the MDLs.

1.7 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.8 Electronic Data Deliverable Review

Results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20%. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank

⊗ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Sensitivity
✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches CVAt/2290, CVAt/2292 and CVAt/2296). Mercury was not detected in the method blanks at or above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported, using sample CCR-20. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exception.

T2417511: The recoveries of mercury in the MS/MSD pair using sample CCR-20 were low and outside of laboratory specified acceptance criteria. Therefore, the non-detect result for mercury in sample CCR-20 was UJ qualified as estimated less than the RL.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
CCR-20	Mercury	0.011	U	0.011	UJ	4

mg/L- milligram per liter
U-not detected at or above the MDL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, EQB-1. Mercury was not detected in the equipment blank at or above the MDL.

2.7 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.8 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by Standard method 2540C, alkalinity by Standard method 2320B, and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time and Preservation
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate

- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicates
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in this data set are considered usable for supporting project objectives, with the following exception. The non-detect result of fluoride for sample CCR-1 was R qualified as rejected due to the MS/MSD recoveries being less than 35%. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 99.6%.

The laboratory noted that due to low sample pH for samples CCR-15 and CCR-16, the alkalinity of samples CCR-15 and CCR-16 were not detected. No qualifications were applied to the data.

3.2 Holding Time & Preservation

The holding times for the wet chemistry parameters are listed below.

Analyte	Method	Holding Time
Anions (Chloride, Fluoride and Sulfate)	US EPA Method 300	28 days from collection to analysis
Alkalinity	SM 2320B	14 days from collection to analysis
TDS	SM 2540C	7 days from collection to analysis

The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported for TDS (batches WCAt/31860, WCAt/31928, WCAt/31972 and WCAt/32021), four method blanks were reported for alkalinity (batches WCAt/31818, WCAt/31922, WCAt/31923 and WCAt/32083), and seven method blanks were reported for anions (batches WCAt/32118, WCAt/32132, WCAt/32191, WCAt/32201, WCAt/32208, WCAt/32311 and WCAt/32372). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four sample set specific MS/MSD pairs were reported for anions,

using samples CCR-15, CCR-1, SW-106 and CCR-7. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

T2417072: The recoveries of chloride and sulfate in the MS/MSD pair using sample CCR-15 were high and outside of laboratory specified acceptance criteria. Therefore, the estimated concentration of chloride for sample CCR-15 was J qualified as estimated and sulfate concentration was J+ qualified as estimated with a high bias.

T2417511: The recoveries of fluoride, chloride and sulfate in the MS/MSD pair in using sample CCR-1 were less than 35% and outside of laboratory specified acceptance criteria. Therefore, the estimated concentration of chloride for sample CCR-1 was J qualified as estimated, the sulfate concentration was J- qualified as estimated with a low bias and the non-detect result for fluoride was R qualified as rejected.

T2417511: One or both recoveries of fluoride, chloride and sulfate in the MS/MSD pair using sample SW-106 were high and outside of laboratory specified acceptance criteria. Therefore, the estimated concentration of chloride in sample SW-106 was J qualified as estimated and the concentration of sulfate was J+ qualified as estimated with a high bias. Since fluoride was not detected in sample SW-106, no qualifications were applied to the fluoride data.

T2417511: The recoveries of fluoride, chloride and sulfate in the MS/MSD pair using sample CCR-7 were high and outside of laboratory specified acceptance criteria. In addition, the RPD of fluoride was outside laboratory specified acceptance criteria. Therefore, the estimated concentration of chloride in sample CCR-7 was J qualified as estimated. Since sulfate was detected at a concentration greater than four times the spiked concentration, and based on technical and professional judgement, no qualifications were applied.

MS/MSD pairs for TDS and alkalinity were not reported. Precision and accuracy were assessed using the sample/sample duplicate pairs listed in section 3.6 for TDS and alkalinity. No additional qualifications were applied to the data.

Seven additional batch MS/MSD were reported for anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
CCR-15	Chloride	3.5	I	3.5	J	4
CCR-15	Sulfate	28	NA	28	J+	4
CCR-1	Sulfate	69	NA	69	J-	4
CCR-1	Fluoride	0.40	U	0.40	R	4

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
CCR-1	Chloride	4.4	I	4.4	J	4
SW-106	Chloride	2.7	I	2.7	J	4
SW-106	Sulfate	33	NA	33	J+	4
CCR-7	Chloride	5.5	I	5.5	J	4

mg/L- milligram per liter
NA-not applicable
U-not detected at or above the MDL
I-the result is less than RL but greater than the MDL and the concentration is an approximate value

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported for TDS, four LCSs were reported for alkalinity, and seven LCSs were reported for anions. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicates

Three sample set specific laboratory duplicates were reported for alkalinity (using samples CCR-7, CCR-18 and CCR-9) and one sample set specific laboratory duplicate was reported for TDS (using sample CCR-4). All RPDs were within the laboratory specified acceptance criteria, with the following exception.

The RPD for total alkalinity for the laboratory duplicate using sample CCR-9 was high and outside of laboratory specified acceptance criteria. Therefore, the total alkalinity and bicarbonate alkalinity concentrations in sample CCR-9 were J qualified as estimated.

Three batch duplicates were reported for TDS, and one batch duplicate was also reported for alkalinity. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
CCR-9	Total Alkalinity	35	NA	35	J	12
CCR-9	Bicarbonate Alkalinity	35	NA	35	J	12

mg/L- milligram per liter
NA-not applicable

3.7 Equipment Blank

One equipment blank was collected with the sample set, EQB-1. The wet chemistry parameters were not detected in the equipment blank at or above the MDLs.

3.8 Sensitivity

The samples were reported to the MDLs for the anions and the RL for TDS. No elevated non-detect results were reported.

3.9 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result."

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample
RPD - Relative percent difference

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Workorder: 2024 Semi Annual (T2417072)

August 26, 2024

Thomas Johnston
Lakeland Electric
501 E Lemon St
Lakeland, FL 33801

RE: Workorder: T2417072 2024 Semi Annual

Dear Thomas Johnston:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday July 22, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Heidi Parker

Heidi Parker, Project Manager
HParker@aellab.com

Certificate of Analysis

NELAP Accredited E84589

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Workorder: 2024 Semi Annual (T2417072)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2417072001	FishLake	WA	EPA 300.0	07/19/2024 10:57	07/22/2024 15:38	3	NA
T2417072001	FishLake	WA	SM 2320B	07/19/2024 10:57	07/22/2024 15:38	2	NA
T2417072001	FishLake	WA	SM 2540 C	07/19/2024 10:57	07/22/2024 15:38	1	NA
T2417072001	FishLake	WA	SW-846 6010	07/19/2024 10:57	07/22/2024 15:38	8	NA
T2417072001	FishLake	WA	SW-846 6020	07/19/2024 10:57	07/22/2024 15:38	8	NA
T2417072001	FishLake	WA	SW-846 7470A	07/19/2024 10:57	07/22/2024 15:38	1	NA
T2417072002	Lake D	WA	EPA 300.0	07/19/2024 08:52	07/22/2024 15:38	3	NA
T2417072002	Lake D	WA	SM 2320B	07/19/2024 08:52	07/22/2024 15:38	2	NA
T2417072002	Lake D	WA	SM 2540 C	07/19/2024 08:52	07/22/2024 15:38	1	NA
T2417072002	Lake D	WA	SW-846 6010	07/19/2024 08:52	07/22/2024 15:38	8	NA
T2417072002	Lake D	WA	SW-846 6020	07/19/2024 08:52	07/22/2024 15:38	8	NA
T2417072002	Lake D	WA	SW-846 7470A	07/19/2024 08:52	07/22/2024 15:38	1	NA
T2417072003	EQB-1	WA	EPA 300.0	07/22/2024 09:25	07/22/2024 15:38	3	NA
T2417072003	EQB-1	WA	SM 2320B	07/22/2024 09:25	07/22/2024 15:38	2	NA
T2417072003	EQB-1	WA	SM 2540 C	07/22/2024 09:25	07/22/2024 15:38	1	NA
T2417072003	EQB-1	WA	SW-846 6010	07/22/2024 09:25	07/22/2024 15:38	8	NA
T2417072003	EQB-1	WA	SW-846 6020	07/22/2024 09:25	07/22/2024 15:38	8	NA
T2417072003	EQB-1	WA	SW-846 7470A	07/22/2024 09:25	07/22/2024 15:38	1	NA
T2417072004	CCR-15	WA	EPA 300.0	07/22/2024 09:03	07/22/2024 15:38	3	NA
T2417072004	CCR-15	WA	SM 2320B	07/22/2024 09:03	07/22/2024 15:38	2	NA
T2417072004	CCR-15	WA	SM 2540 C	07/22/2024 09:03	07/22/2024 15:38	1	NA
T2417072004	CCR-15	WA	SW-846 6010	07/22/2024 09:03	07/22/2024 15:38	8	NA
T2417072004	CCR-15	WA	SW-846 6020	07/22/2024 09:03	07/22/2024 15:38	8	NA
T2417072004	CCR-15	WA	SW-846 7470A	07/22/2024 09:03	07/22/2024 15:38	1	NA
T2417072005	CCR-16	WA	EPA 300.0	07/22/2024 10:02	07/22/2024 15:38	3	NA
T2417072005	CCR-16	WA	SM 2320B	07/22/2024 10:02	07/22/2024 15:38	2	NA
T2417072005	CCR-16	WA	SM 2540 C	07/22/2024 10:02	07/22/2024 15:38	1	NA
T2417072005	CCR-16	WA	SW-846 6010	07/22/2024 10:02	07/22/2024 15:38	8	NA
T2417072005	CCR-16	WA	SW-846 6020	07/22/2024 10:02	07/22/2024 15:38	8	NA
T2417072005	CCR-16	WA	SW-846 7470A	07/22/2024 10:02	07/22/2024 15:38	1	NA
T2417072006	CCR-17	WA	EPA 300.0	07/22/2024 10:44	07/22/2024 15:38	3	NA
T2417072006	CCR-17	WA	SM 2320B	07/22/2024 10:44	07/22/2024 15:38	2	NA
T2417072006	CCR-17	WA	SM 2540 C	07/22/2024 10:44	07/22/2024 15:38	1	NA
T2417072006	CCR-17	WA	SW-846 6010	07/22/2024 10:44	07/22/2024 15:38	8	NA
T2417072006	CCR-17	WA	SW-846 6020	07/22/2024 10:44	07/22/2024 15:38	8	NA

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Workorder: 2024 Semi Annual (T2417072)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2417072006	CCR-17	WA	SW-846 7470A	07/22/2024 10:44	07/22/2024 15:38	1	NA

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Workorder: 2024 Semi Annual (T2417072)

Workorder Summary

Batch Comments

CVAt/2290 - HG Analysis,CVAA,Aqueous

The matrix spike (MS) and matrix spike duplicate (MSD) recoveries of Hg for T2417073001 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action is required.

WCAt/31818 - Alkalinity,SM2320B,Water

The initial pH of samples T2417072004 and T2417072005 fell below the endpoint of titration, resulting in undetected value for alkalinity

WCAt/32118 - IC,E300.0,Water

The matrix spike recovery of Chloride/Sulfate & Fluoride for T2416828006 and Chloride/Sulfate for T2417072004 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

WCAt/32132 - IC,E300.0,Water

The matrix spike recovery of Chloride/Sulfate & Fluoride for T2417073002 and Chloride/Sulfate for T2417317003 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

WCAt/32191 - IC,E300.0,Water

The matrix spike recovery of Chloride/Sulfate for T2417491002 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

T2417379001 was received by the lab past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is qualified to indicate the holding time violation.

Analysis Results Comments

T2417072004 (CCR-15) - Alkalinity, Total

J4|Estimated Result

T2417072005 (CCR-16) - Alkalinity, Total

J4|Estimated Result

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results Qualifiers

Parameter Qualifiers

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result

Lab Qualifiers

J	DOH Certification #E82574 (FL NELAC) AEL-Jacksonville DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
T	DOH Certification #E84589 (FL NELAC) AEL-Tampa

Certificate of Analysis

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072001 **Date Collected:** 07/19/2024 10:57 **Matrix:** Water
Sample ID: FishLake **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**48**	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:20	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:20	T
Boron	**160**	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:20	T
Calcium	**130**	mg/L	1.0	0.20	1	07/23/2024 08:30	07/24/2024 11:20	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:20	T
Magnesium	**6.3**	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:20	T
Potassium	**37**	mg/L	1.0	0.50	1	07/23/2024 08:30	07/24/2024 11:20	T
Sodium	**27**	mg/L	1.0	0.80	1	07/23/2024 08:30	07/24/2024 11:20	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/29/2024 15:09	07/31/2024 06:05	J
Arsenic	**2.6**	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:05	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:05	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:05	J
Lead	**0.64 I**	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:05	J
Molybdenum	**1.6 I**	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:05	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/29/2024 15:09	07/31/2024 06:05	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:05	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:04	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**81**	mg/L	25	5.0	5	07/31/2024 15:28	07/31/2024 15:28	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	07/31/2024 15:28	07/31/2024 15:28	T
Sulfate	**320**	mg/L	25	5.0	5	07/31/2024 15:28	07/31/2024 15:28	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**94**	mg/L	20	5.0	1	07/23/2024 16:20	07/23/2024 16:20	T
Alkalinity, Total	**94**	mg/L	20	5.0	1	07/23/2024 16:20	07/23/2024 16:20	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072001 **Date Collected:** 07/19/2024 10:57 **Matrix:** Water
Sample ID: FishLake **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**620**	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072002 **Date Collected:** 07/19/2024 08:52 **Matrix:** Water
Sample ID: Lake D **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**9.4 I**	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:23	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:23	T
Boron	**61**	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:23	T
Calcium	**61**	mg/L	1.0	0.20	1	07/23/2024 08:30	07/24/2024 11:23	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:23	T
Magnesium	**14**	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:23	T
Potassium	**11**	mg/L	1.0	0.50	1	07/23/2024 08:30	07/24/2024 11:23	T
Sodium	**24**	mg/L	1.0	0.80	1	07/23/2024 08:30	07/24/2024 11:23	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/29/2024 15:09	07/31/2024 06:11	J
Arsenic	**0.63 I**	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:11	J
Cadmium	**0.32 I**	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:11	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:11	J
Lead	**0.66 I**	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:11	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:11	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/29/2024 15:09	07/31/2024 06:11	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:11	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:07	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**150**	mg/L	10	2.0	2	07/31/2024 15:44	07/31/2024 15:44	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	07/31/2024 15:44	07/31/2024 15:44	T
Sulfate	**33**	mg/L	10	2.0	2	07/31/2024 15:44	07/31/2024 15:44	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**74**	mg/L	20	5.0	1	07/23/2024 16:02	07/23/2024 16:02	T
Alkalinity, Total	**74**	mg/L	20	5.0	1	07/23/2024 16:02	07/23/2024 16:02	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072002 **Date Collected:** 07/19/2024 08:52 **Matrix:** Water
Sample ID: Lake D **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**370**	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072003 **Date Collected:** 07/22/2024 09:25 **Matrix:** Water
Sample ID: EQB-1 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:25	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:25	T
Boron	25 U	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:25	T
Calcium	0.20 U	mg/L	1.0	0.20	1	07/23/2024 08:30	07/24/2024 11:25	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:25	T
Magnesium	0.080 U	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:25	T
Potassium	0.50 U	mg/L	1.0	0.50	1	07/23/2024 08:30	07/24/2024 11:25	T
Sodium	0.80 U	mg/L	1.0	0.80	1	07/23/2024 08:30	07/24/2024 11:25	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/29/2024 15:09	07/31/2024 06:16	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:16	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:16	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:16	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:16	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:16	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/29/2024 15:09	07/31/2024 06:16	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:16	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:09	T
WET CHEMISTRY (EPA 300.0)								
Chloride	1.0 U	mg/L	5.0	1.0	1	07/31/2024 16:00	07/31/2024 16:00	T
Fluoride	0.20 U	mg/L	0.50	0.20	1	07/31/2024 16:00	07/31/2024 16:00	T
Sulfate	1.0 U	mg/L	5.0	1.0	1	07/31/2024 16:00	07/31/2024 16:00	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/23/2024 16:08	07/23/2024 16:08	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/23/2024 16:08	07/23/2024 16:08	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072003 **Date Collected:** 07/22/2024 09:25 **Matrix:** Water
Sample ID: EQB-1 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	10 U	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072004 **Date Collected:** 07/22/2024 09:03 **Matrix:** Water
Sample ID: CCR-15 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**13**	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:27	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:27	T
Boron	25 U	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:27	T
Calcium	**6.9**	mg/L	1.0	0.20	1	07/23/2024 08:30	07/24/2024 11:27	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:27	T
Magnesium	**0.46**	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:27	T
Potassium	**1.9**	mg/L	1.0	0.50	1	07/23/2024 08:30	07/24/2024 11:27	T
Sodium	**2.5**	mg/L	1.0	0.80	1	07/23/2024 08:30	07/24/2024 11:27	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/29/2024 15:09	07/31/2024 06:22	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:22	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:22	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:22	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:22	J
Molybdenum	**1.1 I**	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:22	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/29/2024 15:09	07/31/2024 06:22	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:22	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:12	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**3.5 I**	mg/L	10	2.0	2	07/31/2024 16:16	07/31/2024 16:16	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	07/31/2024 16:16	07/31/2024 16:16	T
Sulfate	**28**	mg/L	10	2.0	2	07/31/2024 16:16	07/31/2024 16:16	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/23/2024 16:05	07/23/2024 16:05	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/23/2024 16:05	07/23/2024 16:05	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072004 **Date Collected:** 07/22/2024 09:03 **Matrix:** Water
Sample ID: CCR-15 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**120**	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072005 **Date Collected:** 07/22/2024 10:02 **Matrix:** Water
Sample ID: CCR-16 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**130**	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:29	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:29	T
Boron	**530**	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:29	T
Calcium	**1400**	mg/L	10	2.0	10	07/23/2024 08:30	07/25/2024 11:57	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:29	T
Magnesium	**16**	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:29	T
Potassium	**560**	mg/L	10	5.0	10	07/23/2024 08:30	07/25/2024 11:57	T
Sodium	**600**	mg/L	10	8.0	10	07/23/2024 08:30	07/25/2024 11:57	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/29/2024 15:09	07/31/2024 06:28	J
Arsenic	**0.46 I**	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:28	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:28	J
Cobalt	**1.4**	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:28	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:28	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/29/2024 15:09	07/31/2024 06:28	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/29/2024 15:09	07/31/2024 06:28	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/29/2024 15:09	07/31/2024 06:28	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:15	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**4100**	mg/L	250	50	50	08/01/2024 13:30	08/01/2024 13:30	T
Fluoride	5.0 U	mg/L	12	5.0	25	07/31/2024 17:04	07/31/2024 17:04	T
Sulfate	**1300**	mg/L	120	25	25	07/31/2024 17:04	07/31/2024 17:04	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/23/2024 16:11	07/23/2024 16:11	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/23/2024 16:11	07/23/2024 16:11	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072005 **Date Collected:** 07/22/2024 10:02 **Matrix:** Water
Sample ID: CCR-16 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**5400**	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072006 **Date Collected:** 07/22/2024 10:44 **Matrix:** Water
Sample ID: CCR-17 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	3.0 U	ug/L	10	3.0	1	07/23/2024 08:30	07/24/2024 11:32	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/23/2024 08:30	07/24/2024 11:32	T
Boron	**130**	ug/L	50	25	1	07/23/2024 08:30	07/24/2024 11:32	T
Calcium	**150**	mg/L	1.0	0.20	1	07/23/2024 08:30	07/24/2024 11:32	T
Chromium	5.0 U	ug/L	10	5.0	1	07/23/2024 08:30	07/24/2024 11:32	T
Magnesium	**10**	mg/L	0.10	0.080	1	07/23/2024 08:30	07/24/2024 11:32	T
Potassium	**16**	mg/L	1.0	0.50	1	07/23/2024 08:30	07/24/2024 11:32	T
Sodium	**15**	mg/L	1.0	0.80	1	07/23/2024 08:30	07/24/2024 11:32	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 18:07	J
Arsenic	**9.1**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:07	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:07	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:07	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:07	J
Molybdenum	**3.1**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:07	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 18:07	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:07	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/26/2024 15:30	07/29/2024 11:18	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**71**	mg/L	25	5.0	5	07/31/2024 20:48	07/31/2024 20:48	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	07/31/2024 20:48	07/31/2024 20:48	T
Sulfate	**210**	mg/L	25	5.0	5	07/31/2024 20:48	07/31/2024 20:48	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**220**	mg/L	20	5.0	1	07/23/2024 16:15	07/23/2024 16:15	T
Alkalinity, Total	**220**	mg/L	20	5.0	1	07/23/2024 16:15	07/23/2024 16:15	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual (T2417072)

Analytical Results

Lab ID: T2417072006 **Date Collected:** 07/22/2024 10:44 **Matrix:** Water
Sample ID: CCR-17 **Date Received:** 07/22/2024 15:38

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**650**	mg/L	10	10	1	07/24/2024 13:00	07/24/2024 13:00	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: CVAt/2290 **Analysis Method:** SW-846 7470A
Preparation Method: SW-846 7470A
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006

Method Blank(5409747)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5409748)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	0.95	95	80 - 120	T

Matrix Spike (5409749); Matrix Spike Duplicate (5409750); Original (T2417073001); Parent Lab Sample (T2417073001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	ug/L	1	0.79	**79**	80 - 120	0.79	**79**	0	20	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: ICMj/4551 **Analysis Method:** SW-846 6020
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005

Method Blank(5411110)

Parameter	Results	Units	PQL	MDL	Lab
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5411111)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Cobalt	ug/L	20	20	101	80 - 120	J
Arsenic	ug/L	20	21	104	80 - 120	J
Selenium	ug/L	20	21	105	80 - 120	J
Molybdenum	ug/L	20	20	102	80 - 120	J
Cadmium	ug/L	20	21	105	80 - 120	J
Antimony	ug/L	20	21	104	80 - 120	J
Thallium	ug/L	20	20	99	80 - 120	J
Lead	ug/L	20	20	101	80 - 120	J

Matrix Spike (5411112); Matrix Spike Duplicate (5411113); Original (G2407347002); Parent Lab Sample (G2407347002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cobalt	ug/L	20	20	99	75 - 125	20	98	0	20	J
Arsenic	ug/L	20	20	98	75 - 125	20	98	0	20	J
Selenium	ug/L	20	19	94	75 - 125	19	96	3	20	J
Molybdenum	ug/L	20	20	100	75 - 125	20	99	1	20	J
Cadmium	ug/L	20	20	102	75 - 125	21	103	1	20	J
Antimony	ug/L	20	22	112	75 - 125	22	112	0	20	J
Thallium	ug/L	20	20	98	75 - 125	20	99	0	20	J
Lead	ug/L	20	21	101	75 - 125	21	100	1	20	J

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: ICMj/4554
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417072006
Analysis Method: SW-846 6020

Method Blank(5414343)

Parameter	Results	Units	PQL	MDL	Lab
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5414344)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Cobalt	ug/L	20	20	102	80 - 120	J
Arsenic	ug/L	20	22	108	80 - 120	J
Selenium	ug/L	20	21	107	80 - 120	J
Molybdenum	ug/L	20	21	106	80 - 120	J
Cadmium	ug/L	20	22	109	80 - 120	J
Antimony	ug/L	20	21	104	80 - 120	J
Thallium	ug/L	20	21	104	80 - 120	J
Lead	ug/L	20	20	102	80 - 120	J

Matrix Spike (5414345); Matrix Spike Duplicate (5414346); Original (T2417072006); Parent Lab Sample (T2417072006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cobalt	ug/L	20	19	95	75 - 125	19	94	1	20	J
Arsenic	ug/L	20	31	108	75 - 125	30	104	3	20	J
Selenium	ug/L	20	20	99	75 - 125	20	99	0	20	J
Molybdenum	ug/L	20	25	110	75 - 125	25	107	2	20	J
Cadmium	ug/L	20	21	106	75 - 125	21	103	2	20	J
Antimony	ug/L	20	23	115	75 - 125	22	111	3	20	J
Thallium	ug/L	20	22	112	75 - 125	22	108	3	20	J
Lead	ug/L	20	21	107	75 - 125	21	104	3	20	J

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: ICPt/4925 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006

Method Blank(5402959)

Parameter	Results	Units	PQL	MDL	Lab
Boron	25 U	ug/L	50	25	T
Barium	3.0 U	ug/L	10	3.0	T
Beryllium	2.0 U	ug/L	10	2.0	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	5.0 U	ug/L	10	5.0	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (5402960)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Boron	ug/L	100	110	111	80 - 120	T
Barium	ug/L	1000	950	95	80 - 120	T
Beryllium	ug/L	1000	960	96	80 - 120	T
Calcium	mg/L	10	9.6	96	80 - 120	T
Chromium	ug/L	1000	980	98	80 - 120	T
Potassium	mg/L	10	9.1	91	80 - 120	T
Magnesium	mg/L	10	9.4	94	80 - 120	T
Sodium	mg/L	10	9.4	94	80 - 120	T

Matrix Spike (5402961); Matrix Spike Duplicate (5402962); Original (T2417041002); Parent Lab Sample (T2417041002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Boron	ug/L	100	220	**70**	75 - 125	220	**69**	0	20	T
Barium	ug/L	1000	1000	102	75 - 125	1000	102	0	20	T
Beryllium	ug/L	1000	1000	105	75 - 125	1000	104	0	20	T
Calcium	mg/L	10	67	**130**	75 - 125	67	**127**	0	20	T
Chromium	ug/L	1000	1100	104	75 - 125	1100	104	0	20	T
Potassium	mg/L	10	10	103	75 - 125	10	102	0	20	T
Magnesium	mg/L	10	12	105	75 - 125	12	105	0	20	T
Sodium	mg/L	10	16	106	75 - 125	16	106	0	20	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/31818 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006

Method Blank(5403381)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5403382)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	97	97	85 - 115	T

Sample Duplicate (5403791); Original (G2407186001); Parent Lab Sample (T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	113.0947	117.0283	mg/L	3	10	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/31860 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006

Method Blank(5405712)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5405713)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	630	95	85 - 115	T

Sample Duplicate (5405714); Original (T2416828011); Parent Lab Sample (T2417072001, T2417072002, T2417072003, T2417072004, T2417072005, T2417072006)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	264	256	mg/L	3	10	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/32118 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004

Matrix Spike (5419332); Matrix Spike Duplicate (5419333); Original (T2416828006); Parent Lab Sample (T2416828006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.3	**117**	90 - 110	2.4	**121**	3	10	T
Chloride	mg/L	20	31	**126**	90 - 110	32	**132**	4	10	T
Sulfate	mg/L	20	31	**132**	90 - 110	32	**139**	4	10	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/32118 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417072001, T2417072002, T2417072003, T2417072004, T2417072005

Method Blank(5419330)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5419331)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.4	108	90 - 110	T
Chloride	mg/L	50	55	110	90 - 110	T
Sulfate	mg/L	50	54	108	90 - 110	T

Matrix Spike (5419334); Matrix Spike Duplicate (5419335); Original (T2417072004); Parent Lab Sample (T2417072004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.1	107	90 - 110	2.1	104	4	10	T
Chloride	mg/L	20	29	**128**	90 - 110	30	**131**	2	10	T
Sulfate	mg/L	20	54	**128**	90 - 110	54	**129**	0	10	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/32132
Preparation Method: EPA 300.0
Associated Lab IDs: T2417072006
Analysis Method: EPA 300.0

Method Blank(5419851)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5419852)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.4	107	90 - 110	T
Chloride	mg/L	50	55	110	90 - 110	T
Sulfate	mg/L	50	55	109	90 - 110	T

Matrix Spike (5419853); Matrix Spike Duplicate (5419854); Original (T2417073002); Parent Lab Sample (T2417073002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.2	109	90 - 110	2.2	**111**	2	10	T
Chloride	mg/L	20	34	**126**	90 - 110	34	**127**	0	10	T
Sulfate	mg/L	20	51	**127**	90 - 110	51	**127**	0	10	T

Matrix Spike (5419855); Matrix Spike Duplicate (5419856); Original (T2417317003); Parent Lab Sample (T2417317003)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.3	**116**	90 - 110	2.4	**119**	3	10	T
Chloride	mg/L	20	43	**128**	90 - 110	43	**129**	1	10	T
Sulfate	mg/L	20	35	**142**	90 - 110	36	**144**	1	10	T

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Workorder: 2024 Semi Annual (T2417072)

QC Results

QC Batch: WCAt/32191
Preparation Method: EPA 300.0
Associated Lab IDs: T2417072005
Analysis Method: EPA 300.0

Method Blank(5423024)

Parameter	Results	Units	PQL	MDL	Lab
Chloride	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5423025)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Chloride	mg/L	50	55	110	90 - 110	T

Matrix Spike (5423026); Matrix Spike Duplicate (5423027); Original (T2417491002); Parent Lab Sample (T2417491002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Chloride	mg/L	20	29	**132**	90 - 110	27	**120**	9	10	T

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
CVAt/2290 - SW-846 7470A			
T2417072001	FishLake	DGMt/8169	SW-846 7470A
T2417072002	Lake D	DGMt/8169	SW-846 7470A
T2417072003	EQB-1	DGMt/8169	SW-846 7470A
T2417072004	CCR-15	DGMt/8169	SW-846 7470A
T2417072005	CCR-16	DGMt/8169	SW-846 7470A
T2417072006	CCR-17	DGMt/8169	SW-846 7470A
ICMj/4551 - SW-846 6020			
T2417072001	FishLake	DGMj/8703	SW-846 3010A
T2417072002	Lake D	DGMj/8703	SW-846 3010A
T2417072003	EQB-1	DGMj/8703	SW-846 3010A
T2417072004	CCR-15	DGMj/8703	SW-846 3010A
T2417072005	CCR-16	DGMj/8703	SW-846 3010A
ICMj/4554 - SW-846 6020			
T2417072006	CCR-17	DGMj/8716	SW-846 3010A
ICPt/4925 - SW-846 6010			
T2417072001	FishLake	DGMt/8146	SW-846 3010A
T2417072002	Lake D	DGMt/8146	SW-846 3010A
T2417072003	EQB-1	DGMt/8146	SW-846 3010A
T2417072004	CCR-15	DGMt/8146	SW-846 3010A
T2417072005	CCR-16	DGMt/8146	SW-846 3010A
T2417072006	CCR-17	DGMt/8146	SW-846 3010A
WCAt/31818 - SM 2320B			
T2417072001	FishLake		
T2417072002	Lake D		
T2417072003	EQB-1		
T2417072004	CCR-15		
T2417072005	CCR-16		
T2417072006	CCR-17		

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/31860 - SM 2540 C			
T2417072001	FishLake		
T2417072002	Lake D		
T2417072003	EQB-1		
T2417072004	CCR-15		
T2417072005	CCR-16		
T2417072006	CCR-17		
WCAt/32118 - EPA 300.0			
T2417072001	FishLake		
T2417072002	Lake D		
T2417072003	EQB-1		
T2417072004	CCR-15		
T2417072005	CCR-16		
WCAt/32132 - EPA 300.0			
T2417072006	CCR-17		
WCAt/32191 - EPA 300.0			
T2417072005	CCR-16		

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☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name:	Lakeland Electric	Project Name:	2024 Semi Annual CCR
Address:	501 E Lemon St	Project Number:	FR3715G
	Lakeland, FL	PO Number:	
Phone:	863-834-6623	FDEP Facility No:	
FAX:		FDEP Facility Addr:	
Contact:	Thomas Johnston		
Sampled By:	Olivia Hollingsworth, Rik Mutrid	Special Instructions:	Georgiane ESD
Turn Around Time:	(Standard) Rush		
AEL Profile #:	72419	ADaPT (EQuIS) Other	

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	Chloride/TDS/SO4/F (250ml plastic; Pres. I; Field-Filtered No)	6010 Metals (250ml plastic; Pres. N; No)	6020 metals (250ml plastic; Pres. N; No)	Hg (1L plastic; Pres. N; No)	Alk (125ml plastic; Pres. I; No)	LABORATORY I.D. NUMBER
	CCR-19						X	X	X	X	X	
	CCR-20						X	X	X	X	X	
	CCR-21						X	X	X	X	X	
	CCR-22						X	X	X	X	X	
	CCR-23						X	X	X	X	X	
	SW-106						X	X	X	X	X	
Fishlake-20240719	Fishlake	G	7/19/24	1057	SW	5	X	X	X	X	X	001
Lake D-20240719	Lake D	G	"	0952	SW	5	X	X	X	X	X	002
EQB-1-20240722	EQ Blank 1	G	7/22/24	0925	GW	5	X	X	X	X	X	003

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = Ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed)____ °C Temp. when received (corrected)____ °C

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-D051web Form last revised 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Olivia Hollingsworth	7/22/24	1538	C Woodward	7-22-24	1538
2						
3						
4						

FOR DR
(When PWS Info
Contact Perso
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☐ Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: Lakeland Electric	Project Name: 2024 Semi Annual CCR
Address: 501 E Lemon St	Project Number: FR57156
Lakeland, FL	PO Number:
Phone: 863-834-6623	FDEP Facility No:
FAX:	FDEP Facility Addr:
Contact: Thomas Johnston	
Sampled By: Olivia Hollingsworth + Rick Mealy	Special Instructions: Geosyntec EDD
Turn Around Time: (Standard) Rush	
AEL Profile #: 72419	ADaPT (EQuIS) Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	LABORATORY I.D. NUMBER
	CCR-5						
	CCR-6						
	CCR-7						
	CCR-9						
	CCR-11						
	CCR-12						
CCR-15-20240722	CCR-15	G	7/22/24	0903	GW	5	004
CCR-16-20240722	CCR-16	G	〃	1002	〃	〃	005
CCR-17-20240722	CCR-17	〃	〃	1044	〃	〃	006
	CCR-18						

ANALYSIS REQUIRED	BOTTLE SIZE & TYPE	Preservation	Field-Filtered?
Chloride/TDS/SO4/F	250ml plastic	I	No
6010 Metals	250ml plastic	N	No
6020 metals	250ml plastic	N	No
Hg	1L plastic	N	No
Alk	125ml plastic	I	No

CCR-5	X	X	X	X	X	
CCR-6	X	X	X	X	X	
CCR-7	X	X	X	X	X	
CCR-9	X	X	X	X	X	
CCR-11	X	X	X	X	X	
CCR-12	X	X	X	X	X	
CCR-15	X	X	X	X	X	004
CCR-16	X	X	X	X	X	005
CCR-17	X	X	X	X	X	006
CCR-18	X	X	X	X	X	

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed)_____ °C Temp. when received (corrected)_____ °C

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-0051web Form last revised: 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1						
2	Olivia Hollingsworth	7/24/24	1538	Wuthood	72224	1538
3						
4						

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____

Supplier of Water: _____

Site-Address: _____

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

August 26, 2024

Thomas Johnston
Lakeland Electric
501 E Lemon St
Lakeland, FL 33801

RE: Workorder: T2417511 2024 Semi Annual CCR

Dear Thomas Johnston:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday July 25, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Heidi Parker

Heidi Parker, Project Manager
HParker@aellab.com

Certificate of Analysis

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Workorder: 2024 Semi Annual CCR (T2417511)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2417511001	CCR-1	WA	EPA 300.0	07/23/2024 10:05	07/25/2024 16:16	3	NA
T2417511001	CCR-1	WA	SM 2540 C	07/23/2024 10:05	07/25/2024 16:16	1	NA
T2417511001	CCR-1	WA	SW-846 6010	07/23/2024 10:05	07/25/2024 16:16	5	NA
T2417511001	CCR-1	WA	SW-846 6020	07/23/2024 10:05	07/25/2024 16:16	8	NA
T2417511001	CCR-1	WA	SW-846 7470A	07/23/2024 10:05	07/25/2024 16:16	1	NA
T2417511002	CCR-2	WA	EPA 300.0	07/23/2024 09:02	07/25/2024 16:16	3	NA
T2417511002	CCR-2	WA	SM 2540 C	07/23/2024 09:02	07/25/2024 16:16	1	NA
T2417511002	CCR-2	WA	SW-846 6010	07/23/2024 09:02	07/25/2024 16:16	5	NA
T2417511002	CCR-2	WA	SW-846 6020	07/23/2024 09:02	07/25/2024 16:16	8	NA
T2417511002	CCR-2	WA	SW-846 7470A	07/23/2024 09:02	07/25/2024 16:16	1	NA
T2417511003	CCR-4	WA	EPA 300.0	07/25/2024 08:55	07/25/2024 16:16	3	NA
T2417511003	CCR-4	WA	SM 2540 C	07/25/2024 08:55	07/25/2024 16:16	1	NA
T2417511003	CCR-4	WA	SW-846 6010	07/25/2024 08:55	07/25/2024 16:16	5	NA
T2417511003	CCR-4	WA	SW-846 6020	07/25/2024 08:55	07/25/2024 16:16	8	NA
T2417511003	CCR-4	WA	SW-846 7470A	07/25/2024 08:55	07/25/2024 16:16	1	NA
T2417511004	CCR-8	WA	EPA 300.0	07/25/2024 14:20	07/25/2024 16:16	3	NA
T2417511004	CCR-8	WA	SM 2540 C	07/25/2024 14:20	07/25/2024 16:16	1	NA
T2417511004	CCR-8	WA	SW-846 6010	07/25/2024 14:20	07/25/2024 16:16	5	NA
T2417511004	CCR-8	WA	SW-846 6020	07/25/2024 14:20	07/25/2024 16:16	8	NA
T2417511004	CCR-8	WA	SW-846 7470A	07/25/2024 14:20	07/25/2024 16:16	1	NA
T2417511005	CCR-13	WA	EPA 300.0	07/23/2024 10:43	07/25/2024 16:16	3	NA
T2417511005	CCR-13	WA	SM 2540 C	07/23/2024 10:43	07/25/2024 16:16	1	NA
T2417511005	CCR-13	WA	SW-846 6010	07/23/2024 10:43	07/25/2024 16:16	5	NA
T2417511005	CCR-13	WA	SW-846 6020	07/23/2024 10:43	07/25/2024 16:16	8	NA
T2417511005	CCR-13	WA	SW-846 7470A	07/23/2024 10:43	07/25/2024 16:16	1	NA
T2417511006	SW-106	WA	EPA 300.0	07/23/2024 11:31	07/25/2024 16:16	3	NA
T2417511006	SW-106	WA	SM 2320B	07/23/2024 11:31	07/25/2024 16:16	2	NA
T2417511006	SW-106	WA	SM 2540 C	07/23/2024 11:31	07/25/2024 16:16	1	NA
T2417511006	SW-106	WA	SW-846 6010	07/23/2024 11:31	07/25/2024 16:16	8	NA
T2417511006	SW-106	WA	SW-846 6020	07/23/2024 11:31	07/25/2024 16:16	8	NA
T2417511006	SW-106	WA	SW-846 7470A	07/23/2024 11:31	07/25/2024 16:16	1	NA
T2417511007	CCR-23	WA	EPA 300.0	07/23/2024 12:29	07/25/2024 16:16	3	NA
T2417511007	CCR-23	WA	SM 2320B	07/23/2024 12:29	07/25/2024 16:16	2	NA
T2417511007	CCR-23	WA	SM 2540 C	07/23/2024 12:29	07/25/2024 16:16	1	NA
T2417511007	CCR-23	WA	SW-846 6010	07/23/2024 12:29	07/25/2024 16:16	8	NA

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Workorder: 2024 Semi Annual CCR (T2417511)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2417511007	CCR-23	WA	SW-846 6020	07/23/2024 12:29	07/25/2024 16:16	8	NA
T2417511007	CCR-23	WA	SW-846 7470A	07/23/2024 12:29	07/25/2024 16:16	1	NA
T2417511008	CCR-12	WA	EPA 300.0	07/23/2024 15:17	07/25/2024 16:16	3	NA
T2417511008	CCR-12	WA	SM 2320B	07/23/2024 15:17	07/25/2024 16:16	2	NA
T2417511008	CCR-12	WA	SM 2540 C	07/23/2024 15:17	07/25/2024 16:16	1	NA
T2417511008	CCR-12	WA	SW-846 6010	07/23/2024 15:17	07/25/2024 16:16	8	NA
T2417511008	CCR-12	WA	SW-846 6020	07/23/2024 15:17	07/25/2024 16:16	8	NA
T2417511008	CCR-12	WA	SW-846 7470A	07/23/2024 15:17	07/25/2024 16:16	1	NA
T2417511009	CCR-7	WA	EPA 300.0	07/23/2024 15:11	07/25/2024 16:16	3	NA
T2417511009	CCR-7	WA	SM 2320B	07/23/2024 15:11	07/25/2024 16:16	2	NA
T2417511009	CCR-7	WA	SM 2540 C	07/23/2024 15:11	07/25/2024 16:16	1	NA
T2417511009	CCR-7	WA	SW-846 6010	07/23/2024 15:11	07/25/2024 16:16	8	NA
T2417511009	CCR-7	WA	SW-846 6020	07/23/2024 15:11	07/25/2024 16:16	8	NA
T2417511009	CCR-7	WA	SW-846 7470A	07/23/2024 15:11	07/25/2024 16:16	1	NA
T2417511010	CCR-20	WA	EPA 300.0	07/24/2024 08:52	07/25/2024 16:16	3	NA
T2417511010	CCR-20	WA	SM 2320B	07/24/2024 08:52	07/25/2024 16:16	2	NA
T2417511010	CCR-20	WA	SM 2540 C	07/24/2024 08:52	07/25/2024 16:16	1	NA
T2417511010	CCR-20	WA	SW-846 6010	07/24/2024 08:52	07/25/2024 16:16	8	NA
T2417511010	CCR-20	WA	SW-846 6020	07/24/2024 08:52	07/25/2024 16:16	8	NA
T2417511010	CCR-20	WA	SW-846 7470A	07/24/2024 08:52	07/25/2024 16:16	1	NA
T2417511011	CCR-19	WA	EPA 300.0	07/24/2024 09:53	07/25/2024 16:16	3	NA
T2417511011	CCR-19	WA	SM 2320B	07/24/2024 09:53	07/25/2024 16:16	2	NA
T2417511011	CCR-19	WA	SM 2540 C	07/24/2024 09:53	07/25/2024 16:16	1	NA
T2417511011	CCR-19	WA	SW-846 6010	07/24/2024 09:53	07/25/2024 16:16	8	NA
T2417511011	CCR-19	WA	SW-846 6020	07/24/2024 09:53	07/25/2024 16:16	8	NA
T2417511011	CCR-19	WA	SW-846 7470A	07/24/2024 09:53	07/25/2024 16:16	1	NA
T2417511012	CCR-18	WA	EPA 300.0	07/24/2024 11:00	07/25/2024 16:16	3	NA
T2417511012	CCR-18	WA	SM 2320B	07/24/2024 11:00	07/25/2024 16:16	2	NA
T2417511012	CCR-18	WA	SM 2540 C	07/24/2024 11:00	07/25/2024 16:16	1	NA
T2417511012	CCR-18	WA	SW-846 6010	07/24/2024 11:00	07/25/2024 16:16	8	NA
T2417511012	CCR-18	WA	SW-846 6020	07/24/2024 11:00	07/25/2024 16:16	8	NA
T2417511012	CCR-18	WA	SW-846 7470A	07/24/2024 11:00	07/25/2024 16:16	1	NA
T2417511013	CCR-5	WA	EPA 300.0	07/24/2024 12:11	07/25/2024 16:16	3	NA
T2417511013	CCR-5	WA	SM 2320B	07/24/2024 12:11	07/25/2024 16:16	2	NA
T2417511013	CCR-5	WA	SM 2540 C	07/24/2024 12:11	07/25/2024 16:16	1	NA

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Workorder: 2024 Semi Annual CCR (T2417511)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
T2417511013	CCR-5	WA	SW-846 6010	07/24/2024 12:11	07/25/2024 16:16	8	NA
T2417511013	CCR-5	WA	SW-846 6020	07/24/2024 12:11	07/25/2024 16:16	8	NA
T2417511013	CCR-5	WA	SW-846 7470A	07/24/2024 12:11	07/25/2024 16:16	1	NA
T2417511014	CCR-11	WA	EPA 300.0	07/24/2024 12:10	07/25/2024 16:16	3	NA
T2417511014	CCR-11	WA	SM 2320B	07/24/2024 12:10	07/25/2024 16:16	2	NA
T2417511014	CCR-11	WA	SM 2540 C	07/24/2024 12:10	07/25/2024 16:16	1	NA
T2417511014	CCR-11	WA	SW-846 6010	07/24/2024 12:10	07/25/2024 16:16	8	NA
T2417511014	CCR-11	WA	SW-846 6020	07/24/2024 12:10	07/25/2024 16:16	8	NA
T2417511014	CCR-11	WA	SW-846 7470A	07/24/2024 12:10	07/25/2024 16:16	1	NA
T2417511015	CCR-21	WA	EPA 300.0	07/24/2024 14:01	07/25/2024 16:16	3	NA
T2417511015	CCR-21	WA	SM 2320B	07/24/2024 14:01	07/25/2024 16:16	2	NA
T2417511015	CCR-21	WA	SM 2540 C	07/24/2024 14:01	07/25/2024 16:16	1	NA
T2417511015	CCR-21	WA	SW-846 6010	07/24/2024 14:01	07/25/2024 16:16	8	NA
T2417511015	CCR-21	WA	SW-846 6020	07/24/2024 14:01	07/25/2024 16:16	8	NA
T2417511015	CCR-21	WA	SW-846 7470A	07/24/2024 14:01	07/25/2024 16:16	1	NA
T2417511016	CCR-22	WA	EPA 300.0	07/24/2024 14:51	07/25/2024 16:16	3	NA
T2417511016	CCR-22	WA	SM 2320B	07/24/2024 14:51	07/25/2024 16:16	2	NA
T2417511016	CCR-22	WA	SM 2540 C	07/24/2024 14:51	07/25/2024 16:16	1	NA
T2417511016	CCR-22	WA	SW-846 6010	07/24/2024 14:51	07/25/2024 16:16	8	NA
T2417511016	CCR-22	WA	SW-846 6020	07/24/2024 14:51	07/25/2024 16:16	8	NA
T2417511016	CCR-22	WA	SW-846 7470A	07/24/2024 14:51	07/25/2024 16:16	1	NA
T2417511017	CCR-6	WA	EPA 300.0	07/25/2024 10:48	07/25/2024 16:16	3	NA
T2417511017	CCR-6	WA	SM 2320B	07/25/2024 10:48	07/25/2024 16:16	2	NA
T2417511017	CCR-6	WA	SM 2540 C	07/25/2024 10:48	07/25/2024 16:16	1	NA
T2417511017	CCR-6	WA	SW-846 6010	07/25/2024 10:48	07/25/2024 16:16	8	NA
T2417511017	CCR-6	WA	SW-846 6020	07/25/2024 10:48	07/25/2024 16:16	8	NA
T2417511017	CCR-6	WA	SW-846 7470A	07/25/2024 10:48	07/25/2024 16:16	1	NA
T2417511018	CCR-9	WA	EPA 300.0	07/25/2024 13:22	07/25/2024 16:16	3	NA
T2417511018	CCR-9	WA	SM 2320B	07/25/2024 13:22	07/25/2024 16:16	2	NA
T2417511018	CCR-9	WA	SM 2540 C	07/25/2024 13:22	07/25/2024 16:16	1	NA
T2417511018	CCR-9	WA	SW-846 6010	07/25/2024 13:22	07/25/2024 16:16	8	NA
T2417511018	CCR-9	WA	SW-846 6020	07/25/2024 13:22	07/25/2024 16:16	8	NA
T2417511018	CCR-9	WA	SW-846 7470A	07/25/2024 13:22	07/25/2024 16:16	1	NA

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Workorder: 2024 Semi Annual CCR (T2417511)

Workorder Summary

Batch Comments

CVAt/2296 - HG Analysis,CVAA,Aqueous

The matrix spike (MS) and matrix spike duplicate (MSD) recoveries of Hg for T2417511010 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action is required.

WCAt/32083 - Alkalinity,SM2320B,Water

The relative percent difference (RPD) for the following analyte in the replicate sample duplicate analyses of T2417511018 (23% RPD) was outside control criteria: Total Alkalinities. Failing RPD indicates inconsistency in the parent sample matrix. The LCS was within acceptable limits, indicating the analytical batch was in control. The data were qualified accordingly.

The analysis of A2407654 was initially performed past the recommended holding time. An internal laboratory failure occurred which resulted in the missed holding time. Efforts were made to analyze the sample as soon as the error was identified. The data is qualified to indicate the holding time violation.

WCAt/32201 - IC,E300.0,Water

The matrix spike recovery of Chloride/Sulfate & Fluoride for T2417511001 and Chloride/Sulfate for T2417491001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

WCAt/32208 - IC,E300.0,Water

The matrix spike recovery of Chloride/Sulfate & Fluoride for T2417511006 and T2417511009 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS) indicates the analytical batch was in control. No corrective action was required.

WCAt/32311 - IC,E300.0,Water

The matrix spike recovery of Chloride for T2417723006 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

WCAt/32372 - IC,E300.0,Water

The matrix spike recovery of Sulfate for T2417774004 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), and %RPD were acceptable, which indicates the analytical batch was in control. No corrective action was required.

Analysis Results Comments

T2417511006 (SW-106) - Chloride

J4|Estimated Result

T2417511006 (SW-106) - Fluoride

J4|Estimated Result

T2417511006 (SW-106) - Sulfate

J4|Estimated Result

T2417511010 (CCR-20) - Mercury

J4|Estimated Result

T2417511013 (CCR-5) - Thallium

Due to non-target background analytes, the proper quantitation of the internal standard in T2417511013 was obstructed. In order to return the internal standard to within acceptance limits, this sample was analyzed at a dilution.

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results Qualifiers

Parameter Qualifiers

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J4	Estimated Result

Lab Qualifiers

J	DOH Certification #E82574 (FL NELAC) AEL-Jacksonville DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville
T	DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511001 **Date Collected:** 07/23/2024 10:05 **Matrix:** Water
Sample ID: CCR-1 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**14**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 11:54	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 11:54	T
Boron	**37 I**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 11:54	T
Calcium	**29**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 11:54	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 11:54	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 18:53	J
Arsenic	**0.76 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:53	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:53	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:53	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:53	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:53	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 18:53	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:53	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:20	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**4.4 I**	mg/L	10	2.0	2	08/02/2024 18:39	08/02/2024 18:39	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	08/02/2024 18:39	08/02/2024 18:39	T
Sulfate	**69**	mg/L	10	2.0	2	08/02/2024 18:39	08/02/2024 18:39	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**130**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Analysis Results Comments

Chloride

J4|Estimated Result

Fluoride

J4|Estimated Result

Sulfate

J4|Estimated Result

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511002 **Date Collected:** 07/23/2024 09:02 **Matrix:** Water
Sample ID: CCR-2 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**4.4 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:01	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:01	T
Boron	**29 I**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:01	T
Calcium	**35**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:01	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:01	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 18:59	J
Arsenic	**0.30 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:59	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:59	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:59	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:59	J
Molybdenum	**2.1**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 18:59	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 18:59	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 18:59	J
METALS (SW-846 7470A)								
Mercury	**0.21**	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:23	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**7.3 I**	mg/L	10	2.0	2	08/02/2024 19:27	08/02/2024 19:27	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	08/02/2024 19:27	08/02/2024 19:27	T
Sulfate	**38**	mg/L	10	2.0	2	08/02/2024 19:27	08/02/2024 19:27	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**120**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Analytical Results

Lab ID: T2417511003 **Date Collected:** 07/25/2024 08:55 **Matrix:** Water
Sample ID: CCR-4 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**18**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:03	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:03	T
Boron	**55**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:03	T
Calcium	**330**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:03	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:03	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:05	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:05	J
Cadmium	**0.29 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:05	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:05	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:05	J
Molybdenum	**11**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:05	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:05	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:05	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:26	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**35**	mg/L	25	5.0	5	08/02/2024 19:43	08/02/2024 19:43	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	08/02/2024 19:43	08/02/2024 19:43	T
Sulfate	**850**	mg/L	100	20	20	08/07/2024 17:44	08/07/2024 17:44	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**1300**	mg/L	10	10	1	07/29/2024 13:00	07/29/2024 13:00	T

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Analytical Results

Lab ID: T2417511004 **Date Collected:** 07/25/2024 14:20 **Matrix:** Water
Sample ID: CCR-8 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**25**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:05	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:05	T
Boron	**57**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:05	T
Calcium	**97**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:05	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:05	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:10	J
Arsenic	**1.1**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:10	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:10	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:10	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:10	J
Molybdenum	**15**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:10	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:10	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:10	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:29	T
WET CHEMISTRY (EPA 300.0)								
Chloride	2.0 U	mg/L	10	2.0	2	08/02/2024 19:59	08/02/2024 19:59	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	08/02/2024 19:59	08/02/2024 19:59	T
Sulfate	**140**	mg/L	10	2.0	2	08/02/2024 19:59	08/02/2024 19:59	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**530**	mg/L	10	10	1	07/29/2024 13:00	07/29/2024 13:00	T

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Lab ID: T2417511005 **Date Collected:** 07/23/2024 10:43 **Matrix:** Water
Sample ID: CCR-13 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**4.0 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:07	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:07	T
Boron	**260**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:07	T
Calcium	**380**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:07	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:07	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:16	J
Arsenic	**0.62 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:16	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:16	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:16	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:16	J
Molybdenum	**26**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:16	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:16	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:16	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:37	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**5.3 I**	mg/L	25	5.0	5	08/02/2024 20:15	08/02/2024 20:15	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	08/02/2024 20:15	08/02/2024 20:15	T
Sulfate	**940**	mg/L	100	20	20	08/07/2024 18:16	08/07/2024 18:16	T
WET CHEMISTRY (SM 2540 C)								
Total Dissolved Solids	**1700**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Analytical Results

Lab ID: T2417511006 **Date Collected:** 07/23/2024 11:31 **Matrix:** Water
Sample ID: SW-106 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**8.7 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:10	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:10	T
Boron	**48 I**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:10	T
Calcium	**10**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:10	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:10	T
Magnesium	**2.5**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:10	T
Potassium	**8.2**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:10	T
Sodium	**2.7**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:10	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:22	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:22	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:22	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:22	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:22	J
Molybdenum	**1.0 I**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:22	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:22	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:22	J
METALS (SW-846 7470A)								
Mercury	**0.018 I**	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:40	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**2.7 I**	mg/L	10	2.0	2	08/05/2024 16:29	08/05/2024 16:29	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	08/05/2024 16:29	08/05/2024 16:29	T
Sulfate	**33**	mg/L	10	2.0	2	08/05/2024 16:29	08/05/2024 16:29	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**21**	mg/L	20	5.0	1	07/26/2024 12:25	07/26/2024 12:25	T
Alkalinity, Total	**21**	mg/L	20	5.0	1	07/26/2024 12:25	07/26/2024 12:25	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2417511006 **Date Collected:** 07/23/2024 11:31 **Matrix:** Water
Sample ID: SW-106 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	10 U	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Analytical Results

Lab ID: T2417511007 **Date Collected:** 07/23/2024 12:29 **Matrix:** Water
Sample ID: CCR-23 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**11**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:12	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:12	T
Boron	**620**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:12	T
Calcium	**340**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:12	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:12	T
Magnesium	**30**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:12	T
Potassium	**16**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:12	T
Sodium	**40**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:12	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:27	J
Arsenic	**0.38 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:27	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:27	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:27	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:27	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:27	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:27	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:27	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:43	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**130**	mg/L	25	5.0	5	08/05/2024 17:49	08/05/2024 17:49	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	08/05/2024 17:49	08/05/2024 17:49	T
Sulfate	**950**	mg/L	100	20	20	08/06/2024 12:17	08/06/2024 12:17	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**42**	mg/L	20	5.0	1	07/26/2024 12:28	07/26/2024 12:28	T
Alkalinity, Total	**42**	mg/L	20	5.0	1	07/26/2024 12:28	07/26/2024 12:28	T
WET CHEMISTRY (SM 2540 C)								

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Analytical Results

Lab ID: T2417511007 **Date Collected:** 07/23/2024 12:29 **Matrix:** Water
Sample ID: CCR-23 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**1300**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511008 **Date Collected:** 07/23/2024 15:17 **Matrix:** Water
Sample ID: CCR-12 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**23**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:19	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:19	T
Boron	**310**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:19	T
Calcium	**410**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:19	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:19	T
Magnesium	**5.2**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:19	T
Potassium	**35**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:19	T
Sodium	**5.7**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:19	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:33	J
Arsenic	**55**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:33	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:33	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:33	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:33	J
Molybdenum	**25**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:33	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:33	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:33	J
METALS (SW-846 7470A)								
Mercury	**0.099 I**	ug/L	0.10	0.011	1	07/30/2024 12:17	08/01/2024 13:46	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**10 I**	mg/L	25	5.0	5	08/05/2024 18:05	08/05/2024 18:05	T
Fluoride	**1.1 I**	mg/L	2.5	1.0	5	08/05/2024 18:05	08/05/2024 18:05	T
Sulfate	**810**	mg/L	100	20	20	08/06/2024 12:33	08/06/2024 12:33	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**330**	mg/L	20	5.0	1	07/26/2024 12:48	07/26/2024 12:48	T
Alkalinity, Total	**330**	mg/L	20	5.0	1	07/26/2024 12:48	07/26/2024 12:48	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511008 **Date Collected:** 07/23/2024 15:17 **Matrix:** Water
Sample ID: CCR-12 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**1200**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511009 **Date Collected:** 07/23/2024 15:11 **Matrix:** Water
Sample ID: CCR-7 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**4.4 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:21	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:21	T
Boron	**110**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:21	T
Calcium	**37**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:21	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:21	T
Magnesium	**3.8**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:21	T
Potassium	**11**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:21	T
Sodium	**4.5**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:21	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:39	J
Arsenic	**0.33 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:39	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:39	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:39	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:39	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:39	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:39	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:39	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:11	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**5.5 I**	mg/L	10	2.0	2	08/05/2024 18:21	08/05/2024 18:21	T
Fluoride	0.40 U	mg/L	1.0	0.40	2	08/05/2024 18:21	08/05/2024 18:21	T
Sulfate	**200**	mg/L	10	2.0	2	08/05/2024 18:21	08/05/2024 18:21	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**7.4 I**	mg/L	20	5.0	1	07/26/2024 12:40	07/26/2024 12:40	T
Alkalinity, Total	**7.4 I**	mg/L	20	5.0	1	07/26/2024 12:40	07/26/2024 12:40	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511009 **Date Collected:** 07/23/2024 15:11 **Matrix:** Water
Sample ID: CCR-7 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**270**	mg/L	10	10	1	07/26/2024 13:00	07/26/2024 13:00	T

Analysis Results Comments

Chloride

J4|Estimated Result

Fluoride

J4|Estimated Result

Sulfate

J4|Estimated Result

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511010 **Date Collected:** 07/24/2024 08:52 **Matrix:** Water
Sample ID: CCR-20 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**56**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:24	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:24	T
Boron	**220**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:24	T
Calcium	**650**	mg/L	5.0	1.0	5	07/26/2024 09:00	07/29/2024 11:42	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:24	T
Magnesium	**6.9**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:24	T
Potassium	**270**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:24	T
Sodium	**140**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:24	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 19:45	J
Arsenic	**79**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:45	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:45	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:45	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:45	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 19:45	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 19:45	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 19:45	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:13	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**600**	mg/L	120	25	25	08/05/2024 19:09	08/05/2024 19:09	T
Fluoride	5.0 U	mg/L	12	5.0	25	08/05/2024 19:09	08/05/2024 19:09	T
Sulfate	**2300**	mg/L	120	25	25	08/05/2024 19:09	08/05/2024 19:09	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**9.9 I**	mg/L	20	5.0	1	07/26/2024 12:52	07/26/2024 12:52	T
Alkalinity, Total	**9.9 I**	mg/L	20	5.0	1	07/26/2024 12:52	07/26/2024 12:52	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511010 **Date Collected:** 07/24/2024 08:52 **Matrix:** Water
Sample ID: CCR-20 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2800**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511011 **Date Collected:** 07/24/2024 09:53 **Matrix:** Water
Sample ID: CCR-19 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**58**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:26	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:26	T
Boron	**220**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:26	T
Calcium	**500**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:26	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:26	T
Magnesium	**45**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:26	T
Potassium	**110**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:26	T
Sodium	**130**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:26	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:02	J
Arsenic	**3.1**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:02	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:02	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:02	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:02	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:02	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:02	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:02	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:24	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**940**	mg/L	50	10	10	08/05/2024 19:25	08/05/2024 19:25	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	08/05/2024 19:25	08/05/2024 19:25	T
Sulfate	**970**	mg/L	50	10	10	08/05/2024 19:25	08/05/2024 19:25	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/26/2024 13:00	07/26/2024 13:00	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/26/2024 13:00	07/26/2024 13:00	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511011 **Date Collected:** 07/24/2024 09:53 **Matrix:** Water
Sample ID: CCR-19 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2000**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511012 **Date Collected:** 07/24/2024 11:00 **Matrix:** Water
Sample ID: CCR-18 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**3.7 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:28	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:28	T
Boron	**47 I**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:28	T
Calcium	**100**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:28	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:28	T
Magnesium	**6.1**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:28	T
Potassium	**4.1**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:28	T
Sodium	**2.1**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:28	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:07	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:07	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:07	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:07	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:07	J
Molybdenum	**1.5 I**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:07	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:07	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:07	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:27	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**3.3 I**	mg/L	10	2.0	2	08/05/2024 19:41	08/05/2024 19:41	T
Fluoride	**0.45 I**	mg/L	1.0	0.40	2	08/05/2024 19:41	08/05/2024 19:41	T
Sulfate	**110**	mg/L	10	2.0	2	08/05/2024 19:41	08/05/2024 19:41	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**170**	mg/L	20	5.0	1	07/26/2024 13:38	07/26/2024 13:38	T
Alkalinity, Total	**170**	mg/L	20	5.0	1	07/26/2024 13:38	07/26/2024 13:38	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511012 **Date Collected:** 07/24/2024 11:00 **Matrix:** Water
Sample ID: CCR-18 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**320**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511013 **Date Collected:** 07/24/2024 12:11 **Matrix:** Water
Sample ID: CCR-5 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**150**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:30	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:30	T
Boron	**330**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:30	T
Calcium	**870**	mg/L	2.0	0.40	2	07/26/2024 09:00	07/29/2024 11:42	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:30	T
Magnesium	**19**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:30	T
Potassium	**300**	mg/L	2.0	1.0	2	07/26/2024 09:00	07/29/2024 11:42	T
Sodium	**900**	mg/L	10	8.0	10	07/26/2024 09:00	07/31/2024 15:07	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:13	J
Arsenic	**0.47 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:13	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:13	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:13	J
Lead	1.0 U	ug/L	4.0	1.0	2	07/31/2024 06:45	08/01/2024 21:48	J
Molybdenum	**5.0**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:13	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:13	J
Thallium	0.50 U	ug/L	2.0	0.50	2	07/31/2024 06:45	08/01/2024 21:48	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:30	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**7800**	mg/L	500	100	100	08/05/2024 19:57	08/05/2024 19:57	T
Fluoride	20 U	mg/L	50	20	100	08/05/2024 19:57	08/05/2024 19:57	T
Sulfate	**1100**	mg/L	500	100	100	08/05/2024 19:57	08/05/2024 19:57	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**59**	mg/L	20	5.0	1	07/26/2024 13:58	07/26/2024 13:58	T
Alkalinity, Total	**59**	mg/L	20	5.0	1	07/26/2024 13:58	07/26/2024 13:58	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511013 **Date Collected:** 07/24/2024 12:11 **Matrix:** Water
Sample ID: CCR-5 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**12000**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511014 **Date Collected:** 07/24/2024 12:10 **Matrix:** Water
Sample ID: CCR-11 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**55**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:33	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:33	T
Boron	**270**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:33	T
Calcium	**670**	mg/L	5.0	1.0	5	07/26/2024 09:00	07/29/2024 11:42	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:33	T
Magnesium	**11**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:33	T
Potassium	**310**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:33	T
Sodium	**230**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:33	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:19	J
Arsenic	**67**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:19	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:19	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:19	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:19	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:19	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:19	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:19	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:38	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**830**	mg/L	120	25	25	08/05/2024 20:13	08/05/2024 20:13	T
Fluoride	5.0 U	mg/L	12	5.0	25	08/05/2024 20:13	08/05/2024 20:13	T
Sulfate	**1800**	mg/L	120	25	25	08/05/2024 20:13	08/05/2024 20:13	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/26/2024 13:55	07/26/2024 13:55	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/26/2024 13:55	07/26/2024 13:55	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511014 **Date Collected:** 07/24/2024 12:10 **Matrix:** Water
Sample ID: CCR-11 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**3500**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511015 **Date Collected:** 07/24/2024 14:01 **Matrix:** Water
Sample ID: CCR-21 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**45**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:35	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:35	T
Boron	**280**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:35	T
Calcium	**600**	mg/L	5.0	1.0	5	07/26/2024 09:00	07/29/2024 11:42	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:35	T
Magnesium	**15**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:35	T
Potassium	**23**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:35	T
Sodium	**15**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:35	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:24	J
Arsenic	**6.5**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:24	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:24	J
Cobalt	**0.47 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:24	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:24	J
Molybdenum	**32**	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:24	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:24	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:24	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:41	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**18 I**	mg/L	50	10	10	08/05/2024 20:29	08/05/2024 20:29	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	08/05/2024 20:29	08/05/2024 20:29	T
Sulfate	**1500**	mg/L	120	25	25	08/06/2024 12:49	08/06/2024 12:49	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**280**	mg/L	20	5.0	1	07/26/2024 14:07	07/26/2024 14:07	T
Alkalinity, Total	**280**	mg/L	20	5.0	1	07/26/2024 14:07	07/26/2024 14:07	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511015 **Date Collected:** 07/24/2024 14:01 **Matrix:** Water
Sample ID: CCR-21 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**1800**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511016 **Date Collected:** 07/24/2024 14:51 **Matrix:** Water
Sample ID: CCR-22 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**38**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:37	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:37	T
Boron	**350**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:37	T
Calcium	**460**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:37	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:37	T
Magnesium	**22**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:37	T
Potassium	**180**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:37	T
Sodium	**52**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:37	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	07/31/2024 06:45	07/31/2024 20:30	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:30	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:30	J
Cobalt	**0.38 I**	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:30	J
Lead	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:30	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	07/31/2024 06:45	07/31/2024 20:30	J
Selenium	1.2 U	ug/L	5.0	1.2	1	07/31/2024 06:45	07/31/2024 20:30	J
Thallium	0.25 U	ug/L	1.0	0.25	1	07/31/2024 06:45	07/31/2024 20:30	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:44	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**250**	mg/L	50	10	10	08/05/2024 20:45	08/05/2024 20:45	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	08/05/2024 20:45	08/05/2024 20:45	T
Sulfate	**1700**	mg/L	120	25	25	08/06/2024 13:05	08/06/2024 13:05	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	5.0 U	mg/L	20	5.0	1	07/26/2024 14:10	07/26/2024 14:10	T
Alkalinity, Total	5.0 U	mg/L	20	5.0	1	07/26/2024 14:10	07/26/2024 14:10	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511016 **Date Collected:** 07/24/2024 14:51 **Matrix:** Water
Sample ID: CCR-22 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**2200**	mg/L	10	10	1	07/29/2024 16:00	07/29/2024 16:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511017 **Date Collected:** 07/25/2024 10:48 **Matrix:** Water
Sample ID: CCR-6 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**7.7 I**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:40	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:40	T
Boron	**85**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:40	T
Calcium	**170**	mg/L	1.0	0.20	1	07/26/2024 09:00	07/29/2024 12:40	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:40	T
Magnesium	**3.8**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:40	T
Potassium	**13**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:40	T
Sodium	**19**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:40	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	08/05/2024 06:55	08/05/2024 14:34	J
Arsenic	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:34	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:34	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:34	J
Lead	0.50 U	ug/L	2.0	0.50	1	08/05/2024 06:55	08/05/2024 14:34	J
Molybdenum	**4.6**	ug/L	2.0	0.50	1	08/05/2024 06:55	08/06/2024 18:24	J
Selenium	1.2 U	ug/L	5.0	1.2	1	08/05/2024 06:55	08/05/2024 14:34	J
Thallium	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:34	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:47	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**64**	mg/L	25	5.0	5	08/06/2024 13:21	08/06/2024 13:21	T
Fluoride	1.0 U	mg/L	2.5	1.0	5	08/06/2024 13:21	08/06/2024 13:21	T
Sulfate	**200**	mg/L	25	5.0	5	08/06/2024 13:21	08/06/2024 13:21	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**150**	mg/L	20	5.0	1	07/26/2024 14:59	07/26/2024 14:59	T
Alkalinity, Total	**150**	mg/L	20	5.0	1	07/26/2024 14:59	07/26/2024 14:59	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511017 **Date Collected:** 07/25/2024 10:48 **Matrix:** Water
Sample ID: CCR-6 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**630**	mg/L	10	10	1	07/29/2024 13:00	07/29/2024 13:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511018 **Date Collected:** 07/25/2024 13:22 **Matrix:** Water
Sample ID: CCR-9 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
METALS (SW-846 3010A/SW-846 6010)								
Barium	**45**	ug/L	10	3.0	1	07/26/2024 09:00	07/29/2024 12:47	T
Beryllium	2.0 U	ug/L	10	2.0	1	07/26/2024 09:00	07/29/2024 12:47	T
Boron	**350**	ug/L	50	25	1	07/26/2024 09:00	07/29/2024 12:47	T
Calcium	**690**	mg/L	5.0	1.0	5	07/26/2024 09:00	07/29/2024 11:42	T
Chromium	5.0 U	ug/L	10	5.0	1	07/26/2024 09:00	07/29/2024 12:47	T
Magnesium	**42**	mg/L	0.10	0.080	1	07/26/2024 09:00	07/29/2024 12:47	T
Potassium	**110**	mg/L	1.0	0.50	1	07/26/2024 09:00	07/29/2024 12:47	T
Sodium	**140**	mg/L	1.0	0.80	1	07/26/2024 09:00	07/29/2024 12:47	T
METALS (SW-846 3010A/SW-846 6020)								
Antimony	1.0 U	ug/L	4.0	1.0	1	08/05/2024 06:55	08/05/2024 14:51	J
Arsenic	**3.3**	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:51	J
Cadmium	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:51	J
Cobalt	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:51	J
Lead	0.50 U	ug/L	2.0	0.50	1	08/05/2024 06:55	08/05/2024 14:51	J
Molybdenum	0.50 U	ug/L	2.0	0.50	1	08/05/2024 06:55	08/06/2024 18:41	J
Selenium	1.2 U	ug/L	5.0	1.2	1	08/05/2024 06:55	08/05/2024 14:51	J
Thallium	0.25 U	ug/L	1.0	0.25	1	08/05/2024 06:55	08/05/2024 14:51	J
METALS (SW-846 7470A)								
Mercury	0.011 U	ug/L	0.10	0.011	1	08/05/2024 10:07	08/05/2024 11:50	T
WET CHEMISTRY (EPA 300.0)								
Chloride	**890**	mg/L	50	10	10	08/06/2024 13:37	08/06/2024 13:37	T
Fluoride	2.0 U	mg/L	5.0	2.0	10	08/06/2024 13:37	08/06/2024 13:37	T
Sulfate	**1200**	mg/L	100	20	20	08/07/2024 17:12	08/07/2024 17:12	T
WET CHEMISTRY (SM 2320B)								
Alkalinity, Bicarbonate	**35**	mg/L	20	5.0	1	08/01/2024 16:49	08/01/2024 16:49	T
Alkalinity, Total	**35**	mg/L	20	5.0	1	08/01/2024 16:49	08/01/2024 16:49	T
WET CHEMISTRY (SM 2540 C)								

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Workorder: 2024 Semi Annual CCR (T2417511)

Analytical Results

Lab ID: T2417511018 **Date Collected:** 07/25/2024 13:22 **Matrix:** Water
Sample ID: CCR-9 **Date Received:** 07/25/2024 16:16

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
Total Dissolved Solids	**3000**	mg/L	10	10	1	07/29/2024 13:00	07/29/2024 13:00	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: CVAt/2292 **Analysis Method:** SW-846 7470A
Preparation Method: SW-846 7470A
Associated Lab IDs: T2417511001, T2417511002, T2417511003, T2417511004, T2417511005, T2417511006, T2417511007, T2417511008

Method Blank(5413108)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5413109)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	1	102	80 - 120	T

Matrix Spike (5413110); Matrix Spike Duplicate (5413111); Original (T2417415001); Parent Lab Sample (T2417415001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	ug/L	1	0.84	84	80 - 120	0.84	84	0	20	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: CVAt/2296 **Analysis Method:** SW-846 7470A
Preparation Method: SW-846 7470A
Associated Lab IDs: T2417511009, T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016, T2417511017, T2417511018

Method Blank(5420158)

Parameter	Results	Units	PQL	MDL	Lab
Mercury	0.011 U	ug/L	0.10	0.011	T

Lab Control Sample (5420159)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Mercury	ug/L	1	0.99	99	80 - 120	T

Matrix Spike (5420160); Matrix Spike Duplicate (5420161); Original (T2417511010); Parent Lab Sample (T2417511010)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Mercury	ug/L	1	0.51	**51**	80 - 120	0.51	**51**	1	20	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: ICMj/4554 **Analysis Method:** SW-846 6020
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417511001, T2417511002, T2417511003, T2417511004, T2417511005, T2417511006, T2417511007, T2417511008, T2417511009, T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016

Method Blank(5414343)

Parameter	Results	Units	PQL	MDL	Lab
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5414344)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Cobalt	ug/L	20	20	102	80 - 120	J
Arsenic	ug/L	20	22	108	80 - 120	J
Selenium	ug/L	20	21	107	80 - 120	J
Molybdenum	ug/L	20	21	106	80 - 120	J
Cadmium	ug/L	20	22	109	80 - 120	J
Antimony	ug/L	20	21	104	80 - 120	J
Thallium	ug/L	20	21	104	80 - 120	J
Lead	ug/L	20	20	102	80 - 120	J

Matrix Spike (5414345); Matrix Spike Duplicate (5414346); Original (T2417072006); Parent Lab Sample (T2417072006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cobalt	ug/L	20	19	95	75 - 125	19	94	1	20	J
Arsenic	ug/L	20	31	108	75 - 125	30	104	3	20	J
Selenium	ug/L	20	20	99	75 - 125	20	99	0	20	J
Molybdenum	ug/L	20	25	110	75 - 125	25	107	2	20	J
Cadmium	ug/L	20	21	106	75 - 125	21	103	2	20	J
Antimony	ug/L	20	23	115	75 - 125	22	111	3	20	J
Thallium	ug/L	20	22	112	75 - 125	22	108	3	20	J
Lead	ug/L	20	21	107	75 - 125	21	104	3	20	J

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: ICMj/4558
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417511017, T2417511018
Analysis Method: SW-846 6020

Method Blank(5419825)

Parameter	Results	Units	PQL	MDL	Lab
Cobalt	0.25 U	ug/L	1.0	0.25	J
Arsenic	0.25 U	ug/L	1.0	0.25	J
Selenium	1.2 U	ug/L	5.0	1.2	J
Molybdenum	0.50 U	ug/L	2.0	0.50	J
Cadmium	0.25 U	ug/L	1.0	0.25	J
Antimony	1.0 U	ug/L	4.0	1.0	J
Thallium	0.25 U	ug/L	1.0	0.25	J
Lead	0.50 U	ug/L	2.0	0.50	J

Lab Control Sample (5419826)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Cobalt	ug/L	20	21	103	80 - 120	J
Arsenic	ug/L	20	21	104	80 - 120	J
Selenium	ug/L	20	21	104	80 - 120	J
Molybdenum	ug/L	20	20	99	80 - 120	J
Cadmium	ug/L	20	19	97	80 - 120	J
Antimony	ug/L	20	19	96	80 - 120	J
Thallium	ug/L	20	19	93	80 - 120	J
Lead	ug/L	20	19	94	80 - 120	J

Matrix Spike (5419827); Matrix Spike Duplicate (5419828); Original (T2417511017); Parent Lab Sample (T2417511017)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cobalt	ug/L	20	19	93	75 - 125	19	95	2	20	J
Arsenic	ug/L	20	20	98	75 - 125	20	100	2	20	J
Selenium	ug/L	20	18	91	75 - 125	19	94	4	20	J
Molybdenum	ug/L	20	27	111	75 - 125	25	105	5	20	J
Cadmium	ug/L	20	18	89	75 - 125	18	91	2	20	J
Antimony	ug/L	20	20	99	75 - 125	20	100	2	20	J
Thallium	ug/L	20	19	95	75 - 125	19	95	1	20	J
Lead	ug/L	20	19	93	75 - 125	19	94	2	20	J

Matrix Spike (5419827); Matrix Spike Duplicate (5419828); Original (T2417511017); Parent Lab Sample (T2417511017)

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Batch: ICMj/4558
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417511017, T2417511018

Analysis Method: SW-846 6020

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Cobalt	ug/L	20	19	93	75 - 125	19	95	2	20	J
Arsenic	ug/L	20	20	98	75 - 125	20	100	2	20	J
Selenium	ug/L	20	18	91	75 - 125	19	94	4	20	J
Molybdenum	ug/L	20	27	111	75 - 125	25	105	5	20	J
Cadmium	ug/L	20	18	89	75 - 125	18	91	2	20	J
Antimony	ug/L	20	20	99	75 - 125	20	100	2	20	J
Thallium	ug/L	20	19	95	75 - 125	19	95	1	20	J
Lead	ug/L	20	19	93	75 - 125	19	94	2	20	J

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: ICPt/4940 **Analysis Method:** SW-846 6010
Preparation Method: SW-846 3010A
Associated Lab IDs: T2417511001, T2417511002, T2417511003, T2417511004, T2417511005, T2417511006, T2417511007, T2417511008, T2417511009, T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016, T2417511017, T2417511018

Method Blank(5409468)

Parameter	Results	Units	PQL	MDL	Lab
Boron	25 U	ug/L	50	25	T
Barium	3.0 U	ug/L	10	3.0	T
Beryllium	2.0 U	ug/L	10	2.0	T
Calcium	0.20 U	mg/L	1.0	0.20	T
Chromium	5.0 U	ug/L	10	5.0	T
Potassium	0.50 U	mg/L	1.0	0.50	T
Magnesium	0.080 U	mg/L	0.10	0.080	T
Sodium	0.80 U	mg/L	1.0	0.80	T

Lab Control Sample (5409469)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Boron	ug/L	100	100	103	80 - 120	T
Barium	ug/L	1000	950	95	80 - 120	T
Beryllium	ug/L	1000	970	97	80 - 120	T
Calcium	mg/L	10	9.9	99	80 - 120	T
Chromium	ug/L	1000	980	98	80 - 120	T
Potassium	mg/L	10	9.5	95	80 - 120	T
Magnesium	mg/L	10	9.5	95	80 - 120	T
Sodium	mg/L	10	9.5	95	80 - 120	T

Matrix Spike (5409470); Matrix Spike Duplicate (5409471); Original (T2417511001); Parent Lab Sample (T2417511001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Boron	ug/L	100	140	103	75 - 125	140	102	1	20	T
Barium	ug/L	1000	990	98	75 - 125	990	98	0	20	T
Beryllium	ug/L	1000	1000	104	75 - 125	1000	100	4	20	T
Calcium	mg/L	10	40	114	75 - 125	40	113	0	20	T
Chromium	ug/L	1000	1100	105	75 - 125	1000	101	4	20	T
Potassium	mg/L	10	11	105	75 - 125	11	105	0	20	T
Magnesium	mg/L	10	12	107	75 - 125	13	107	0	20	T
Sodium	mg/L	10	12	107	75 - 125	12	107	0	20	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31922 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417511006, T2417511007, T2417511008, T2417511009, T2417511010, T2417511011

Method Blank(5409668)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5409669)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	98	98	85 - 115	T

Sample Duplicate (5409671); Original (T2417511009); Parent Lab Sample (T2417511006, T2417511007, T2417511008, T2417511009, T2417511010, T2417511011)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	7.35792	7.72394	mg/L	5	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31922
Analysis Method: SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417511006, T2417511007, T2417511009

Sample Duplicate (5409670); Original (A2407924001); Parent Lab Sample (T2417511006, T2417511007, T2417511009)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	119.3191	122.6418	mg/L	3	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31923 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417511012, T2417511013, T2417511014, T2417511015, T2417511016

Sample Duplicate (5409674); Original (T2417511012); Parent Lab Sample (T2417511012, T2417511013, T2417511014, T2417511015, T2417511016)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	168.1115	166.4559	mg/L	1	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31923 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417511012, T2417511013, T2417511014, T2417511015, T2417511016, T2417511017

Method Blank(5409672)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5409673)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	100	101	85 - 115	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31923 **Analysis Method:** SM 2320B
Preparation Method: SM 2320B
Associated Lab IDs: T2417511013, T2417511014, T2417511015, T2417511016, T2417511017

Sample Duplicate (5409675); Original (A2407928005); Parent Lab Sample (T2417511013, T2417511014, T2417511015, T2417511016, T2417511017)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	185.032	183.3221	mg/L	1	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31928 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2417511001, T2417511002, T2417511005, T2417511006, T2417511007, T2417511008, T2417511009

Method Blank(5409767)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5409768)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	680	103	85 - 115	T

Sample Duplicate (5409769); Original (T2417073003); Parent Lab Sample (T2417511001, T2417511002, T2417511005, T2417511006, T2417511007, T2417511008, T2417511009)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	74	78	mg/L	5	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/31972 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016

Method Blank(5411636)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5411637)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	700	105	85 - 115	T

Sample Duplicate (5411638); Original (T2417452001); Parent Lab Sample (T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	638	600	mg/L	6	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32021 **Analysis Method:** SM 2540 C
Preparation Method: SM 2540 C
Associated Lab IDs: T2417511003, T2417511004, T2417511017, T2417511018

Method Blank(5413873)

Parameter	Results	Units	PQL	MDL	Lab
Total Dissolved Solids	10 U	mg/L	10	10	T

Lab Control Sample (5413874)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Total Dissolved Solids	mg/L	660	570	87	85 - 115	T

Sample Duplicate (5413875); Original (T2417511003); Parent Lab Sample (T2417511003, T2417511004, T2417511017, T2417511018)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Total Dissolved Solids	1316	1294	mg/L	2	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32083
Preparation Method: SM 2320B
Associated Lab IDs: T2417511018
Analysis Method: SM 2320B

Method Blank(5417564)

Parameter	Results	Units	PQL	MDL	Lab
Alkalinity, Total	5.0 U	mg/L	20	5.0	T

Lab Control Sample (5417565)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Alkalinity, Total	mg/L	100	99	99	85 - 115	T

Sample Duplicate (5417566); Original (A2407654001); Parent Lab Sample (T2417511018)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	116.1766	116.9085	mg/L	1	10	T

Sample Duplicate (5417567); Original (T2417511018); Parent Lab Sample (T2417511018)

Parameter	Original	Duplicate	Units	RPD	RPD Limit	Lab
Alkalinity, Total	34.72966	27.43507	mg/L	**23**	10	T

QC Result Comments

Sample Duplicate - 5417567 - Alkalinity, Total

J4|Estimated Result

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32201
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511001
Analysis Method: EPA 300.0

Matrix Spike (5423325); Matrix Spike Duplicate (5423326); Original (T2417491001); Parent Lab Sample (T2417491001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.2	**111**	90 - 110	2.1	106	5	10	T
Chloride	mg/L	20	56	**126**	90 - 110	55	**119**	2	10	T
Sulfate	mg/L	20	25	**127**	90 - 110	24	**122**	4	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32201 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511001, T2417511002, T2417511003, T2417511004, T2417511005

Method Blank(5423323)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5423324)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.4	108	90 - 110	T
Chloride	mg/L	50	55	110	90 - 110	T
Sulfate	mg/L	50	55	110	90 - 110	T

Matrix Spike (5423327); Matrix Spike Duplicate (5423328); Original (T2417511001); Parent Lab Sample (T2417511001)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	0.11	**5**	90 - 110	0.11	**5**	0	10	T
Chloride	mg/L	20	4.4	**0**	90 - 110	4.4	**0**	1	10	T
Sulfate	mg/L	20	69	**0**	90 - 110	70	**3**	1	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32208 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511006, T2417511007, T2417511008, T2417511009

Matrix Spike (5423470); Matrix Spike Duplicate (5423471); Original (T2417511006); Parent Lab Sample (T2417511006)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.2	**112**	90 - 110	2.1	106	5	10	T
Chloride	mg/L	20	27	**120**	90 - 110	26	**116**	3	10	T
Sulfate	mg/L	20	57	**120**	90 - 110	57	**119**	1	10	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32208 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511006, T2417511007, T2417511008, T2417511009, T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016

Method Blank(5423468)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5423469)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.1	103	90 - 110	T
Chloride	mg/L	50	50	100	90 - 110	T
Sulfate	mg/L	50	51	101	90 - 110	T

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Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32208 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511007, T2417511008, T2417511009, T2417511010, T2417511011, T2417511012, T2417511013, T2417511014, T2417511015, T2417511016

Matrix Spike (5423472); Matrix Spike Duplicate (5423473); Original (T2417511009); Parent Lab Sample (T2417511009)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2.4	**119**	90 - 110	2.9	**146**	**20**	10	T
Chloride	mg/L	20	32	**134**	90 - 110	30	**124**	6	10	T
Sulfate	mg/L	20	140	**-291**	90 - 110	130	**-329**	5	10	T

Certificate of Analysis

NELAP Accredited E84589

Advanced Environmental Laboratories, Inc
9610 Princess Palm Ave Tampa, FL 33619
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (813) 630-9616
Fax: (813) 630-4327

FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32311 **Analysis Method:** EPA 300.0
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511007, T2417511008, T2417511015, T2417511016, T2417511017, T2417511018

Method Blank(5430527)

Parameter	Results	Units	PQL	MDL	Lab
Fluoride	0.20 U	mg/L	0.50	0.20	T
Chloride	1.0 U	mg/L	5.0	1.0	T
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5430528)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Fluoride	mg/L	5	5.1	102	90 - 110	T
Chloride	mg/L	50	50	100	90 - 110	T
Sulfate	mg/L	50	50	101	90 - 110	T

Matrix Spike (5430529); Matrix Spike Duplicate (5430530); Original (T2417724004); Parent Lab Sample (T2417724004)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Fluoride	mg/L	2	2	98	90 - 110	2	102	4	10	T
Chloride	mg/L	20	29	110	90 - 110	27	102	6	10	T
Sulfate	mg/L	20	29	110	90 - 110	28	101	6	10	T

Certificate of Analysis

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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Results

QC Batch: WCAt/32372
Preparation Method: EPA 300.0
Associated Lab IDs: T2417511003, T2417511005, T2417511018
Analysis Method: EPA 300.0

Method Blank(5433073)

Parameter	Results	Units	PQL	MDL	Lab
Sulfate	1.0 U	mg/L	5.0	1.0	T

Lab Control Sample (5433074)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Sulfate	mg/L	50	49	99	90 - 110	T

Matrix Spike (5433075); Matrix Spike Duplicate (5433076); Original (T2417861002); Parent Lab Sample (T2417861002)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Dup Result	Dup Recovery	RPD	RPD Limit	Lab
Sulfate	mg/L	20	25	96	90 - 110	26	98	2	10	T

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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
CVAt/2292 - SW-846 7470A			
T2417511001	CCR-1	DGMt/8185	SW-846 7470A
T2417511002	CCR-2	DGMt/8185	SW-846 7470A
T2417511003	CCR-4	DGMt/8185	SW-846 7470A
T2417511004	CCR-8	DGMt/8185	SW-846 7470A
T2417511005	CCR-13	DGMt/8185	SW-846 7470A
T2417511006	SW-106	DGMt/8185	SW-846 7470A
T2417511007	CCR-23	DGMt/8185	SW-846 7470A
T2417511008	CCR-12	DGMt/8185	SW-846 7470A
CVAt/2296 - SW-846 7470A			
T2417511009	CCR-7	DGMt/8205	SW-846 7470A
T2417511010	CCR-20	DGMt/8205	SW-846 7470A
T2417511011	CCR-19	DGMt/8205	SW-846 7470A
T2417511012	CCR-18	DGMt/8205	SW-846 7470A
T2417511013	CCR-5	DGMt/8205	SW-846 7470A
T2417511014	CCR-11	DGMt/8205	SW-846 7470A
T2417511015	CCR-21	DGMt/8205	SW-846 7470A
T2417511016	CCR-22	DGMt/8205	SW-846 7470A
T2417511017	CCR-6	DGMt/8205	SW-846 7470A
T2417511018	CCR-9	DGMt/8205	SW-846 7470A

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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICMj/4554 - SW-846 6020			
T2417511001	CCR-1	DGMj/8716	SW-846 3010A
T2417511002	CCR-2	DGMj/8716	SW-846 3010A
T2417511003	CCR-4	DGMj/8716	SW-846 3010A
T2417511004	CCR-8	DGMj/8716	SW-846 3010A
T2417511005	CCR-13	DGMj/8716	SW-846 3010A
T2417511006	SW-106	DGMj/8716	SW-846 3010A
T2417511007	CCR-23	DGMj/8716	SW-846 3010A
T2417511008	CCR-12	DGMj/8716	SW-846 3010A
T2417511009	CCR-7	DGMj/8716	SW-846 3010A
T2417511010	CCR-20	DGMj/8716	SW-846 3010A
T2417511011	CCR-19	DGMj/8716	SW-846 3010A
T2417511012	CCR-18	DGMj/8716	SW-846 3010A
T2417511013	CCR-5	DGMj/8716	SW-846 3010A
T2417511014	CCR-11	DGMj/8716	SW-846 3010A
T2417511015	CCR-21	DGMj/8716	SW-846 3010A
T2417511016	CCR-22	DGMj/8716	SW-846 3010A
ICMj/4558 - SW-846 6020			
T2417511017	CCR-6	DGMj/8738	SW-846 3010A
T2417511018	CCR-9	DGMj/8738	SW-846 3010A

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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
ICPt/4940 - SW-846 6010			
T2417511001	CCR-1	DGMt/8167	SW-846 3010A
T2417511002	CCR-2	DGMt/8167	SW-846 3010A
T2417511003	CCR-4	DGMt/8167	SW-846 3010A
T2417511004	CCR-8	DGMt/8167	SW-846 3010A
T2417511005	CCR-13	DGMt/8167	SW-846 3010A
T2417511006	SW-106	DGMt/8167	SW-846 3010A
T2417511007	CCR-23	DGMt/8167	SW-846 3010A
T2417511008	CCR-12	DGMt/8167	SW-846 3010A
T2417511009	CCR-7	DGMt/8167	SW-846 3010A
T2417511010	CCR-20	DGMt/8167	SW-846 3010A
T2417511011	CCR-19	DGMt/8167	SW-846 3010A
T2417511012	CCR-18	DGMt/8167	SW-846 3010A
T2417511013	CCR-5	DGMt/8167	SW-846 3010A
T2417511014	CCR-11	DGMt/8167	SW-846 3010A
T2417511015	CCR-21	DGMt/8167	SW-846 3010A
T2417511016	CCR-22	DGMt/8167	SW-846 3010A
T2417511017	CCR-6	DGMt/8167	SW-846 3010A
T2417511018	CCR-9	DGMt/8167	SW-846 3010A
WCAt/31922 - SM 2320B			
T2417511006	SW-106		
T2417511007	CCR-23		
T2417511008	CCR-12		
T2417511009	CCR-7		
T2417511010	CCR-20		
T2417511011	CCR-19		
WCAt/31923 - SM 2320B			
T2417511012	CCR-18		
T2417511013	CCR-5		
T2417511014	CCR-11		
T2417511015	CCR-21		
T2417511016	CCR-22		
T2417511017	CCR-6		

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Phone: (813) 630-9616
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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/31928 - SM 2540 C			
T2417511001	CCR-1		
T2417511002	CCR-2		
T2417511005	CCR-13		
T2417511006	SW-106		
T2417511007	CCR-23		
T2417511008	CCR-12		
T2417511009	CCR-7		
WCAt/31972 - SM 2540 C			
T2417511010	CCR-20		
T2417511011	CCR-19		
T2417511012	CCR-18		
T2417511013	CCR-5		
T2417511014	CCR-11		
T2417511015	CCR-21		
T2417511016	CCR-22		
WCAt/32021 - SM 2540 C			
T2417511003	CCR-4		
T2417511004	CCR-8		
T2417511017	CCR-6		
T2417511018	CCR-9		
WCAt/32083 - SM 2320B			
T2417511018	CCR-9		
WCAt/32201 - EPA 300.0			
T2417511001	CCR-1		
T2417511002	CCR-2		
T2417511003	CCR-4		
T2417511004	CCR-8		
T2417511005	CCR-13		

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FINAL

Workorder: 2024 Semi Annual CCR (T2417511)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/32208 - EPA 300.0			
T2417511006	SW-106		
T2417511007	CCR-23		
T2417511008	CCR-12		
T2417511009	CCR-7		
T2417511010	CCR-20		
T2417511011	CCR-19		
T2417511012	CCR-18		
T2417511013	CCR-5		
T2417511014	CCR-11		
T2417511015	CCR-21		
T2417511016	CCR-22		
WCAt/32311 - EPA 300.0			
T2417511007	CCR-23		
T2417511008	CCR-12		
T2417511015	CCR-21		
T2417511016	CCR-22		
T2417511017	CCR-6		
T2417511018	CCR-9		
WCAt/32372 - EPA 300.0			
T2417511003	CCR-4		
T2417511005	CCR-13		
T2417511018	CCR-9		

Advanced Environmental Laboratories, Inc.

☐ Fort Myers: 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ Jacksonville: 8481 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☐ Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ Gainesville: 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name:	Lakeland Electric	Project Name:	2024 Semi Annual CCR
Address:	501 E Lemon St	Project Number:	FK371SG
	Lakeland, FL	PO Number:	
Phone:	863-834-6623	FDEP Facility No:	
FAX:		FDEP Facility Addr:	
Contact:	Thomas Johnston		
Sampled By:	Olivia Hollingsworth + Rik Mehrotra	Special Instructions:	Ecosystec EDP
Turn Around Time:	(Standard) Rush		
AEL Profile #:	72419	ADaPT	(EQuIS) Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT
CCR-1-20240723	CCR-1	G	7/23/24	1005	GW	4
CCR-2-20240723	CCR-2	G	7/23/24	0902	GW	4
CCR-4-20240725	CCR-4	G	7.25.24	0855	GW	4
CCR-8-20240725	CCR-8	G	7.25.24	1420	GW	4
CCR-13-20240723	CCR-13	G	7/23/24	1043	GW	4
SW-106-20240723	SW-106	"	"	1131	"	5
CCR-23-20240723	CCR-23	"	"	1229	"	5
CCR-12-20240723	CCR-12	"	"	1517	"	"
CCR-7-20240723	CCR-7	"	"	1511	"	"
CCR-20-20240724	CCR-20	"	7/24/24	0852	"	"

ANALYSIS REQUIRED	BOTTLE SIZE & TYPE	250ml plastic	250ml plastic	250ml plastic	1L plastic	125ml Plastic						
	Preservation	I	N	N	N	H						
	Field-Filtered?	No	No	No	No	No						
		Chloride/TDS/SO4/F	6010 Metals	6020 metals	Hg	Alk						
LABORATORY I.D. NUMBER												
001		X	X	X	X				CCR-8 had little to no presequative			
002		X	X	X	X				1 Li had pea size			
003		X	X	X	X				6010 had small pea size 6020 had none			
004		X	X	X	X							
005		X	X	X	X							
006		X	X	X	X	X						
007		X	X	X	X	X						
008		X	X	X	X	X						
009		X	X	X	X	X						
010		X	X	X	X	X						

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H=(HCl) S = (H_2SO_4) N = (HNO_3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☑ Where required, pH checked

Temp. when received (observed) 6 °C Temp. when received (corrected) _____ °C

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: ** S: 1V F: 1A

DCN: AD-D051web Form last revised 08/07/2019

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Rik Mehrotra	7.25.24	1616		7/25/24	1616
2						
3						
4						

FOR DRINKING WATER

(When PWS Information)

Contact Person: ___

Supplier of Water: ___

Site-Address: ___

T2417511

Advanced Environmental Laboratories, Inc.

Altamonte Springs: 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E83076
Fort Myers: 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84402
Jacksonville: 6661 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
Gainesville: 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: Lakeland Electric
Address: 501 E Lemon St.
Lakeland, FL
Phone: 863-834-6623
FAX:
Contact: Thomas Johnston
Sampled By: Olivia Hollingsworth, Jacob Helm + Rik Morris
Turn Around Time: (Standard) Rush
AEL Profile #: 72119

Project Name: 2024 Semi Annual CCR
Project Number: PS715G
PO Number:
FDEP Facility No:
FDEP Facility Addr:
Special Instructions: Geosyntec EDD
ADaPT (EQuIS) Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab / Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	ANALYSIS REQUIRED: Chloride/TDS/SO4/F (250ml Plastic)	6010 metals (250ml Plastic)	6020 metals (250ml Plastic)	Hg (7L Plastic)	Hg-K (125ml Plastic)	LABORATORY I.D. NUMBER
Preservation							N	N	N	N	H	
Field-Filtered?							No	No	No	No	No	
CCR-19-20240724	CCR-19	G	7/24/24	0953	GW	5	X	X	X	X	X	011
CCR-18-20240724	CCR-18	"	"	1100	"	"	X	X	X	X	X	012
CCR-5-20240724	CCR-5	"	"	1211	"	"	X	X	X	X	X	013
CCR-11-20240724	CCR-11	"	"	1210	"	"	X	X	X	X	X	014
CCR-21-20240724	CCR-21	"	"	1401	"	"	X	X	X	X	X	015
CCR-22-20240724	CCR-22	"	"	1451	"	"	X	X	X	X	X	016
CCR-6-20240725	CCR-6	"	07/25/24	1048	"	"	X	X	X	X	X	009
CCR-9-20240725	CCR-9	"	7.25.24	1322	"	"	X	X	X	X	X	018

Matrix Code: WW=wastewater, SW=surface water, GW=ground water, DW=drinking water, MW=marine water, O=oil, A=air, SO=soil, SL=sludge

Preservation Code: I=ice, H=HCl, S=H2SO4, N=HNO3, T=Sodium Thiosulfate, AA=Ascorbic/HCl, AB=Ascorbic/NaOH

Received on Ice: (Yes) No — Temp taken from sample: ☐ — Temp from blank: ☑ — Where required, pH checked: — Temp. when received (observed): 0.0 °C — Temp. when received (corrected): ____ °C

Device used for measuring Temp by unique identifier (circle IR temp gun used): J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-D051web Form last revised: 07/26/2022

	Relinquished by:	Date	Time	Received by:	Date	Time
1	[signature]	7.25.24	1616	[signature]	7/25/24	1616
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS information not otherwise supplied) PWS ID:
Contact Person:
Supplier of Water:
Site Address:

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Michael Cammarata
Advanced Environmental Laboratory Inc
9610 Princess Palm Avenue
Tampa, Florida 33619

Generated 8/6/2024 3:14:46 PM

JOB DESCRIPTION

T2417511

JOB NUMBER

670-44788-1

Eurofins Orlando
481 Newburyport Avenue
Altamonte Springs FL 32701

See page two for job notes and contact information.

myEOL

Job Notes

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Authorization

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Authorized for release by
David Camacho, Senior Project Manager
david.camacho@et.eurofinsus.com
(321)282-6400

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Definitions/Glossary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Job Narrative
670-44788-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/2/2024 4:44 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 22.1°C.

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

Detection Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-001 — Lab Sample ID: 670-44788-1

No Detections.

Client Sample ID: T2417511-002 — Lab Sample ID: 670-44788-2

No Detections.

Client Sample ID: T2417511-003 — Lab Sample ID: 670-44788-3

No Detections.

Client Sample ID: T2417511-004 — Lab Sample ID: 670-44788-4

No Detections.

Client Sample ID: T2417511-005 — Lab Sample ID: 670-44788-5

No Detections.

Client Sample ID: T2417511-006 — Lab Sample ID: 670-44788-6

No Detections.

Client Sample ID: T2417511-007 — Lab Sample ID: 670-44788-7

No Detections.

Client Sample ID: T2417511-008 — Lab Sample ID: 670-44788-8

No Detections.

Client Sample ID: T2417511-009 — Lab Sample ID: 670-44788-9

No Detections.

Client Sample ID: T2417511-010 — Lab Sample ID: 670-44788-10

No Detections.

Client Sample ID: T2417511-011 — Lab Sample ID: 670-44788-11

No Detections.

Client Sample ID: T2417511-012 — Lab Sample ID: 670-44788-12

No Detections.

Client Sample ID: T2417511-013 — Lab Sample ID: 670-44788-13

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	4.0		0.020	0.018	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2417511-014 — Lab Sample ID: 670-44788-14

No Detections.

Client Sample ID: T2417511-015 — Lab Sample ID: 670-44788-15

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-016

Lab Sample ID: 670-44788-16

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.074		0.020	0.018	mg/L	1		6010D	Total Recoverable

Client Sample ID: T2417511-017

Lab Sample ID: 670-44788-17

No Detections.

Client Sample ID: T2417511-018

Lab Sample ID: 670-44788-18

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.053		0.020	0.018	mg/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-001 — **Lab Sample ID: 670-44788-1**
Date Collected: 07/23/24 10:05 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 21:50	1

Client Sample ID: T2417511-002 — **Lab Sample ID: 670-44788-2**
Date Collected: 07/23/24 09:02 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 21:53	1

Client Sample ID: T2417511-003 — **Lab Sample ID: 670-44788-3**
Date Collected: 07/25/24 08:55 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 21:55	1

Client Sample ID: T2417511-004 — **Lab Sample ID: 670-44788-4**
Date Collected: 07/25/24 14:20 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 21:58	1

Client Sample ID: T2417511-005 — **Lab Sample ID: 670-44788-5**
Date Collected: 07/23/24 10:43 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:01	1

Client Sample ID: T2417511-006 — **Lab Sample ID: 670-44788-6**
Date Collected: 07/23/24 11:31 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:04	1

Client Sample ID: T2417511-007 — **Lab Sample ID: 670-44788-7**
Date Collected: 07/23/24 12:29 — **Matrix: Water**
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:06	1

Client Sample ID: T2417511-008
Lab Sample ID: 670-44788-8
Date Collected: 07/23/24 15:17
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:09	1

Client Sample ID: T2417511-009
Lab Sample ID: 670-44788-9
Date Collected: 07/23/24 15:11
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:12	1

Client Sample ID: T2417511-010
Lab Sample ID: 670-44788-10
Date Collected: 07/25/24 16:16
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:14	1

Client Sample ID: T2417511-011
Lab Sample ID: 670-44788-11
Date Collected: 07/24/24 09:53
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:25	1

Client Sample ID: T2417511-012
Lab Sample ID: 670-44788-12
Date Collected: 07/24/24 11:00
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:28	1

Client Sample ID: T2417511-013
Lab Sample ID: 670-44788-13
Date Collected: 07/24/24 12:11
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**4.0**		0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:31	1

Client Sample ID: T2417511-014
Lab Sample ID: 670-44788-14
Date Collected: 07/24/24 12:10
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:33	1

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-015

Lab Sample ID: 670-44788-15

Date Collected: 07/24/24 14:01
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:36	1

Client Sample ID: T2417511-016

Lab Sample ID: 670-44788-16

Date Collected: 07/24/24 14:51
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.074		0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:39	1

Client Sample ID: T2417511-017

Lab Sample ID: 670-44788-17

Date Collected: 07/25/24 10:48
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018	U	0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:42	1

Client Sample ID: T2417511-018

Lab Sample ID: 670-44788-18

Date Collected: 07/25/24 13:22
Matrix: Water
Date Received: 08/02/24 16:44

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.053		0.020	0.018	mg/L		08/05/24 10:09	08/05/24 22:44	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 670-103946/3-A
Matrix: Water
Analysis Batch: 104073

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 103946

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.016	U	0.018	0.016	mg/L		08/05/24 10:09	08/05/24 21:42	1

Lab Sample ID: LCS 670-103946/1-A
Matrix: Water
Analysis Batch: 104073

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 103946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.10	1.02		mg/L		93	80 - 120

Lab Sample ID: LCSD 670-103946/2-A
Matrix: Water
Analysis Batch: 104073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 103946

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	1.10	1.04		mg/L		95	80 - 120	2	20

Lab Sample ID: 670-44788-1 MS
Matrix: Water
Analysis Batch: 104073

Client Sample ID: T2417511-001
Prep Type: Total Recoverable
Prep Batch: 103946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.018	U	1.22	0.900		mg/L		74	70 - 120

Lab Sample ID: 670-44788-1 MSD
Matrix: Water
Analysis Batch: 104073

Client Sample ID: T2417511-001
Prep Type: Total Recoverable
Prep Batch: 103946

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.018	U	1.22	0.943		mg/L		77	70 - 120	5	20

QC Association Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Metals

Prep Batch: 103946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-44788-1	T2417511-001	Total Recoverable	Water	3005A	
670-44788-2	T2417511-002	Total Recoverable	Water	3005A	
670-44788-3	T2417511-003	Total Recoverable	Water	3005A	
670-44788-4	T2417511-004	Total Recoverable	Water	3005A	
670-44788-5	T2417511-005	Total Recoverable	Water	3005A	
670-44788-6	T2417511-006	Total Recoverable	Water	3005A	
670-44788-7	T2417511-007	Total Recoverable	Water	3005A	
670-44788-8	T2417511-008	Total Recoverable	Water	3005A	
670-44788-9	T2417511-009	Total Recoverable	Water	3005A	
670-44788-10	T2417511-010	Total Recoverable	Water	3005A	
670-44788-11	T2417511-011	Total Recoverable	Water	3005A	
670-44788-12	T2417511-012	Total Recoverable	Water	3005A	
670-44788-13	T2417511-013	Total Recoverable	Water	3005A	
670-44788-14	T2417511-014	Total Recoverable	Water	3005A	
670-44788-15	T2417511-015	Total Recoverable	Water	3005A	
670-44788-16	T2417511-016	Total Recoverable	Water	3005A	
670-44788-17	T2417511-017	Total Recoverable	Water	3005A	
670-44788-18	T2417511-018	Total Recoverable	Water	3005A	
MB 670-103946/3-A	Method Blank	Total Recoverable	Water	3005A	
LCS 670-103946/1-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 670-103946/2-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
670-44788-1 MS	T2417511-001	Total Recoverable	Water	3005A	
670-44788-1 MSD	T2417511-001	Total Recoverable	Water	3005A	

Analysis Batch: 104073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
670-44788-1	T2417511-001	Total Recoverable	Water	6010D	103946
670-44788-2	T2417511-002	Total Recoverable	Water	6010D	103946
670-44788-3	T2417511-003	Total Recoverable	Water	6010D	103946
670-44788-4	T2417511-004	Total Recoverable	Water	6010D	103946
670-44788-5	T2417511-005	Total Recoverable	Water	6010D	103946
670-44788-6	T2417511-006	Total Recoverable	Water	6010D	103946
670-44788-7	T2417511-007	Total Recoverable	Water	6010D	103946
670-44788-8	T2417511-008	Total Recoverable	Water	6010D	103946
670-44788-9	T2417511-009	Total Recoverable	Water	6010D	103946
670-44788-10	T2417511-010	Total Recoverable	Water	6010D	103946
670-44788-11	T2417511-011	Total Recoverable	Water	6010D	103946
670-44788-12	T2417511-012	Total Recoverable	Water	6010D	103946
670-44788-13	T2417511-013	Total Recoverable	Water	6010D	103946
670-44788-14	T2417511-014	Total Recoverable	Water	6010D	103946
670-44788-15	T2417511-015	Total Recoverable	Water	6010D	103946
670-44788-16	T2417511-016	Total Recoverable	Water	6010D	103946
670-44788-17	T2417511-017	Total Recoverable	Water	6010D	103946
670-44788-18	T2417511-018	Total Recoverable	Water	6010D	103946
MB 670-103946/3-A	Method Blank	Total Recoverable	Water	6010D	103946
LCS 670-103946/1-A	Lab Control Sample	Total Recoverable	Water	6010D	103946
LCSD 670-103946/2-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	103946
670-44788-1 MS	T2417511-001	Total Recoverable	Water	6010D	103946
670-44788-1 MSD	T2417511-001	Total Recoverable	Water	6010D	103946

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-001

Lab Sample ID: 670-44788-1

Date Collected: 07/23/24 10:05
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 21:50

Client Sample ID: T2417511-002

Lab Sample ID: 670-44788-2

Date Collected: 07/23/24 09:02
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 21:53

Client Sample ID: T2417511-003

Lab Sample ID: 670-44788-3

Date Collected: 07/25/24 08:55
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 21:55

Client Sample ID: T2417511-004

Lab Sample ID: 670-44788-4

Date Collected: 07/25/24 14:20
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 21:58

Client Sample ID: T2417511-005

Lab Sample ID: 670-44788-5

Date Collected: 07/23/24 10:43
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:01

Client Sample ID: T2417511-006

Lab Sample ID: 670-44788-6

Date Collected: 07/23/24 11:31
Matrix: Water
Date Received: 08/02/24 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:04

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-007

Lab Sample ID: 670-44788-7

Date Collected: 07/23/24 12:29
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:06

Client Sample ID: T2417511-008

Lab Sample ID: 670-44788-8

Date Collected: 07/23/24 15:17
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:09

Client Sample ID: T2417511-009

Lab Sample ID: 670-44788-9

Date Collected: 07/23/24 15:11
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:12

Client Sample ID: T2417511-010

Lab Sample ID: 670-44788-10

Date Collected: 07/25/24 16:16
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:14

Client Sample ID: T2417511-011

Lab Sample ID: 670-44788-11

Date Collected: 07/24/24 09:53
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:25

Client Sample ID: T2417511-012

Lab Sample ID: 670-44788-12

Date Collected: 07/24/24 11:00
Date Received: 08/02/24 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:28

Lab Chronicle

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Client Sample ID: T2417511-013
Date Collected: 07/24/24 12:11
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:31

Client Sample ID: T2417511-014
Date Collected: 07/24/24 12:10
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:33

Client Sample ID: T2417511-015
Date Collected: 07/24/24 14:01
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:36

Client Sample ID: T2417511-016
Date Collected: 07/24/24 14:51
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:39

Client Sample ID: T2417511-017
Date Collected: 07/25/24 10:48
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:42

Client Sample ID: T2417511-018
Date Collected: 07/25/24 13:22
Date Received: 08/02/24 16:44

Lab Sample ID: 670-44788-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			103946	DP	EET ORL	08/05/24 10:09
Total Recoverable	Analysis	6010D		1	104073	AS	EET ORL	08/05/24 22:44

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Accreditation/Certification Summary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-44788-1
Project/Site: T2417511

Laboratory: Eurofins Orlando

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E83018	06-30-25

Method Summary

Client: Advanced Environmental Laboratory Inc
Job ID: 670-44788-1
Project/Site: T2417511

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET ORL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET ORL

Protocol References:

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

Laboratory References:

EET ORL = Eurofins Orlando, 481 Newburyport Avenue, Altamonte Springs, FL 32701, TEL (407)339-5984

Sample Summary

Client: Advanced Environmental Laboratory Inc
Project/Site: T2417511

Job ID: 670-44788-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
670-44788-1	T2417511-001	Water	07/23/24 10:05	08/02/24 16:44
670-44788-2	T2417511-002	Water	07/23/24 09:02	08/02/24 16:44
670-44788-3	T2417511-003	Water	07/25/24 08:55	08/02/24 16:44
670-44788-4	T2417511-004	Water	07/25/24 14:20	08/02/24 16:44
670-44788-5	T2417511-005	Water	07/23/24 10:43	08/02/24 16:44
670-44788-6	T2417511-006	Water	07/23/24 11:31	08/02/24 16:44
670-44788-7	T2417511-007	Water	07/23/24 12:29	08/02/24 16:44
670-44788-8	T2417511-008	Water	07/23/24 15:17	08/02/24 16:44
670-44788-9	T2417511-009	Water	07/23/24 15:11	08/02/24 16:44
670-44788-10	T2417511-010	Water	07/25/24 16:16	08/02/24 16:44
670-44788-11	T2417511-011	Water	07/24/24 09:53	08/02/24 16:44
670-44788-12	T2417511-012	Water	07/24/24 11:00	08/02/24 16:44
670-44788-13	T2417511-013	Water	07/24/24 12:11	08/02/24 16:44
670-44788-14	T2417511-014	Water	07/24/24 12:10	08/02/24 16:44
670-44788-15	T2417511-015	Water	07/24/24 14:01	08/02/24 16:44
670-44788-16	T2417511-016	Water	07/24/24 14:51	08/02/24 16:44
670-44788-17	T2417511-017	Water	07/25/24 10:48	08/02/24 16:44
670-44788-18	T2417511-018	Water	07/25/24 13:22	08/02/24 16:44

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:**
☐ **Fort Myers:**
☐ **Jacksonville:**
☐ **Tallahassee:**
☐ **Gainesville:**
☐ **Miramar:**
☐ **Tampa:**

Page ______ of ______

Client Name	Advanced Environmental Lab
Address	Tampa Fl 33619
Phone	813-630-9616
FAX	813-630-4327
Contact	mcammarata@aellab.com
Sampled By	
Turn Around Time	☐ STANDARD ☐ RUSH
AEL Profile #	
Project Number	T2417511
Project Number	T-PO-27262
FDEP Facility No	
FDEP Facility Address	

Even though matrix WA please include DW report along with ENV report

☐ ADaPT ☐ EQuIS ☐ Other

BOTTLE SIZE & TYPE

ANALYSIS REQUIRED: Lithium 6010

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	Preservation / Field Filtered?	Lithium 6010	LABORATORY I.D. NUMBER
	T2417511-001		07.23.24	10:05	WA	1		X	
	T2417511-002		07.23.24	9:02	WA	1		X	
	T2417511-003		07.25.24	8:35	WA	1		X	
	T2417511-004		07.25.24	14:20	WA	1		X	
	T2417511-005		07.23.24	10:43	WA	1		X	
	T2417511-006		07.23.24	11:31	WA	1		X	
	T2417511-007		07.23.24	12:29	WA	1		X	
	T2417511-008		07.23.24	13:17	WA	1		X	
	T2417511-009		07.23.24	13:11	WA	1		X	
	T2417511-010		07.25.24	16:16	WA	1		X	

670-44788 Chain of Custody

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge **Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) ______ °C Temp. when received (corrected) ______ °C

DCN: AD-D051 Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Carol Voorbrood	08.01.24	12:00	[signature]	0802.24	[illegible]
2	[signature]	8/2/24				
3						
4				[signature]	8/2/24	1514

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: ______

Contact Person: ______ Phone: ______

Supplier of Water: ______

Site Address: ______

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs** ☐ **Fort Myers** ☐ **Jacksonville** ☐ **Tallahassee** ☐ **Gainesville** ☐ **Miramar** ☐ **Tampa**

Page ____ of ____

Client Name:	Advanced Environmental Lab
Address:	Tampa Fl 33619
Phone:	813-630-9616
FAX:	813-630-4327
Contact:	mcammarata@aellab.com
Sampled By:	
Turn Around Time: ☐ STANDARD ☐ RUSH	
AEL Profile #:	

Project Number: T2417511

Project Number:

T-PO-22763

FDEP Facility No:

FDEP Facility Address:

Even though matrix WA please include DW report along with EVN report

☐ ADaPT ☐ EQuIS ☐ Other

BOTTLE SIZE & TYPE

ANALYSIS REQUIRED: Lithium 6010

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	Preservation / Field Filtered?	Lithium 6010	LABORATORY I.D. NUMBER
	T2417511-011		07.24.24	8:53	WA	1		X	
	T2417511-012		07.24.24	11:00	WA	1		X	
	T2417511-013		07.24.24	12:11	WA	1		X	
	T2417511-014		07.24.24	12:10	WA	1		X	
	T2417511-015		07.24.24	14:01	WA	1		X	
	T2417511-016		07.24.24	14:51	WA	1		X	
	T2417511-017		07.25.24	10:46	WA	1		X	
	T2417511-018		07.25.24	12:22	WA	1		X	

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge **Preservation Code:** I = ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) ____ °C Temp. when received (corrected) ____ °C

DCN: AD-D051 Form last revised 06/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Cacil Voorhood	08.01.24	12:00	[signature]	8/01/24	15:20
2	[signature]	8/01/24				
3						
4				[signature]	8/2/24	10:44

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: ____

Contact Person: ____ Phone: ____

Supplier of Water: ____

Site Address: ____

22.1/72

13

Login Sample Receipt Checklist

Client: Advanced Environmental Laboratory Inc

Job Number: 670-44788-1

Login Number: 44788
List Number: 1
Creator: Bittle, David W

List Source: Eurofins Orlando

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

Statistical Results – February 2024

Monitoring

FEBRUARY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-4	Antimony	mg/L	24	21	88	0.001	0.0015	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-4	Arsenic	mg/L	27	11	41	0.00051	0.0136	0.00221	0.013	0.0017	1.40	Decreasing	Nonparametric[4]	0.0015
CCR-4	Barium	mg/L	27	0	0	0.149	0.36	--	--	0.27	0.20	Stable	Normal	0.26
CCR-4	Beryllium	mg/L	23	9	39	0.0002	0.00084	0.000101	0.00283	0.00049	0.48	Decreasing	Normal[4]	0.00034
CCR-4	Cadmium	mg/L	25	9	36	0.00046	0.0233	0.000181	0.0039	0.0036	1.63	No Trend	Lognormal	0.0024
CCR-4	Chromium	mg/L	25	7	28	0.0015	0.0063	0.001	0.00513	0.0022	0.44	Decreasing	Nonparametric[4]	0.0020
CCR-4	Cobalt	mg/L	25	7	28	0.0011	0.0052	0.000293	0.002	0.0026	0.64	Decreasing	Nonparametric	0.0023
CCR-4	Fluoride	mg/L	29	8	28	0.04	1.92	0.032	20	0.29	1.29	Increasing	Trend (Theil-Sen Slope)	0.52
CCR-4	Lead	mg/L	25	20	80	0.00051	0.0032	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-4	Lithium	mg/L	27	4	15	0.0079	0.34	0.00333	0.022	0.11	1.04	Increasing	Trend (Theil-Sen Slope)	0.118
CCR-4	Mercury	mg/L	24	23	96	0.000034	0.000034	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-4	Molybdenum	mg/L	27	25	93	0.0161	0.0184	0.0005	0.00631	NA	NA	NA	DL	0.00085
CCR-4	Selenium	mg/L	27	15	56	0.00029	0.0031	0.00024	0.028	NA	NA	NA	DL	0.0044
CCR-4	Thallium	mg/L	25	11	44	0.00026	0.0051	0.00025	0.0017	0.00053	1.76	Decreasing	Nonparametric[4]	0.00045
CCR-5	Antimony	mg/L	24	24	100	--	--	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-5	Arsenic	mg/L	27	10	37	0.00038	0.019	0.00046	0.013	0.0022	1.83	Decreasing	Nonparametric[4]	0.0016
CCR-5	Barium	mg/L	27	0	0	0.064	0.16	--	--	0.076	0.24	Increasing	Trend (Theil-Sen Slope)	0.077
CCR-5	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-5	Cadmium	mg/L	25	24	96	0.001	0.001	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-5	Chromium	mg/L	25	8	32	0.0008	0.0018	0.000736	0.00513	0.0013	0.27	Decreasing	Normal[4]	0.0011
CCR-5	Cobalt	mg/L	25	23	92	0.0032	0.0034	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-5	Fluoride	mg/L	28	8	29	0.04	0.835	0.026	20	0.11	1.60	Increasing	Trend (Theil-Sen Slope)	0.12
CCR-5	Lead	mg/L	25	19	76	0.00046	0.0021	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-5	Lithium	mg/L	27	0	0	2.3	5.35	--	--	3.3	0.30	Increasing	Trend (Theil-Sen Slope)	3.8
CCR-5	Mercury	mg/L	24	22	92	0.00011	0.000233	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-5	Molybdenum	mg/L	27	23	85	0.0014	0.025	0.0005	0.00631	NA	NA	NA	DL	0.00085
CCR-5	Selenium	mg/L	27	16	59	0.00028	0.0312	0.00024	0.028	NA	NA	NA	DL	0.0044
CCR-5	Thallium	mg/L	25	23	92	0.0036	0.0056	0.000085	0.0017	NA	NA	NA	DL	0.000085

FEBRUARY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-6	Antimony	mg/L	24	24	100	--	--	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-6	Arsenic	mg/L	27	13	48	0.00047	0.0073	0.00025	0.00586	0.0011	1.53	Decreasing	Nonparametric[4]	0.00092
CCR-6	Barium	mg/L	27	3	11	0.0145	0.051	0.003	0.017	0.027	0.47	Decreasing	Trend (Theil-Sen Slope)	0.00027
CCR-6	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-6	Cadmium	mg/L	25	24	96	0.0003	0.0003	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-6	Chromium	mg/L	25	15	60	0.0009	0.021	0.000736	0.00513	NA	NA	NA	DL	0.0011
CCR-6	Cobalt	mg/L	25	24	96	0.0005	0.0005	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-6	Fluoride	mg/L	29	1	3	0.09	0.738	0.4	0.4	0.23	0.58	Increasing	Trend (Theil-Sen Slope)	0.37
CCR-6	Lead	mg/L	25	23	92	0.00037	0.00041	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-6	Lithium	mg/L	27	2	7	0.045	1.47	0.02	0.06	0.36	1.02	Probably Increasing	Gamma	0.27
CCR-6	Mercury	mg/L	24	24	100	--	--	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-6	Molybdenum	mg/L	27	11	41	0.0011	0.0362	0.00085	0.00631	0.0055	1.45	Increasing	Trend (Theil-Sen Slope)	0.0063
CCR-6	Selenium	mg/L	27	20	74	0.00033	0.00073	0.00024	0.027	NA	NA	NA	DL	0.00024
CCR-6	Thallium	mg/L	25	25	100	--	--	0.000085	0.0034	NA	NA	NA	DL	0.000085
CCR-7	Antimony	mg/L	24	23	96	0.0178	0.0178	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-7	Arsenic	mg/L	27	17	63	0.00026	0.0169	0.00025	0.00586	NA	NA	NA	DL	0.00046
CCR-7	Barium	mg/L	27	1	4	0.0076	0.1	0.017	0.017	0.036	0.65	Decreasing	Normal	0.028
CCR-7	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-7	Cadmium	mg/L	25	25	100	--	--	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-7	Chromium	mg/L	25	12	48	0.0012	0.0028	0.000736	0.00513	0.0015	0.45	Probably Decreasing	Normal	0.0011
CCR-7	Cobalt	mg/L	25	20	80	0.00041	0.001	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-7	Fluoride	mg/L	28	2	7	0.08	0.54	0.4	0.4	0.25	0.48	Increasing	Trend (Regression)	0.27
CCR-7	Lead	mg/L	25	21	84	0.00039	0.0013	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-7	Lithium	mg/L	28	5	18	0.0032	0.34	0.0032	0.06	0.055	1.33	Probably Increasing	Gamma[6]	0.038
CCR-7	Mercury	mg/L	24	23	96	0.00007	0.00007	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-7	Molybdenum	mg/L	27	23	85	0.0005	0.0115	0.00085	0.00631	NA	NA	NA	DL	0.00085
CCR-7	Selenium	mg/L	27	20	74	0.00024	0.00043	0.00024	0.027	NA	NA	NA	DL	0.00024
CCR-7	Thallium	mg/L	25	25	100	--	--	0.000085	0.0034	NA	NA	NA	DL	0.000085

FEBRUARY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-8	Antimony	mg/L	24	22	92	0.0017	0.0058	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-8	Arsenic	mg/L	27	9	33	0.00095	0.0135	0.00221	0.00586	0.0028	0.89	Decreasing	Nonparametric[4]	0.0024
CCR-8	Barium	mg/L	27	0	0	0.021	0.064	--	--	0.036	0.33	Probably Decreasing	Trend (Regression)	0.017
CCR-8	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-8	Cadmium	mg/L	25	25	100	--	--	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-8	Chromium	mg/L	25	22	88	0.0007	0.0008	0.000513	0.00513	NA	NA	NA	DL	0.0011
CCR-8	Cobalt	mg/L	25	24	96	0.0012	0.0012	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-8	Fluoride	mg/L	29	2	7	0.23	0.4	0.4	0.4	0.31	0.14	Increasing	Trend (Regression)	0.36
CCR-8	Lead	mg/L	25	24	96	0.00045	0.00045	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-8	Lithium	mg/L	27	13	48	0.0043	0.0491	0.00272	0.06	0.011	1.05	Decreasing	Nonparametric	0.0088
CCR-8	Mercury	mg/L	24	24	100	--	--	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-8	Molybdenum	mg/L	27	0	0	0.011	0.0238	--	--	0.016	0.21	Stable	Normal	0.015
CCR-8	Selenium	mg/L	27	21	78	0.0003	0.0246	0.00024	0.027	NA	NA	NA	DL	0.00024
CCR-8	Thallium	mg/L	25	24	96	0.00015	0.00015	0.000085	0.0034	NA	NA	NA	DL	0.000085
CCR-9	Antimony	mg/L	24	23	96	0.0017	0.0017	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-9	Arsenic	mg/L	27	4	15	0.00098	0.0173	0.00221	0.0075	0.0052	0.66	Probably Decreasing	Trend (Theil-Sen Slope)	0.0016
CCR-9	Barium	mg/L	27	0	0	0.039	0.13	--	--	0.085	0.30	Decreasing	Trend (Regression)	0.033
CCR-9	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-9	Cadmium	mg/L	25	24	96	0.00058	0.00058	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-9	Chromium	mg/L	25	17	68	0.001	0.0023	0.000736	0.00513	NA	NA	NA	DL	0.0011
CCR-9	Cobalt	mg/L	25	25	100	--	--	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-9	Fluoride	mg/L	29	2	7	0.095	0.69	0.25	2	0.24	0.58	Increasing	Trend (Theil-Sen Slope)	0.29
CCR-9	Lead	mg/L	25	22	88	0.00054	0.0028	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-9	Lithium	mg/L	27	2	7	0.0457	0.19	0.00272	0.06	0.099	0.46	Decreasing	Trend (Regression)	0.019
CCR-9	Mercury	mg/L	24	24	100	--	--	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-9	Molybdenum	mg/L	27	23	85	0.0014	0.0166	0.0005	0.00631	NA	NA	NA	DL	0.00085
CCR-9	Selenium	mg/L	27	14	52	0.00047	0.0015	0.0012	0.027	NA	NA	NA	DL	0.0044
CCR-9	Thallium	mg/L	25	24	96	0.0048	0.0048	0.000085	0.0017	NA	NA	NA	DL	0.000085

FEBRUARY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-11	Antimony	mg/L	24	23	96	0.0015	0.0015	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-11	Arsenic	mg/L	27	0	0	0.051	0.14	--	--	0.089	0.34	Decreasing	Trend (Regression)	0.032
CCR-11	Barium	mg/L	27	0	0	0.025	0.071	--	--	0.053	0.18	Decreasing	Normal	0.050
CCR-11	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-11	Cadmium	mg/L	25	24	96	0.001	0.001	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-11	Chromium	mg/L	25	8	32	0.0012	0.0023	0.000736	0.00513	0.0016	0.25	Decreasing	Normal[4]	0.0014
CCR-11	Cobalt	mg/L	25	24	96	0.0009	0.0009	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-11	Fluoride	mg/L	30	2	7	0.35	1.46	2	5	0.64	0.52	Increasing	Trend (Theil-Sen Slope)	1.24
CCR-11	Lead	mg/L	25	18	72	0.00039	0.0014	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-11	Lithium	mg/L	27	16	59	0.004	0.0338	0.00272	0.06	NA	NA	NA	DL	0.0032
CCR-11	Mercury	mg/L	24	24	100	--	--	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-11	Molybdenum	mg/L	27	20	74	0.00089	0.0149	0.0005	0.00631	NA	NA	NA	DL	0.00085
CCR-11	Selenium	mg/L	27	11	41	0.0013	0.0085	0.0012	0.027	0.0023	0.91	Decreasing	Nonparametric[4]	0.0021
CCR-11	Thallium	mg/L	25	25	100	--	--	0.000085	0.0034	NA	NA	NA	DL	0.000085
CCR-12	Antimony	mg/L	24	24	100	--	--	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-12	Arsenic	mg/L	27	0	0	0.00089	0.199	--	--	0.058	0.78	Increasing	Trend (Theil-Sen Slope)	0.066
CCR-12	Barium	mg/L	27	0	0	0.0117	0.048	--	--	0.018	0.40	Increasing	Trend (Theil-Sen Slope)	0.018
CCR-12	Beryllium	mg/L	23	23	100	--	--	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-12	Cadmium	mg/L	25	24	96	0.0009	0.0009	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-12	Chromium	mg/L	25	20	80	0.0006	0.0024	0.000736	0.00513	NA	NA	NA	DL	0.0011
CCR-12	Cobalt	mg/L	25	22	88	0.0008	0.0015	0.00025	0.002	NA	NA	NA	DL	0.0004
CCR-12	Fluoride	mg/L	29	2	7	0.45	1.44	1	2	0.64	0.32	Increasing	Trend (Theil-Sen Slope)	0.84
CCR-12	Lead	mg/L	25	24	96	0.001	0.001	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-12	Lithium	mg/L	27	22	81	0.0139	0.26	0.00272	0.06	NA	NA	NA	DL	0.0032
CCR-12	Mercury	mg/L	24	24	100	--	--	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-12	Molybdenum	mg/L	27	2	7	0.0056	0.0368	0.00085	0.00392	0.012	0.69	Increasing	Trend (Regression)	0.017
CCR-12	Selenium	mg/L	27	16	59	0.00032	0.0151	0.00024	0.028	NA	NA	NA	DL	0.0044
CCR-12	Thallium	mg/L	25	23	92	0.00035	0.0041	0.000085	0.0017	NA	NA	NA	DL	0.000085

FEBRUARY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-13	Antimony	mg/L	24	23	96	0.0014	0.0014	0.001	0.0123	NA	NA	NA	DL	0.0010
CCR-13	Arsenic	mg/L	27	14	52	0.00032	0.043	0.00025	0.00396	NA	NA	NA	DL	0.00046
CCR-13	Barium	mg/L	27	0	0	0.01	0.053	--	--	0.037	0.31	Stable	Nonparametric	0.037
CCR-13	Beryllium	mg/L	23	21	91	0.0002	0.0003	0.000101	0.00283	NA	NA	NA	DL	0.00034
CCR-13	Cadmium	mg/L	25	23	92	0.0003	0.0351	0.000181	0.0039	NA	NA	NA	DL	0.00034
CCR-13	Chromium	mg/L	25	9	36	0.001	0.0023	0.0011	0.00513	0.0017	0.27	Decreasing	Normal[4]	0.0015
CCR-13	Cobalt	mg/L	25	8	32	0.00077	0.0046	0.000354	0.002	0.0015	0.75	Stable	Normal	0.00063
CCR-13	Fluoride	mg/L	29	1	3	0.103	2.64	1	1	0.87	0.68	Increasing	Trend (Regression)	1.4
CCR-13	Lead	mg/L	25	25	100	--	--	0.00035	0.0139	NA	NA	NA	DL	0.00035
CCR-13	Lithium	mg/L	27	1	4	0.011	0.32	0.0032	0.0032	0.20	0.46	Probably Decreasing	Trend (Theil-Sen Slope)	0.084
CCR-13	Mercury	mg/L	24	23	96	0.000195	0.000195	0.000011	0.000152	NA	NA	NA	DL	0.00007
CCR-13	Molybdenum	mg/L	27	20	74	0.001	0.0121	0.0005	0.00631	NA	NA	NA	DL	0.00085
CCR-13	Selenium	mg/L	27	19	70	0.00032	0.0135	0.00024	0.027	NA	NA	NA	DL	0.00024
CCR-13	Thallium	mg/L	25	20	80	0.00009	0.00011	0.000085	0.0034	NA	NA	NA	DL	0.000085

Notes:

1 - For data sets with any ND data and 50% or less NDs, the Kaplan-Meier mean and standard deviation are provided. For data sets without ND data, the arithmetic mean is provided. For data sets with greater than 50% NDs, no mean is provided.

2. For distribution = "Normal" and "Lognormal", the 95% LCL was calculated on the mean concentration.
For distribution = "Trend (Regression)" or "Trend (Theil-Sen Slope)", the 95% LCL was calculated from the regression/Sen's slope line due to an increasing/decreasing trend.
For distribution = "Nonparametric", the 95% LCL was calculated on the median concentration.
For distribution = "DL", the 95% LCL was equivalent to the MDL.

3. The Mann-Kendall test was used to identify increasing or decreasing trends in the data with trends identified with a confidence level of 95% or more marked increasing or decreasing and those with a confidence level between 90% and 95% marked probably increasing or probably decreasing.

4. Trend is an artifact of varyng detection limits, therefore, the LCL was derived using a parametric or nonparametric method.

5. Data used in the statistical analysis are provided in Table 2.

6. There were two anamolously high concentrations in April 2018 and April 2019, but concentrations have been decreasing since April 2019. As such, a Gamma LCL was calculated instead of an LCL from the trend line.

-- - not provided because all data had either detected concentrations or was nondetect.
CV - coefficient of variation calculated as the ratio of the standard deviation to the mean
LCL - lower confidence limit
mg/L - milligrams per liter
NA - not applicable, statistic could not be calculated due to high percent of non-detects (>50% NDs)
ND - non-detect

APPENDIX C

Statistical Results – July 2024 Monitoring

JULY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-4	Antimony	mg/L	25	22	88	0.001	0.0015	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-4	Arsenic	mg/L	28	12	43	0.00051	0.0136	0.00025	0.013	0.0016	1.45	Decreasing	Nonparametric[4]	0.0014
CCR-4	Barium	mg/L	28	0	0	0.018	0.36	--	--	0.26	0.27	Stable	Normal	0.24
CCR-4	Beryllium	mg/L	24	10	42	0.0002	0.00084	0.000101	0.00283	0.00049	0.48	Decreasing	Normal[4]	0.00034
CCR-4	Cadmium	mg/L	26	9	35	0.00029	0.0233	0.000181	0.0039	0.0035	1.67	No Trend	Lognormal	0.0022
CCR-4	Chromium	mg/L	26	8	31	0.0015	0.0063	0.001	0.00513	0.0022	0.44	Decreasing	Nonparametric[4]	0.0020
CCR-4	Cobalt	mg/L	26	8	31	0.0011	0.0052	0.00025	0.002	0.0025	0.68	Decreasing	Nonparametric	0.0022
CCR-4	Fluoride	mg/L	30	9	30	0.04	1.92	0.032	20	0.29	1.29	Increasing	Trend (Theil-Sen Slope)	0.59
CCR-4	Lead	mg/L	26	21	81	0.00051	0.0032	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-4	Lithium	mg/L	28	5	18	0.0079	0.34	0.00333	0.022	0.10	1.07	Increasing	Trend (Theil-Sen Slope)	0.072
CCR-4	Mercury	mg/L	25	24	96	0.000034	0.000034	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-4	Molybdenum	mg/L	28	25	89	0.011	0.0184	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-4	Selenium	mg/L	28	16	57	0.00029	0.0031	0.00024	0.028	NA	NA	ND	DL	0.0044
CCR-4	Thallium	mg/L	26	12	46	0.00026	0.0051	0.00025	0.0017	0.00052	1.77	Decreasing	Nonparametric[4]	0.00044
CCR-5	Antimony	mg/L	25	25	100	--	--	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-5	Arsenic	mg/L	28	10	36	0.00038	0.019	0.00046	0.013	0.0022	1.86	Decreasing	Nonparametric[4]	0.0016
CCR-5	Barium	mg/L	28	0	0	0.064	0.16	--	--	0.079	0.28	Increasing	Trend (Theil-Sen Slope)	0.079
CCR-5	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-5	Cadmium	mg/L	26	25	96	0.001	0.001	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-5	Chromium	mg/L	26	9	35	0.0008	0.0018	0.000736	0.00513	0.0013	0.27	Decreasing	Normal[4]	0.0011
CCR-5	Cobalt	mg/L	26	24	92	0.0032	0.0034	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-5	Fluoride	mg/L	29	9	31	0.04	0.835	0.026	20	0.11	1.60	Increasing	Trend (Theil-Sen Slope)	0.13
CCR-5	Lead	mg/L	26	20	77	0.00046	0.0021	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-5	Lithium	mg/L	28	0	0	2.3	5.35	--	--	3.34	0.29	Increasing	Trend (Theil-Sen Slope)	3.9
CCR-5	Mercury	mg/L	25	23	92	0.00011	0.000233	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-5	Molybdenum	mg/L	28	23	82	0.0014	0.025	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-5	Selenium	mg/L	28	17	61	0.00028	0.0312	0.00024	0.028	NA	NA	ND	DL	0.0044
CCR-5	Thallium	mg/L	26	24	92	0.0036	0.0056	0.000085	0.0017	NA	NA	ND	DL	0.000085

JULY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-6	Antimony	mg/L	25	25	100	--	--	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-6	Arsenic	mg/L	28	14	50	0.00047	0.0073	0.00025	0.00586	0.0011	1.57	Decreasing	Nonparametric[4]	0.00089
CCR-6	Barium	mg/L	28	3	11	0.0077	0.051	0.003	0.017	0.027	0.49	Decreasing	Normal	0.021
CCR-6	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-6	Cadmium	mg/L	26	25	96	0.0003	0.0003	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-6	Chromium	mg/L	26	16	62	0.0009	0.021	0.000736	0.00513	NA	NA	ND	DL	0.0011
CCR-6	Cobalt	mg/L	26	25	96	0.0005	0.0005	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-6	Fluoride	mg/L	30	2	7	0.09	0.738	0.4	1	0.23	0.58	Increasing	Trend (Theil-Sen Slope)	0.39
CCR-6	Lead	mg/L	26	24	92	0.00037	0.00041	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-6	Lithium	mg/L	28	3	11	0.045	1.47	0.018	0.06	0.35	1.05	No Trend	Gamma	0.25
CCR-6	Mercury	mg/L	25	25	100	--	--	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-6	Molybdenum	mg/L	28	11	39	0.0011	0.0362	0.00085	0.00631	0.0054	1.43	Increasing	Trend (Theil-Sen Slope)	0.0062
CCR-6	Selenium	mg/L	28	21	75	0.00033	0.00073	0.00024	0.027	NA	NA	ND	DL	0.00024
CCR-6	Thallium	mg/L	26	26	100	--	--	0.000085	0.0034	NA	NA	ND	DL	0.000085
CCR-7	Antimony	mg/L	25	24	96	0.0178	0.0178	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-7	Arsenic	mg/L	28	17	61	0.00026	0.0169	0.00025	0.00586	NA	NA	ND	DL	0.00046
CCR-7	Barium	mg/L	28	1	4	0.0044	0.1	0.017	0.017	0.035	0.68	Decreasing	Normal	0.027
CCR-7	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-7	Cadmium	mg/L	26	26	100	--	--	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-7	Chromium	mg/L	26	13	50	0.0012	0.0028	0.000736	0.00513	0.0015	0.45	Decreasing	Normal[4]	0.0011
CCR-7	Cobalt	mg/L	26	21	81	0.00041	0.001	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-7	Fluoride	mg/L	29	3	10	0.08	0.54	0.4	0.4	0.25	0.48	Increasing	Trend (Regression)	0.29
CCR-7	Lead	mg/L	26	22	85	0.00039	0.0013	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-7	Lithium	mg/L	29	6	21	0.0032	0.34	0.0032	0.06	0.054	1.36	No Trend	Gamma	0.037
CCR-7	Mercury	mg/L	25	24	96	0.00007	0.00007	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-7	Molybdenum	mg/L	28	24	86	0.0005	0.0115	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-7	Selenium	mg/L	28	21	75	0.00024	0.00043	0.00024	0.027	NA	NA	ND	DL	0.00024
CCR-7	Thallium	mg/L	26	26	100	--	--	0.000085	0.0034	NA	NA	ND	DL	0.000085

JULY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-8	Antimony	mg/L	25	23	92	0.0017	0.0058	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-8	Arsenic	mg/L	28	9	32	0.00095	0.0135	0.00221	0.00586	0.0028	0.91	Decreasing	Lognormal[4]	0.0021
CCR-8	Barium	mg/L	28	0	0	0.021	0.064	--	--	0.035	0.33	Decreasing	Trend (Regression)	0.017
CCR-8	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-8	Cadmium	mg/L	26	26	100	--	--	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-8	Chromium	mg/L	26	23	88	0.0007	0.0008	0.000513	0.00513	NA	NA	ND	DL	0.0011
CCR-8	Cobalt	mg/L	26	25	96	0.0012	0.0012	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-8	Fluoride	mg/L	30	3	10	0.23	0.4	0.4	0.4	0.31	0.14	Increasing	Trend (Regression)	0.37
CCR-8	Lead	mg/L	26	25	96	0.00045	0.00045	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-8	Lithium	mg/L	28	14	50	0.0043	0.0491	0.00272	0.06	0.011	1.06	Decreasing	Nonparametric[4]	0.0088
CCR-8	Mercury	mg/L	25	25	100	--	--	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-8	Molybdenum	mg/L	28	0	0	0.011	0.0238	--	--	0.016	0.21	Stable	Normal	0.015
CCR-8	Selenium	mg/L	28	22	79	0.0003	0.0246	0.00024	0.027	NA	NA	ND	DL	0.00024
CCR-8	Thallium	mg/L	26	25	96	0.00015	0.00015	0.000085	0.0034	NA	NA	ND	DL	0.000085
CCR-9	Antimony	mg/L	25	24	96	0.0017	0.0017	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-9	Arsenic	mg/L	28	4	14	0.00098	0.0173	0.00221	0.0075	0.0052	0.66	Decreasing	Trend (Theil-Sen Slope)	0.0016
CCR-9	Barium	mg/L	28	0	0	0.039	0.13	--	--	0.084	0.31	Decreasing	Trend (Regression)	0.030
CCR-9	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-9	Cadmium	mg/L	26	25	96	0.00058	0.00058	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-9	Chromium	mg/L	26	18	69	0.001	0.0023	0.000736	0.00513	NA	NA	ND	DL	0.0011
CCR-9	Cobalt	mg/L	26	26	100	--	--	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-9	Fluoride	mg/L	30	3	10	0.095	0.69	0.25	2	0.24	0.58	Increasing	Trend (Theil-Sen Slope)	0.32
CCR-9	Lead	mg/L	26	23	88	0.00054	0.0028	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-9	Lithium	mg/L	28	2	7	0.0457	0.19	0.00272	0.06	0.097	0.46	Decreasing	Trend (Regression)	0.017
CCR-9	Mercury	mg/L	25	25	100	--	--	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-9	Molybdenum	mg/L	28	24	86	0.0014	0.0166	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-9	Selenium	mg/L	28	15	54	0.00047	0.0015	0.0012	0.027	NA	NA	ND	DL	0.0044
CCR-9	Thallium	mg/L	26	25	96	0.0048	0.0048	0.000085	0.0017	NA	NA	ND	DL	0.000085

JULY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-11	Antimony	mg/L	25	24	96	0.0015	0.0015	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-11	Arsenic	mg/L	28	0	0	0.0513	0.14	--	--	0.088	0.34	Decreasing	Trend (Regression)	0.034
CCR-11	Barium	mg/L	28	0	0	0.025	0.071	--	--	0.053	0.18	Probably Decreasing	Normal	0.050
CCR-11	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-11	Cadmium	mg/L	26	25	96	0.001	0.001	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-11	Chromium	mg/L	26	9	35	0.0012	0.0023	0.000736	0.00513	0.0016	0.25	Decreasing	Normal[4]	0.0014
CCR-11	Cobalt	mg/L	26	25	96	0.0009	0.0009	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-11	Fluoride	mg/L	31	3	10	0.35	1.46	2	5	0.64	0.52	Increasing	Trend (Theil-Sen Slope)	1.3
CCR-11	Lead	mg/L	26	19	73	0.00039	0.0014	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-11	Lithium	mg/L	28	17	61	0.004	0.0338	0.00272	0.06	NA	NA	ND	DL	0.0032
CCR-11	Mercury	mg/L	25	25	100	--	--	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-11	Molybdenum	mg/L	28	21	75	0.00089	0.0149	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-11	Selenium	mg/L	28	12	43	0.0013	0.0085	0.0012	0.027	0.0023	0.92	Decreasing	Nonparametric[4]	0.0020
CCR-11	Thallium	mg/L	26	26	100	--	--	0.000085	0.0034	NA	NA	ND	DL	0.000085
CCR-12	Antimony	mg/L	25	25	100	--	--	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-12	Arsenic	mg/L	28	0	0	0.00089	0.199	--	--	0.058	0.76	Increasing	Trend (Theil-Sen Slope)	0.066
CCR-12	Barium	mg/L	28	0	0	0.0117	0.048	--	--	0.018	0.39	Increasing	Trend (Theil-Sen Slope)	0.019
CCR-12	Beryllium	mg/L	24	24	100	--	--	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-12	Cadmium	mg/L	26	25	96	0.0009	0.0009	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-12	Chromium	mg/L	26	21	81	0.0006	0.0024	0.000736	0.00513	NA	NA	ND	DL	0.0011
CCR-12	Cobalt	mg/L	26	23	88	0.0008	0.0015	0.00025	0.002	NA	NA	ND	DL	0.00040
CCR-12	Fluoride	mg/L	30	2	7	0.45	1.44	1	2	0.66	0.33	Increasing	Trend (Theil-Sen Slope)	0.88
CCR-12	Lead	mg/L	26	25	96	0.001	0.001	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-12	Lithium	mg/L	28	23	82	0.0139	0.26	0.00272	0.06	NA	NA	ND	DL	0.0032
CCR-12	Mercury	mg/L	25	24	96	0.000099	0.000099	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-12	Molybdenum	mg/L	28	2	7	0.0056	0.0368	0.00085	0.00392	0.012	0.68	Increasing	Trend (Regression)	0.019
CCR-12	Selenium	mg/L	28	17	61	0.00032	0.0151	0.00024	0.028	NA	NA	ND	DL	0.0044
CCR-12	Thallium	mg/L	26	24	92	0.00035	0.0041	0.000085	0.0017	NA	NA	ND	DL	0.000085

JULY 2024 BSA LANDFILL APPENDIX IV STATISTICS - DOWNGRADIENT WELLS
Lakeland Electric - C.D. McIntosh Power Plant, Polk County, Florida

Monitoring Location	Analyte	Units	Number of Samples	Number of NDs	Percent NDs	Minimum Detected Result	Maximum Detected Result	Minimum Detection Limit	Maximum Detection Limit	Mean[1]	CV	Concentration Trend[3]	LCL Distribution[2]	95% LCL
CCR-13	Antimony	mg/L	25	24	96	0.0014	0.0014	0.001	0.0123	NA	NA	ND	DL	0.0010
CCR-13	Arsenic	mg/L	28	14	50	0.00032	0.043	0.00025	0.00396	0.0034	2.53	Probably Decreasing	Nonparametric[4]	0.0015
CCR-13	Barium	mg/L	28	0	0	0.004	0.053	--	--	0.036	0.36	Decreasing	Trend (Theil-Sen Slope)	0.022
CCR-13	Beryllium	mg/L	24	22	92	0.0002	0.0003	0.000101	0.00283	NA	NA	ND	DL	0.00034
CCR-13	Cadmium	mg/L	26	24	92	0.0003	0.0351	0.000181	0.0039	NA	NA	ND	DL	0.00034
CCR-13	Chromium	mg/L	26	10	38	0.001	0.0023	0.0011	0.00513	0.0017	0.27	Decreasing	Normal[4]	0.0015
CCR-13	Cobalt	mg/L	26	9	35	0.00077	0.0046	0.00025	0.002	0.0014	0.82	Stable	Normal	0.00051
CCR-13	Fluoride	mg/L	30	2	7	0.103	2.64	1	1	0.85	0.69	Increasing	Trend (Regression)	1.4
CCR-13	Lead	mg/L	26	26	100	--	--	0.00035	0.0139	NA	NA	ND	DL	0.00035
CCR-13	Lithium	mg/L	28	2	7	0.011	0.32	0.0032	0.018	0.19	0.50	Decreasing	Trend (Theil-Sen Slope)	0.056
CCR-13	Mercury	mg/L	25	24	96	0.000195	0.000195	0.000011	0.000152	NA	NA	ND	DL	0.000070
CCR-13	Molybdenum	mg/L	28	20	71	0.001	0.026	0.0005	0.00631	NA	NA	ND	DL	0.00085
CCR-13	Selenium	mg/L	28	20	71	0.00032	0.0135	0.00024	0.027	NA	NA	ND	DL	0.00024
CCR-13	Thallium	mg/L	26	21	81	0.00009	0.00011	0.000085	0.0034	NA	NA	ND	DL	0.000085

Notes:

1. For data sets with any ND data and 50% or less NDs, the Kaplan-Meier mean and standard deviation are provided. For data sets without ND data, the arithmetic mean is provided. For data sets with greater than 50% NDs, no mean is provided.
2. For distribution = "Normal" and "Lognormal", the 95% LCL was calculated on the mean concentration.
   For distribution = "Trend (Regression)" or "Trend (Theil-Sen Slope)", the 95% LCL was calculated from the regression/Sen's slope line due to an increasing/decreasing trend.
   For distribution = "Nonparametric", the 95% LCL was calculated on the median concentration.
   For distribution = "DL", the 95% LCL was equivalent to the MDL.
3. The Mann-Kendall test was used to identify increasing or decreasing trends in the data with trends identified with a confidence level of 95% or more marked increasing or decreasing and those with a confidence level between 90% and 95% marked probably increasing or probably decreasing.
4. Trend is an artifact of varyng detection limits, therefore, the LCL was derived using a parametric or nonparametric method.
5. Data used in the statistical analysis are provided in Table 2.

-- - not provided because data either had detected concentrations or were non-detect
CV - coefficient of variation calculated as the ratio of the standard deviation to the mean
DL - detection limit
LCL - lower confidence limit
MDL - method deteciton limit
mg/L - milligrams per liter
NA - not applicable, statistic could not be calculated due to high percent of non-detects (>50% NDs)
ND - non-detect or Mann-Kendall test for trend not performed due to >50% NDs

APPENDIX D

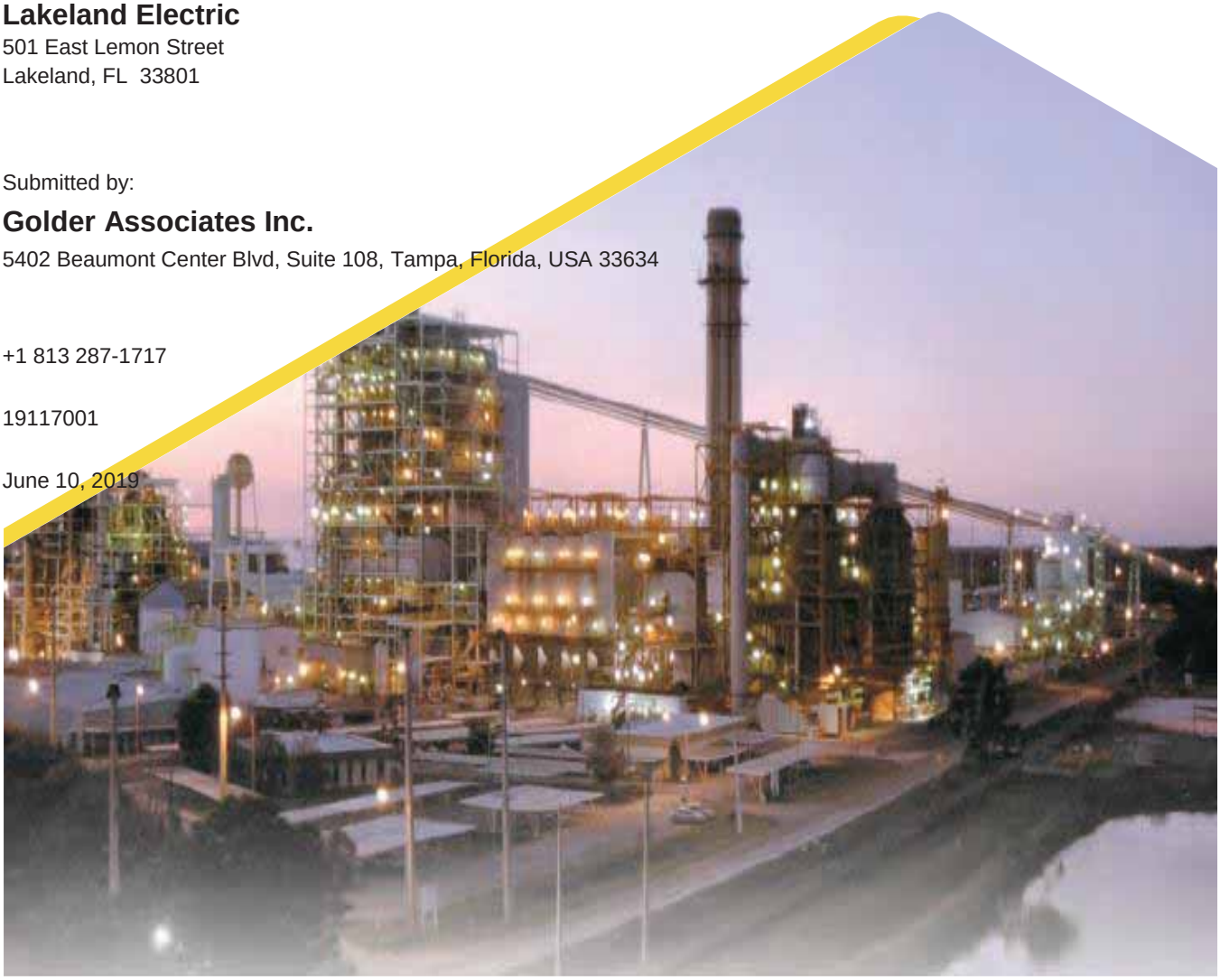
Alternate Source Demonstration for
Radium 226 & 228 in Groundwater

ALTERNATE SOURCE DEMONSTRATION FOR RADIUM 226 & 228 IN GROUNDWATER BYPRODUCT STORAGE AREA C.D. MCINTOSH POWER PLANT

LAKELAND, POLK COUNTY, FLORIDA

Submitted to:

Lakeland Electric
501 East Lemon Street
Lakeland, FL 33801



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June 10, 2019

Distribution List

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1.0 INTRODUCTION

Golder Associates Inc. (Golder), on behalf of Lakeland Electric, prepared this alternative source demonstration (ASD) report for combined radium-226 and radium-228 (referred to as radium-226+228) detected in groundwater samples collected from the monitoring well network installed pursuant to the Coal Combustion Residual (CCR) Rule[1] for the Byproduct Storage Area (BSA) at the C.D. McIntosh Power Plant (MPP or site). Figure 1 presents a site location map and Figure 2 presents a map of the BSA and associated CCR monitoring well network. A statistical analysis of assessment monitoring results identified certain Appendix IV constituents in the uppermost aquifer at statistically significant levels (SSLs) above the groundwater protection standards (GWPS) established for the constituents for the site. The rule allows the owner or operator of a CCR unit to demonstrate that the SSL(s) are due to a source other than the CCR unit—an alternate source.[2] The statistical analysis of assessment monitoring of the CCR monitoring well network identified radium-226+228, arsenic, and lithium to be present at SSLs above the respective GWPS in groundwater samples from CCR monitoring wells listed below (Golder 2018b):

Appendix IV Parameter	GWPS	CCR Monitoring Well at SSL
Arsenic	0.010 mg/L	CCR-11 and CCR-12
Lithium	0.040 mg/L	CCR-5, CCR-6, CCR-9, and CCR-13
Radium-226+228	7.94 pCi/L	CCR-4, CCR-5, CCR-7, CCR-13 and CCR-14

pCi/L - Picocuries per liter

mg/L - milligrams per liter

The BSA is a unit that historically has received CCR generated by Unit 3 at the MPP, including fly ash, bottom ash, synthetic gypsum and stabilized flue gas desulfurization (FGD) material. The BSA encompasses approximately 44 acres and is located east of Unit 3 and adjacent to Fish Lake, Lakes B, C, and D, the south sedimentation pond, and the Stackout pad (Figures 2 and 3). The BSA, constructed in the 1980s, is an above-grade earthen containment unit surrounded by a perimeter ditch system.

[1] Chapter 40 Code of Federal Regulations (CFR), Part 257, Subpart D.

[2] Chapter 40 CFR Section 257.95(g)(3)(ii).

2.0 PURPOSE AND BACKGROUND

2.1 Purpose

The purpose of this report is to provide information about a potential alternate source(s) for radium-226+228 that has been detected in groundwater from CCR monitoring wells at SSLs. The report presents a literature review of naturally occurring radioactive soils at the site and surrounding area (study area) and results of groundwater and soil assessments conducted at the site in February and March 2019.

This ASD report presents a description of the BSA and associated CCR monitoring well network, regional geologic and hydrogeologic conditions, site-specific hydrogeologic settings, a discussion on naturally-occurring radionuclides present in soil, sediment, and groundwater in central Florida; historical mining operations in the study area and at the BSA; and a review of historic aerial photographs and topographic maps of the BSA. Site characterization involved the installation of several soil borings / soil sampling adjacent to the monitoring wells where radium-226+228 was at SSLs in groundwater, as well as, the installation of additional soil borings, soil and sediment sampling, installation of "nature and extent" monitoring wells located hydraulically downgradient of the BSA, and groundwater and surface water sampling to evaluate the nature and extent of radium-226+228, arsenic and lithium for the SSLs in groundwater. Figure 4 presents the CCR monitoring well network (CCR-1 through CCR-14) and recently installed monitoring wells (CCR-15 through CCR-23) and existing MMP compliance monitoring wells[3] MW-24S, MW-25S, and MW-26S, which were used to evaluate the nature and extent of groundwater impacts at the BSA. Figure 4 also shows the location of soil borings drilled as part of site characterization. Site characterization included a geochemical assessment of select soil, sediment, and groundwater samples. This ASD also includes a mineralogical assessment for natural occurring radioactive minerals on select soil samples collected from the boreholes drilled adjacent to the CCR monitoring wells with radium-226+228 at SSLs above the GWPS (CCR-4, CCR-5, CCR-7, CCR-13, and CCR-14) and background well CCR-2.

2.2 Background

Radioactive decay products from naturally occurring radionuclides (e.g. uranium and thorium) are potential sources of radium-226+228 present in groundwater of the uppermost aquifer around and beneath the BSA. Past regional mineral resource evaluations reveal significant uranium-238 and other accessory constituents are associated with the phosphate ore that was mined at and near the BSA. Radium-226 and radium-228 are formed from the radioactive decay of uranium-238 and thorium-232, respectively. Radium-226 has a half-life of 1600 years and decays to form radon-222; radium-228 has a half-life of 5.8 years and decays to form actinium-228 (IAEA 2014).

Mining techniques used at the site prior to the construction of the BSA, typically resulted in fine-grained phosphatic materials (unrecoverable product) being left behind as mine tailings. Based on historic aerial photographs and topographic maps, a significant portion of the BSA footprint was constructed on previously mined land that was reclaimed (backfilled) with these fine-grained phosphatic mine tailings. Naturally occurring radionuclides are associated with phosphatic minerals, therefore, the mine tailings and unmined earth likely contain naturally occurring radionuclides. Also, a smaller portion of the land below ground surface (bgs) at the

[3] MPP compliance monitoring is performed in accordance with the Conditions of Certification for the site.

BSA was likely unmined, due to mining limitations such as pit side-slope stability and setback considerations in proximity of surface water, roads, etc. Therefore, unmined phosphate minerals may exist in these areas.

Several soil borings drilled within the footprint of the BSA before its construction indicate the presence of phosphate materials, including the following:

- TH-10 (phosphate matrix material)
- TH-11 (clayey sand with phosphate)
- BH-11, TH-12 (sandy clay with phosphate)
- BH-13 (cemented silt with phosphate)

The locations of these, and other soil borings, and the associated cross-sections are shown in Appendix A.

3.0 REGIONAL AND SITE SETTING

3.1 Regional Geology

The MPP is located within the Central Florida Phosphate District, an area of economically important, high-grade phosphate deposits in the Lakeland Ridge and Polk Upland geomorphic provinces (Hurst and others 2016). Stratigraphic nomenclature in this District has evolved over the past 100 years, resulting in confusion when comparing literature discussing geology of the mining district. Lithologic/stratigraphic descriptions for older mines use stratigraphic nomenclature developed by Cathcart (1964). The updated stratigraphic nomenclature presented by Scott (1986 and 2016) is commonly used in more recent publications and is referenced in this summary report.

Stratigraphic units present in the region consist of (in descending order; youngest to oldest):

- Up to 25 feet (ft) of Holocene to Pliocene-age sands and clays occur in the Lakeland area (FGS 1991). The Holocene-age sands consist of laterally restricted deposits such as stream flood plains, beaches, swamps, marshes, and lakes. The Pleistocene to upper Pliocene-age sands and clays are locally phosphatic and generally occur as laterally consistent terrace deposits.
- The Miocene to Oligocene-age Hawthorn Group has an approximate thickness between 50 and 100 ft in the Lakeland area and is comprised of the Peace River and Arcadia Formations. In Polk County, the upper portion of the Peace River Formation includes the Bone Valley Member, which is characterized by phosphate-rich, pebbly- and clayey-sand soils overlain by weathered residuum (Scott 1988). Economic quantities of minable, phosphate-bearing minerals occur within the Bone Valley Member. The remainder of the Peace River Formation is undifferentiated, largely being comprised of sandy, phosphatic dolostone interbedded with laterally discontinuous layers of sand, clay, and limestone. The Arcadia Formation underlies the Peace River Formation and is comprised of clayey dolostone and limestone of the Tampa and Nocatee Members (Scott 1988). The top of the Hawthorn Group experienced significant karstic solutioning when sea levels declined, resulting in an irregular erosional surface with abundant depressions and hills. A layer of phosphatic conglomerate is located on this surface, providing further support that the contact between the surficial sands and clays and underlying Hawthorn Group is unconformable (Cathcart 1964). The estimated thickness of the Hawthorn Group in the vicinity of the MPP is approximately 40 to 60 ft (Cathcart 1964).
- Older units underlying the Hawthorn group in the region include the Suwannee Limestone, Ocala Limestone, Avon Park Formation and Oldsmar Formation. These units are Oligocene to Eocene age and are primarily comprised of limestone and/or dolostone, and generally do not contain economic quantities of phosphate-bearing minerals.

3.2 Regional Hydrogeology

The regional hydrogeology is comprised of three major hydrostratigraphic units: the unconfined surficial aquifer, the intermediate aquifer/confining unit, and the Floridan aquifer. The following discusses each system in its regional context:

- The unconfined surficial aquifer underlies all of Polk County and varies from less than 25 to 50 ft thick in northern Polk County (FGS, 1991). This water-table aquifer consists primarily of Holocene- to Pliocene-age sand, clay, shell, and phosphate deposits that are contiguous with the ground surface.

The base of the surficial aquifer system is formed by the clayey, less permeable beds of the Peace River Formation – Bone Valley Member (Scott 1988). The surficial aquifer system is used primarily for residential low-volume irrigation applications (e.g. lawn watering) where high discharge rates are not required (Scott 1988). Transmissivity within the surficial aquifer ranges from 2 to about 20 square ft per day (ft^2/day), where fine clayey sand predominates, to greater than 5,000 ft^2/day in shell beds (Golder 2005). Regional groundwater flow in the surficial aquifer typically mimics ground surface topography. The surficial aquifer is discharged by natural gravity flow, evapotranspiration, discharge to lakes, downward loss into underlying aquifers, and pumping from wells. The surficial aquifer is recharged by rainfall, infiltration and discharge from lakes, and stormwater.

- The hydrostratigraphic unit that underlies the surficial aquifer is referred to as the intermediate aquifer/intermediate confining unit. The intermediate confining unit is largely comprised of clayey sand, sandy clay and clays and underlying clayey dolomite and limestone of the Hawthorn Group.
- The confined, artesian Floridan aquifer is the principal aquifer in Polk County and is the source of major municipal, industrial, and irrigation water supplies. This aquifer occurs primarily within the Ocala Limestone and is locally hydraulically connected with the overlying intermediate aquifer/confining unit, where present, in areas where the confining unit is absent or breached. There is limited recharge to the Floridan aquifer near the MPP due to the presence of the confining unit. Transmissivity of the upper Floridan aquifer is highly variable, and ranges from less than 50,000 ft^2/day to greater than 9,000,000 ft^2/day. The potentiometric surface of the aquifer occurs at an elevation of approximately 75 ft above National Geodetic Vertical Datum or approximately 70 ft bgs in the area of the MPP with regional groundwater flow generally to the south-southwest (FGS 1991). Due to the relatively thick and continuous intermediate confining unit separating the Floridan aquifer from the surficial aquifer, exchange of groundwater between the two aquifers is limited beneath the MPP (Golder 2005).

3.3 Site Hydrogeology and BSA Monitoring Well Network

The BSA is underlain by two regional aquifers, the surficial aquifer and Floridan aquifer which are separated by an intermediate confining unit. The surficial aquifer represents the uppermost aquifer and is approximately 25 ft to 30 ft thick beneath the BSA (Golder 2005). The surficial aquifer consists primarily of Holocene- to Pliocene-age sand, clay, shell, and phosphate deposits. Groundwater in the surficial aquifer generally flows from topographic highs to topographic lows. Underlying the surficial aquifer below the BSA is the intermediate confining unit, which ranges in thickness from approximately 40 to 50 ft and consists of interbedded clay with silty to sandy clay, silt to clayey sand, sand to clayey silt, and limestone (Golder 2005). There is a small component of groundwater flow in the surficial aquifer that is vertically downward toward the intermediate confining unit, and Floridan aquifer. However, this vertical flow component is retarded by the clayey materials of the underlying intermediate confining unit (Golder 2005).

The CCR monitoring network at the BSA includes two background monitoring wells, CCR-1 and CCR-2, and twelve downgradient monitoring wells, CCR-3 through CCR-14[4], installed at waste boundary and screened in the uppermost aquifer. Screened intervals in each of the monitoring wells, range from 15 to 25 ft bgs.

[4] Monitoring well CCR-10 was abandoned and replaced with CCR-10R on March 13, 2018 (Golder 2018a)

Groundwater in the surficial aquifer beneath the BSA has been documented to flow radially away from the BSA, with flow to the north toward Lake B, to the west toward Fish Lake, and to the east toward Lakes C and D (Figures 5 and 6). An area to the southwest of the BSA is hydraulically upgradient or side-gradient to the BSA, depending on site conditions that affect groundwater flow (e.g., surface water elevations, amount of precipitation, etc.), while the areas to the west, north and east are hydraulically downgradient of the BSA.

4.0 REGIONAL PHOSPHATE MINING

Land-pebble phosphate, hard-rock phosphate, and river-pebble phosphate are the three types of phosphatic ore found in Florida. The BSA is in one of the most productive areas of the land-pebble phosphate mining district. The land-pebble phosphate district was of economic interest not only to the minerals and fertilizer industry, but also to the United States Atomic Energy Commission (USAEC) during the twentieth century because land-pebble deposits contain a type of phosphate with elevated concentrations of uranium (Cathcart 1949). This section summarizes historic stratigraphy of mined land[5] near the BSA, uranium associated in the economic mining of calcium phosphate and aluminum phosphate zones, and the history of mining in the study area.

4.1 Historic Mining Related Stratigraphy

The stratigraphy near the BSA that was likely disturbed by historic mine activities, is presented below:

- Surface deposits consisted of windblown sand and swamp muck that range in thickness of up to 5 ft (Cathcart 1964).
- The Bone Valley Member[6] is divided into two distinct stratigraphic units, an upper unit of clayey sand and a lower phosphatic unit. The upper unit ranged in thickness from 0 to 25 ft and averaged about 8 ft (Cathcart 1964). It included light-colored clayey sand containing traces of phosphate nodules at the unit's base characterized by kaolinite and aluminum phosphate minerals.
- The contact between the upper and lower units of the Bone Valley Member is gradational over a few inches throughout most of the United States Geological Survey (USGS) Lakeland, Florida 7.5-minute quadrangle (Cathcart 1964). The lower unit ranges in thickness from minimal thickness to 35 ft, averages about 10 ft and contains most of the economic phosphate (Cathcart 1964). This unit is predominantly a clayey sand or a sandy clay, but beds of loose phosphate sand or fine-grained conglomerate are common. Beds of the lower unit locally contain phosphate nodules that range in size from fine sand to gravel (coarse pebble). The phosphate nodules are predominantly light colored—white, light brown and tan, gray; however, a few are amber or black.
- Due to mining, most of the Bone Valley sediments have been removed and reworked to recover phosphate. Mining in the vicinity of the BSA likely extended and stopped before, at, or slightly into the upper part of the Arcadia Formation**,** which underlies the Peace River Formation (Bone Valley Member). The upper portions of the Arcadia Formation consist of clayey sand and the lower portion of the formation is calcareous, and correlates to the upper portion of the intermediate confining unit at the site.

4.2 Uranium Associated with the Calcium Phosphate and Aluminum Phosphate Zones

The aluminum phosphate zone is formed by downward-percolating acidic water. The aluminum phosphate zone is not a stratigraphic unit but may include the various named and/or renamed beds/members of the Bone Valley strata. The physical and chemical characteristics of the zone vary.

[5] Historic stratigraphic nomenclature differs from the regional/site geology included in Section 3 of this report.

[6] Later in the twentieth century the stratigraphic nomenclature was refined such that Bone Valley Formation isn't currently used, rather, the recent nomenclature includes Peace River Formation and its upper unit is the Bone Valley Member, both of which belong to the Hawthorn Group.

Typically, it is a white, light gray, tan, or gray-green clayey sand containing no visible phosphate except near the base, and in some areas the base of the zone is characterized by lumps, fragments, or beds of sandrock. According to Altschuler, Clarke, and Young (1958), the most completely leached part of the zone is characterized by the aluminum phosphate mineral wavellite, the less weathered parts by calcium aluminum phosphate minerals, and the unweathered part by the calcium phosphate mineral carbonate-rich fluorapatite. The principal clay mineral in the weathered (leached) parts is kaolinite, whereas montmorillonite is characteristic of the unweathered parts. The aluminum phosphate zone is high in uranium, which typically is concentrated in the finest (slime) fraction (Cathcart 1964).

The calcium phosphate zone within the Bone Valley Member underlies the aluminum phosphate zone. Both the aluminum phosphate and calcium phosphate zones are present at the borehole drilled in 1953 by the USAEC, at the 40-acre tract where the southern region of the BSA and the other 26 holes drilled in 1953 at the Lake Parker Tract (Cathcart 1964) (see Section 4.3 of this report). The calcium phosphate zone consists of unconsolidated sand, clayey sand, and sandy clay containing abundant nodules of calcium phosphate. The ore zone, referred to by miners as the matrix section, is contained with the calcium phosphate zone (Cathcart 1964). In general, the coarse phosphate fraction (+20 or +24 mesh) of the calcium phosphate zone contains less phosphorus pentoxide (P_2O_5) and generally more uranium than the fine phosphate fraction (-20 to +150 mesh), which is characteristic of the land-pebble phosphate district (Cathcart 1964). At the Lake Parker Tract (nearest the BSA), however, the coarse phosphate fraction contains more P_2O_5 than the fine fraction (Cathcart 1964). The following is based on the analyses the borehole drilled in 1953 by the USACE at the 40-acre tract where the southern portion of the BSA exists, in accordance with Cathcart (1964):

- Uranium is removed (leached) from the coarser (pebble and sand) fractions of the sample collected from approximately 17 to 26 ft below the 1953 ground surface,
- Uranium is concentrated to some degree in the fine slime fraction[7] of the same 17 to 26 ft bgs sample, and
- Uranium is highly concentrated in the pebble and slime fractions of the 26 to 30 ft bgs sample.

4.3 History of Mining in the Vicinity of the BSA

Mining for phosphate was active at several locations in the Lakeland Quadrangle from about 1914 through the 1980s. Some areas that were completely mined in the early twentieth century exist today as lakes, indicating that mining was likely hydraulic[8] instead of dragline (Cathcart 1964). Early mining, approximately three miles south of Lake Parker in the Pauway area, was by hydraulic methods for the pebble fraction only; later mining was by dragline for the overburden, but hydraulic monitors (water cannons) were used to move ore (Cathcart 1964). Some washer debris from early mine operations was in part re-mined (Cathcart 1964), but the technology at that time was insufficient at recovering the finer grain-size phosphate, thus finer materials were not recovered or were returned to the mine cut (Moudgil, 1992).

[7] Slimes refers to fines, like silts/clays, passing a 150 mesh screen – less than approximately 0.1 millimeter in diameter. The fraction likely left behind and/or unmined at the BSA.

[8] Hydraulic mining is performed using high-pressure jets of water to dislodge rock material.

The American Cyanamid Co. operated its Saddle Creek Mine (T28S/R24E) from 1942 to 1957, and subsequently moved to the Orange Park Mine (Cathcart 1964). The Saddle Creek area was mined with draglines; both pebble and flotation concentrates[9] were recovered. The Orange Park Mine (T27S/R24E) started operating in April 1957 and was active in the 1960s (Cathcart 1964). Mining was by large draglines, flotation cells were used, and hydrocyclones[10] were used for primary desliming. Coronet Phosphate Co. began operation of its Tenoroc Mine (T27S/R24E) in 1951, and the mine continued to operate into the 1970s while the MPP was being developed. Mining at Tenoroc was for flotation concentrate and pebble; draglines were used to mine the overburden and phosphate (Cathcart 1964).

4.3.1 Lake Parker Tract

The Lake Parker tract included nearly 1,300 acres in portions of Sections 28 and 33: T27S/R24E, and Sections 3 and 4: T28S/R24E. The BSA, Fish Lake, and Lakes B, C, and D exist in portions of the same Sections. In 1953, the mining company, Coronet Phosphate Company, drilled 27 holes, under contract to the USAEC, at a spacing of 1 hole per 40-acre block (Cathcart 1964)[11]. The calcium phosphate zone, which includes the economic phosphate deposit, and the aluminum phosphate zone, which includes some possibly economic phosphate and concentrated uranium, are both present in all 27 holes in the Lake Parker tract. Relations of the two zones are graphically shown below.

[9] Concentrate refers to the fine phosphate product, 1.17 mm to 0.104 mm in grain size. Material of this grain size is treated in flotation cells to separate the phosphate from the quartz sand. The phosphate product is the concentrate (Cathcart 1963, page 11).

[10] Hydrocyclones are typically funnel-shaped equipment used to separate materials by particle size.

[11] The Lake Parker tract had not been mined as of the 1964 reference publication date. The area that has recently become the Florida Fish and Wildlife Conservation Commission Teneroc Public Use Area (PUA) was extensively surface mined for phosphate through 1978. The western portion of the PUA was part of a wetland system associated with Lake Parker. The area that became Tenoroc was extensively surface-mined between 1950 and 1978 by the Coronet Phosphate Company, the Smith-Douglass Company, and Borden, Inc.

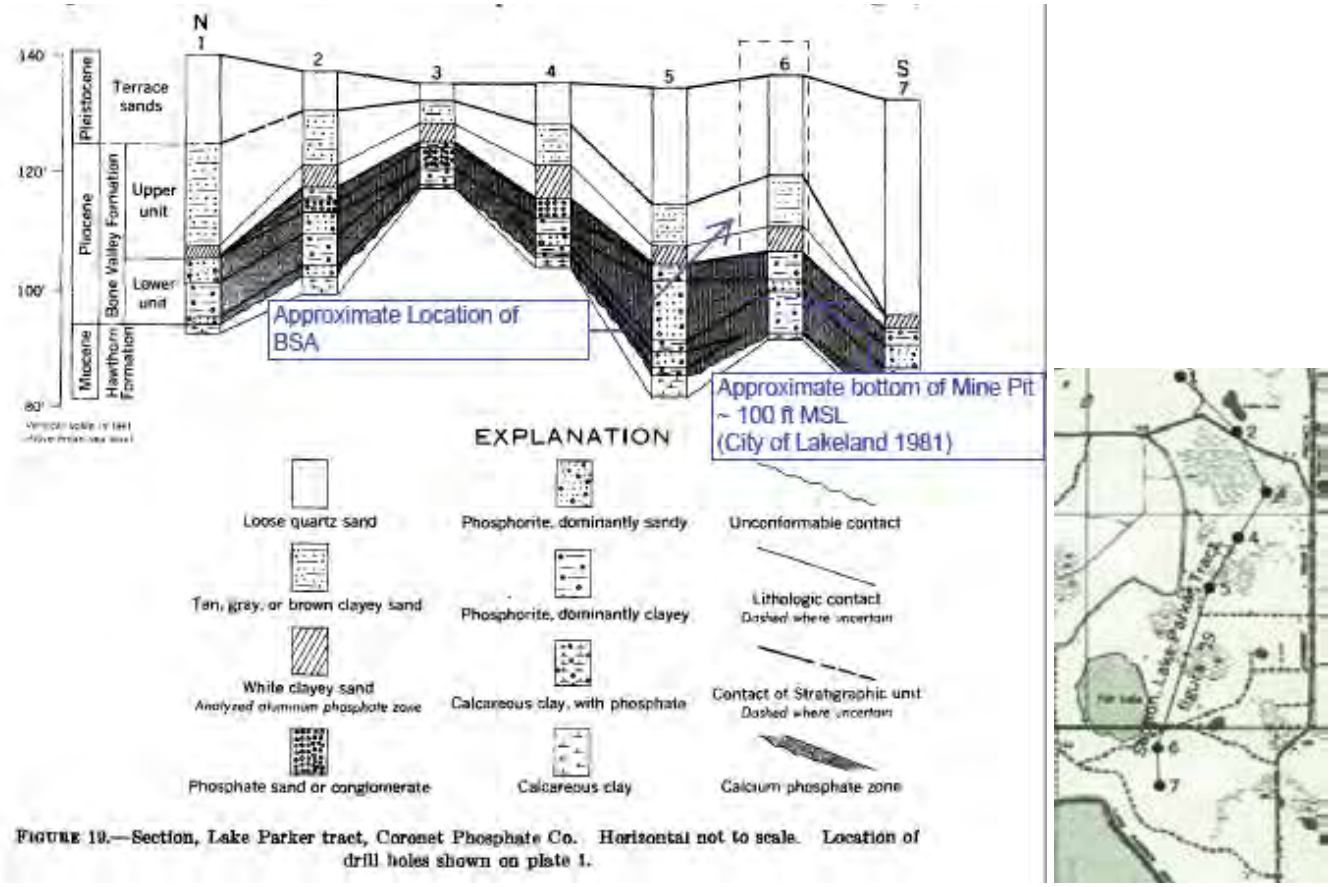


FIGURE 19.—Section, Lake Parker tract, Coronet Phosphate Co. Horizontal not to scale. Location of drill holes shown on plate 1.

Source for above base imagery: Cathcart 1964 – Image to the right of the section depicts approximate section/drill hole locations from Plate 1. Drill hole locations #6 and #7 are nearest the BSA location. Appendix B to this report includes a copy of the City of Lakeland 1981 Landfill Design Survey Drawing No. 229101.

Results of the analyses performed for the USAEC on samples collected in 1953 from the same 40-acre tract where the south region of the BSA exists are summarized below:

TABLE 18.—*Analytical data, aluminum phosphate zone, NE¼NW¼ sec. 4 T. 28 S., R. 24 E.*

[Leaders (....) = below limit of detection, taken as 0.0 percent. Analyses by Coronet Phosphate Co. chemists, under contract to the U.S. Atomic Energy Comm. Pebble = +20 mesh; sand = −20+150 mesh; slime = −150 mesh; head = computed from pebble, sand, and slime fractions. From 0 to 17 ft below surface is loose quartz sand, not sampled; from 30 to 44 ft is calcium phosphate zone]

Fraction	Weight percent	Chemical analyses, in percent					
		P_2O_5	CaO	Insoluble	Al_2O_3	Fe_2O_3	U
Top sample; 17–26 ft below surface							
Pebble	0.3	2.55	1.01	92.42	2.18	0.42	0.0001
Sand	70.4	.33	....	98.13	.28	.18	....
Slime	29.3	6.79	3.36	64.74	14.62	.40	.010
Head	100.0	2.23	.90	88.24	4.48	.25	.002
Bottom sample; 26–30 ft below surface							
Pebble	0.5	14.18	8.52	56.57	11.96	0.68	0.047
Sand	62.4	.80	2.77	96.63	.85	.17	.001
Slime	37.1	5.08	1.50	72.81	12.50	.28	.022
Head	100.0	2.45	2.33	87.61	5.22	.21	.010

Source for above: Cathcart 1964.

The Top sample (17 to 26 ft bgs) tabulated above is described as more thoroughly leached, has less calcium oxide (CaO) and uranium, and slightly less P_2O_5 than the Bottom sample (26 to 30 ft bgs); both have similar aluminum oxide (Al_2O_3) concentrations. The P_2O_5 content, originally as apatite (calcium phosphate), is dissolved and combines with alumina to form the relatively insoluble aluminum or calcium aluminum phosphate minerals. Uranium is not taken up by the aluminum phosphate minerals but combines with the calcium phosphate minerals. Uranium is removed from the coarser fractions of the top sample, is concentrated to some degree in the slime fraction[12] of the top sample and is highly concentrated in the pebble and slime fractions of the lower sample (Cathcart 1964).

4.3.2 Orange Park Mine

The Orange Park Mine consisted of two tracts of land: The Orange tract and the Park tract.

- The Orange tract included land in Section 28: T27S/R24E which includes the north portion of Lake B, which is adjacent to the BSA. Lake B extends into Section 28.
- The Park tract included land in Section 33: T27S/R24E, which includes portions of the BSA, Fish Lake, Lake B, and Lake C; and in Section 5: T28S/R24E, which includes portions of the MPP, Lake Parker, and Horseshoe Lake.

[12] Slimes refers to fines, like silts/clays, passing 150 mesh screen – less than approximately 0.1 millimeter in diameter, which represent the fraction likely left behind and/or unmined at the BSA.

The American Cyanamid Company started mining in the Orange tract in 1957. In 1954, the company drilled 57 holes at the Orange tract and 33 holes at the Park tract, under contract to the USAEC, spaced one in each 40-acre tract in effort to cover most of the property.

In the southern part of the area (in the Park tract), the calcium phosphate zone averaged 9 ft in thickness and included rocks[13] of the Hawthorn Group, Bone Valley Member and/or Peace River Formation at almost every drill hole. The relations are depicted below: the calcium phosphate zone is entirely within the Hawthorn Group Peace River Formation at hole A (shown as Hawthorn Formation on log); at hole B, the calcium phosphate zone is divided about equally between the Hawthorn Group, Peace River Formation and Bone Valley Group (shown as Bone Valley Formation on log); and, at hole C, the calcium phosphate zone is entirely within the Bone Valley Group (Cathcart 1964).

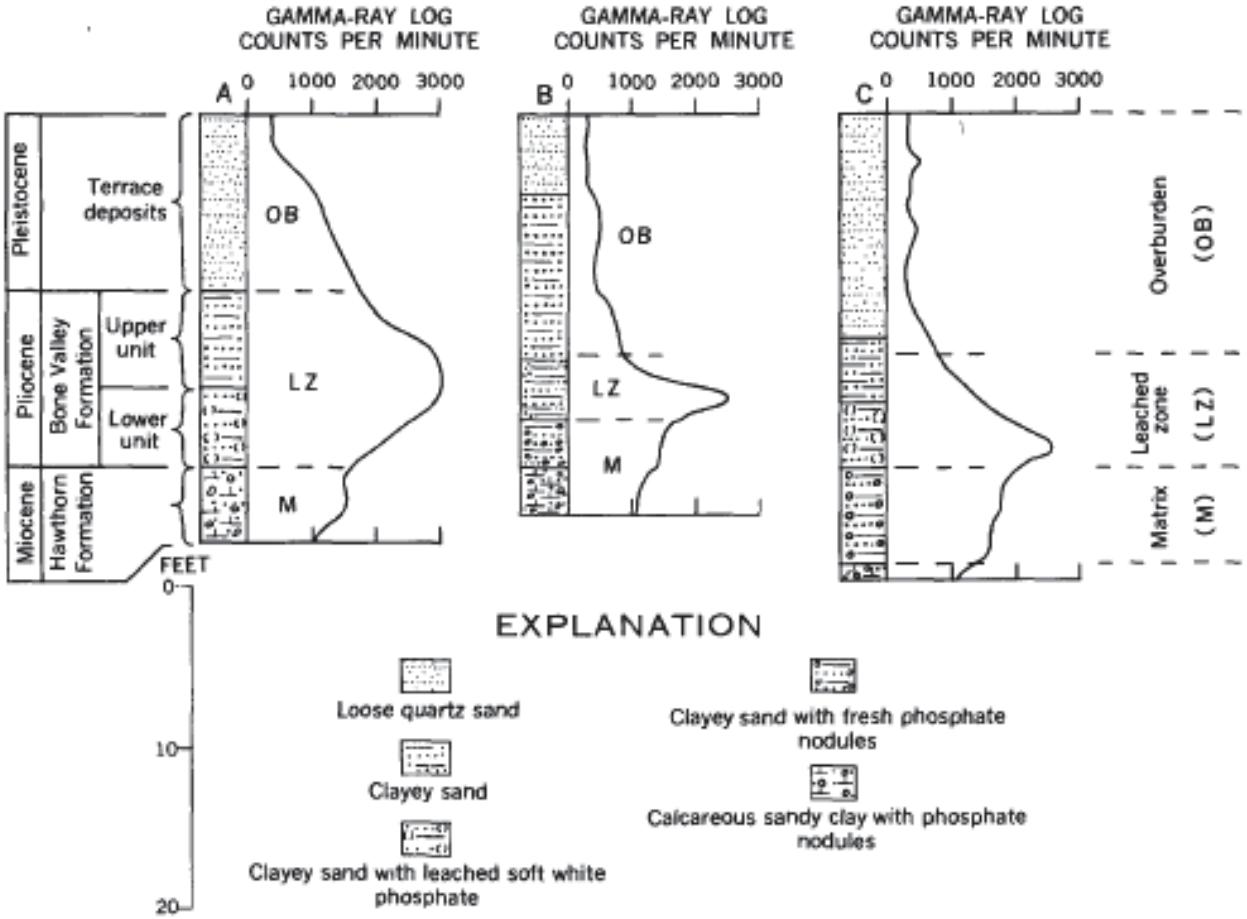


FIGURE 17.—Typical drill hole and gamma logs, Orange Park tract. Location of drill holes shown on plate 1.

Source for above: Page G86 Cathcart US Geologic Survey (USGS) 1964.

[13] In more recent stratigraphic nomenclature, this rock mentioned by Cathcart (1964) likely limestone or dolomite, is likely phosphatic, would today likely be assigned to the Arcadia Formation of the Hawthorn Group.

4.3.3 Teneroc Mine

The Tenoroc Mine is located just east of the BSA with the nearest operations approximately one mile from the BSA in Section 34: T27S/R24E and Section 2 and/or 3: T28S/R24E. Mining by Coronet Phosphate Company started in 1951. In 1953, the company drilled 39 holes under contract to the USAEC. In an area of about 2,000 acres, the holes were drilled at a spacing of one in each 40 acres. One sample each of the aluminum phosphate zone and the calcium phosphate zone were collected at each drill hole and were analyzed. Select laboratory and drilling results for samples, including samples from the Teneroc Mine are listed in Tables 8 and 13 and Figure 18 from Cathcart 1964. The analytical data, screen data, and stratigraphic and economic geologic cross-section shown below further demonstrate the abundance of phosphate present in the study area.

TABLE 8.—*Analytical data, calcium phosphate zone, Lakeland quadrangle*

[NA, no analysis reported. Analytical data by American Cyanamid Co. and Coronet Phosphate Co., under contract to the U.S. Atomic Energy Comm.]

Number of drill holes	Location	Fraction (mesh size)	Chemical analyses, average, (in percent)				Ratio U:P_2O_5 (average)
			P_2O_5	I and A[1]	Acid insoluble	U	
90	Park and Orange tracts, T. 27 S., R. 24 E.	+20	33.9	2.39	7.20	0.012	1:2820
		−20+150[2]	35.0	2.28	4.24	.010	1:3500
		−150	19.8	12.85	32.57	.011	1:1800
		Head[3]	23.1			.008	
39	Tenoroc mine, T. 27 S., Rs. 24 and 25 E.	+24	31.8	2.33	8.14	.015	1:2120
		−24+150[2]	35.2	1.83	1.88	.010	1:3520
		−150	14.7	NA	42.69	.011	1:1340
		Head[3]	12.1			.006	
27	Lake Parker tract, T. 28 S., R. 24 E.	+24	32.2	3.31	9.67	.015	1:2150
		−24+150[2]	31.4	2.01	2.30	.012	1:2620
		−150	16.8	NA	39.55	.010	1:1680
		Head[3]	12.6			.006	

[1] Percent $Fe_2O_3+Al_2O_3$.
[2] Concentrate fraction—quartz sand removed by flotation.
[3] Calculated, assuming that the sand tailing contained 2 percent P_2O_5 and 0.002 percent U.

TABLE 13.—*Summary of screen data and chemical analyses, aluminum phosphate zone, Lakeland quadrangle*

[Analyses by American Cyanamid Co. and Coronet Phosphate Co., published with permission]

Number of samples	Screen data		Chemical analyses, in percent					Ratios	
	Size	Weight percent	P_2O_5	CaO	U	Al_2O_3	Fe_2O_3	CaO:P_2O_5	U:P_2O_5
Lake Parker tract, T. 27 S., R. 24 E.; T. 28 S., R. 24 E.									
27	+24	1.1	13.09	3.97	0.009	11.50	0.56	0.303	1:1450
	+150	68.4	.72	.08	.0001	.56	.26	.111	----------
	−150	30.5	6.10	3.64	.012	8.28	.71	.597	1:510
	Head	100.0	2.52	1.24	.004	3.05	.40	.492	1:630
Tenoroc mine, T. 27 S., R. 24 E.; T. 27 S., R. 25 E.; T. 28 S., R. 24 E.									
39	+24	0.7	11.99	5.88	0.005	8.42	0.80	0.490	1:2390
	+150	72.1	.52	.37	.0001	.41	.31	.712	----------
	−150	27.2	5.42	3.65	.009	6.94	.86	.673	1:600
	Head	100.0	1.93	1.30	.0025	2.28	.46	.674	1:770
Orange tract, T. 27 S., R. 24 E.									
57	+20	1.5	26.02	28.03	0.015	8.29	0.69	1.077	1:1630
	+150	56.7	2.25	2.08	.002	.78	.36	.924	1:1130
	−150	41.8	8.66	6.26	.017	11.10	1.22	.723	1:510
	Head	100.0	5.29	4.23	.008	5.17	.72	.800	1:660
Park tract, T. 27 S., R. 24 E.									
33	+20	3.2	31.84	34.09	0.016	8.11	0.91	1.071	1:1990
	+150	52.0	3.85	3.94	.003	.94	.41	1.023	1:1280
	−150	44.8	14.63	14.05	.018	11.64	1.89	.960	1:810
	Head	100.0	9.58	9.44	.010	5.97	1.09	.985	1:960

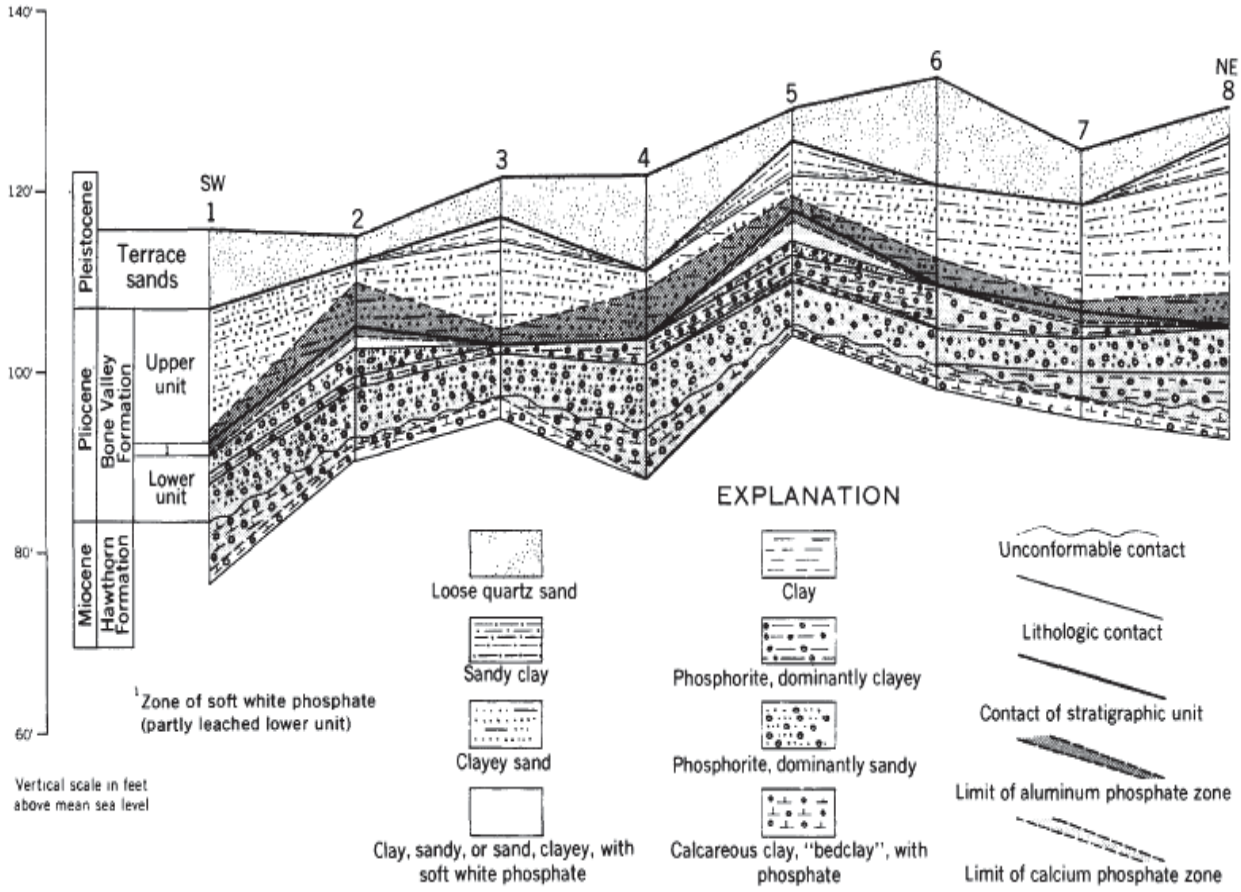


FIGURE 18.—Section, Tenoroc mine, showing relations of stratigraphy and economic geology. Horizontal not to scale. Location of drill holes shown on plate 1.

5.0 NATURALLY-OCCURING RADIONUCLIDE DISCUSSION

The following discussion provides information on the naturally-occurring radionuclides in the regional vicinity of the BSA:

- The Bone Valley Member contains high-grade phosphate rock in land-pebble form and is present and/or was mined just before construction of the BSA. In a report prepared for the USAEC, the USGS indicates the uranium occurrences in the Bone Valley Member were up to 0.1 percent (100 milligrams per kilogram or parts per million (ppm)) and are associated with the land pebble phosphate (Cathcart 1949).
- The BSA is located on former phosphate mined land which also included a mining pit/lake. The BSA and surrounding properties were mined in the early 1970s, at which time only coarser-grained pebble phosphate was recovered and the finer-grained (sand, silt, and clay) phosphate and associated minerals were left behind. An estimate of 20 to 30 percent of the phosphate (contained in the ore) is left behind with these finer-grained materials and/or returned to the mine cut or clay settling pond (Moudgil 1992). The mined land and lake were likely left behind with and/or infilled with these finer-grained material leftovers from mining and surrounding overburden.
- The southeastern coastal marine sediments of the Bone Valley Member contain naturally occurring phosphate minerals. Uranium and its decay products occur in significant quantities within these phosphate minerals and during the mid-1990s, 20 percent of the uranium produced in the United States was extracted from phosphate deposits in central Florida as a byproduct of fertilizer production (World Nuclear Association 2015).
- A typical Central Florida Phosphate district profile with average uranium concentrations listed per stratum is depicted below:

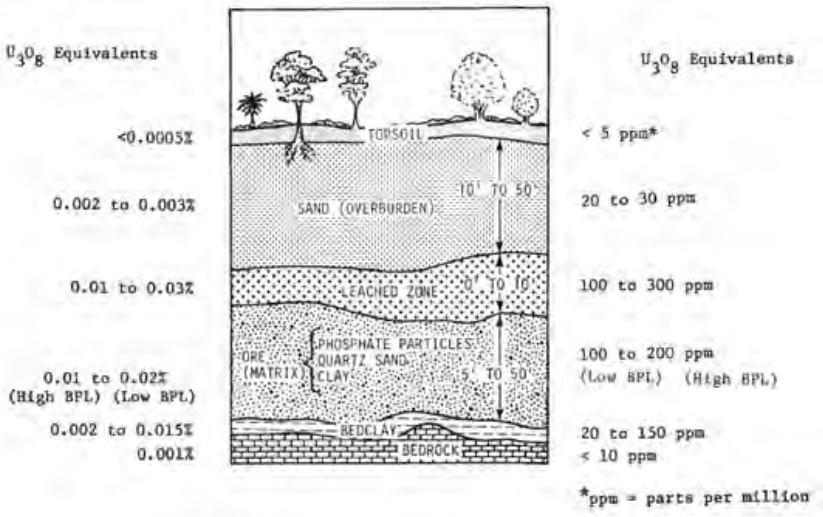


Figure 1.15. Average Uranium Concentrations as U_3O_8 (Altschuler et al 1956, Cathcart 1965, McKelvey 1956) in Typical Central Florida Phosphate District Profile (Fountain and Zellars 1972)

Source for above: Environmental Impact Statement: Central Florida Phosphate Industry: Volume II Background and Alternatives Assessment. EPA Nov 1978.

- Uranium in leached- and matrix-zones exhibits typical concentrations between 100 and 300 parts per million (ppm), which is approximately 1 to 2 orders of magnitude higher than U.S. coals and fly ash, respectively, as depicted below (USGS 1997, Figure 2):

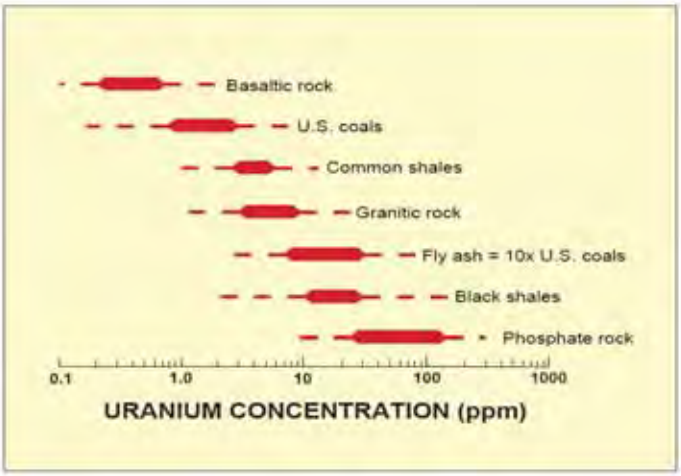
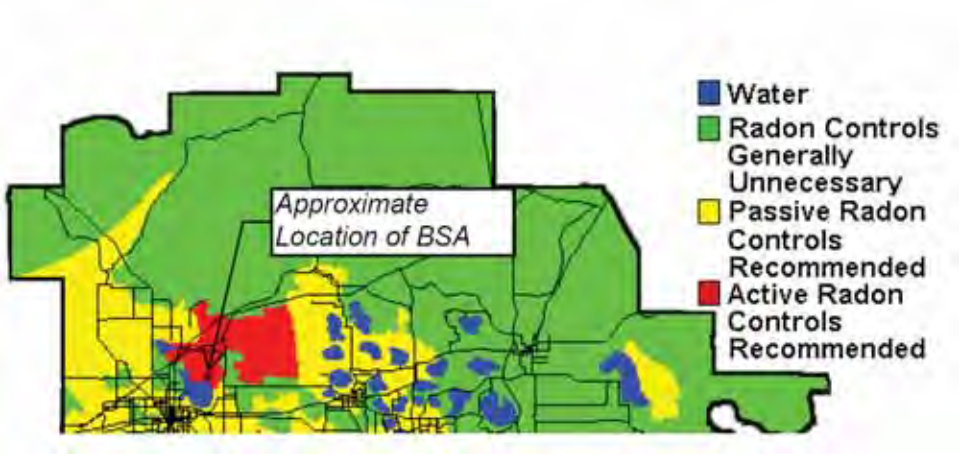


Figure 2. Typical range of uranium concentration in coal, fly ash, and a variety of common rocks.

Source of Figure 2 above: USGS 1997 Fact Sheet FS-163-97

- According to the Florida Department of Health (FDOH), the MPP is located in an area that is known to contain so much naturally-occurring radon, which is a daughter product of radium-226 decay, that the FDOH suggests buildings designed for construction on reclaimed mined land include active engineering controls in the effort to mitigate potential adverse health effects associated with human exposure to the natural radon gas. The following image is an excerpt from the Radon Protection Map for Polk County and depicts the approximate location of the BSA.



Source of above image of northern Polk County: http://www.floridahealth.gov/environmental-health/radon/maps/_images/POLK_LB.GIF (accessed November 16, 2018).

- Elevated levels of radon in structures built on reclaimed land suggest uranium and radium concentrations at shallow depths may be elevated relative to pre-mining levels. This is considered to occur when discarded fine-grained ore and leach zone materials are mixed with overburden materials as part of overall reclamation (Kaufman and Bliss 1977).
- Radon is a noble gas that sorbs little and does not participate in ion exchange; thus, its concentration can increase to high levels. Due to the short half-life (3.8 days) of radon-222, an abundance of radium-226 in subsurface materials is required to sustain high radon-222 levels (Miller 1985).
- Analysis by Miller (1985) suggests that a major fraction of radium-226 is released by alpha-particle recoil of thorium-230 or its precursors (uranium-234, protactinium-234, thorium-234, and uranium-238) to groundwater. Mineralized water competes with radium-226 for ion exchange and sorption sites and consequently results in elevated concentrations of dissolved radium-226. Miller contends that this process may explain the radium-226 concentrations present in groundwater in phosphate mining areas of Polk County.

6.0 AERIAL PHOTOGRAPHS AND TOPOGRAPHIC MAP SUMMARY

Based on Golder's review of documents including historic aerial photographs and topographic maps:

- The ground beneath BSA includes an area in the northeast region of the BSA identified as an abandoned phosphate pit (apparently the former southern finger of what is now identified as Lake B).
- Mining of the BSA and vicinity was active from 1971 through 1975.
- The western portion of the BSA likely was not mined as deep as other portions or at all due to mining limitations like pit side-slope stability setback considerations in proximity of surface water, roads, structures, etc., and therefore, phosphate matrix likely exists in these areas.

A summary of select historic aerial photographs and topographic maps reviewed is provided below. Appendix B provides copies of the photographs and maps:

Before the BSA:

- 1964 Plate 1 USGS Bulletin 1162-G (Cathcart 1964): includes approximate drill hole locations #6 and #7 along the Lake Parker Tract section line depicted in Section 4.3. of this report, drill hole locations #6 and #7 are nearest the BSA.
- 1968 Aerial Photograph: the east bank Horseshoe Lake is visible on the left side of the photograph. BSA vicinity prior to mining or site development activities.
- 1971 FDOT Aerial Photograph: An apparent dragline and perhaps pipelines are visible near the active mining just off the northeast corner of the BSA area.
- November 30, 1971 Aerial Photograph: Mining appears to be starting in the BSA area based on the ground surface appears to be stripped, and some tanks, pipelines, and/or a dragline is visible in the upper west area of the BSA near fish Lake.
- December 2, 1972 aerial photograph (on 1975 USGS Topographic Map): There is a region that appears to have been unmined and seems to have cast overburden at the western portion of the BSA south of Fish Lake between the visibly mined area and where the MPP generating area is now located and shore of Lake Parker, but some mining overburden may have been placed in this area. The mine pits appear to be holding water in the area where Lakes B, C, and D are currently located.
- 1973 Aerial Photograph (provided by Lakeland Electric with labels): Lake D appears to be undergoing mining. Some mine processing equipment appears to exist due south and near the bank of Fish Lake (near the approximate locations of monitoring wells CCR-13 and CCR-14).
- 1975 Aerial Photograph taken February 1, 1975 included on Map 2.1.1 Aerial Topographical Map dated 3/27/1978 for City of Lakeland MPP: mining appears to be recently active in the east and north areas of the BSA. South of the BSA and in the western/southernmost vicinity of the BSA the area is identified as, "Proposed Plant Boundary", and there is a region that appears to have been unmined and seems to have cast overburden at the western region of the BSA south of Fish Lake at the western region of the area between the visibly mined area and the MPP generating area and shore of Lake Parker.

- November 26, 1977 Aerial Photograph: Lakes B, C, and D created and left behind by the phosphate mining are visible. Mining does not appear to be actively ongoing in the photograph.

Post-Commencement of development of the Unit 3 at MPP:

- 1980 Aerial Photograph: Plant construction laydown roads (also drawn on the June 12, 1981 Existing Site Plan map) in the west area of the BSA are visible and some equipment/materials can be seen staged in this area. Lakes, including Lake B in the north BSA, created and left behind by the phosphate mining are visible.
- June 12, 1981 Existing Site Plan and April 7, 1981 Phase I Site Preparation Grading Plan for the City of Lakeland MPP landfill design: Topographic contours surveyed and depicted in the Lake B finger are labeled as abandoned phosphate mining pit in the BSA area. The pit appears to be approximately 20 ft deep with a base elevation of approximately 100 ft (USC&G Survey Datum).
- March 2, 1984 Aerial Photograph: A finger of Lake B, which is a manmade lake formed by mining, is visible in the BSA area. Lakes C and D, which were manmade by mining appear possibly interconnected.

7.0 SITE CHARACTERIZATION FOR RADIUM-226+228

The literature review for an ASD for radium-226+228 in groundwater is supported by data obtained from the February / March 2019 site characterization of and around the BSA, which was completed as part of the nature and extent investigation for radium-226+228, arsenic, and lithium SSLs in groundwater under the auspices of the assessment of corrective measures for the site. An assessment of corrective measures report will be included in the facility's operating records in accordance with §257.105(h)(10).

7.1 Field Investigation

Site characterization field investigation activities included an underground utility survey, collection of soil samples for a mineralogical assessment and chemical analysis, monitoring well installation and development, staff gauge installations, water-level data collection, and surface and groundwater sampling and analysis. Figure 4 presents locations of soil borings and monitoring wells installed and sampled as part of the site characterization.

Six boreholes were drilled using direct push technology (DPT) at locations adjacent to the CCR monitoring wells with radium-226+228 SSLs (CCR monitoring wells CCR-4, CCR-5, CCR-7, CCR-13, and CCR-14) and background CCR monitoring well CCR-2. These soil borings, designated CCR-2A, CCR-4A, CCR-5A, CCR-7A, CCR-13A, and CCR14A, were drilled to 30 ft bgs, and the soil boring logs are presented in Appendix C. Sixteen soil samples were collected from these six soil borings, ranging from 7 ft bgs to up to 29 ft bgs, for analysis. The soil samples are representative of the saturated uppermost aquifer downgradient of the BSA. A detailed mineralogical assessment of these 16 soil samples was conducted by Petrologic Solutions, Inc. under subcontract to Golder (see Section 7.2).

Nine soil borings were also advanced using DPT at proposed nature and extent monitoring well locations CCR-15 through CCR-23 to a depth of approximately 25 ft bgs. Soil samples were collected from these borings, as well as from soil boring CCR-4A, from approximately 24 ft bgs to 25 ft bgs and submitted, under chain-of-custody, for laboratory analysis of total uranium, iron, aluminum, arsenic, lithium, and phosphorus via EPA[14] Method 6020B, and for radium-226 and radium-228 via EPA Method 9315 and 9320, respectively, for samples from soil borings CCR-4A, CCR-15, CCR-16, CCR-18, CCR-22, and CCR-23. Soil samples were also collected from soil boring CCR-4A and from the soil borings advanced for the installation of nature and extent monitoring wells CCR-16 and CCR-20, from approximately 24 ft bgs to 25 ft bgs, and submitted, under chain-of-custody, for laboratory analysis of aluminum, arsenic, iron, and lithium via sequential extraction (EPA Method SW846 6010B SEP).

One shallow soil sample and one shallow sediment sample were also obtained from ground surface to 0.5 ft bgs. The soil sample, designated GSB-1, was collected east of the BSA and the sediment sample, designed Fish Lake-Sed, was collected from the bank of Fish Lake. Both samples were submitted under chain-of-custody for laboratory analysis. Soil sample GSB-1 was analyzed for total uranium, iron, aluminum, arsenic, lithium, and phosphorus via EPA Method 6020B and sediment sample Fish Lake-Sed was analyzed for total organic carbon via EPA Method Walkley-Black (USEA 2004a).

[14] EPA: United States Environmental Protection Agency.

A larger-diameter borehole was drilled, using hollow-stem auger drilling techniques, at locations where soil borings where previously drilled using DPT, to facilitate the installation of nature and extent monitoring wells CCR-15 through CCR-23. The monitoring wells were constructed of 2-inch diameter, flush threaded schedule 40 polyvinyl chloride (PVC), bottom cap, 0.006-inch slotted, 10-foot screen, and riser section.

The borehole annulus was filled with 30-45 graded silica sand to approximately 2 feet above the top of the screen interval, with approximately 2 feet of 3/8-inch bentonite chips placed atop. The remaining annulus was filled from bottom to top via tremie method with a neat Portland cement grout to just below ground surface. Monitoring wells CCR-15 through CCR-22 were completed above-grade with locking well caps and aluminum protective casings set into 2-foot by 2-foot by 4-inch concrete pads. Bollards were installed around each monitoring well for visibility and damage protection. Monitoring well CCR-23 was installed below grade, in a flush-mounted well casing set into a rebar reinforced 2-foot by 2-foot by 4-inch concrete pad without bollards (the well is installed in an access road). The newly-installed nature and extent monitoring wells were surveyed for elevation (top of well casing) and location and staff gauges were installed in Fish Lake and Lakes B, C, and D for surface water level elevation. Table 1 presents a summary of monitoring well construction details.

After development of the newly-installed wells, groundwater was collected from nature and extent monitoring wells CCR-15 through CCR-23, MW-24S, MW-25S, and MW-26S. Surface water samples were also obtained from Fish Lake, and Lakes B, C, and D. Chemical/geochemical analysis of groundwater and surface water samples included field parameters and radionuclides, nutrients, and major cations and anions. The rationale and methods used are as follows:

Field Parameters: Parameters measured in the field included pH, dissolved oxygen, oxidation reduction potential (ORP), conductivity, and temperature. These parameters were used to evaluate general geochemical conditions in the groundwater and support geochemical modeling.

Metals: Analysis of Appendix III and IV metals and uranium to better understand the geochemical composition of groundwater and surface water. Metals analysis allows for the delineation of a potential plume, evaluation of mineral saturation indices, and evaluation of background contributions from natural sources or anthropogenic sources (USEPA 1998).

Radionuclides: Analysis of radium-226 and radium-228 to better understand the nature and extent of radium in groundwater and surface water and evaluation of background contributions from natural or anthropogenic sources (USEPA 2014).

Major Cations, Anions, and Nutrients: Geochemical modeling of mineral solubility, metals attenuation and background contributions requires analysis of major cations and anions because they affect and participate in sorption and mineral dissolution or precipitation reactions.

The groundwater samples were analyzed using the following methods:

- pH following SW846 9040C “pH Electrometric Measurement” (USEPA 2004b)
- Total dissolved solids standard method (SM) 2540C “Total Dissolved Solids Dried at 180°C” (USEPA 1993a)
- Total hardness following SM 2340B (USEPA 1997)
- Chloride, fluoride, and sulfide following USEPA SW846 9056A “Determination of Inorganic Anions by Ion Chromatography”, Revision 1 (USEPA 2007c)

- Nitrate and nitrite following EPA 353.2 “Determination of Nitrate-Nitrite Nitrogen by Automated Colorimetry, Revision 2.0” (USEPA 1993b)
- Alkalinity following SM 2320B “Alkalinity by Titration” (USEPA 2005a)
- Phosphorus following SM 4500-P E “Phosphorus by Ascorbic Acid Method” (USEPA 2005b)

7.2 Summary of Results for Radium-226+228

Table 2 presents a summary of soil and analytical results. Radium-226+228 detected in soil samples from soil borings advanced in the surficial aquifer around the BSA was measured in six samples (soil sample CCR-4A, CCR-15, CCR-16, CCR-18, CCR-22, and CCR-23) as were total uranium and total phosphorus. Radium-226+228 ranged from approximately 0.6 pCi/g (CCR-18) to 76.6 pCi/g (CCR-4A). The presence of radium-226+228 correlates to the presence of uranium in soil samples of the surficial aquifer with a coefficient of determination (R^2) of 0.99, while total uranium also correlates to total phosphorus in soil samples of the surficial aquifer with a coefficient of determination of 0.80 (Appendix D). Based on these correlations and the known consistency of typical CCR (USGS 1997), it is considered highly likely that the presence of radium is due to the decay of naturally-occurring uranium in soils.

Results from a March 2019 groundwater sampling event for radium-226+228 in groundwater collected from nature and extent monitoring wells CCR-15, CCR-16, CCR-18, CCR-22, CCR-23, MW-25S, and MW-26S and for radium-226+228 in surface water samples collected from Fish Lake and Lakes B, C, and D are presented on Figure 7 and the results are summarized in Table 3. Historical groundwater sampling results for radium-226+228, from CCR monitoring wells, from August 2016 through January 2019, are also included on Figure 7 and in Table 4.

Radium-226+228 concentrations in groundwater sampled in March 2019 ranged from 1.1 pCi/L to 42.7 pCi/L. The concentration of radium-226+228 was above the site-specific GWPS of 7.94 pCi/L (Golder 2018b) in groundwater samples collected from nature and extent monitoring wells CCR-15, CCR-16, and CCR-22. The concentration of radium-226+228 detected in the groundwater sample collected from nature and extent well CCR-16 was higher compared to the corresponding hydraulically upgradient CCR monitoring well CCR-5 (Figure 7). Radium-226+228 concentration in groundwater varies in the vicinity of the BSA, likely due to natural variability of radium-226+228 in soils as well as in the phosphatic mine tailings used to backfill the mined area where the BSA was constructed. Radium-226+228 in lake samples (Fish Lake and Lakes B, C, and D) ranged from 1.4 pCi/L in Fish Lake to 5.3 pCi/L[15] in Lake D. Given the radial pattern of groundwater flow away from the BSA (Figure 5 and 6), Fish Lake, and Lakes B, C, and D are downgradient receptors of groundwater flowing from the BSA, and the concentration of radium-226+228 detected in these water bodies is below the Florida surface water quality criteria of 5 pCi/L (Chapter 62-302.530, F.A.C.). Furthermore, based on historical groundwater data (August 2016 to January 2019) of samples collected from the CCR monitoring well network, radium-226+228 shows a stable or decreasing trend at each CCR monitoring well (Table 4).

[15] Reported value meets State of Florida surface water quality criteria (Chapter 62-302.530, F.A.C.) for radium-226+228, in accordance with the rounding procedures described in the FDEP memorandum "Rounding Analytical Data for Site Rehabilitation Completion", dated November 17, 2011.

These soil and groundwater findings support the literature review indicating that the BSA and surrounding area are underlain by fine-grained phosphatic mine tailings and/or unmined phosphate deposits. Based on those findings, there is the high likelihood that radium-226+228 detected in groundwater is present as a product of the decay of a naturally-occurring uranium and thorium in soil and/or the mine tailings/phosphate deposits.

Further evidence for a naturally-occurring source for radium-226+228 in groundwater below and near the BSA is presented in a detailed mineralogical assessment of the underlying soils conducted by Petrologic Solutions, Inc. (Appendix E). The mineralogical assessment of soil samples included petrographic analysis, quantitative X-Ray Diffraction (XRD), Scanning Electron Microscopy (SEM), and additional bulk geochemistry. Results of the chemical and mineralogical assessment, coupled with Site and regional mineral resource evaluations, reveal the presence of naturally-occurring radioactive minerals associated with the phosphate ore mined at and near the BSA. These minerals include: eylettersite (thorium-bearing aluminum phosphate); wavellite (uranium-bearing aluminum phosphate); collophane, apatite, hydroxyapatite, and fluorapatite (uranium-bearing calcium phosphates) and zircon, rutile, and ilmenite (uranium-bearing oxides). As such, radium-226+228 present in groundwater below and in the vicinity of the BSA is considered to be naturally occurring and not due to a release from the BSA.

8.0 SUMMARY AND CONCLUSIONS

Radionuclides including radium-226 and radium-228 are naturally occurring in the study area and are associated with minerals in the phosphate matrix that was mined by the phosphate mining industry during the 1970s at the BSA prior to its construction. Radionuclides, including uranium, were detected in samples collected from approximately 26 to 30 ft bgs at the BSA during the 1950s. The upper portion of the phosphate matrix was mined in the north and west region of the BSA and phosphate matrix, tailings, and/or remnants, including the associated radionuclides, were left behind as backfill beneath the current BSA. Furthermore, a portion of the land beneath the BSA was likely not mined or partially mined, due to the proximity of the existing lakes, roads, and the MPP and therefore, phosphate ore likely exists in these areas. Based on the analysis presented in this report, uranium is most concentrated in the deeper phosphate bearing portions at the BSA site (e.g., approximately 26 to 30 ft bgs).

As previously presented, uranium concentrations in phosphate-bearing rocks exhibit typical uranium concentrations of up to 300 ppm, which is approximately 1 to 2 orders of magnitude higher than U.S. coals and fly ash, respectively (USGS 1997). The naturally occurring radionuclides in phosphate ore and mine tailings left behind underneath the BSA are conceivably at higher concentrations than CCR.

Findings of the geochemical assessments conducted for soil and groundwater at the site indicate that the BSA and surrounding area are underlain by fine-grained phosphatic mine tailings and/or unmined phosphate deposits. The concentration of radium-226+228 in groundwater in the vicinity of the BSA is shown to be variable, likely due to natural variations in soils as well as due to variations of radium-226+228 present in the phosphatic mine tailings used to backfill the mined area where the BSA was constructed. Furthermore, the detailed mineralogical assessment of the underlying soils conducted by Petrologic Solutions, Inc. reveal significant uranium and other accessory constituents associated with the phosphate ore mined at and near the BSA.

Therefore, based on the evidence presented herein, it is the opinion of Golder that radium-226+228 present in groundwater below and in the vicinity of the BSA is naturally occurring and not due to a release from the BSA.

9.0 PROFESSIONAL CERTIFICATION

This Alternative Source Demonstration for radium-226 and radium-228 in groundwater has been prepared for the Byproducts Storage Area at the C.D. McIntosh Power Plant, Lakeland, Florida. I hereby certify that the information contained in this report is accurate to the best of my knowledge as required by 40 CFR §257.95(g)(3)(ii).

Golder Associates Inc.

Samuel F. Stafford, P.E.

Florida Professional Engineer No. 78648

Certificate of Authorization No. 1670

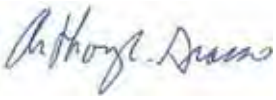
Date 10 JUNE 2019

10.0 SIGNATURE PAGE

Golder Associates Inc.

Samuel F. Stafford, PE
Senior Project Engineer

Gregory A. O'Neal II, PG
Senior Geologist



Anthony L. Grasso, PG
Principal and Practice Leader

GAO/SFS/ALG/sjh

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TABLES

Table 1: Summary of CCR Monitoring Well and Nature and Extent Monitoring Well Construction Details
Byproduct Storage Area
Lakeland Electric - C.D. McIntosh Jr. Power Plant

Well ID	Date Installed	Northing (ft NAD83)	Easting (ft NAD83)	Ground Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Stick-up Height (ft ags)	Well Depth (ft bgs)	Screen Interval Depth (ft bgs)
CCR-1	6/24/2016	1362405.2	681287.1	138.3	141.30	3.0	25.7	15.7 - 25.2
CCR-2	6/23/2016	1362203.9	681787.6	137.6	140.57	3.0	25.8	15.7 - 25.2
CCR-3	6/23/2016	1362334.6	682451.3	137.5	137.04	-0.5	25.8	15.9 - 25.3
CCR-4	6/24/2016	1362450.0	683042.7	140.3	143.13	2.9	25.7	15.6 - 25.1
CCR-5	6/22/2016	1362716.0	683376.9	138.6	141.07	2.5	26.2	16.2 - 25.7
CCR-6	6/22/2016	1363168.4	683578.6	138.5	141.34	2.9	25.7	15.7 - 25.2
CCR-7	6/22/2016	1363631.9	683772.2	139.1	142.10	3.0	25.8	15.7 - 25.2
CCR-8	6/22/2016	1363917.6	683411.6	139.4	142.12	2.7	26.0	15.9 - 25.4
CCR-9	6/21/2016	1364085.2	683045.3	138.6	141.67	3.1	25.6	15.5 - 25.0
CCR-10 *	6/20/2016	1364309.4	682722.2	135.9	138.54	2.6	24.5	14.4 - 23.9
CCR-10R	3/13/2018	1364262.1	682706.3	133.8	133.56	-0.2	24.7	14.6 - 24.1
CCR-11	6/20/2016	1363835.4	682577.2	134.3	137.12	2.8	25.6	15.6 - 25.1
CCR-12	6/20/2016	1363353.1	682430.5	134.1	136.99	2.9	25.8	15.7 - 25.2
CCR-13	6/21/2016	1362936.6	682164.1	135.0	137.95	3.0	25.7	15.6 - 25.1
CCR-14	6/21/2016	1362771.1	681761.2	135.8	138.70	2.9	25.5	15.4 - 24.9
CCR-15	2/18/2019	1362341.3	683123.5	141.8	144.65	2.9	25.7	15.4 - 25.0
CCR-16	2/18/2019	1362533.2	683385.6	141.2	144.10	2.9	25.6	15.3 - 24.9
CCR-17	2/19/2019	1363019.9	683712.7	142.9	145.80	2.9	25.7	15.4 - 25.0
CCR-18	2/18/2019	1363631.1	683869.7	138.2	140.81	2.6	25.9	15.6 - 25.2
CCR-19	2/15/2019	1364205.4	683064.5	133.8	136.47	2.7	25.8	15.5 - 25.1
CCR-20	2/14/2019	1363855.5	682474.9	133.1	136.05	2.9	25.2	14.9 - 24.5
CCR-21	2/13/2019	1363454.0	682331.4	134.5	137.12	2.6	25.9	15.6 - 25.2
CCR-22	2/13/2019	1363017.4	682078.7	134.0	137.51	3.5	25.1	14.8 - 24.4
CCR-23	2/12/2019	1362812.1	681744.7	136.2	135.78	-0.5	25.4	15.1 - 24.7

Notes:

CCR Monitroing Wells are CCR-1 through CCR-14 and CCR-10R.

Nature and Extent Monitoring Wells are CCR-15 through CCR-23.

ft = feet

NAD83 = North American 1983 Datum

NAVD88 = North American Vertical Datum of 1988

ft bgs = feet below ground surface

ft ags = feet above ground surface

Checked by: MSI 5/8/19

Reviewed by ALG 6/10/19

* Monitoring well CCR-10 was abandonend and replaced with CCR-10R on 3/13/2018.

Table 2: Summary of Soil / Sediment Analytical Results
Byproduct Storage Area
Lakeland Electric - C.D. McIntosh Jr. Power Plant

Sample ID	Depth (ft bgs)	Date Sampled	Analyte									
			Aluminum (mg/Kg)	Arsenic (mg/Kg)	Iron (mg/Kg)	Lithium (mg/Kg)	Uranium (mg/Kg)	Phosphorus (mg/Kg)	Radium-226 (pCi/g)	Radium-228 (pCi/g)	Total Organic Carbon (%)	Fractional Organic Carbon (g/g)
CCR-4A	24-25	2/11/19	28,000 B	ND	2,800	ND	280 F1	130,000	75.9	0.726	NA	NA
CCR-15	24-25	2/18/19	8,000 B	ND	98	0.79 J	4.5	2,800	0.702	0.328	NA	NA
CCR-16	24-25	2/18/19	19,000 B	ND	450	2.9	4.3	3,000	1.14	1.07	NA	NA
CCR-17	24-25	2/19/19	5,900 B	ND	97	ND	0.92	1,000	NA	NA	NA	NA
CCR-18	24-25	2/15/19	2,600 B	ND	79	0.45 J	1.2	800	0.443	0.196 U	NA	NA
CCR-19	24-25	2/15/19	2,000 B	ND	62	ND	0.50	310	NA	NA	NA	NA
CCR-20	24-25	2/14/19	21,000 B	1.4 J	460	ND	40	11,000	NA	NA	NA	NA
CCR-21	24-25	2/13/19	1,800 B	ND	110	ND	0.51	210	NA	NA	NA	NA
CCR-22	24-25	2/12/19	96,000 B	ND	8,400	15	280	90,000	65.2	1.49	NA	NA
CCR-23	24-25	2/12/19	20,000 B	3.9 J	4,400	4.8 J	58	78,000	14.7	0.359	NA	NA
GSB-1	0-0.5	2/21/19	4,000 B	1.4 J	1,200	ND	21	21,000	NA	NA	NA	NA
Fish Lake - Sed	0-0.5	2/20/19	N/A	NA	NA	NA	NA	NA	NA	NA	1.300	0.013

Notes:

ft bgs = feet below ground surface

mg/Kg = milligrams per kilogram

pCi/g = picocuries per gram

g/g = gram per gram

B - Compound was found in the blank and sample.

F1 - Matrix Spike/Matrix Spike duplicate (MS/MSD) Recovery is outside acceptance limits, and the concentration is an approximate value. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample recovery was within acceptable limits.

J - Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.

U - Result is less than the sample detection limit.

ND - Not detected

NA - Not analyzed

Checked by: SJH 5/23/19
Reviewed by: ALG 6/10/19

Table 3: Summary of Radium 226 & 228 in Nature and Extent Groundwater and Suface Water Byproduct Storage Area
Lakeland Electric - C.D. McIntosh Jr. Power Plant

Monitoring Well / Surface Water	Date Sampled	Radium 226 (pCi/L)	Radium 228 (pCi/L)
CCR-15	3/7/19	19.2	5.9
CCR-16	3/6/19	23.3	19.4
CCR-17	3/6/19	NA	NA
CCR-18	3/6/19	0.5	0.7 U
CCR-19	3/6/19	NA	NA
CCR-20	3/7/19	NA	NA
CCR-21	3/7/19	NA	NA
CCR-22	3/7/19	26.3	1.4
CCR-23	3/7/19	6.5	0.8
MW-24S	3/5/19	NA	NA
MW-25S	3/6/19	0.5	0.7 U
MW-26S	3/5/19	0.5	0.6 U
Fish Lake	3/11/19	0.7	0.7 U
Lake B	3/11/19	1.6	0.8 U
Lake C	3/13/19	1.5	0.7 U
Lake D	3/13/19	4.0	1.3

Notes:
Radium concentrations reported in picocuries per liter (pCi/L)
U - Result is less than the sample detection limit
NA - Not Analyzed

Checked by: SJH 5/10/19
Reviewed by: ALG 6/10/19

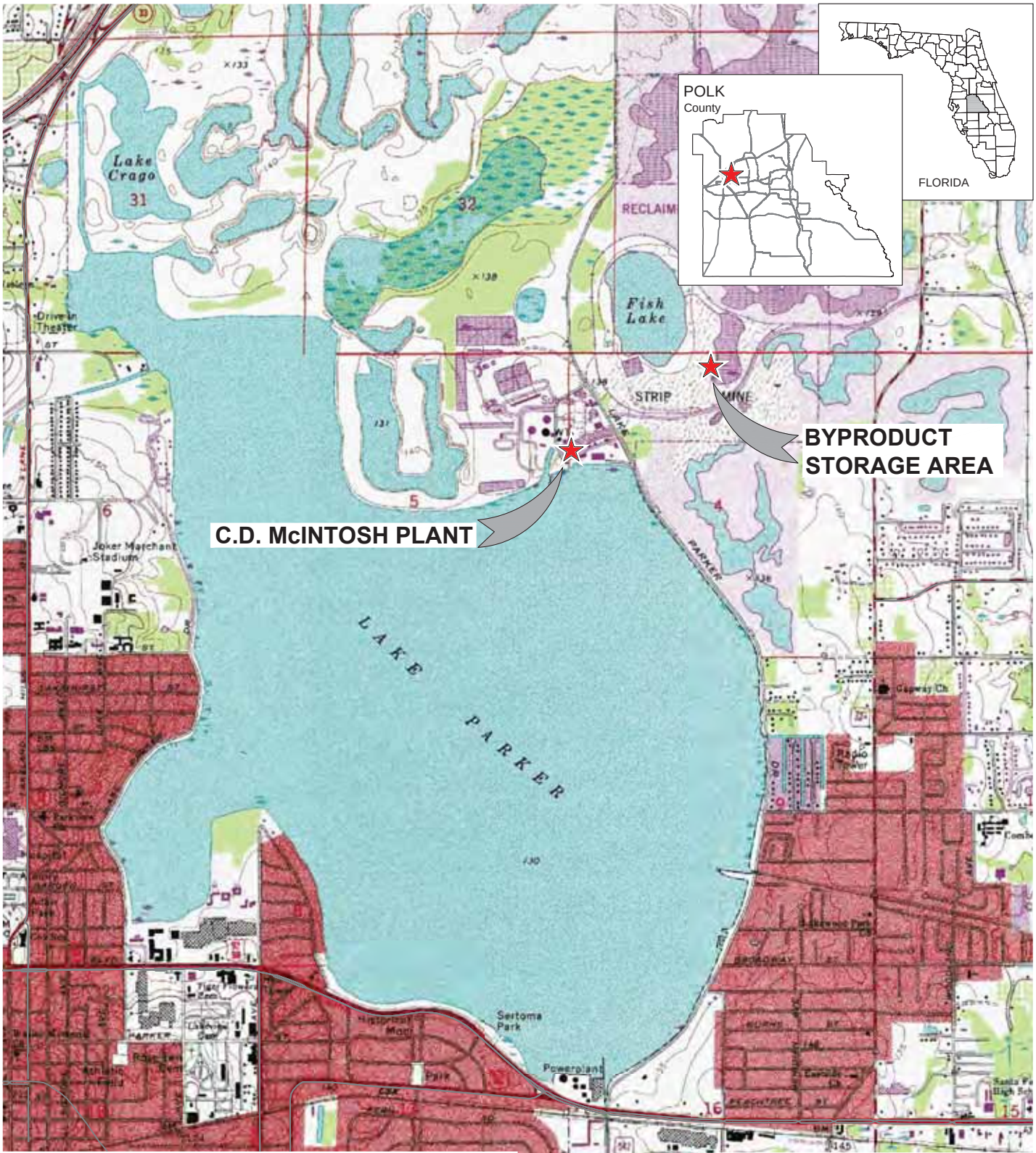
Table 4: Summary of Radium 228 & 228 Concentrations in Groundwater (CCR Monitoring Wells)
Byproduct Storage Area
Lakeland Electric - C.D. McIntosh Jr. Power Plant

Event	Date Sampled	CCR Monitoring Well Designation													
		CCR-1	CCR-2	CCR-3	CCR-4	CCR-5	CCR-6	CCR-7	CCR-8	CCR-9	CCR-10 / CCR-10R*	CCR-11	CCR-12	CCR-13	CCR-14
Background	8/4/2016	3.23	8.84	24.7	39.7	18.7	9.71	7.24	22	3.77	2.79	9.21	3	29.7	25.7
Background	9/14/2016	3.97	4.96	6.91	41	18	7.63	12.8	3.99	20.6	3.02	10.4	2.75	0.629	30.7
Background	10/12/2016	4.07	6.55	6.11	47.8	18.6	4.9	6.83	4.32	20.1	1.93	11.4	2.84	70.2	28.4
Background	11/2/2016	4.71	6.52	6.7	48.2	17	3.7	5.9	3.71	21.4	1.28	8.05	3.06	74.6	27
Background	12/14/2016	5.42	4.56	7.05	77.3	19.3	5.77	14.1	5.84	22.2	1.64	10.6	2.87	85.7	42.1
Background	1/11/2017	5.02	5.83	6.19	82.2	19.5	5.81	17.9	5.56	21.7	2.01	10.6	2.37	81.4	36.4
Background	2/1/2017	4.31	5.73	5.61	71.7	16.2	6.07	16.3	7.37	18.4	1.18	9.13	2.48	70.9	35.8
Background	3/15/2017	4.39	6.07	4.43	59	16.2	6.53	15.1	8.77	14.4	1.58	5.89	2.68	60.9	29.4
Background	4/12/2017	4.62	5.54	4.62	66.8	16	7.3	19.4	9.28	15.3	1.5	7.78	2.11	52.6	32.4
Background	5/17/2017	3.58	5.07	3.81	71.1	13.8	8.53	20.6	7.32	13.5	1.38	8.93	2.01	30.3	24.8
Background	6/13/2017	4.87	5.24	3.87	56.4	16.4	6.58	17.3	4.27	18.2	1.15	10.2	3.19	8.98	42.2
Background	7/11/2017	4.59	4.54	5.02	71.9	15.9	6.86	12.3	4.41	14.4	1.02	7.11	2.46	5.06	35.1
Background	8/15/2017	5.65	2.41	4.17	61.7	17.2	4.05	4.93	5.27	15.5	0.864	7.99	2.55	36.2	28.2
Detection	10/13/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Detection	11/30/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Detection	12/7/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assessment	4/12/2018	6.6	5.8	3.9	45.8	18.8	4.8	11.7	6.4	0.86	3.6	1.3	3	57.4	23.3
Assessment	7/18/2018	6.8	3.2	4.1	51	21.1	2.9	2.9	5.5	9.1	2.7	6.1	3.6	40.6	17.5
Assessment	1/8/2019	6.8	2.8	4.6	38.2	13.3	2.3	7.2	4.8	11.1	3.4	4.8	4.8	69.3	23.0

Notes:
Dates shown are represntative of sampling events that took place over multiple days
Radium values represent sum of Radium 226 and Radium 228
All concentrations reported in picocuries per liter (pCi/L)
NA - Not analyzed
* Monitoring well CCR-10 was abandonend and replaced with CCR-10R on 3/13/2018

Checked by: SJH 5/10/19
Reviewed by: ALG 5/24/2019

FIGURES



REFERENCE(S)

1.) USGS TOPOGRAPHIC MAP, 7.5 MIN. QUADRANGLE MAP SERIES: LAKELAND QUADRANGLE, POLK COUNTY, FLORIDA.

CLIENT
LAKELAND ELECTRIC

CONSULTANT
GOLDER

YYYY-MM-DD	2019-01-08
DESIGNED	SFS
PREPARED	BCL
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
SITE LOCATION MAP

PROJECT NO.	Control No.	REV.	FIGURE
19-117001	1895370-B001		1

LEGEND

CCR MONITORING WELL LOCATION

NOTE(S)

1. MONITORING WELL CCR-10 WAS ABANDONED IN PLACE AND REPLACED WITH CCR-10R ON MARCH 13, 2018.

CLIENT
LAKELAND ELECTRIC

CONSULTANT

GOLDER

YYYY-MM-DD	2019-05-23
DESIGNED	GJM
PREPARED	BCL
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
CCR GROUNDWATER MONITORING WELL NETWORK

PROJECT NO.	Control No.	REV.	FIGURE
19-117001	19117001-B002		2

Path: \\tampa\cad\PROJECTS\2019 PROJ\19-117001_Lakeland Elec\A - March2019 Data\Active Drawings\ | File Name: 19117001-B002.dwg

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 1 in

LEGEND

SURFACE WATER SURROUNDING BYPRODUCT STORAGE AREA

APPROXIMATE EXTENT OF BYPRODUCT STORAGE AREA

STAFF GAUGE

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

CLIENT
LAKELAND ELECTRIC

CONSULTANT

GOLDER

YYYY-MM-DD	2019-05-23
DESIGNED	MSI
PREPARED	MSI
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
SURFACE WATER BODIES SURROUNDING BYPRODUCT STORAGE AREA

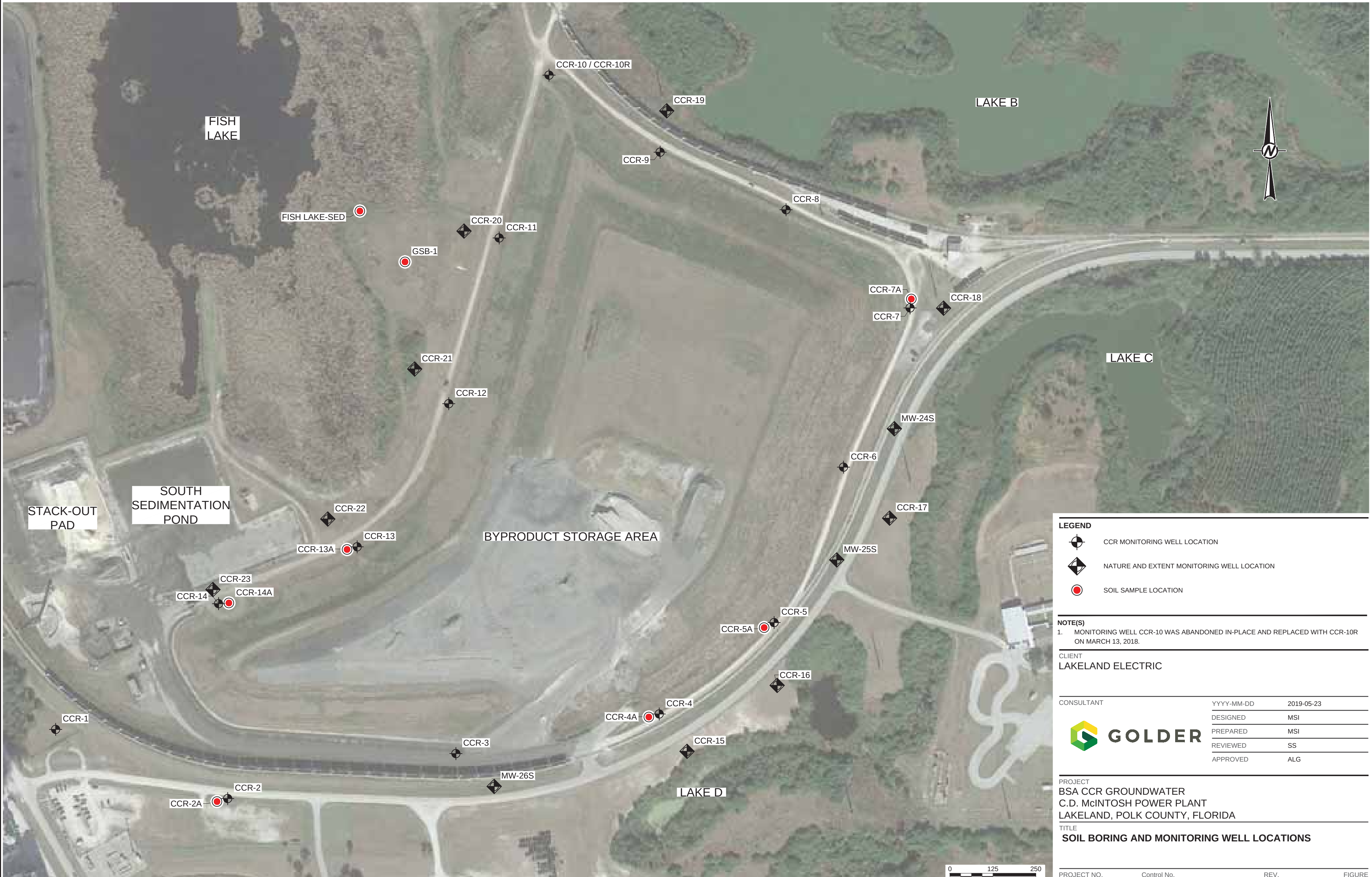
DRAFT

0 350 700
SCALE FEET

PROJECT NO.	Control No.	REV.	FIGURE
19117001	19117001-A001		3

Path: \\tampa\cad\PROJECTS\2019 PROJ\19-117001_Lakeland Elec\A - March2019 Data\Active Drawings\ | File Name: 19117001-A001.dwg

0 1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- CCR MONITORING WELL LOCATION
- NATURE AND EXTENT MONITORING WELL LOCATION
- SOIL SAMPLE LOCATION

NOTE(S)

1. MONITORING WELL CCR-10 WAS ABANDONED IN-PLACE AND REPLACED WITH CCR-10R ON MARCH 13, 2018.

CLIENT
LAKELAND ELECTRIC

CONSULTANT
GOLDER

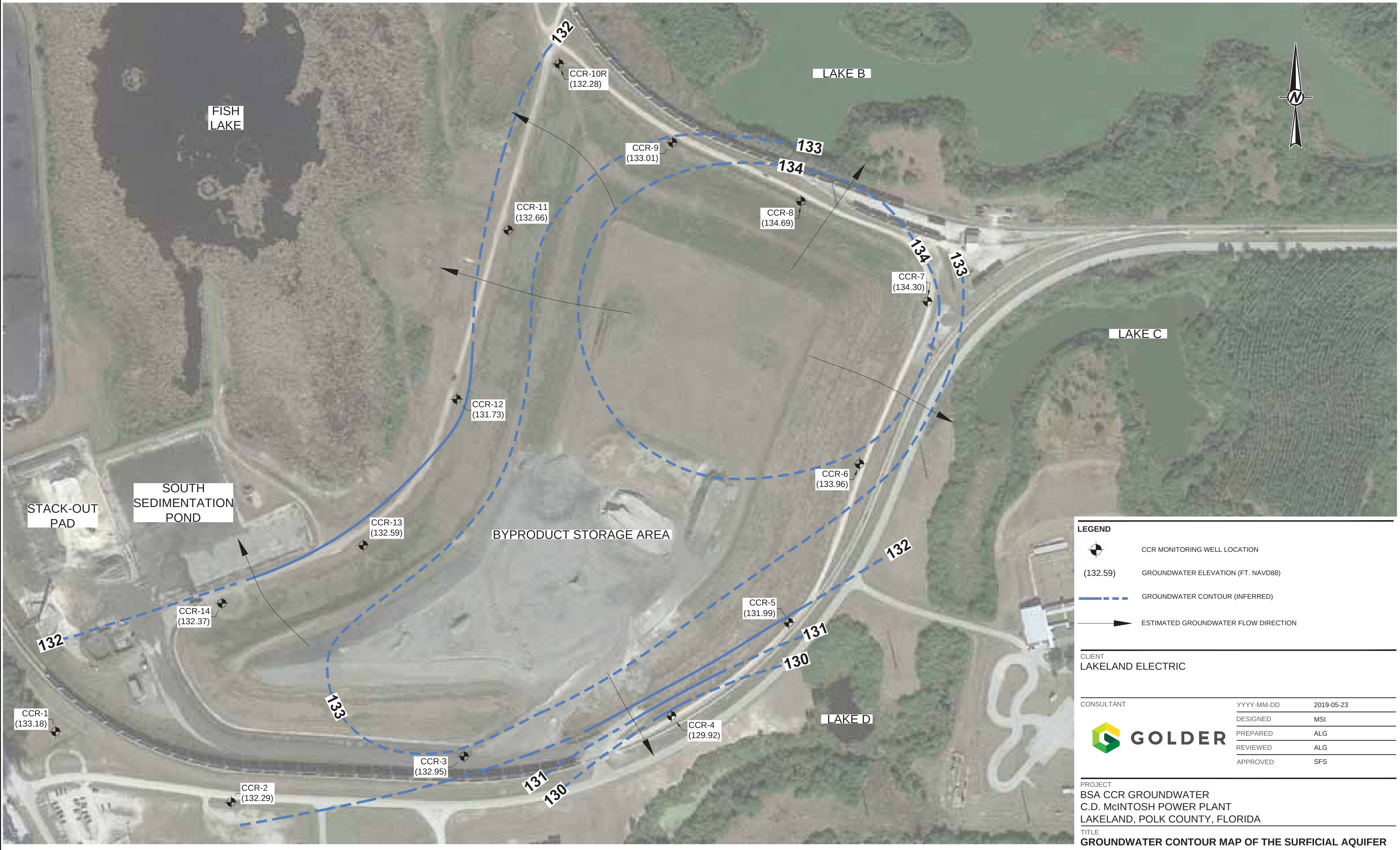
YYYY-MM-DD	2019-05-23
DESIGNED	MSI
PREPARED	MSI
REVIEWED	SS
APPROVED	ALG

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
SOIL BORING AND MONITORING WELL LOCATIONS

PROJECT NO.	Control No.	REV.	FIGURE
19-117001	19117001-B003		4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

(well symbol)	CCR MONITORING WELL LOCATION
(132.59)	GROUNDWATER ELEVATION (FT. NAVD88)
(dashed line)	GROUNDWATER CONTOUR (INFERRED)
(arrow)	ESTIMATED GROUNDWATER FLOW DIRECTION

0 125 250
SCALE FEET

CLIENT
LAKELAND ELECTRIC

CONSULTANT
GOLDER

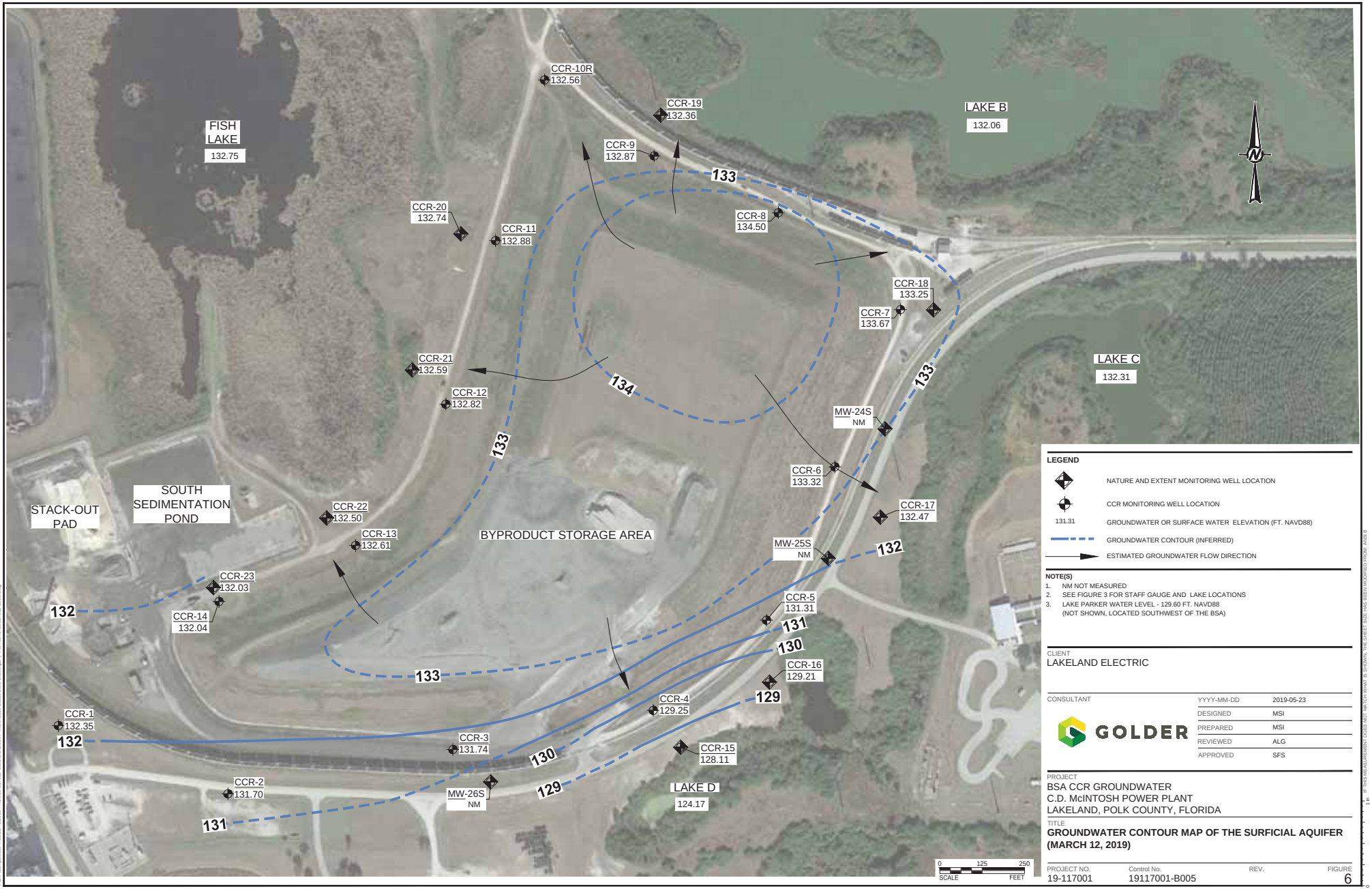
YYYY-MM-DD	2019-05-23
DESIGNED	MSI
PREPARED	ALG
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
GROUNDWATER CONTOUR MAP OF THE SURFICIAL AQUIFER (JULY 16, 2018)

PROJECT NO.	Control No.	REV.	FIGURE
19-115694	19117001-B004		5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- NATURE AND EXTENT MONITORING WELL LOCATION
- CCR MONITORING WELL LOCATION
- 131.31 GROUNDWATER OR SURFACE WATER ELEVATION (FT. NAVD88)
- GROUNDWATER CONTOUR (INFERRED)
- ESTIMATED GROUNDWATER FLOW DIRECTION

NOTE(S)

1. NM NOT MEASURED
2. SEE FIGURE 3 FOR STAFF GAUGE AND LAKE LOCATIONS
3. LAKE PARKER WATER LEVEL - 129.60 FT. NAVD88 (NOT SHOWN, LOCATED SOUTHWEST OF THE BSA)

CLIENT
LAKELAND ELECTRIC

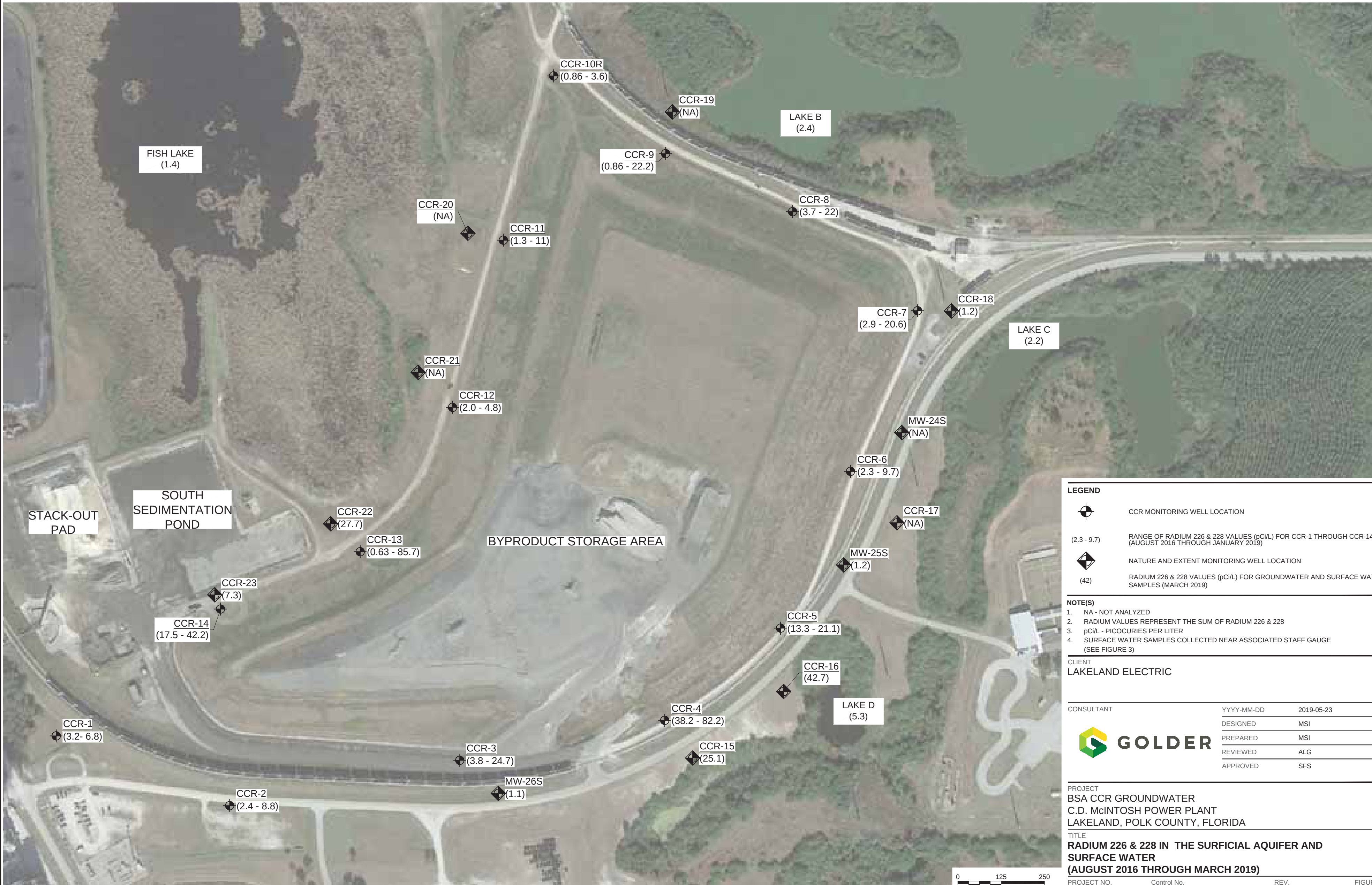
CONSULTANT
GOLDER

YYYY-MM-DD	2019-05-23
DESIGNED	MSI
PREPARED	MSI
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
GROUNDWATER CONTOUR MAP OF THE SURFICIAL AQUIFER (MARCH 12, 2019)

PROJECT NO.	Control No.	REV.	FIGURE
19-117001	19117001-B005		6



LEGEND

CCR MONITORING WELL LOCATION

(2.3 - 9.7) RANGE OF RADIUM 226 & 228 VALUES (pCi/L) FOR CCR-1 THROUGH CCR-14 (AUGUST 2016 THROUGH JANUARY 2019)

NATURE AND EXTENT MONITORING WELL LOCATION

(42) RADIUM 226 & 228 VALUES (pCi/L) FOR GROUNDWATER AND SURFACE WATER SAMPLES (MARCH 2019)

NOTE(S)

1. NA - NOT ANALYZED
2. RADIUM VALUES REPRESENT THE SUM OF RADIUM 226 & 228
3. pCi/L - PICOCURIES PER LITER
4. SURFACE WATER SAMPLES COLLECTED NEAR ASSOCIATED STAFF GAUGE (SEE FIGURE 3)

CLIENT
LAKELAND ELECTRIC

CONSULTANT
GOLDER

YYYY-MM-DD	2019-05-23
DESIGNED	MSI
PREPARED	MSI
REVIEWED	ALG
APPROVED	SFS

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

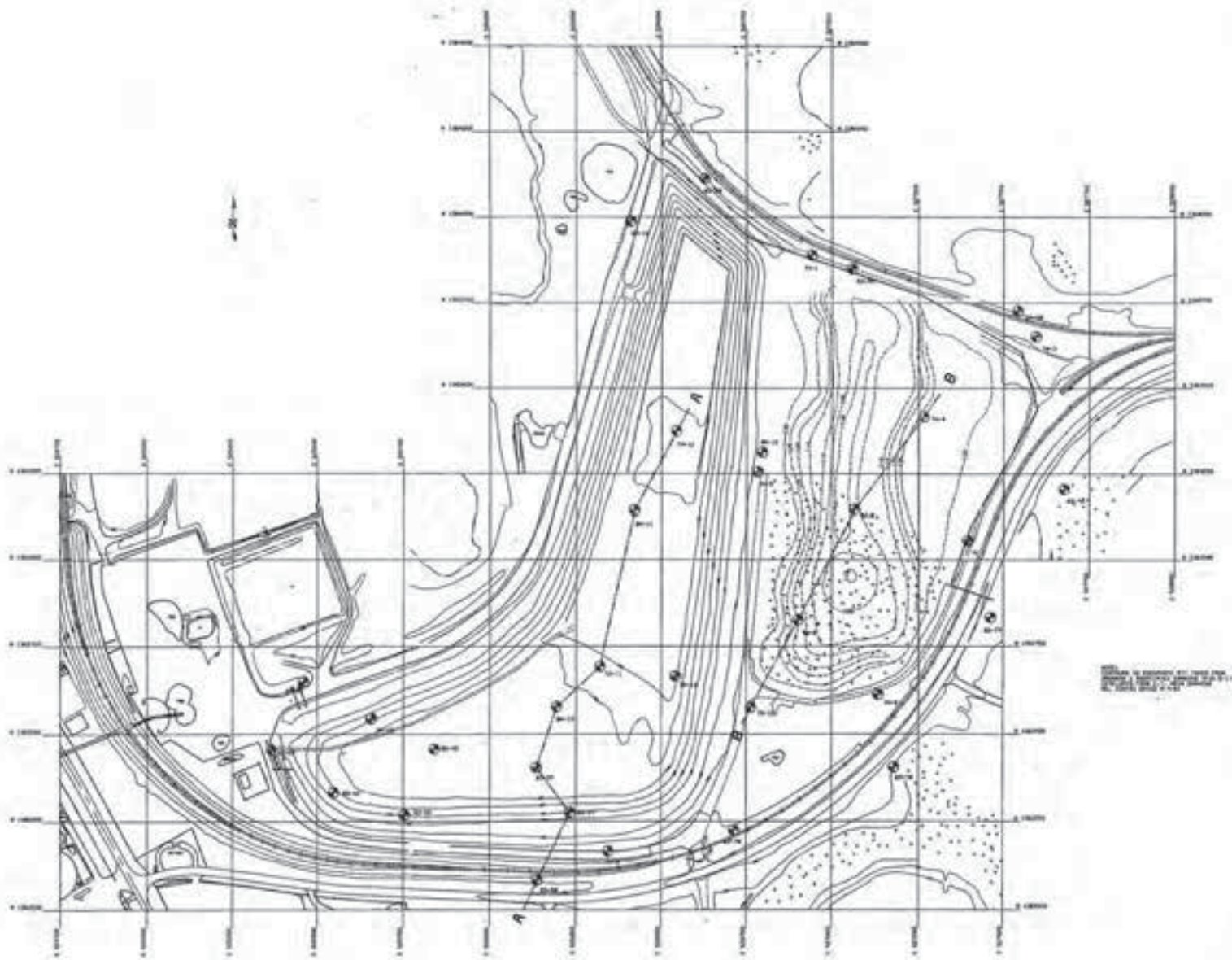
TITLE
RADIUM 226 & 228 IN THE SURFICIAL AQUIFER AND SURFACE WATER (AUGUST 2016 THROUGH MARCH 2019)

PROJECT NO.	Control No.	REV.	FIGURE
19-117001	19117001-B008		7

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

APPENDIX A

Soil Boring Logs and Location Map

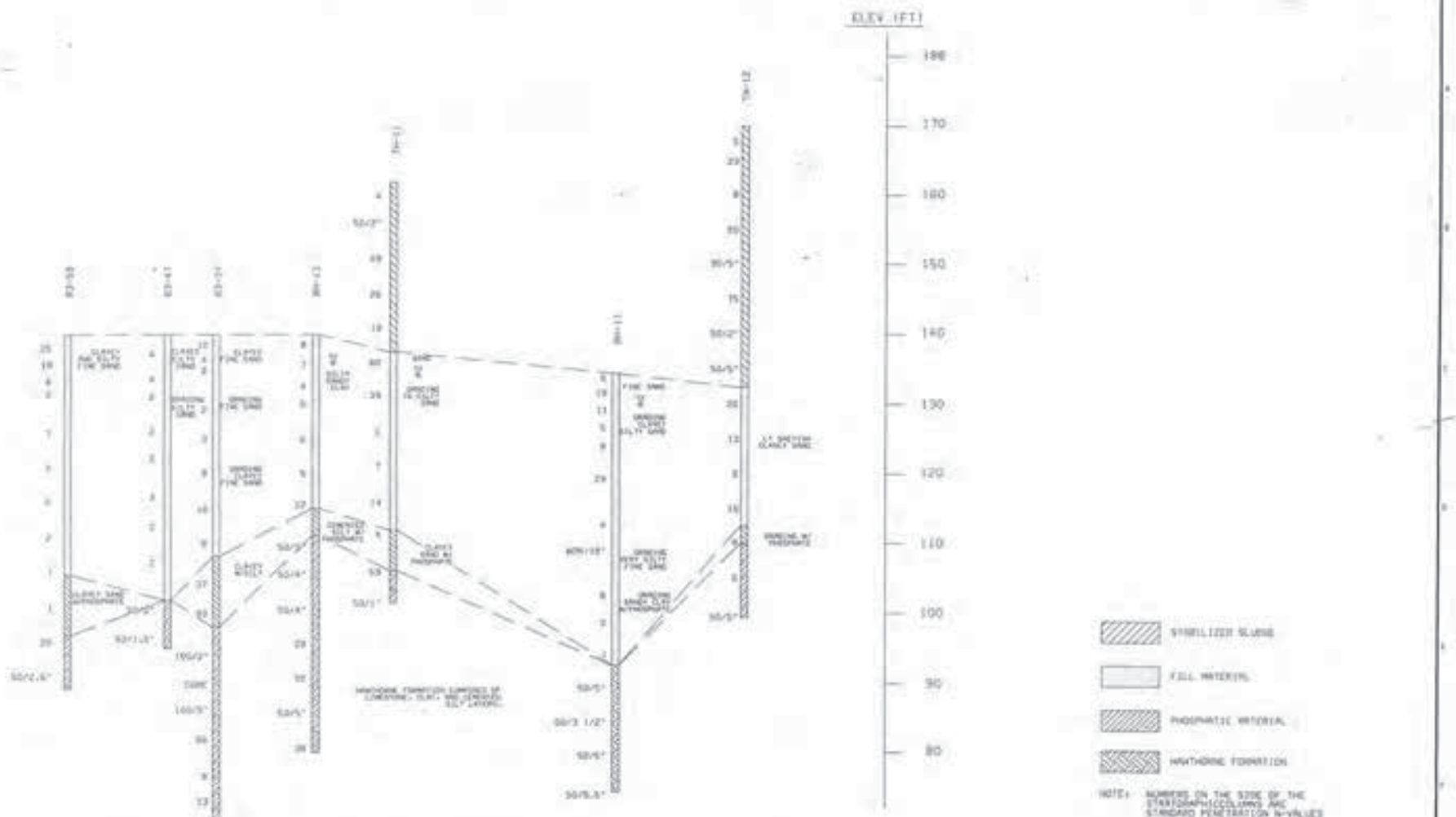


SOIL BORING LOCATION PLAN

LAKELAND ELECTRIC & WATER
C.D. MCINTOSH PLANT COMBUSTION TURBINE

17757

FIGURE 2-1



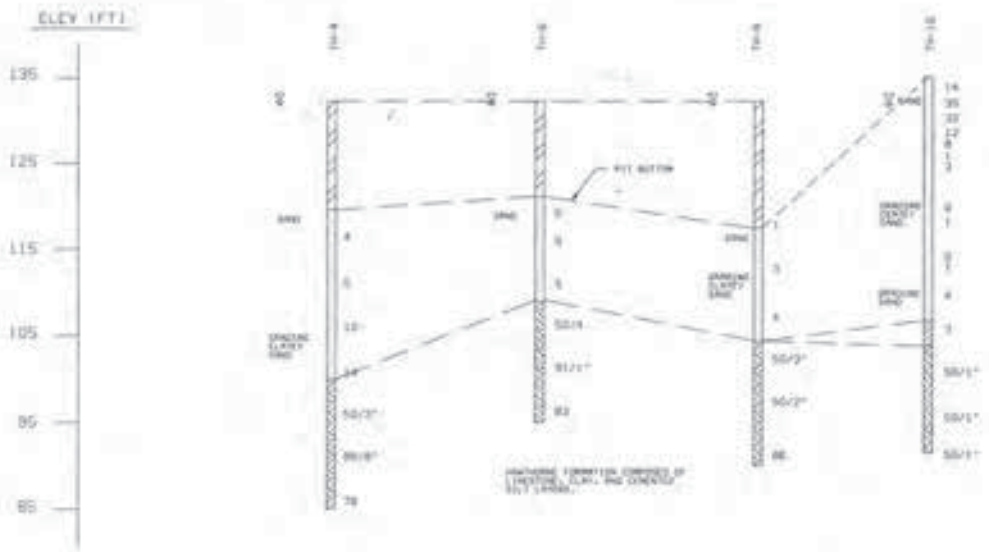
BLACK & VEATCH
ENGINEERS-ARCHITECTS

CITY OF LAKELAND
MCINTOSH LANDFILL

SOIL PROFILE SECTION A-A

17757

FIGURE 2-2



WATER

FILL MATERIAL

PHOSPHATIC MATERIAL

WEATHERED FORMATION

NOTE: NUMBERS ON THE SIDE OF THE STRATIGRAPHIC COLUMNS ARE STANDARD PENETRATIONS N-VALUES.

D.E.P.

BLACK & VEATCH
ENGINEERS-ARCHITECTS

CITY OF LAKELAND
MCINTOSH LANDFILL

SOIL PROFILE SECTION B-B

17757

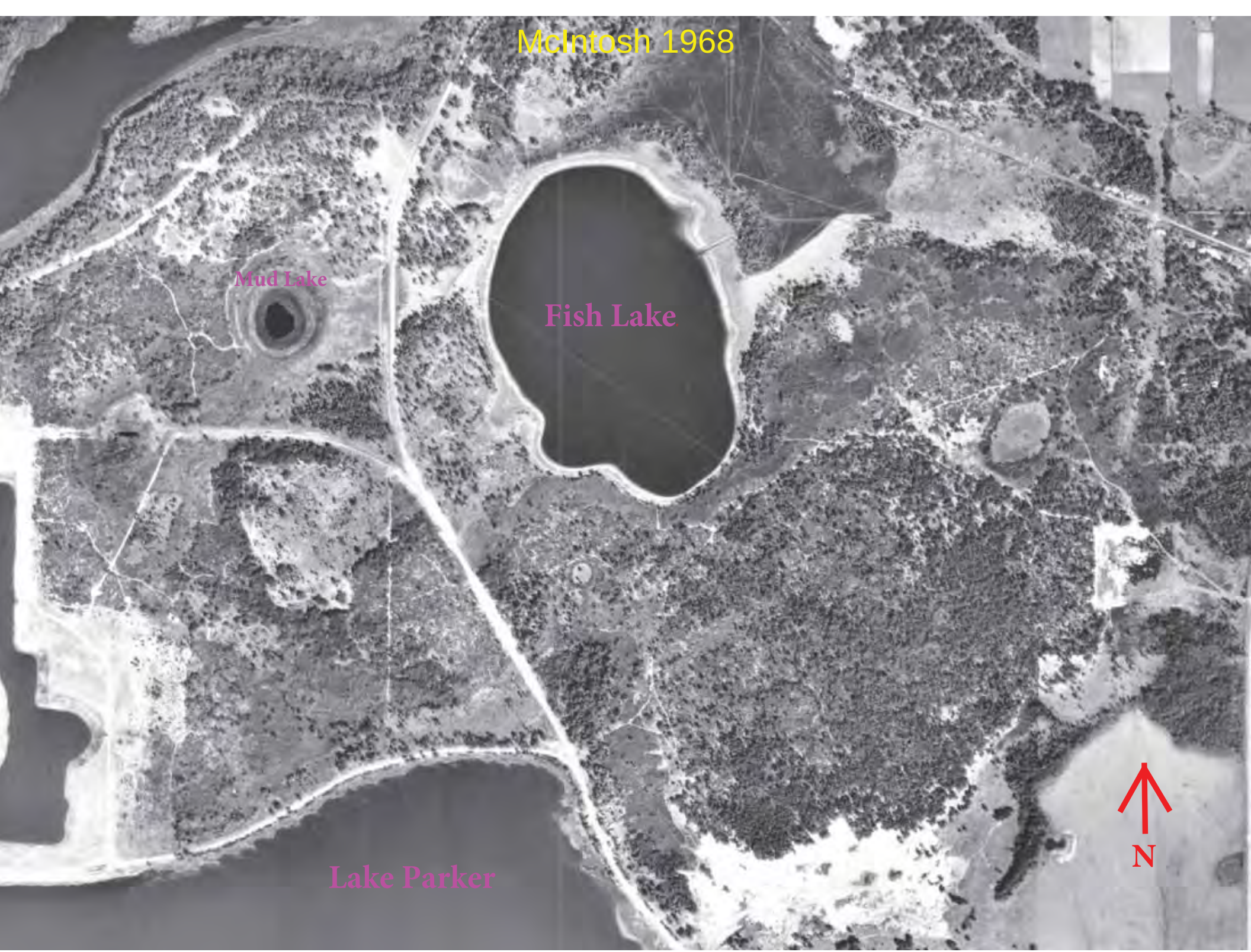
A

FIGURE 2-3

APPENDIX B

Historical Aerial Photographs and Maps


UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
BULLETIN 1162-D
PLATE 1
EXPLANATION
1964 USGS
GEOLOGIC MAP OF THE LAKELAND QUADRANGLE, FLORIDA


McIntosh 1968
Mud Lake
Fish Lake
Lake Parker
N


1971 from FDOT
N
Approximate Footprint of BSA

N
W E
S

BSA at Lakeland Electric USGS
11/30/1971
(Current boundary shown by dashed red line)

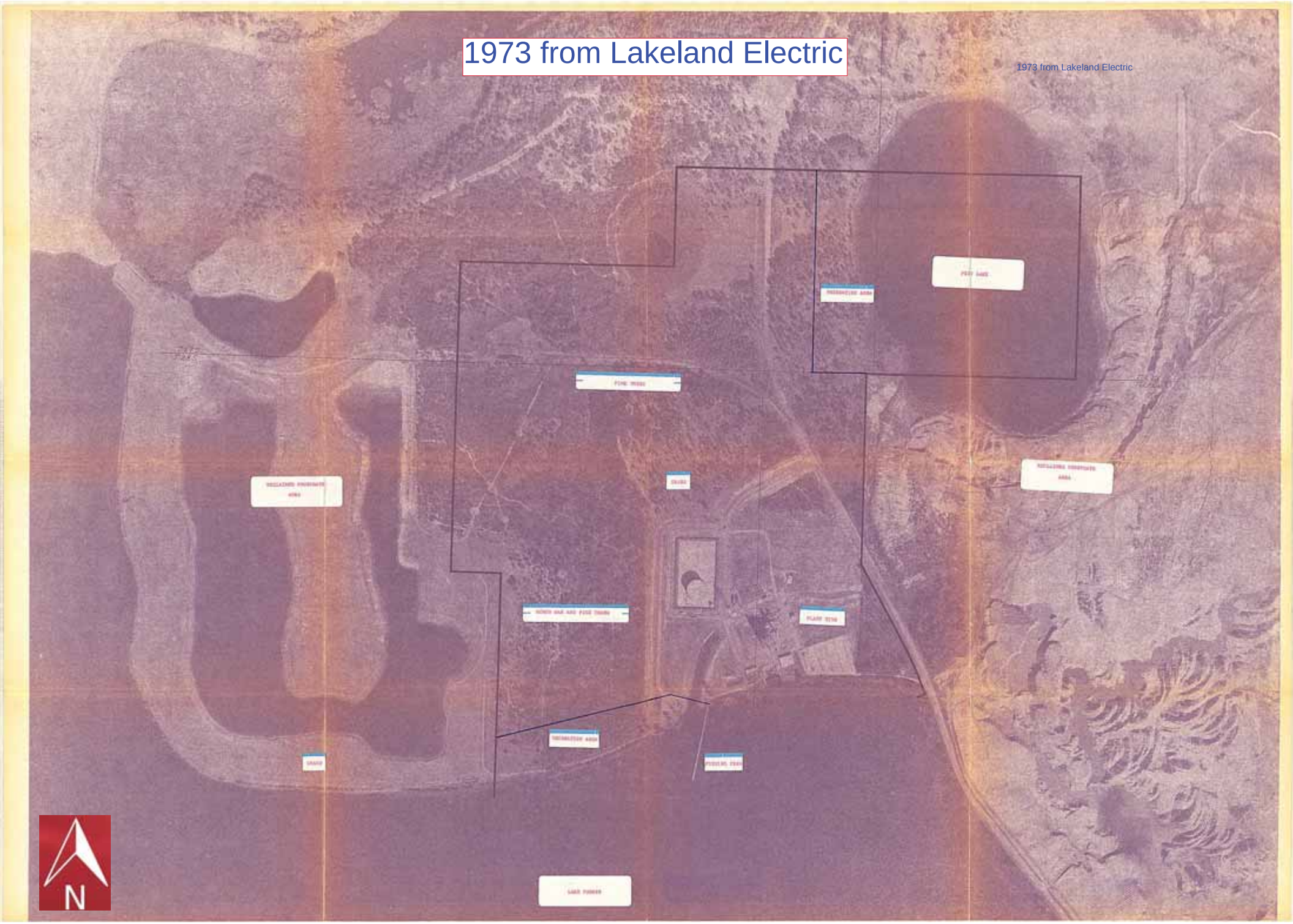
GeoSearch

JOB #: 227772 - 03/09/2018

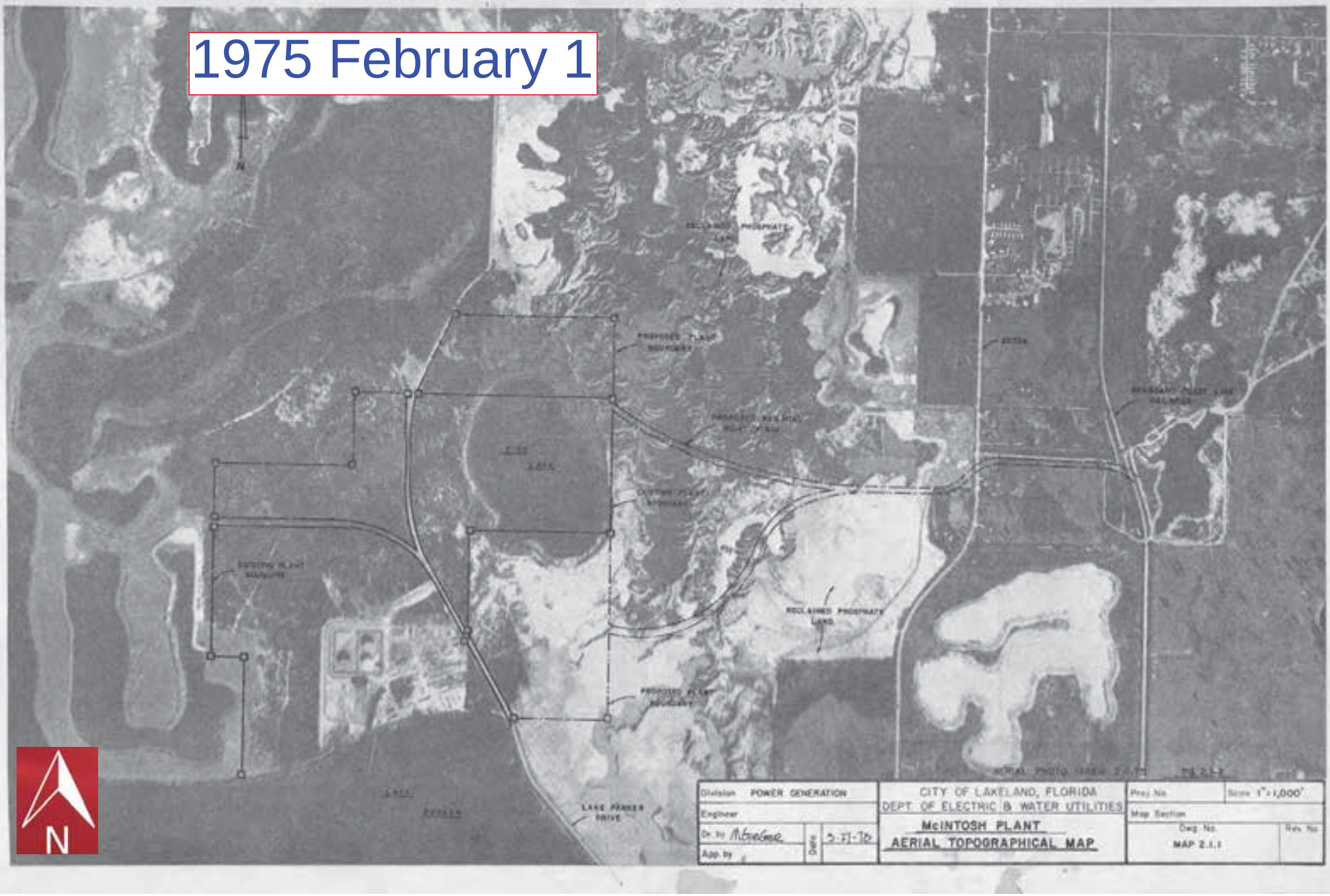
1975 USGS 7.5-minute topographic map including December 2, 1972 Aerial Photograph

1973 from Lakeland Electric

1973 from Lakeland Electric



1975 February 1



N
W E
S

BSA at Lakeland Electric USGS
11/26/1977
(Current boundary shown by dashed red line)

GeoSearch

JOB #: 227772 - 03/09/2018

McIntosh 1980

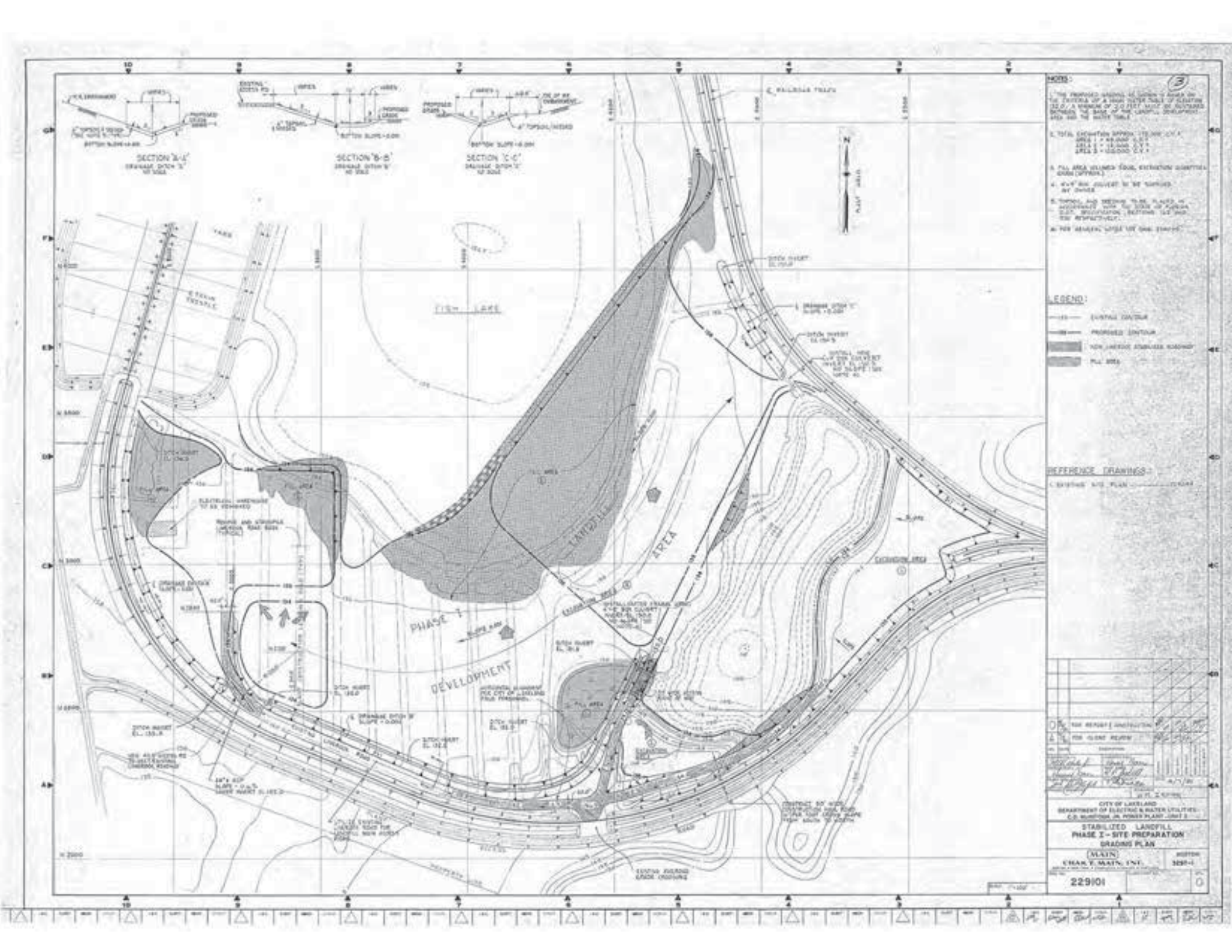
1:14,774

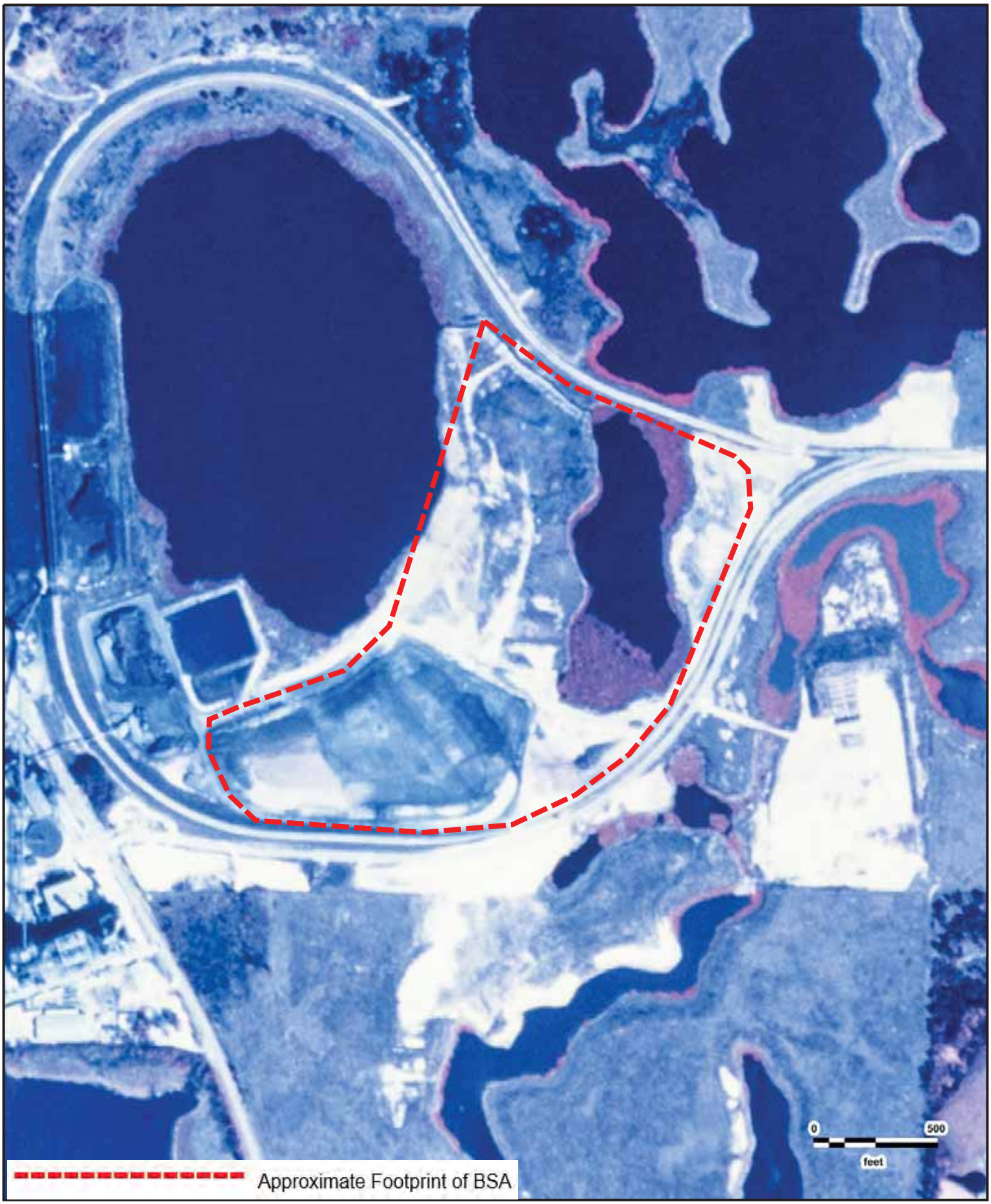
0 0.125 0.25 0.5 mi

0 0.2 0.4 0.8 km

N

Polk County BoCC


SECTION 'A-A'
SECTION 'B-B'
SECTION 'C-C'
NOTES:
LEGEND:
REFERENCE DRAWINGS:
FISH LAKE
PHASE I DEVELOPMENT
LANDFILL AREA
CITY OF LAKELAND
DEPARTMENT OF ELECTRIC & WATER UTILITIES
C.D. McINTOSH JR. POWER PLANT - UNIT 3
STABILIZED LANDFILL
PHASE I - SITE PREPARATION
GRADING PLAN
CHAS. T. MAIN, INC.
229101



N
W E
S

BSA at Lakeland Electric USGS
03/02/1984
(Current boundary shown by dashed red line)

GeoSearch

JOB #: 227772 - 03/09/2018

APPENDIX C

Record of Borehole Logs for CCR-2A, CCR-4A, CCR-5A, CCR-7A, CCR-13A, and CCR-14A

RECORD OF BOREHOLE CCR-2A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/11/2019
DATE COMPLETED: 2/11/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,362,203.9 E: 681,787.6
GS ELEVATION: 137.6 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 74° F

INCLINATION: -90
DEPTH W.L.: 5.9 ft
ELEVATION W.L.: 131.70 ft
DATE W.L.: 3/12/2019
TIME W.L.: 10:45

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0		0.0 - 1.0 SAND, fine; brown, dry	SP		136.6
		1.0 - 2.0 SAND, fine; grayish brown, dry	SP		1.0 135.6
	135	2.0 - 4.0 SAND, fine; light gray, dry	SP		2.0 133.6
5		4.0 - 7.5 SAND, trace organics, fine to medium, subrounded to subangular, poorly graded; dark brown to black	SP		4.0 130.1
	130	7.5 - 10.8 SAND, fine to medium, subround to subangular, uniform grading; light tan to white, moist	SP		7.5 126.9
10		10.8 - 13.5 SAND, fine, subrounded, uniform; dark brown to black, compact, wet	SP		10.8 124.1
	125	13.5 - 15.8 No Recovery			13.5 121.9
15		15.8 - 18.4 SAND, fine, subrounded; light brown to light grey (white with small round black heavy mineral), wet	SP		15.8 119.2
	120	18.4 - 19.5 SAND, fine; dark brown to black (grains are brown), compact to dense, wet	SP		18.4 118.1
		19.5 - 20.0 No Recovery			117.6
20		20.0 - 23.0 SAND, very fine, subrounded; light brown to tan with a dark brown to black coating with small black opaque grains, compact to very dense, wet	SP		20.0 114.6
	115	23.0 - 23.5 CLAYEY SAND; tan to light brown, wet	SC		114.1
		23.5 - 25.0 SAND, very fine, subrounded; light brown to tan with a dark brown to black coating with small black heavy mineral, compact to very dense, wet	SP		23.5 112.6
25		25.0 - 27.5 SAND, fine subrounded, uniform grading; brown, loose to compact, wet	SP		25.0 110.1
	110	27.5 - 30.0 SAND, fine, subrounded; tan to white with small black heavy minerals, compact to dense, wet	SP		27.5 107.6
30		Boring completed at 30.0 ft			

1.) Borehole location is adjacent to monitoring well CCR-2; survey coordinates shown are from CCR-2.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-2.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-2.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, mine tailings and/or fill was encountered from approximately ground surface to 20 ft bgs and in-situ residual soil and/or weathered rock from 20 ft bgs to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

GLDR_GEOTECH NO SPT 1545454.2_REV1 (1).GPJ 5/30/19

RECORD OF BOREHOLE CCR-4A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/11/2019
DATE COMPLETED: 2/11/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,362,450.0 E: 683,042.7
GS ELEVATION: 140.3 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 86° F

INCLINATION: -90
DEPTH W.L.: 11.05 ft
ELEVATION W.L.: 129.25 ft
DATE W.L.: 3/12/2019
TIME W.L.: 10:57

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0	140	0.0 - 1.0 SAND, fine; brown, dry	SP		139.3
		1.0 - 2.0 SAND, fine, some gravel and silt; brown, dry	SP		1.0 138.3
		2.0 - 5.0 SAND, fine, some silt; brown, dry	SP-SM		2.0 135.3
5	135	5.0 - 10.4 SILTY SAND, fine, subrounded to subangular, uniform grading; dark brown to black, dry to moist	SM		5.0 129.9
10	130	10.4 - 13.6 SAND, fine to medium, subrounded, uniform grading; dark brown with small black heavy minerals, loose to very loose, wet 12.0 - 13.6 contact water is black	SP		10.4 ▼ 126.7
		13.6 - 15.0 SAND, very fine, subrounded, uniform grading; dark brown with small black heavy minerals, compact, wet	SP		13.6 125.3
15	125	15.0 - 15.8 SAND, fine to medium, subrounded, uniform grading; dark brown with small black heavy minerals, loose to very loose, wet, water is black	SP		15.0 124.5
		15.8 - 19.5 SAND, fine, subrounded, uniform grading; light to dark brown, compact to dense, wet	SP		15.8 120.8
20	120	19.5 - 21.1 SAND little to some clay; fine, angular to subrounded, uniform grading; white to tan with small black heavy minerals, wet	SP-SC		19.5 119.2
		21.1 - 22.8 SAND some clay, fine, subrounded; white to pale green, moist	SP-SC		21.1 117.5
		22.8 - 23.4 CLAY some sand and trace gravel; soft; fine, limestone gravel, brownish gray; pale green to greenish gray, moist	CL		116.9
25	115	23.4 - 28.2 Sandy CLAY, trace to some silt; pale green to white, loose to compact, wet, fossiliferous (weathered limestone)	CL		23.4 112.1
		28.2 - 30.0 CLAY trace sand and gravel; soft; fine angular sand, fine rounded gravel; green, moist (weathered limestone)	CL		28.2 110.3
30	110	Boring completed at 30.0 ft			

COMMENTS

1.) Borehole location is adjacent to monitoring well CCR-4; survey coordinates shown are from CCR-4.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-4.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-4.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, mine tailings and/or fill was encountered from approximately ground surface to 19.5 ft bgs and in-situ residual soil and/or weathered rock from 19.5 ft bgs to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

RECORD OF BOREHOLE CCR-5A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/11/2019
DATE COMPLETED: 2/11/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,362,716.0 E: 683,376.9
GS ELEVATION: 138.6 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 88° F

INCLINATION: -90
DEPTH W.L.: 7.29 ft
ELEVATION W.L.: 131.31 ft
DATE W.L.: 3/12/2019
TIME W.L.: 11:00

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0		0.0 - 5.0 SAND, fine; brown, dry	SP		133.6
	135				
5		5.0 - 8.4 SAND, fine to medium, subrounded, uniform grading; white with small rounded black heavy minerals	SP		5.0 130.2
	130	8.4 - 8.9 CLAY some sand and gravel; fine white gravel and fine to medium sand; white, moist	CL		129.7
		8.9 - 10.0 SAND, fine to medium, subrounded; white with small black heavy minerals, moist	SP		8.9 128.6
10		10.0 - 12.3 No Recovery			10.0 126.3
		12.3 - 13.0 SAND, fine to medium, subrounded; dark brown, loose, moist	SP		12.3 125.6
	125	13.0 - 15.0 SAND and CLAY; fine, subrounded; soft to firm; white to pale green with orange spots	SC		13.0 123.6
15		15.0 - 16.9 No Recovery			15.0 121.7
		16.9 - 18.2 SAND trace to some silt; fine to medium, subrounded to subangular; dark brown to black, loose to compact, moist to wet	SP-SM		16.9 120.4
	120	18.2 - 19.3 SAND, fine; dark brown with small black heavy minerals, loose to compact, wet	SP		18.2 119.3
		19.3 - 20.0 SAND, very fine to fine; dark brown to black, loose to compact, wet, contact water separates to tan and black	SP		19.3 118.6
20		20.0 - 22.3 No Recovery			20.0 116.3
		22.3 - 23.1 SAND some clay; fine, subrounded; soft; dark brown, wet	SP-SC		22.3 115.5
	115	23.1 - 24.2 SAND, fine to medium, subrounded; dark brown with smal black heavy minerals, loose, wet	SP		23.1 114.4
		24.2 - 25.0 SAND trace gravel; fine, subrounded, sand; fine to coarse, rounded, gravel; tan to white, wet	SP		24.2 113.6
25		25.0 - 27.4 No Recovery			25.0 111.2
		27.4 - 28.5 SAND, fine, rounded, dark brown with black heavy minerals, loose, wet	SP		27.4 110.1
	110	28.5 - 30.0 SAND trace organics; fine to medium; twigs and roots; light brown to light gray with black heavy minerals, loose, wet	SP		28.5 108.6
30		Boring completed at 30.0 ft			

COMMENTS

1.) Borehole location is adjacent to monitoring well CCR-5; survey coordinates shown are from CCR-5.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-5.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-5.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, mine tailings and/or fill was encountered from approximately ground surface to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

GLDR_GEOTECH NO SPT 1545454.2_REV1 (1).GPJ 5/30/19

RECORD OF BOREHOLE CCR-7A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/11/2019
DATE COMPLETED: 2/11/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,363,631.9 E: 683,772.2
GS ELEVATION: 139.1 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 86° F

INCLINATION: -90
DEPTH W.L.: 5.43 ft
ELEVATION W.L.: 133.67 ft
DATE W.L.: 3/12/2019
TIME W.L.: 11:05

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0		0.0 - 5.0 SAND, fine; light brownish gray, dry to wet	SP		
	135	4.0: ~ moist at 4 ft bgs			134.1
5		5.0 - 6.0 No Recovery			5.0 133.1
		6.0 - 7.0 SAND with pockets of sand/clay; fine, subrounded, uniform grading; fine sand/clay matrix, firm; tan to dark brown, loose to compact, wet	SP		6.0 132.1
		7.0 - 7.4 SAND, fine, subrounded, uniform grading; black, loose to compact, wet	SP		131.7 7.4
	130	7.4 - 10.0 SAND with pockets of sand/clay; fine, subrounded, uniform grading; fine sand/clay matrix, firm; tan to dark brown, loose to compact, wet	SP		129.1
10		10.0 - 11.0 No Recovery			10.0 128.1
		11.0 - 15.0 SILTY SAND, fine, subrounded, uniform grading, dark brown with black heavy minerals, loose, wet	SM		11.0
	125	13.4: 13.4-13.8 pockets of white sand/clay matrix			124.1
15		15.0 - 17.0 No Recovery			15.0 122.1
		17.0 - 17.8 SAND trace to some silt; fine, uniform grading; dark brown to black, wet	SP-SM		17.0 121.3
		17.8 - 18.5 CLAY; white, soft to firm, moist	CL		17.8 120.6
	120	18.5 - 20.0 SAND trace to some silt and sady clay; fine, uniform grading; dark brown, wet	SP-SM		18.5 119.1
20		20.0 - 25.0 SAND with pockets of sandy clay; fine, uniform grading; white clay; brown with black heavy minerals, wet	SP/CL		20.0
	115				114.1
25		25.0 - 26.1 No Recovery			25.0 113.0
		26.1 - 26.6 SAND, fine, subrounded, uniform grading; dark brown, loose, wet	SP		112.5
		26.6 - 27.2 SAND and CLAY; fine to coarse; soft; white to pale green, wet	SC/CL		111.9
		27.2 - 28.6 SAND, fine, subrounded, uniform grading; light brown, loose, wet	SP		27.2 110.5
	110	28.6 - 29.3 Sandy CLAY; fine to coarse, subrounded; compact, pale green, moist	CL		28.6 109.8
		29.3 - 30.0 Sandy CLAY, fine, subrounded, uniform grading; light to dark brown, loose, wet	CL		29.3 109.1
30		Boring completed at 30.0 ft			

COMMENTS

1.) Borehole location is adjacent to monitoring well CCR-7; survey coordinates shown are from CCR-7.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-7.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-7.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, mine tailings and/or fill was encountered from approximately ground surface to 17 ft bgs and in-situ residual soil and/or weathered rock from 17 ft bgs to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

GLDR_GEOTECH NO SPT 1545454.2_REV1 (1).GPJ 5/30/19

RECORD OF BOREHOLE CCR-13A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/12/2019
DATE COMPLETED: 2/12/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,362,936.6 E: 682,164.1
GS ELEVATION: 135.0 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 72° F

INCLINATION: -90
DEPTH W.L.: 2.39 ft
ELEVATION W.L.: 132.61 ft
DATE W.L.: 3/12/2019
TIME W.L.: 11.58

SOIL PROFILE

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0	135	0.0 - 2.0 SAND, fine; light brown, dry	SP		133.0
		2.0 - 4.0 SAND, fine; dark grayish brown, dry	SP		2.0 131.0
		4.0 - 5.0 SAND, fine; brown, dry	SP		4.0 130.0
5	130	5.0 - 7.1 SAND, fine, subrounded, uniform grading; black to dark gray, loose, moist to wet	SP		5.0 127.9
		7.1 - 9.4 SILTY SAND, fine, uniform grading; tan to white, compact to dense, wet	SM		7.1 125.6
10	125	9.4 - 10.0 SAND, fine, uniform grading; black with heavy minerals, loose, wet	SP		125.0
		10.0 - 12.0 No Recovery			10.0 123.0
		12.0 - 15.0 SAND, fine to medium, subrounded; dark brown, loose to compact, wet 14.2: root encountered	SP		12.0 120.0
15	120	15.0 - 17.0 No Recovery			15.0 118.0
		17.0 - 19.0 SAND trace to some clay, fine, uniform grading; grayish brown/tan with black heavy minerals, loose, wet. - two black bands at 17.3 and 17.6 ft bgs	SP-SC		17.0 116.0
		19.0 - 20.0 SAND, fine, uniform grading; grayish brown with black heavy minerals, compact, moist	SP		19.0 115.0
20	115	20.0 - 25.0 SAND, fine to medium, uniform grading; tan to white wih heavy minerals grains, wet	SP		20.0 110.0
25	110	25.0 - 30.0 CLAY trace sand; fine, sand; white to pale green, firm to stiff, slight mottling, moist	CL		25.0 105.0
30	105	Boring completed at 30.0 ft			

COMMENTS

1.) Borehole location is adjacent to monitoring well CCR-13; survey coordinates shown are from CCR-13.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-13.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-13.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, mine tailings and/or fill was encountered from approximately ground surface to 25 ft bgs and in-situ residual soil and/or weathered rock from 25 ft bgs to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

GLDR_GEOTECH NO SPT 1545454.2_REV1 (1).GPJ 5/30/19

RECORD OF BOREHOLE CCR-14A

SHEET 1 of 1

PROJECT: Lakeland Electric CCR
PROJECT NUMBER: 19117001
DRILLED DEPTH: 30.0 ft
AZIMUTH: N/A
LOCATION: Lakeland, FL

DRILL METHOD: Direct Push
DRILL RIG: Geoprobe 3230 DT
DATE STARTED: 2/12/2019
DATE COMPLETED: 2/12/2019
WEATHER: Partly cloudy

DATUM: NAD83 / NAVD88
COORDS: N: 1,362,771.1 E: 681,761.2
GS ELEVATION: 135.8 ft
TRC ELEVATION: N/A ft
TEMPERATURE: 75° F

INCLINATION: -90
DEPTH W.L.: 3.76 ft
ELEVATION W.L.: 132.04 ft
DATE W.L.: 3/12/2019
TIME W.L.: 12:06

DEPTH (ft)	ELEVATION (ft)	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)
0	135	0.0 - 5.0 SAND, fine; brown, dry to moist	SP		130.8
5	130	5.0 - 7.4 SAND some silt; fine, subrounded, uniform grading; grayish brown, wet, loose 6.3: 6.3-6.7 ft bgs, CLAY pocket; soft; white, moist	SP-SM		5.0 128.4
		7.4 - 10.0 SAND, fine, subrounded, uniform grading; light to medium grayish brown, moist 8.6: 8.6-8.8 ft bgs, (CL) CLAY; soft; white, moist	SP		7.4 125.8
10	125	10.0 - 11.2 No Recovery			10.0 124.6
		11.2 - 12.3 SILTY SAND, fine, subrounded, uniform graded; white to light gray, wet, loose	SM		11.2 123.5
		12.3 - 15.0 CLAYEY SAND to Sandy CLAY, fine, subrounded; white to tan, moist, compact	SC/CL		12.3 120.8
15	120	15.0 - 16.4 No Recovery			15.0 119.4
		16.4 - 18.3 CLAYEY SAND to Sandy CLAY, fine to coarse, subangular, fossil fragments; white to pale green, wet, loose to compact	SC/CL		16.4 117.5
		18.3 - 20.0 SAND, fine to medium, subrounded to subangular, uniform grading; moist, compact to dense	SP		18.3 115.8
20	115	20.0 - 22.8 Sandy CLAY; fine to coarse, subangular coarse (fossil fragments); pale green to green, compact to dense (weathered limestone)	CL		20.0 113.0
		22.8 - 25.0 Sandy CLAY, fine to medium; white to pale green, moist, loose to compact	CL		22.8 110.8
25	110	25.0 - 27.0 Sandy CLAY; fine to coarse, subangular coarse (fossil fragments); pale green to green, compact to dense (weathered limestone)	CL		25.0 108.8
		27.0 - 30.0 CLAY trace sand; coarse sand; green and olive brown mottled, phosphatic grains, moist, stiff to hard (weathered limestone)	CL		27.0 105.8
30	105	Boring completed at 30.0 ft			

COMMENTS

1.) Borehole location is adjacent to monitoring well CCR-14; survey coordinates shown are from CCR-14.

2.) Ground surface elevation is estimated based on ground surface elevation of monitoring well CCR-14.

3.) Boreholes were backfilled with 20/30 graded silica sand to 5 ft bgs and the remaining borehole was filled with bentonite chips to land surface.

4.) Water-level elevations are estimated based on depth-to-water measurements from adjacent monitoring well CCR-14.

5.) Density descriptions are based on field observations and not form SPT blow counts.

6.) Soil cores were collected and transported to Golder's Tampa office. The soil cores were later logged by M. Boatman for mineralogic description of lithology.

7.) Based on lithologic descriptions, in-situ residual soil and/or weathered rock was encountered from approximately ground surface to terminal depth.

LOG SCALE: 1 in = 4 ft
DRILLING COMPANY: Action Environmental
DRILLER: Omar Velazquez

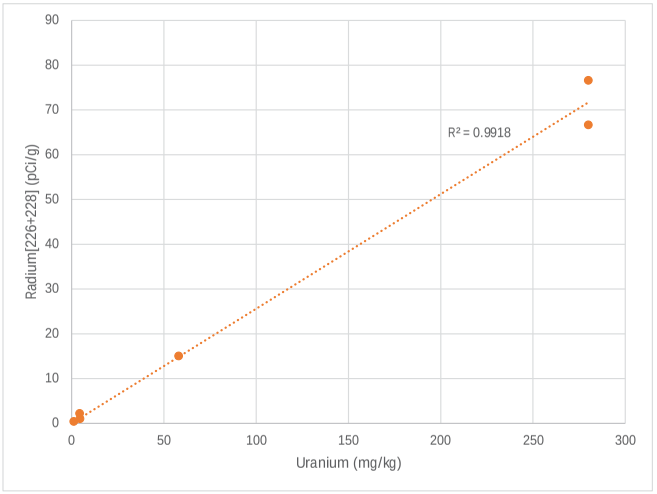
INSPECTOR: M. Boatman
CHECKED BY: G. Morelli
DATE: 5/30/19

GOLDER

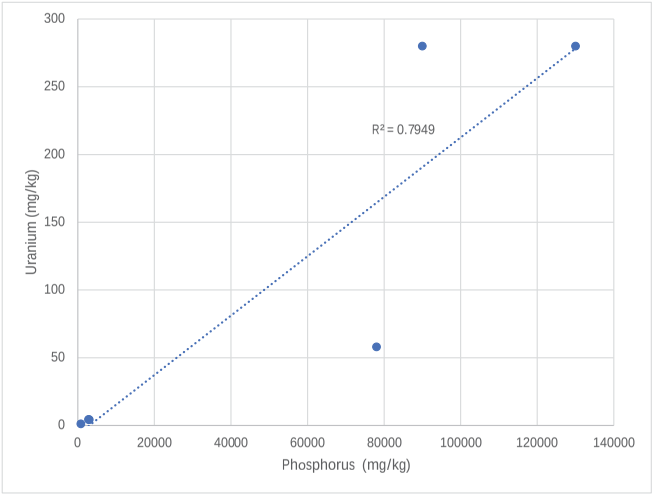
APPENDIX D

Geochemical Evaluation of Radium-226+228 in Soils

(a)



(b)



Results of chemical analysis of soils from boreholes for radionuclides and phosphorus

Soil Boring ID	Depth of samples (ft. bgs.)	Total Uranium (mg/kg)	Phosphorus (mg/kg)	Radium 226 (pCi/g)	Radium 228 (pCi/g)	Total Radium (pCi/g)
CCR-4A	24 - 25	280	130,000	75.9	0.726	76.6
CCR-15	24 - 25	4.5	2,800	0.702	0.328	1.03
CCR-16	24 - 25	4.3	3,000	1.14	1.07	2.21
CCR-18	24 - 25	1.2	800	0.443	ND	0.443
CCR-22	24 - 25	280	90,000	65.2	1.49	66.7
CCR-23	24 - 25	58	78,000	14.7	0.359	15.1

Notes:
mg/kg- milligrams per kilogram
pCi/g- picocuries per gram
ft. bgs.- feet below ground surface

CLIENT
LAKELAND ELECTRIC

CONSULTANT
GOLDER

PROJECT
BSA CCR GROUNDWATER
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
GEOCHEMICAL EVALUATION OF RADIUM-226+228 IN SOILS

PROJECT NO.	PHASE	REV.	FIGURE
19-117001	01	A	D

APPENDIX E

Mineralogical Assessment prepared by Petrologic Solutions, Inc.

Petrologic Solutions, Inc.
3997 Oak Hill Road
Douglasville, GA 30135
Tel: (678) 313-4146
rlkath@comcast.net

June 4, 2019 P18-2058

Anthony Grasso, P.G.
Golder Associates Inc.
5402 Beaumont Center Boulevard, Suite 108
Tampa, Florida, USA 33634

RE: TRANSMITTAL OF ANALYTICAL RESULTS IN SUPPORT OF THE EVALUATION OF RADIONUCLIDE SOURCES AT THE C.D. McINTOSH POWER PLANT, POLK COUNTY, LAKELAND, FLORIDA

Dear Mr. Grasso:

Petrologic Solutions, Inc. (Petrologic) was retained by Golder Associates Inc. (Golder) to evaluate soil samples for the presence of naturally-occurring radiogenic minerals and elements in support of Lakeland Electric's evaluation of radionuclide sources beneath the Byproduct Storage Area (BSA) at the C.D. McIntosh Power Plant (MPP) in Lakeland, Florida. For this work effort, Petrologic conducted petrographic analysis, qualitative X-ray diffraction (XRD), Scanning Electron Microscopy (SEM), and bulk geochemical analysis of unconsolidated soil samples collected from borings recently advanced at the site. Analytical procedures and results of these analyses are presented herein.

1.0 SAMPLE COLLECTION, PREPARATION, AND DESCRIPTION

Six soil borings were advanced around the perimeter of the BSA adjacent to monitoring wells CCR2, CCR4, CCR5, CCR7, CCR13, and CCR14 in February 2019, using Direct Push Technology (DPT). These additional borings, designated CCR2A, CCR4A, CCR5A, CCR7A, CCR13A, and CCR14A, were each extended to 30 feet below ground surface (ft. bgs). The locations of the borings were selected to evaluate geologic conditions of downgradient monitoring wells that encountered statistically significant levels of Radium-226 (Ra^{226}) and Radium-228 (Ra^{228}) during recent groundwater sampling events. An additional boring was located adjacent to CCR2, which occurs in an upgradient or side gradient position relative to the BSA. Golder logged the soil samples collected from the borings on March 1, 2019 and shipped 40 representative samples to Petrologic for analysis. Upon receipt, the soil samples were saturated; consequently, the samples were dried at 100 °C for 12-hours and then relogged by Petrologic.

Based on visual observation of the dried samples, generally two different material types were represented in the 40 samples collected. The upper-most unit consists of subangular to subrounded, fine- to medium-grained sand that varies in color, silt content, and abundance of heavy minerals. The sand-sized material is largely comprised of quartz, feldspar and a variety of dark heavy minerals; mineralogy of the very fine-grained matrix of the sand could not be determined through visual observation. This unit, as represented on the soil logs provided by Golder, ranges from approximately 20 feet to greater than 30 feet thick and was encountered in the upper parts of each of the additional DPT borings advanced. Although the samples show lithologic variability, no lateral continuity was apparent, giving the material a disturbed or disrupted appearance.

A second unit, observed to locally underlie the sand unit, consists of white to buff-tan, very fine- to fine-grained clayey sand to sandy clay with variable concentrations of silt and local occurrence of marine fossils (bryozoans and bivalves) and bone fragments. This lower unit is largely comprised of clay and quartz, with accessory minerals including rounded brown collophane (fine-grained apatite) "balls" and dolomite. Where present, this clayey sand to sandy clay unit, as represented on the soil logs provided by Golder, ranges from at least 5 feet to 10 feet thick and was encountered in the lower part of each of the DPT borings advanced except for CCR2A and CCR5A. The lateral continuity of this material along with the occurrence of dolomite, marine fossils, and bone, indicates that this unit may represent in-situ material.

From the 40 samples provided, Petrologic selected a subset of 16 samples for supplemental evaluation using a variety of analytical techniques, discussed in Section 2.0. These 16 samples were screened for the occurrence of radiogenic minerals using petrographic analysis of polished thin sections, XRD analysis, and radiogenic elements using bulk geochemistry. Based on these results, Petrologic selected a subset of 5 samples for SEM analysis to evaluate the presence of radiogenic minerals observed in thin section.

2.0 ANALYTICAL TECHNIQUES

Petrographic Analysis

Splits of the dried samples were prepared for petrographic analysis. The 16 soil samples selected from CCR2A, CCR4A, CCR5A, CCR7A, CCR13A, and CCR14A were re-dried and vacuum impregnated with clear epoxy by National Petrographic. The samples were mounted to a microscope slide; once the epoxy cured and then cut using a water-based cutoff saw. After drying the epoxy at 130 °C for 35 minutes, the billets were cut off from the microscope slides and the epoxied material was ground to approximately 35μm. After reaching 35μm, the samples were then polished using a roto-polishing system to a final thickness of 30μm. During grinding and polishing of the clayey samples, the clays were absorbing the grinding oils; consequently, the oil was cleaned with acetone repetitively during the grinding and polishing process to prevent oil from impregnating the clays.

Photomicrographs of the thin sections were taken using plane-polarized light (PPL), cross-polarized light (XPL), or reflected light (RL) on standard using an Olympus BX-60 petrographic microscope and Pixelink 662 digital camera in the microscopy lab at the University of West Georgia, Department of Geosciences. Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length. Representative photomicrographs are presented in Attachment 1.

Qualitative X-Ray Diffraction - XRD

Splits of the dried samples were prepared for qualitative XRD analysis. The 16 soil samples selected from CCR2A, CCR4A, CCR5A, CCR7A, CCR13A, and CCR14A were ground using a mortar and pestle to create fine-grained powders (~10-12μm-diameter). The fine powders were then loaded on Whatman GF/C glass fiber filters using the Tubular Aerosol Suspension Chamber (TASC) method. This method is used to reduce preferred orientation and allow for a uniform particle distribution over the load area. The samples were loaded into a Philips PW-3710 X-ray diffractometer using a spinning stage pedestal and Cu-Kα X-ray source. The samples were run at 0.96 (~1) degree two-theta per minute from 4 to 64 degrees two-theta. Sample identification was conducted using a semi-automated search-match computer program (High Score) which utilizes a Joint Committee on Powder Diffraction Standards (JCPDS) and Crystallography Open (COD) databases; and manual identification using published reference patterns. Additionally, some of the

XRD patterns were overlain with unpublished reference patterns obtained at the University of West Georgia. Interpreted XRD patterns are presented in Attachment 2.

Bulk Geochemistry

Sixteen dried soil samples collected from CCR2A, CCR4A, CCR5A, CCR7A, CCR13A, and CCR14A were provided to American Assay Laboratory (AAL) in Sparks, Nevada for bulk geochemical elemental analysis. All 16 samples were placed in a drying oven at 90°C by AAL prior to analysis. After drying, samples were transferred into ring and puck shatterbox where samples were reduced to a fine powder (200 mesh). A 0.5-gram sample was then weighed and placed into Teflon sample tubes for acid digestion with HNO_3+HCl+HF+$HClO_4$ for 1 hour. Major, minor and trace element concentrations of the samples were determined by Inductively Coupled Plasma (ICP)- Mass Spectrometry (MS) using ICP-5AM48 protocol. Geochemical results are included as Attachment 3 and summarized on Table 1, presented in Section 3.0.

Scanning Electron Microscopy - SEM

The University of West Georgia Microscopy Center (WGMC) at the Department of Geosciences completed SEM analysis of five polished thin sections, one sample each from CCR2A, CCR7A, and CCR13A, and two samples from CCR14A. The selected thin sections were carbon-coated to reduce surface charging during SEM analysis. Qualitative backscattered electron imaging (BSE) and identification of potential Uranium (U)/Thorium (Th)-bearing accessory minerals in the coated polished thin-sections were conducted using the FEI Quanta 200 SEM instrument and attached Bruker EDX detector for semi-quantitative analysis. Analyses were completed using a 20 kilovolt (kV) accelerating voltage on the filament and a partial vacuum of 0.45 Torr in the sample chamber. Images, spectra, and elemental maps were collected, processed, and annotated using the Bruker ESPRIT software package. Images resulting from the SEM analyses are presented in Attachment 4.

3.0 RESULTS

Petrographic Analysis

Petrographic analysis was conducted on all 16 polished thin-sections to determine the major and minor mineralogy of each sample. Based on petrographic analysis of the upper sand, this unit is characterized by more than 95 volume percent detrital quartz, which is typically subangular to subrounded. Associated with the quartz are accessory minerals that include microcline, muscovite, staurolite, kyanite, zircon, rutile, and ilmenite. The matrix of the sand is variably comprised of kaolinite and eylettersite, and is locally cemented with wavellite.

Based on petrographic analysis of the lower clayey sand to sandy clay unit, this unit is characterized by subangular sand in a clayey matrix. Large rounded grains of collophane, marine fossils (Bryozoa and Molluska), and bone fragments also occur within this more clay-rich unit. Collophane is a massive cryptocrystalline apatite comprised of apatite, fluorapatite and hydroxyapatite. Typically, apatite-minerals are not optically isotropic; however, the cryptocrystalline nature of the collophane makes it optically isotropic in thin section. In one sample, CCR14A (28.3-28.6), dolomite is present in the clayey matrix. Accessory minerals include microcline, staurolite, ilmenite, and zircon.

Photomicrographs for selected samples are presented in Attachment 1.

Qualitative X-Ray Diffraction - XRD

X-Ray powder diffraction scans were completed on all 16 samples to identify the major minerals present. A limitation of XRD analysis is that the lower detection limit is approximately 4 to 5 weight percent. Therefore, diffraction peaks for accessory minerals that are less than approximately 5 weight percent of the rock are typically lost in the background. As previously discussed, the samples are loaded GF/C filters using an aerosol suspension chamber. This method of sample preparation reduces preferred orientation; however, it is a thin layer diffraction technique. Consequently, each of the XRD scans presented in Attachment 2 shows two aluminum peaks that represent the aluminum sample holder upon which the loaded filters are mounted; therefore, aluminum-metal is not contained in these samples.

Consistent with the petrographic analysis, XRD analysis indicates that mineralogy of the upper sand unit is primarily comprised of quartz with minor zircon. Kaolinite and wavellite were also observed, along with the presence of eylettersite occurring in increased concentration near the base of this unit.

The lower clay-rich unit is characterized by the occurrence of quartz, hydroxyapatite, fluorapatite, palygorskite, and minor wavellite. Additionally, the deepest sample, collected from CCR14A at 28.3-28.6 ft. bgs, contains dolomite. Annotated XRD scans for the selected samples are presented in Attachment 2.

Bulk Geochemistry

A summary of selected major, minor and trace elemental geochemistry of soil samples from CCR2A, CCR4A, CCR5A, CCR7A, CCR13A, and CCR14A is presented on Table 1. A complete listing of all geochemical data is presented in Attachment 3.

As indicated in these summary results, the radiogenic elements uranium and thorium were detected in all of the samples collected from the upper sand unit and lower clayey sand to sandy clay unit. The radiogenic elements rubidium and potassium were also detected in many of the samples.

Scanning Electron Microscopy - SEM

Petrographic and XRD analyses indicated the presence of minerals that are potentially radiogenic, and bulk geochemistry confirms the presence of radiogenic elements. Scanning Electron Microscopy was used to confirm the presence of the radiogenic elements detected in the bulk geochemistry in the radiogenic minerals identified in thin section and XRD patterns.

Radiogenic minerals identified from SEM analyses in representative sediment samples include the following:

Zircon	**Rutile**
Ilmenite	**Wavellite**
Hydroxyapatite	**Fluorapatite**
Collophane	**Eylettersite**

Energy dispersive spectroscopy (EDS), back scatter electron (BSE) images, and element maps of soil samples are presented as Attachment 4. In the BSE images, minerals that contain elements with low atomic numbers are shown in gray tones. Minerals that contain elements with large atomic numbers, generally show up as “bright” spots on the BSE image. Because

uranium and thorium have atomic numbers of 92 and 90, respectively, minerals that contain these elements are “brighter” than the surrounding matrix.

Once a mineral with high atomic number elements was identified in the BSE image, the mineral was analyzed using energy dispersive spectroscopy. EDS is an analytical technique for elemental analysis based on x-ray emission caused by electrons that are dislodged from the inner orbitals by an x-ray beam from the instrument. As the inner electron is ejected from the inner shell, the electron hole is filled by electrons from higher-energy shells. This transformation from an outer- to an inner-shell releases energy in the form of an x-ray that can be detected and quantified. The energy of the x-ray is characteristic for different elements and can be displayed on an EDS spectrum as a function of electron volts (KeV). EDS and BSE plots for each sample analyzed is presented in Attachment 4.

Discussion

Based on review of historic aerial photographs, topographic maps and mine records, Golder has interpreted that the BSA and surrounding area are underlain by either fine-grained phosphatic mine tailings and/or unmined phosphate deposits. Results from visual observation, petrographic analysis, XRD analysis, bulk chemistry, and SEM analysis conducted for this work effort support this interpretation.

Two types of material were generally encountered in the six additional DPT borings advanced around the BSA. Based on the absence of glass (spherical or shards) in the thin sections or XRD patterns, and relatively low arsenic, beryllium and lithium concentrations, along with the high concentration of wavellite-cemented detrital quartz, microcline, zircon, staurolite, kyanite, ilmenite, and rutile, the upper sand unit encountered is not considered to represent coal combustion residuals (CCR). Although there is lithologic variability in this sand unit, there is no lateral continuity, giving the material a disturbed appearance; consequently, the absence of stratigraphy in a marine sand sequence and known land-use history indicates that this material likely represents backfilled materials, comprised of either removed and replaced overburden, unrecoverable ore, processed mine tailings, and/or mine waste. The underlying clayey-sand to sandy clay unit is interpreted to represent unmined, in-situ material, based on the occurrence of palygorskite, collophane apatite (with quartz inclusions), dolomitic carbonate, marine fossils, and bone fragments.

It is well-documented by Golder that phosphate deposits mined in this area contain naturally-occurring radiogenic minerals. Based on petrographic, XRD and SEM analysis, several potentially radiogenic minerals were identified in the soil samples collected, including: eylettersite (thorium-bearing aluminum phosphate); wavellite (uranium-bearing aluminum phosphate); collophane, apatite, hydroxyapatite, and fluorapatite (uranium-bearing calcium phosphates); and zircon, rutile, and ilmenite (uranium-bearing oxides). This is further supported by the detection of uranium concentrations up to 467ppm and thorium concentrations up to 23.4ppm in the bulk geochemistry, as summarized in Table 1 and presented in Attachment 3.

Radioactive decay products from naturally occurring radionuclides such as uranium and thorium are potential sources of Ra^{226} and Ra^{228}. Results from this investigation and regional mineral resource evaluations reveal significant uranium and other accessory constituents that are associated with the phosphate ore mined at and near the BSA. Published uranium concentrations in phosphate-bearing rocks have typical concentrations of up to 300 ppm, significantly exceeding concentrations reported for US coals and fly ash (USGS 1997). As shown on Table 1, naturally occurring radionuclides in phosphate ore and mine tailings surrounding the BSA are consistent with, and locally have higher concentrations of uranium than published concentrations in CCR.

Based on research conducted by Golder, the BSA is located in one of the most productive districts of the land-pebble phosphate mining in Florida. Because land-pebble deposits contain phosphates with elevated concentrations of uranium, this district was also of economic interest to the United States Atomic Energy Commission (USACE) (Cathcart, 1949). Uranium is associated in different ways with the aluminum phosphate and calcium phosphate mining zones that occur within these types of deposits. The upper sand unit encountered around the BSA, appears to represent materials originally derived from the aluminum phosphate zone, indicated by the presence of wavellite, eylettersite, and kaolinite. Materials located in the leached portions of the aluminum phosphate zone, originally formed by the downward migration of oxygen-rich acidic water, were noted to have uranium concentrated in the finest fraction (Cathcart, 1964). The principal fine fraction in the leached zone is kaolinitic clay and eylettersite.

The lower clayey-sand unit appears to represent the calcium phosphate zone, which was the target ore that was mined beneath the BSA. Cathcart (1964) described this zone as being comprised of unconsolidated sand, clayey sand, and sandy clay containing abundant nodules of calcium phosphate. We interpret the rounded collophane “balls” which consist of apatite, hydroxyapatite, and fluorapatite to represent the calcium phosphate nodules described by Cathart (1964). Samples from this zone represent unmined, in-situ material that are locally present beneath the BSA.

Based on the results of this work effort, multiple sources for naturally occurring uranium and thorium, and their decay products of Ra^{226} and Ra^{228}, were identified in the unconsolidated samples taken from the DPT borings advanced adjacent to monitoring wells installed around the BSA.

4.0 CLOSING

Petrologic Solutions appreciates the opportunity to work with Golder Associates on this project. Should you require additional information related to this evaluation, please do not hesitate to contact us.

Respectfully submitted,
PETROLOGIC SOLUTIONS INC.

Randy Kath, PhD, PG
Senior Geologist and Principal

References:

Cathcart, J.B., 1964, Economic Geology of the Lakeland Quadrangle Florida. USGS Survey Bulletin 1162-G. US Government Printing Office, Washington.

USGS 1997. Radioactive Elements in Coal and Fly Ash: Abundance, Forms, and Environmental Significance. USGS Fact Sheet FS-163-97

Table 1. Summary of Selected Geochemical Data

Attachment 1: Photomicrographs of Sediment Samples
Attachment 2: Qualitative X-Ray diffraction scans
Attachment 3: Bulk Geochemistry
Attachment 4: SEM Backscatter Images and Associated EDS Spectra

Table 1: Summary of Selected Geochemical Data

Sample Number	*Depth (ft. BGS)*	Al_2O_3 wt%	TiO_2 wt%	Fe_2O_3 wt%	MgO wt%	MnO wt%	CaO wt%	K_2O wt%	NaO wt%	P_20_5 wt%
CCR2A	*18.7-19*	1.37	1.34	0.35	<MDL	0.01	0.10	0.06	0.01	0.47
CCR2A	*23-23.5*	9.22	1.06	0.50	0.05	0.01	0.51	0.13	0.02	2.29
CCR4A	*12.5-12.8*	0.42	0.50	0.08	<MDL	0.00	0.19	0.03	<MDL	0.05
CCR4A	*17-17.4*	3.75	0.62	0.13	0.05	0.00	0.20	0.06	0.02	0.67
CCR4A	*26.1-26.4*	9.12	0.36	0.45	0.10	0.01	23.38	0.36	0.13	>2.30
CCR5A	*19.3-20*	1.11	0.31	0.06	<MDL	0.00	0.13	0.04	0.03	0.22
CCR5A	*22.3-22.6*	9.32	0.42	0.34	0.05	0.00	0.48	0.10	0.03	1.10
CCR7A	*7-7.4*	0.59	0.51	0.10	<MDL	0.00	0.20	<MDL	<MDL	0.11
CCR7A	*14.6-15*	0.73	0.62	0.13	<MDL	0.01	0.08	<MDL	<MDL	0.16
CCR7A	*23.2-23.5*	8.70	0.51	0.71	0.05	0.00	0.90	0.07	0.20	>2.30
CCR13A	*9.4-10*	0.54	0.94	0.12	<MDL	0.00	0.41	<MDL	<MDL	0.13
CCR13A	*17.3-17.6*	4.12	0.36	0.16	0.03	0.00	0.26	0.05	<MDL	1.29
CCR13A	*27.8-28.2*	17.87	0.68	1.41	0.81	0.01	0.59	0.66	0.05	>2.30
CCR14A	*8.6-8.8*	7.61	0.46	0.42	0.14	0.00	1.05	0.13	0.02	2.13
CCR14A	*16.5-18*	11.95	0.53	0.50	0.08	0.01	0.72	0.18	0.02	>2.30
CCR14A	*28.3-28.6*	2.99	0.17	3.37	6.37	0.02	20.09	0.43	0.26	>2.30
Sample Number	*Depth (ft. BGS)*	As ppm	Be ppm	Cr ppm	Pb ppm	Rb ppm	Th ppm	U ppm	V ppm	Zr ppm
CCR2A	*18.7-19*	0.30	0.17	19.5	25.00	4.00	8.50	5.0	19.00	71.0
CCR2A	*23-23.5*	<MDL	1.22	42.9	29.00	6.00	12.90	50.4	59.00	70.2
CCR4A	*12.5-12.8*	<MDL	0.01	7.7	<MDL	<MDL	1.70	1.2	6.00	17.6
CCR4A	*17-17.4*	0.30	0.20	19.2	13.00	3.00	6.80	5.3	16.00	37.7
CCR4A	*26.1-26.4*	3.40	1.80	136.1	11.00	16.00	9.70	185.5	119.00	51.8
CCR5A	*19.3-20*	<MDL	0.05	6.6	6.00	2.00	2.10	4.1	5.00	15.9
CCR5A	*22.3-22.6*	0.70	1.22	49.6	24.00	5.00	8.20	34.2	35.00	44.0
CCR7A	*7-7.4*	0.60	0.05	7.9	4.00	<MDL	1.70	1.4	6.00	42.5
CCR7A	*14.6-15*	<MDL	0.05	10.1	4.00	<MDL	2.00	0.9	6.00	30.7
CCR7A	*23.2-23.5*	<MDL	0.93	50.5	22.00	3.00	8.80	35.0	33.00	60.9
CCR13A	*9.4-10*	0.40	0.04	11.4	16.00	<MDL	4.80	3.0	13.00	76.1
CCR13A	*17.3-17.6*	<MDL	0.49	23.4	12.00	3.00	6.30	22.4	25.00	43.5
CCR13A	*27.8-28.2*	0.20	1.58	162.8	21.00	41.00	23.40	164.4	247.00	167.2
CCR14A	*8.6-8.8*	<MDL	1.47	48.4	26.00	8.00	11.40	96.2	50.00	93.3
CCR14A	*16.5-18*	0.60	4.24	112.3	31.00	10.00	16.60	467.0	48.00	94.2
CCR14A	*28.3-28.6*	5.30	0.69	84.3	6.00	20.00	4.00	34.8	123.00	19.0

<MDL- less than method detection limit

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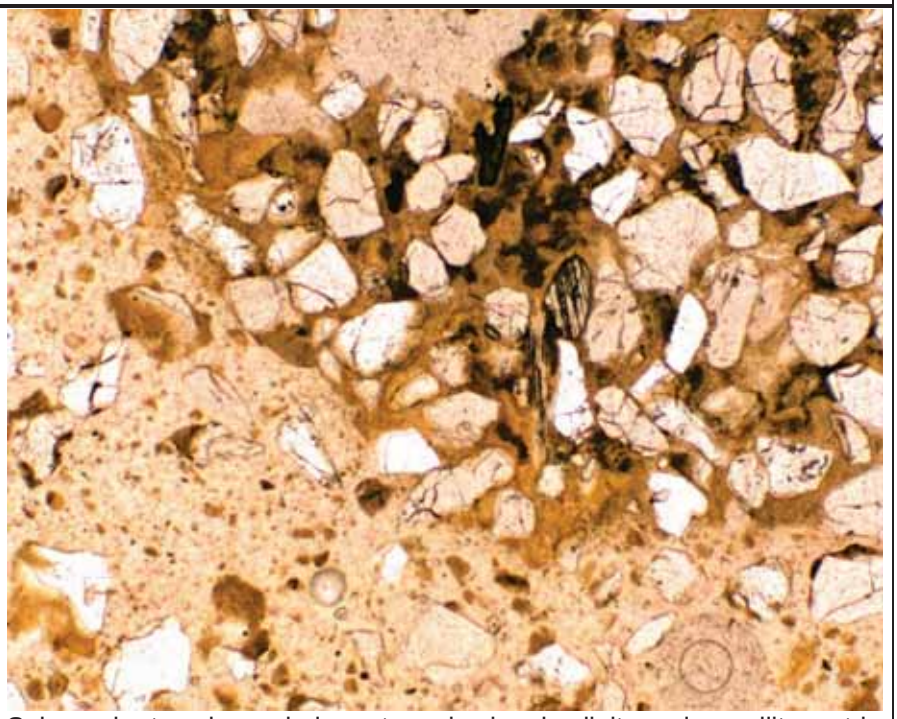
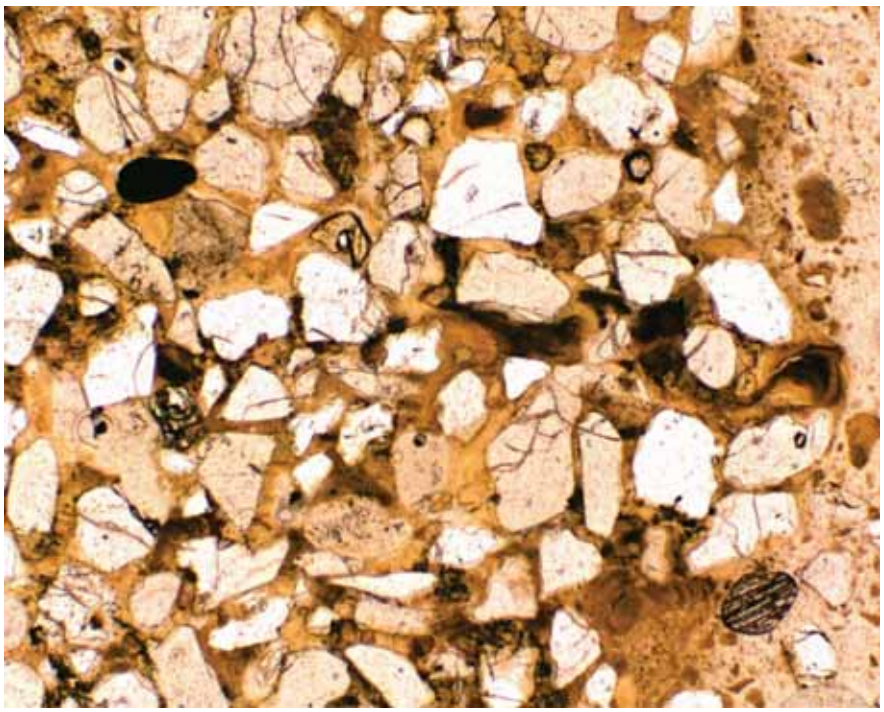
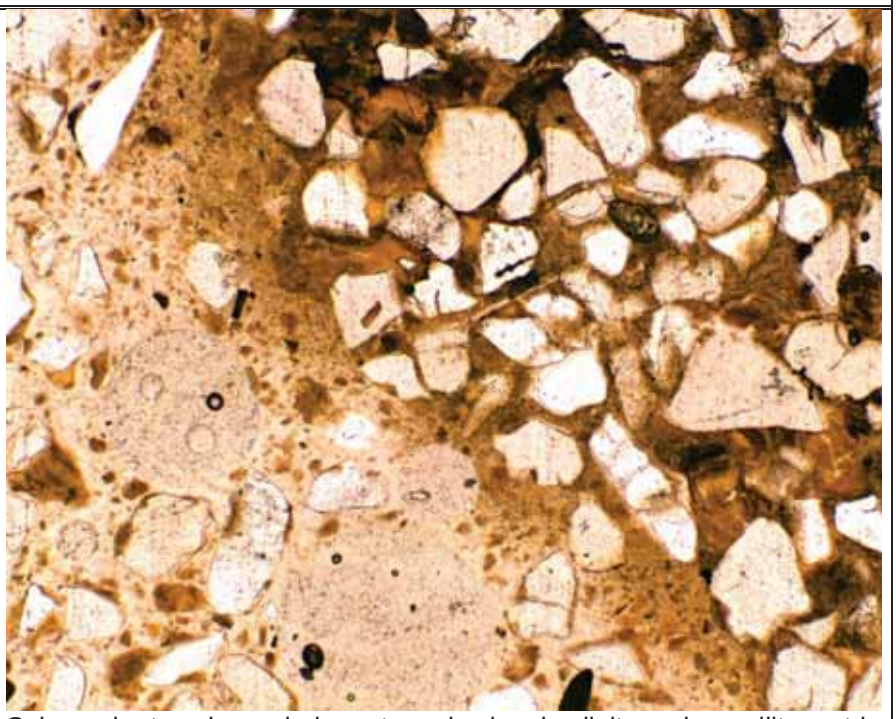
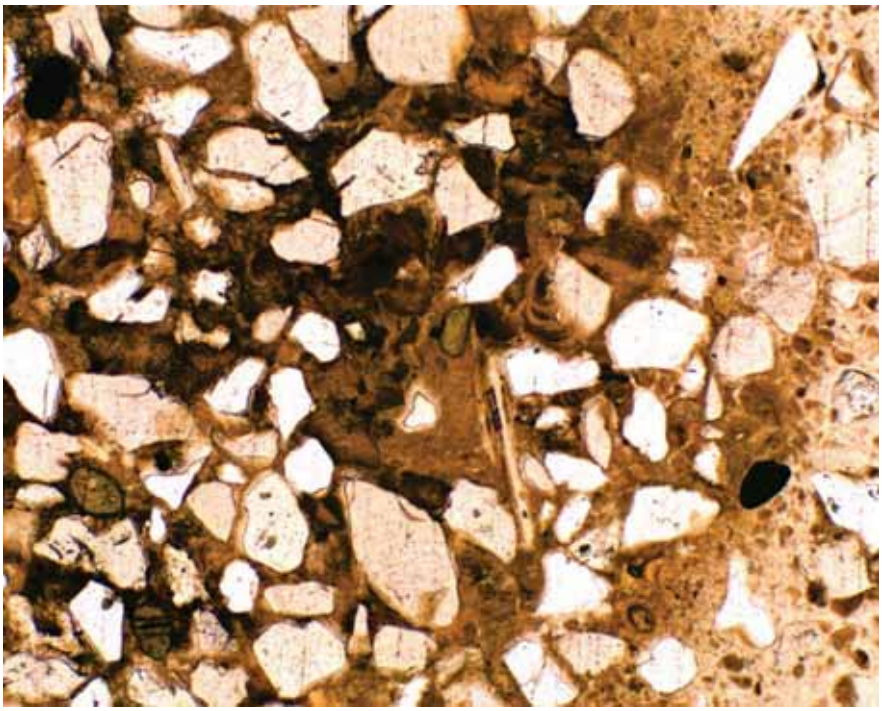
ATTACHMENT 1

PHOTOMICROGRAPHS OF SELECT THIN SECTIONS

Lakeland Electric	
PHOTO 1 CCR2A 23.0-23.5	 Subangular to subrounded quartz grains in a kaolinite and wavellite matrix (brown). Striated high-relief mineral is kyanite. Minor rutile. Plane light.
PHOTO 2 CCR2A 23.0-23.5	 Subangular to subrounded quartz grains in a kaolinite and wavellite matrix (brown). Striated high-relief mineral is kyanite; rounded opaque grain is ilmenite; pleochroic yellow minerals are staurolite. Plane light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length.

Lakeland Electric

PHOTO 3 CCR2A 23.0-23.5	 Subangular to subrounded quartz grains in a kaolinite and wavellite matrix (brown). Greenish mineral is zircon; elongate mineral is muscovite Plane light.
PHOTO 4 CCR2A 23.0-23.5	 Subangular to subrounded quartz grains in a kaolinite and wavellite matrix (brown). Greenish minerals are zircon; elongate mineral is muscovite; rounded opaque mineral is ilmenite. Plane light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length.

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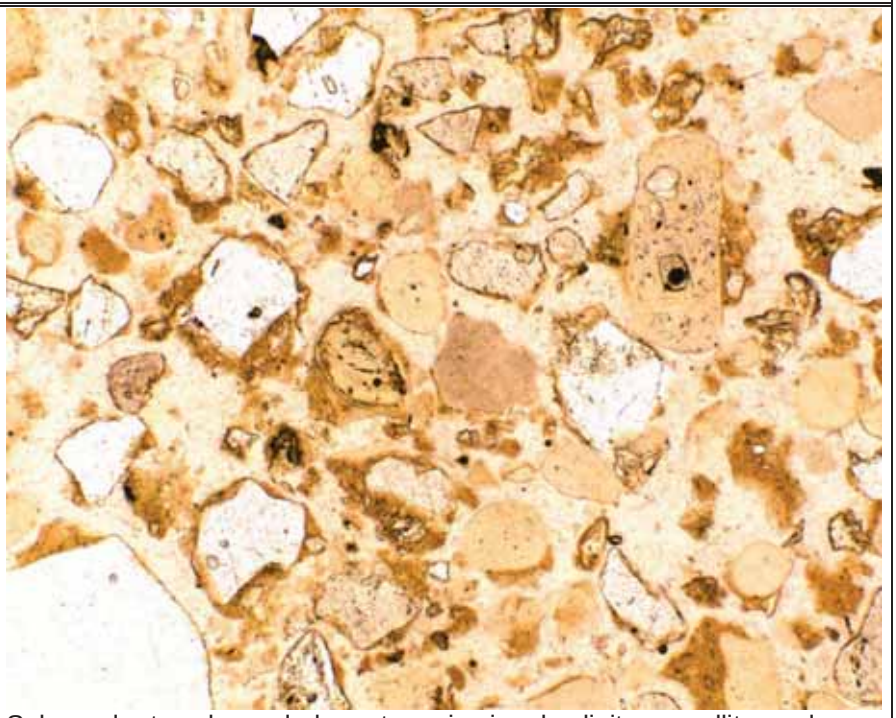
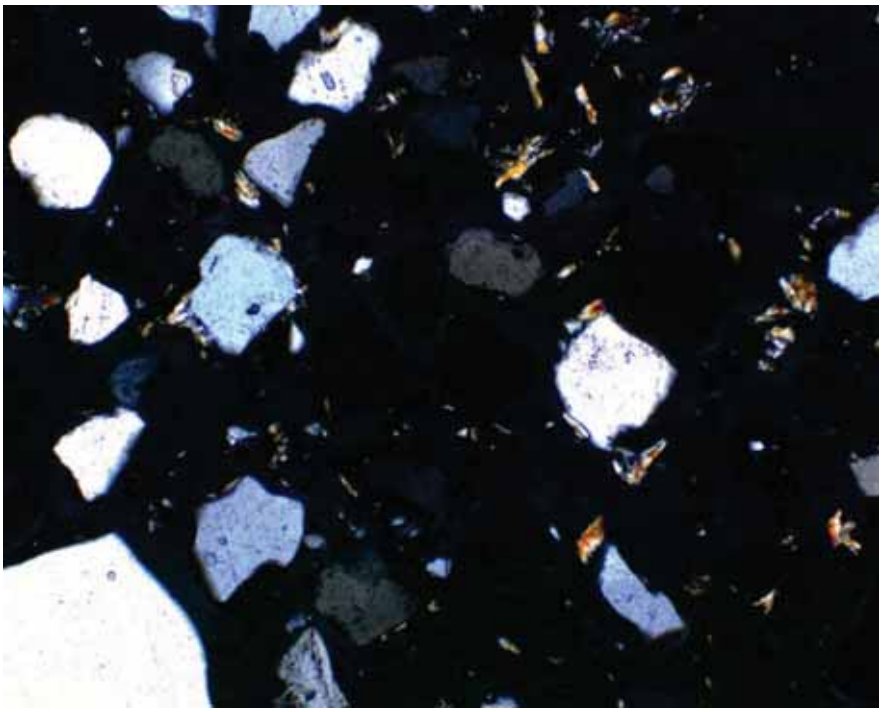
PHOTO 1 CCR4A 26.1-26.4	 Subangular to subrounded quartz grains in a kaolinite, wavellite, and apatite matrix (brown). Plane light.
PHOTO 2 CCR4A 26.1-26.4	 Subangular to subrounded quartz grains in a kaolinite, wavellite, and apatite matrix (brown). Polarized light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length.

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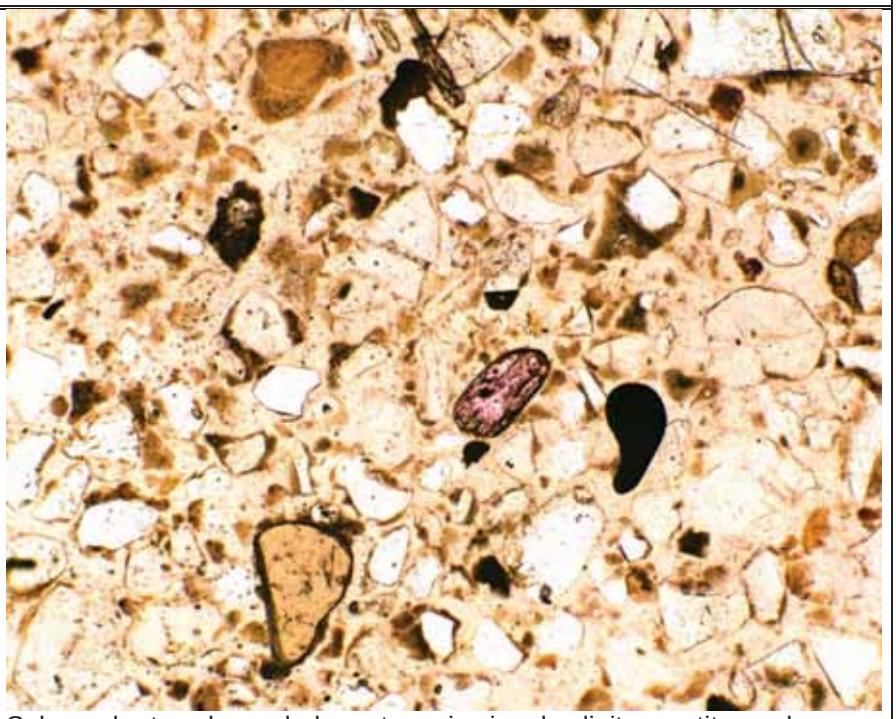
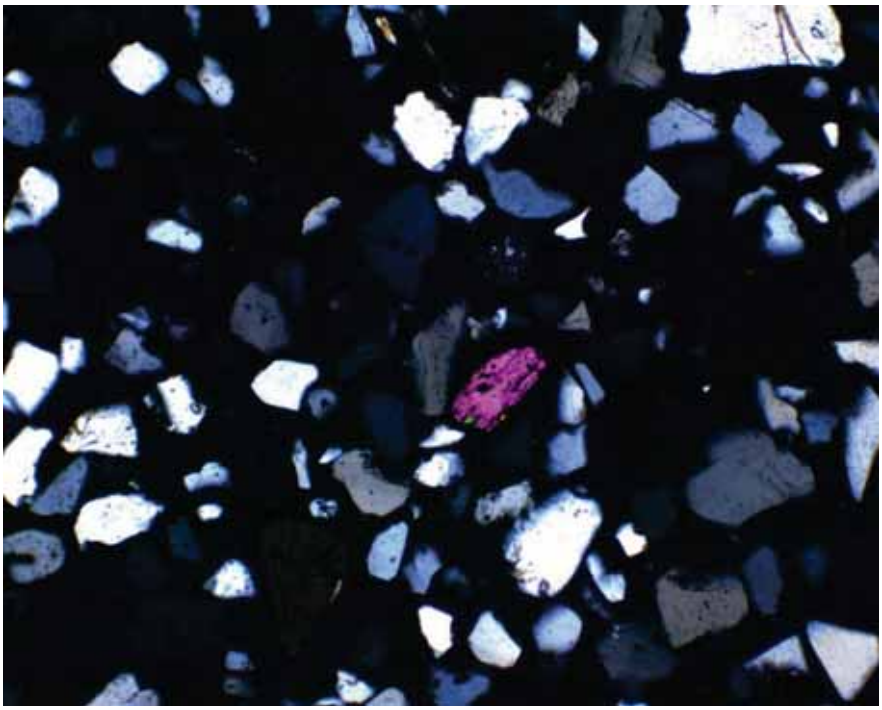
PHOTO 1 CCR7A 23.2-23.5	 Subangular to subrounded quartz grains in a kaolinite, apatite, and wavellite matrix (brown). Yellow and pleochroic minerals are staurolite; opaque mineral is ilmenite. Plane light.
PHOTO 2 CCR7A 23.2-23.5	 Subangular to subrounded quartz grains in a kaolinite, apatite, and wavellite matrix (brown). Greenish and purple mineral are staurolite. Polarized light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length.

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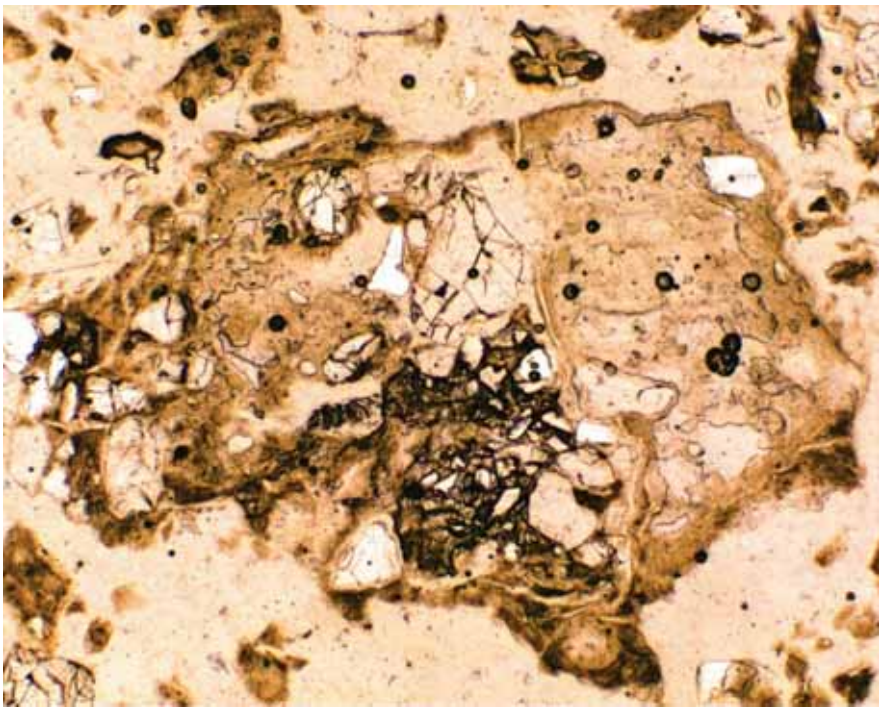
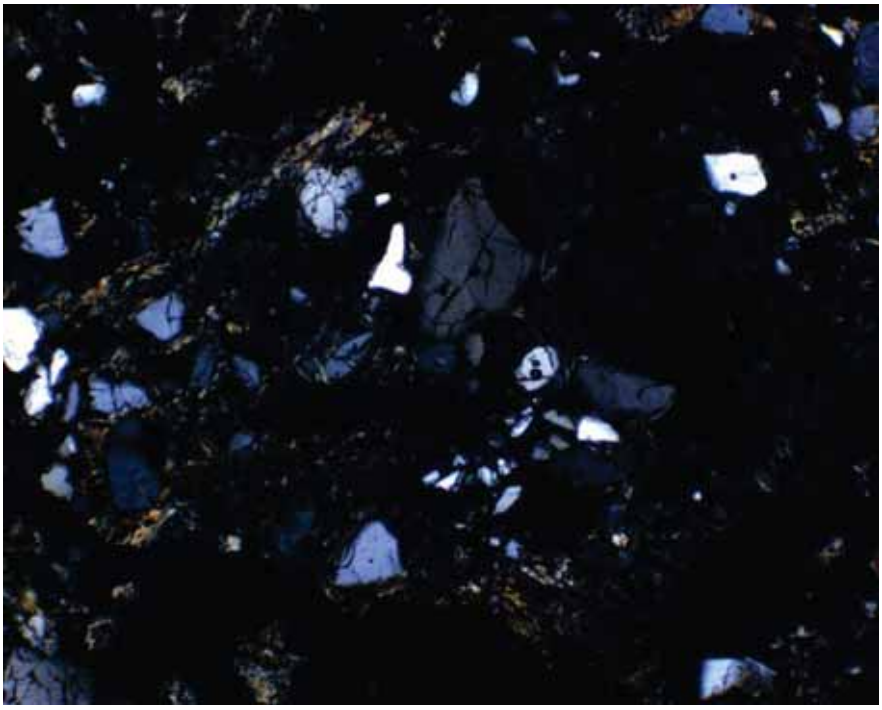
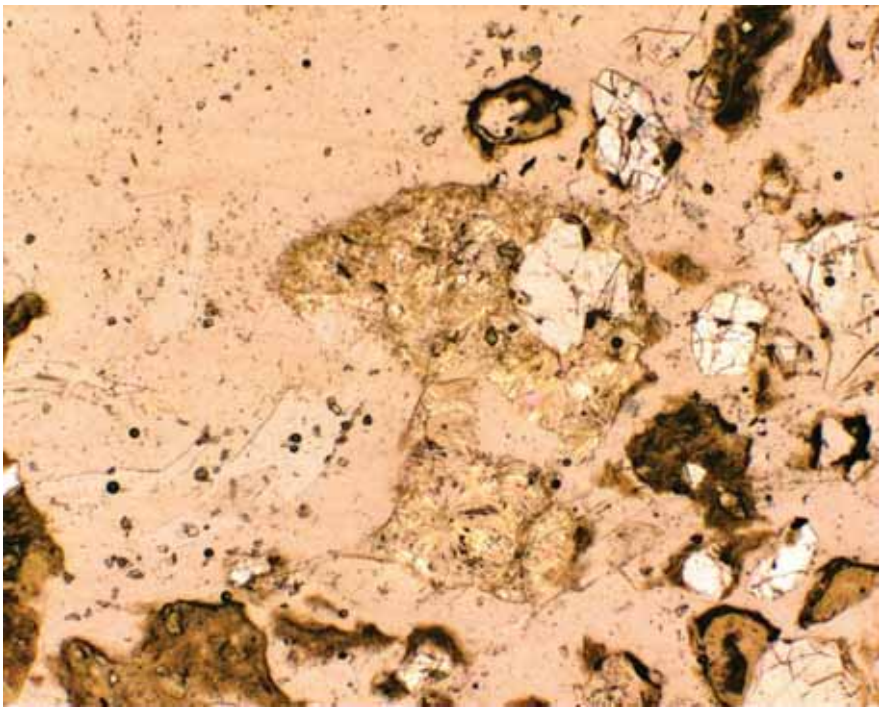
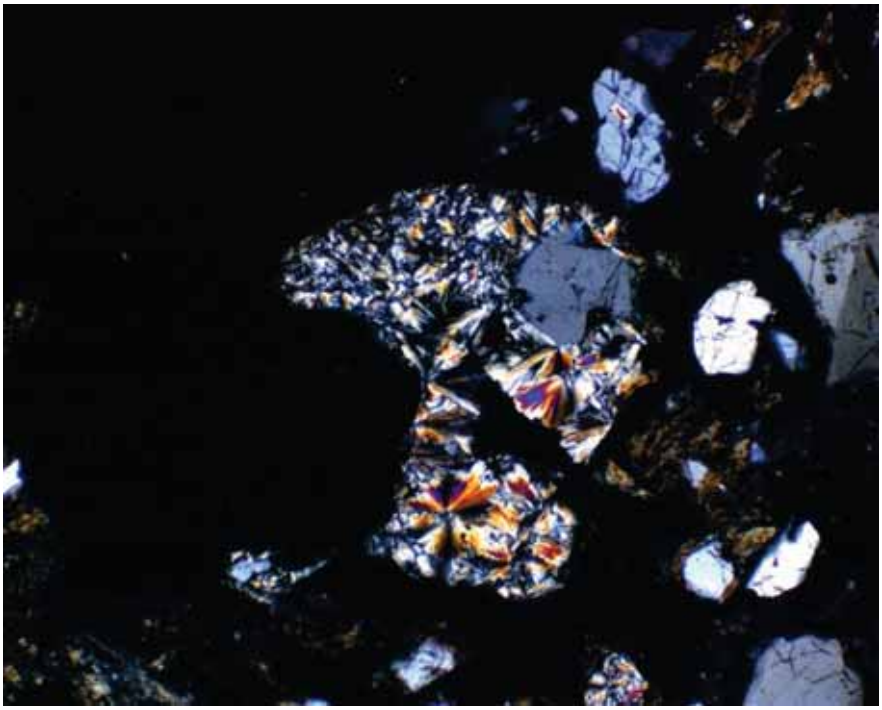
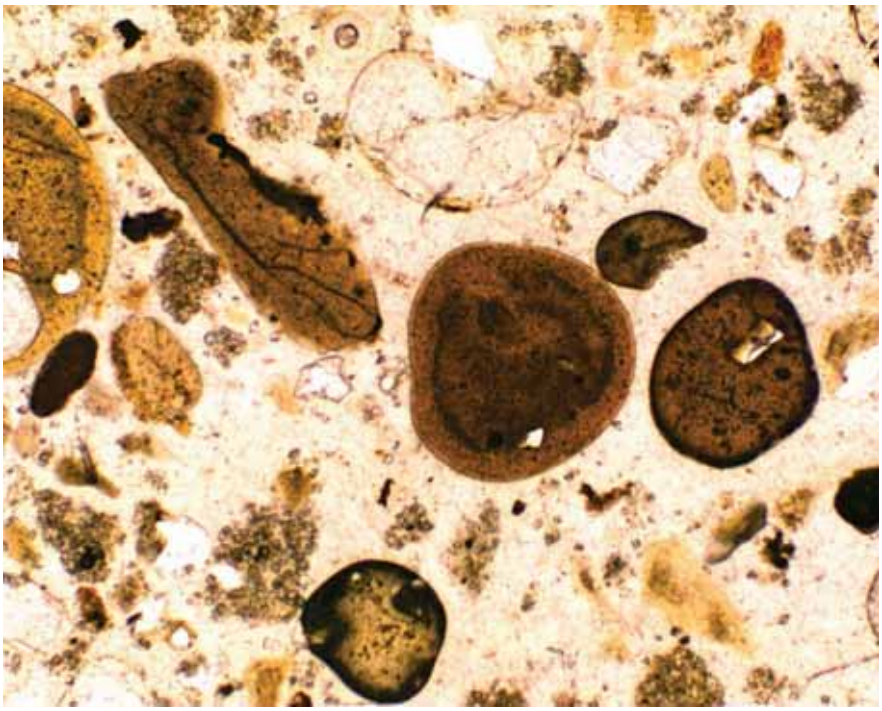
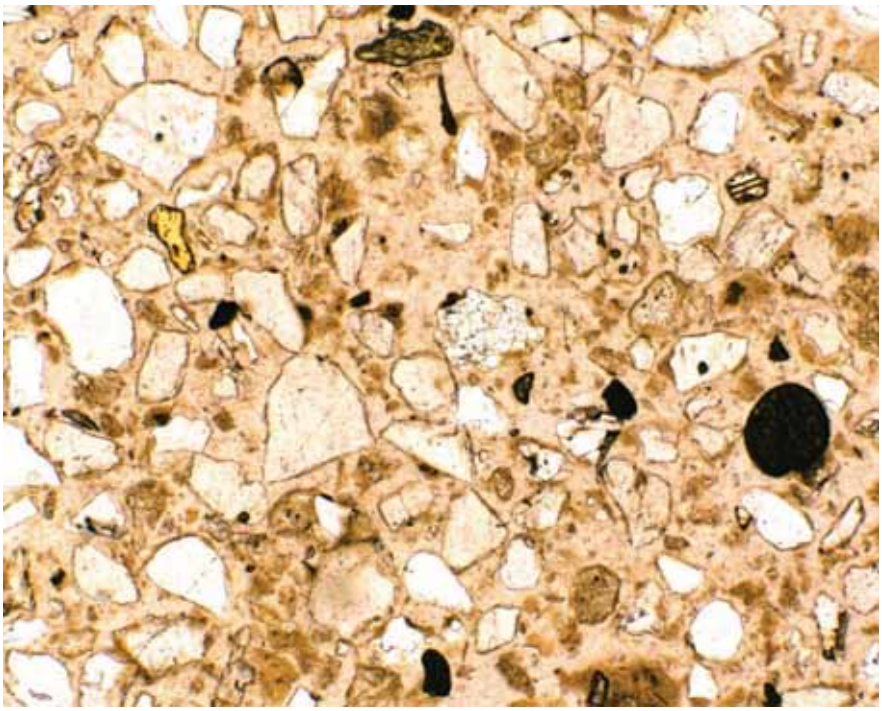
PHOTO 1 CCR13A 27.8-28.2	 Minor subangular quartz grins in a clay and wavellite matrix. Plane light.
PHOTO 2 CCR13A 27.8-28.2	 Minor subangular quartz grins in a clay and wavellite matrix. Polarized light.

Lakeland Electric

PHOTO 3 CCR13A 27.8-28.2	 Wavellite cement around an angular quartz grain. Plane light.
PHOTO 4 CCR13A 27.8-28.2	 Wavellite cement around an angular quartz grain. Polarized light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length

Lakeland Electric

PHOTO 1 CCR14A 28.3-28.66	 Collophane apatite “balls” in a clay matrix. Plane light
PHOTO 2 CCR14A 16.5-18.0	 Subangular to subrounded quartz grains in a kaolinite and wavellite matrix (brown). Yellow mineral is staurolite, striated high-relief mineral is kyanite, and large round mineral is rutile. Plane light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length

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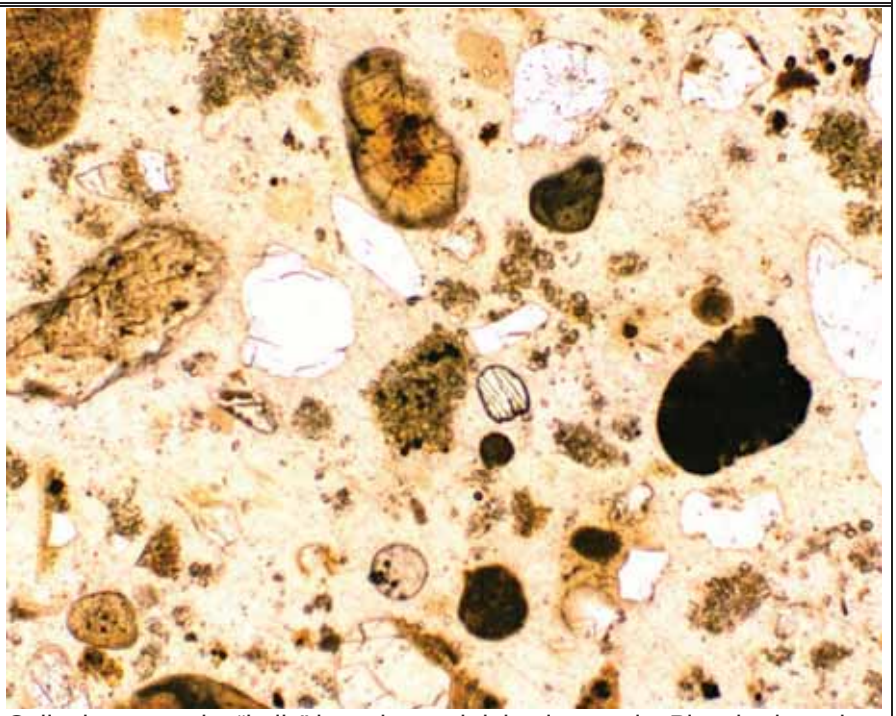
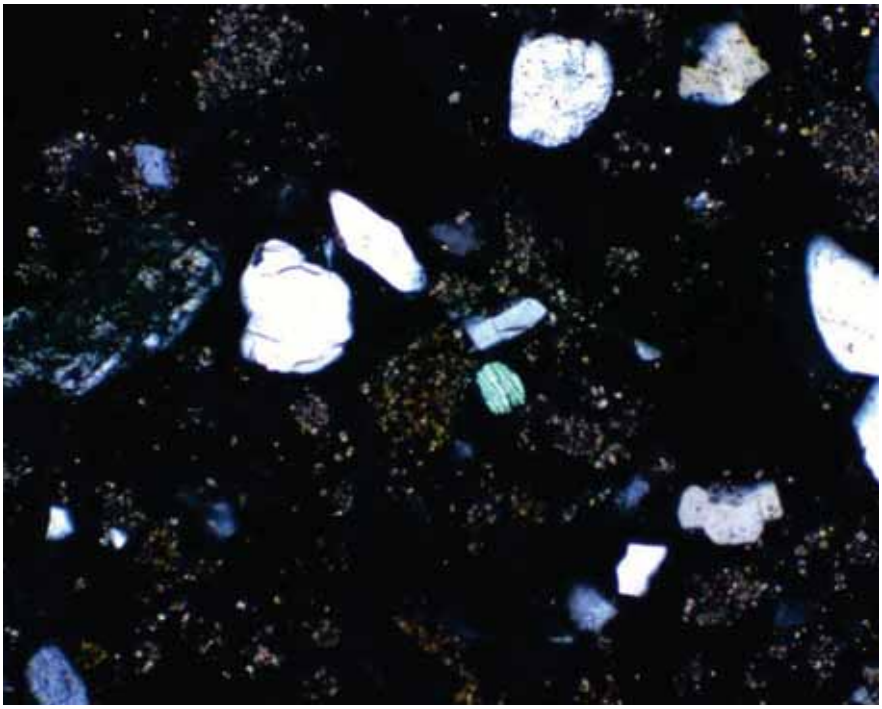
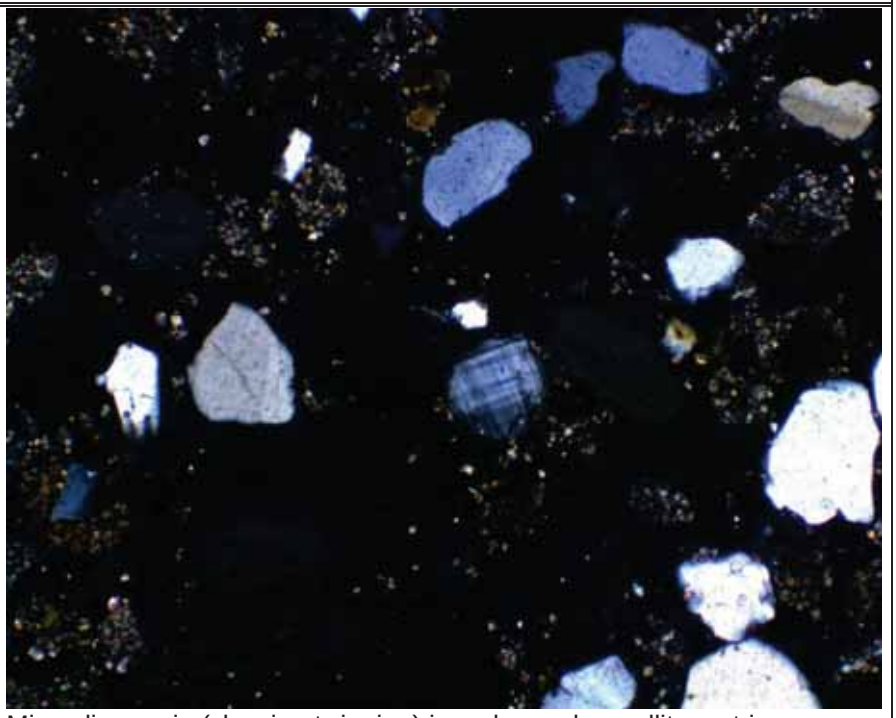
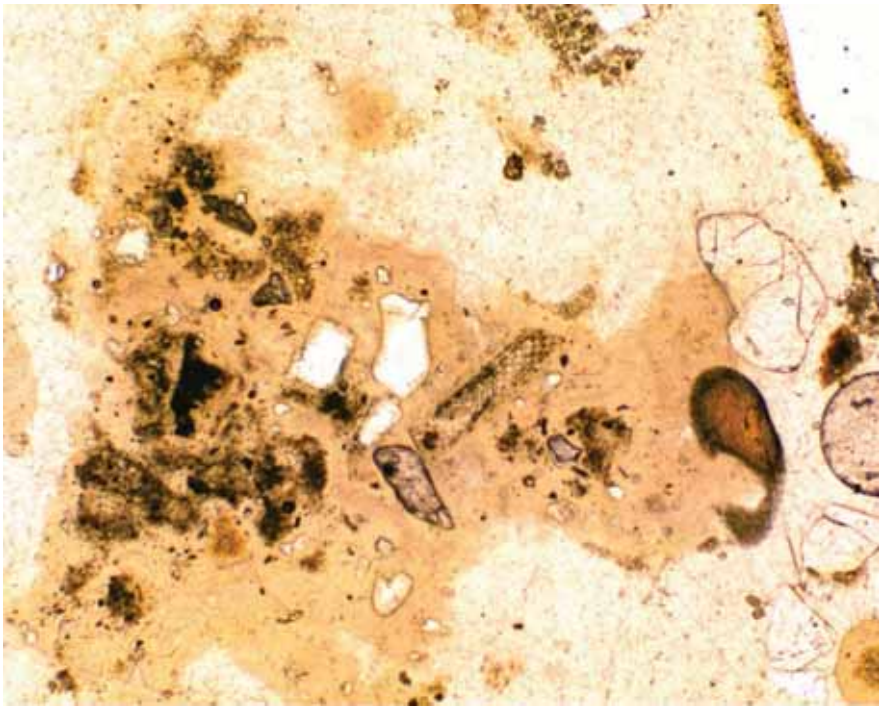
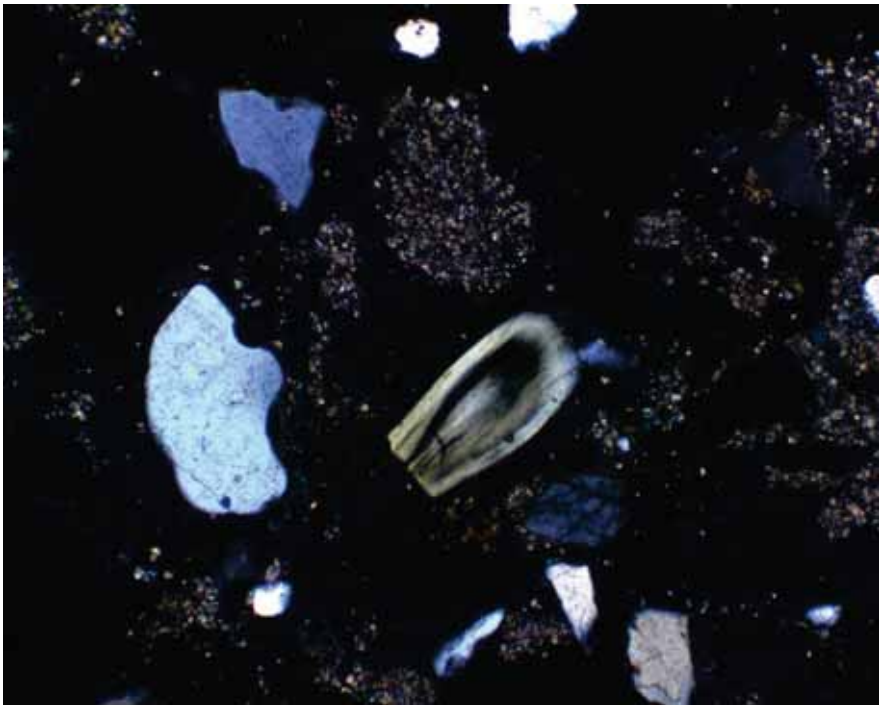
PHOTO 3 CCR14A 28.3-28.66	 Collophane apatite “balls” in a clay and dolomite matrix. Pleochroic grain near the center of the image is staurolite. Plane light.
PHOTO 4 CCR14A 16.5-18.0	 Collophane apatite “balls” in a clay and dolomite matrix. Greenish grain near the center of the image is staurolite. Polarized light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length

Lakeland Electric

PHOTO 5 CCR14A 28.3-28.66	 Microcline grain (showing twinning) in a clay and wavellite matrix. Polarized light.
PHOTO 6 CCR14A 16.5-18.0	 Fossil fragment (bryozoan?) in a clay-rich matrix . Plane light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length

Lakeland Electric	
PHOTO 7 CCR14A 28.3-28.66	 Phosphatic bone fragment and collophane “balls” in a dolomitic, clay-rich matrix (brown). Polarized light.
PHOTO 8 CCR14A 16.5-18.0	 Phosphatic bone fragment and collophane “balls” in a dolomitic, clay-rich matrix (brown). Note undulatory extinction. Polarized light.

Unless otherwise indicated, all images were taken at 5x magnification; the long-edge of the field of view in the photographs is approximately 2.5 mm in length

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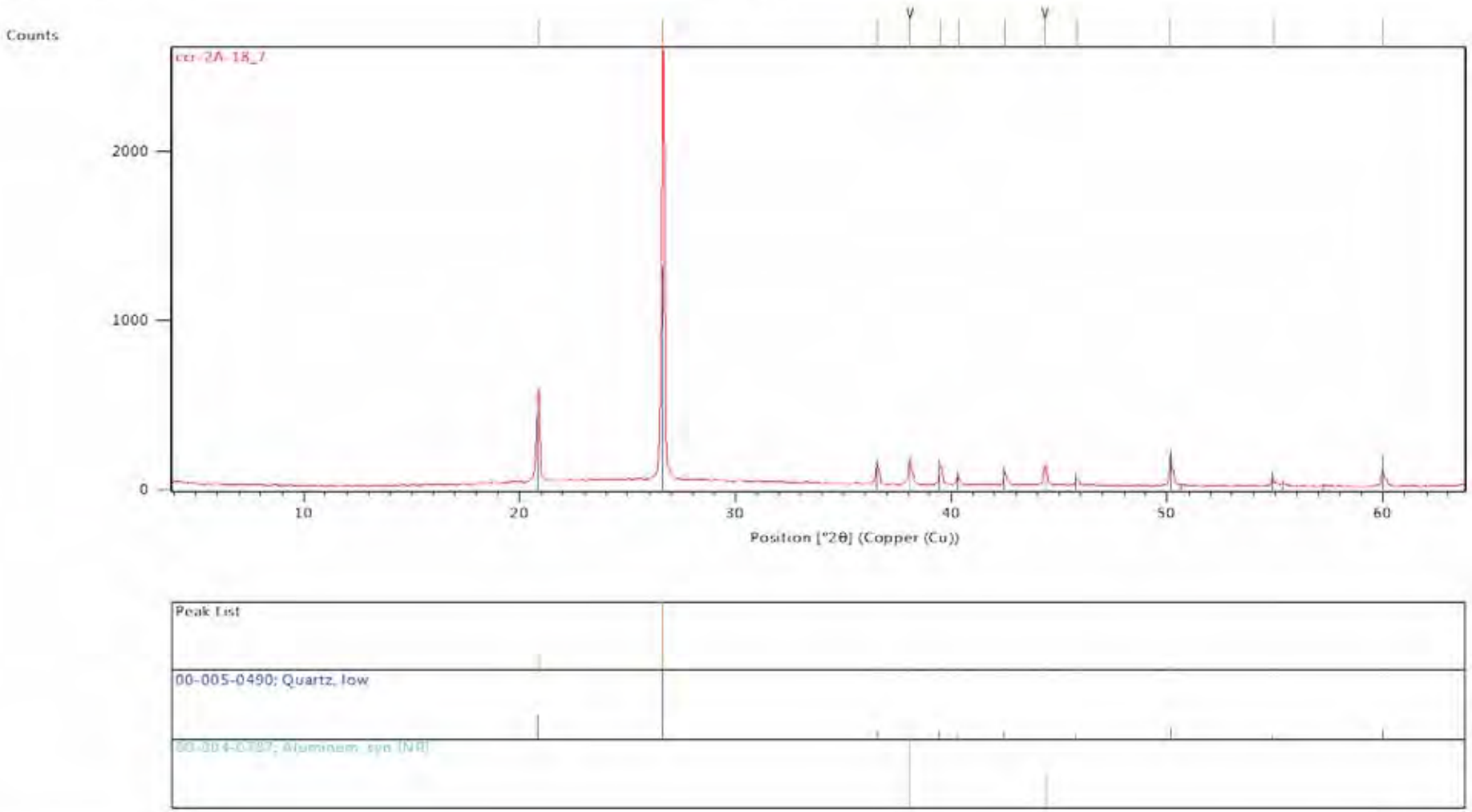
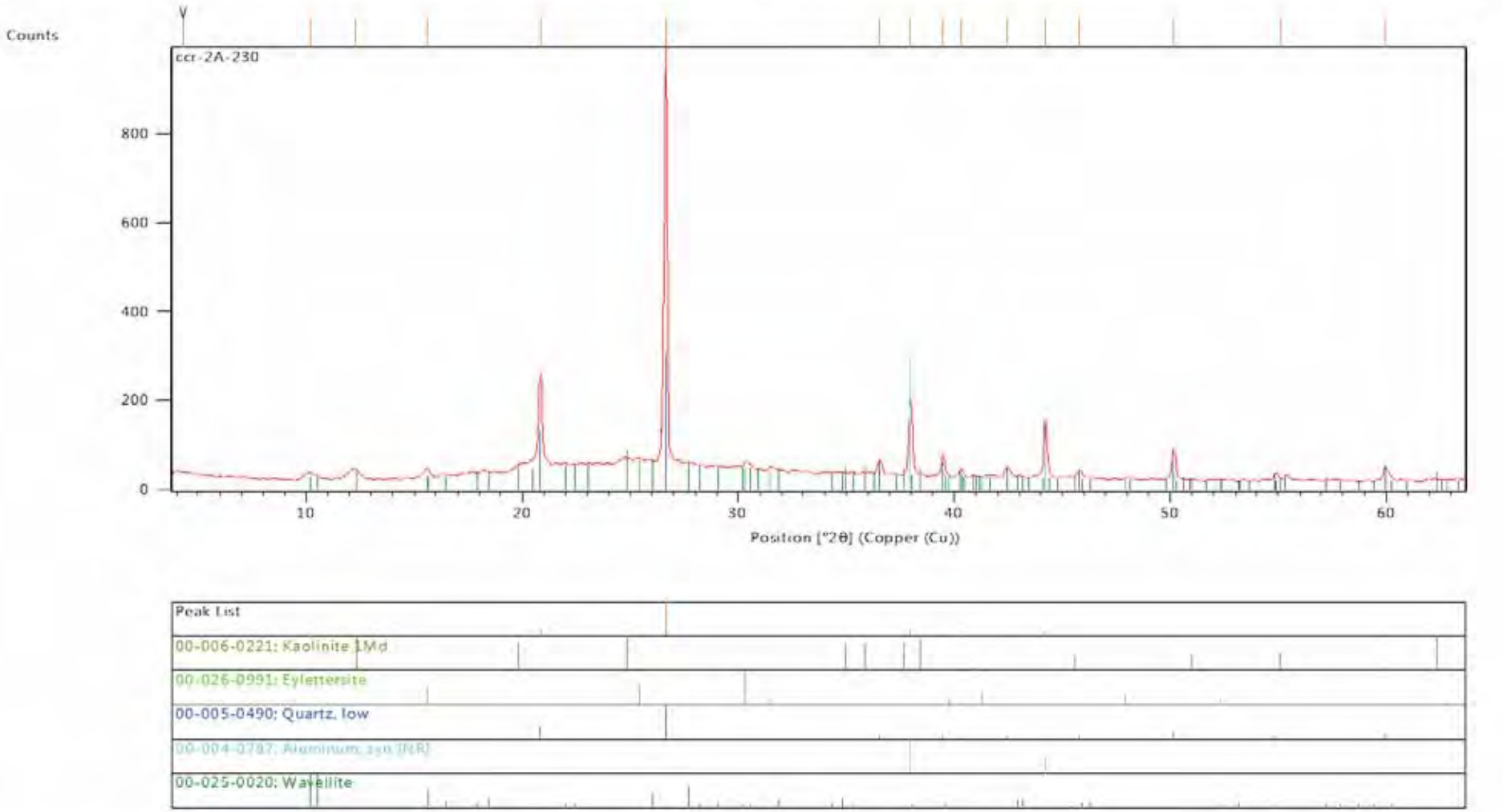
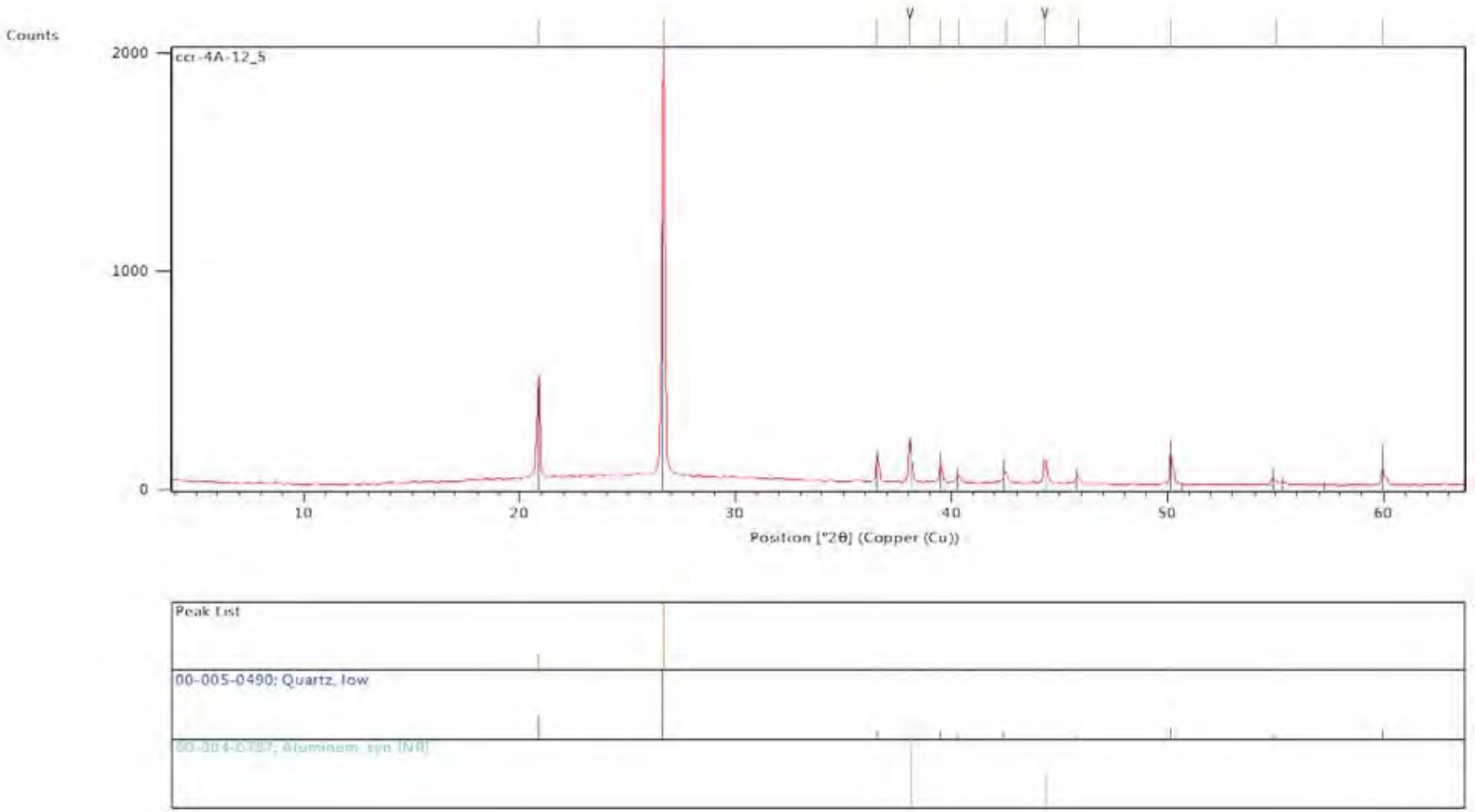
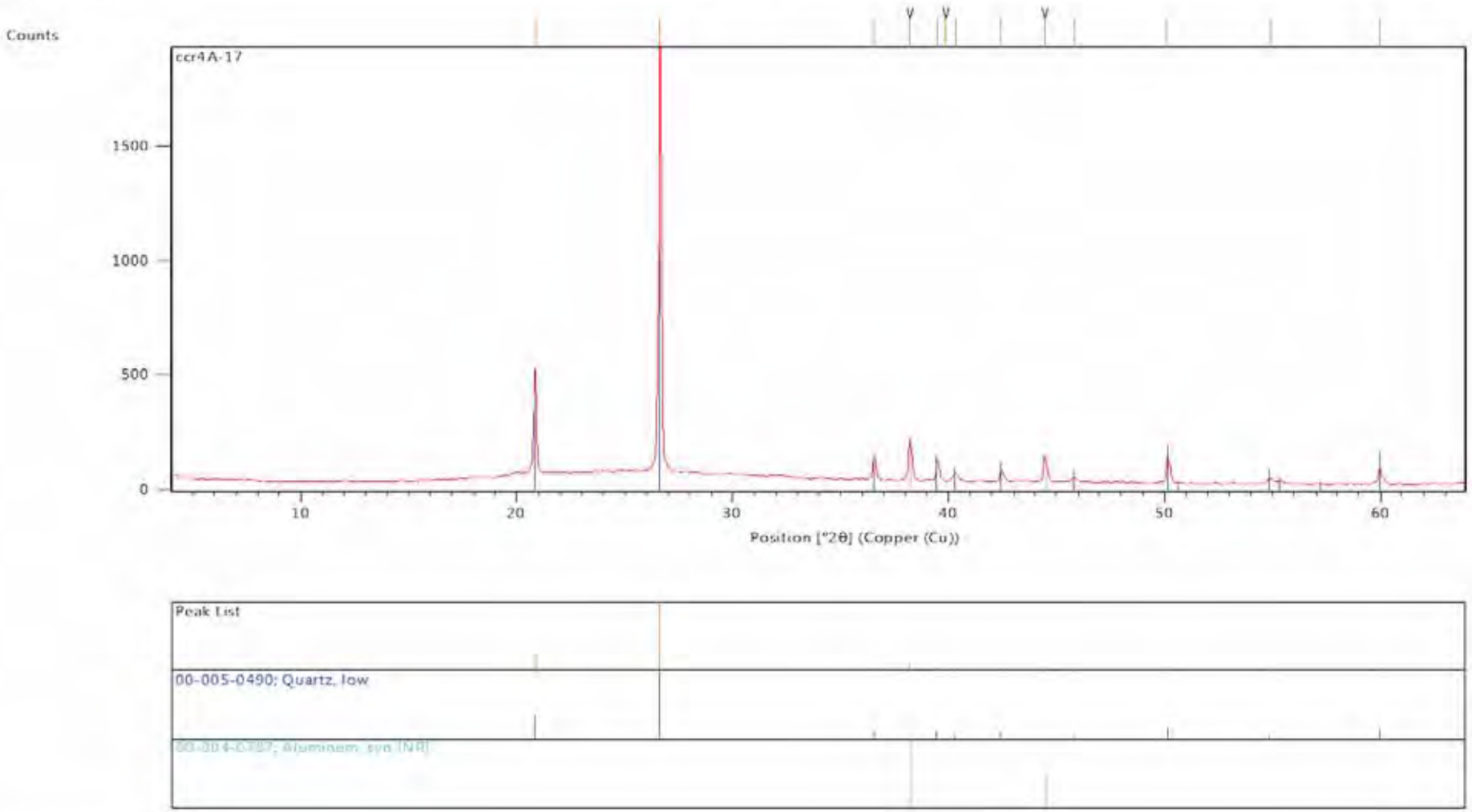
ATTACHMENT 2

QUALITATIVE X-RAY DIFFRACTION DATA

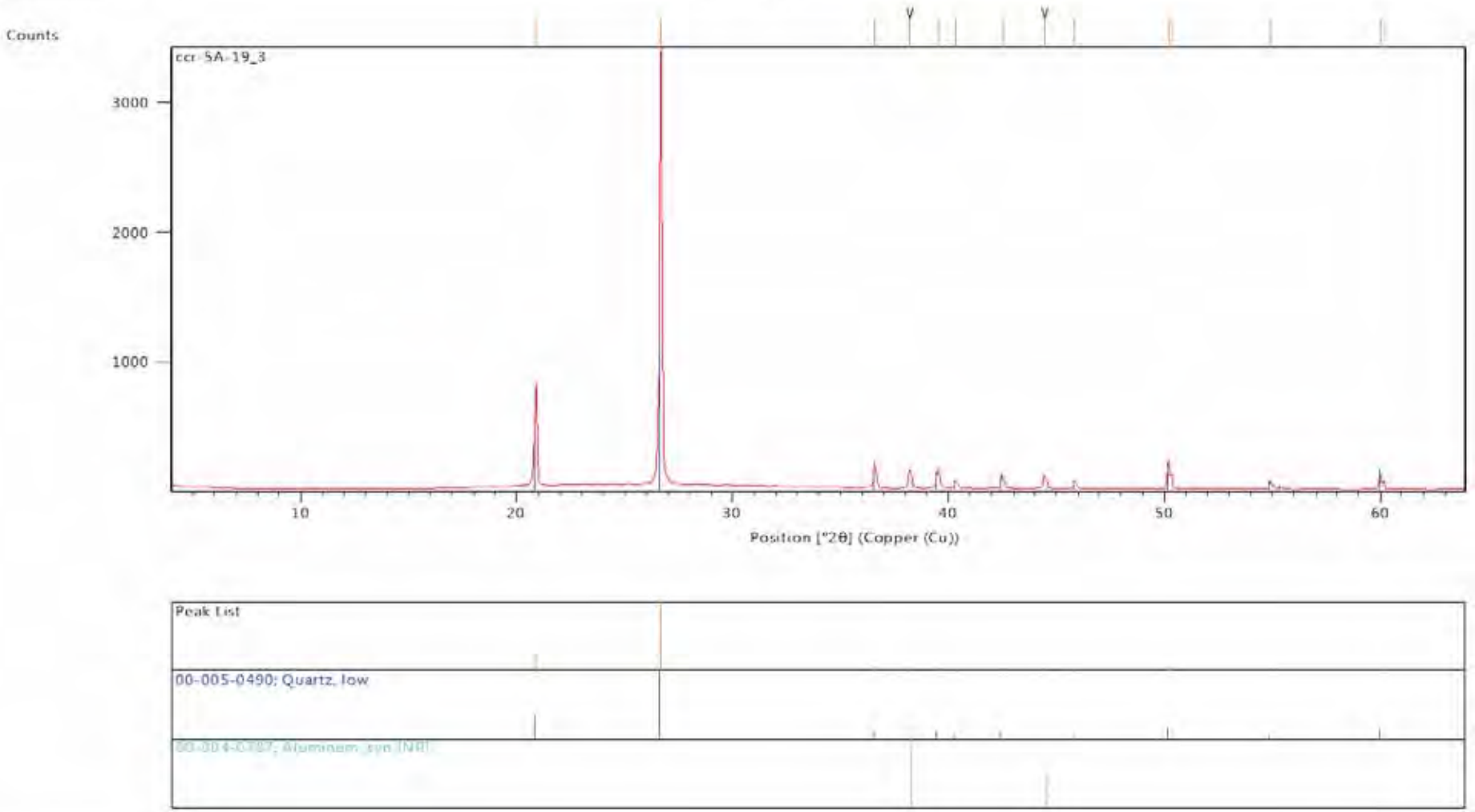

Counts
ccr-2A-18_7
2000
1000
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low
00-004-0787; Aluminium, syn (NR)

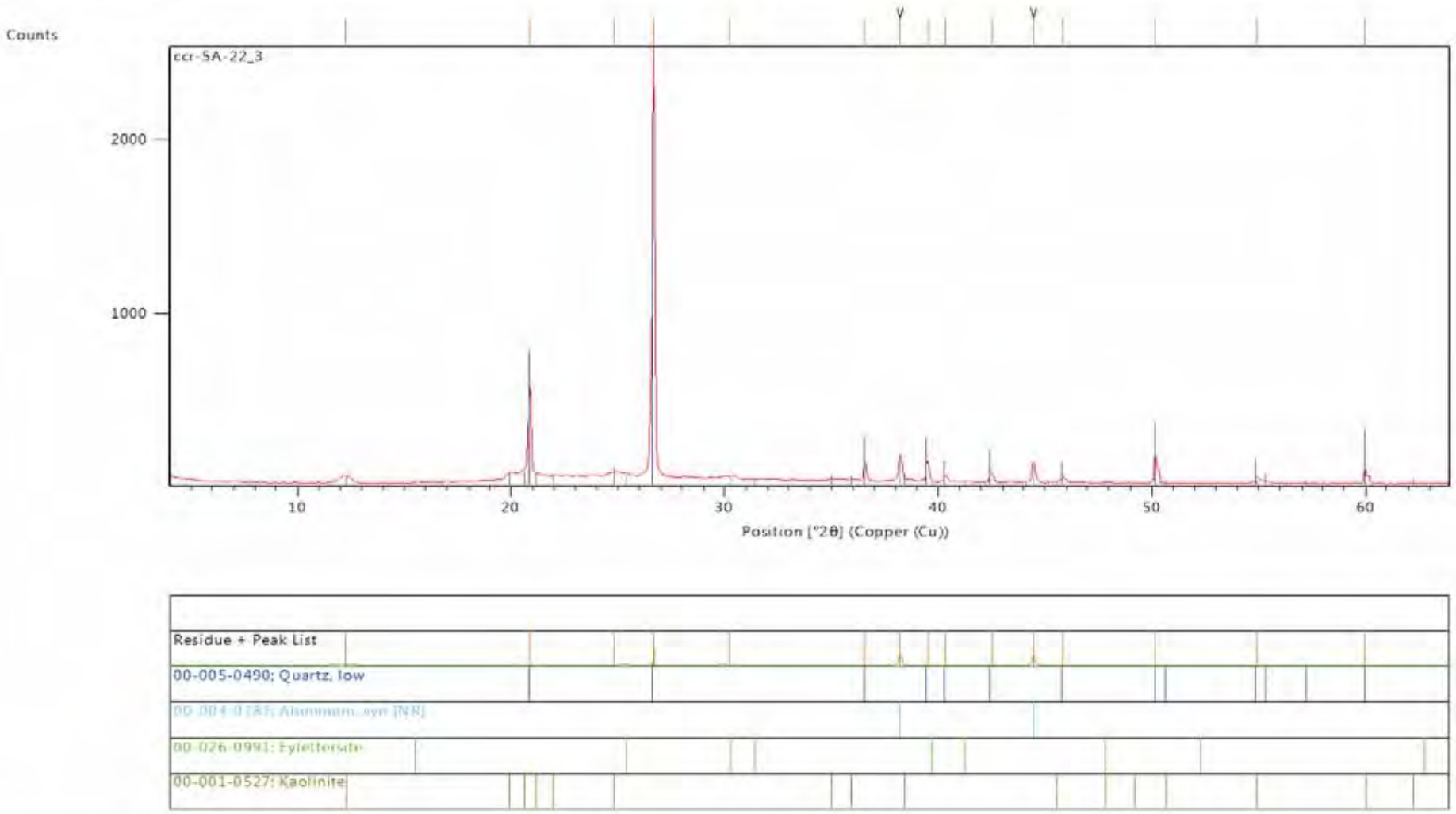

Counts
ccr-2A-230
800
600
400
200
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-006-0221: Kaolinite 1Md
00-026-0991: Eyelettersite
00-005-0490: Quartz, low
00-004-0787: Aluminum, syn (NR)
00-025-0020: Wavellite

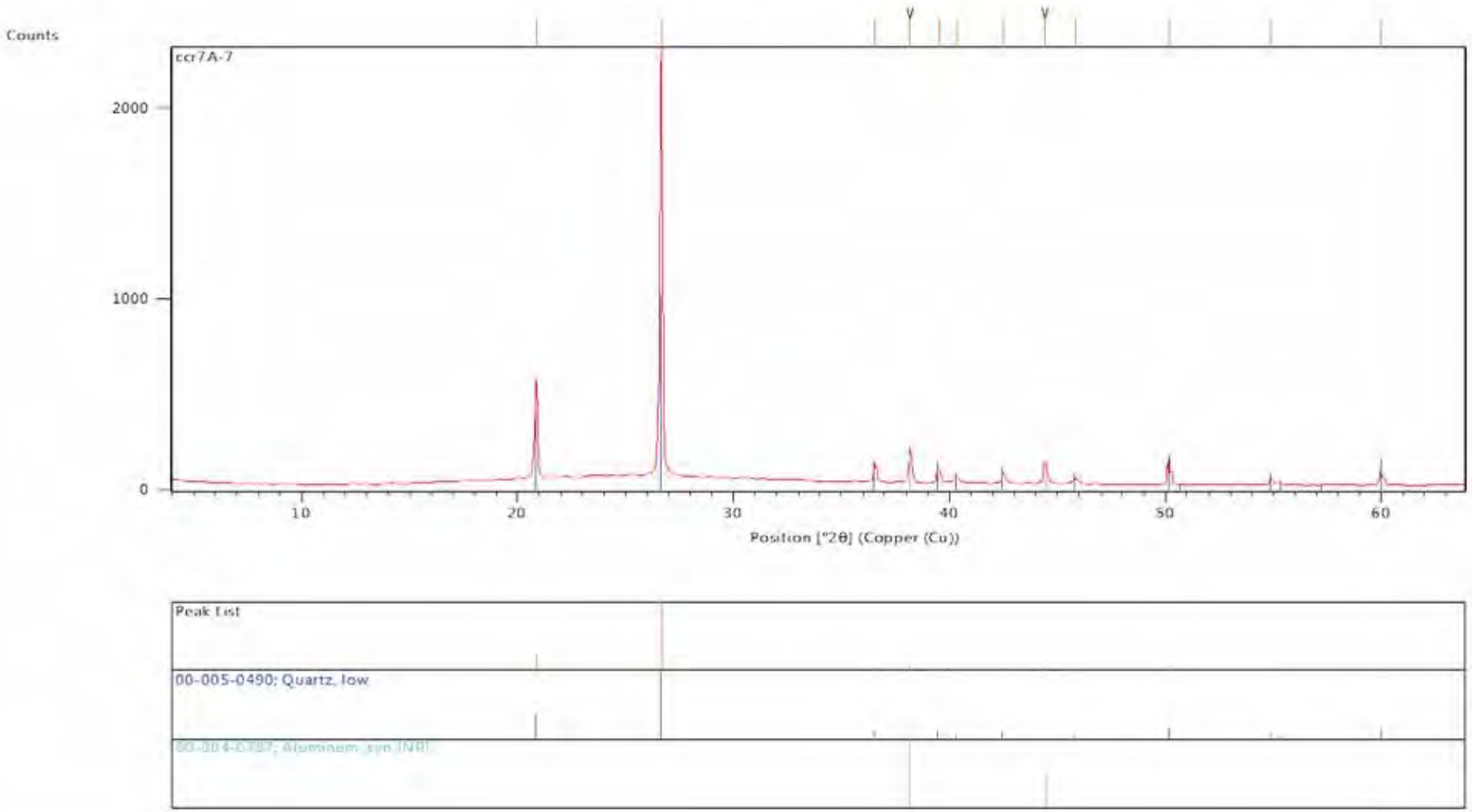

Counts
2000
1000
0
ccr-4A-12_5
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low
00-004-0787; Aluminum, syn (NR)

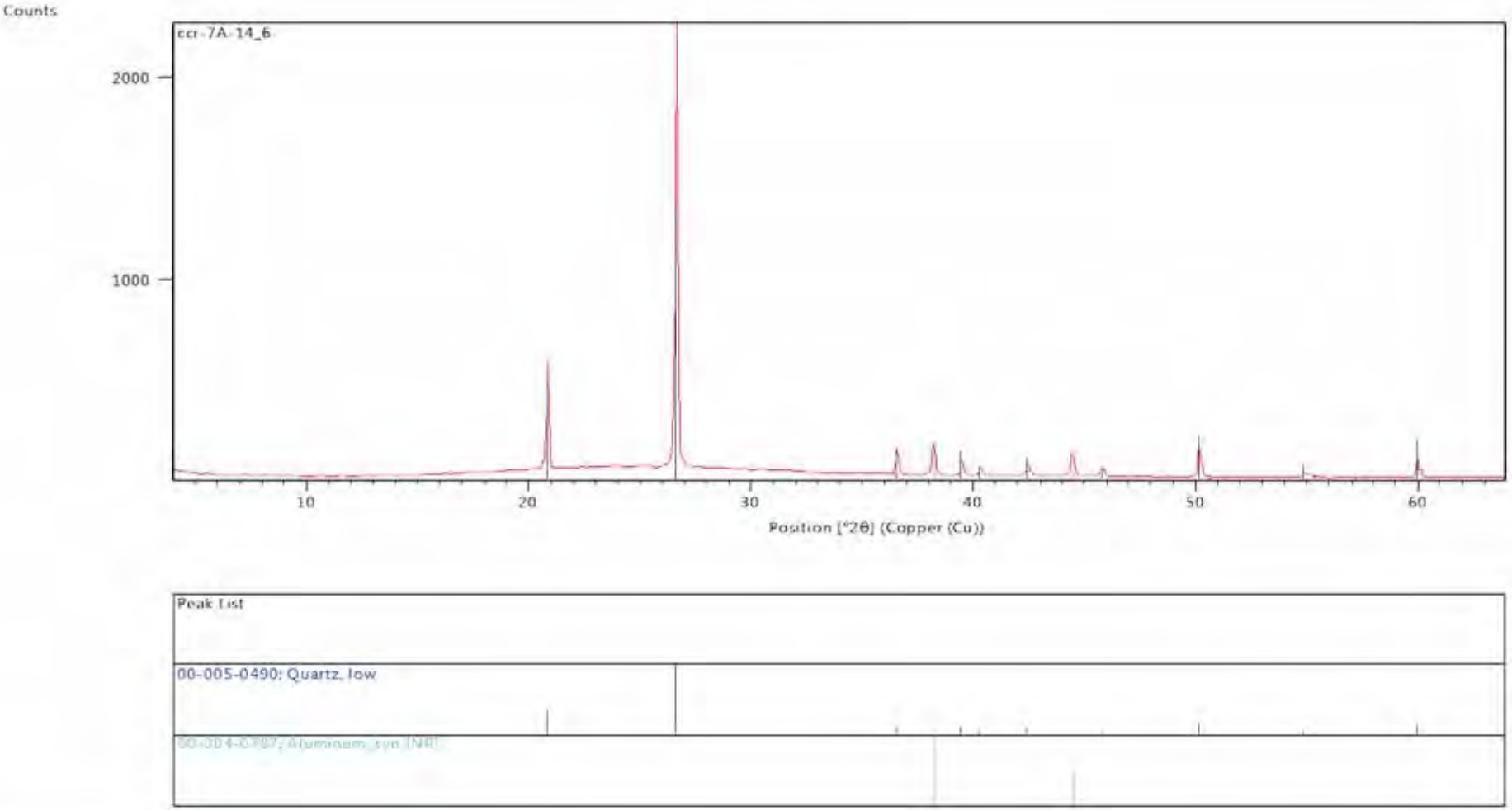

Counts
ccr4A-17
1500
1000
500
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low
00-004-0787; Aluminium, syn [NR]

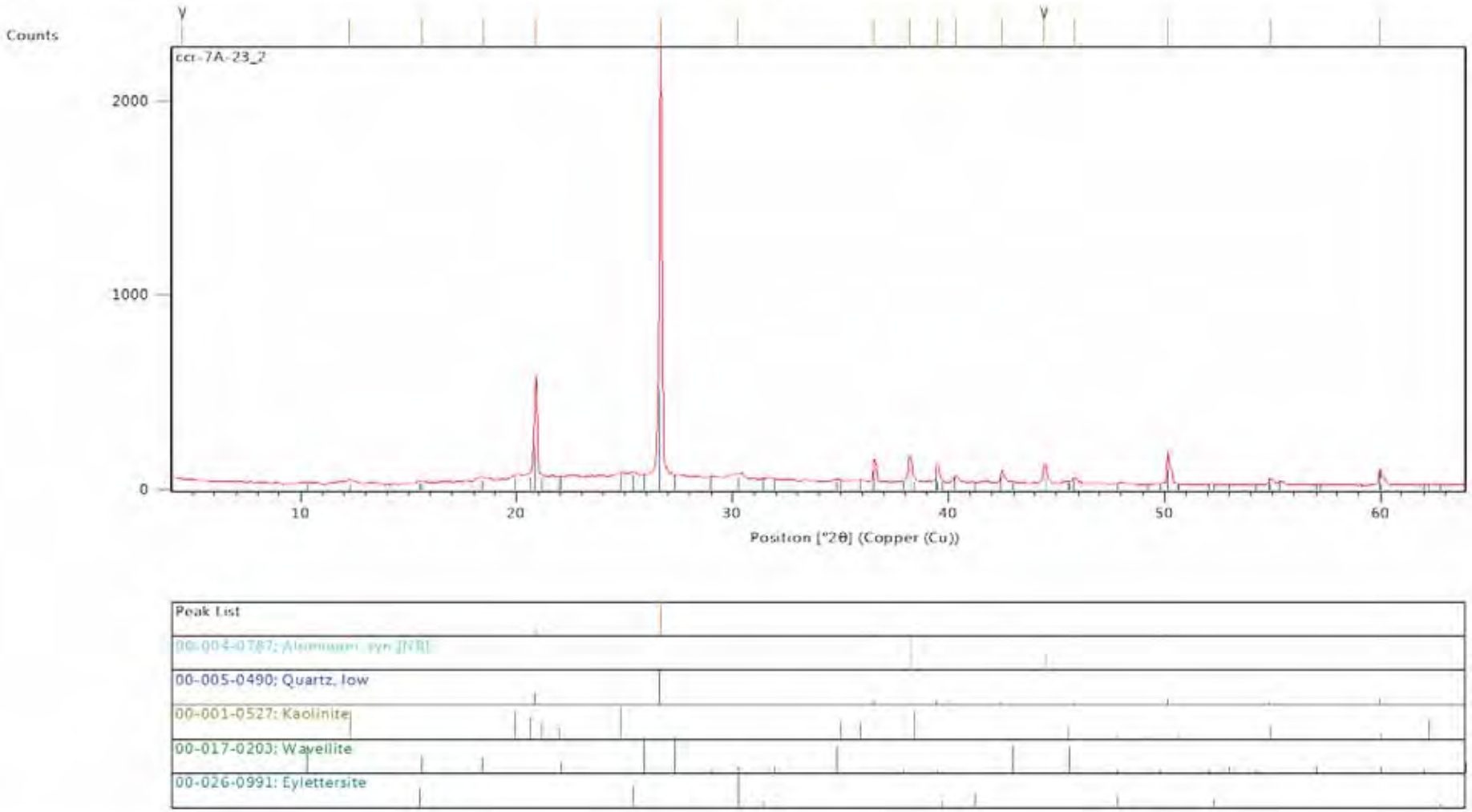

Counts
ccr4A-26_1
400
200
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490: Quartz, low
00-027-0019: Wavellite

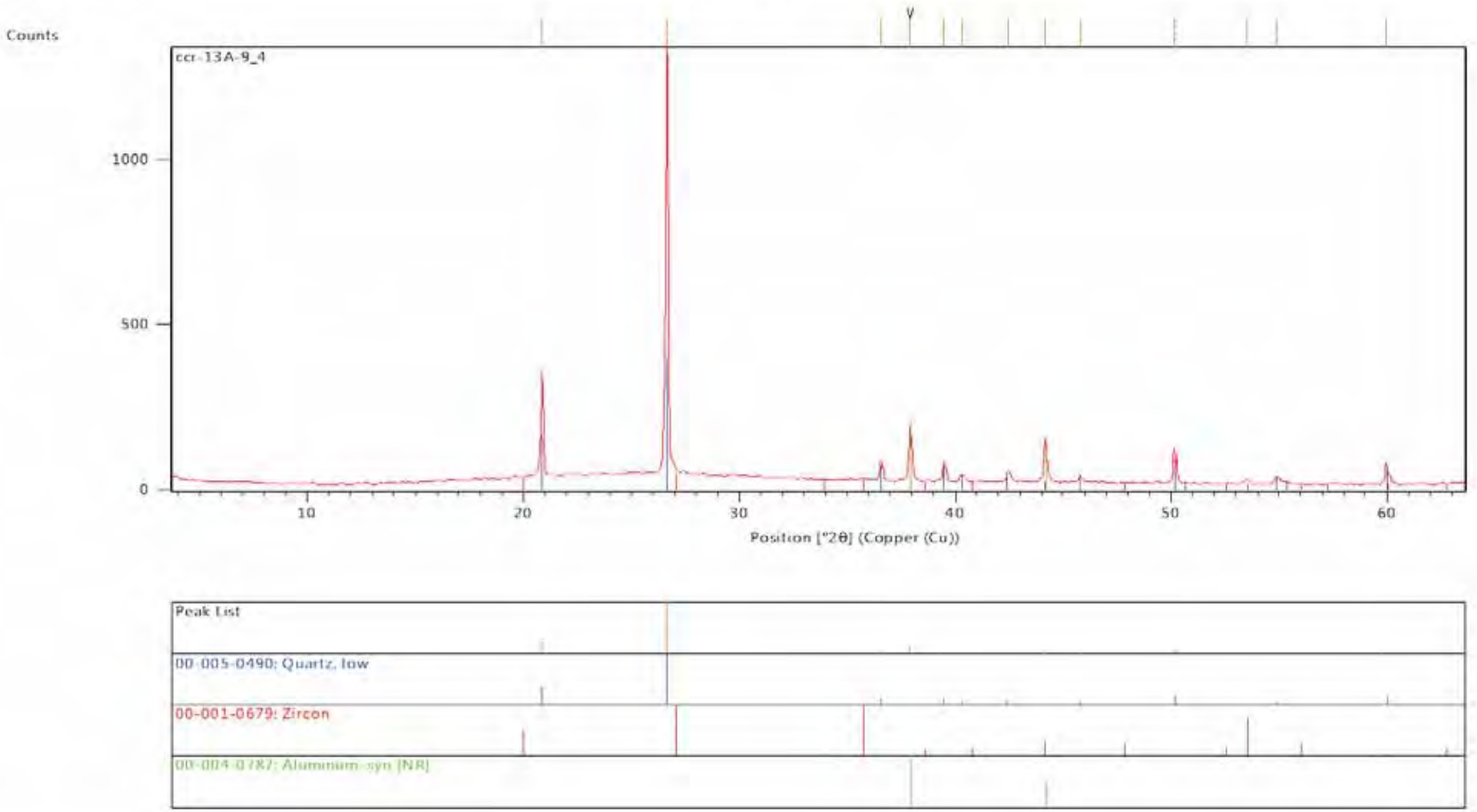

Counts
ccr-5A-19_3
3000
2000
1000
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low
00-004-0787; Aluminium, syn (NR)

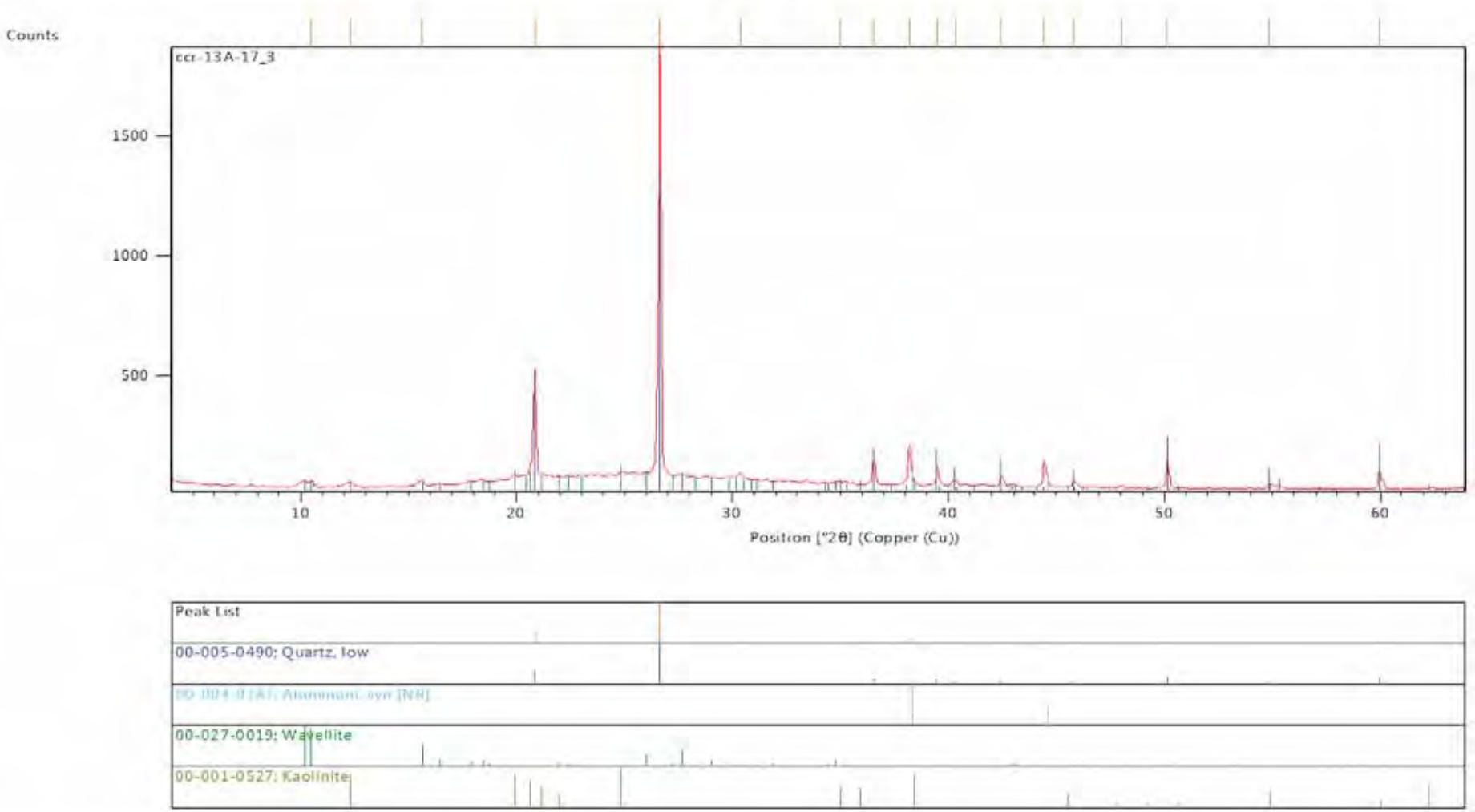

Counts
ccr-5A-22_3
2000
1000
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Residue + Peak List
00-005-0490: Quartz, low
00-026-0991: Eyelletersite
00-001-0527: Kaolinite


Counts
ccr7A-7
2000
1000
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low
00-004-0787; Aluminium, syn (NR)


Counts
ccr-7A-14_6
2000
1000
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490; Quartz, low


Counts
ccr-7A-23_2
2000
1000
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-004-0787; Aluminum, syn [NR]
00-005-0490; Quartz, low
00-001-0527; Kaolinite
00-017-0203; Wavellite
00-026-0991; Eylettersite


Counts
ccr-13A-9_4
1000
500
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490: Quartz, low
00-001-0679: Zircon
00-004-0787: Aluminum, syn [NR]


Counts
ccr-13A-17_3
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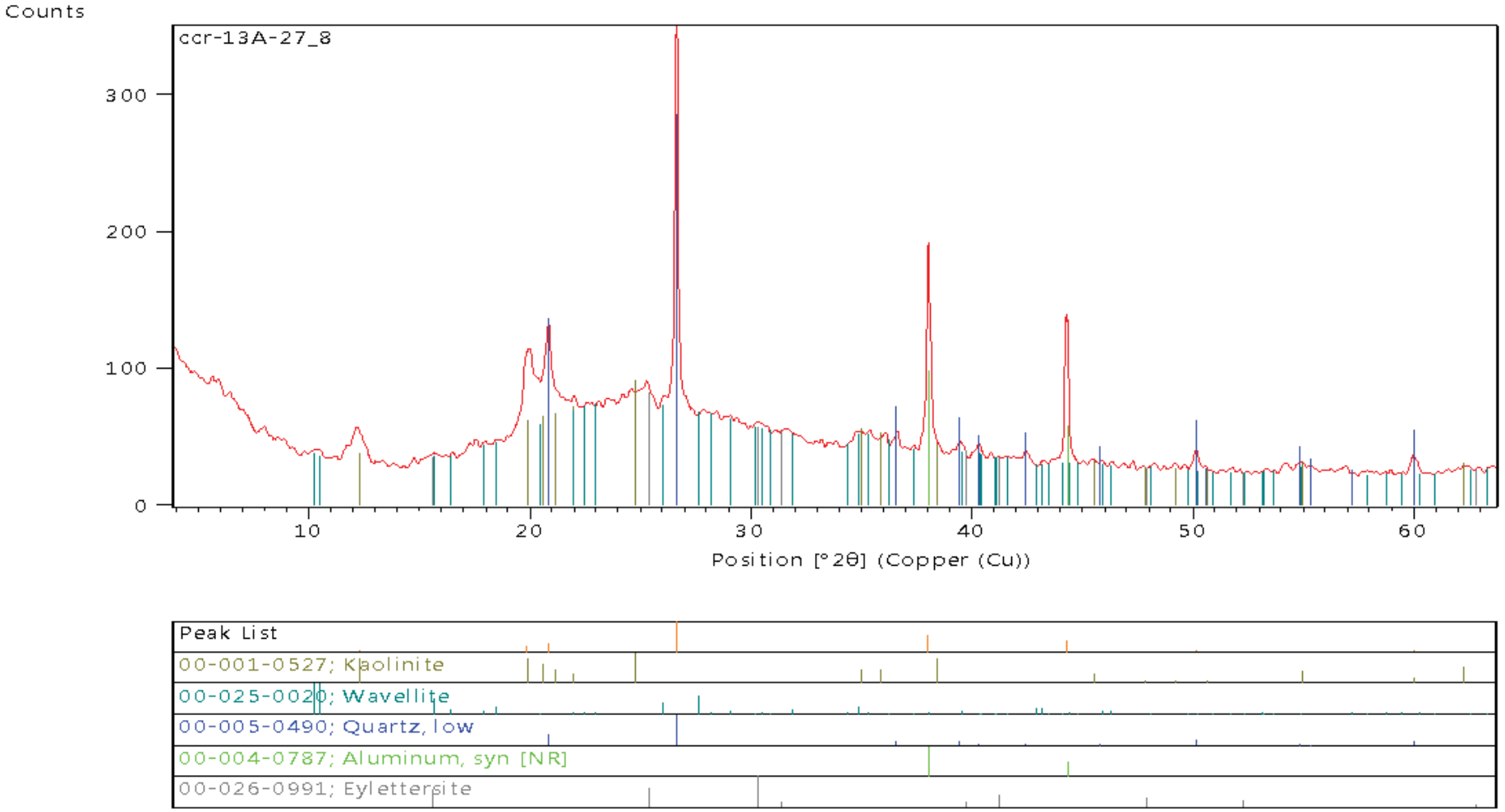
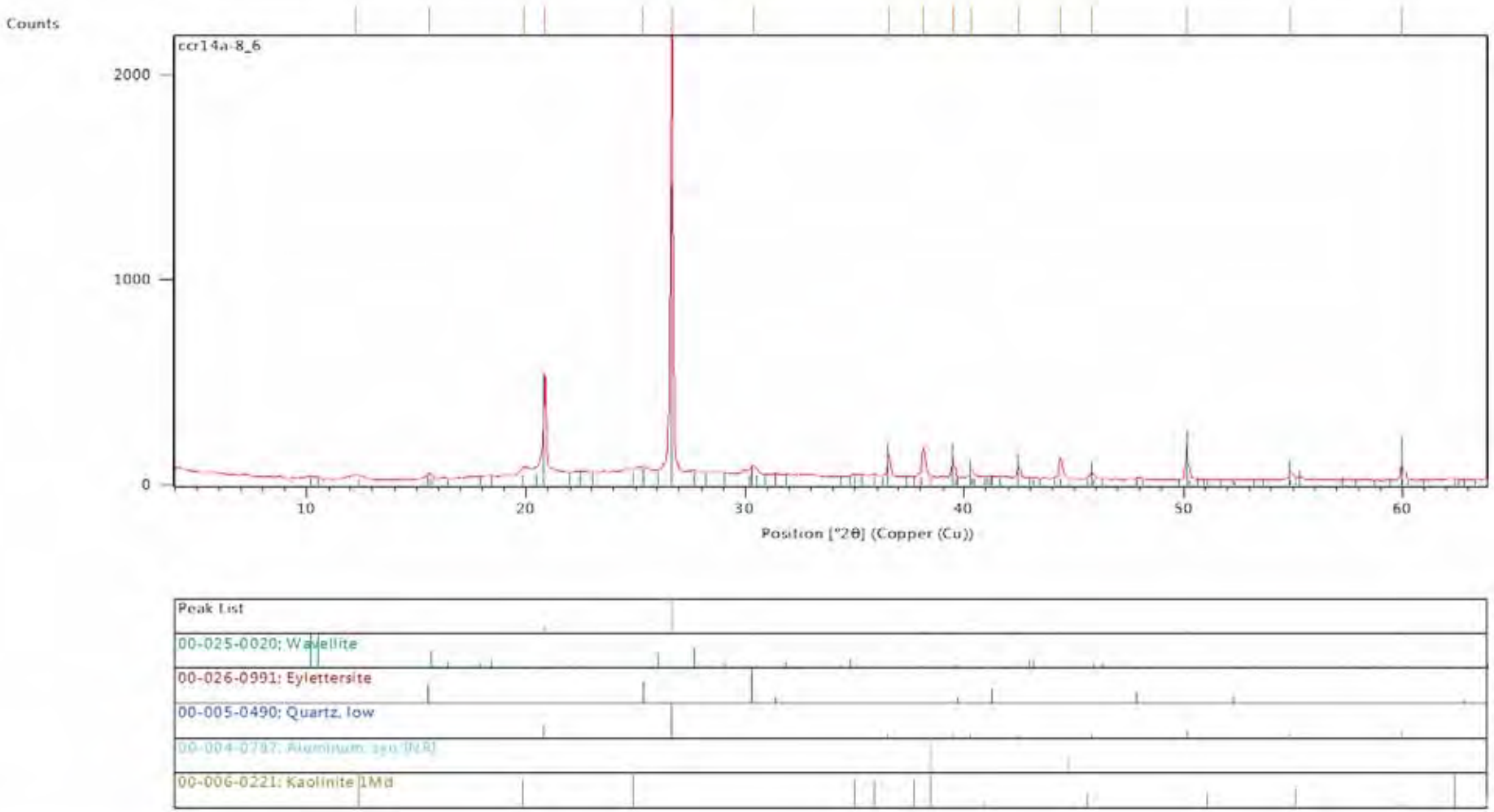
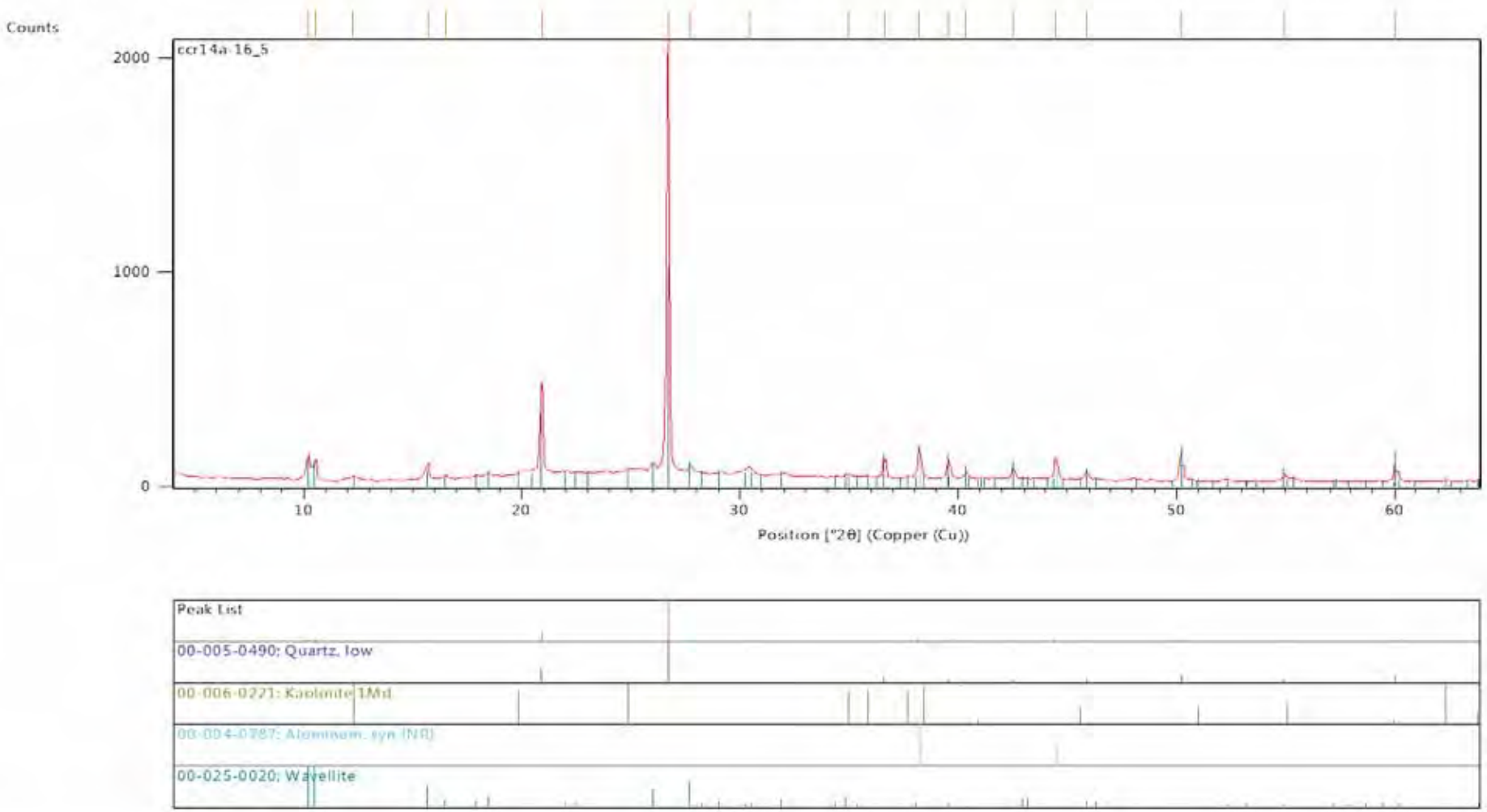
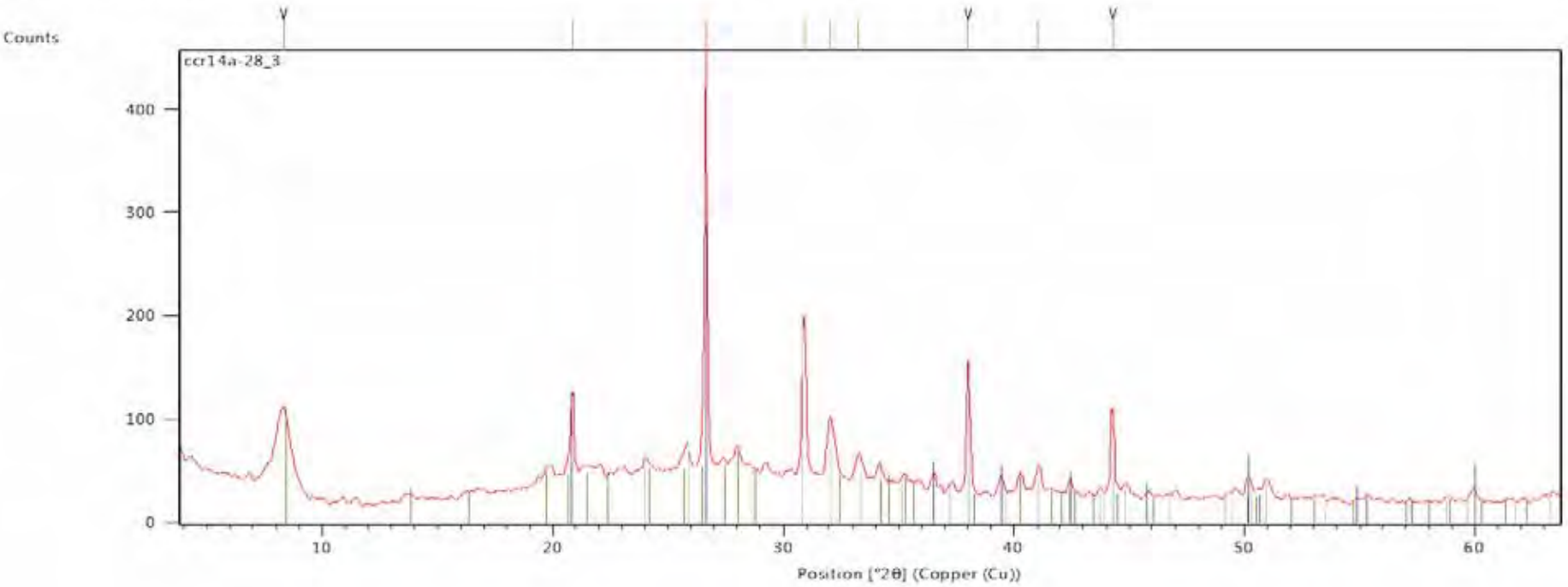
1000
500
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490: Quartz, low
00-027-0019: Wavellite
00-001-0527: Kaolinite


Counts
ccr-13A-27_8
300
200
100
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-001-0527; Kaolinite
00-025-0020; Wavellite
00-005-0490; Quartz, low
00-004-0787; Aluminum, syn [NR]
00-026-0991; Eylettersite


Counts
ccr14a-8_6
2000
1000
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-025-0020; Wavellite
00-026-0991; Eylettersite
00-005-0490; Quartz, low
00-004-0787; Aluminum, syn (NR)
00-006-0221; Kaolinite 1Md


Counts
ccr14a-16_5
2000
1000
0
10
20
30
40
50
60
Position [°2θ] (Copper (Cu))
Peak List
00-005-0490: Quartz, low
00-006-0221: Kaolinite 1Md
00-004-0787: Aluminum, syn (NR)
00-025-0020: Wavellite



Peak List
00-004-0787; Aluminum, syn [NR]
00-005-0490; Quartz, low
00-029-0855; Palygorskite
00-024-0517; Dolomite, ferroan
[illegible]

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ATTACHMENT 3

GEOCHEMISTRY DATA

	Al_2O_3	TiO_2	Fe_2O_3	MgO	MnO	CaO	K_2O	NaO	P_20_5
Sample Number	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**
CCR2A 18.7-19	1.37	1.34	0.35	<MDL	0.01	0.10	0.06	0.01	0.47
CCR2A 23-23.5	9.22	1.06	0.50	0.05	0.01	0.51	0.13	0.02	2.29
CCR4A 12.5-12.8	0.42	0.50	0.08	<MDL	0.00	0.19	0.03	<MDL	0.05
CCR4A 17-17.4	3.75	0.62	0.13	0.05	0.00	0.20	0.06	0.02	0.67
CCR4A 26.1-26.4	9.12	0.36	0.45	0.10	0.01	23.38	0.36	0.13	>2.30
CCR5A 19.3-20	1.11	0.31	0.06	<MDL	0.00	0.13	0.04	0.03	0.22
CCR5A 22.3-22.6	9.32	0.42	0.34	0.05	0.00	0.48	0.10	0.03	1.10
CCR7A 7-7.4	0.59	0.51	0.10	<MDL	0.00	0.20	<MDL	<MDL	0.11
CCR7A 14.6-15	0.73	0.62	0.13	<MDL	0.01	0.08	<MDL	<MDL	0.16
CCR7A 23.2-23.5	8.70	0.51	0.71	0.05	0.00	0.90	0.07	0.20	>2.30
CCR13A 9.4-10	0.54	0.94	0.12	<MDL	0.00	0.41	<MDL	<MDL	0.13
CCR13A 17.3-17.6	4.12	0.36	0.16	0.03	0.00	0.26	0.05	<MDL	1.29
CCR13A 27.8-28.2	17.87	0.68	1.41	0.81	0.01	0.59	0.66	0.05	>2.30
CCR14A 8.6-8.8	7.61	0.46	0.42	0.14	0.00	1.05	0.13	0.02	2.13
CCR14A 16.5-18	11.95	0.53	0.50	0.08	0.01	0.72	0.18	0.02	>2.30
CCR14A 28.3-28.6	2.99	0.17	3.37	6.37	0.02	20.09	0.43	0.26	>2.30

	Ag	As	Ba	Be	Bi	Ce	Cd	Co	Cr
	ppm	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
CCR2A 18.7-19	0.27	0.30	128.00	0.17	0.29	57.9	<MDL	12.20	19.5
CCR2A 23-23.5	<MDL	<MDL	679.00	1.22	0.19	93.7	<MDL	10.10	42.9
CCR4A 12.5-12.8	<MDL	<MDL	6.00	0.01	0.03	6.1	<MDL	4.50	7.7
CCR4A 17-17.4	0.06	0.30	137.00	0.20	0.12	39.4	0.05	5.70	19.2
CCR4A 26.1-26.4	0.34	3.40	131.00	1.80	0.13	69.8	42.65	3.30	136.1
CCR5A 19.3-20	<MDL	<MDL	39.00	0.05	0.03	13.2	<MDL	2.80	6.6
CCR5A 22.3-22.6	0.06	0.70	617.00	1.22	0.31	60.0	0.16	10.30	49.6
CCR7A 7-7.4	0.14	0.60	18.00	0.05	0.05	12.3	<MDL	23.30	7.9
CCR7A 14.6-15	0.07	<MDL	12.00	0.05	0.02	10.1	<MDL	14.50	10.1
CCR7A 23.2-23.5	<MDL	<MDL	516.00	0.93	0.14	60.0	0.42	21.20	50.5
CCR13A 9.4-10	0.27	0.40	45.00	0.04	0.18	37.9	<MDL	18.40	11.4
CCR13A 17.3-17.6	0.14	<MDL	189.00	0.49	0.06	39.3	<MDL	20.10	23.4
CCR13A 27.8-28.2	0.48	0.20	136.00	1.58	0.30	64.7	0.12	15.10	162.8
CCR14A 8.6-8.8	0.22	<MDL	377.00	1.47	0.27	81.5	0.54	18.80	48.4
CCR14A 16.5-18	0.91	0.60	673.00	4.24	0.32	138.8	0.31	21.90	112.3
CCR14A 28.3-28.6	1.01	5.30	81.00	0.69	0.11	25.3	35.09	11.30	84.3

<MDL less than method detection limit

	Cs	Cu	Ga	Ge	Hf	In	La	Li	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
CCR2A 18.7-19	0.30	6.40	7.25	0.04	1.77	0.02	32.7	1.10	2.70
CCR2A 23-23.5	0.70	2.60	11.27	0.08	1.84	0.03	50.1	3.90	2.10
CCR4A 12.5-12.8	<MDL	1.50	2.04	<MDL	0.51	<MDL	2.4	0.70	1.70
CCR4A 17-17.4	0.40	3.40	6.76	0.03	1.09	0.03	20.7	4.20	2.20
CCR4A 26.1-26.4	1.50	8.50	10.30	0.06	1.76	0.06	63.2	3.20	2.30
CCR5A 19.3-20	0.10	0.90	2.41	0.02	0.44	0.01	6.5	6.10	1.10
CCR5A 22.3-22.6	0.40	1.40	9.16	0.05	1.44	0.07	30.6	7.50	1.50
CCR7A 7-7.4	<MDL	1.30	2.21	0.01	0.65	0.01	4.5	1.80	1.50
CCR7A 14.6-15	<MDL	2.00	2.81	0.01	0.55	0.02	4.0	1.20	1.60
CCR7A 23.2-23.5	0.30	1.20	10.57	0.06	1.55	0.04	31.8	7.00	2.10
CCR13A 9.4-10	0.10	3.10	3.95	<MDL	1.60	0.01	20.1	2.20	4.10
CCR13A 17.3-17.6	0.30	2.20	5.30	0.05	1.06	0.02	21.3	6.40	0.90
CCR13A 27.8-28.2	4.20	6.50	19.57	0.05	5.21	0.16	39.0	20.60	2.10
CCR14A 8.6-8.8	1.00	4.00	9.10	0.06	3.10	0.05	45.2	5.40	1.30
CCR14A 16.5-18	1.00	11.60	11.94	0.12	2.97	0.06	83.6	3.00	1.70
CCR14A 28.3-28.6	1.20	1.30	4.03	0.04	0.78	0.01	21.3	8.30	2.80

	Nb	Ni	Pb	Rb	Re	S	Sb	Sc	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
CCR2A 18.7-19	17.45	1.50	25.00	4.00	<MDL	245.0	0.37	2.7	0.30
CCR2A 23-23.5	16.51	6.90	29.00	6.00	<MDL	315.0	0.64	4.8	0.30
CCR4A 12.5-12.8	4.81	1.30	<MDL	<MDL	<MDL	219.0	0.13	0.9	0.40
CCR4A 17-17.4	10.05	6.30	13.00	3.00	<MDL	344.0	0.23	1.8	0.80
CCR4A 26.1-26.4	7.58	4.10	11.00	16.00	0.00	624.0	1.07	8.2	0.50
CCR5A 19.3-20	4.14	2.00	6.00	2.00	<MDL	112.0	0.10	0.7	<MDL
CCR5A 22.3-22.6	7.17	10.90	24.00	5.00	0.01	144.0	0.76	8.6	0.30
CCR7A 7-7.4	5.81	2.40	4.00	<MDL	0.03	<MDL	0.16	0.8	<MDL
CCR7A 14.6-15	6.32	1.30	4.00	<MDL	0.02	142.0	0.13	0.9	<MDL
CCR7A 23.2-23.5	9.17	10.70	22.00	3.00	0.03	261.0	0.35	5.9	1.30
CCR13A 9.4-10	14.68	1.60	16.00	<MDL	0.02	218.0	0.41	1.5	0.80
CCR13A 17.3-17.6	6.31	4.70	12.00	3.00	0.03	291.0	0.29	2.3	0.30
CCR13A 27.8-28.2	15.13	21.20	21.00	41.00	0.01	270.0	1.24	82.1	<MDL
CCR14A 8.6-8.8	8.44	10.00	26.00	8.00	0.03	345.0	0.39	18.2	0.20
CCR14A 16.5-18	10.31	5.70	31.00	10.00	0.03	534.0	0.45	13.5	0.20
CCR14A 28.3-28.6	3.66	56.60	6.00	20.00	0.01	1645.0	1.41	2.7	0.50

	Sn	Sr	Ta	Te	Th	Tl	U	V	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
CCR2A 18.7-19	1.40	207.0	1.64	0.08	8.5	0.03	5.0	19.00	1.2
CCR2A 23-23.5	1.30	929.0	1.09	0.03	12.9	0.22	50.4	59.00	1.1
CCR4A 12.5-12.8	0.90	12.0	0.66	0.01	1.7	<MDL	1.2	6.00	0.5
CCR4A 17-17.4	1.50	227.0	1.65	0.03	6.8	0.04	5.3	16.00	0.9
CCR4A 26.1-26.4	1.50	308.0	0.12	0.05	9.7	0.50	185.5	119.00	0.8
CCR5A 19.3-20	0.60	63.0	0.46	<MDL	2.1	0.01	4.1	5.00	0.4
CCR5A 22.3-22.6	1.10	748.0	0.06	0.02	8.2	0.10	34.2	35.00	66.3
CCR7A 7-7.4	0.80	30.0	0.60	<MDL	1.7	<MDL	1.4	6.00	184.8
CCR7A 14.6-15	0.80	18.0	0.69	0.01	2.0	<MDL	0.9	6.00	97.1
CCR7A 23.2-23.5	1.20	786.0	<MDL	0.03	8.8	0.04	35.0	33.00	173.9
CCR13A 9.4-10	1.10	91.0	1.44	0.01	4.8	0.03	3.0	13.00	104.3
CCR13A 17.3-17.6	0.50	458.0	0.30	0.01	6.3	0.08	22.4	25.00	175.2
CCR13A 27.8-28.2	2.50	210.0	0.12	0.02	23.4	1.00	164.4	247.00	77.8
CCR14A 8.6-8.8	0.90	815.0	0.18	0.02	11.4	0.23	96.2	50.00	153.1
CCR14A 16.5-18	1.50	1185.0	1.04	<MDL	16.6	0.28	467.0	48.00	185.1
CCR14A 28.3-28.6	0.80	461.0	<MDL	<MDL	4.0	0.60	34.8	123.00	37.0

<MDL less than method detection limit

	Y	Zn	Zr
	ppm	ppm	ppm
CCR2A 18.7-19	12.10	4.00	71.0
CCR2A 23-23.5	49.30	11.00	70.2
CCR4A 12.5-12.8	1.10	<MDL	17.6
CCR4A 17-17.4	9.40	4.00	37.7
CCR4A 26.1-26.4	96.30	87.00	51.8
CCR5A 19.3-20	3.00	<MDL	15.9
CCR5A 22.3-22.6	33.30	7.00	44.0
CCR7A 7-7.4	2.20	4.00	42.5
CCR7A 14.6-15	1.40	4.00	30.7
CCR7A 23.2-23.5	25.80	7.00	60.9
CCR13A 9.4-10	6.80	3.00	76.1
CCR13A 17.3-17.6	17.00	5.00	43.5
CCR13A 27.8-28.2	33.90	49.00	167.2
CCR14A 8.6-8.8	48.90	12.00	93.3
CCR14A 16.5-18	93.50	10.00	94.2
CCR14A 28.3-28.6	30.70	49.00	19.0

<MDL less than method detection limit

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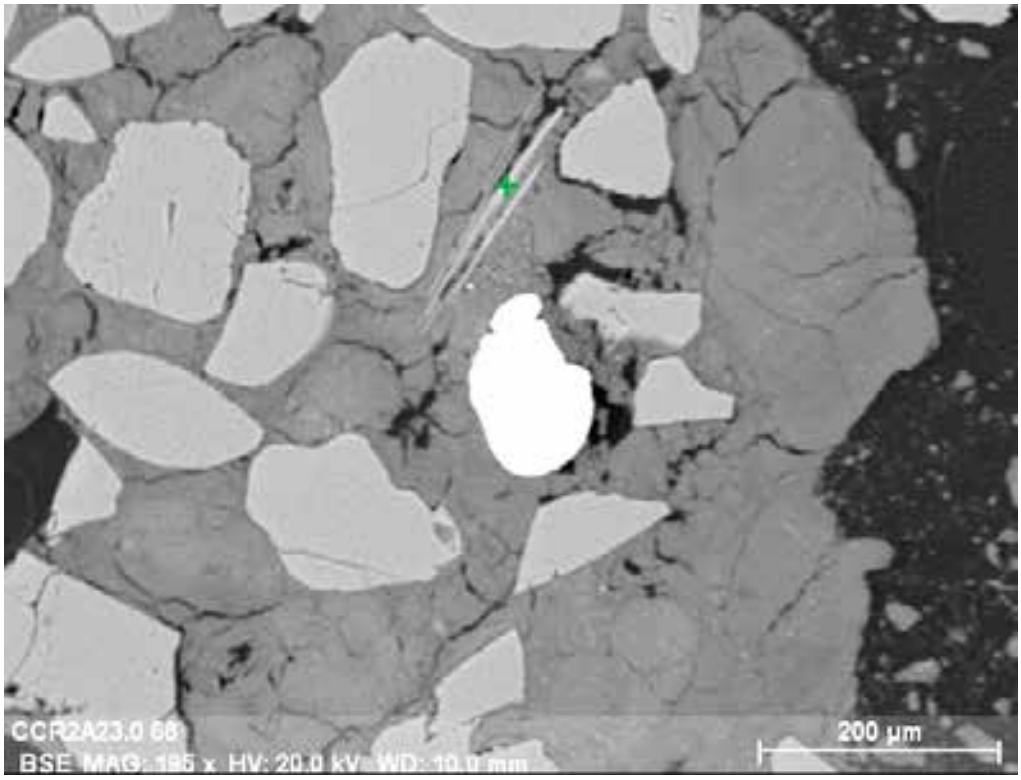
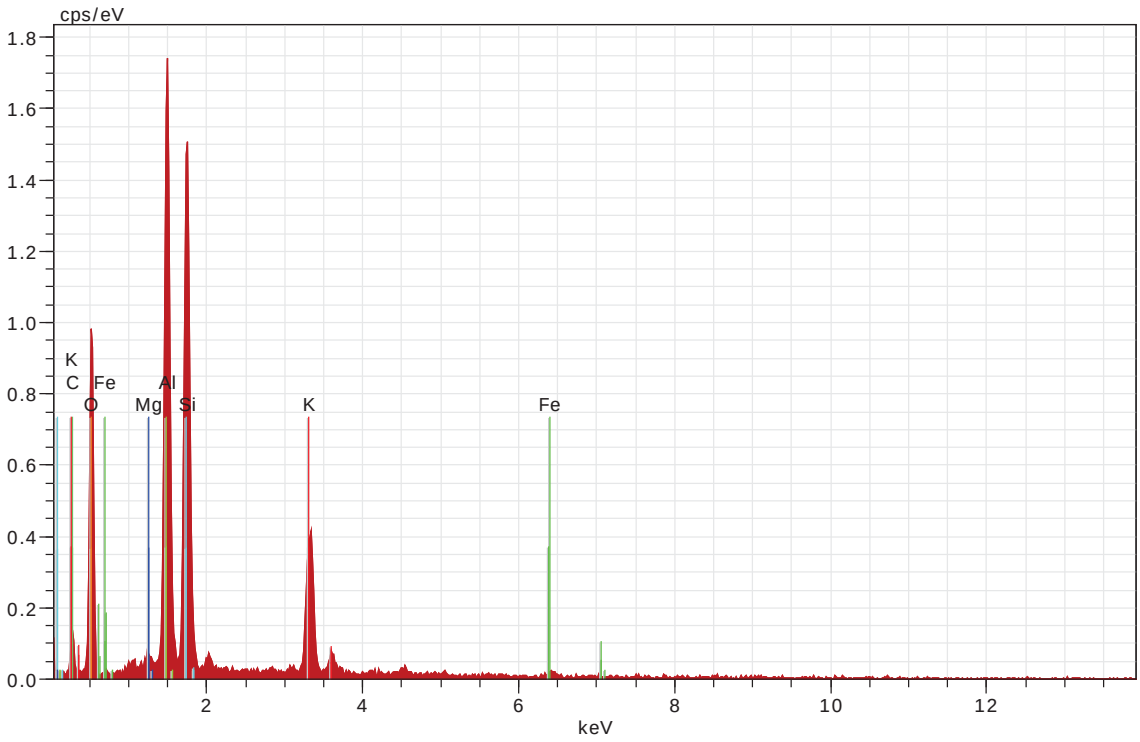
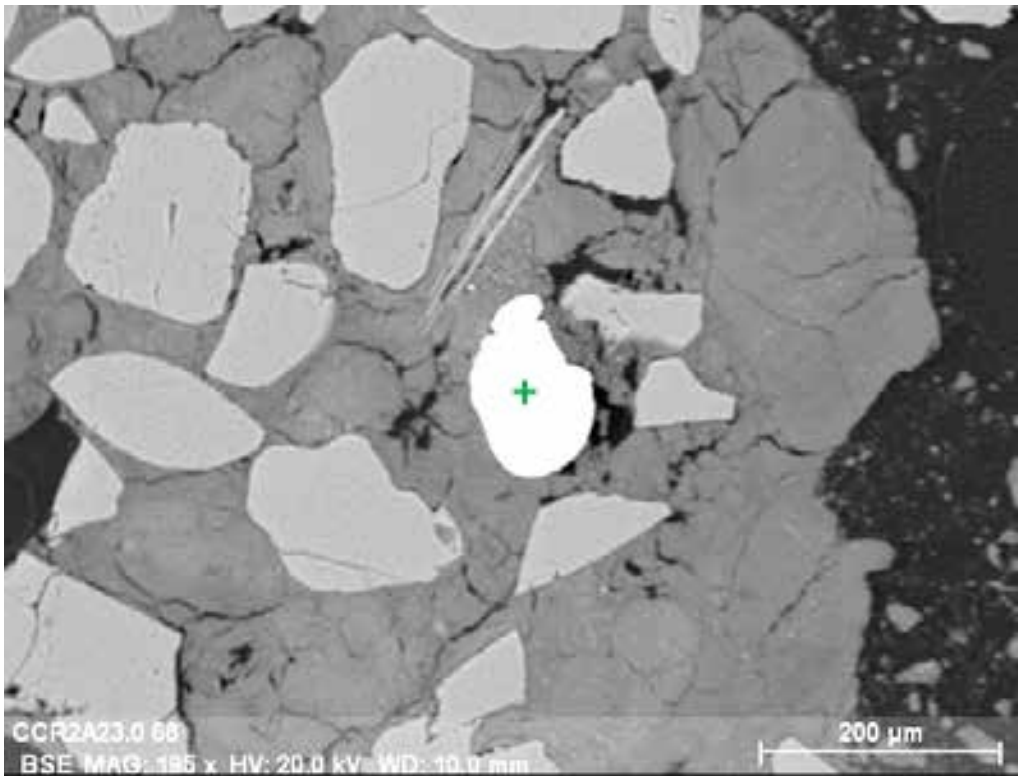
ATTACHMENT 4

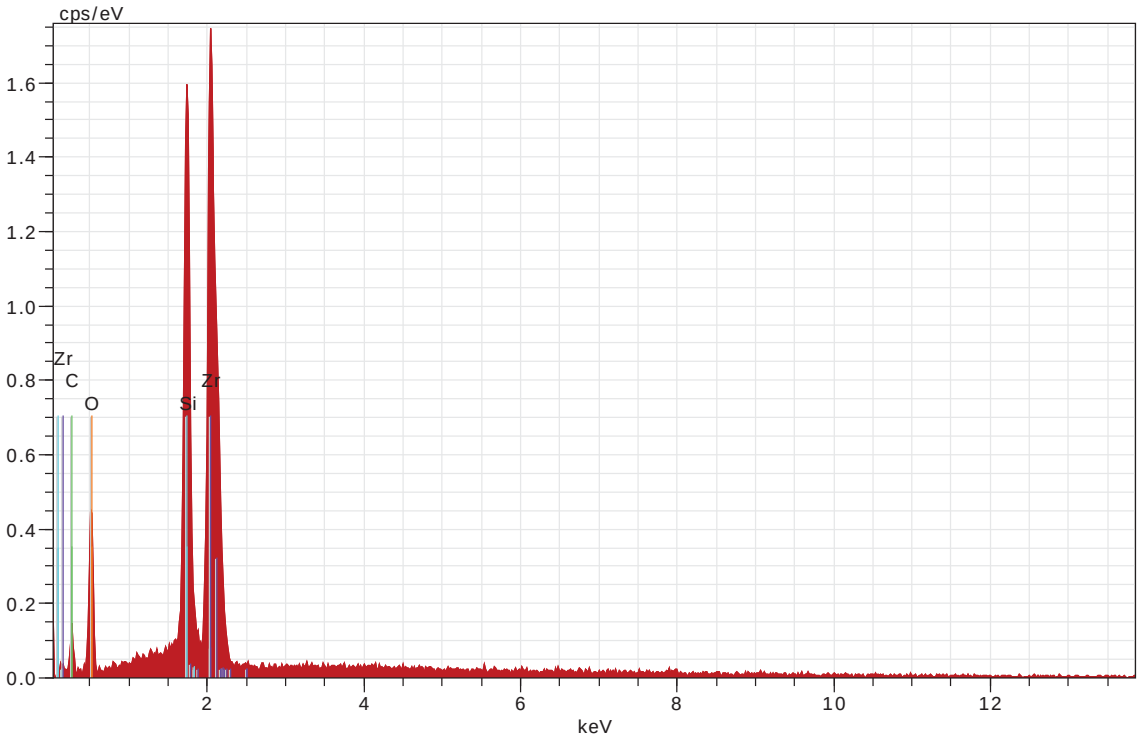
SCANNING ELECTRON MICROSCOPY DATA



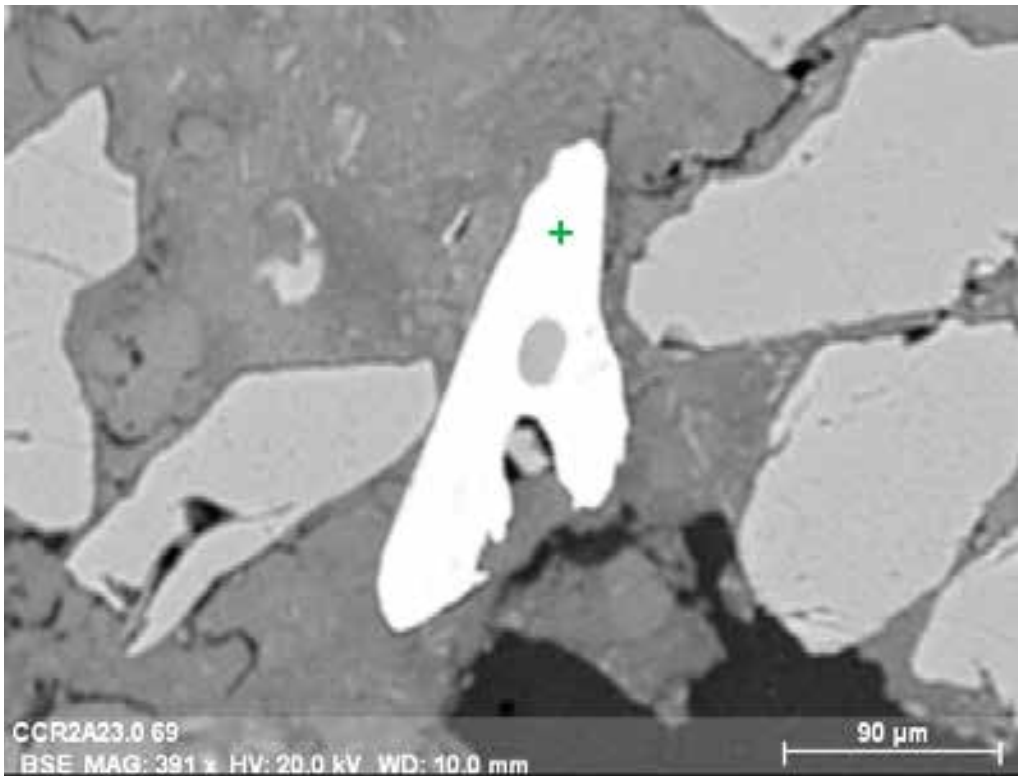


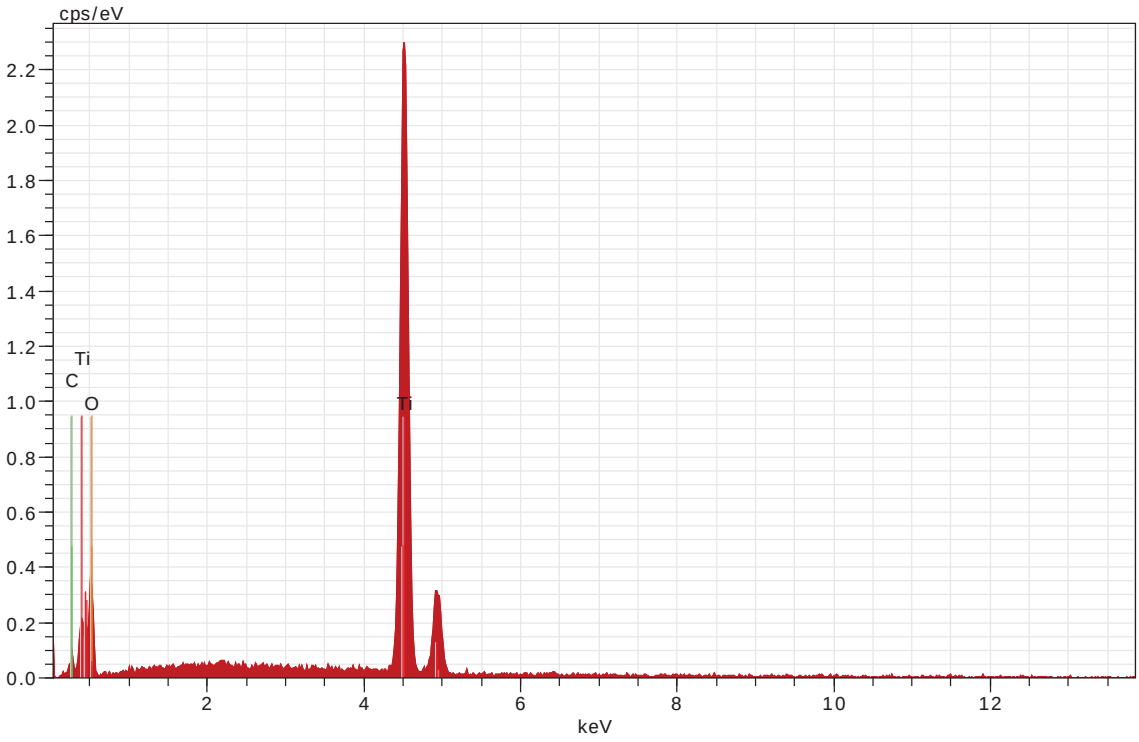
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for muscovite; green crosshair on BSE image marks analysis location.



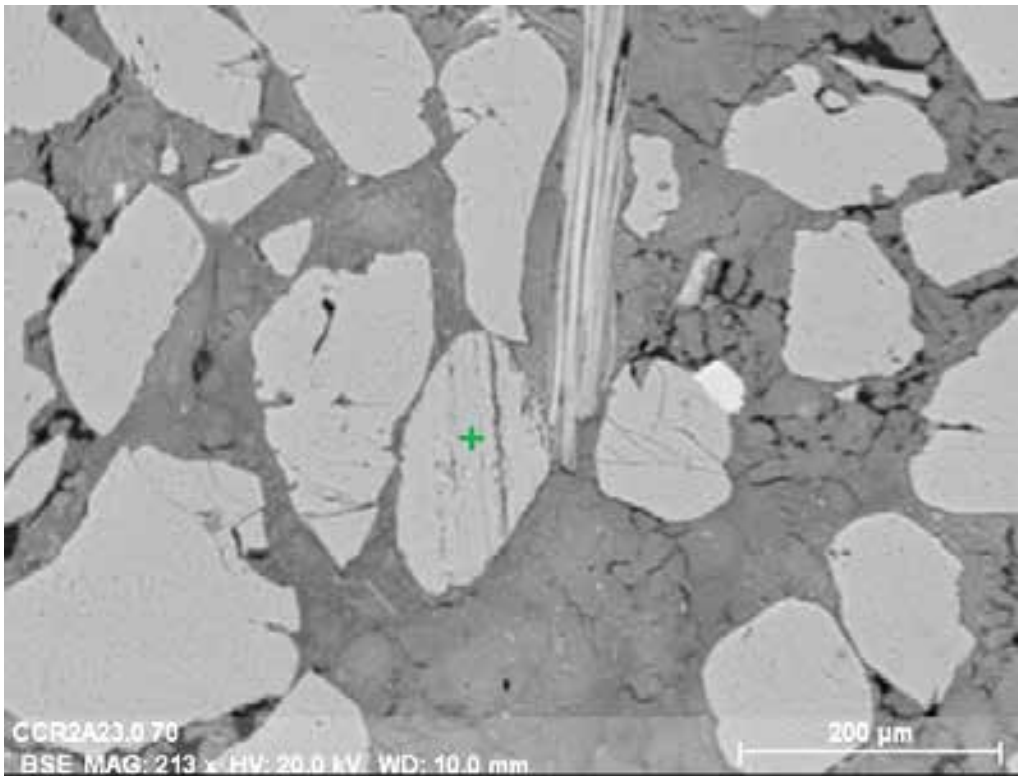


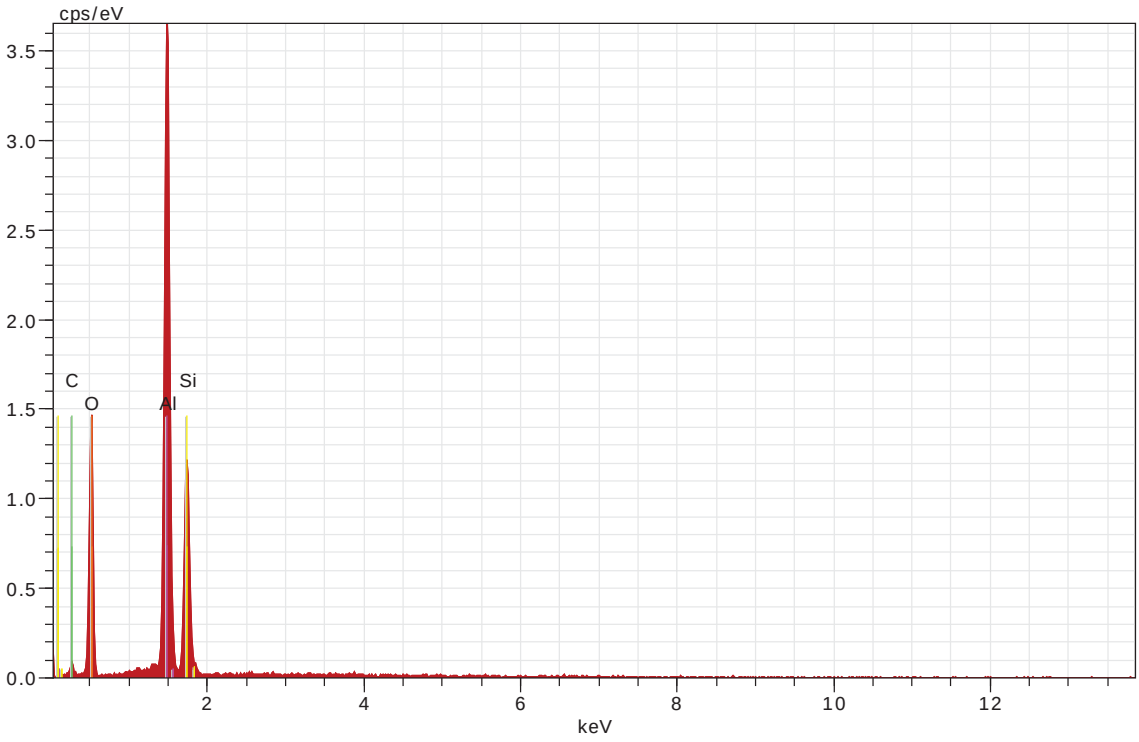
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for zircon; green crosshair on BSE image marks analysis location.



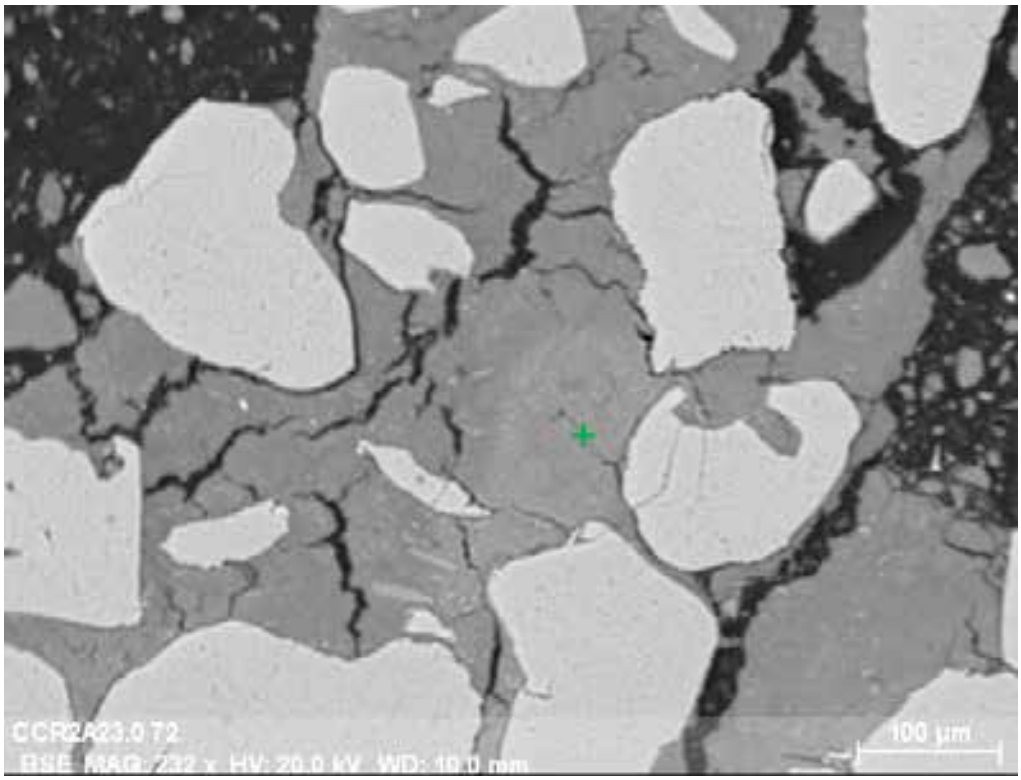


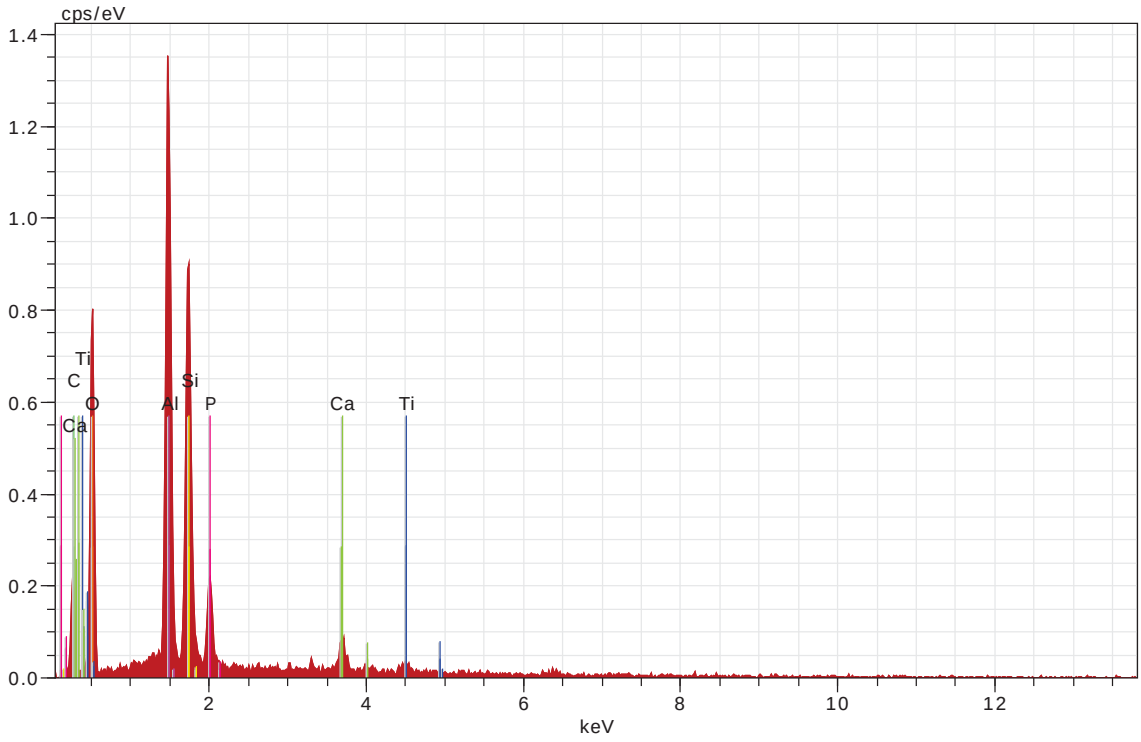
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for rutile; green crosshair on BSE image marks analysis location.



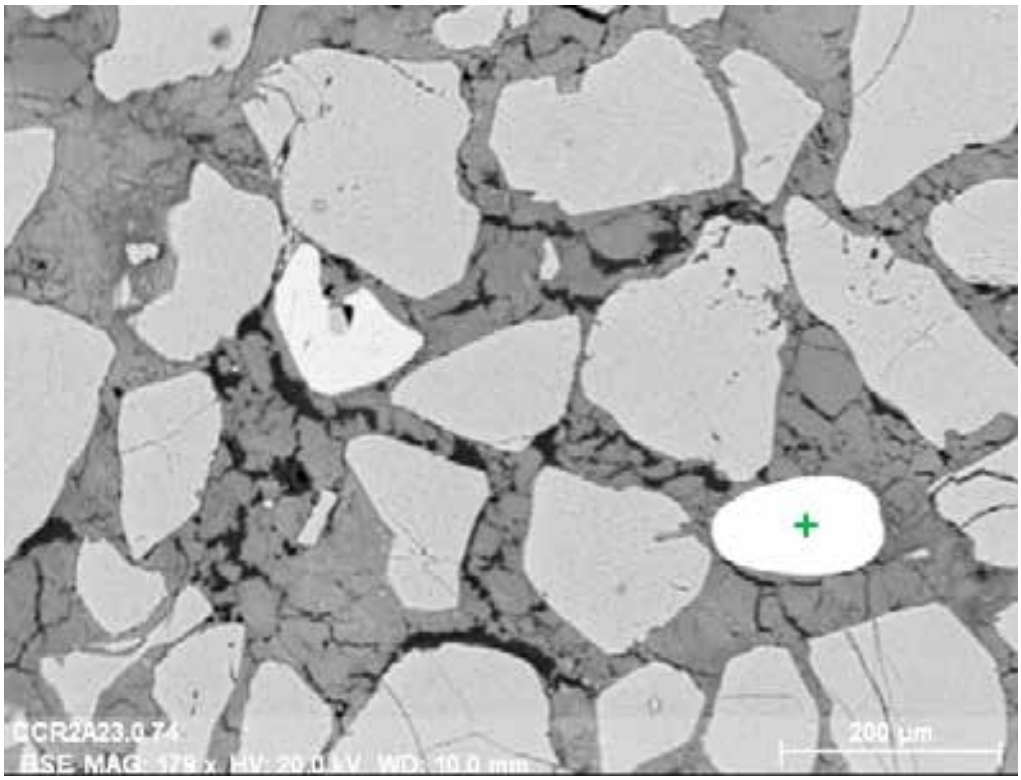


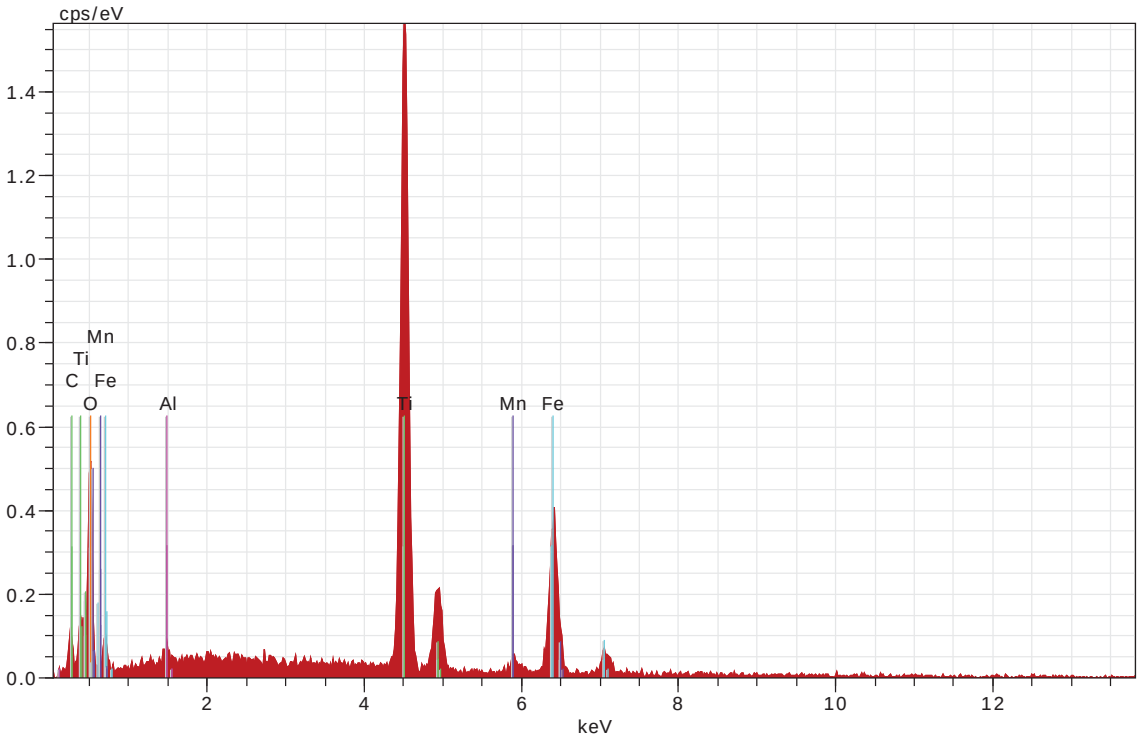
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for kyanite; green crosshair on BSE image marks analysis location.



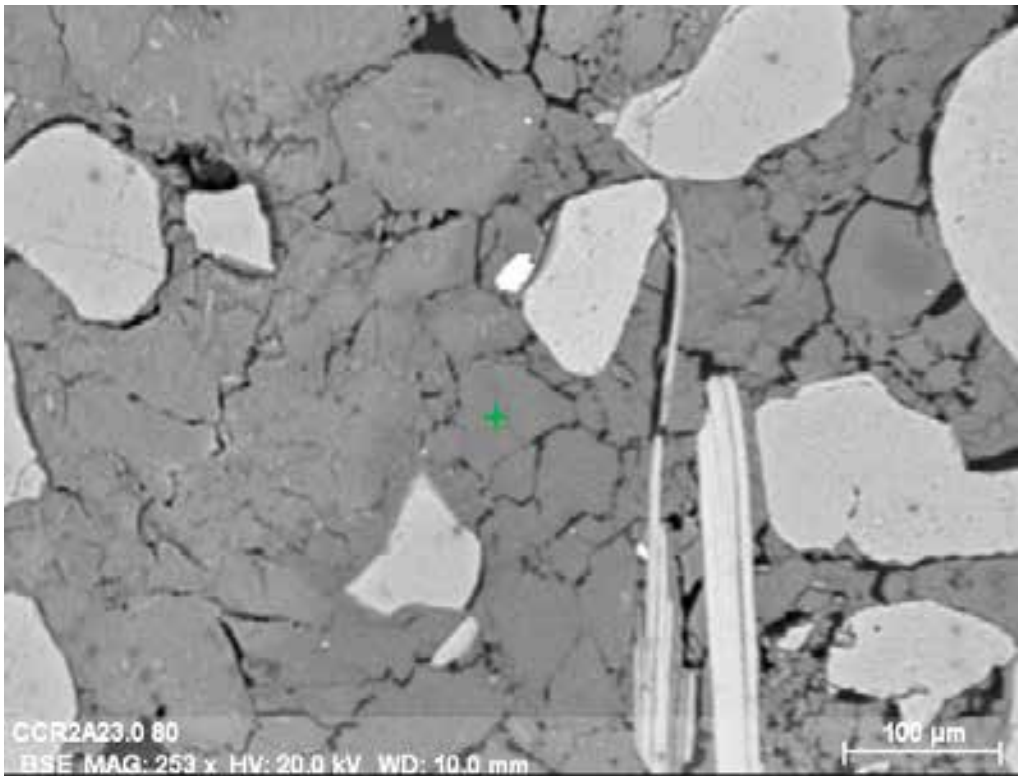


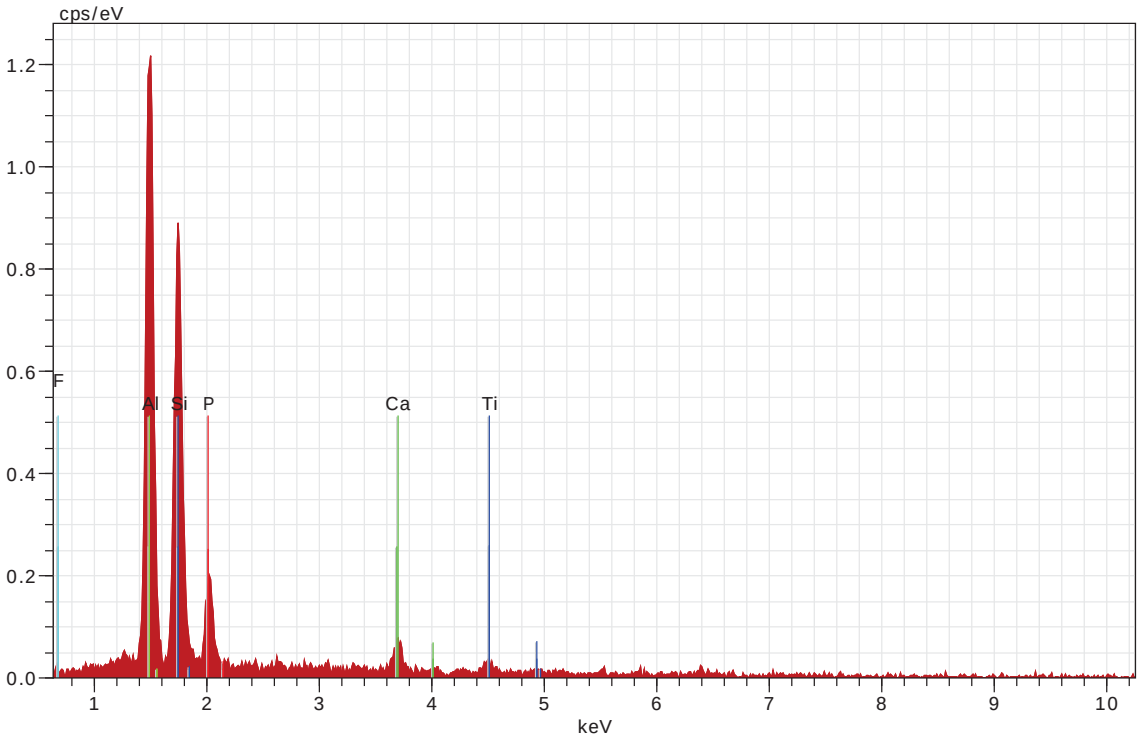
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for wavellite and clay matrix; green crosshair on BSE image marks analysis location.



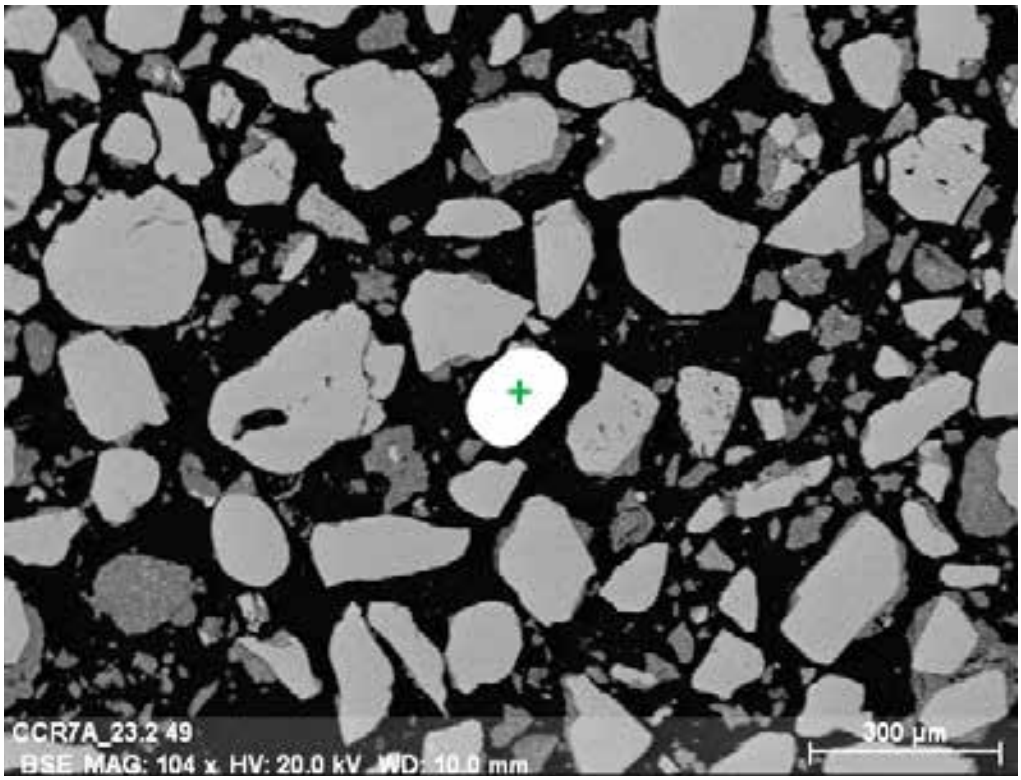


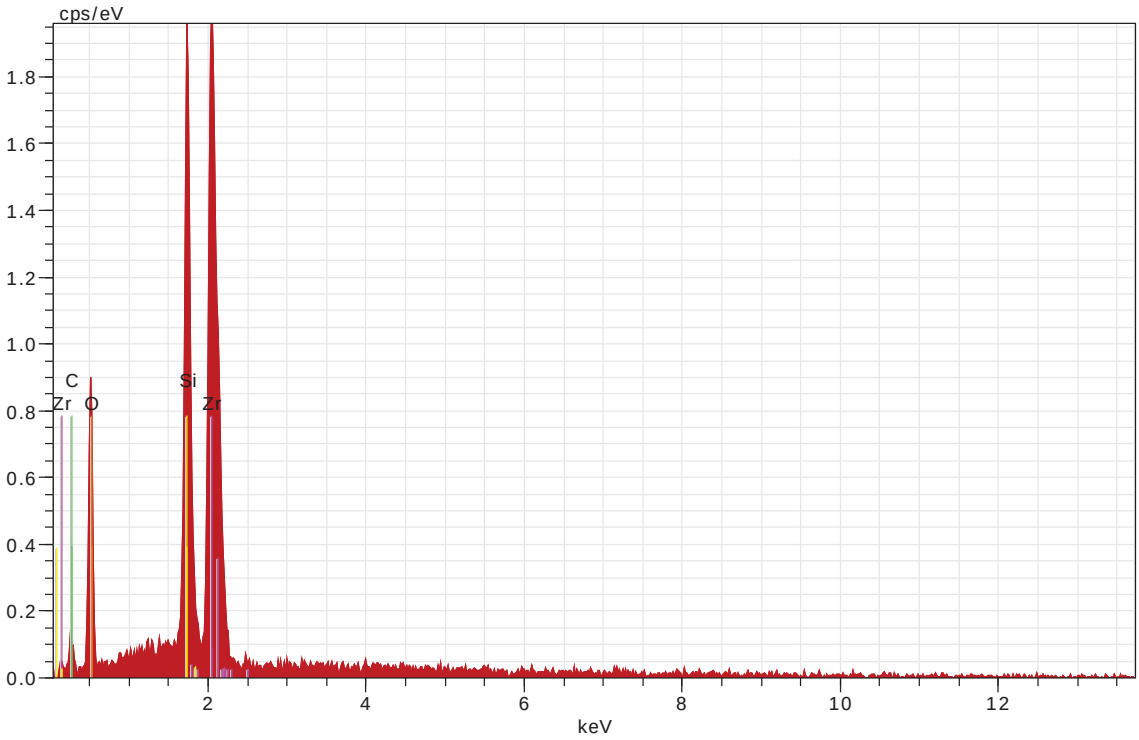
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for ilmenite; green crosshair on BSE image marks analysis location.



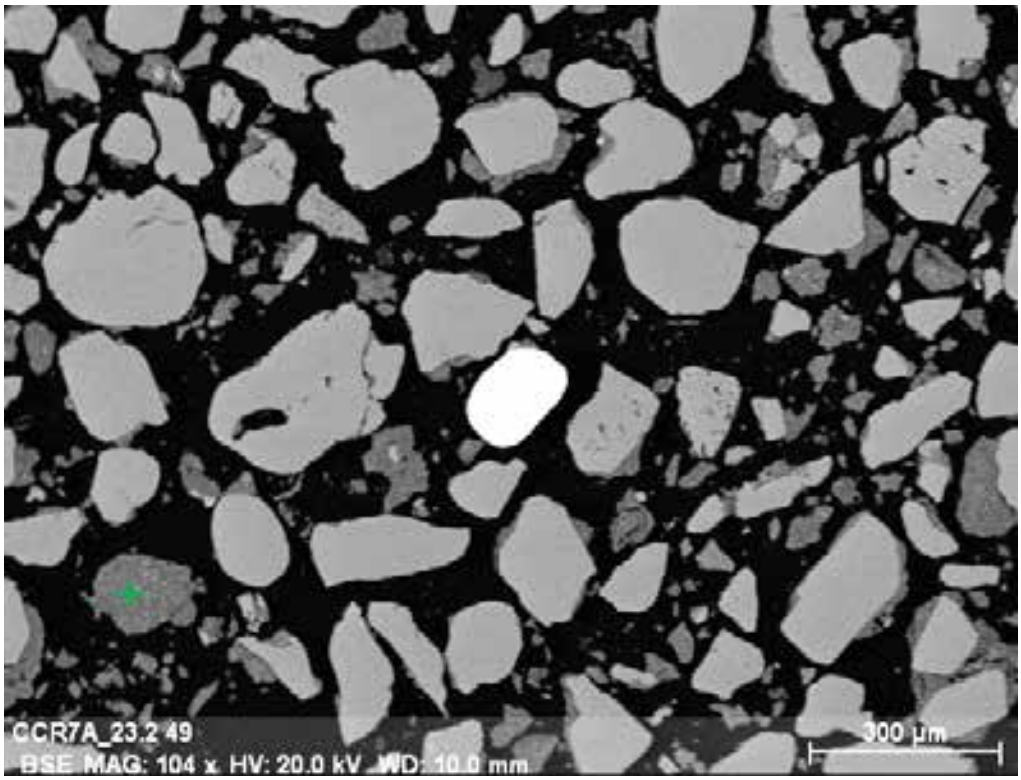


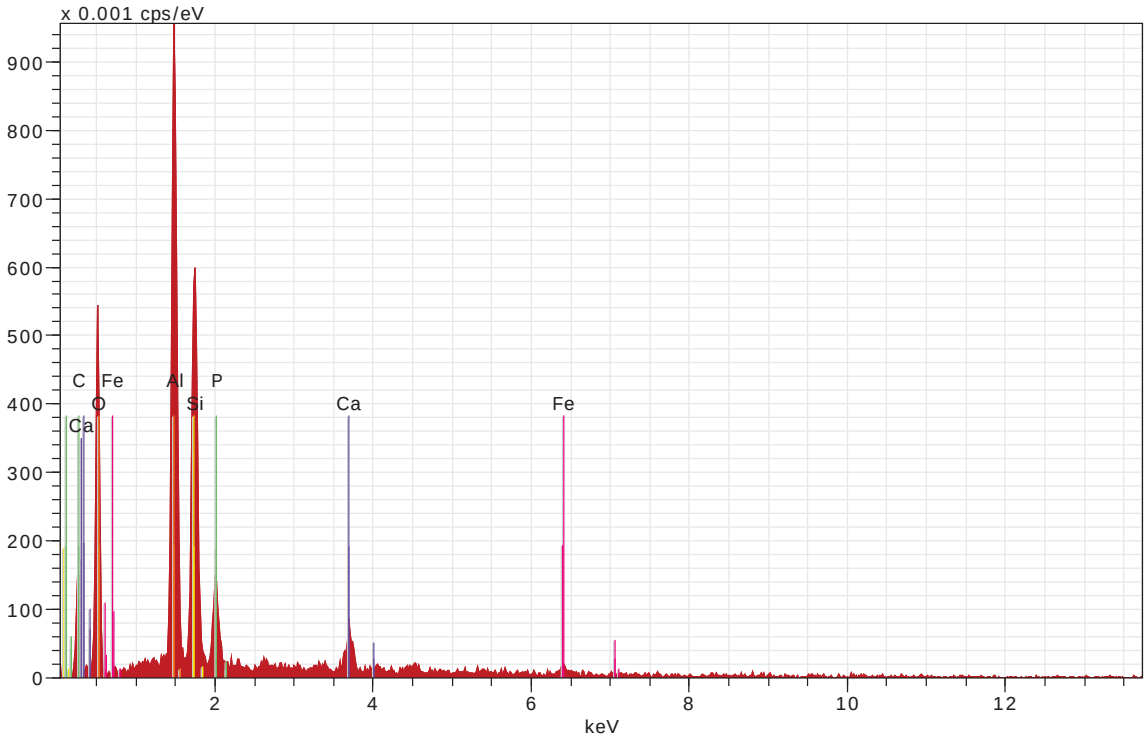
CCR2A 23.0-23.5: BSE image (top) and EDS spectrum (bottom) for wavellite and clay matrix; green crosshair on BSE image marks analysis location.



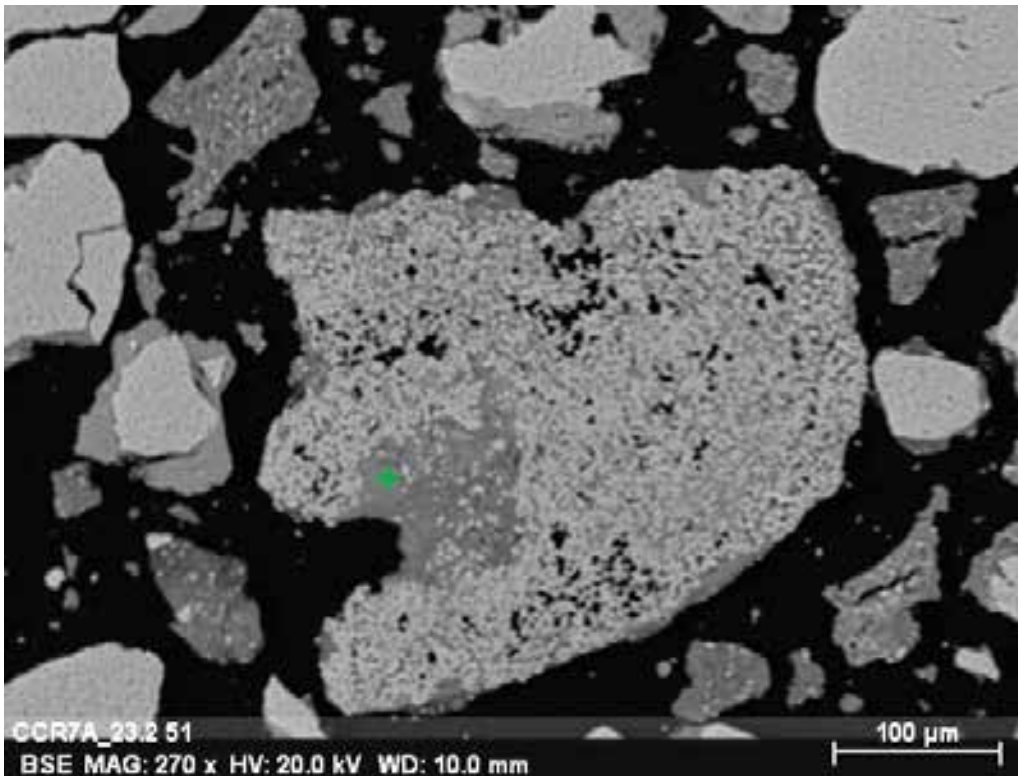


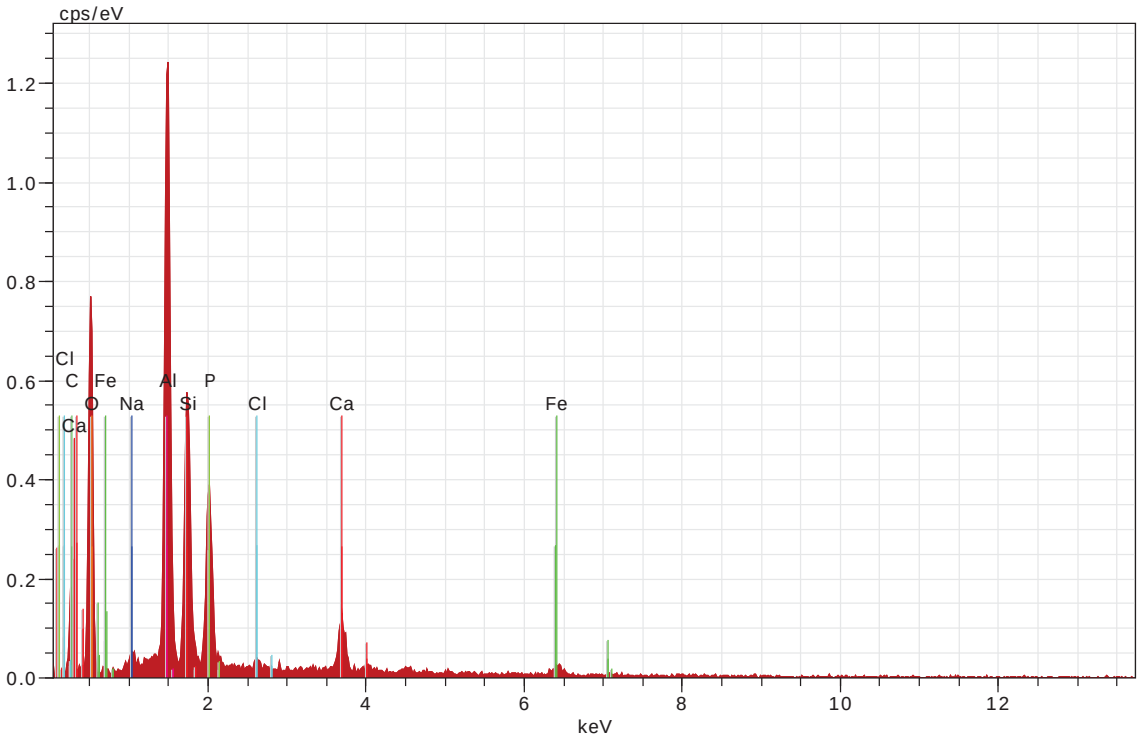
CCR7A 23.2-23.5: BSE image (top) and EDS spectrum (bottom) for zircon; green crosshair on BSE image marks analysis location.



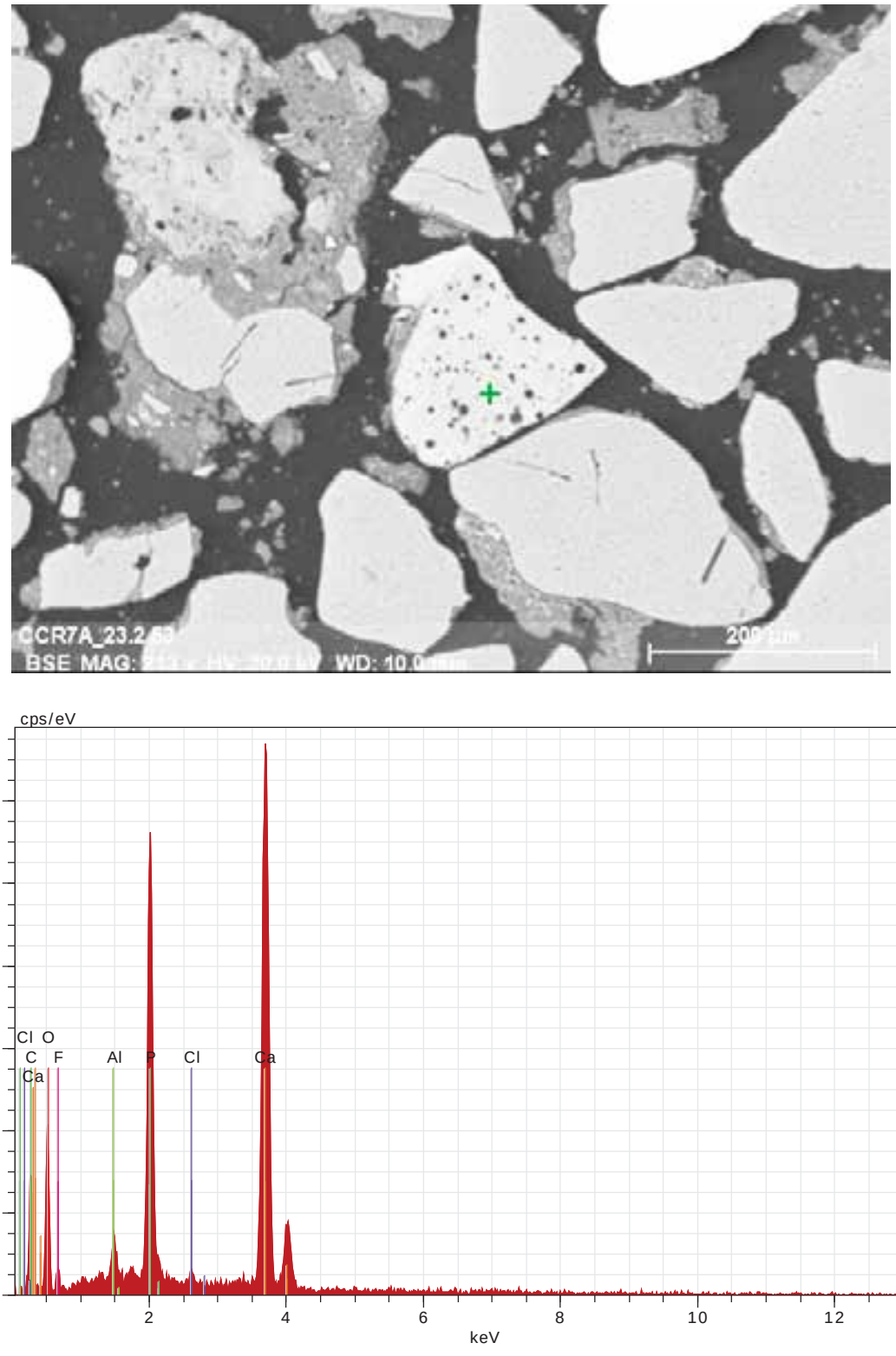


CCR7A 23.2-23.5: BSE image (top) and EDS spectrum (bottom) for Ca- and Al-phosphate matrix; green crosshair on BSE image marks analysis location.

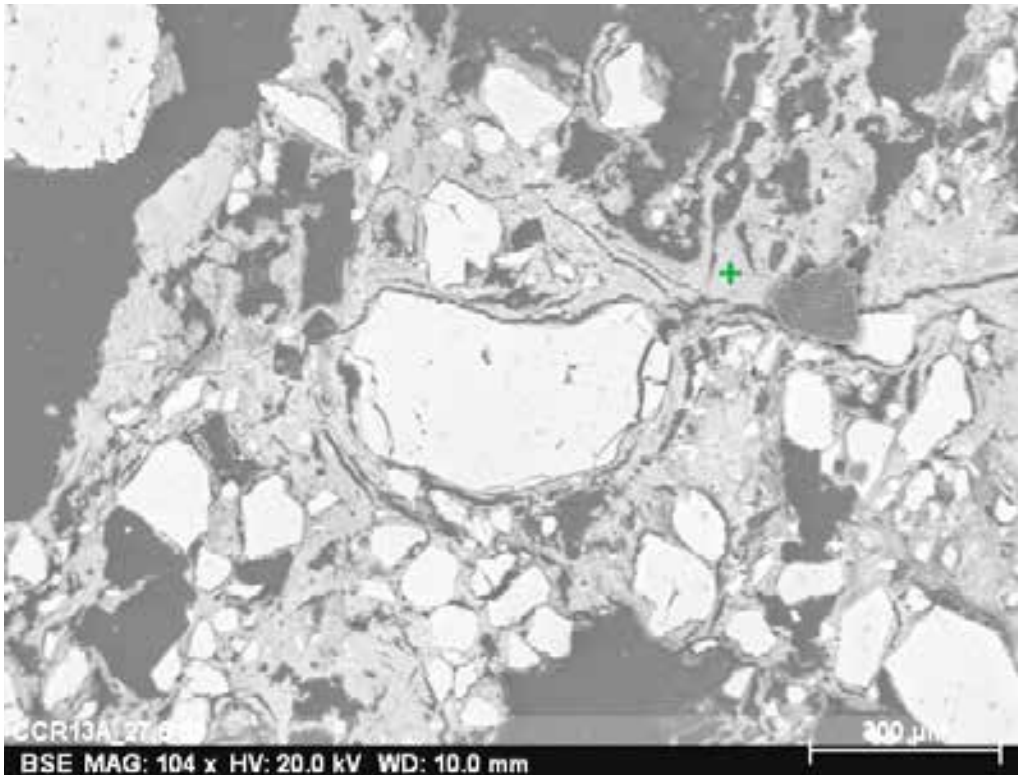


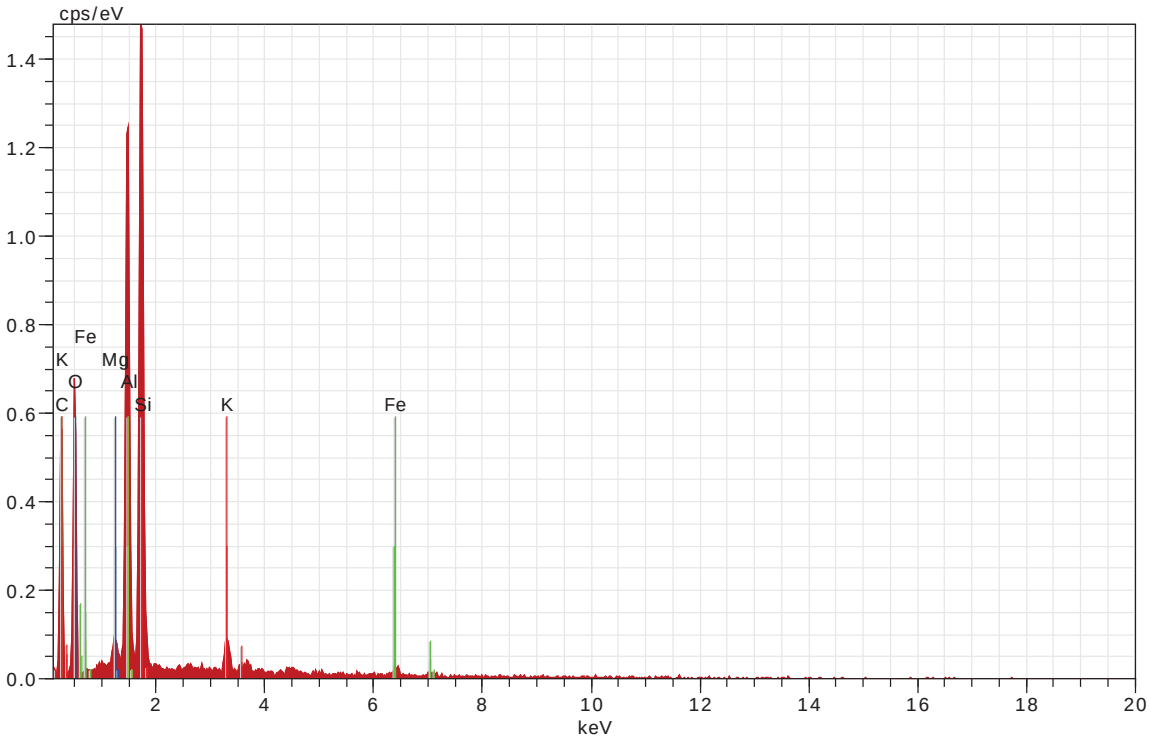


CCR7A 23.2-23.5: BSE image (top) and EDS spectrum (bottom) for wavellite and apatite matrix; green crosshair on BSE image marks analysis location.

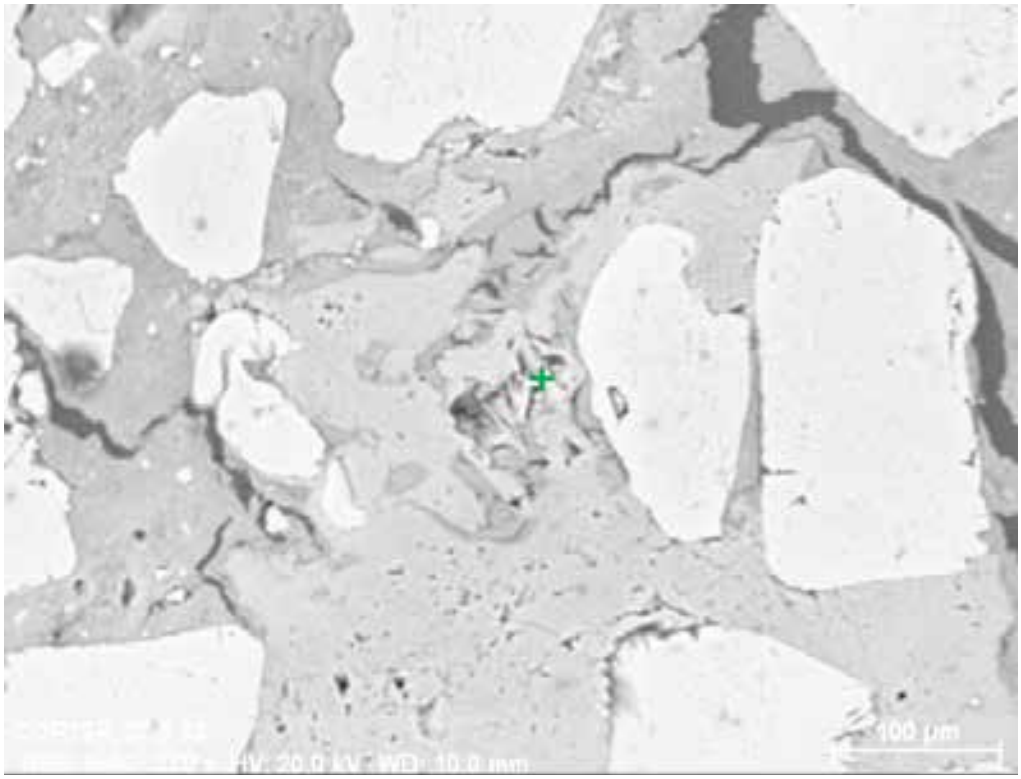


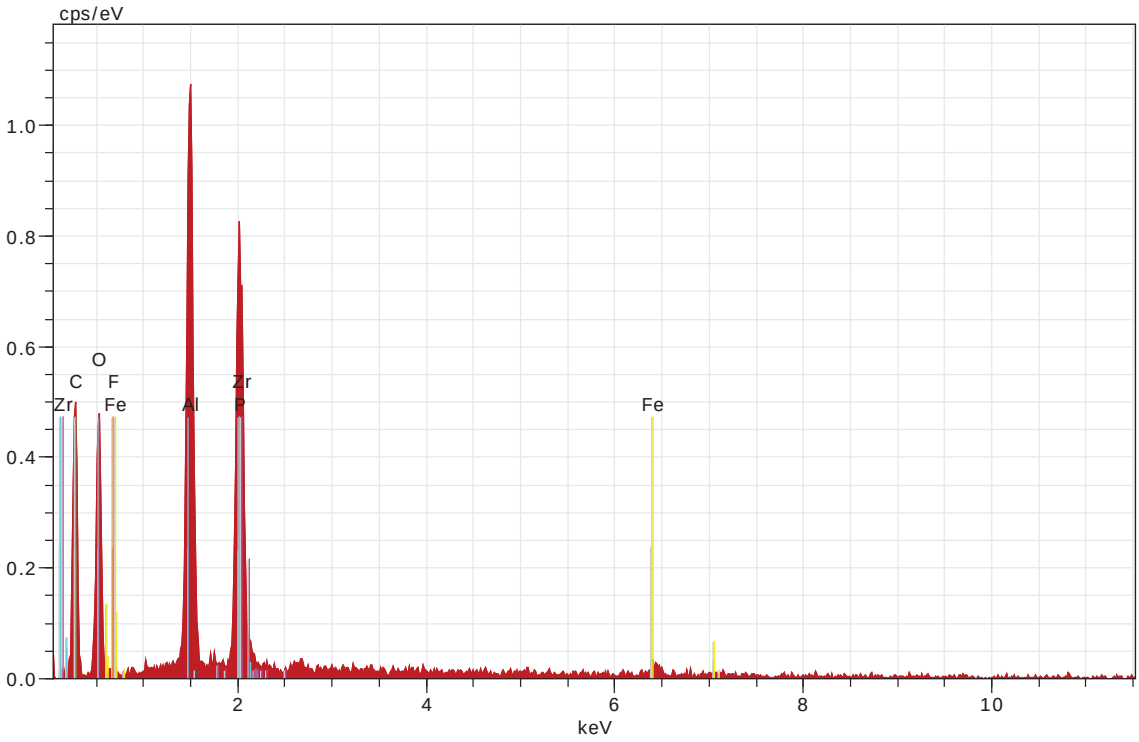
CCR7A 23.2-23.5: BSE image (top) and EDS spectrum (bottom) for apatite matrix; green crosshair on BSE image marks analysis location.



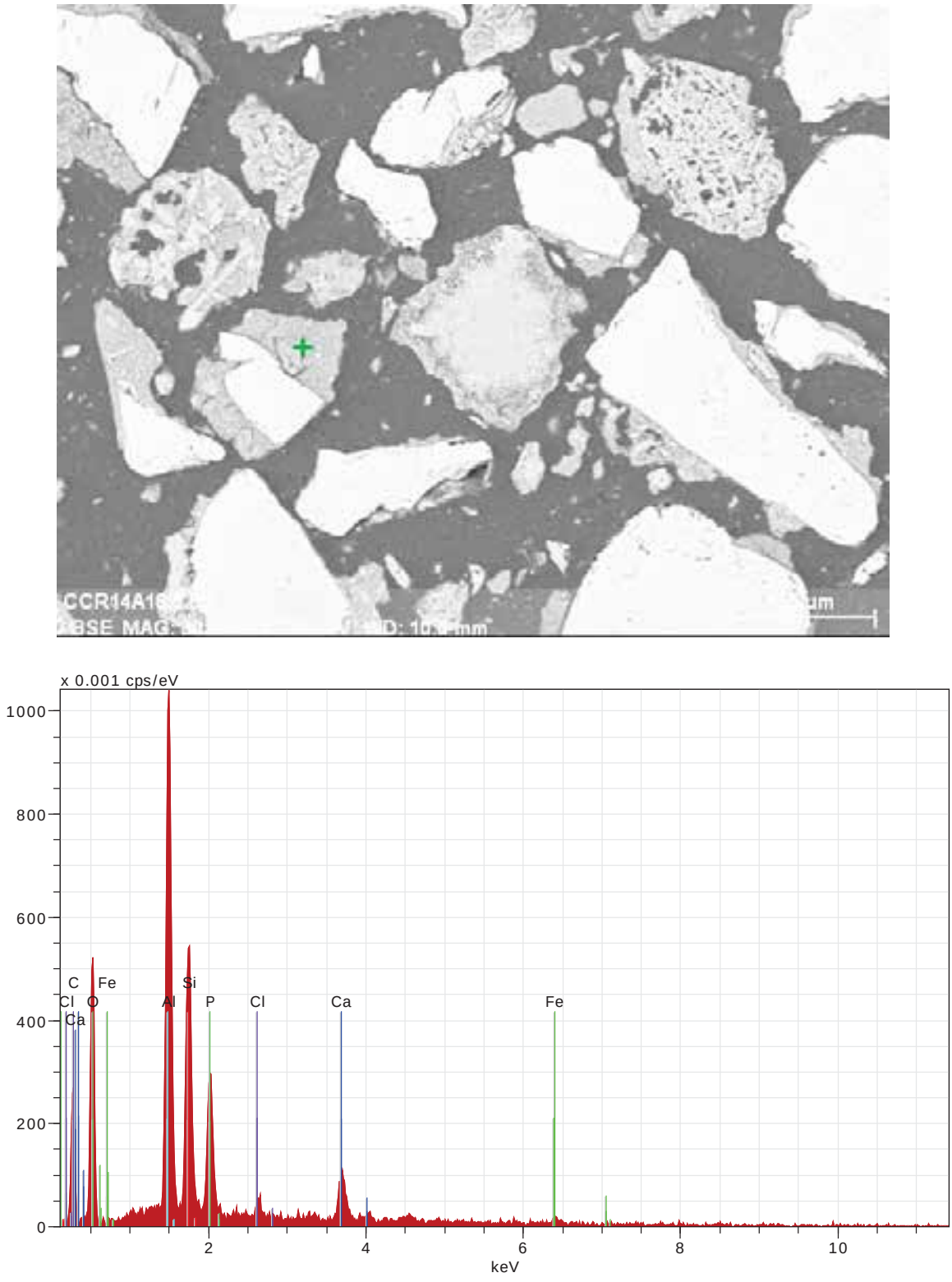


CCR13A 27.8-28.2: BSE image (top) and EDS spectrum (bottom) for kaolinite and muscovite matrix; green crosshair on BSE image marks analysis location.

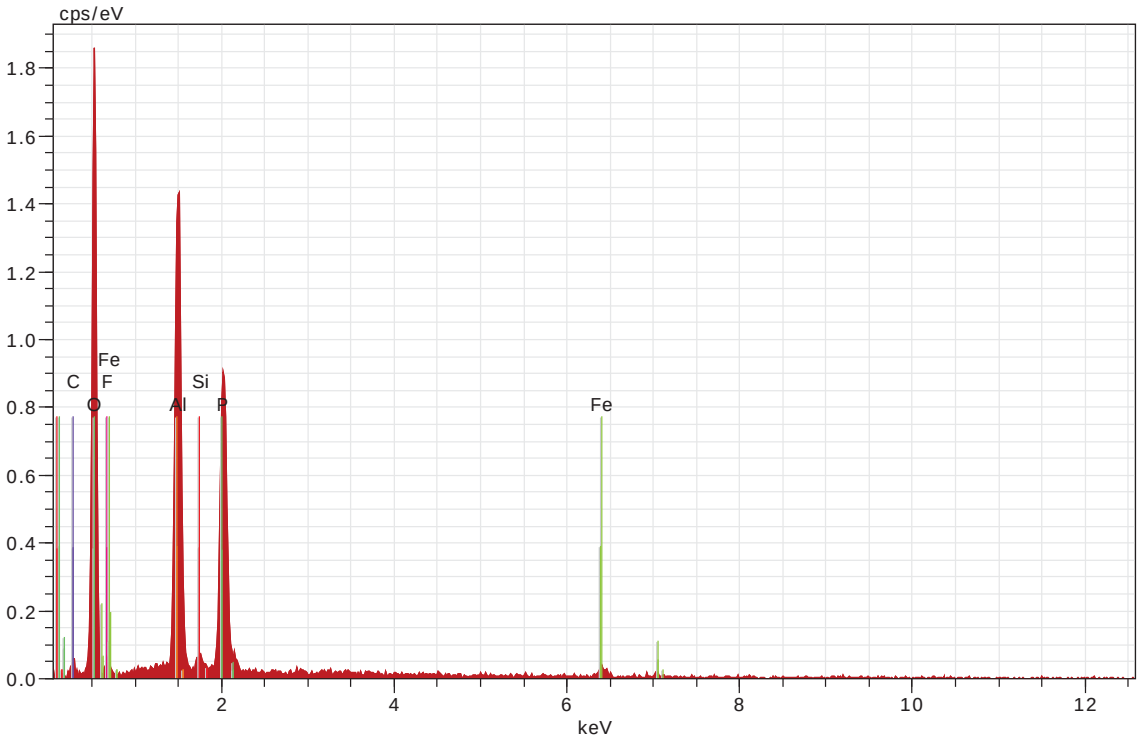




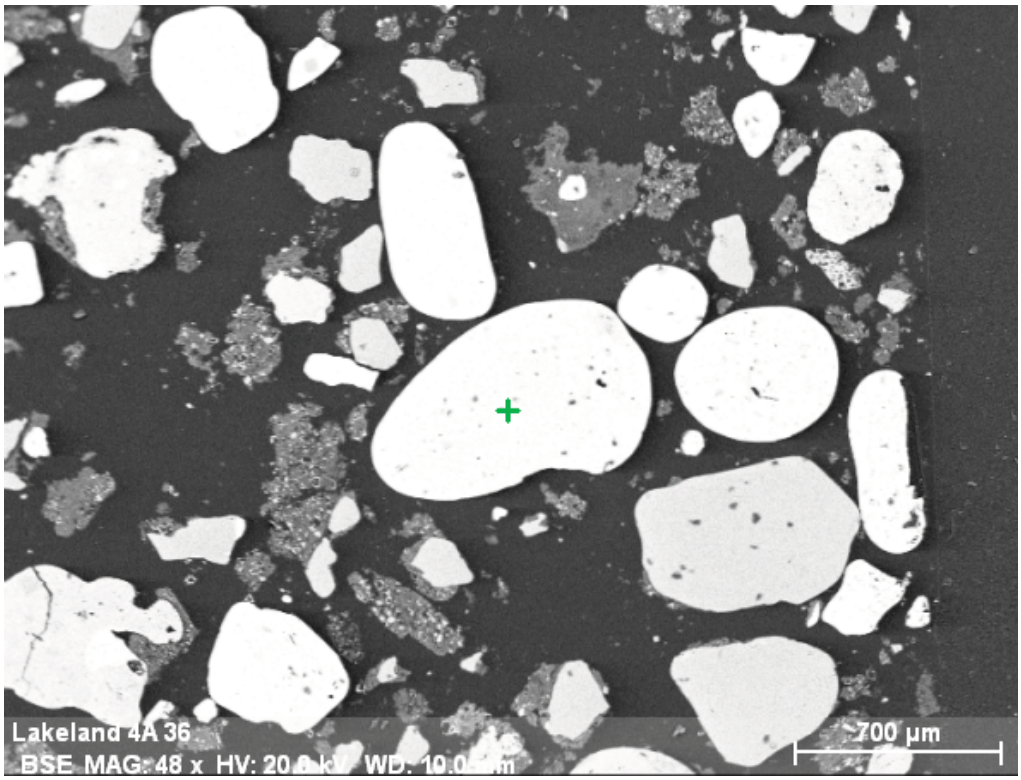
CCR13A 27.8-28.2: BSE image (top) and EDS spectrum (bottom) for wavellite; green crosshair on BSE image marks analysis location.

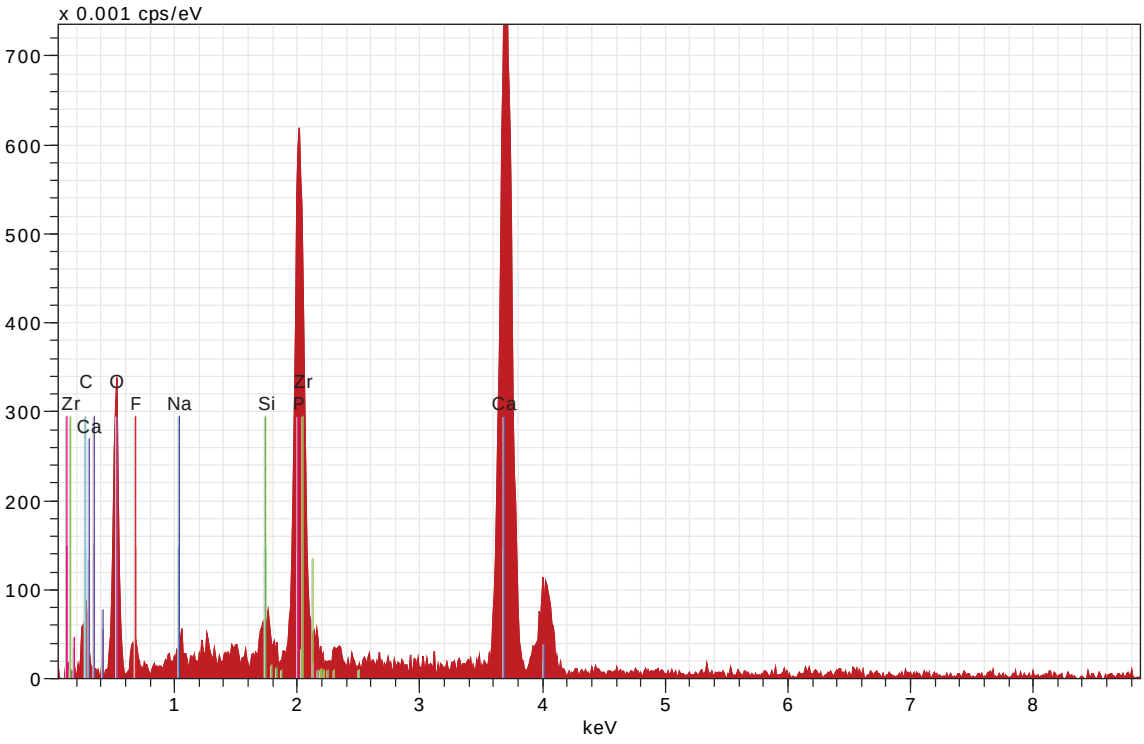


CCR14A 16.5-18.0: BSE image (top) and EDS spectrum (bottom) for apatite and wavellite matrix; green crosshair on BSE image marks analysis location.

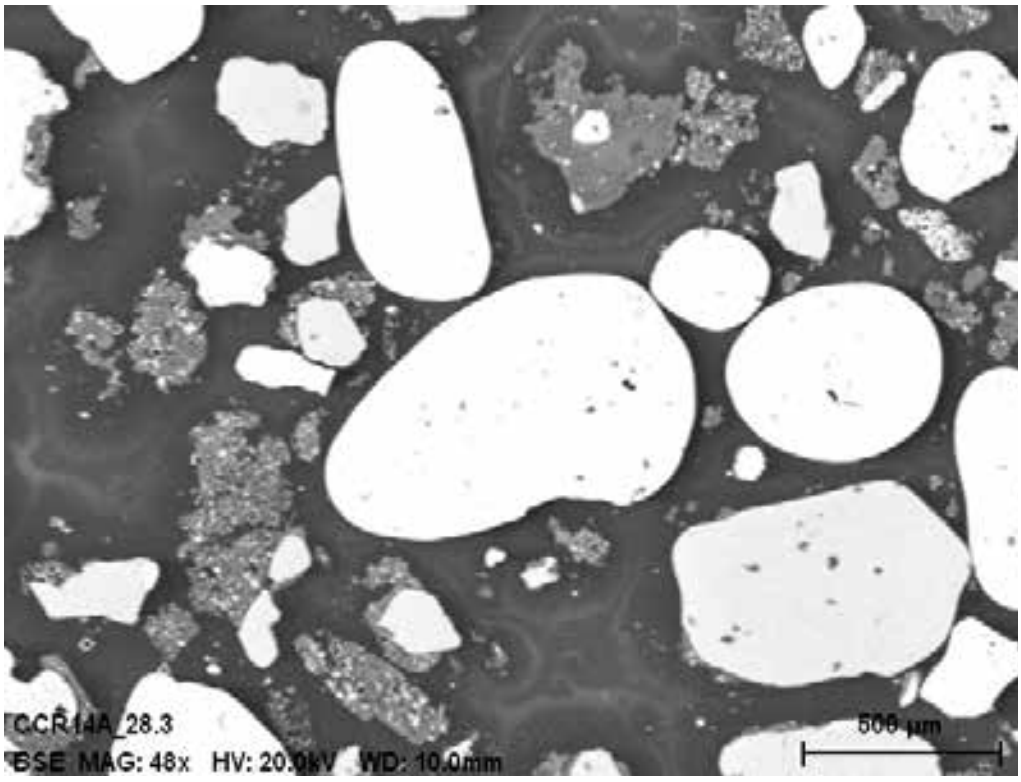


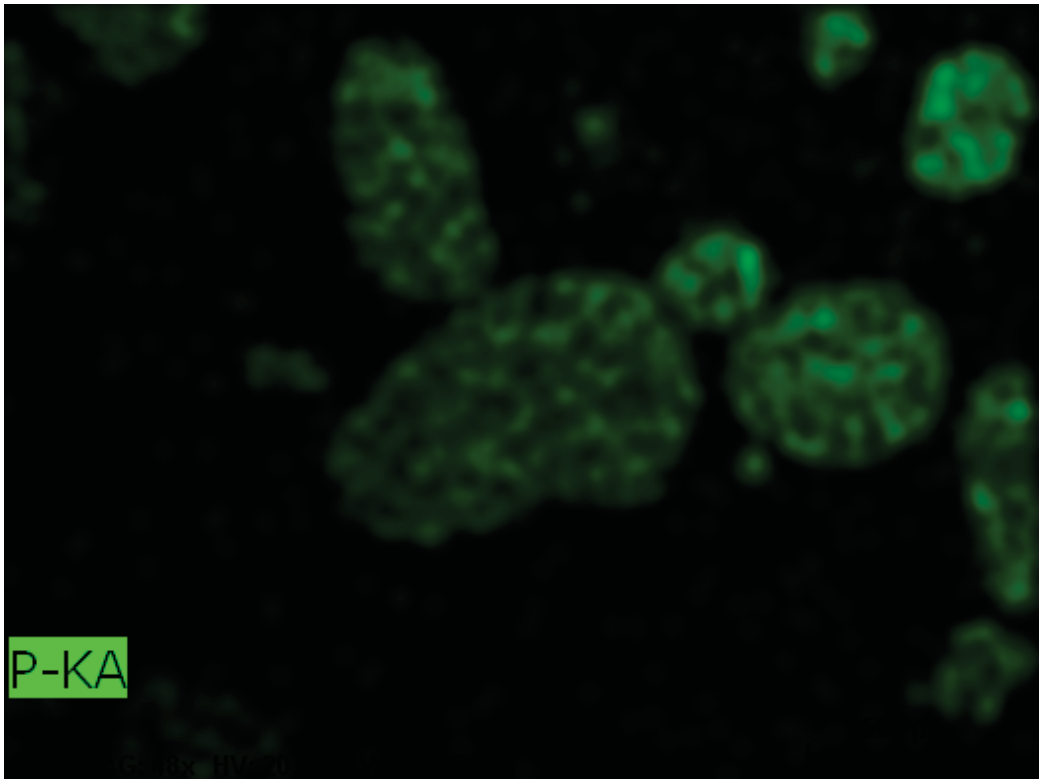
CCR14A 16.5-18.0: BSE image (top) and EDS spectrum (bottom) for wavellite; green crosshair on BSE image marks analysis location.



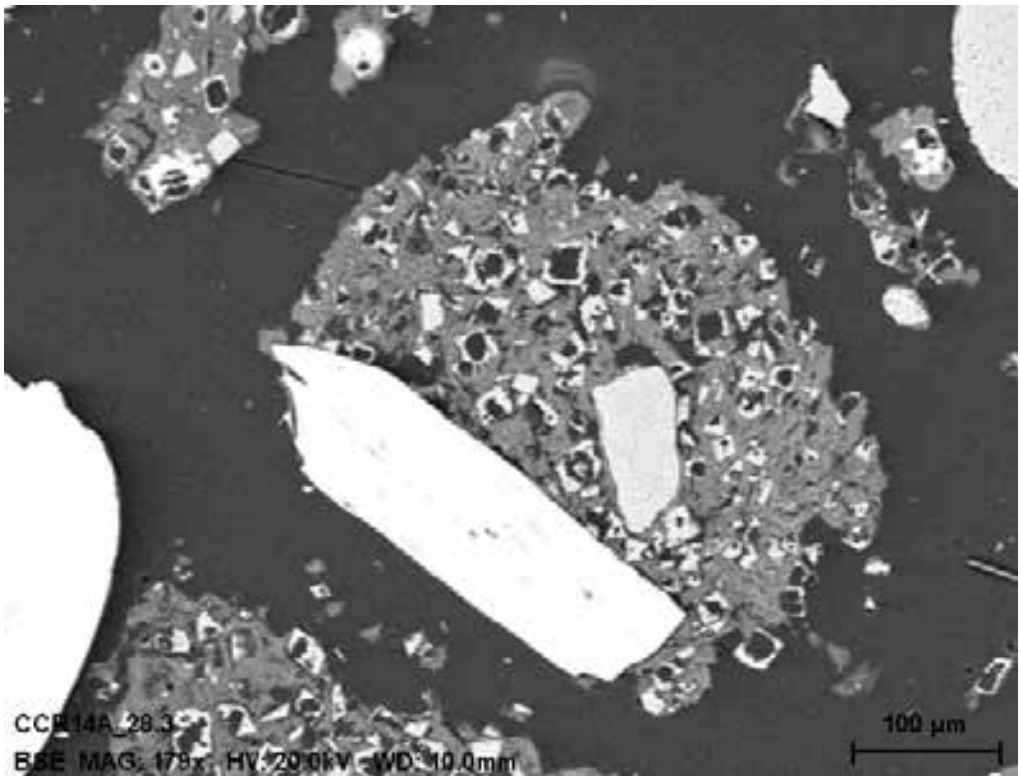


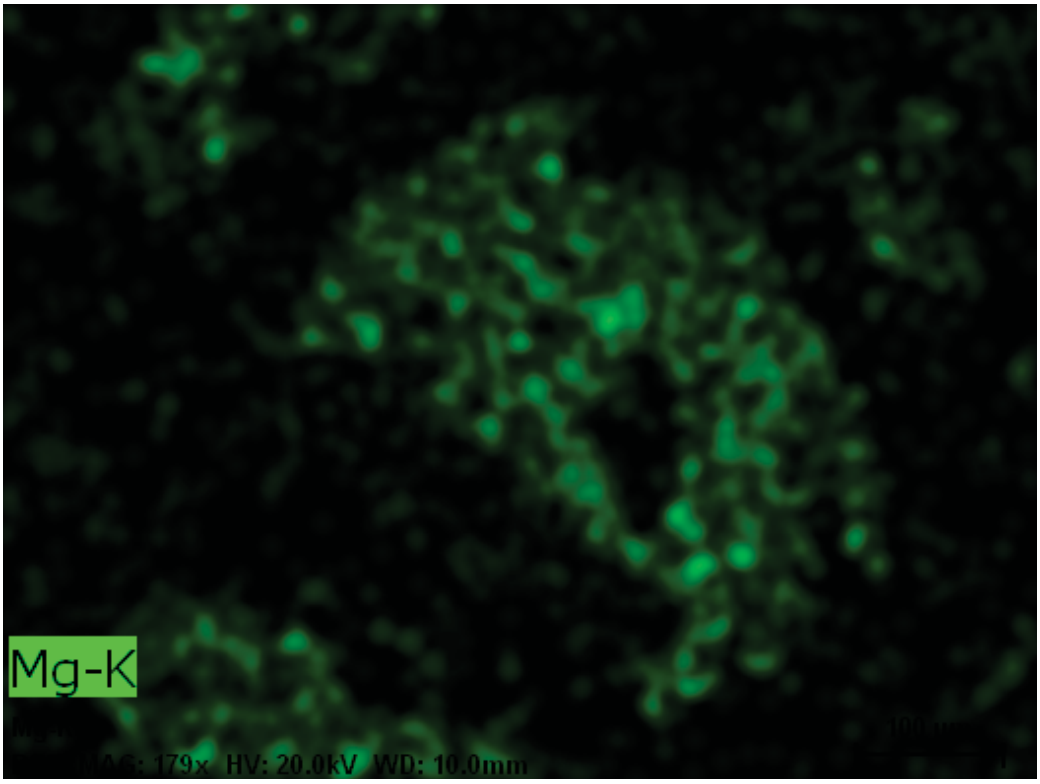
CCR14A 28.3-28.6: BSE image (top) and EDS spectrum (bottom) for collophane (apatite) "ball" with quartz inclusions (light gray); green crosshair on BSE image marks analysis location.





CCR7A 23.2-23.5: BSE image (top) and phosphorous map (bottom) of collophane apatite with quartz inclusions.





CCR7A 23.2-23.5: BSE image (top) of dolomite (high relief rhombohedral grains) in a clay matrix and magnesium map (bottom) of dolomite.

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