2022 Annual Groundwater Monitoring and Corrective Action Report

Burlington Generating Station
Burlington, Iowa

Prepared for:

Alliant Energy

SCS ENGINEERS

25222066.00 | January 31, 2023

2830 Dairy Drive
Madison, WI 53718-6751
608-224-2830

OVERVIEW OF CURRENT STATUS

Burlington Generating Station, Impoundments
2022 Annual Report

In accordance with §257.90(e)(6), this section at the beginning of the annual report provides an overview of the current status of groundwater monitoring and corrective action programs for the coal combustion residual (CCR) unit. The groundwater monitoring system at the Burlington Generating Station (BGS) impoundments is a multi-unit system. Supporting information is provided in the text of the annual report.

Category	Rule Requirement	Site Status
Monitoring Status – Start of Year	(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	Assessment
Monitoring Status – End of Year	(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	Assessment
Statistically Significant Increases (SSIs)	(iii) If it was determined that there was an SSI over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e):	
	(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and	SSIs initially determined on January 15, 2018, based on October 2017 monitoring results. In 2022, SSIs for semiannual events for compliance wells at waste boundary included the following; see Table 5 for complete results. <u>October 2021</u> Boron: MW-301, MW-302, MW-303, MW-304, MW-308, MW-309 Calcium: MW-301 Field pH: MW-302, MW-307, MW-308 Sulfate: MW-301 Total Dissolved Solids: MW-301 <u>April 2022</u> Boron: MW-301, MW-302, MW-303, MW-304, MW-308, MW-309 Calcium: MW-301

Category	Rule Requirement	Site Status
		Field pH: MW-302, MW-304, MW-307, MW-308 Sulfate: MW-301, MW-302, MW-303 Total Dissolved Solids: MW-301
	(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.	July 16, 2018
Statistically Significant Levels (SSL) Above Groundwater Protection Standard (GPS)	(iv) If it was determined that there was an SSL above the GPS for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g) include all of the following:	
	(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;	Lithium: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-302, MW-303, MW-304, MW-306, MW-307, and MW-308. In 2022, concentrations determined to be at SSL above the GPS as follows: <u>April 2022</u> MW-302, MW-303, MW-304, MW-307, MW-308 Molybdenum: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-301, MW-302, MW-304, MW-307, and MW-308. In 2022, concentrations determined to be at SSL above the GPS as follows: <u>April 2022</u> MW-302, , MW-307, MW-307A, MW-308, MW-312, MW-313
	(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;	April 15, 2019
	(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and	October 14, 2020 An additional public meeting will be held prior to remedy selection.
	(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.	September 12, 2019 - Original Assessment of Corrective Measures (ACM) November 25, 2020 – Addendum No. 1 to ACM

Category	Rule Requirement	Site Status
Selection of Remedy	(v) Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and	Selection of remedy is in progress
Corrective Action	(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	Not applicable – Selection of Remedy is in progress

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1.0 INTRODUCTION

This 2022 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the Coal Combustion Residuals (CCR) Rule [40 Code of Federal Regulations (CFR) 257.50-107]. Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90(e). The applicable sections of the Rule are provided below in italics, followed by applicable information relative to the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Units. The Burlington Generating Station (BGS) site location is shown on **Figure 1**.

This report covers the period of groundwater monitoring from January 1, 2022, through December 31, 2022.

The groundwater monitoring system at the BGS impoundments is a multi-unit system. The BGS facility includes four existing CCR units:

- BGS Ash Seal Pond (existing CCR surface impoundment)
- BGS Main Ash Pond (existing CCR surface impoundment)
- BGS Economizer Ash Pond (existing CCR surface impoundment)
- BGS Upper Ash Pond (existing CCR surface impoundment)

The multi-unit system is designed to detect monitored constituents at the waste boundary of the facility as required by 40 CFR 257.91(d). The groundwater monitoring system currently consists of 2 upgradient background monitoring wells, 9 downgradient compliance wells at the waste boundary, 2 supplemental background wells, and 7 additional downgradient delineation wells (**Figure 2** and **Table 1**).

2.0 BACKGROUND

To provide context for the annual report, the following background information is provided in this section of the report, prior to the annual report sections:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Regional Information

The uppermost geologic formation beneath the Burlington plant that meets the definition of the "uppermost aquifer," as defined under 40 CFR 257.53, is the surficial alluvial aquifer. The alluvial aquifer is comprised of Mississippi River valley clay, silt, sand, and sand and gravel deposits. This deposit is present along the edges of the entire Mississippi River valley in southeastern Iowa. A map of the regional glacial geology in the area is included in **Appendix A**.

Regionally, the uppermost bedrock is Mississippian Limestone. A bedrock geology map of the area is located in **Appendix A**. The limestone bedrock is also an aquifer and is likely hydraulically connected to the alluvial aquifer above. Locally, the Mississippian Limestone is absent in some areas due to

erosion, and where it is absent the uppermost bedrock is the Devonian-Mississippian Aquaclude (shale, siltstone, and mudstone).

The regional groundwater flow direction is generally east, from the bedrock uplands west of the site toward the Mississippi River. A map of regional flow in the Mississippian aquifer is included in **Appendix A**.

2.1.2 Site Information

Monitoring wells MW-301 through MW-311 were installed in December 2015 through March 2016 as the initial monitoring system for the CCR Units. The wells were installed to intersect the surficial alluvium aquifer at the site. The unconsolidated material at these well locations is generally clay and silt to approximately 20 feet below ground surface, and these fine-grained sediments are underlain by sand or silty sand. The total boring depths were between 24 and 34 feet, and bedrock was not encountered in any boring. Boring logs, well construction, and development documentation for MW-301 through MW-311 are included in **Appendix B**.

Monitoring wells MW-312 and MW-313 were installed in May 2019 as delineation wells to assess the downgradient extent of groundwater impacts. Both wells were installed near the Mississippi River. Both monitoring wells are screened near the top of the alluvial sands, below a confining clay layer. The total boring depths were 26 feet at MW-312 and 32 feet at MW-313. Boring logs, well construction, and development documentation for MW-312 and MW-313 are included in **Appendix B**.

Monitoring wells MW-302A, MW-307A, and MW-313A were installed in June and July 2020 as additional delineation wells to assess the downgradient vertical extent of groundwater impacts. They were installed as nested wells with MW-302, MW-307, and MW-313. Monitoring well MW-310A was installed in nest with upgradient well MW-310 to provide additional background groundwater information. The boring for well MW-310A encountered bedrock at 25 feet and the well is screened in Mississippian mudstone. The three downgradient delineation wells are screened in the alluvial sands. Total boring depths ranged from 50 to 62 feet. Boring logs, well construction, and development documentation for MW-302A, MW-307A, MW-310A, and MW-313A are included in **Appendix B.**

Monitoring wells MW-307B and MW-313B were installed in May 2021 as additional delineation wells to provide information on vertical groundwater flow and the vertical distribution of target groundwater quality parameters. Each new well was installed adjacent to pre-existing well pairs (MW-307/MW-307A and MW-313/MW-313A). Total boring depths ranged from 75 to 85 feet. Boring logs, well construction, and development documentation for MW-307B and MW-313B are included in **Appendix B.**

Monitoring well MW-314 was installed in February 2022 as a supplemental background monitoring well to evaluate background conditions in the shallow groundwater at a location side-gradient from the CCR Units, but in the same hydrogeologic environment as the compliance and delineation wells. Total boring depth of MW-314 is 24 feet. Boring log, well construction, and development documentation for MW-314 are included in **Appendix B.**

Shallow groundwater at the site generally flows to the east and southeast, toward the Mississippi River. The shallow potentiometric surface elevations and groundwater flow direction in April 2022 are shown on **Figure 3**. In April 2022, shallow groundwater flow was to the east-southeast, toward the river, which is consistent with previous observations at the site. Shallow groundwater elevations could not be collected during the October 2022 sampling event because all shallow compliance

wells were dry due to ongoing dewatering on site to support pond closure activities. Therefore, a flow map was not prepared for October 2022; however, the dry monitoring wells confirm the effectiveness of the dewatering system. With the dewatering system in operation, it is inferred that shallow groundwater flow was toward the extraction wells, which are located around the Upper Ash Pond and Ash Seal Pond.

The deep potentiometric surface elevations and groundwater flow directions in April and October 2022 are shown on **Figures 4** and **5**, respectively. The April 2022 deep potentiometric surface shows a flow direction to the south-southeast with a very shallow gradient. The October 2022 deep potentiometric surface shows a steeper gradient to the south-southwest, which reflects the effects of the dewatering system.

The groundwater elevation data for the CCR monitoring wells are provided in **Table 3**. Estimated horizontal gradients and flow velocities are provided in **Table 4A**. Calculated vertical gradients for the nested wells are provided in **Table 4B**.

2.2 CCR RULE MONITORING SYSTEM

The groundwater monitoring system initially established in accordance with the CCR Rule consists of two upgradient (background) monitoring wells and nine downgradient monitoring wells. The background wells include MW-310 and MW-311. The nine downgradient wells include MW-301, MW-302, MW-303, MW-304, MW-305, MW-306, MW-307, MW-308, and MW-309. The CCR Rule wells are installed in the upper portion of the alluvial aquifer. Well depths range from approximately 19 to 35 feet, measured from the top of the well casing.

As described in Section 2.1.2, two supplemental background wells and nine downgradient delineation wells have been added to support the assessment of the nature and extent of lithium and molybdenum impacts in groundwater.

Although piezometer MW-310A is located upgradient of the CCR units, this supplemental background well has not been used in the statistical evaluation of background conditions because it is not installed in the same hydrostratigraphic unit as the downgradient wells. MW-310A is installed in a low permeability mudstone bedrock, and the other monitoring wells are installed in the overlying alluvial aquifer.

Supplemental background monitoring well MW-314 is located approximately 3300 feet south of the CCR units and is not currently being used in the statistical analysis of background conditions.

3.0 §257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. *For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared*

the annual report when the report is placed in the facility's operating record as required by §257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

3.1 §257.90(e)(1) Site Map

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

A map of the site location is provided on **Figure 1**. A map with an aerial image showing the CCR units and all background (or upgradient) and downgradient monitoring wells with identification numbers for the groundwater monitoring program is provided as **Figure 2**.

3.2 §257.90(E)(2) MONITORING SYSTEM CHANGES

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

One new supplemental background monitoring well, MW-314, was installed to the south of the site to provide additional information on background conditions in the area. The boring log and well construction form are provided in **Appendix B**.

3.3 §257.90(E)(3) SUMMARY OF SAMPLING EVENTS

In addition to all the monitoring data obtained under §§257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Three groundwater sampling events were completed in 2022. The two semiannual sampling events were completed in April 2022 and October 2022 as required by the assessment monitoring program. Supplemental samples from monitoring wells MW-307B and MW-313B were collected in February 2022 to support the selection of remedy process. A supplemental sample was collected from MW-302 for arsenic and field pH in February 2022. A summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection or assessment monitoring programs is included in **Table 2**.

Groundwater samples collected in the February and April 2022 sampling events were analyzed for both Appendix III and Appendix IV constituents, and the results are summarized in **Table 5.** Field parameter results for the 2022 sampling events are provided in **Table 6**. The analytical laboratory reports for 2022 are provided in **Appendix C**. Historical results for each monitoring well are summarized in **Appendix D**.

The validation and evaluation of the April 2022 monitoring event data was completed and transmitted to IPL on July 29, 2022. The validation and evaluation of the October 2022 monitoring event data was in progress at the end of 2022 and will be transmitted to IPL in 2023; therefore, the October 2022 monitoring results will be included in the 2023 annual report. The October 2022 groundwater elevation data is included in this report.

Supplemental groundwater quality parameters were included in the monitoring program in February and April 2022 to support the selection of remedy process. The results for the supplemental parameters are also included in **Table 5**, Field parameter results for the February and April 2022 sampling events are provided in **Table 6**. The analytical reports for February and April 2022 are provided in **Appendix C**, Historical results for each monitoring well through April 2022 are summarized in **Appendix D**.

3.4 §257.90(E)(4) MONITORING TRANSITION NARRATIVE

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);

There was no monitoring program transition in 2022.

An Assessment of Corrective Measures (ACM) was initiated for the BGS CCR Units on April 15, 2019. The ACM was completed on September 12, 2019, and an addendum to the ACM was completed on November 25, 2020. The selection of remedy is in progress. The ACM was initiated in response to the detection of lithium and molybdenum at a statistically significant level (SSL) exceeding the Groundwater Protection Standards (GPS). Assessment monitoring continued during the ACM and will continue during the selection of remedy and implementation of the corrective action program.

In accordance with the Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities (U.S. Environmental Protection Agency [U.S. EPA], 2009), the comparison of assessment monitoring results to the GPS was based on the lower confidence limit (LCL) for the arithmetic mean. The LCL evaluation was completed for the Appendix IV parameters that have been detected at a concentration exceeding the GPS in at least one sample result since assessment monitoring was initiated, which include arsenic, lithium, and molybdenum. The LCLs were calculated with Sanitas™ using historical concentrations measured since assessment monitoring began in August 2018. The LCL evaluations completed in 2022 for the October 2021, February 2022, and April 2022 events, are provided in **Appendix E**.

Based on the LCL evaluation, SSLs above the GPS were identified for the following parameters in compliance wells:

- Lithium: MW-302, MW-303, MW-304, MW-307, MW-308
- Molybdenum: MW-302, MW-307, MW-308

Based on the LCL evaluation, SSLs above the GPS were identified for the following parameters in delineation wells:

- Lithium: None
- Molybdenum: MW-307A, MW-312, MW-313

No SSLs above the GPS were identified for arsenic.

The SSLs for lithium and molybdenum in 2022 were consistent with previous SSL determinations, except that the April 2022 event was the first determination that molybdenum was at an SSL above the GPS at delineation well MW-313.

Additional monitoring wells had arsenic, lithium and/or molybdenum results exceeding the GPS in 2022, but were not determined to be at an SSL above the GPS based on the LCL evaluation.

Because concentrations of arsenic in the upgradient background wells exceed the Environmental Protection Agency's (EPA's) maximum contaminant level (MCL), the GPS for arsenic is established based on background conditions. Consistent with the single-sample GPS approach outlined in the Section 7.4 of the Unified Guidance, the GPS was established based on a background UTL. To evaluate compliance with the background GPS, the LCL for the mean (or median if non-parametric) is compared to the background GPS. The upper tolerance limit calculation completed using Sanitas™ for the October 2021 monitoring event is included in **Appendix E**.

For parameters other than arsenic, the comparison to background was based on a prediction limit approach, comparing the results to interwell UPLs based on background monitoring results from the upgradient wells (MW-310 and MW-311). The interwell UPLs were most recently updated in August 2021 using background data collected through April 2021. The August 2021 interwell UPL update is included as an appendix to the 2021 Annual Groundwater Monitoring Report.

The Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities (U.S. EPA, 2009; Section 5.3.1) recommends periodic updating of background (i.e. UPLs and UTLs) for both intrawell and interwell analyses. For semiannual monitoring, an update interval of 2 to 3 years is recommended.

3.5 §257.90(E)(5) OTHER REQUIREMENTS

Other information required to be included in the annual report as specified in §§257.90 through 257.98.

Additional potentially applicable requirements for the annual report, and the location of the requirement within the Rule, are provided in the following sections. For each cited section of the Rule, the portion referencing the annual report requirement is provided below in italics, followed by applicable information relative to the 2022 Annual Groundwater Monitoring and Corrective Action Report.

3.5.1 §257.90(e) General Requirements

For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year.

Status of Groundwater Monitoring and Corrective Action Program. The groundwater monitoring and corrective action program is currently in the selection of remedy process, with assessment monitoring continuing.

Summary of Key Actions Completed:

- Prepared 2021 Annual Groundwater Monitoring and Corrective Action Report (January 2022).
- Completed statistical evaluation of the October 2021 assessment monitoring event and prepared groundwater monitoring results letter (February 24, 2022).

- Installed new supplemental background well MW-314 (February 2022).
- Prepared groundwater monitoring results letter for February 2022 supplemental sampling event (June 2022).
- Completed statistical evaluation of the April 2022 assessment monitoring event and prepared groundwater monitoring results letter (July 29, 2022).
- Completed two semiannual assessment monitoring events (April and October 2022).
- Prepared semiannual progress reports for the Selection of Remedy process (March and September 2022).
- Prepared well documentation report for the new supplemental background well MW-314 (June 2022).
- Completed Groundwater Treatability Study (July 2022)
- Began excavating CCR from the Ash Seal Pond and placing in Main Ash Pond and Economizer Pond Closure Areas. Began hauling coal/coal impacted material to Main Ash Pond (August 2022).
- Began dewatering well pumping for CCR excavation in the Upper Ash Pond (September 2022).
- Began dewatering well pumping for CCR excavation in the Ash Seal Pond (October 2022)

Description of Any Problems Encountered:

- All shallow compliance monitoring wells were dry during the October 2022 sampling event due to ongoing dewatering activities on site.

Discussion of Actions to Resolve the Problems:

- Sampling was attempted a second time in October 2022, but wells remained dry. An attempt will be made to sample shallow monitoring wells during the assessment monitoring event planned for April 2023, and again later in 2023 when the dewatering system is shut off.

Projection of Key Activities for the Upcoming Year (2023):

- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the October 2022 monitoring event and prepare groundwater monitoring results letter (February 2023).
- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the April 2023 monitoring event and prepare groundwater monitoring results letter (August 2023).
- Complete two semiannual assessment monitoring events (April and October 2023).

- Evaluate the groundwater results from background monitoring wells MW-310 and MW-311 for potential effects from the BGS impoundment (ongoing in 2023)
- Hold an additional public meeting.
- Draft the Selection of Remedy Report.
- Update conceptual site model based on additional findings of nature and extent investigation.
- Continue evaluation of remedial options and design.
- Continue dewatering, CCR removal, and CCR consolidation activities to advance the pond closures.
- Complete the certification process under the wastewater construction permit for rerouting low-volume wastewaters to cease the discharge of non-CCR wastewater to the CCR units (2023).

3.5.2 §257.94(d) Alternative Detection Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. BGS is no longer in the detection monitoring program.

3.5.3 §257.94(e)(2) Alternative Source Demonstration for Detection Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. BGS is no longer in the detection monitoring program.

3.5.4 §257.95(c) Alternative Assessment Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by §257.90(e).

Not applicable. Assessment monitoring has been initiated at the site but no alternative assessment monitoring frequency has been proposed at this time.

3.5.5 §257.95(d)(3) Assessment Monitoring Results and Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by §257.90(e).

The 2022 assessment monitoring results, background UPLs, and GPSs established for BGS are provided in Table 5. The laboratory reports are provided in Appendix C. Historical monitoring results are summarized in Appendix D.

Supplemental groundwater quality parameters were included in the monitoring program in 2022 to support the selection of remedy process. The results for the supplemental parameters are included in Table 5 and in the laboratory reports in Appendix C.

3.5.6 §257.95(g)(3)(ii) Alternative Source Demonstration for Assessment Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. No alternative source demonstration evaluation for assessment monitoring was completed in 2022.

3.5.7 §257.96(a) Extension of Time for Corrective Measures Assessment

The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measure due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

The ACM was initiated on April 15, 2019. The certification demonstrating the need for a 90-day deadline extension was completed on July 10, 2019, and was included in the 2019 annual groundwater monitoring and corrective action report. The ACM was completed on September 12, 2019. Addendum No. 1 to the ACM was completed on November 25, 2020.

3.6 §257.90(E)(6) OVERVIEW

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit.

The specific requirements for the overview under §257.90(e)(6) are listed and the information is provided at the beginning of this report, before the Table of Contents.

4.0 REFERENCE

U.S. Environmental Protection Agency (USEPA), 2009, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, EPA 530-R-09-007, March 2009.

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Tables

Table 1. Groundwater Monitoring Well Network
Burlington Generating Station / SCS Engineers Project #25222066.00

Monitoring Well	Location in Monitoring Network	Role in Monitoring Network
MW-301	Downgradient	Compliance
MW-302	Downgradient	Compliance
MW-302A	Downgradient, deeper	Delineation
MW-303	Downgradient	Compliance
MW-304	Downgradient	Compliance
MW-305	Downgradient	Compliance
MW-306	Downgradient	Compliance
MW-307	Downgradient	Compliance
MW-307A	Downgradient, deeper	Delineation
MW-307B	Downgradient, deeper	Delineation
MW-308	Downgradient	Compliance
MW-309	Downgradient	Compliance
MW-310	Upgradient	Background
MW-310A	Upgradient, deeper	Supplemental Background
MW-311	Upgradient	Background
MW-312	Downgradient	Delineation
MW-313	Downgradient	Delineation
MW-313A	Downgradient, deeper	Delineation
MW-313B	Downgradient, deeper	Delineation
MW-314	Sidegradient	Supplemental Background

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Last revision by: RM Date: 12/16/2022
Checked by: NDK Date: 12/19/2022

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Table 2. CCR Rule Groundwater Samples Summary
Burlington Generating Station
SCS Engineers Project #25222066.00

	Compliance wells		Delineation Well	Compliance wells					Delineation Wells		Compliance wells		Background Wells				Delineation Wells			
Sample Dates	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-314	MW-312	MW-313	MW-313A	MW-313B
2/22/2022	--	A-S	--	--	--	--	--	--	--	A-S	--	--	--	--	--	--	--	--	--	A-S
4/4-6/2022	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
10/20/2022	--	--	A	--	--	--	--	--	A	A	--	--	--	A	--	A	--	A	A	A
Total Samples	1	2	2	1	1	1	1	1	2	3	1	1	1	2	1	2	1	2	2	3

Abbreviations:
A = Assessment Monitoring Program
A-S = Supplemental Sampling Event for Assessment Monitoring Program
-- = Not Sampled
NI = Not Installed

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Table 3. Groundwater Elevation Summary
Burlington Generating Station / SCS Engineers Project #25222066.00

	Groundwater Elevation in feet above mean sea level (amsl)																			
Well Number	**MW-301**	**MW-302**	**MW-302A**	**MW-303**	**MW-304**	**MW-305**	**MW-306**	**MW-307**	**MW-307A**	**MW-307B**	**MW-308**	**MW-309**	**MW-310**	**MW-310A**	**MW-311**	**MW-312**	**MW-313**	**MW-313A**	**MW-313B**	**MW-314**
Top of Casing Elevation (feet amsl)	538.38	535.69	535.89	533.60	534.42	533.28	536.92	536.96	536.22	536.65	537.20	536.42	531.99	532.53	532.32	536.43	535.82	536.03	536.14	526.58
Screen Length (ft)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Depth (ft from top of casing)	31.90	29.95	62.55	28.59	25.27	29.43	34.41	28.64	61.93	80.00	30.31	27.31	18.76	48.8	22.63	27.70	32.97	63.38	72.0	25.47
Top of Well Screen Elevation (ft)	511.48	510.74	478.34	510.01	514.15	508.85	507.51	513.32	479.29	461.65	511.89	514.11	518.23	488.73	514.69	513.80	507.85	477.65	469.14	506.11
Measurement Date																				
April 20, 2016	522.63	521.91	NI	521.76	521.78	521.96	521.74	522.38	NI	NI	521.93	522.09	525.43	NI	523.72	NM	NM	NI	NI	NI
June 6 & 7, 2016	521.07	521.21	NI	521.26	521.28	521.48	521.43	521.75	NI	NI	521.43	521.39	524.13	NI	521.80	NM	NM	NI	NI	NI
August 16 & 17, 2016	521.81	521.35	NI	521.31	521.37	521.46	521.53	521.91	NI	NI	521.56	521.70	524.84	NI	522.92	NM	NM	NI	NI	NI
October 3, 2016	527.48	527.54	NI	527.57	527.57	527.71	527.67	527.81	NI	NI	527.62	527.57	527.58	NI	527.34	NM	NM	NI	NI	NI
January 9 & 10, 2017	525.38	525.50	NI	525.56	525.62	525.74	525.67	525.81	NI	NI	525.65	525.57	525.78	NI	525.16	NM	NM	NI	NI	NI
April 3 & 4, 2017	523.08	522.84	NI	522.81	522.87	523.03	523.07	523.14	NI	NI	523.07	523.10	525.52	NI	524.01	NM	NM	NI	NI	NI
June 12 & 13, 2017	523.21	522.84	NI	522.80	522.90	522.78	522.87	523.17	NI	NI	522.90	522.91	524.94	NI	523.55	NM	NM	NI	NI	NI
August 15 & 16, 2017	519.96	519.39	NI	519.30	519.23	519.93	519.82	520.16	NI	NI	519.80	519.93	523.89	NI	521.12	NM	NM	NI	NI	NI
October 16, 2017	522.13	522.20	NI	522.23	522.32	522.48	522.72	522.55	NI	NI	522.46	522.67	525.49	NI	523.44	NM	NM	NI	NI	NI
May 8 & 9, 2018	525.51	525.81	NI	525.80	525.85	526.06	526.00	526.06	NI	NI	525.62	525.54	525.79	NI	525.08	NM	NM	NI	NI	NI
August 13 & 14, 2018	520.19	519.87	NI	519.78	519.81	520.29	520.14	520.46	NI	NI	520.22	520.22	523.69	NI	521.06	NM	NM	NI	NI	NI
October 9 &10, 2018	528.01	528.08	NI	528.78	528.82	528.97	528.95	529.08	NI	NI	528.98	528.93	529.00	NI	528.49	NM	NM	NI	NI	NI
March 11, 2019	523.38	522.83	NI	522.74	522.80	NM	523.21	523.49	NI	NI	523.13	NM	NM	NI	NM	NM	NM	NI	NI	NI
April 3, 2019	528.15	528.21	NI	528.22	528.27	528.36	528.40	528.63	NI	NI	528.39	528.40	528.62	NI	528.20	NM	NM	NI	NI	NI
June 6, 2019	530.70	531.02	NI	531.00	531.04	TOC	531.19	531.38	NI	NI	531.15	531.08	531.48	NI	531.07	531.08	531.05	NI	NI	NI
October 10 & 11, 2019	526.80	526.88	NI	526.87	526.97	527.03	527.22	527.45	NI	NI	527.08	527.02	526.25	NI	526.68	526.97	526.97	NI	NI	NI
June 2-4, 2020	523.94	523.98	NI	523.97	524.02	524.12	524.45	524.62	NI	NI	524.10	524.06	525.36	NI	524.05	524.05	524.02	NI	NI	NI
September 9, 2020	519.90	519.79	519.71	519.73	519.83	520.00	520.14	520.41	519.97	NI	520.11	520.13	524.13	509.16	520.87	519.85	519.83	519.76	NI	NI
October 14-16 & 19, 2020	519.26	518.94	518.79	518.78	518.69	519.00	519.05	519.33	519.00	NI	519.02	519.28	523.81	489.84	520.59	518.68	518.70	518.61	NI	NI
March 1-3, 2021	521.10	520.21	520.14	520.09	520.15	520.48	520.65	521.01	520.52	NI	520.70	520.75	--	487.06	522.89	520.12	520.18	520.02	NI	NI
April 19 - 20, 2021	522.87	522.27	522.25	522.13	522.24	522.31	522.52	522.89	522.39	NI	522.57	522.72	525.46	521.12	523.89	522.20	522.23	522.11	NI	NI
July 1, 2021	NM	NM	NM	NM	NM	NM	NM	NM	NM	520.12	NM	NM	NM	NM	NM	NM	NM	NM	519.51	NI
September 21-22, 2021	NM	NM	NM	NM	518.29	NM	NM	NM	NM	NM	NM	NM	524.42	NM	NM	NM	NM	NM	NM	NI
October 11-14, 2021	519.40	518.75	518.64	518.58	518.68	519.18	519.15	519.55	519.09	519.13	519.25	519.43	524.69	521.83	522.00	518.78	518.72	518.62	518.72	NI
February 22, 2022	NM	519.03	NM	NM	NM	NM	NM	519.74	519.32	519.37	NM	NM	NM	NM	NM	NM	518.91	518.81	518.88	NI
April 4-6, 2022	522.99	522.34	522.28	522.20	522.41	522.60	522.63	522.91	522.47	522.37	522.61	522.74	525.44	522.58	523.78	522.51	522.48	522.38	522.45	522.27
October 17-20, 2022	DRY	DRY	506.87	DRY	DRY	DRY	DRY	DRY	508.27	508.35	DRY	DRY	DRY	512.84	DRY	DRY	512.08	511.86	511.91	517.58
Bottom of Well Elevation (ft)	506.48	505.74	473.34	505.01	509.15	503.85	502.51	508.32	474.29	456.65	506.89	509.11	513.23	483.73	509.69	508.73	502.85	472.65	464.14	501.11

Notes:
NM = not measured
TOC = top of casing
NI = not installed

Created by: MDB Date: 6/15/2016
Last revision by: DK Date: 10/20/2022
Checked by: NDK Date: 10/26/2022

I:\25222066.00\Deliverables\2022 BGS Fed CCR Annual Report\Tables\[Table 3 - GW Elevation Summary - BGS.xls]levels

Table 4A. Horizontal Gradients and Flow Velocity Table
Burlington Generating Station
SCS Engineers Project #25222066.00
2022

	Flow Path A - Shallow Potentiometric Surface					
Sampling Dates	**h1 (ft)**	**h2 (ft)**	**Δl (ft)**	**Δh/Δl (ft/ft)**	**V (ft/d)**	**Direction**
April 4-6, 2022	524.00	522.51	1530.93	0.0010	0.24	East-Southeast
October 20, 2022	Not sampled due to dewatering System in place					

	Flow Path B - Deeper Potentiometric Surface					
Sampling Dates	**h1 (ft)**	**h2 (ft)**	**Δl (ft)**	**Δh/Δl (ft/ft)**	**V (ft/d)**	**Direction**
April 4-6, 2022	522.40	522.28	806.95	0.0001	0.04	South-Southeast
October 20, 2022	511.86	508.00	626.76	0.0062	1.53	South-Southwest

Well	**K Values (cm/sec)**	**K Values (ft/d)**
MW-301	1.6E-03	4.4
MW-302	2.9E-02	82
MW-302A	4.9E-02	140
MW-303	8.3E-03	24
MW-304	6.0E-02	171
MW-305	6.1E-02	173
MW-306	1.0E-01	295
MW-307	8.5E-03	24
MW-307A	4.1E-02	116
MW-307B	6.2E-02	175
MW-308	7.6E-02	215
MW-309	1.2E-02	34
MW-310	3.7E-02	104
MW-310A	1.49E-07	0
MW-311	9.1E-03	26
MW-312	6.6E-02	187
MW-313	1.1E-01	298
MW-313A	1.2E-01	334
MW-313B	4.8E-02	135
Geometric Mean	3.5E-02	100

Assumed Porosity, n
0.40

ft = feet
ft/d = feet per day
K = hydraulic conductivity
n = effective porosity

h1, h2 = point interpreted groundwater elevation at locations 1 and 2
Δl = distance between location 1 and 2
Δh/Δl = hydraulic gradient
V = groundwater flow velocity

1. MW-310, MW-310A, and MW-311 are background wells and are not included in geometric mean calculation
2. See Figures 3, 4, and 5 for velocity calculation flow path locations.

Groundwater flow velocity equation: $V = [K*(\Delta h/\Delta l)] / n$

Created by: NDK Date: 9/19/2022
Last revision by: NDK Date: 12/13/2022
Checked by: RM Date: 12/15/2022

Table 4B. Vertical Gradients
Burlington Generating Station / SCS Engineers Project #25222066.00
January - December 2022

Vertical Hydraulic Gradients	MW302/MW302A		MW307/MW307A		MW-307A/MW-307B		MW310/MW310A		MW313/MW313A		MW313A/MW313B	
Shallow Well	MW302		MW307		MW-307A		MW310		MW313		MW313A	
Screen midpoint (feet amsl)	508.24		510.82		476.79		515.73		505.35		475.15	
Deep Well	MW302A		MW307A		MW-307B		MW310A		MW313A		MW313B	
Screen midpoint (feet amsl)	475.84		476.79		459.15		486.23		475.15		466.64	
Measurement Date	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**	**Distance between midpoints (feet)**	**Vertical Gradient (ft/ft)**
February 22, 2022	32.4	NC*	34.0	-0.012	17.6	0.003	29.5	NC*	30.2	-0.003	8.5	0.008
April 4-6, 2022	32.4	-0.002	34.0	-0.013	17.6	-0.006	29.5	-0.097	30.2	-0.003	8.5	0.008
October 17, 2022	NC-DRY		NC-DRY		17.6	0.005	NC-DRY		30.2	-0.007	8.5	0.006
October 20, 2022	NC-DRY		NC-DRY		17.6	0.005	NC-DRY		30.2	-0.007	8.5	0.006

Notes:
1: A positive vertical gradient indicates upward groundwater flow. A negative gradient indicates downward flow.
NC: Not Calculated
*: Groundwater elevation was not measured at one well in the pair, therefore vertical gradient cannot be calculated.
DRY: Shallow well was dry, vertical gradient cannot be calculated.
NI: Not Installed
NI: Deeper piezometer not yet installed

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Table 5. Groundwater Analytical Results Summary - Assessment Monitoring - 2022
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00

Parameter Name	UPL Method	UPL	GPS	Background Wells	Supplemental Background Wells	Background Wells	Supplemental Background Wells	Compliance Wells			Delineation Well	Compliance Wells					Delineation Wells		
				MW-310	MW-310A	MW-311	MW-314	MW-301	MW-302		MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	
				4/4/2022	4/6/2022	4/4/2022	4/6/2022	4/6/2022	2/22/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/6/2022	4/5/2022	4/5/2022	4/5/2022	2/22/2022	4/5/2022
Appendix III																			
Boron, ug/L	NP	3,500		230	910	1,600	360	11,000	--	11,000	15,000	22,000	12,000	2,400	3,300	3,300	4,000	4,000	6,700
Calcium, mg/L	P	220		80	52	160	150	260	--	190	160	140	130	110	45	46	11	71.0	84
Chloride, mg/L	P	193		10	11	85	13	19	--	12	21	16	27	31	19	20	37	25.0	35
Fluoride, mg/L	P	0.650		<0.22	<0.22	<0.22	<0.22	<0.22	--	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
Field pH, Std. Units	P	7.55		7.38	7.29	7.22	6.79	6.96	8.16	8.05	7.25	7.36	8.08	7.25	5.95	9.88	7.78	7.43	7.36
Sulfate, mg/L	P	288		74	89	170	130	550	--	310	450	310	240	19	120	190	120	120	180
Total Dissolved Solids, mg/L	P	1,160		320 H	540 H	750 H	630 H	1,300 H	--	770 H	910 H	650 H	640 H	490 H	310 H	360 H	360 H	310	410 H
Appendix IV		**UPL**	**GPS**																
Antimony, ug/L	P*	1.90	6	<0.69	<0.69	<0.69	<0.69	<0.69	--	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<2.8	<0.69
Arsenic, ug/L**	P	79.8	79.8	52	1.2 J	19	4.1	80	94	86	3.0	5.7	44	0.92 J	48	41	<0.75	<0.75	<0.75
Barium, ug/L	P	829	2,000	270	61	220	330	190	--	320	310	270	140	210	19	41	46	350	450
Beryllium, ug/L	NP*	0.270	4	<0.27	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Cadmium, ug/L	NP*	0.0770	5	<0.055	<0.055	<0.055	<0.055	0.19	--	0.055 J	0.087 J	0.097 J	<0.055	<0.055	<0.055	<0.055	0.084 J	<0.055	<0.055
Chromium, ug/L	P*	1.33	100	<1.1	<1.1	<1.1	<1.1	<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt, ug/L	P	2.70	6	1.2	2.6	0.30 J	0.48 J	0.70	--	0.21 J	0.20 J	0.35 J	<0.19	0.22 J	<0.19	<0.19	<0.19	<0.19	<0.19
Fluoride, mg/L	P	0.650	4	<0.22	<0.22	<0.22	<0.22	<0.22	--	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
Lead, ug/L	NP*	1.10	15	<0.24	0.29 J	<0.24	<0.24	<0.24	--	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	1.2	<0.24	<0.24
Lithium, ug/L	NP*	9.80	40	<2.5	38	<2.5	3.9 J	12	--	78	22	80	74	36	42	50	8.5 J	9.4 J	11
Mercury, ug/L	DQ	DQ	2	<0.11	<0.11	<0.11	<0.11	<0.11	--	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Molybdenum, ug/L	NP	25.2	100	5.2	14	8.9	1.2 J	55	--	89	120	190	85	<1.2	74	100	120	37.0	59
Selenium, ug/L	P*	1.00	50	<0.96	<0.96	<0.96	<0.96	<0.96	--	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
Thallium, ug/L	NP*	0.500	2	<0.26	<0.26	<0.26	<0.26	<0.26	--	1.8	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Radium 226/228 Combined, pCi/L	P	3.28	5	0.838	0.842	0.593	1.3	1.69	--	0.687	2.14	1.52	0.469	0.768	0.489	0.134	0.326	0.710	1.50
Additional Parameters for Selection of Remedy																			
Lithium, dissolved, ug/L	UPL or GPS not applicable			<2.5	38	<2.5	4.8 J	13	--	80	21	77	72	34	37	47.0	7.7 J	7.9 J	10.0
Iron, dissolved, ug/L				15,000	88 J	17,000	12,000	40,000	--	1,300	8,400	4,400	830	1,500	<36	<36	440	1,700	2100
Iron, ug/L				16,000	85 J	17,000	13,000	43,000	--	1,200	8,800	4,600	990	1,700	<36	<36	530	1,900	2300
Magnesium, ug/L				18,000	21,000	31,000	47,000	78,000	--	14,000	34,000	16,000	6,400	21,000	<150	<150	1,600	15,000	15,000
Manganese, dissolved, ug/L				3,700	150	5,700	7700	22,000	--	1,000	3,800	3,400	880	2,300	5.7 J	6.8 J	400	470	770
Manganese, ug/L				3,800	280	6,000	7800	19,000	--	930	4,000	3,500	920	2,400	6.0 J	7.5 J	420	500	810
Molybdenum, dissolved, ug/L				5.6	17	8.6	1.6 J	53	--	89	120	180	83	1.5 J	81	140	120	37.0	58
Potassium, ug/L				1,700	5,000	2,000	550	3,700	--	14,000	4,400	22,000	13,000	6,000	22,000	38,000	3,100	2,200	3,200
Sodium, ug/L				8,400	140,000	57,000	11,000	130,000	--	33,000	70,000	29,000	51,000	49,000	46,000	56,000	110,000	23,000	35,000
Bicarbonate Alkalinity, mg/L				240	450	410	460	740	--	310	250	210	250	470	100	21	150	160	130
Carbonate Alkalinity, mg/L				<4.6	<4.6	<4.6	<4.6	<4.6	--	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	82	<4.6	<4.6	<4.6
Total Alkalinity, mg/L				240	450	410	460	740	--	310	250	210	250	470	100	100	150	160	130

4.4 Blue highlighted cell indicates the compliance well result exceeds the UPL (background) and the LOQ.

30.8 Yellow highlighted cell indicates the compliance well result exceeds the GPS.

17 Grayscale indicates Additional Parameters sampled for selection of remedy and evaluation of Monitored Natural Attenuation.

Table 5. Groundwater Analytical Results Summary - Assessment Monitoring - 2022
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00

Parameter Name	UPL Method	UPL	GPS	Compliance Wells		Delineation Wells				
				MW-308	MW-309	MW-312	MW-313	MW-313A	MW-313B	
				4/4/2022	4/4/2022	4/6/2022	4/6/2022	4/6/2022	2/22/2022	4/6/2022
Appendix III										
Boron, ug/L	NP	3,500		4,400	3,900	6,900	5,700	4,400	5,500	5,800
Calcium, mg/L	P	220		42	59	69	57	28	51.0	55
Chloride, mg/L	P	193		37	53	25	200	69	56.0	52
Fluoride, mg/L	P	0.650		<0.22	<0.22	<0.22	<0.22	0.24 J	<0.22	<0.22
Field pH, Std. Units	P	7.55		9.58	7.18	7.35	7.14	7.62	7.64	7.50
Sulfate, mg/L	P	288		190	99	230	200	110	120	120
Total Dissolved Solids, mg/L	P	1,160		470 H	450 H	490 H	620 H	430 H	360	390 H
Appendix IV		**UPL**	**GPS**							
Antimony, ug/L	P*	1.90	6	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69
Arsenic, ug/L**	P	79.8	79.8	62	21	12	4.3	<0.75	<0.75	<0.75
Barium, ug/L	P	829	2,000	85	260	130	290	170	190	210
Beryllium, ug/L	NP*	0.270	4	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Cadmium, ug/L	NP*	0.0770	5	<0.055	<0.055	0.090 J	0.086 J	<0.055	<0.055	<0.055
Chromium, ug/L	P*	1.33	100	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt, ug/L	P	2.70	6	<0.19	0.42 J	0.28 J	0.33 J	<0.19	<0.19	<0.19
Fluoride, mg/L	P	0.650	4	<0.22	<0.22	<0.22	<0.22	0.24 J	<0.22	<0.22
Lead, ug/L	NP*	1.10	15	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Lithium, ug/L	NP*	9.80	40	57	2.9 J	28	18	12	13.0	13
Mercury, ug/L	DQ	DQ	2	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Molybdenum, ug/L	NP	25.2	100	100	62	210	190	100	89.0	100
Selenium, ug/L	P*	1.00	50	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
Thallium, ug/L	NP*	0.500	2	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Radium 226/228 Combined, pCi/L	P	3.28	5	0.321	0.847	0.443	1.36	0.828	0.912	1.01
Additional Parameters for Selection of Remedy										
Lithium, dissolved, ug/L	UPL or GPS not applicable			54	2.7 J	28	19	11	12.0	13
Iron, dissolved, ug/L				<36	9,100	5,200	7,400	850	1,000	1,000
Iron, ug/L				<36	11,000	5,700	7,900	2,000	1,100	1,100
Magnesium, ug/L				1,300	18,000	7,700	12,000	2,100	7,200	7,800
Manganese, dissolved, ug/L				120	2,800	7,800	4,200	350	460	480
Manganese, ug/L				130	3,000	8,000	4,300	370	430	510
Molybdenum, dissolved, ug/L				110	59	210	180	97	91.0	97
Potassium, ug/L				39,000	2,100	13,000	6,200	7,100	5,500	5,800
Sodium, ug/L				87,000	81,000	67,000	140,000	120,000	69,000	67,000
Bicarbonate Alkalinity, mg/L				21	240	150	110	120	140	140.0
Carbonate Alkalinity, mg/L				82	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6
Total Alkalinity, mg/L				100	240	150	110	120	140	140

Table 5. Groundwater Analytical Results Summary - Assessment Monitoring - 2022
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00

Abbreviations:

UPL = Upper Prediction Limit
NA = Not Analyzed
mg/L = milligrams per liter
GPS = Groundwater Protection Standard
DQ = Double Quantification Rule (not detected in background)
NP = Nonparametric UPL (highest background value) with 1-of2- retesting
LOD = Limit of Detection
LOQ = Limit of Quantification
P = Parametric UPL with 1-of-2 retesting

J = Estimated concentration at or above the LOD and below the LOQ.
H = Sample was prepped or analyzed beyond the specified holding time

* = UPL is below the LOQ for background sampling. For compliance wells, only results confirmed above the LOQ are evaluated as potential SSIs above background.
** = UPL for arsenic is greater than the MCL and will be used as the GPS.

Notes:

1. An individual result above the UPL or GPS does not constitute a statistically significant increase (SSI) above background or statistically significant level above the GPS. See the accompanying letter text for identification of statistically significant results.
2. GPS is the United States Environmental Protection Agency (US EPA) Maximum Contamination Level (MCL), if established, or the value from 40 CFR 257.95(h)(2), or the background UPL if it is higher.
3. Interwell UPLs calculated based on results from background wells MW-310 and MW-311.

Created by: NDK Date: 9/19/2022
Last revision by: RM Date: 1/11/2023
Checked by: MDB Date: 1/16/20023
Scientist or Proj Mgr QA/QC: TK Date: 1/19/2023

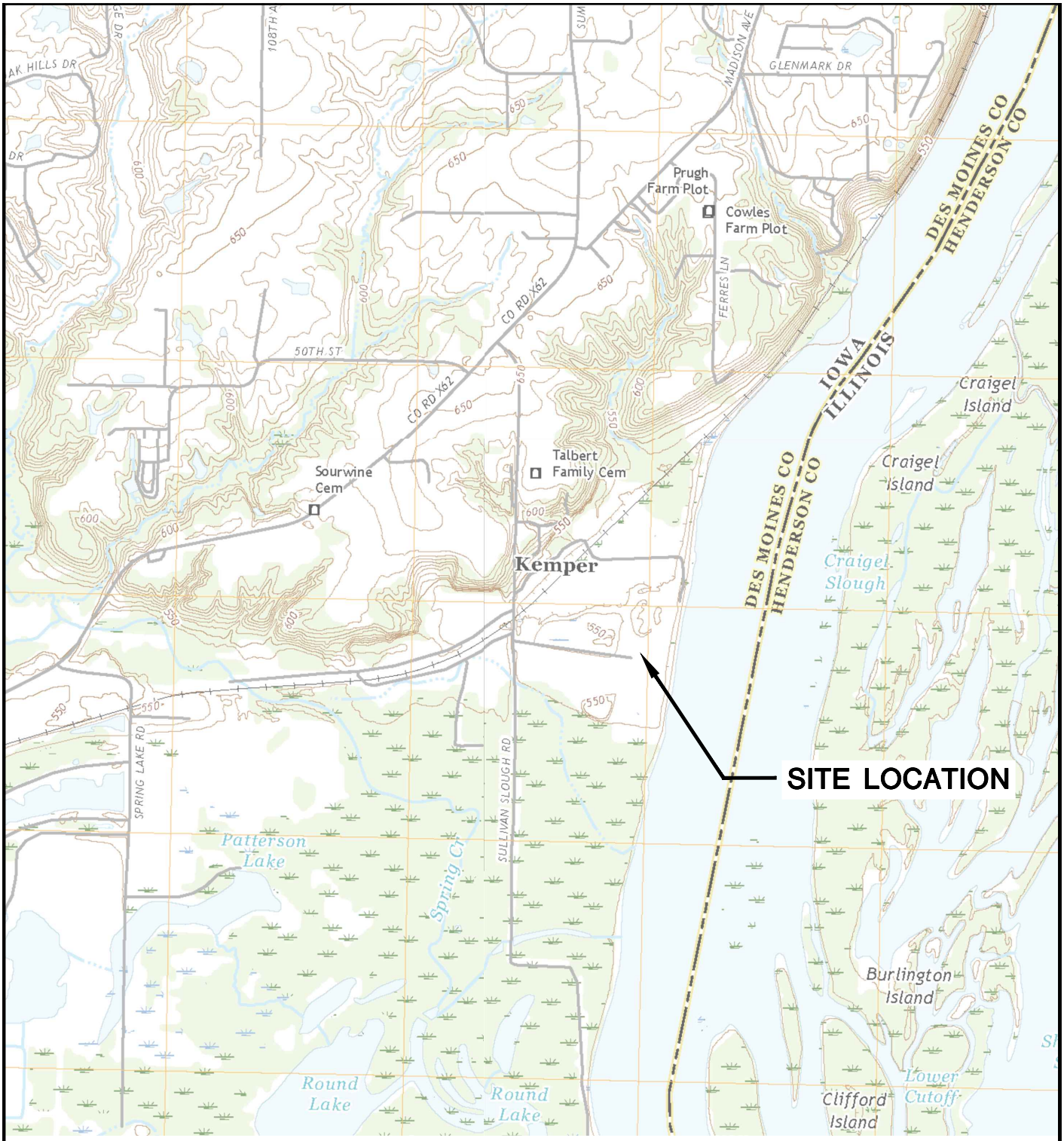
Table 6. Groundwater Field Data Summary
Burlington Generating Station / SCS Engineers Project #25222066.00

Well	Sample Date	Groundwater Elevation (feet)	Field Temperature (deg C)	Field pH (Std. Units)	Oxygen, Dissolved (mg/L)	Field Specific Conductance (umhos/cm)	Field Oxidation Potential (mV)	Turbidity (NTU)
MW-301	4/6/2022	522.99	12.3	6.96	0.13	1,982	-157	21.00
MW-302	2/22/2022	519.03	12.5	8.16	0.13	1,082	--	2.10
	4/5/2022	522.34	12.3	8.05	0.07	989	-199	9.00
MW-302A	4/5/2022	522.28	12.7	7.25	0.12	1,108	-153	5.00
MW-303	4/5/2022	522.20	12.7	7.36	0.10	845	-156	21.00
MW-304	4/5/2022	522.41	13.2	8.08	0.07	825	-205	9.00
MW-305	4/6/2022	522.60	14.3	7.25	0.06	870	-116	9.00
MW-306	4/5/2022	522.63	13.6	5.95	0.14	468.4	-75	4.00
MW-307	4/5/2022	522.91	13.4	9.88	0.03	549.8	-219	4.00
MW-307A	4/5/2022	522.47	13.4	7.78	0.06	547.4	-154	5.00
MW-307B	2/22/2022	519.37	13.1	7.43	0.18	570.0	--	2.64
	4/5/2022	522.37	13.5	7.36	0.08	627.3	-147	6.00
MW-308	4/4/2022	522.61	13.9	9.58	0.08	680	-247	5.00
MW-309	4/4/2022	522.74	13.0	7.18	0.24	748	-139	21.00
MW-310	4/4/2022	525.44	10.6	7.38	0.14	548.8	-177	19.00
MW-310A	4/6/2022	522.58	11.7	7.29	0.41	907	-11	39.00
MW-311	4/4/2022	523.78	11.8	7.22	0.07	1,190	-178	7.00
MW-312	4/6/2022	522.51	14.0	7.35	0.06	746	-156	23.00
MW-313	4/6/2022	522.48	14.4	7.14	0.07	1,076	-154	15.00
MW-313A	4/6/2022	522.38	14.0	7.62	0.07	695	-158	23.00
MW-313B	2/22/2022	518.88	13.7	7.64	0.17	665	--	2.40
	4/6/2022	522.45	14.1	7.50	0.01	622.6	-144	9.00
MW-314	4/6/2022	522.27	11.4	6.79	0.13	1001	-82	35.00

Note:
1. The field oxidation potential results measured on February 22, 2022 were invalidated due to a field recording error or instrument error.

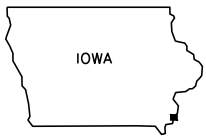
Created by: DK Date: 9/1/2022
Last revision by: DK Date: 12/9/2022
Checked by: NDK Date: 12/12/2022

Figures



N

LOMAX QUADRANGLE
ILLINOIS / IOWA–DES MOINES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
2018
SCALE: 1" = 2,000'



CLIENT	ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718	SITE	ALLIANT ENERGY BURLINGTON GENERATING STATION BURLINGTON, IOWA

SITE LOCATION MAP

PROJECT NO.	25219066.00	DRAWN BY:	BSS
DRAWN:	11/14/2019	CHECKED BY:	MDB
REVISED:	01/14/2020	APPROVED BY:	TK 01/30/2020

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

FIGURE
1

LEGEND

- EXISTING CCR RULE MONITORING WELL
- CCR RULE PIEZOMETER
- CCR UNITS

NOTES:

1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
2. MONITORING WELLS MW-301, MW-302, AND MW-309 THROUGH MW-311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
4. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-311A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
5. PIEZOMETERS MW-307B AND MW-313B INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM AMY 10-12, 2021.
6. MONITORING WELL MW-314 INSTALLED BY TERRACON CONSULTANTS, INC. UNDER THE SUPERVISION OF SCS ENGINEERS ON FEBRUARY 25, 2022.
7. 2017 AERIAL PHOTOGRAPH SOURCES: GOOGLE EARTH DATED SEPTEMBER 14, 2017.

N

700 0 700

SCALE: 1" = 700'

PROJECT NO.	25221060.00	DRAWN BY:	BSS/KRG/BWM
DRAWN:	09/14/2020	CHECKED BY:	MDB
REVISED:	12/13/2022	APPROVED BY:	TK 1/22/2023

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT

ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

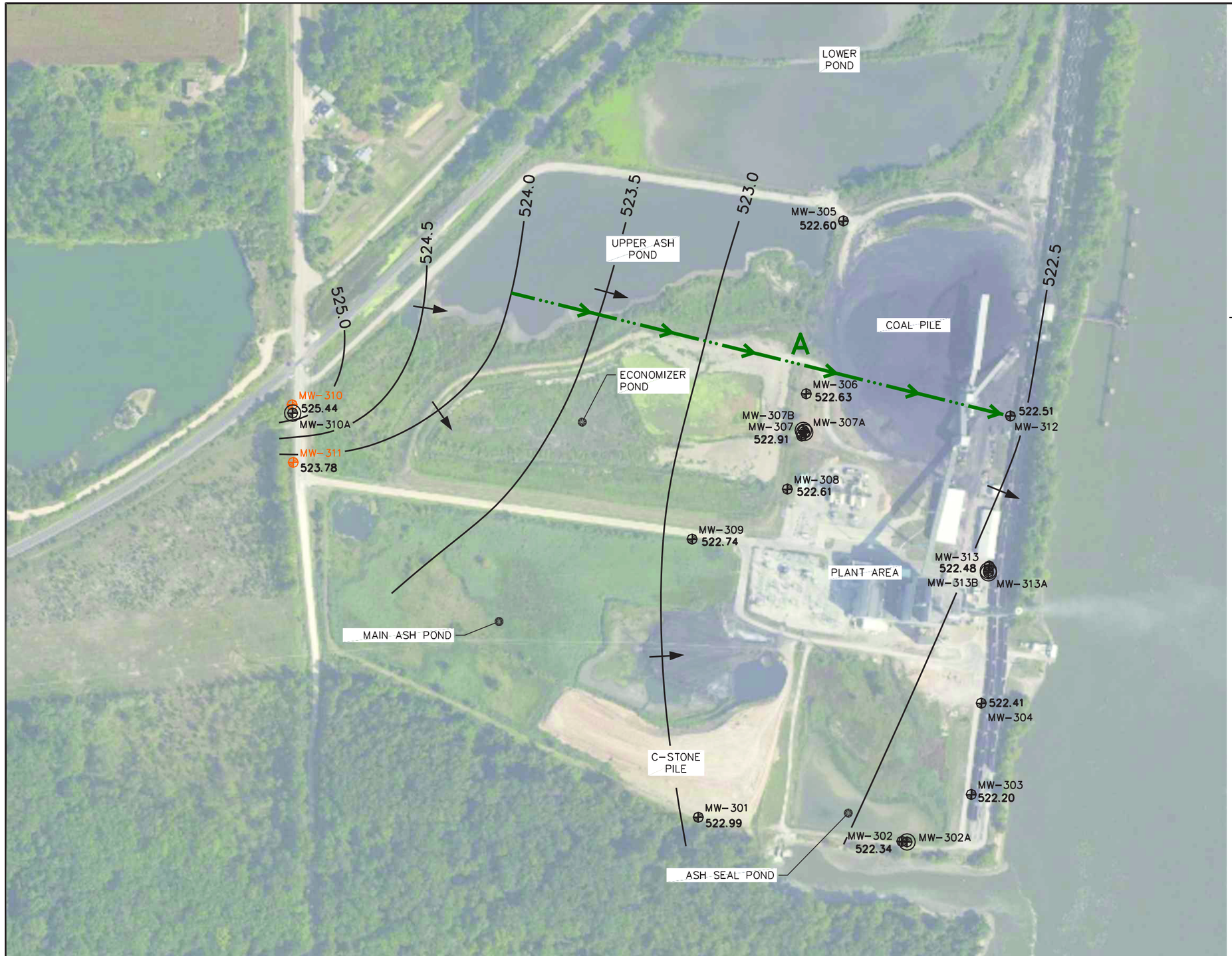
SITE

ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

SITE PLAN AND MONITORING WELL LOCATIONS

FIGURE 2

\\Mad-fs01\data\Projects\25221160.00\Drawings\SitePlan-Wells-2022-02-25.dwg, 12/13/2022 11:59:38 AM



LEGEND

- ⊕ MONITORING WELL
- ⊕ DEEP PIEZOMETER
- ⊕ CCR BACKGROUND MONITORING WELL
- **522.11** WATER LEVEL MEASURED APRIL 4–6, 2022
- POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
- APPROXIMATE FLOW DIRECTION

NOTES:

1. MONITORING WELLS MW–303 THROUGH MW–308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15–17, 2015.
2. MONITORING WELLS MW301, MW302, AND MW309–MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW–301 THROUGH MW–311 WERE SURVEYED BY FRENCH–RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
4. MONITORING WELLS MW–312 AND MW–313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
5. PIEZOMETERS MW–302A, MW–307A, MW–310A, AND MW–313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE–JULY 2020.
6. PIEZOMETERS MW–307B AND MW–313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
8. MW–314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
9. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW–310 AND MW–311.

N

300 0 300

SCALE: 1" = 300'

PROJECT NO.	25222066.00	DRAWN BY:	KP
DRAWN:	08/17/2022	CHECKED BY:	RM
REVISED:	01/20/2023	APPROVED BY:	TK 1/22/2023

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718–6751
PHONE: (608) 224–2830

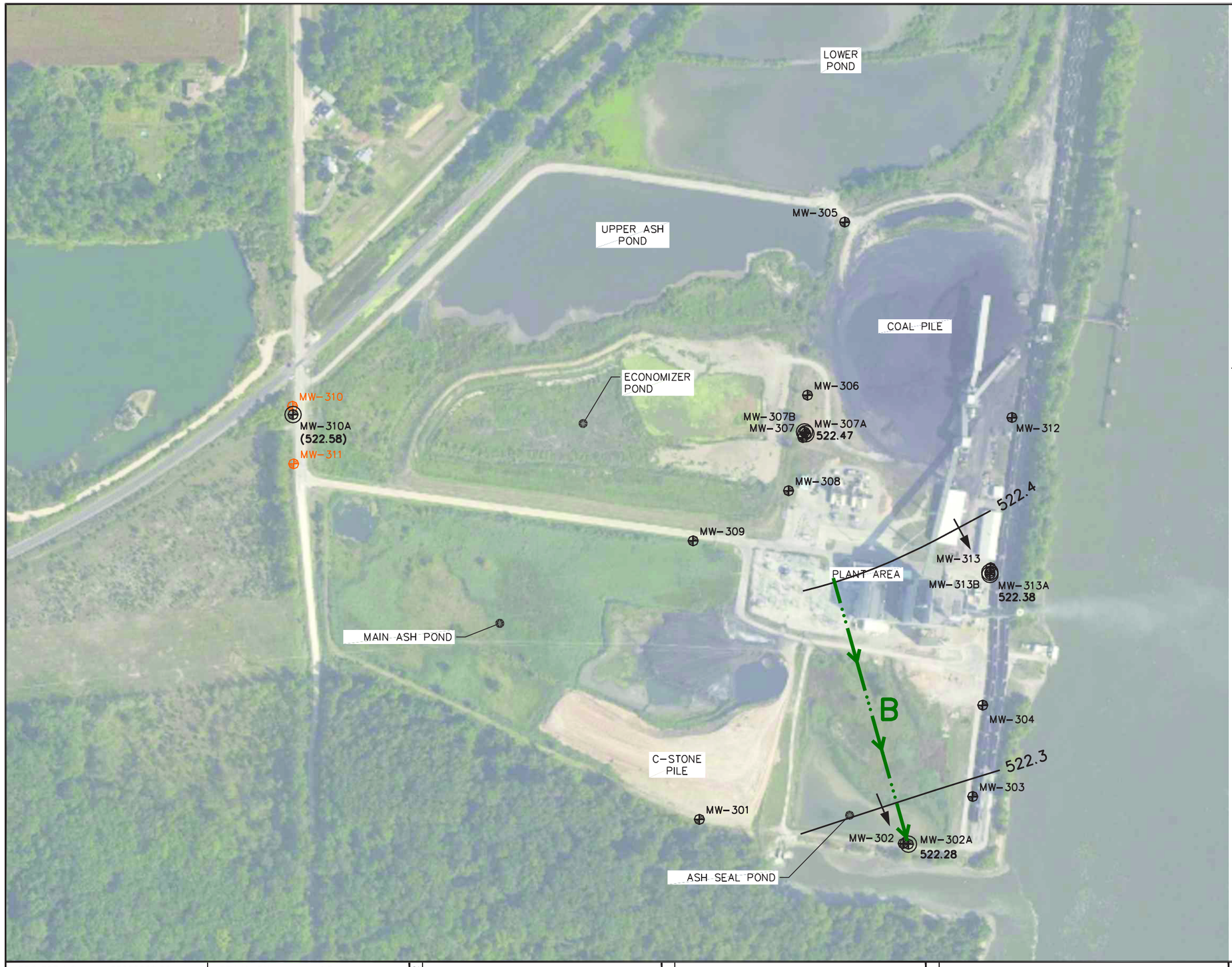
CLIENT: ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE: ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

SHALLOW POTENTIOMETRIC SURFACE MAP
APRIL 4–6, 2022

FIGURE 3

\\Mad-fs01\data\Projects\25222066.00\Drawings\April 2022 Wtbl.dwg, 1/20/2023 11:31:52 AM



LEGEND

⊕	MONITORING WELL
⊕	DEEP PIEZOMETER
⊕	CCR BACKGROUND MONITORING WELL
522.11	WATER LEVEL MEASURED APRIL 4–6, 2022
(521.83)	WATER LEVEL MEASURED APRIL 4–6, 2022, NOT USED FOR CONTOURING
———	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
⇢⇢⇢	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
→	APPROXIMATE FLOW DIRECTION

NOTES:

1. MONITORING WELLS MW–303 THROUGH MW–308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15–17, 2015.
2. MONITORING WELLS MW301, MW302, AND MW309–MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW–301 THROUGH MW–311 WERE SURVEYED BY FRENCH–RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
4. MONITORING WELLS MW–312 AND MW–313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
5. PIEZOMETERS MW–302A, MW–307A, MW–310A, AND MW–313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE–JULY 2020.
6. PIEZOMETERS MW–307B AND MW–313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW–310 AND MW–311.
9. MW–310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.

N

300 0 300

SCALE: 1" = 300'

PROJECT NO.	25222066.00	DRAWN BY:	KP
DRAWN:	08/17/2022	CHECKED BY:	RM
REVISED:	01/20/2023	APPROVED BY:	TK 1/22/2023

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718–6751
PHONE: (608) 224–2830

CLIENT: ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE: ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

DEEP POTENTIOMETRIC SURFACE MAP
APRIL 4–6, 2022

FIGURE 4

\\Mad-fs01\data\Projects\25222066.00\Drawings\April 2022 Wtbl.dwg, 1/20/2023 11:31:01 AM

LEGEND

⊕	MONITORING WELL
⊕	DEEP PIEZOMETER
⊕	CCR BACKGROUND MONITORING WELL
522.11	WATER LEVEL MEASURED OCTOBER 20, 2022
(521.83)	WATER LEVEL MEASURED OCTOBER 20, 2022, NOT USED FOR CONTOURING
———	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
⇢	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
→	APPROXIMATE FLOW DIRECTION

NOTES:

1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
9. MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.

N

300 0 300

SCALE: 1" = 300'

PROJECT NO.	25222066.00	DRAWN BY:	KP
DRAWN:	12/10/2022	CHECKED BY:	RM
REVISED:	01/20/2023	APPROVED BY:	TK 1/22/2023

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE: ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

DEEP POTENTIOMETRIC SURFACE MAP
OCTOBER 20, 2022

FIGURE
5

\\Mad-fs01\data\Projects\25222066.00\Drawings\Oct 2022 Wtbl.dwg, 1/20/2023 11:32:32 AM

Appendix A

Regional Hydrogeologic Information

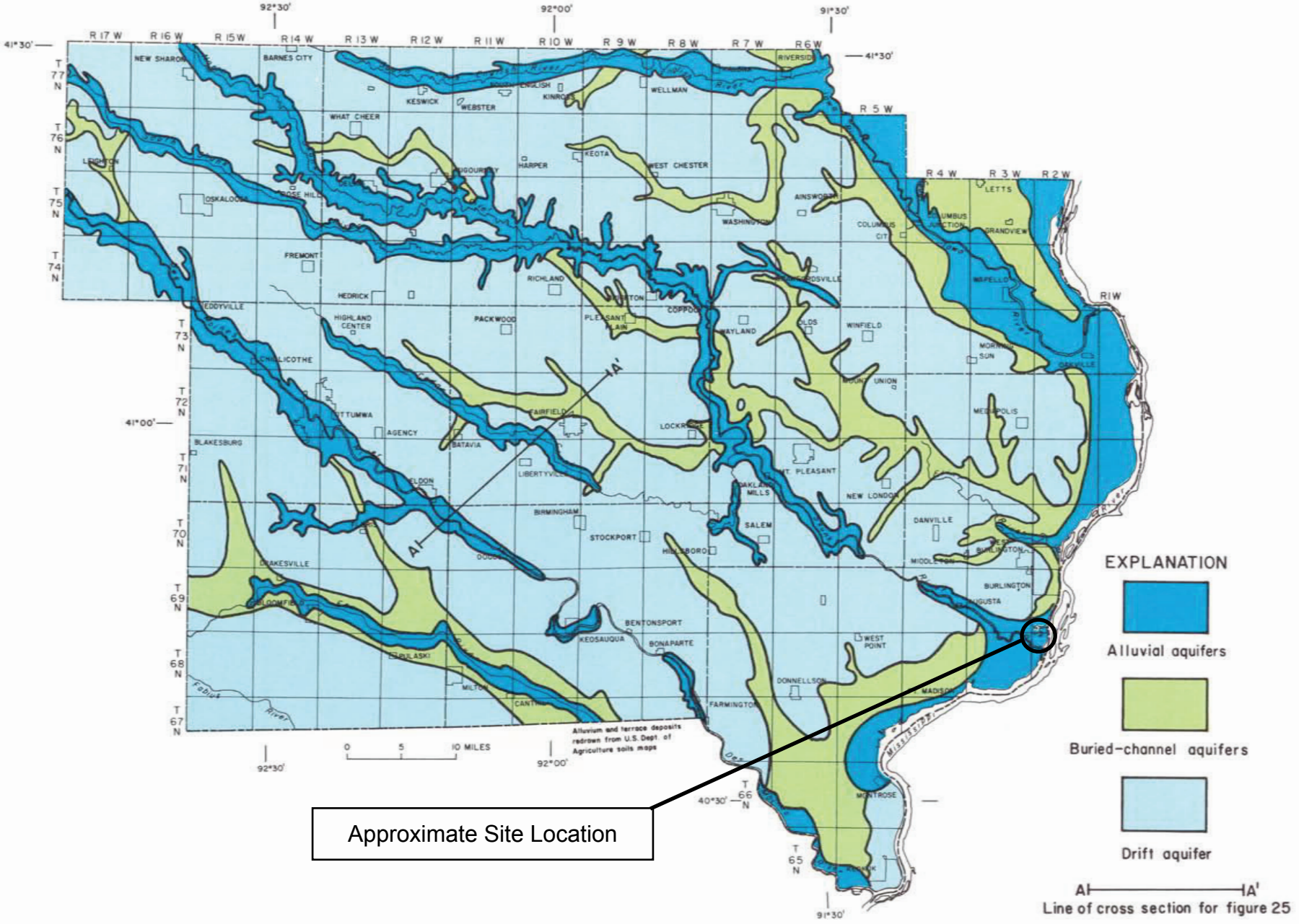


Figure 24.—Areal distribution of surficial aquifers

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

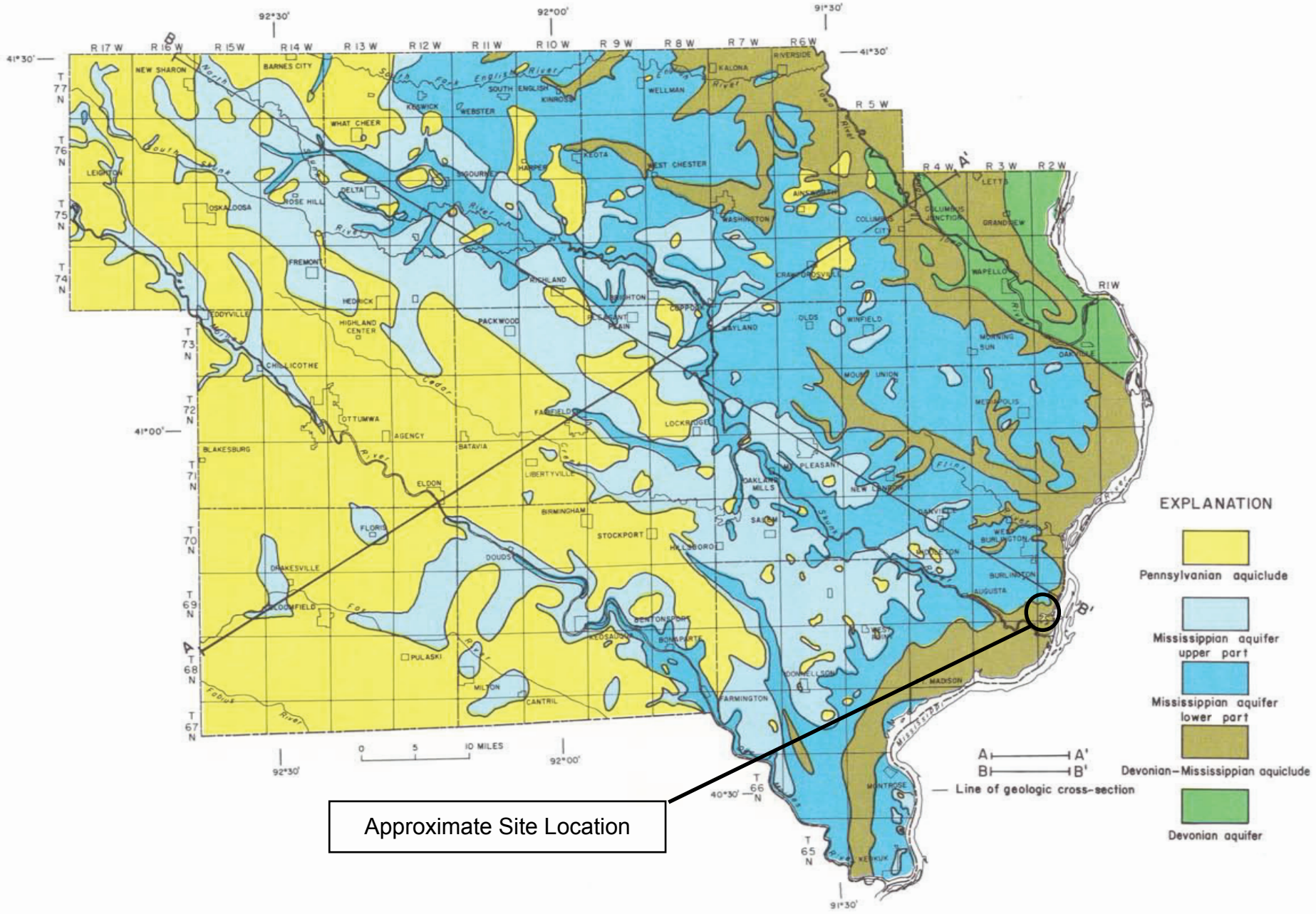


Figure 27.—Bedrock hydrogeologic map

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

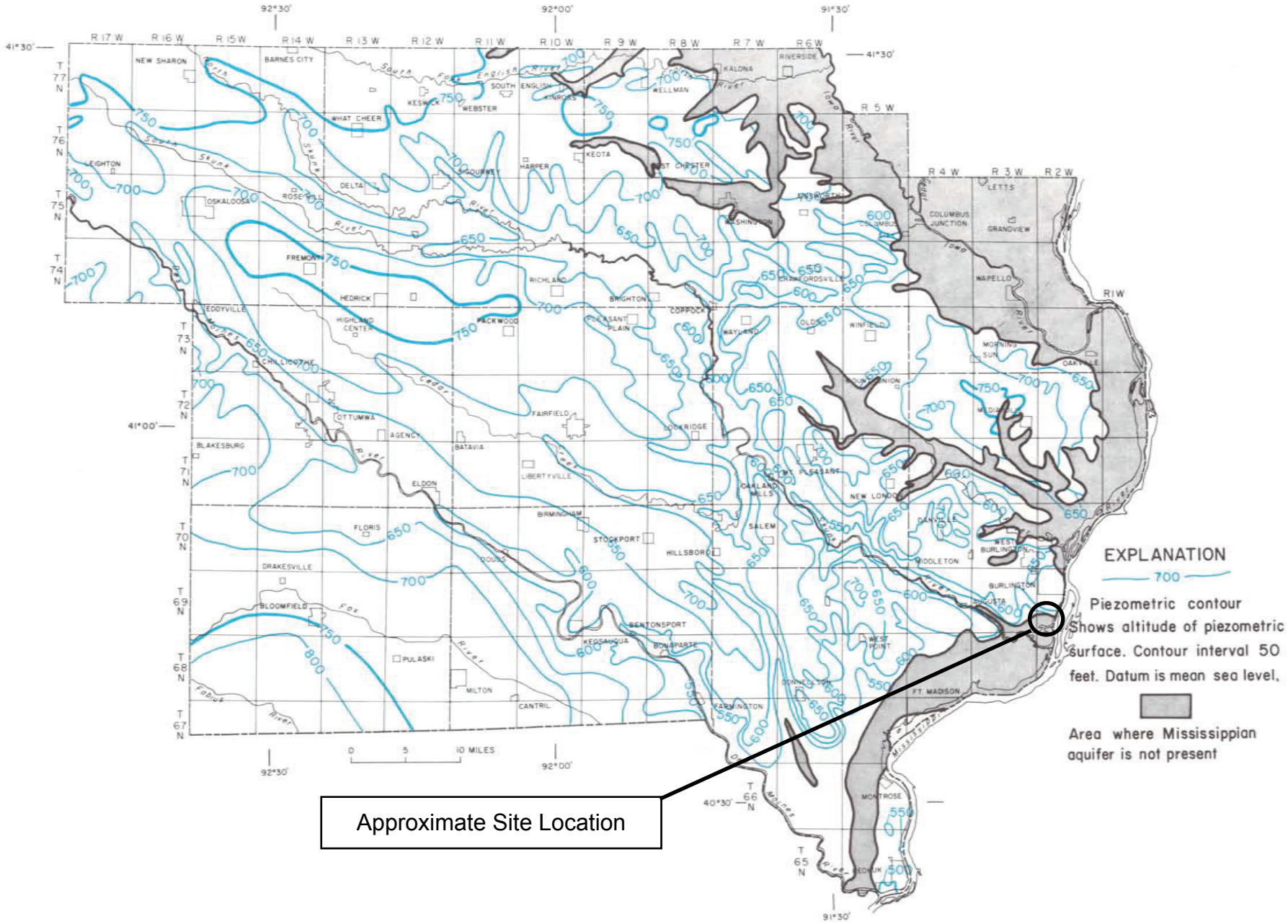


Figure 41.—Altitude of the water levels in wells tapping the Mississippian aquifer

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

Appendix B

Boring Logs and Well Construction Documentation

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-301

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Kevin Collins Direct Push Analytical	2/29/2016	2/29/2016	Direct Push 4-1/2/HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-301	Feet	536.0 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 278,382 N, 2,300,041 E S/C/N
SW 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10	LEAN CLAY WITH SAND, very dark gray (10YR 3/1).	CL									
S1	16		11							W				
			12											
			13											
S2	45		14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-301

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	LEAN CLAY WITH SAND, very dark gray (10YR 3/1). *(continued)*	CL									
			17											
S3	37		18	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP					W				
			19											
			20	SILT WITH SAND, very dark gray (10YR 3/1).	ML									
			21	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP									
S4	24		22	SANDY SILT, very dark gray (10YR 3/1).	MLS					W				
			23											
			24	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP									
			25											
S5	NA		26							W				Recovery NA sleeve stuck in discrete sampler.
			27											
			28											
			29											
				End of Boring at 29.50 feet bgs.										

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-302

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Kevin Collins Direct Push Analytical	2/29/2016	2/29/2016	Direct Push 4-1/2/HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-302	Feet	533.2 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 278,310 N, 2,300,647 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1–5	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
S1	15		10–11	POORLY GRADED SAND WITH SILT, medium grained, very dark gray (10YR 3/1).	SP-SM					W				
S2	15		12–14	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1).	SP					W				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
2830 Dairy Drive Madison, WI 53718

Tel: 608-224-2830
Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-302

Sample										Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1). *(continued)*	SP									
			17	LEAN CLAY, very dark gray (10YR 3/1).										
S3	17		18		CL					W				
			19											
			20	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).										
			21											
S4	15		22							W				
			23											
			24		SP									
			25											
S5	16		26							W				
			27											
			28	End of Boring at 28 feet bgs.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25220055.00		MW-302A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Services	6/30/2020	7/1/2020	4.25" HSA

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			11.92 Feet	533.51 Feet MSL	8.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 278,310 N, 2,300,647 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Des Moines		Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	0		0	Blind drilled to 28' bgs See boring logs for MW-302 for log information from 0-25'bgs.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: / Fax:
	SCS Engineers	

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-302A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16											
			17											
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25	POORLY GRADED SAND, mostly fine to meium grain, trace coarse grain, gray to dark gray (5y, 4/1) ,	SP									
S1	14	3 4 7 8	26	with clay lense at top of spoon. olive gray, dense.						W				
			27											
			28											
			29											
			30	Same, fine grain, trace coarse grain with large piece of limestone.										
S2	3	0 2 4 5	31							W				Roberts began using water to keep sand from backing up into augers. Took two jar samples from 25-27' bgs.
			32											
			33											
			34											
			35	No returns										
S3	0	6 8 7 8	36							W				
			37											
			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-302A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S4	6	5 7 8 13	41	POORLY GRADED SAND, fine to coarse grain, with gravel, gray to dark gray (5y, 3/1), with very trace silt (same color).						W				
			42											
			43											
			44											
			45	No returns										
S5	0	4 12 16 14	46							W				Roberts changed spoon catch.
			47											
			48											
			49											
			50	POORLY GRADED SAND, fine to coarse grain, trace gravel, gray to darkish gray brown, 5y, 4/1).	SP									
S6	15	3 8 12 14	51							W				
			52											
			53											
			54											
			55	Same										
S7	14	3 6 12 18	56							W				Took two jar samples from 55-57' bgs.
			57											
			58											
			59											
			60	Same										
S8	24	6 9 13 25	61	End of Boring at 61' below ground surface. Well placed at 60' bgs.						W				Sampled to 62' bgs and augered to 61' bgs.

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-303

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/15/2015	12/15/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-303	Feet	531.0 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 278,450 N, 2,300,854 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.										
			2											
			3											
			4											
			5		FILL									
			6											
			7											
			8											
			9											
			10	LEAN CLAY, dark gray (10YR 3/1).										
S1	0	4 6 8 8	11											Rock in the end of shoe.
			12		CL									
			13											
S2	14	2 4 4 5	14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-303

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S3	15	2 2 4 6	16 17	LEAN CLAY, dark gray (10YR 3/1). *(continued)*	CL					W				
S4	3	1 2 3 8	18 19							W				Rock in the end of shoe.
S5	10	4 8 9 9	20 21 22	POORLY GRADED SAND, coarse grained, very dark gray (2.5Y 3/1), some gravel.	SP					W				
S6	14	1 2 8 9	23 24 25	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.	SP					W				
S7	8	4 6 8 10	26 27	same as above except, coarse grained.						W				
				End of Boring at 27.50 ft bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-304

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/15/2015	12/15/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-304	Feet	532.2 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 278,721 N, 2,300,883 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10	FAT CLAY, dark gray (10YR 3/1).	CH									
S1	12	3 4 11 14	11							W				
			12											
			13											
S2		2 3 5 5	14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

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SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-304

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S3	14	1 1 2 4	16 17	SANDY SILT, very dark gray (2.5Y 3/1), fine grained.	ML					W				
S4	14	1 2 3	18 19	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.						W				
S5	24	2 3 5 8	20 21 22		SP					W				
S6	12	3 5 6 7	23 24	Same as above except, coarse grained.						W				
S7	12	3 6 11 16	25 26 27							W				
				End of boring at 27 feet bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-305

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/17/2015	12/17/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-305	Feet	530.9 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 280,157 N, 2,300,473 E S/C/N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
S1	14	13 30 20 12	6	SILT, ash, black (2.5Y 2.5/1), (fill).	ML					M				
			7											
S2	6	3 4 2 1	8							M				
			9											
			10	LEAN CLAY, olive (5Y 4/4).	CL									
S3	5	4 4 6 7	11							M				
			12											
			13	same as above except, black (2.5Y 2.5/1).										
S4	10	2 4 6 8	14							M				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

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Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-305

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S5	14	1 1 2 3	16	LEAN CLAY, olive (5Y 4/4). *(continued)*										
			17		CL									
S6	16	1 1 2 2	18	same as above except, very dark gray (10YR 3/1).										
			19											
			20	POORLY GRADED SAND, very dark gray (10YR 3/1), coarse grained.										
S7	12	1 2 4 5	21							W				
			22											
			23											
S8	12	1 1 2 3	24		SP					W				
			25											
S9	8		26							W				
			27											
				End of Boring at 27.50 ft bgs.										

SCS ENGINEERS
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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-306

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/16/2015	12/17/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-306	Feet	534.5 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,643 N, 2,300,362 E S/C/N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
			8	SANDY SILT, very dark gray (2.5Y 3/1), fine grained sand.										
S1	22	6 8 12 12	9											
			10											
S2	22	7 2 2 2	11		ML					W				
			12											
			13											
S3	12	4 9 19 21	14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	608-224-2830 Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-306

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	LEAN CLAY, black (2.5Y 2.5/1).										
S4	10	2 2 2 2	17							W				
			18		CL									
S5	10	1 1 1 2	19							W				
			20											
S6	22	3 4 5	21							W				
			22	SANDY SILT, very dark gray (2.5 3/1), fined grained sand.	ML									
			23	LEAN CLAY, black (2.5Y 2.5/1).										
S7	10	1 1 1 2	24		CL					W				
			25	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.										
S8	20	2 3 6 10	26							W				
			27											
			28											
S9	10	1 3 3 5	29							W				
			30		SP									
S10	10	2 2 3 8	31							W				
			32											
			33											
			34	End of boring at 34 ft bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-307

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/16/2015	12/16/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-307	Feet	534.3 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,517 N, 2,300,349 E S / C / N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
			8	SILT, ash, (fill).	FILL									
S1	0		9											
			10	SANDY SILT, ash, fine grained, very dark gray, (2.5Y 3/1), (fill).	FILL									
S2	16	13 8 6 11	11							W				
			12											
			13											
S3	15	4 9 6 3	14							W				
			15	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1).	ML									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Jackie Rennebohm for Kyle Kramer	SCS Engineers 2830 Dairy Drive, Madison, WI 53718 608-224-2830	Fax:

Amended on 10/6/2021

Boring Number MW-307 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1). *(continued)*										
S4	18	1 3 5 5	17		ML					W				
			18	LEAN CLAY, black, (10YR 2/1).										
S5	20	1 2 2 2	19		CL					W				
			20	POORLY GRADED SAND, coarse grained, very dark gray, (2.5Y 3/1).										
S6	16	1 2 4 6	21							W				
			22											
			23											
S7	10	1 2 4 4	24		SP					W				
			25											
S8	12	2 2 3 4	26							W				
			27	End of boring at 27 ft bgs.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25220055.00		MW-307A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Services	6/24/2020	7/1/2020	4.25" HSA

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			12.09 Feet	533.94 Feet MSL	8.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,517 N, 2,300,349 E S / C / N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Des Moines		Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	0		0	Blind drilled to 20' bgs See boring logs for MW-307 for log information from 0-20'bgs.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: / Fax:
	SCS Engineers	

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-307A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16											
			17											
			18											
			19											
			20	SILT, dark gray (2.5y, 2.5/1), with trace sand, fine grain to cousrse.										
S1	19	3 1 0 9	21						0.75	W				Took two jar samples at 20-22' bgs.
			22											
			23		ML									
			24											
			25	Same										
S2	14	5 7 9 11	26	POORLY GRADED SAND, fine to medium grain, trace coarse grain, dark gray (2.5y, 2.5/1).						W				Roberts began pumping water down hole to keep sand out of augers.
			27											
			28											
			29											
			30	Same, trace silt.										
S3	8	3 6 7 7	31							W				
			32											
			33		SP									
			34											
			35	Same, fine to medium grain, grayish brown (2.5y, 3/1), trace pieces of gravel, no silt.										
S4	8	3 5 7 8	36							W				
			37											
			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-307A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S5	22	2 3 6 6	41	POORLY GRADED SAND, fine to medium grain, gray (2.5y, 4/1), trace gravel with 6" layer of sticks in middle of spoon.						W				Large amount of sticks in center of spoon.
			42											
			43											
			44											
			45	Same, fine to coarse grain, trace gravel, gray to grayish brown (2.5y, 4/1) with trace sticks.										
S6	20	4 6 11 12	46							W				
			47											
			48											
			49											
			50	Same, no sticks.	SP									
S7	0.5	4 26 16	51							W				Refusal last 6 inches, sand pushed up into augers and locked up spoon.
			52											
			53											
			54											
			55	Same, fine to medium grain, gray to grayish brown (2.5y, 4/1).										
S8	20	4 9 14 19	56							W				Took two jar samples from 55-57' bgs.
			57											
			58											
			59											
			60	End of boring ar 60' below ground surface. Set well from 59' bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-308

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/15/2015	12/16/2015	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-308	Feet	534.9 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,359 N, 2,300,306 E S/C/N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5	SANDY SILT, olive brown (2.5Y 4/3).										
S1	14	22 12 13 15	6							W				
			7											
S2	18	2 2 4 8	8							W				
			9											
			10		MLS									
S3	18	1 2 2 50	11							W				
			12											
			13											
S4	14	3 15 50	14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-308

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S5	12	6 4 2 4	16 17	LEAN CLAY, black (2.5Y 2.5/1).	CL					W				
S6	12	5 6 5 10	18 19							W				
S7	18	1 1 1 2	20 21 22	SILT, very dark gray (7.5YR 3/1), trace sand.	ML					W				
S8	10	1 12 13 18	23 24	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.	SP					W				
S9	12	2 6 8 10	25 26 27							W				
S10		2 2 6 8	28 29							W				
				End of Boring at 29.5 ft bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-309

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Kevin Collins Direct Push Analytical	3/1/2016	3/1/2016	4-1/2 hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-309	Feet	534.1 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,210 N, 2,300,022 E S/C/N
SW 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10	LEAN CLAY, olive brown (2.5Y 4/3).										
S1	14		11							W				
			12	Same as above except, gray (2.5Y 6/1).	CL									
			13											
S2	34		14							W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-309

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	LEAN CLAY, olive brown (2.5Y 4/3). *(continued)*										
			17	Same as above except, very dark gray (2.5Y 3/1).	CL									
S3	34		18							W				
			19	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).										
			20											
			21											
S4	31		22		SP					W				
			23											
			24											
			25	End of Boring at 25 feet bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-310

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Kevin Collins Direct Push Analytical	3/1/2016	3/1/2016	Direct Push 4-1/2/HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-310	Feet	532.2 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,610 N, 2,298,832 E S/C/N
NE 1/4 of SE 1/4 of Section 30, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	LEAN CLAY WITH SAND, dark olive brown (2.5Y 3/3).										
S1	13		2							M				
			3											
			4											
			5											
S2	33		6		CL					M				
			7	Same as above except, very dark gray (2.5Y 3/1).										
			8											
			9											
S3	22		10	Trace organics.						M				
			11											
			12	SILTY SAND, very dark grayish brown (2.5Y 3/2).	SM									
			13	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2).										
S4	31		14		SP					W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
2830 Dairy Drive Madison, WI 53718

Tel: 608-224-2830
Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-310

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2). *(continued)*										
			17		SP									
S5	35		18							W				
			19											
			20	LEAN CLAY, dark gray (2.5Y 4/1).	CL									
			21	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
S6	NA		22							W				Sample stuck in discrete sampler. Refusal @24'.
			23	LEAN CLAY, dark gray (2.5Y 4/1), (weathered bedrock).	CL									
			24	End of Boring at 24 feet bgs.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25220055.00		MW-310A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Services	6/25/2020	6/26/2020	4.25" HSA

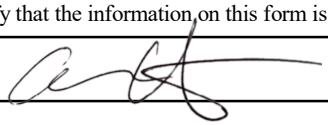
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			9.15 Feet	532.91 Feet MSL	8.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,610 N, 2,298,832 E S / C / N
NE 1/4 of SE 1/4 of Section 30, T 69 N, R 2 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Des Moines		Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Blind drilled to 20' below ground surface.										
			1											
			2	See logs for MW-310 for log information between 0-20' bgs.										
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: / Fax:
	SCS Engineers	

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-310A Use only as an attachment to Form 4400-122.

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16											
			17											
			18											
			19											
			20	LEAN CLAY, gray (5Y 3/2), dense with trace sand and gravel.										
S1		0 0 0 0	21		CL									Took three jar samples from 20-24' bgs.
			22	POORLY GRADED SAND, fine to medium grained, grayish brown.										
S2		4 7 11 9	23		SP									
			24											
			25	MUDSTONE (bedrock), 0.25" size pieces and smaller of rock (silt grain size, when broken up), light gray to gray, slightly reactive with acid, with poorly graded sand (overburden), coarse grained, grayish brown.										
			26											
			27											
S3			28											Bedrock at 25' bgs. Switched to air rotary at 25' bgs.
			29											
			30	MUDSTONE, gray (bedrock). (Feels like clay once broken up) with much less sand.										
			31											
			32											
S4			33											
			34											
			35	Same, trace sand, sampled intermittently between 35-40' bgs.										
			36											
			37											
S5			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-310A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			41	MUDSTONE, mostly mudstone with some poorly graded sand.										
			42											
S6			43											
			44											
			45	Same, mostly mudstone with more sand and pieces of lean clay, dark gray (most likely overburden).										
			46											
			47											
S7			48											
			49											
			50	End of Boring at 50' below ground surface.										
				Set well at 49' bgs.										
S8														Took two jar samples from 47' bgs.

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL- Burlington Generating Station SCS#: 25215135.80		MW-311

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Kevin Collins Direct Push Analytical	3/1/2016	3/1/2016	Direct Push 4-1/2/HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-311	Feet	532.7 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,439 N, 2,298,835 E S/C/N
NE 1/4 of SE 1/4 of Section 30, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	TOPSOIL.	TOPSOIL									
S1	14		1–3	LEAN CLAY, dark olive brown (2.5Y 3/3).	CL					M				
			4	POORLY GRADED SAND, yellowish brown (10YR 5/8), coarse grained.										
S2	8		5–7		SP					M				
			8	LEAN CLAY, very dark gray (2.5Y 3/1).										
S3	6		9–12		CL					M				Rock in shoe.
S4	25		13–15							M				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 608-224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53718	Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-311

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	LEAN CLAY, very dark gray (2.5Y 3/1). *(continued)*	CL									
			16	SILTY SAND, black (2.5Y 2.5/1).										
			17											
S5	34		18		SM					W				
			19	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			20	SILTY SAND, very dark grayish brown (2.5Y 3/2).										
			21											
S6	40		22		SM					W				
			23	SILT, very dark grayish brown (2.5Y 3/2).	ML									
			24	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.										
			25											
S7	45		26		CL					W				
			27											
			28	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			29	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.										
S8			30		CL					W				
			31	Same as above except, dark greenish gray (5GY 4/1), shells.										
			32	End of Boring at 32 feet bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Burlington Generating Station SCS#: 25218220.00		MW312

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Drilling	5/20/2019	5/20/2019	4.25" HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW312	531.08 Feet	533.8 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,576 N, 2,300,970 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Hydrovaced to 8'.										
			2											
			3											
			4											
			5											
			6											
			7											
			8	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand.										
	4	3 3 6 7	9							M				
			10	same as above but dark green, (GLEY1 3/10 GY), with gravel.										
	18	3 4 5 7	11		CL					M				
			12	trace organic material										
	10	1 2 5 8	13							M				
			14	same as above but dark green, (10YR 2/1).										
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature for Zach Watson Firm SCS Engineers
2830 Dairy Drive, Madison, WI 53718 Tel: Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW312

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24	1 4 5 6	16	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand. *(continued)*						M				
			17		CL					M				
			18											
		2 3 3 4	19							M				
			20	POORLY GRADED SAND, fine to coarse, (2.5YR 3/2).										
	6	0 1 2 3	21							W				
			22											
	6	1 2 4 5	23		SP					W				
			24											
	4		25							W				
			26	End of Boring at 26 feet.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Burlington Generating Station SCS#: 25218220.00		MW313

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Drilling	5/21/2019	5/21/2019	4.25" HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW313	531.05 Feet	534.0 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,130 N, 2,300,907 E S/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Hydrovaced to 8'.										
			2											
			3											
			4											
			5											
			6											
			7											
			8	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand.										
	8	3 1 4 5	9							M				
			10											
	8	1 1 3 4	11		CL					M				
			12	Trace organic material										
	8	1 1 2 2	13							M				
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature for Zach Watson
Firm SCS Engineers
2830 Dairy Drive, Madison, WI 53718
Tel:
Fax:

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW313

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	12	1 1 2 2	16	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand. *(continued)* Same as above but dark gray, (10YR 2/1).						M				
		1 1 2 2	17							M				
			18											
		1 1 2 2	19							M				
			20											
	18	1 1 3 4	21		CL					M				
			22											
	24	3 2 3 4	23							M				
			24	Small sand lenses.										
	18	1 1 2 8	25							M				
			26	POORLY GRADED SAND, coarse.										
	4		27							W				
			28											
	10	3 2 4 6	29		SP					W				
			30											
	0	1 3 8 7	31							W				
			32	End of Boring at 32 feet.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25220055.00		MW-313A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Services	6/23/2020	6/30/2020	4.25" HSA

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			12.13 Feet	529.35 Feet MSL	8.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,130 N, 2,300,907 E S / C / N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Des Moines		Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Blind drilled to 28' below ground surface. See logs for MW-313 for log information between 0-28' bgs.										
			1											
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: / Fax:
	SCS Engineers	

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-313A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16											
			17											
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25											
			26											
			27											
			28	POORLY GRADED SAND, fine to medium grain, grayish brown.										
S1/S2	12	2 2 6 8	29							W				Took two jar samples from 28-30' bgs. Roberts began pumping water into augers to keep sand from backing up into augers.
			30	Same										
S3	12	5 8 11 12	31							W				
			32	Same, fine to coarse grain, grayish brown, trace gravel and clay.										
S4	14	3 4 5 5	33							W				
			34	Same	SP									
S5	5	1 3 5 6	35							W				Switched to 2' sample every five feet.
			36											
			37											
			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-313A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S6	10	1 6 7 9	41	POORLY GRADED SAND, fine to mostly coarse grain, trace gravel, grayish brown.						W				
			42											
			43											
			44											
			45	Same, fine to medium grain, trace coarse grain.										
S7	12	3 3 8 11	46							W				
			47											
			48											
			49											
			50	Same, fine to coarse grain.										
S8	15	3 8 21 15	51		SP					W				
			52											
			53											
			54											
			55	Same, mostly fine to medium grain with trace coarse grain and gravel, grayish brown.										
S9	18	1 1 0 1	56							W				
			57											
			58											
			59											
			60	Same fine to coarse grain, grayish brown.										
S10	16	3 3 6 9	61							W				Took two jar samples from 55-57' bgs and 60-62' bgs and combined them
			62	End of boring at 62' below ground surface. Set well at 61' bgs.										

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25221160.00		MW-307B

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	5/10/2021	5/11/2021	Roto-Sonic

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-307B	Feet MSL	534.4 Feet MSL	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,534 N, 2,300,353 E Ⓢ/C/N
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat 40° 44' 32.8"
Long -91° 5' 5.2"
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington, IA

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Hydrovaced to 2' below ground surface (bgs) before hitting compacted bottom ash - hydrovac could not break through.										
S1	40		2	BOTTOM ASH, dark gray to black, hard, consolidated, (fill).						M				
			3	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).										
			4											
			5											
			6	Same as above but brownish gray, with trace bottom ash.										
S2	58		7							M				
			8											
			9											
			10	Same as above but mixed with dense consolidated bottom ash.										
			11											
			12											
S3	8		13							W				Depth to water at ~12' bgs
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	SCS Engineers 3900 Kilroy Airport Way Long Beach, CA 90806	Fax:

Boring Number MW-307B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill). *(continued)*										
			17	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).										
S4	40		18							W				
			19											
			20	No Recovery from 20-25'.										
			21											
			22											
S5	0		23							W				Exact depth of transition from ash to clay is uncertain due to poor sample recovery.
			24											
			25											
			26											
			27	LEAN CLAY, dark gray to black, (5Y 2.5/1), loose to dense, with trace gravel.										
S6	28		28		CL					W				
			29											
			30	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt.										
			31	Same as above but no clay or silt.										
			32											
S7	48		33							W				
			34											
			35		SP									
			36											
			37											
S8	0		38							W				No recovery 35 - 40' bgs
			39											
			40											

Boring Number MW-307B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			41	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt. *(continued)* Same as above but gray to dark gray, (5Y 4/1).	SP									
			42											
S9	40		43							W				
				SANDY SILT, fine to coarse grained, black, (5Y 2.5/1), with pieces of wood.	ML									
			44	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel.										
			45											
			46	Same as above but gray to dark gray, (5Y 4/1) with no silt.										
			47											
S10	10		48							W				
			49											
			50	Same as above but gray, (5Y 5/1).										
			51											
			52											
S11	52		53							W				
			54											
			55	Same as above with trace silt at 60'.	SP									
			56											
			57											
S12	38		58							W				
			59											
			60											
			61											
			62											
S13	50		63							W				
			64											
			65											

Boring Number MW-307B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			66	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel. *(continued)* Same as above but dark gray, (5YR 4/1).										
			67											
S14	18		68							W				
			69											
			70	Same as above but coarse grained and dark gray, (5YR 4/1).										
			71											
			72		SP									
S15	48		73							W				
			74											
			75	Same as above but dark grayish brown, (10YR 4/2).										
			76											
			77											
S16	48		78						4.5+	W				
			79											
			80	LEAN CLAY, dark gray, (5Y 3/1), very dense with gravel and large cobbles, reacts with acid.										
			81											
			82		CL									
S17	50		83						4.5+	W				
			84											
			85	End of boring at 85' below ground surface.										

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25221160.00		MW-313B

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	5/11/2021	5/12/2021	Roto-Sonic

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-313B	Feet MSL	533.9 Feet MSL	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 279,110 N, 2,300,905 E Ⓢ/C/N
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W
Lat 40° 44' 28.5" Long -91° 6' 58.2"
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington, IA

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			0	Hydrovaced to 8' below ground surface (bgs).										
S1	16		8	LEAN CLAY, gray to olive gray, (5Y 3/2), with gravel and trace roots.	CL				2.5	W				
S2	52		12	SILT, gray to dark gray, (10YR 4/1).	ML				2.0	W				
			13	LEAN CLAY, gray to olive gray, (5Y 3/2,) with trace gravel, roots, and sticks.	CL									
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm SCS Engineers
3900 Kilroy Airport Way Long Beach, CA 90806
Tel:
Fax:

Boring Number MW-313B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	LEAN CLAY, gray to olive gray, (5Y 3/2,) with trace gravel, roots, and sticks. *(continued)*										
			17											
S3	54		18	Same as above but black to very black, (5Y 2.5/1).	CL				1.0	W				
			19											
			20											
			21											
			22	SILT, very dark gray, (5Y 3/1), with trace sand.										
S4	58		23						0.75	W				
			24		ML									
			25											
			26											
			27	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1).										
S5	52		28							W				
			29											
			30	Same as above but more fine than coarse grained.										
			31											
			32											
S6	16		33		SP					W				
			34											
			35	Same as above but with trace subrounded to subangular gravel.										
			36											
			37											
S7	19		38							W				
			39											
			40											

Boring Number MW-313B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			41	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). *(continued)*										
			42											
S8	46		43							W				
			44											
			45											
			46											
			47											
S9	33		48							W				
			49											
			50											
			51											
			52											
S10	30		53		SP					W				
			54											
			55	Same as above but grayish brown, (2.5Y 5/2).										
			56											
			57											
S11	35		58							W				
			59											
			60											
			61											
			62											
S12	54		63							W				
			64											
			65											

Boring Number MW-313B

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			66	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). *(continued)*										
			67											
S13	0		68		SP					W				
			69											
			70	Same as above but with more gravel.										
			71											
			72	LEAN CLAY, gray, (5Y 3/1), very dense, with gravel and cobbles, reacts with acid.										
S14	56		73		CL				4.5+	W				
			74											
			75	End of boring at 75' below ground surface.										

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-301

Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of Parcel 16-29-300-007

Distance & direction along boundary: 119' W

Distance & direction from boundary to wall: 356' N

Elevations (± 0.01 ft MSL):

Ground Surface: 535.98

Top of protective casing: 538.75

Top of well casing: 538.38

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Direct Push Analytical Corp
4N969 Old LaFox Road, Unit E
St. Charles, IL 60175

Name of Driller: Kevin Collins

Drilling Method: Direct Push/4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Macro Core

Depth of Boring: 29.50 ft bgs

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 24.5

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 29.5 ft

Filter Pack:

Material: NSF R.W Sidley Inc.

Grain size: 10/20

Volume: 2.25 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Black Hills Bentonite 3/8 inch

Placement method: Gravity

Volume: 4.4 cubic ft

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 4 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 15.47 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 45 gallons pumped.

Average depth of frostline: 3.5'

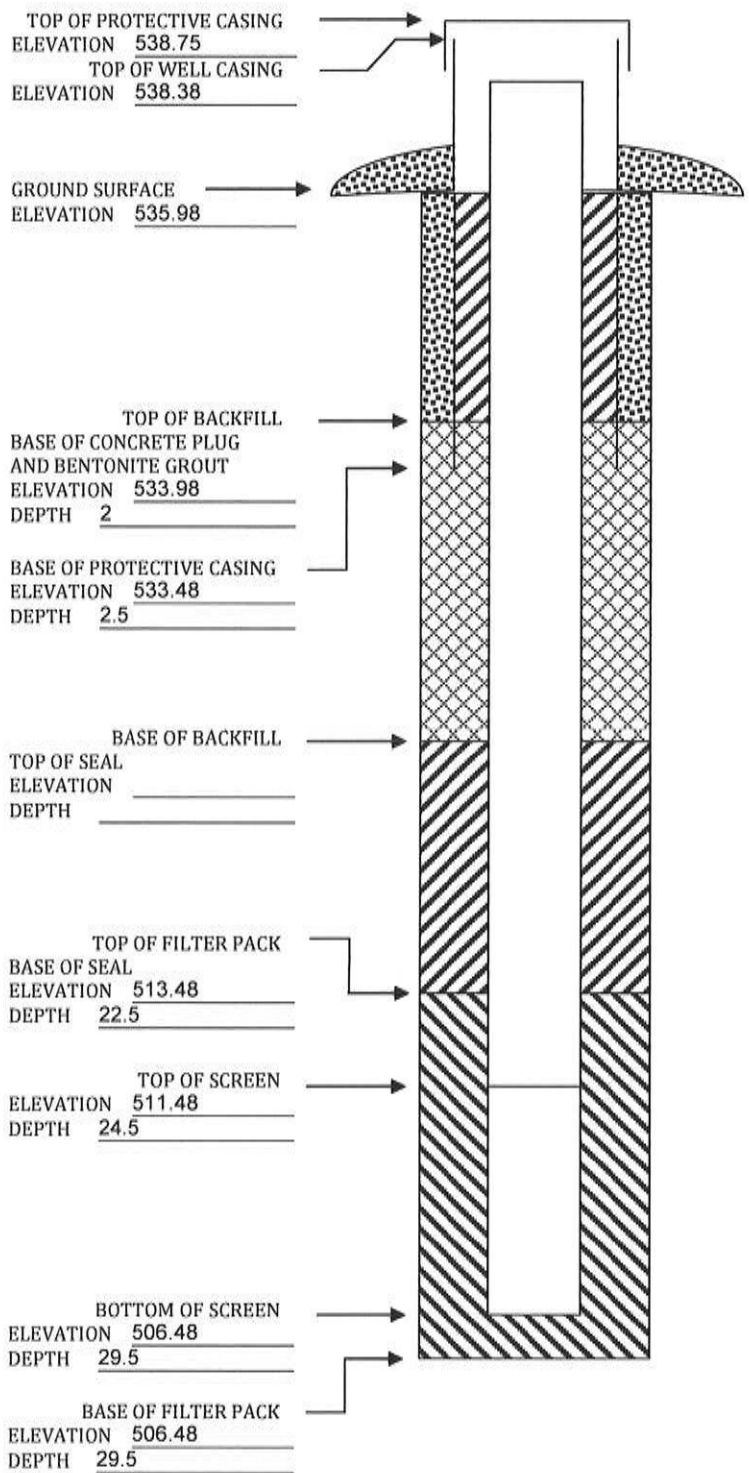
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-302

Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of Parcel 16-29-300-008

Distance & direction along boundary: 315' W

Distance & direction from boundary to wall: 34'N

Elevations (± 0.01 ft MSL):

Ground Surface: 533.24

Top of protective casing: 535.98

Top of well casing: 535.69

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Direct Push Analytical Corp
4N969 Old LaFox Road, Unit E
St. Charles, IL 60175

Name of Driller: Kevin Collins

Drilling Method: Direct Push/4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Macro Core

Depth of Boring: 28 ft bgs

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 22.5

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 27.5

Filter Pack:

Material: NSF R.W Sidley Inc.

Grain size: 10/20

Volume: 1.25 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Black Hills Bentonite 3/8 inch

Placement method: Gravity

Volume: 2.7 cubic ft

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 4 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☒ Yes ☐ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 12.70 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 68.5 gallons pumped.

Average depth of frostline: 3.5

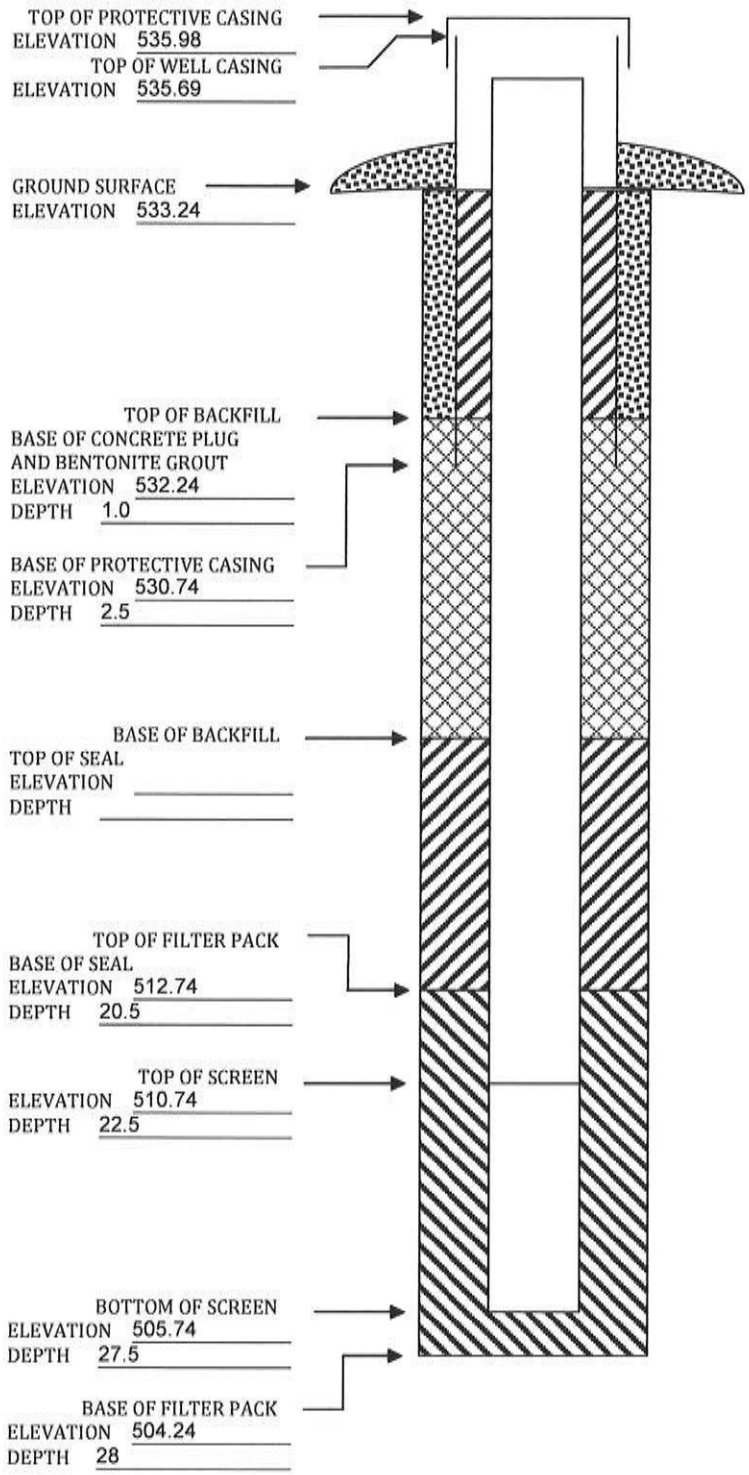
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Burlington Generating Station | Permit No.:

Well or Piezometer No.: MW-302A | Dates Started: 6/30/ 2020 | Date Completed: 7/1/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: South East Corner | Distance and direction along boundary:

Distance and direction from boundary to surface monitoring well:

Elevation (+0.01 ft. MSL):

Ground Surface: 533.51' | Top of protective casing: 536.28'

Top of well casing: 535.89' | Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling

Address: 1107 S Mulberry St | City, State, Zip Code: Millstadt, IL 62260

Name of driller: Jeff Crank

Drilling method: Hollow Stem Auger | Drilling fluid: Water | Bore Hole diameter: 4.25"

Soil sampling method: Split spoon | Depth of boring: 61'

C. MONITORING WELL INSTALLATION

Casing material: Sch. 40 PVC

Length of casing: 62.5'

Outside casing diameter: 2.4"

Inside casing diameter: 2"

Casing joint type: Threaded

Casing/screen joint type: Threaded

Screen material: Sch. 40 PVC

Screen opening size: 0.01

Screen length: 5'

Depth of Well: 60'

Filter Pack:

- Material: Sand (FilterSil)
- Grain Size: 18-23
- Volume: 2, 50lbs bags

Seal (minimum 3 ft. length above filter pack):

- Material: Bentonite grout

Placement method: Pumped

Volume: 8, 50lbs bags (120 gallons of grout)

Backfill (if different from seal):

- Material: 3/8" Bentonite chips
- Placement method: Poured
- Volume: 3, 50lbs bags

Surface seal design: Stick-up

Material of protective casing: steel

Material of grout between protective casing and well casing: Sand

Protective cap:

- Material: Steel
- Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N

Well cap: Lockable expanding well plug

- Material: Plastic
- Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 14.25' | **Stabilization time**: < 5 min

Well development method: Surged with bailer and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank | **Certification #**: 8515 | **Date**: 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

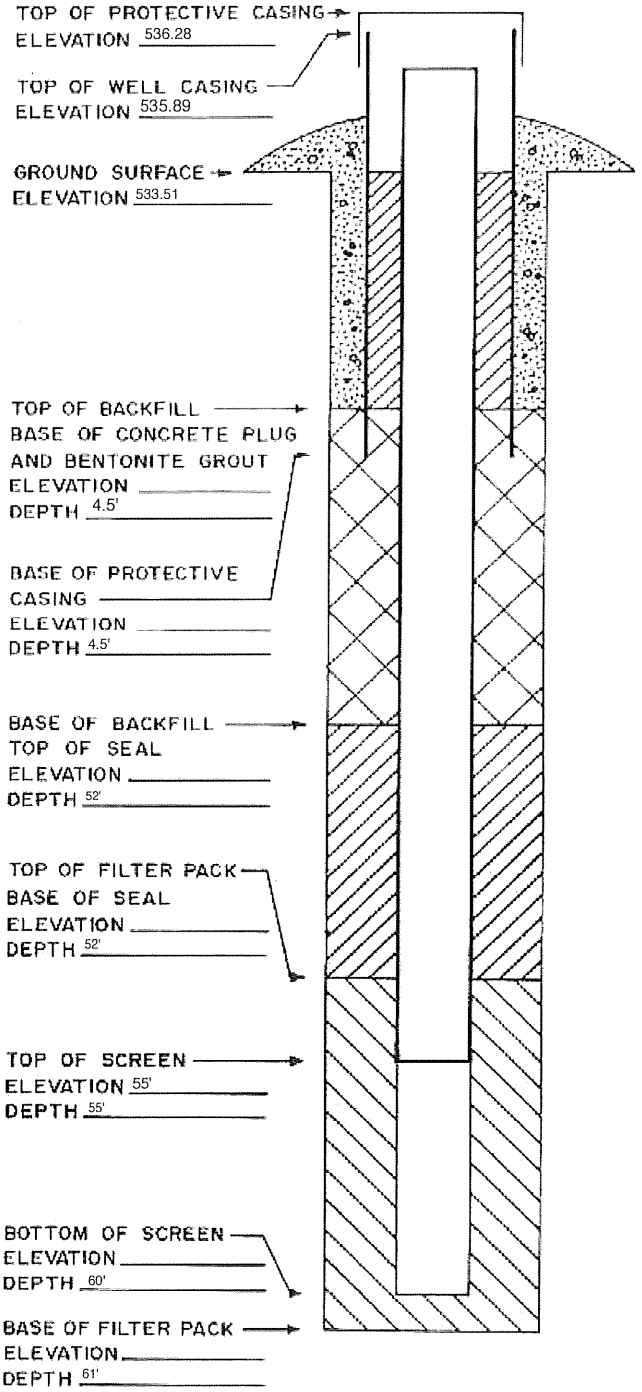
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-303

Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of Parcel 16-29-300-008

Distance & direction along boundary: 89' W

Distance & direction from boundary to wall: 139' N

Elevations (± 0.01 ft MSL):

Ground Surface: 531.01

Top of protective casing: 534.08

Top of well casing: 533.6

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 27 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 21 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 26 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2.5 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 7.4 cubic ft

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 10.55 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 147 gallons pumped.

Average depth of frostline: 3.5'

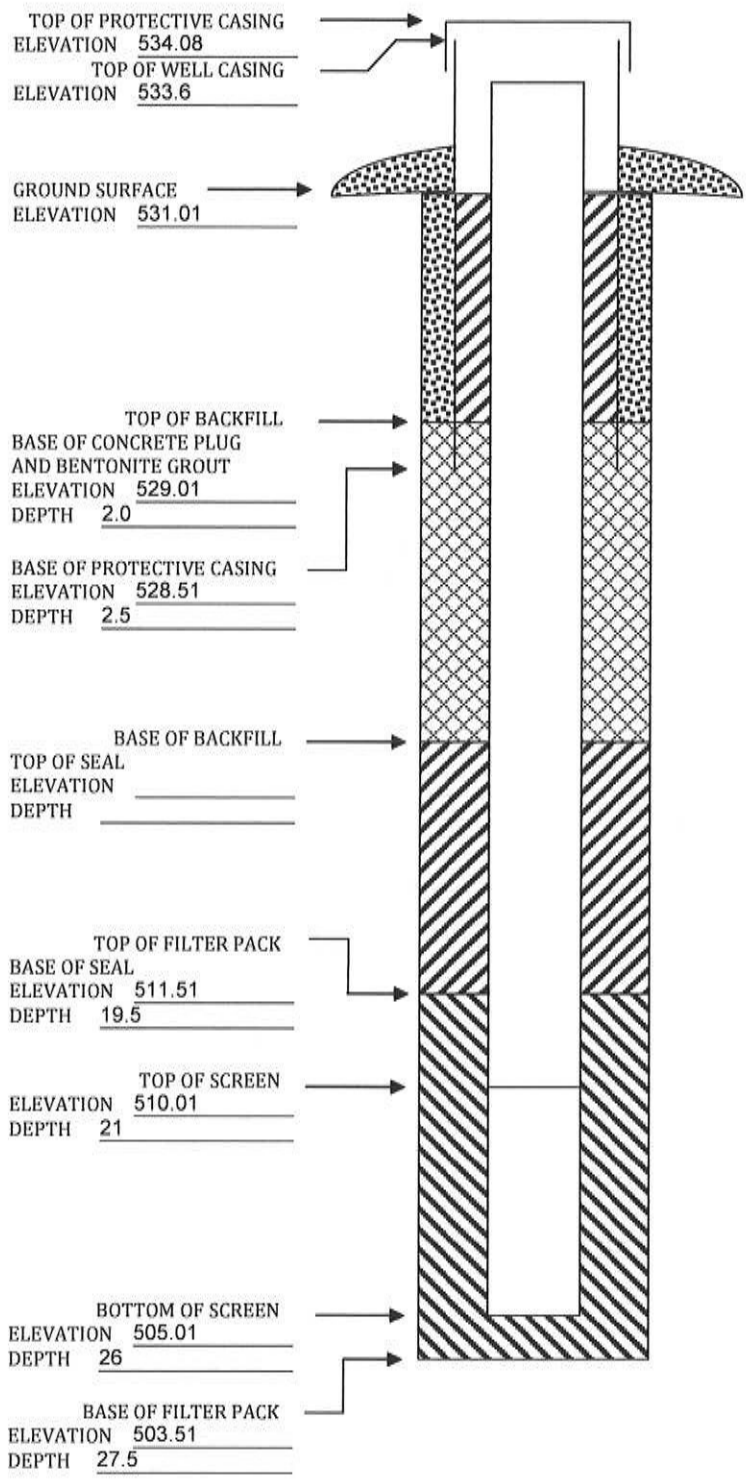
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-304

Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of Parcel 16-29-300-008

Distance & direction along boundary: 61' W

Distance & direction from boundary to wall: 558' N

Elevations (± 0.01 ft MSL):

Ground Surface: 532.15

Top of protective casing: 535.00

Top of well casing: 534.42

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 27 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 18 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 23 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2.0 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 4 cubic ft

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: steel, vented

Vented: ☐ Yes ☐ No Locking: ☒ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 11.34 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 136 gallons pumped.

Average depth of frostline: 3.5'

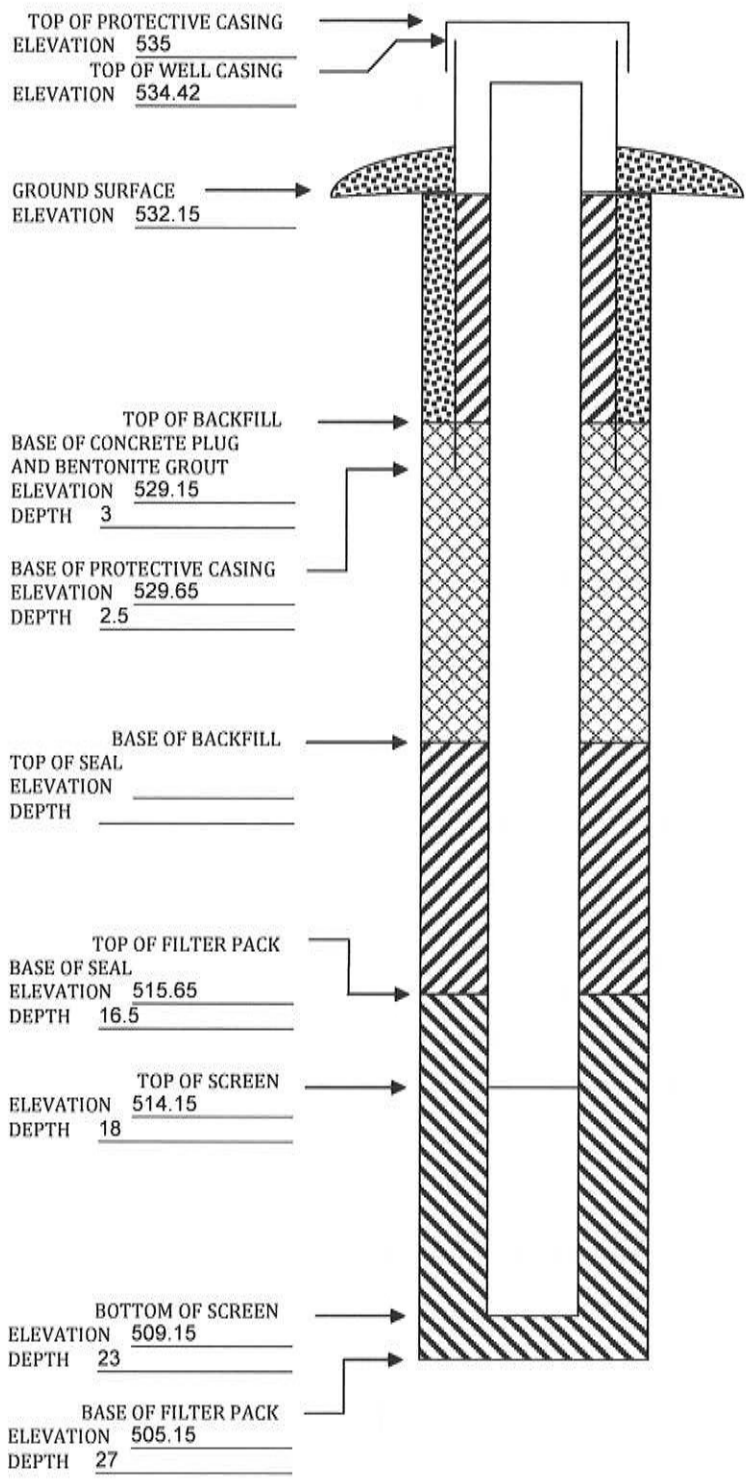
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-305

Dates Started: 12/17/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NW of Parcel 16-29-300-006

Distance & direction along boundary: 475' S

Distance & direction from boundary to wall: 297' E

Elevations (± 0.01 ft MSL):

Ground Surface: 530.85

Top of protective casing: 533.93

Top of well casing: 533.28

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 27.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing:

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5

Depth of well: 32

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2.0 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 5.4 cubic ft

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 10.04 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 184 gallons pumped.

Average depth of frostline: 3.5'

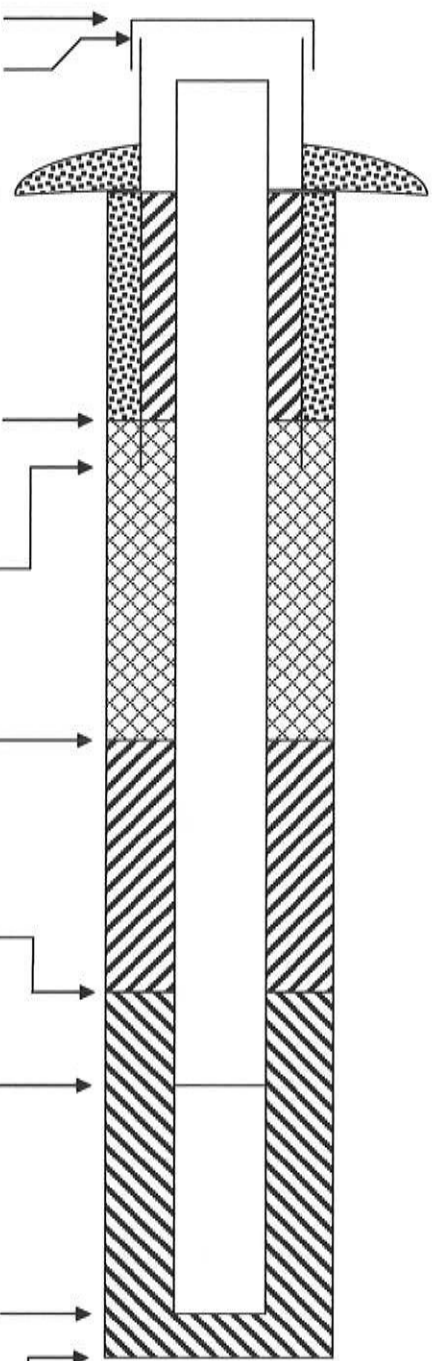
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



TOP OF PROTECTIVE CASING
ELEVATION 533.93

TOP OF WELL CASING
ELEVATION 533.28

GROUND SURFACE
ELEVATION 530.85

TOP OF BACKFILL
BASE OF CONCRETE PLUG
AND BENTONITE GROUT
ELEVATION 528.85
DEPTH 2.0

BASE OF PROTECTIVE CASING
ELEVATION 528.35
DEPTH 2.5

BASE OF BACKFILL
TOP OF SEAL
ELEVATION
DEPTH

TOP OF FILTER PACK
BASE OF SEAL
ELEVATION 510.85
DEPTH 20

TOP OF SCREEN
ELEVATION 508.85
DEPTH 22

BOTTOM OF SCREEN
ELEVATION 503.85
DEPTH 27

BASE OF FILTER PACK
ELEVATION 503.35
DEPTH 27.5

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-306

Dates Started: 12/16/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SW of Parcel 16-29-300-006

Distance & direction along boundary: 328' N

Distance & direction from boundary to wall: 210' E

Elevations (± 0.01 ft MSL):

Ground Surface: 534.51

Top of protective casing: 537.44

Top of well casing: 536.92

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 32.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 27 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 32 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2.5 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 6.7 cubic ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 13.65 Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 120 gallons pumped.

Average depth of frostline: 3.5

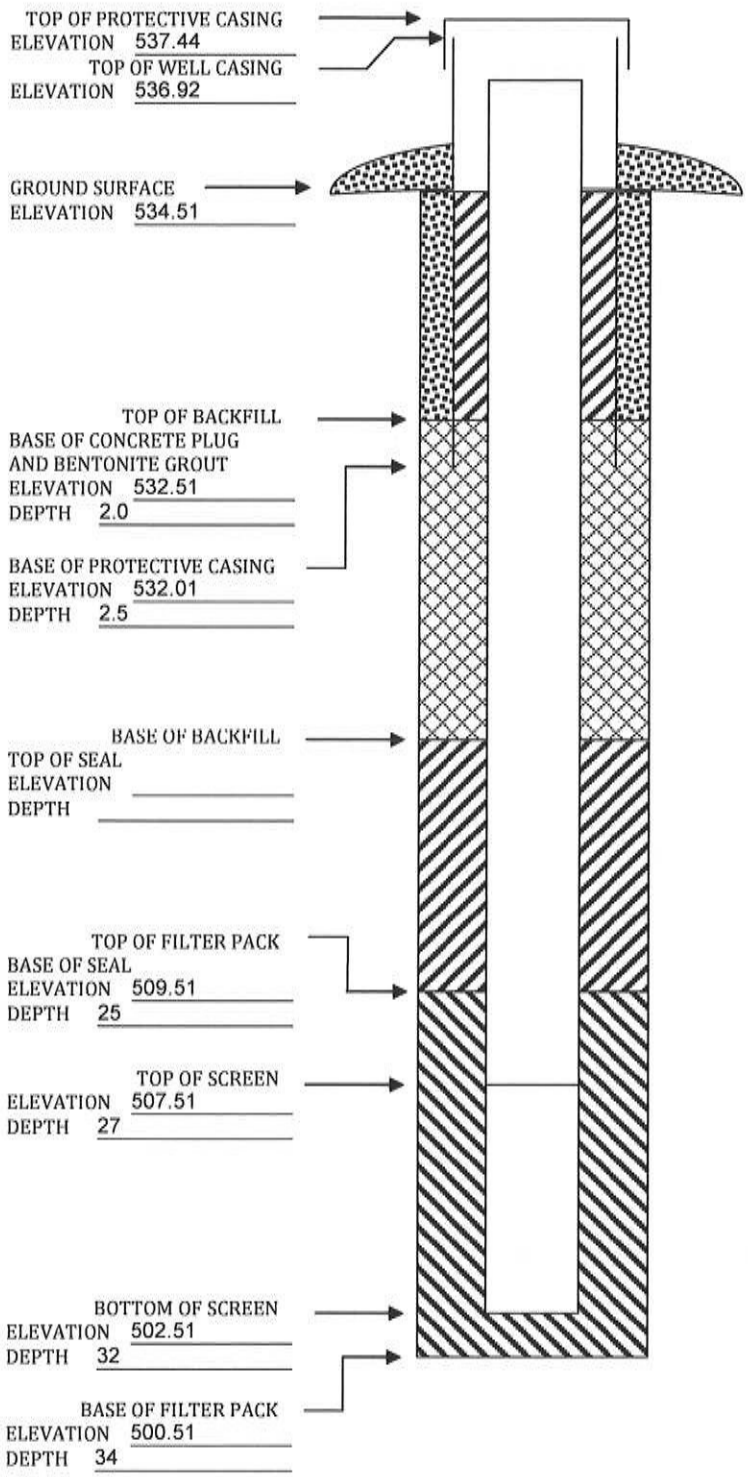
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-307

Dates Started: 12/16/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SW of Parcel 16-29-300-006

Distance & direction along boundary: 201' N

Distance & direction from boundary to wall: 177' E

Elevations (± 0.01 ft MSL):

Ground Surface: 534.32

Top of protective casing: 537.54

Top of well casing: 536.96

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 27 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 21 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 27 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2 cubic ft

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 6 cubic ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☒ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 13.34 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 137 gallons pumped.

Average depth of frostline: 3.5'

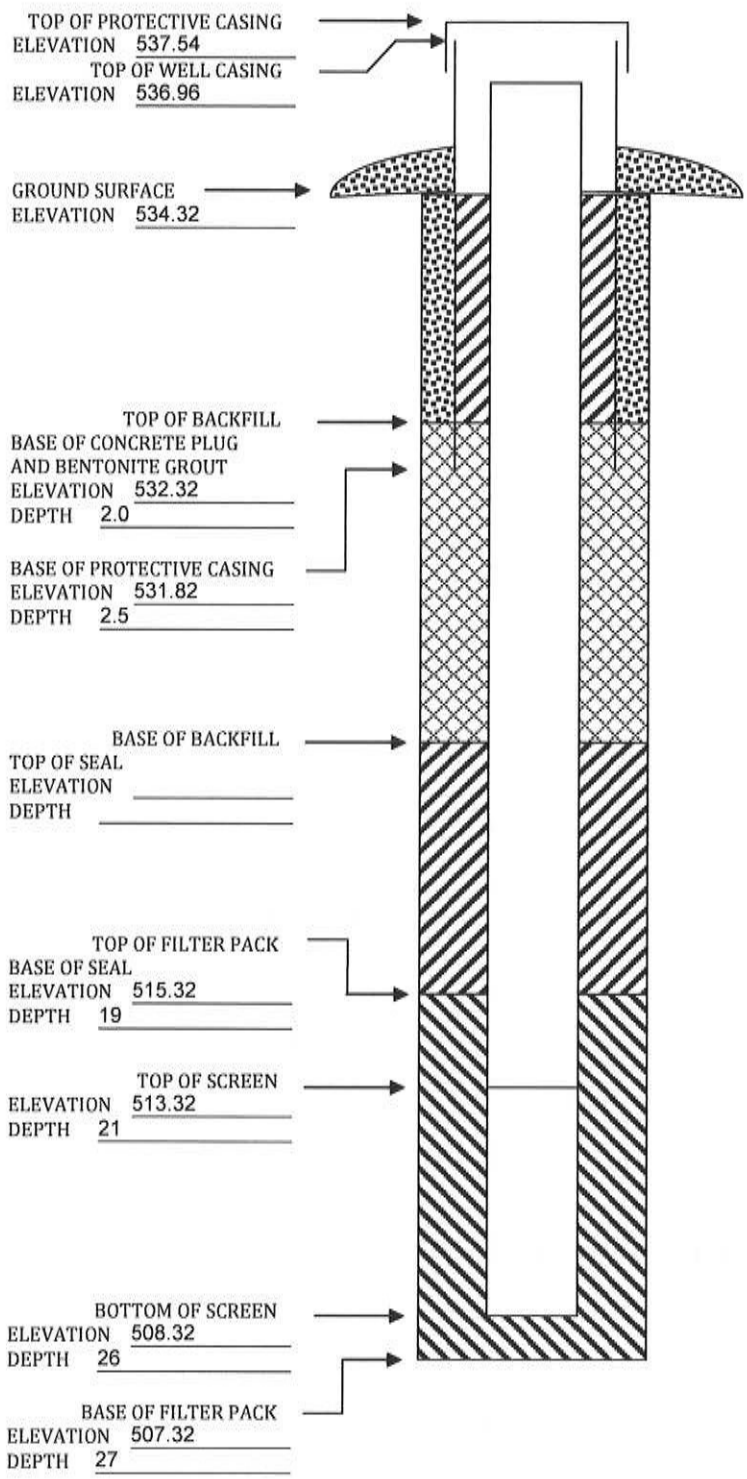
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Burlington Generating Station — Permit No.:

Well or Piezometer No.: MW-307A — Dates Started: 6/24/ 2020 — Date Completed: 7/1/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SW of Parcel 16-29-300-00 — Distance and direction along boundary: 201' N

Distance and direction from boundary to surface monitoring well: 177' E

Elevation (+0.01 ft. MSL)

Ground Surface: 533.94' — Top of protective casing: 536.67'

Top of well casing: 536.22' — Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling

Address: 1107 S Mulberry St — City, State, Zip Code: Millstadt, IL 62260

Name of driller: Jeff Crank

Drilling method: Hollow Stem Auger — Drilling fluid: Water — Bore Hole diameter: 4.25"

Soil sampling method: Split spoon — Depth of boring: 60'

C. MONITORING WELL INSTALLATION

Casing material: Sch. 40 PVC

Length of casing: 61.92'

Outside casing diameter: 2.4"

Inside casing diameter: 2"

Casing joint type: Threaded

Casing/screen joint type: Threaded

Screen material: Sch. 40 PVC

Screen opening size: 0.01

Screen length: 5'

Depth of Well: 59'

Filter Pack:

Material: Sand (FilterSil)

Grain Size: 18-23

Volume: 3, 50lbs bags

Seal (minimum 3 ft. length above filter pack):

Material: Bentonite grout

Placement method: Pumped

Volume: 7, 50lbs bags (~115 gallons of grout)

Backfill (if different from seal):

Material: 3/8" Bentonite chips

Placement method: Poured

Volume: 5, 50lbs bags

Surface seal design: Stick-up

Material of protective casing: steel

Material of grout between protective casing and well casing: Sand

Protective cap:

Material: Steel

Vented?: ☒ Y ☐ N — Locking?: ☒ Y ☐ N

Well cap: Lockable expanding well plug

Material: Plastic

Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 14.37' — **Stabilization time**: <5 min

Well development method: Surged with bailer and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank — **Certification #**: 8515 — **Date**: 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

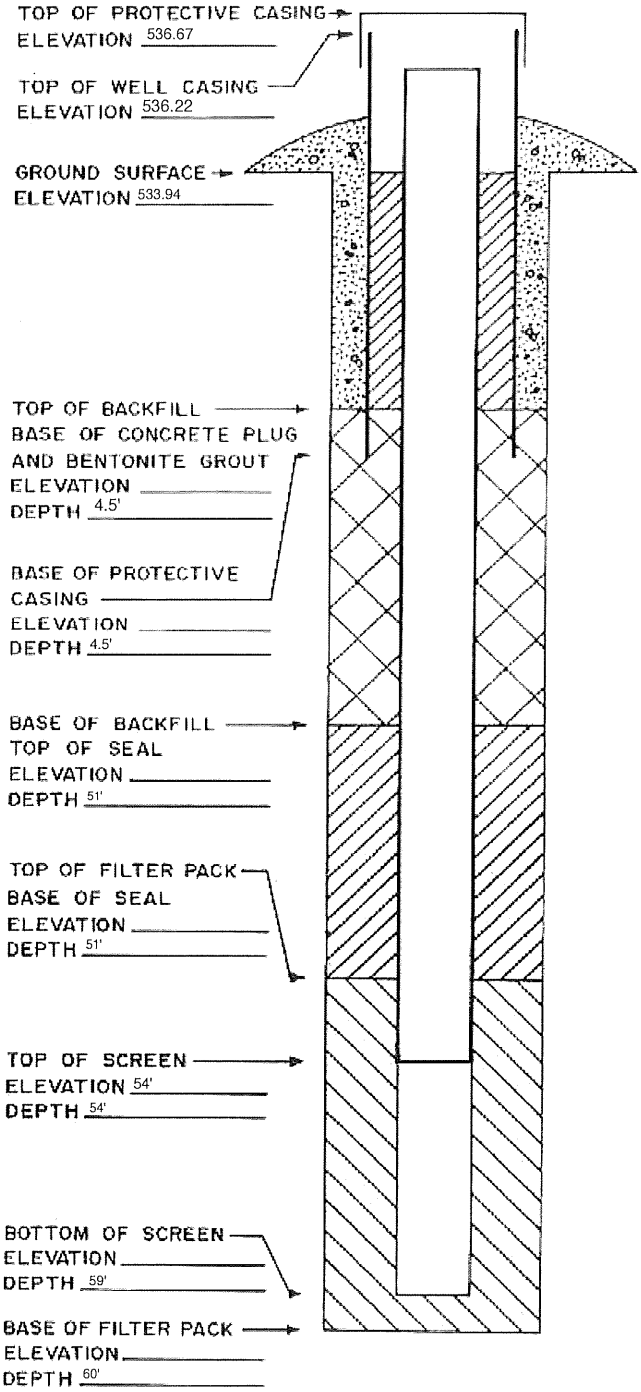
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-308

Dates Started: 12/15/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SW of Parcel 16-29-300-006

Distance & direction along boundary: 33' N

Distance & direction from boundary to wall: 130' E

Elevations (± 0.01 ft MSL):

Ground Surface: 534.89

Top of protective casing: 537.74

Top of well casing: 537.20

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: 4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 29.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 23 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 28 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 2 cubic ft.

Seal (minimum 3 ft length above filter pack):

Material: Hole Plug 3/8 inch

Placement method: Gravity

Volume: 6 cubic ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: steel, vented

Vented: ☐ Yes ☒ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 13.95 Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 151 gallons pumped.

Average depth of frostline: 3.5'

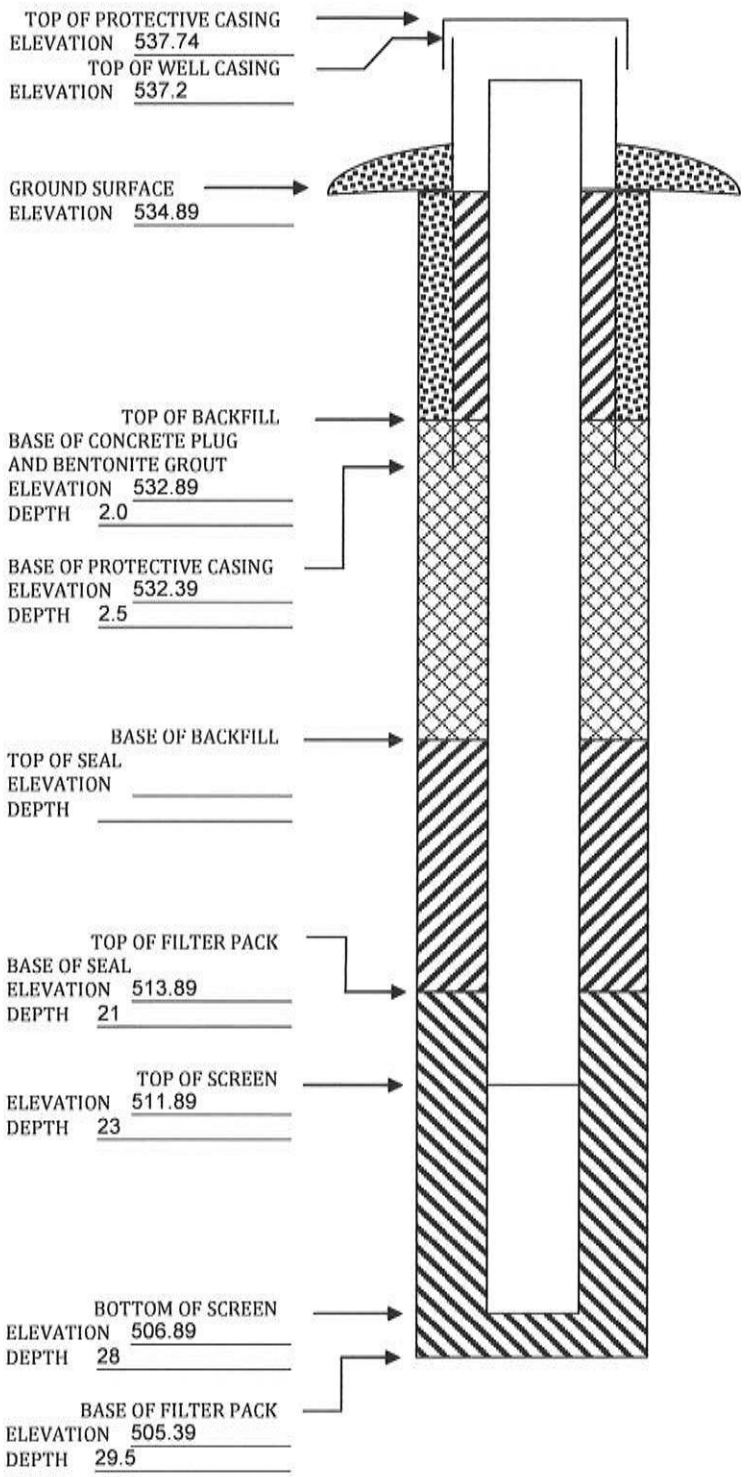
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-309

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NE of Parcel 16-29-300-007

Distance & direction along boundary: 141' S

Distance & direction from boundary to wall: 123' W

Elevations (± 0.01 ft MSL):

Ground Surface: 534.11

Top of protective casing: 536.70

Top of well casing: 536.42

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Direct Push Analytical Corp
4N969 Old LaFox Road, Unit E
St. Charles, IL 60175

Name of Driller: Kevin Collins

Drilling Method: Direct Push/4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Macro Core

Depth of Boring: 25 ft bgs

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 20

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC with slip cap and 4 stainless screws

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 25

Filter Pack:

Material: NSF R.W Sidley Inc.

Grain size: 10/20

Volume: 1.50 cubic ft.

Seal (minimum 3 ft length above filter pack):

Material: Black Hills Bentonite 3/8 inch

Placement method: Gravity

Volume: 2 cubic ft.

Backfill (if different from seal):

Material: 3/8 Hole Plug

Placement method: Gravity

Volume:

Surface seal design:

Material of protective casing: Steel 4 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: steel, vented

Vented: ☐ Yes ☐ No Locking: ☒ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 13.18 Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 140 gallons pumped.

Average depth of frostline:

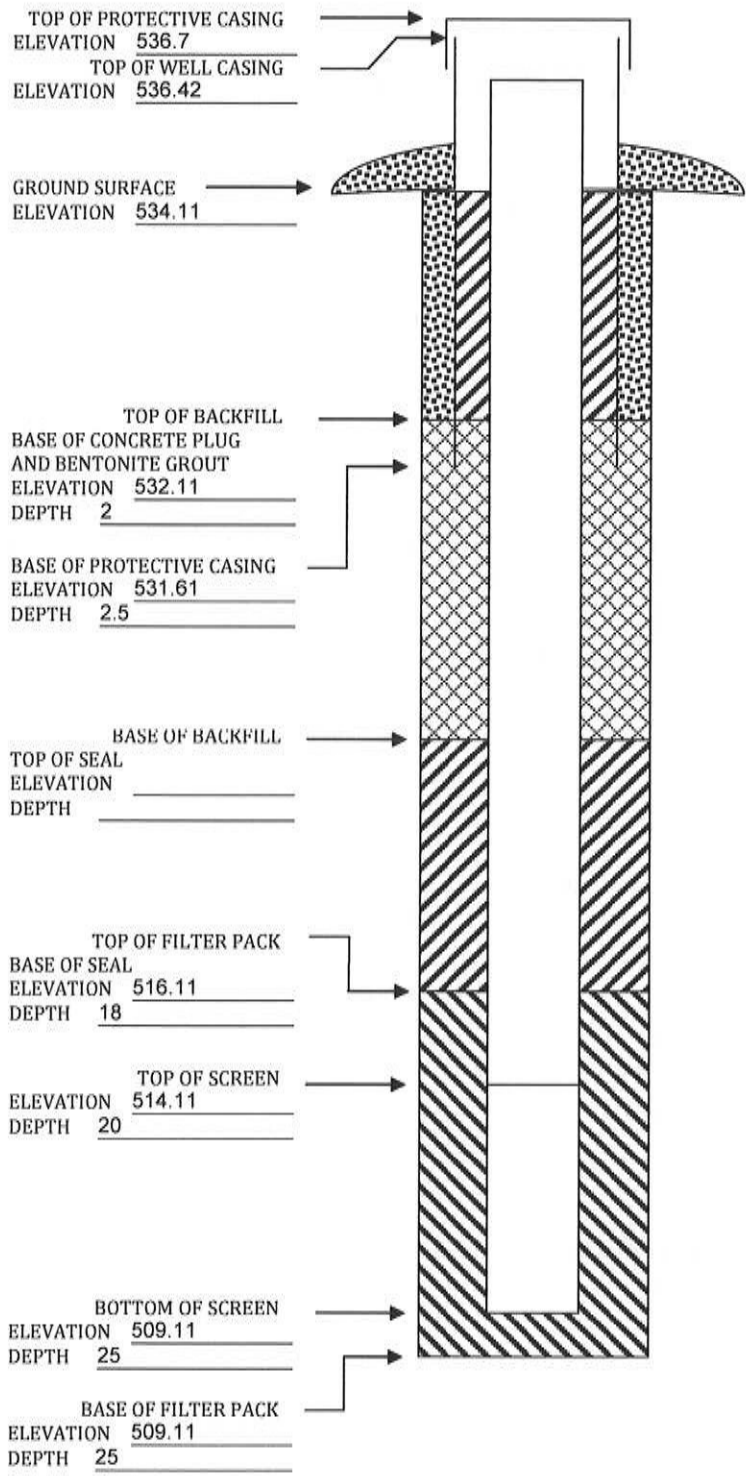
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-310

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: Sullivan Slough RD West ROW

Distance & direction along boundary: 65' S from RR Tracks

Distance & direction from boundary to wall: 21' W

Elevations (± 0.01 ft MSL):

Ground Surface: 532.23

Top of protective casing: 532.23

Top of well casing: 531.99

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Direct Push Analytical Corp
4N969 Old LaFox Road, Unit E
St. Charles, IL 60175

Name of Driller: Kevin Collins

Drilling Method: Direct Push/4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Macro Core

Depth of Boring: 24 ft bgs

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 14

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC with slip cap and 4 stainless screws

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 19 ft bgs

Filter Pack:

Material: NSF R.W Sidley Inc.

Grain size: 10/20

Volume: 1 cubic ft.

Seal (minimum 3 ft length above filter pack):

Material: Black Hills Bentonite 3/8 inch

Placement method: Gravity

Volume: 2.7 cubic ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 4 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, not vented, flush-mount

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 6.58 Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 112.5 gallons pumped.

Average depth of frostline: 3.5

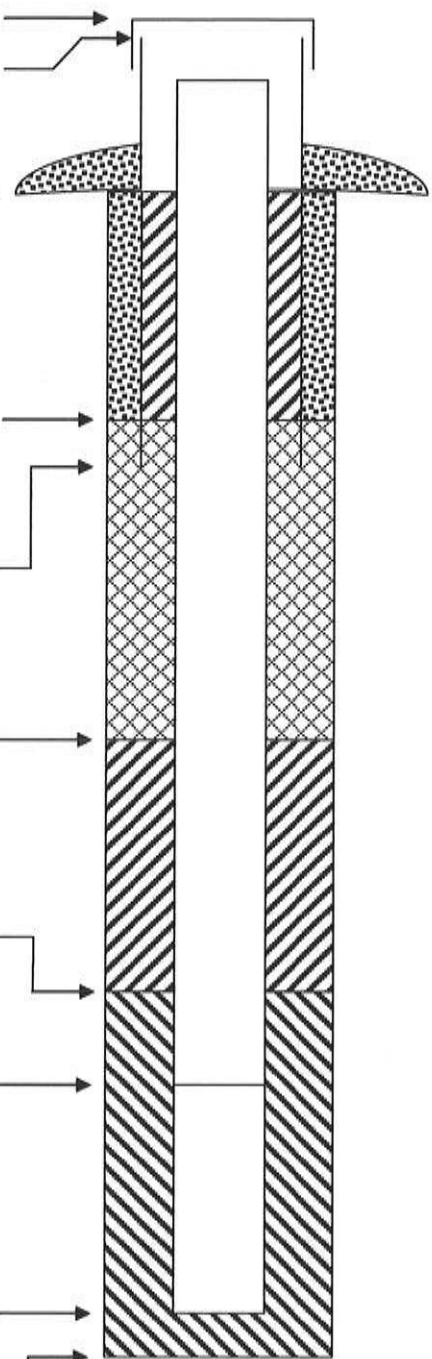
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



TOP OF PROTECTIVE CASING
ELEVATION 532.23

TOP OF WELL CASING
ELEVATION 531.99

GROUND SURFACE
ELEVATION 532.23

TOP OF BACKFILL
BASE OF CONCRETE PLUG
AND BENTONITE GROUT
ELEVATION 530.23
DEPTH 2

BASE OF PROTECTIVE CASING
ELEVATION 529.73
DEPTH 2.5

BASE OF BACKFILL
TOP OF SEAL
ELEVATION
DEPTH

TOP OF FILTER PACK
BASE OF SEAL
ELEVATION 520.23
DEPTH 12

TOP OF SCREEN
ELEVATION 518.23
DEPTH 14

BOTTOM OF SCREEN
ELEVATION 513.23
DEPTH 19

BASE OF FILTER PACK
ELEVATION 508.23
DEPTH 24

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Burlington Generating Station | Permit No.:

Well or Piezometer No.: MW-310A | Dates Started: 6/25/ 2020 | Date Completed: 6/26/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: Sullivan SloughRd WestROW | Distance and direction along boundary: 75' S from RR Tracks

Distance and direction from boundary to surface monitoring well: 21' W

Elevation (+0.01 ft. MSL):

Ground Surface: 532.91' | Top of protective casing: 532.91'

Top of well casing: 532.53' | Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling

Address: 1107 S Mulberry St | City, State, Zip Code: Millstadt, IL 62260

Name of driller: Jeff Crank

Drilling method: Hollow Stem Auger | Drilling fluid: Water | Bore Hole diameter: 4.25"

Soil sampling method: Split spoon | Depth of boring: 50'

C. MONITORING WELL INSTALLATION

Casing material: Sch. 40 PVC

Length of casing: 49.4'

Outside casing diameter: 2.4"

Inside casing diameter: 2"

Casing joint type: Threaded

Casing/screen joint type: Threaded

Screen material: Sch. 40 PVC

Screen opening size: 0.01

Screen length: 5'

Depth of Well: 49'

Filter Pack:

- Material: Sand (FilterSil)
- Grain Size: 18-23
- Volume: 3, 50lbs bags

Seal (minimum 3 ft. length above filter pack):

- Material: Bentonite grout

Placement method: Pumped

Volume: 8, 50lbs bags (~130 gallons of grout)

Backfill (if different from seal):

- Material: 3/8" Bentonite chips
- Placement method: Poured
- Volume: 23, 50lbs bags

Surface seal design: Flush mount

Material of protective casing: steel

Material of grout between protective casing and well casing: Bentonite chips

Protective cap:

- Material: Steel
- Vented?: ☐ Y ☒ N Locking?: ☐ Y ☒ N

Well cap: Lockable expanding well plug

- Material: Plastic
- Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 8.77' | **Stabilization time**: >48 hrs

Well development method: Surged with bailer and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank | **Certification #**: 8515 | **Date**: 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

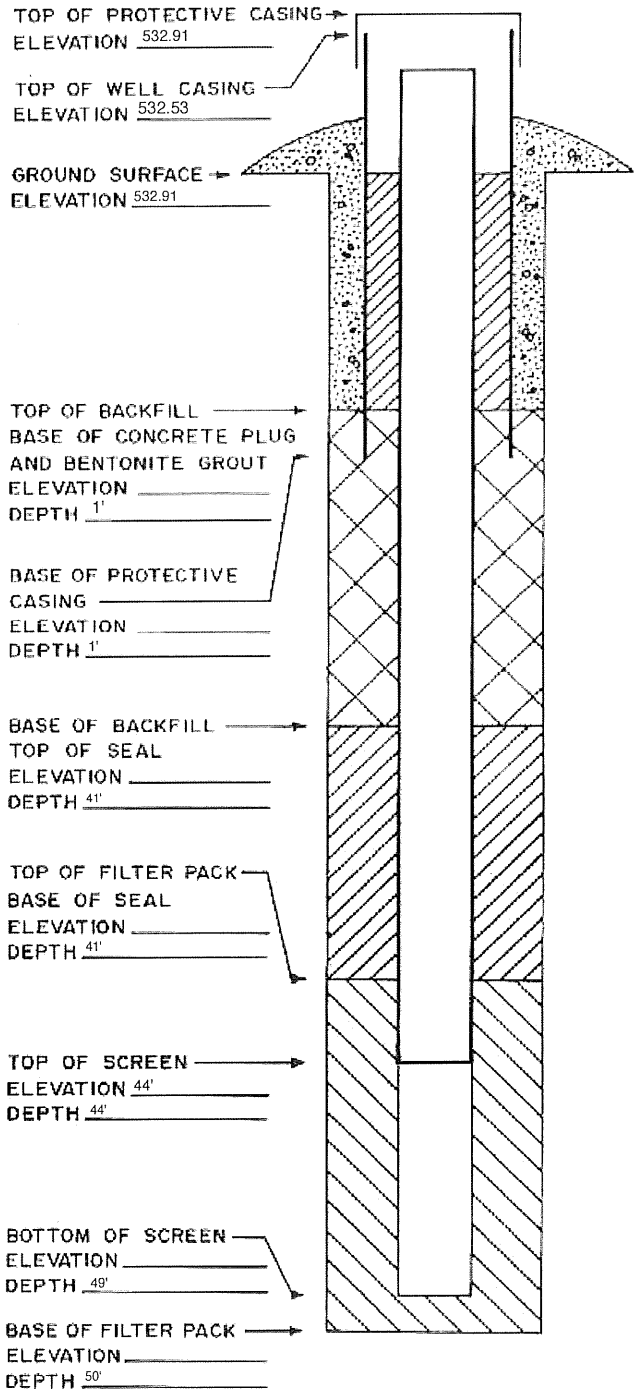
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-311

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: Sullivan Slough RD West ROW

Distance & direction along boundary: 207' S from RR Tracks

Distance & direction from boundary to wall: 18' W

Elevations (± 0.01 ft MSL):

Ground Surface: 532.69

Top of protective casing: 532.69

Top of well casing: 532.32

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Direct Push Analytical Corp
4N969 Old LaFox Road, Unit E
St. Charles, IL 60175

Name of Driller: Kevin Collins

Drilling Method: Direct Push/4.25" HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Macro Core

Depth of Boring: 32 ft bgs

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 18

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC with slip cap and 4 stainless screws

Screen opening size: 0.010"

Screen length: 5

Depth of well: 23

Filter Pack:

Material: NSF R.W Sidley Inc.

Grain size: 10/20

Volume: 1 cubic ft.

Seal (minimum 3 ft length above filter pack):

Material: Black Hills Bentonite 3/8 inch

Placement method: Gravity

Volume: 3.7 cubic ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 4 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: steel, not vented, flush-mount

Vented: ☐ Yes ☐ No Locking: ■ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ■ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 8.34 ft Stabilization Time: <5 minutes

Well development method: Surged with block and pumped to reduce turbidity. 99 gallons pumped.

Average depth of frostline: 3.5'

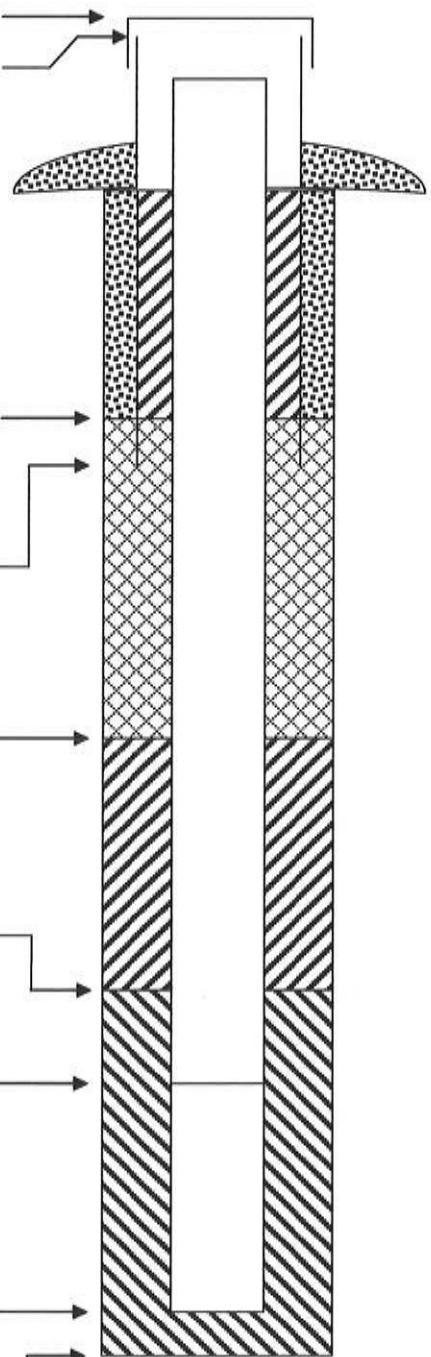
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



TOP OF PROTECTIVE CASING
ELEVATION 532.69

TOP OF WELL CASING
ELEVATION 532.32

GROUND SURFACE
ELEVATION 532.69

TOP OF BACKFILL
BASE OF CONCRETE PLUG
AND BENTONITE GROUT
ELEVATION 530.69
DEPTH 2

BASE OF PROTECTIVE CASING
ELEVATION 530.19
DEPTH 2.5

BASE OF BACKFILL
TOP OF SEAL
ELEVATION
DEPTH

TOP OF FILTER PACK
BASE OF SEAL
ELEVATION 516.69
DEPTH 16

TOP OF SCREEN
ELEVATION 514.69
DEPTH 18

BOTTOM OF SCREEN
ELEVATION 509.69
DEPTH 23

BASE OF FILTER PACK
ELEVATION 500.69
DEPTH 32

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL Burlington Generating Station — Permit No.:

Well or Piezometer No.: MW312 — Dates Started: 5/20/2019 — Date Completed: 5/21/2019

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SE — Distance and direction along boundary: 1,400 N

Distance and direction from boundary to surface monitoring well: 200 W

Elevation (+0.01 ft. MSL)

Ground Surface: 533.80 — Top of protective casing: 536.83

Top of well casing: 536.43 — Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling, Inc.

Address: 1107 S Mullberry St. — City, State, Zip Code: Millstadt, IL 62260

Name of driller: Jeff Crank

Drilling method: 4.25" HSA — Drilling fluid: — Bore Hole diameter: 8.5"

Soil sampling method: split spoon — Depth of boring: 26'

C. MONITORING WELL INSTALLATION

Casing material: PVC

Length of casing: 27.65

Outside casing diameter: 2.4"

Inside casing diameter: 2.0"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.01"

Screen length: 5'

Depth of Well: 25'

Filter Pack:

Material: filter sand

Grain Size: #5

Volume: 3 cu. ft.

Seal (minimum 3 ft. length above filter pack):

Material: Bentonite chips

Placement method: gravity

Volume: 5 cu. ft.

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design: Concrete

Material of protective casing: Steel

Material of grout between protective casing and well casing: Bentonite

Protective cap:

Material: Steel

Vented?: ☒ Y ☐ N — Locking?: ☒ Y ☐ N

Well cap: Low-flow purge cap

Material: Plastic

Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 4.85 — **Stabilization time:** < 1 hr

Well development method: Surged and pumped to remove turbidity

Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank — **Certification #:** 8515 — **Date:** 8/8/2019

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

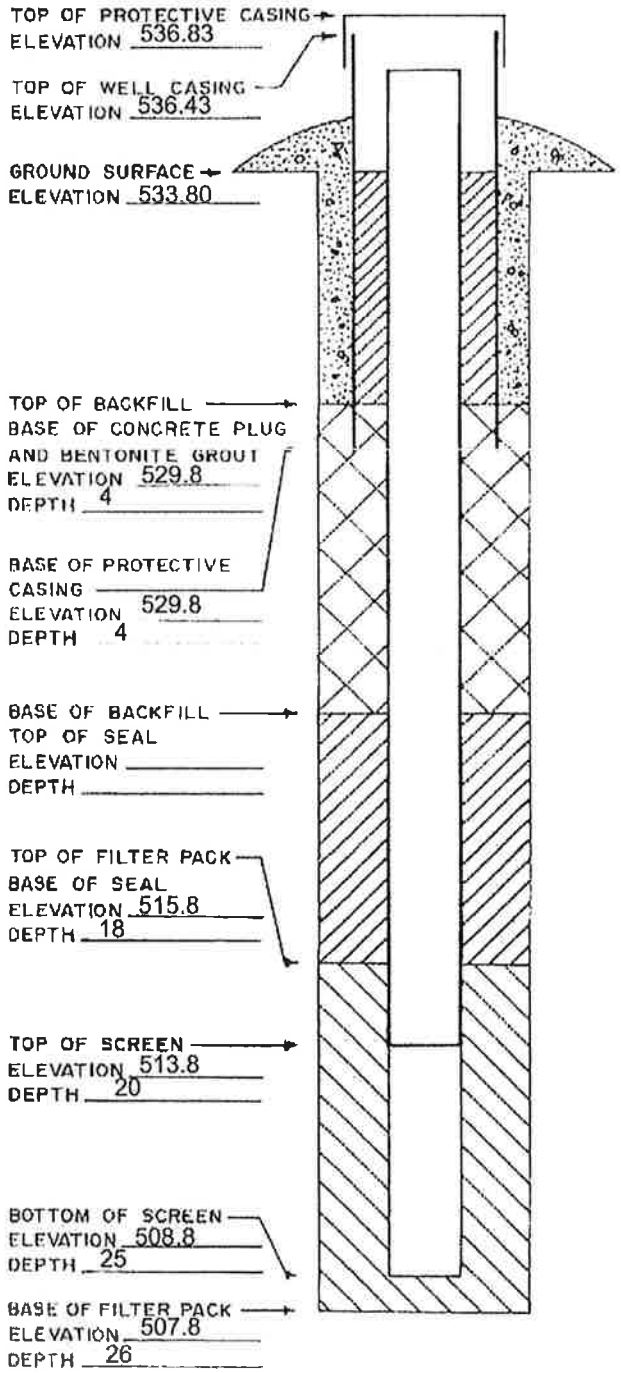
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL Burlington Generating Station — Permit No.:
Well or Piezometer No.: MW313 — Dates Started: 5/21/2019 — Date Completed: 5/22/2019

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SE — Distance and direction along boundary: 890 N
Distance and direction from boundary to surface monitoring well: 130 E
Elevation (+0.01 ft. MSL):
Ground Surface: 533.97 — Top of protective casing: 536.18
Top of well casing: 535.82 — Benchmark elevation:
Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling, Inc.
Address: 1107 S Mullberry St. — City, State, Zip Code: Millstadt, IL 62260
Name of driller: Jeff Crank
Drilling method: 4.25" HSA — Drilling fluid: water — Bore Hole diameter: 8.5"
Soil sampling method: split spoon — Depth of boring: 32'

C. MONITORING WELL INSTALLATION

Casing material: PVC
Length of casing: 32.99'
Outside casing diameter: 2.4"
Inside casing diameter: 2.0"
Casing joint type: threaded
Casing/screen joint type: threaded
Screen material: PVC
Screen opening size: 0.01"
Screen length: 5'
Depth of Well: 31'
Filter Pack:
- Material: filter sand
- Grain Size: #5
- Volume: 3 cu. ft.

Seal (minimum 3 ft. length above filter pack):
- Material: Bentonite chips

Placement method: gravity
Volume: 7 cu. ft.
Backfill (if different from seal):
- Material:
- Placement method:
- Volume:

Surface seal design: Concrete
Material of protective casing: Steel
Material of grout between protective casing and well casing: Bentonite
Protective cap:
- Material: steel
- Vented?: ☒ Y ☐ N — Locking?: ☒ Y ☐ N

Well cap: Low-flow purge cap
- Material: Plastic
- Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 4.25 — **Stabilization time:** < 1 hr
Well development method: Surged and pumped to remove turbidity
Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank — **Certification #:** 8515 — **Date:** 8/8/2019

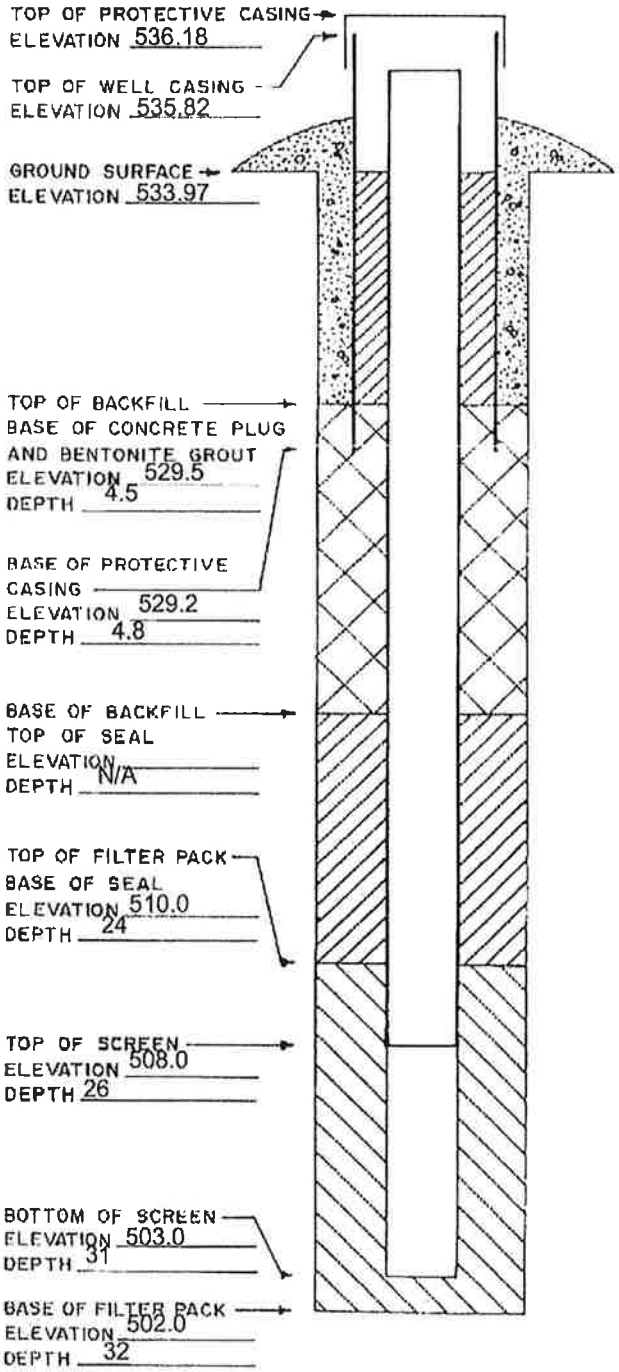
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ Inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Burlington Generating Station Permit No.:

Well or Piezometer No.: MW-313A Dates Started: 6/23/ 2020 Date Completed: 6/30/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SE Distance and direction along boundary: 890 N

Distance and direction from boundary to surface monitoring well: 130 E

Elevation (+0.01 ft. MSL)

Ground Surface: 529.35' Top of protective casing: 532.03'

Top of well casing: 531.63' Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Roberts Environmental Drilling

Address: 1107 S Mulberry St City, State, Zip Code: Millstadt, IL 62260

Name of driller: Jeff Crank

Drilling method: Hollow Stem Auger Drilling fluid: Water Bore Hole diameter: 4.25"

Soil sampling method: Split spoon Depth of boring: 62'

C. MONITORING WELL INSTALLATION

Casing material: Sch. 40 PVC

Length of casing: 63.38'

Outside casing diameter: 2.4"

Inside casing diameter: 2"

Casing joint type: Threaded

Casing/screen joint type: Threaded

Screen material: Sch. 40 PVC

Screen opening size: 0.01

Screen length: 5'

Depth of Well: 61'

Filter Pack:

Material: Sand (FilterSil)

Grain Size: 18-23

Volume: 2, 50lbs bags

Seal (minimum 3 ft. length above filter pack):

Material: Bentonite grout

Placement method: Pumped

Volume: 9, 50lbs bags (~150 gallons of grout)

Backfill (if different from seal):

Material: 3/8" Bentonite chips

Placement method: Poured

Volume: 3, 50lbs bags

Surface seal design: Concrete

Material of protective casing: steel

Material of grout between protective casing and well casing: Bentonite chips

Protective cap:

Material: Steel

Vented?: ☐ Y ☒ N Locking?: ☐ Y ☒ N

Well cap: Lockable expanding well plug

Material: Plastic

Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 14.41' **Stabilization time**: < 5 min

Well development method: Surged with bailer and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: Jeff Crank **Certification #**: 8515 **Date**: 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

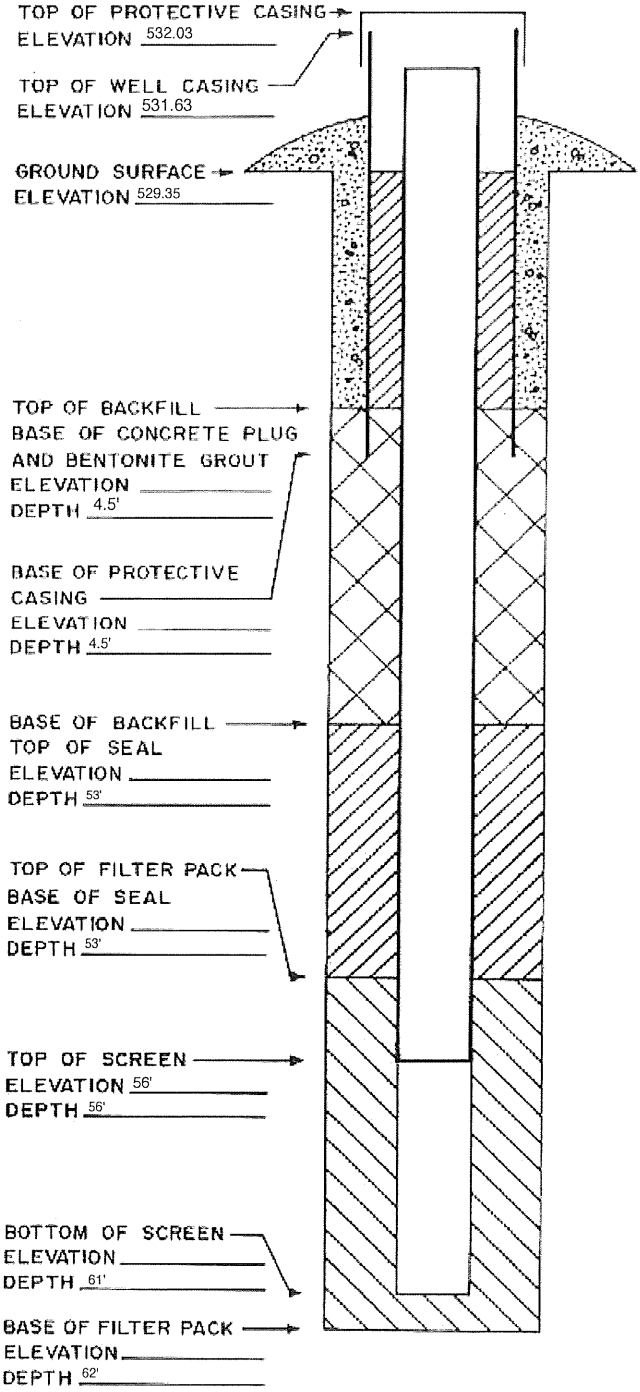
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No.

Well or Piezometer No. MW-307~~AB~~ Dates Started 5/10/2021 Date Completed 5/13/2021

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site Distance and direction along boundary

Distance and direction from boundary to surface monitoring well

Elevation (+0.01 ft. MSL)

Ground Surface Top of protective casing

Top of well casing Benchmark elevation

Benchmark description

B. SOIL BORING INFORMATION

Construction Company Name

Address City, State, Zip Code

Name of driller

Drilling method Roto-Sonic Drilling fluid water Bore Hole diameter 6"

Soil sampling method Bagged Depth of boring 85'

C. MONITORING WELL INSTALLATION

Casing material Sch. 40 PVC

Length of casing

Outside casing diameter 2.4"

Inside casing diameter 2.05"

Casing joint type ~~Sch 40 PVC~~ Threaded

Casing/screen joint type Threaded

Screen material Sch. 40 PVC

Screen opening size 0.01"

Screen length 5'

Depth of Well 80'

Filter Pack:

Material Red Flint filter Sand

Grain Size #40

Volume 3.5 bags, 1.75 ft³

Seal (minimum 3 ft. length above filter pack):

Material Bentonite chips (50lbs. bag)

Placement method poured

Volume 1 bag

Backfill (if different from seal):

Material Bentonite grout

Placement method pumped

Volume ~55 gallons

Surface seal design:

Material of protective casing: Steel

Material of grout between protective casing and well casing: Bentonite chips and sand

Protective cap:

Material Aluminum

Vented?: ☒ Y ☒ N Locking?: ☒ Y ☐ N

Well cap:

Material Plastic

Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level **Stabilization time**

Well development method

Average depth of frost line

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature **Certification #** **Date**

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

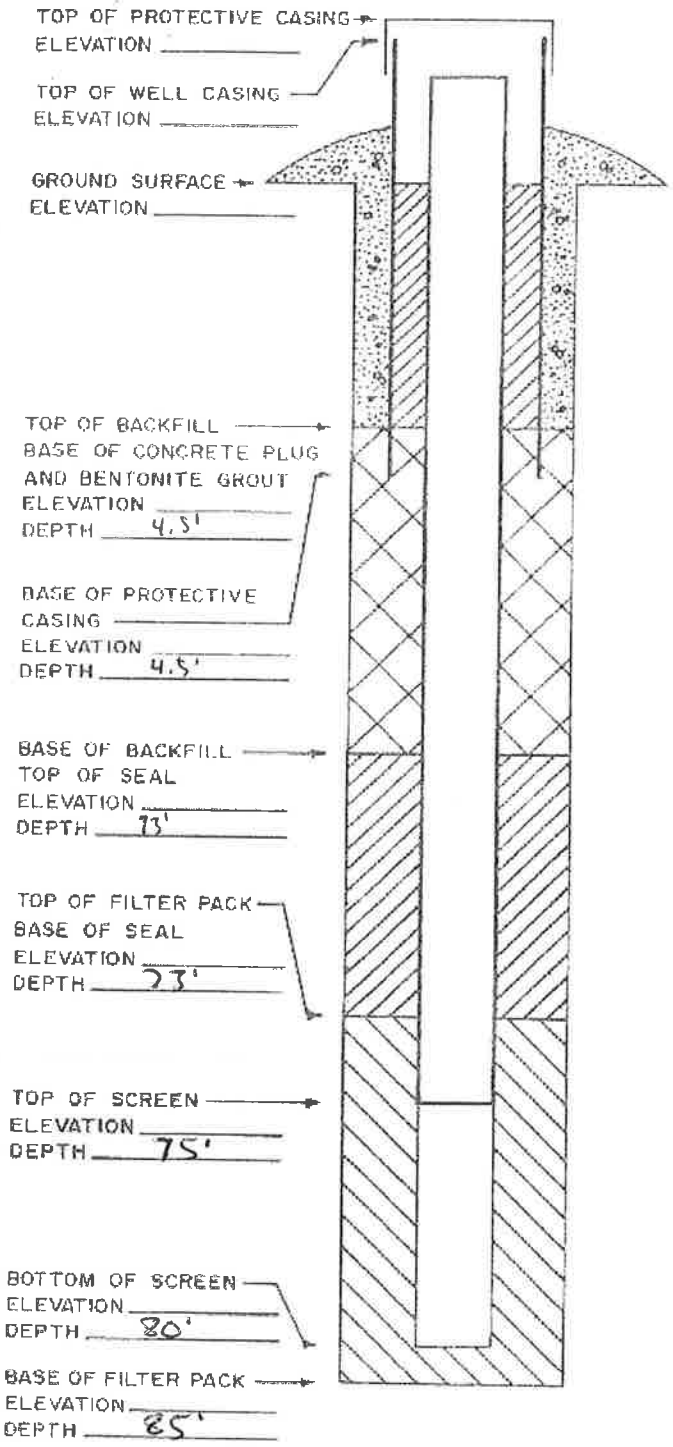
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____

Well or Piezometer No. MW-313B Dates Started 5/11/2021 Date Completed 5/12/2021

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site _____ Distance and direction along boundary _____

Distance and direction from boundary to surface monitoring well _____

Elevation (+0.01 ft. MSL) _____

Ground Surface _____ Top of protective casing _____

Top of well casing _____ Benchmark elevation _____

Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Cascade Drilling

Address _____ City, State, Zip Code _____

Name of driller Mike Mueller

Drilling method Roto-Sonic Drilling fluid Water Bore Hole diameter 6"

Soil sampling method Bagged Depth of boring 75'

C. MONITORING WELL INSTALLATION

Casing material Sch. 40 PVC

Length of casing 69.5'

Outside casing diameter 2.4"

Inside casing diameter 2.05"

Casing joint type Threaded

Casing/screen joint type Threaded

Screen material Sch. 40 PVC

Screen opening size 0.01"

Screen length 5'

Depth of Well 72'

Filter Pack:

Material Red Flint filter Sand

Grain Size #40

Volume 1 ft^3 (2 bags @ ½ ft^3 each)

Seal (minimum 3 ft. length above filter pack):

Material 3/8" Bentonite chips

Placement method Poured

Volume 1 bag (50 # bag)

Backfill (if different from seal):

Material Bentonite Grout

Placement method Pumped

Volume 55 gallons.

Surface seal design:

Material of protective casing: Steel

Material of grout between protective casing and well casing: Bentonite chips and sand

Protective cap:

Material Aluminum

Vented?: ☒ Y ☐ N Locking?: ☒ Y ☐ N

Well cap:

Material plastic

Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level _____ **Stabilization time** _____

Well development method _____

Average depth of frost line _____

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature _____ **Certification #** _____ **Date** _____

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

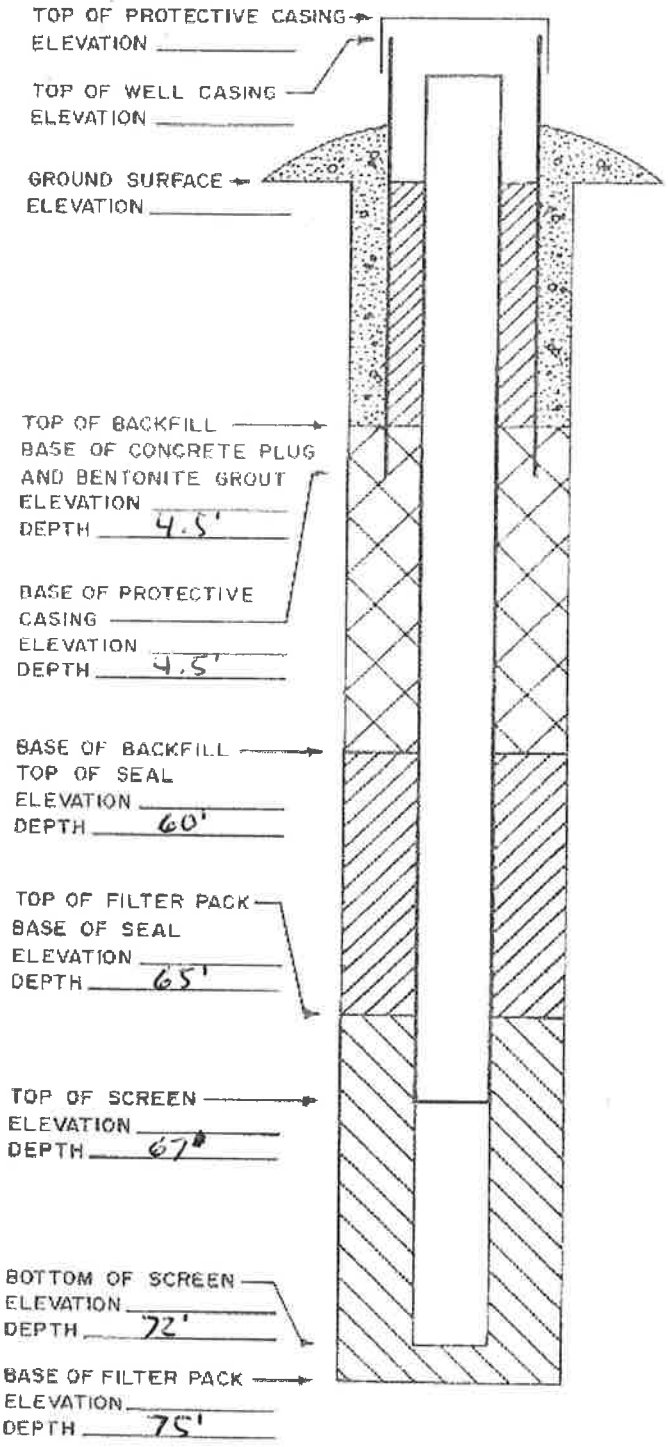
09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Burlington Generating Station SCS#: 25221160.00		MW-314

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Ryan Peterson Terracon Consultants Inc.	2/25/2022	2/25/2022	hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-314	519.2 Feet MSL	524.1 Feet MSL	8.3 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 274,984 N, 2,299,795 E Ⓢ/C/N
S 1/4 of SW 1/4 of Section 32, T 69 N, R 2 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Des Moines	Burlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	12		1	LEAN CLAY, brown, with silt and trace sand.	CL					M				
			2	Same as above but with trace organic.										
S2	14		3							M				
			4	SANDY LEAN CLAY, dark brown, with silt and trace organic.	CL									
S3	8		5							M				
			6	LEAN CLAY, gray brown.	CL									
S4	14		7							M				
			8	FAT CLAY, gray, with silt, trace sand, and organic.	CH									
S5	14		9							W				
			10	LEAN CLAY, gray, with silt, trace sand, and roots.	CL									
S6	16		11							W				
			12	Same as above but gray brown with trace gravel.										
S7	16		13							W				
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
Thomas J Kaminski	SCS Engineers	2830 Dairy Drive, Madison, WI 53718 608-228-2830	Fax:

Boring Number MW-314 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S8	14		16	LEAN CLAY, gray, with silt, trace sand, and roots. *(continued)*	CL					W				
				SANDY LEAN CLAY, fine to medium grained sand, gray brown, with trace gravel.										
S9	14		17		CL					W				
			18	POORLY GRADED SAND, fine to medium grained, gray brown.										
S10	16		19							W				
			20	Same as above but fine to coarse grained.										
S11	18		21		SP					W				
			22											
S12	24		23							W				
			24	End of boring at 24' below ground surface.										

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Burlington Generating Station | Permit No.: 58619

Well or Piezometer No.: MW-314 | Dates Started: 2/25/2022 | Date Completed: 2/25/2022

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SE of parcel 16-32-300-005 | Distance and direction along boundary: 400' W

Distance and direction from boundary to surface monitoring well: 750' N

Elevation (+0.01 ft. MSL)

Ground Surface: 524.09 | Top of protective casing: 526.72

Top of well casing: 526.58 | Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Terracon Consultants Inc.

Address: 870 40th Ave. | City, State, Zip Code: Bettendorf, IA 52722

Name of driller: Ryan Peterson

Drilling method: Hollow-stem-auger | Drilling fluid: None | Bore Hole diameter: 8.25"

Soil sampling method: Split spoon | Depth of boring: 24'

C. MONITORING WELL INSTALLATION

Casing material: PVC | Placement method: Gravity- poured

Length of casing: 20.47' | Volume: 2 cu. ft.

Outside casing diameter: 2.38" | Backfill (if different from seal): Same as Seal

Inside casing diameter: 2.01" | Material: 3/8" Bentonite chips - holeplug

Casing joint type: Threaded | Placement method: Manually

Casing/screen joint type: Threaded | Volume: 3.35 cu. ft.

Screen material: PVC-factory slotted | Surface seal design:

Screen opening size: 0.010" | Material of protective casing: Steel

Material of grout between protective casing and well casing: Bentonite chips

Screen length: 5'

Depth of Well: 23' | Protective cap:

Filter Pack: | Material: Steel

Material: Sand - Gillibrand Industrial | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N

Grain Size | Well cap:

Volume: 2 cu. ft. | Material: Rubber

Seal (minimum 3 ft. length above filter pack): | Vented?: ☐ Y ☒ N

Material: 3/8" Bentonite chips - holeplug

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 7.2" | **Stabilization time**: 20 min

Well development method: Surged and pumped to remove turbidity

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature | **Certification #**: 1015 | **Date**: 6-7-22

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

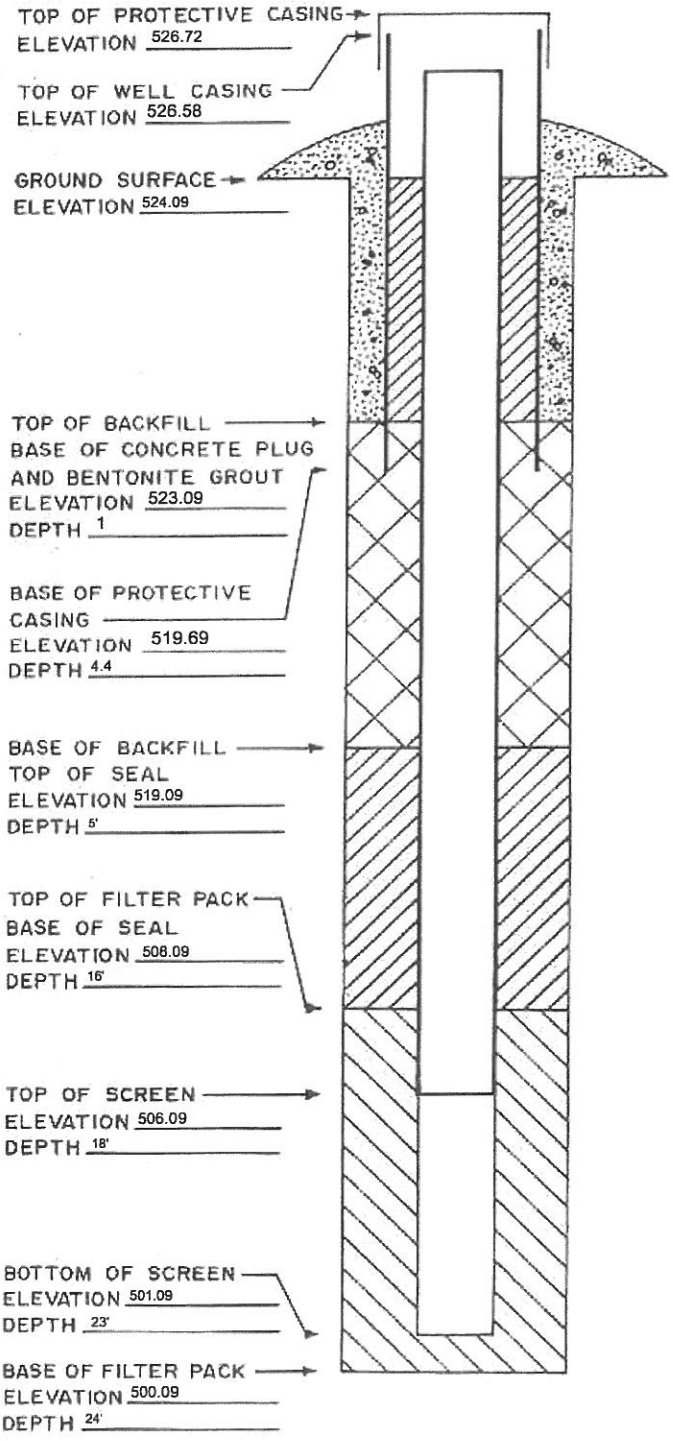
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



Appendix C

Analytical Laboratory Reports

C1 February 2022 Assessment Monitoring – Supplemental Sampling

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-225711-1
Client Project/Site: Burlington Generating Station 25222066.00

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Sandra Fredrick

Authorized for release by:
3/9/2022 5:45:52 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandra.fredrick@eurofinset.com

Table of Contents

Case Narrative

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Job ID: 310-225711-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-225711-1

Comments
No additional comments.

Receipt
The samples were received on 2/23/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 2.3º C.

HPLC/IC
Methods 300.0, 9056A: The following samples were diluted due to the nature of the sample matrix: MW-307B (310-225711-1) and MW-313B (310-225711-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: MW-307B (310-225711-1) and MW-313B (310-225711-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-225711-1	MW-307B	Water	02/22/22 11:45	02/23/22 09:45
310-225711-2	MW-313B	Water	02/22/22 09:35	02/23/22 09:45
310-225711-3	Field Blank	Water	02/22/22 11:10	02/23/22 09:45
310-225711-4	MW-302	Water	02/22/22 12:45	02/23/22 09:45

Detection Summary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-307B — Lab Sample ID: 310-225711-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	350		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	4000		400	230	ug/L	4		6020A	Total/NA
Calcium	71		2.0	0.76	mg/L	4		6020A	Total/NA
Lithium	9.4	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	37		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	310		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	519.37				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	211.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.18				mg/L	1		Field Sampling	Total/NA
pH, Field	7.43				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	570.0				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	2.64				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313B — Lab Sample ID: 310-225711-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	56		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	190		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	5500		400	230	ug/L	4		6020A	Total/NA
Calcium	51		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	13		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	89		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	360		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	518.88				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	210.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.17				mg/L	1		Field Sampling	Total/NA
pH, Field	7.64				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	665				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	2.40				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 310-225711-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	6.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-225711-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	94		2.0	0.75	ug/L	1		6020A	Total/NA
Ground Water Elevation	519.03				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	207.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	8.16				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1082				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.5				Degrees C	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-302 (Continued)
Lab Sample ID: 310-225711-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity, Field	2.10				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-307B
Lab Sample ID: 310-225711-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25**		5.0	2.3	mg/L			03/01/22 13:02	5
Fluoride	<0.22		0.50	0.22	mg/L			03/01/22 13:02	5
Sulfate	**120**		5.0	2.0	mg/L			03/01/22 13:02	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.8		8.0	2.8	ug/L		02/24/22 08:15	03/09/22 14:05	4
Arsenic	<0.75		2.0	0.75	ug/L		02/24/22 08:15	03/09/22 01:25	1
Barium	**350**		2.0	0.88	ug/L		02/24/22 08:15	03/09/22 01:25	1
Beryllium	<0.27		1.0	0.27	ug/L		02/24/22 08:15	03/09/22 01:25	1
Boron	**4000**		400	230	ug/L		02/24/22 08:15	03/09/22 14:05	4
Cadmium	<0.055		0.10	0.055	ug/L		02/24/22 08:15	03/09/22 01:25	1
Calcium	**71**		2.0	0.76	mg/L		02/24/22 08:15	03/09/22 14:05	4
Chromium	<1.1		5.0	1.1	ug/L		02/24/22 08:15	03/09/22 01:25	1
Cobalt	<0.19		0.50	0.19	ug/L		02/24/22 08:15	03/09/22 01:25	1
Lead	<0.24		0.50	0.24	ug/L		02/24/22 08:15	03/09/22 01:25	1
Lithium	**9.4**	**J**	10	2.5	ug/L		02/24/22 08:15	03/09/22 01:25	1
Molybdenum	**37**		2.0	1.2	ug/L		02/24/22 08:15	03/09/22 01:25	1
Selenium	<0.96		5.0	0.96	ug/L		02/24/22 08:15	03/09/22 01:25	1
Thallium	<0.26		1.0	0.26	ug/L		02/24/22 08:15	03/09/22 01:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		03/02/22 13:08	03/03/22 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**310**		50	26	mg/L			02/28/22 15:14	1
pH	**7.5**	**HF**	0.1	0.1	SU			02/23/22 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**519.37**				ft			02/22/22 11:45	1
Oxidation Reduction Potential	**211.7**				millivolts			02/22/22 11:45	1
Oxygen, Dissolved, Client Supplied	**0.18**				mg/L			02/22/22 11:45	1
pH, Field	**7.43**				SU			02/22/22 11:45	1
Specific Conductance, Field	**570.0**				umhos/cm			02/22/22 11:45	1
Temperature, Field	**13.1**				Degrees C			02/22/22 11:45	1
Turbidity, Field	**2.64**				NTU			02/22/22 11:45	1

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-313B
Lab Sample ID: 310-225711-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56**		5.0	2.3	mg/L			03/01/22 13:18	5
Fluoride	<0.22		0.50	0.22	mg/L			03/01/22 13:18	5
Sulfate	**120**		5.0	2.0	mg/L			03/01/22 13:18	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		02/24/22 08:15	03/09/22 14:08	1
Arsenic	<0.75		2.0	0.75	ug/L		02/24/22 08:15	03/09/22 01:28	1
Barium	**190**		2.0	0.88	ug/L		02/24/22 08:15	03/09/22 01:28	1
Beryllium	<0.27		1.0	0.27	ug/L		02/24/22 08:15	03/09/22 01:28	1
Boron	**5500**		400	230	ug/L		02/24/22 08:15	03/09/22 14:13	4
Cadmium	<0.055		0.10	0.055	ug/L		02/24/22 08:15	03/09/22 01:28	1
Calcium	**51**		0.50	0.19	mg/L		02/24/22 08:15	03/09/22 14:08	1
Chromium	<1.1		5.0	1.1	ug/L		02/24/22 08:15	03/09/22 01:28	1
Cobalt	<0.19		0.50	0.19	ug/L		02/24/22 08:15	03/09/22 01:28	1
Lead	<0.24		0.50	0.24	ug/L		02/24/22 08:15	03/09/22 01:28	1
Lithium	**13**		10	2.5	ug/L		02/24/22 08:15	03/09/22 01:28	1
Molybdenum	**89**		2.0	1.2	ug/L		02/24/22 08:15	03/09/22 01:28	1
Selenium	<0.96		5.0	0.96	ug/L		02/24/22 08:15	03/09/22 01:28	1
Thallium	<0.26		1.0	0.26	ug/L		02/24/22 08:15	03/09/22 01:28	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		03/02/22 13:08	03/03/22 17:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**		50	26	mg/L			02/28/22 15:14	1
pH	**7.6**	**HF**	0.1	0.1	SU			02/23/22 14:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**518.88**				ft			02/22/22 09:35	1
Oxidation Reduction Potential	**210.0**				millivolts			02/22/22 09:35	1
Oxygen, Dissolved, Client Supplied	**0.17**				mg/L			02/22/22 09:35	1
pH, Field	**7.64**				SU			02/22/22 09:35	1
Specific Conductance, Field	**665**				umhos/cm			02/22/22 09:35	1
Temperature, Field	**13.7**				Degrees C			02/22/22 09:35	1
Turbidity, Field	**2.40**				NTU			02/22/22 09:35	1

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: Field Blank
Lab Sample ID: 310-225711-3
Date Collected: 02/22/22 11:10
Matrix: Water
Date Received: 02/23/22 09:45

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			03/01/22 13:33	1
Fluoride	<0.044		0.10	0.044	mg/L			03/01/22 13:33	1
Sulfate	<0.40		1.0	0.40	mg/L			03/01/22 13:33	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		02/24/22 08:15	03/09/22 17:16	1
Arsenic	<0.75		2.0	0.75	ug/L		02/24/22 08:15	03/09/22 01:31	1
Barium	<0.88		2.0	0.88	ug/L		02/24/22 08:15	03/09/22 01:31	1
Beryllium	<0.27		1.0	0.27	ug/L		02/24/22 08:15	03/09/22 01:31	1
Boron	<58		100	58	ug/L		02/24/22 08:15	03/09/22 17:16	1
Cadmium	<0.055		0.10	0.055	ug/L		02/24/22 08:15	03/09/22 01:31	1
Calcium	<0.19		0.50	0.19	mg/L		02/24/22 08:15	03/09/22 17:16	1
Chromium	<1.1		5.0	1.1	ug/L		02/24/22 08:15	03/09/22 01:31	1
Cobalt	<0.19		0.50	0.19	ug/L		02/24/22 08:15	03/09/22 01:31	1
Lead	<0.24		0.50	0.24	ug/L		02/24/22 08:15	03/09/22 01:31	1
Lithium	<2.5		10	2.5	ug/L		02/24/22 08:15	03/09/22 01:31	1
Molybdenum	<1.2		2.0	1.2	ug/L		02/24/22 08:15	03/09/22 01:31	1
Selenium	<0.96		5.0	0.96	ug/L		02/24/22 08:15	03/09/22 01:31	1
Thallium	<0.26		1.0	0.26	ug/L		02/24/22 08:15	03/09/22 01:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		03/02/22 13:08	03/03/22 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			02/28/22 15:14	1
pH	**6.2**	**HF**	0.1	0.1	SU			02/23/22 14:00	1

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-302
Lab Sample ID: 310-225711-4
Date Collected: 02/22/22 12:45
Matrix: Water
Date Received: 02/23/22 09:45

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	94		2.0	0.75	ug/L		02/24/22 08:15	03/09/22 01:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	519.03				ft			02/22/22 12:45	1
Oxidation Reduction Potential	207.4				millivolts			02/22/22 12:45	1
Oxygen, Dissolved, Client Supplied	0.13				mg/L			02/22/22 12:45	1
pH, Field	8.16				SU			02/22/22 12:45	1
Specific Conductance, Field	1082				umhos/cm			02/22/22 12:45	1
Temperature, Field	12.5				Degrees C			02/22/22 12:45	1
Turbidity, Field	2.10				NTU			02/22/22 12:45	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-345327/3
Matrix: Water
Analysis Batch: 345327

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			03/01/22 07:50	1
Fluoride	<0.044		0.10	0.044	mg/L			03/01/22 07:50	1
Sulfate	<0.40		1.0	0.40	mg/L			03/01/22 07:50	1

Lab Sample ID: LCS 310-345327/4
Matrix: Water
Analysis Batch: 345327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	2.00	2.02		mg/L		101	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-344751/1-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 344751

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		02/24/22 08:15	03/08/22 17:42	1
Arsenic	<0.75		2.0	0.75	ug/L		02/24/22 08:15	03/08/22 17:42	1
Barium	<0.88		2.0	0.88	ug/L		02/24/22 08:15	03/08/22 17:42	1
Beryllium	<0.27		1.0	0.27	ug/L		02/24/22 08:15	03/08/22 17:42	1
Boron	<58		100	58	ug/L		02/24/22 08:15	03/08/22 17:42	1
Cadmium	<0.055		0.10	0.055	ug/L		02/24/22 08:15	03/08/22 17:42	1
Calcium	<0.19		0.50	0.19	mg/L		02/24/22 08:15	03/08/22 17:42	1
Chromium	<1.1		5.0	1.1	ug/L		02/24/22 08:15	03/08/22 17:42	1
Cobalt	<0.19		0.50	0.19	ug/L		02/24/22 08:15	03/08/22 17:42	1
Lead	<0.24		0.50	0.24	ug/L		02/24/22 08:15	03/08/22 17:42	1
Lithium	<2.5		10	2.5	ug/L		02/24/22 08:15	03/08/22 17:42	1
Molybdenum	<1.2		2.0	1.2	ug/L		02/24/22 08:15	03/08/22 17:42	1
Selenium	<0.96		5.0	0.96	ug/L		02/24/22 08:15	03/08/22 17:42	1
Thallium	<0.26		1.0	0.26	ug/L		02/24/22 08:15	03/08/22 17:42	1

Lab Sample ID: LCS 310-344751/2-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 344751

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	200	222		ug/L		111	80 - 120
Arsenic	200	198		ug/L		99	80 - 120
Barium	100	101		ug/L		101	80 - 120
Beryllium	100	98.2		ug/L		98	80 - 120
Boron	200	179		ug/L		89	80 - 120
Cadmium	100	99.3		ug/L		99	80 - 120
Calcium	2.00	1.84		mg/L		92	80 - 120
Chromium	100	95.9		ug/L		96	80 - 120
Cobalt	100	99.8		ug/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-344751/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 346038
Prep Batch: 344751

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	200	202		ug/L		101	80 - 120
Lithium	200	195		ug/L		98	80 - 120
Molybdenum	200	195		ug/L		98	80 - 120
Selenium	400	381		ug/L		95	80 - 120
Thallium	200	194		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-345343/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 345518
Prep Batch: 345343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		03/02/22 13:08	03/03/22 16:46	1

Lab Sample ID: LCS 310-345343/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 345518
Prep Batch: 345343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.67	1.49		ug/L		90	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-345126/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 345126

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			02/28/22 15:14	1

Lab Sample ID: LCS 310-345126/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 345126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	938		mg/L		94	90 - 110

Lab Sample ID: 310-225711-2 DU
Client Sample ID: MW-313B
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 345126

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	360		336		mg/L		7	20

QC Sample Results

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-344736/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 344736

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	98 - 102		

HPLC/IC

Analysis Batch: 345327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	9056A	
310-225711-2	MW-313B	Total/NA	Water	9056A	
310-225711-3	Field Blank	Total/NA	Water	9056A	
MB 310-345327/3	Method Blank	Total/NA	Water	9056A	
LCS 310-345327/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 344751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	3005A	
310-225711-2	MW-313B	Total/NA	Water	3005A	
310-225711-3	Field Blank	Total/NA	Water	3005A	
310-225711-4	MW-302	Total/NA	Water	3005A	
MB 310-344751/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-344751/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 345343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	7470A	
310-225711-2	MW-313B	Total/NA	Water	7470A	
310-225711-3	Field Blank	Total/NA	Water	7470A	
MB 310-345343/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-345343/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 345518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	7470A	345343
310-225711-2	MW-313B	Total/NA	Water	7470A	345343
310-225711-3	Field Blank	Total/NA	Water	7470A	345343
MB 310-345343/1-A	Method Blank	Total/NA	Water	7470A	345343
LCS 310-345343/2-A	Lab Control Sample	Total/NA	Water	7470A	345343

Analysis Batch: 346038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	6020A	344751
310-225711-2	MW-313B	Total/NA	Water	6020A	344751
310-225711-3	Field Blank	Total/NA	Water	6020A	344751
310-225711-4	MW-302	Total/NA	Water	6020A	344751
MB 310-344751/1-A	Method Blank	Total/NA	Water	6020A	344751
LCS 310-344751/2-A	Lab Control Sample	Total/NA	Water	6020A	344751

Analysis Batch: 346096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	6020A	344751
310-225711-2	MW-313B	Total/NA	Water	6020A	344751
310-225711-2	MW-313B	Total/NA	Water	6020A	344751

Analysis Batch: 346099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-3	Field Blank	Total/NA	Water	6020A	344751

QC Association Summary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

General Chemistry

Analysis Batch: 344736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	SM 4500 H+ B	
310-225711-2	MW-313B	Total/NA	Water	SM 4500 H+ B	
310-225711-3	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-344736/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 345126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	SM 2540C	
310-225711-2	MW-313B	Total/NA	Water	SM 2540C	
310-225711-3	Field Blank	Total/NA	Water	SM 2540C	
MB 310-345126/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-345126/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-225711-2 DU	MW-313B	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 345842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225711-1	MW-307B	Total/NA	Water	Field Sampling	
310-225711-2	MW-313B	Total/NA	Water	Field Sampling	
310-225711-4	MW-302	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-307B
Lab Sample ID: 310-225711-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	345327	03/01/22 13:02	JNR	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:25	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		4	346096	03/09/22 14:05	SAP	TAL CF
Total/NA	Prep	7470A			345343	03/02/22 13:08	EAM	TAL CF
Total/NA	Analysis	7470A		1	345518	03/03/22 17:35	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	345126	02/28/22 15:14	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	344736	02/23/22 14:01	JAJ	TAL CF
Total/NA	Analysis	Field Sampling		1	345842	02/22/22 11:45	SLD	TAL CF

Client Sample ID: MW-313B
Lab Sample ID: 310-225711-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	345327	03/01/22 13:18	JNR	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:28	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346096	03/09/22 14:08	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		4	346096	03/09/22 14:13	SAP	TAL CF
Total/NA	Prep	7470A			345343	03/02/22 13:08	EAM	TAL CF
Total/NA	Analysis	7470A		1	345518	03/03/22 17:37	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	345126	02/28/22 15:14	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	344736	02/23/22 14:02	JAJ	TAL CF
Total/NA	Analysis	Field Sampling		1	345842	02/22/22 09:35	SLD	TAL CF

Client Sample ID: Field Blank
Lab Sample ID: 310-225711-3
Date Collected: 02/22/22 11:10
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	345327	03/01/22 13:33	JNR	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:31	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346099	03/09/22 17:16	SAP	TAL CF
Total/NA	Prep	7470A			345343	03/02/22 13:08	EAM	TAL CF
Total/NA	Analysis	7470A		1	345518	03/03/22 17:40	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	345126	02/28/22 15:14	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	344736	02/23/22 14:00	JAJ	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-302
Lab Sample ID: 310-225711-4

Date Collected: 02/22/22 12:45
Matrix: Water

Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:34	SAP	TAL CF
Total/NA	Analysis	Field Sampling		1	345842	02/22/22 12:45	SLD	TAL CF

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-21 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Job ID: 310-225711-1
Project/Site: Burlington Generating Station 25222066.00

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
SM 4500 H+ B	pH	SM	TAL CF
Field Sampling	Field Sampling	EPA	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY Madison		STATE WI	Project: Burlington GS
Receipt Information			
Date/Time Received:	DATE 2/23/22	TIME 0945	Received By: MRH

Delivery Type: ☐ UPS ☒ FedEx ☒ ~~FedEx Ground~~ MRH 2/23/22 ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☒ ~~No~~	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: S	Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.3	Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project: Burlington GS

Receipt Information

Date/Time Received: DATE 2/23/22 | TIME 0945 | Received By: MRH

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: S | Correction Factor (°C): 0.0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.4 | Corrected Temp (°C): 1.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

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Client Information	Sampler: Paul Grover	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No. 310-68357-19634.1
Client Contact: Meghan Blodgett	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page. Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:

Address: 2830 Dairy Drive	Due Date Requested:
City: Madison	TAT Requested (days):
State, Zip: WI, 53718	Compliance Project: Δ Yes Δ No
Phone.	PO #: Purchase Order Requested
Email: mblodgett@scsengineers.com	WO #:
Project Name: Burlington Generating Station	Project #: 31011020
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D - Chloride, Fluoride & Sulfate	6020A(See note), 7470A - Mercury	TDS 2540C_Calcd, pH SM4500_H+	6020 - Arsenic	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	D		
MW-307B	2/22/22	11:45	G	Water			X	X	X			6020- B,Ca,Sb, As, Ba, Be, Cd, Cr,Co,Pb, Li, Mo, Se, Tl
MW-313B	9:25	~~11:45~~	AAG	Water			X	X	X			
FIELD BLANK		11:10		Water			X	X	X			
MW-302		12:45		Water	N					X		

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Paul A. Grover	2-23-22 9:50	SCS		2/23/22 0950	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Table 1. Sampling Points and Parameters - CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring - Burlington Generating Station / SCS Engineers Project #25221066

	Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	Field Blank	TOTAL
Appendix III Parameters	Boron										x									x	x	3
	Calcium										x									x	x	3
	Chloride										x									x	x	3
	Fluoride										x									x	x	3
	pH										x									x	x	3
	Sulfate										x									x	x	3
	TDS										x									x	x	3
Appendix IV Parameters	Antimony										x									x	x	3
	Arsenic		x								x									x	x	4
	Barium										x									x	x	3
	Beryllium										x									x	x	3
	Cadmium										x									x	x	3
	Chromium										x									x	x	3
	Cobalt										x									x	x	3
	Fluoride										x									x	x	3
	Lead										x									x	x	3
	Lithium										x									x	x	3
	Mercury										x									x	x	3
	Molybdenum										x									x	x	3
	Selenium										x									x	x	3
	Thallium										x									x	x	3
	Radium (report separately)										x									x	x	3
Field Parameters	Ferrous Iron (CheMetrics)										x									x		2
	Sulfide (CheMetrics)										x									x		2
	Groundwater Elevation		x								x									x		3
	pH (field)		x								x									x		3
	Specific Conductance		x								x									x		3
	Dissolved Oxygen		x								x									x		3
	ORP		x								x									x		3
	Temperature		x								x									x		3
	Turbidity		x								x									x		3
	Color		x								x									x		3
	Odor		x								x									x		3
Additional Lab Parameters - REPORT SEPARATELY	Bicarbonate (total)										x									x		2
	Carbonate (total)										x									x		2
	Iron (total)										x									x		2
	Magnesium (total)										x									x		2
	Manganese (total)										x									x		2
	Potassium (total)										x									x		2
	Sodium (total)										x									x		2
	Iron (filtered)										x									x		2
	Lithium (filtered)										x									x		2
	Manganese (filtered)										x									x		2
	Molybdenum (filtered)										x									x		2

Notes:
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Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-225711-1

Login Number: 225711

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Kizer, Preston V

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.	N/A	
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	

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25222066.00
February 2022

Sample	Sample Date/Time	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-302	2/22/2022 12:45	12.5	8.16	0.13	1,082	207.4	2.10	519.03
MW-307B	2/22/2022 11:25	13.1	7.43	0.18	570.0	211.7	2.64	519.37
MW-313B	2/22/2022 9:25	13.7	7.64	0.17	665	210.0	2.40	518.88

Abbreviations:
mg/L = milligrams per liter
mV = millivolts
amsl = above mean sea level
µmhos/cm = micromohs per cm
-- = Not Applicable
NM = not measured

Created by: NDK Date: 10/15/2021
Last revision by: RM Date: 3/7/2022
Checked by: JAO Date: 3/7/2022

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ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-225715-1
Client Project/Site: Burlington Generating Station 25222066.00

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Sandra Fredrick

Authorized for release by:
3/9/2022 5:47:22 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandra.fredrick@eurofinset.com

Table of Contents

Case Narrative

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Job ID: 310-225715-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-225715-1

Comments
No additional comments.

Receipt
The samples were received on 2/23/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 2.3º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-225715-1	MW-307B	Water	02/22/22 11:45	02/23/22 09:45
310-225715-2	MW-313B	Water	02/22/22 09:35	02/23/22 09:45
310-225715-3	Field Blank	Water	02/22/22 11:10	02/23/22 09:45

Detection Summary

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-307B — Lab Sample ID: 310-225715-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1900		100	36	ug/L	1		6020A	Total/NA
Magnesium	15000		500	150	ug/L	1		6020A	Total/NA
Manganese	500		10	3.6	ug/L	1		6020A	Total/NA
Potassium	2200		500	150	ug/L	1		6020A	Total/NA
Sodium	23000		1000	610	ug/L	1		6020A	Total/NA
Iron	1700		100	36	ug/L	1		6020A	Dissolved
Lithium	7.9	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	470		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	37		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	160		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	160		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313B — Lab Sample ID: 310-225715-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1100		100	36	ug/L	1		6020A	Total/NA
Magnesium	7200		500	150	ug/L	1		6020A	Total/NA
Manganese	430		10	3.6	ug/L	1		6020A	Total/NA
Potassium	5500		500	150	ug/L	1		6020A	Total/NA
Sodium	69000		1000	610	ug/L	1		6020A	Total/NA
Iron	1000		100	36	ug/L	1		6020A	Dissolved
Lithium	12		10	2.5	ug/L	1		6020A	Dissolved
Manganese	460		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	91		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	140		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	140		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 310-225715-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	700	J	1000	610	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-307B
Lab Sample ID: 310-225715-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1900		100	36	ug/L		02/24/22 08:15	03/09/22 01:38	1
Magnesium	15000		500	150	ug/L		02/24/22 08:15	03/09/22 01:38	1
Manganese	500		10	3.6	ug/L		02/24/22 08:15	03/09/22 01:38	1
Potassium	2200		500	150	ug/L		02/24/22 08:15	03/09/22 01:38	1
Sodium	23000		1000	610	ug/L		02/24/22 08:15	03/09/22 01:38	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1700		100	36	ug/L		02/25/22 09:00	03/08/22 18:48	1
Lithium	7.9	J	10	2.5	ug/L		02/25/22 09:00	03/08/22 18:48	1
Manganese	470		10	3.6	ug/L		02/25/22 09:00	03/08/22 18:48	1
Molybdenum	37		2.0	1.2	ug/L		02/25/22 09:00	03/08/22 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	160		10	4.6	mg/L			02/25/22 09:14	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			02/25/22 09:14	1
Total Alkalinity as CaCO3	160		10	4.6	mg/L			02/25/22 09:14	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-313B
Lab Sample ID: 310-225715-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1100		100	36	ug/L		02/24/22 08:15	03/09/22 01:41	1
Magnesium	7200		500	150	ug/L		02/24/22 08:15	03/09/22 01:41	1
Manganese	430		10	3.6	ug/L		02/24/22 08:15	03/09/22 01:41	1
Potassium	5500		500	150	ug/L		02/24/22 08:15	03/09/22 01:41	1
Sodium	69000		1000	610	ug/L		02/24/22 08:15	03/09/22 01:41	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1000		100	36	ug/L		02/25/22 09:00	03/08/22 19:13	1
Lithium	12		10	2.5	ug/L		02/25/22 09:00	03/08/22 19:13	1
Manganese	460		10	3.6	ug/L		02/25/22 09:00	03/08/22 19:13	1
Molybdenum	91		2.0	1.2	ug/L		02/25/22 09:00	03/08/22 19:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	140		10	4.6	mg/L			02/25/22 09:14	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			02/25/22 09:14	1
Total Alkalinity as CaCO3	140		10	4.6	mg/L			02/25/22 09:14	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: Field Blank
Lab Sample ID: 310-225715-3
Date Collected: 02/22/22 11:10
Matrix: Water
Date Received: 02/23/22 09:45

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		02/24/22 08:15	03/09/22 01:44	1
Magnesium	<150		500	150	ug/L		02/24/22 08:15	03/09/22 01:44	1
Manganese	<3.6		10	3.6	ug/L		02/24/22 08:15	03/09/22 01:44	1
Potassium	<150		500	150	ug/L		02/24/22 08:15	03/09/22 01:44	1
Sodium	**700**	**J**	1000	610	ug/L		02/24/22 08:15	03/09/22 01:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:44	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:44	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:44	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-344751/1-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 344751

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		02/24/22 08:15	03/08/22 17:42	1
Magnesium	<150		500	150	ug/L		02/24/22 08:15	03/08/22 17:42	1
Manganese	<3.6		10	3.6	ug/L		02/24/22 08:15	03/08/22 17:42	1
Potassium	<150		500	150	ug/L		02/24/22 08:15	03/08/22 17:42	1
Sodium	<610		1000	610	ug/L		02/24/22 08:15	03/08/22 17:42	1

Lab Sample ID: LCS 310-344751/2-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 344751

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	200	207		ug/L		103	80 - 120
Magnesium	2000	2020		ug/L		101	80 - 120
Manganese	100	103		ug/L		103	80 - 120
Potassium	2000	2050		ug/L		103	80 - 120
Sodium	2000	1990		ug/L		100	80 - 120

Lab Sample ID: MB 310-344845/1-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 344845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		02/25/22 09:00	03/08/22 18:42	1
Lithium	<2.5		10	2.5	ug/L		02/25/22 09:00	03/08/22 18:42	1
Manganese	<3.6		10	3.6	ug/L		02/25/22 09:00	03/08/22 18:42	1
Molybdenum	<1.2		2.0	1.2	ug/L		02/25/22 09:00	03/08/22 18:42	1

Lab Sample ID: LCS 310-344845/2-A
Matrix: Water
Analysis Batch: 346038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 344845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	200	197		ug/L		98	80 - 120
Lithium	200	192		ug/L		96	80 - 120
Manganese	100	92.2		ug/L		92	80 - 120
Molybdenum	200	186		ug/L		93	80 - 120

Lab Sample ID: 310-225715-1 MS
Matrix: Water
Analysis Batch: 346038

Client Sample ID: MW-307B
Prep Type: Dissolved
Prep Batch: 344845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1700		200	1860	4	ug/L		92	75 - 125
Lithium	7.9	J	200	196		ug/L		94	75 - 125
Manganese	470		100	569	4	ug/L		100	75 - 125
Molybdenum	37		200	220		ug/L		92	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-225715-1 MSD
Matrix: Water
Analysis Batch: 346038

Client Sample ID: MW-307B
Prep Type: Dissolved
Prep Batch: 344845

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1700		200	1830	4	ug/L		77	75 - 125	2	20
Lithium	7.9	J	200	195		ug/L		94	75 - 125	0	20
Manganese	470		100	559	4	ug/L		90	75 - 125	2	20
Molybdenum	37		200	221		ug/L		92	75 - 125	0	20

Method: 2320B - Alkalinity (Low Level)

Lab Sample ID: MB 310-344938/1
Matrix: Water
Analysis Batch: 344938

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:33	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:33	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 11:33	1

Lab Sample ID: LCS 310-344938/2
Matrix: Water
Analysis Batch: 344938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3	1000	975		mg/L		97	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-344922/1
Matrix: Water
Analysis Batch: 344922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 09:14	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 09:14	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			02/25/22 09:14	1

Lab Sample ID: LCS 310-344922/2
Matrix: Water
Analysis Batch: 344922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3	1000	1030		mg/L		103	90 - 110

Metals

Prep Batch: 344751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225715-1	MW-307B	Total/NA	Water	3005A	
310-225715-2	MW-313B	Total/NA	Water	3005A	
310-225715-3	Field Blank	Total/NA	Water	3005A	
MB 310-344751/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-344751/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 344845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225715-1	MW-307B	Dissolved	Water	3005A	
310-225715-2	MW-313B	Dissolved	Water	3005A	
MB 310-344845/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-344845/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-225715-1 MS	MW-307B	Dissolved	Water	3005A	
310-225715-1 MSD	MW-307B	Dissolved	Water	3005A	

Analysis Batch: 346038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225715-1	MW-307B	Dissolved	Water	6020A	344845
310-225715-1	MW-307B	Total/NA	Water	6020A	344751
310-225715-2	MW-313B	Dissolved	Water	6020A	344845
310-225715-2	MW-313B	Total/NA	Water	6020A	344751
310-225715-3	Field Blank	Total/NA	Water	6020A	344751
MB 310-344751/1-A	Method Blank	Total/NA	Water	6020A	344751
MB 310-344845/1-A	Method Blank	Total/NA	Water	6020A	344845
LCS 310-344751/2-A	Lab Control Sample	Total/NA	Water	6020A	344751
LCS 310-344845/2-A	Lab Control Sample	Total/NA	Water	6020A	344845
310-225715-1 MS	MW-307B	Dissolved	Water	6020A	344845
310-225715-1 MSD	MW-307B	Dissolved	Water	6020A	344845

General Chemistry

Analysis Batch: 344922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225715-1	MW-307B	Total/NA	Water	SM 2320B	
310-225715-2	MW-313B	Total/NA	Water	SM 2320B	
MB 310-344922/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-344922/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 344938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225715-3	Field Blank	Total/NA	Water	2320B	
MB 310-344938/1	Method Blank	Total/NA	Water	2320B	
LCS 310-344938/2	Lab Control Sample	Total/NA	Water	2320B	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Client Sample ID: MW-307B
Lab Sample ID: 310-225715-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			344845	02/25/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	346038	03/08/22 18:48	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:38	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	344922	02/25/22 09:14	JMH2	TAL CF

Client Sample ID: MW-313B
Lab Sample ID: 310-225715-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			344845	02/25/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	346038	03/08/22 19:13	SAP	TAL CF
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:41	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	344922	02/25/22 09:14	JMH2	TAL CF

Client Sample ID: Field Blank
Lab Sample ID: 310-225715-3
Date Collected: 02/22/22 11:10
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			344751	02/24/22 08:15	ACM2	TAL CF
Total/NA	Analysis	6020A		1	346038	03/09/22 01:44	SAP	TAL CF
Total/NA	Analysis	2320B		1	344938	02/25/22 11:44	JMH2	TAL CF

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-21 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Job ID: 310-225715-1
Project/Site: Burlington Generating Station 25222066.00

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL CF
2320B	Alkalinity (Low Level)	SM	TAL CF
SM 2320B	Alkalinity	SM	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-225715 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY Madison	STATE WI	Project: Burlington GS	
Receipt Information			
Date/Time Received:	DATE 2/23/22	TIME 0945	Received By: MRH

Delivery Type: ☐ UPS ☒ FedEx ☒ ~~FedEx Ground~~ MRH 2/23/22 ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☒ ~~No~~	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID: S	Correction Factor (°C): 0.0
Uncorrected Temp (°C): 2.3	Corrected Temp (°C): 2.3

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

No field filter bottle for Field Blank

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project: Burlington GS

Receipt Information

Date/Time Received: DATE 2/23/22 | TIME 0945 | Received By: MRH

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☑ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: S | Correction Factor (°C): 0.0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.4 | Corrected Temp (°C): 1.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

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Client Information	Sampler: Paul Grover	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-68359-19636.1
Client Contact: Meghan Blodgett	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:

Address: 2830 Dairy Drive	Due Date Requested:	
City: Madison	TAT Requested (days):	
State, Zip: WI, 53718	Compliance Project: Δ Yes Δ No	
Phone:	PO #: Purchase Order Requested	
Email: mblodgett@scsengineers.com	WO #:	
Project Name: Burlington Generating Station	Project #: 31011020	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Dissolved 6020A - Metals (Fe, Li, Mn, Mo)	2320B_LL - Alkalinity (Bicarbonate & Carbonate)	6020A Metals (Fe, Mg, Mn, K, Na)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D		
MW-307B	2-22-22	11:45	G	Water			X	X	X		
MW-313B		9:35		Water			X	X	X		
FIELD BLANK		11:10		Water			X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Paul A. Grover	2-23-22 9:50	SCS		22322 0950	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Table 1. Sampling Points and Parameters - CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring - Burlington Generating Station / SCS Engineers Project #25221066

	Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	Field Blank	TOTAL
Appendix III Parameters	Boron										x									x	x	3
	Calcium										x									x	x	3
	Chloride										x									x	x	3
	Fluoride										x									x	x	3
	pH										x									x	x	3
	Sulfate										x									x	x	3
	TDS										x									x	x	3
Appendix IV Parameters	Antimony										x									x	x	3
	Arsenic		x								x									x	x	4
	Barium										x									x	x	3
	Beryllium										x									x	x	3
	Cadmium										x									x	x	3
	Chromium										x									x	x	3
	Cobalt										x									x	x	3
	Fluoride										x									x	x	3
	Lead										x									x	x	3
	Lithium										x									x	x	3
	Mercury										x									x	x	3
	Molybdenum										x									x	x	3
	Selenium										x									x	x	3
	Thallium										x									x	x	3
	Radium (report separately)										x									x	x	3
Field Parameters	Ferrous Iron (CheMetrics)										x									x		2
	Sulfide (CheMetrics)										x									x		2
	Groundwater Elevation		x								x									x		3
	pH (field)		x								x									x		3
	Specific Conductance		x								x									x		3
	Dissolved Oxygen		x								x									x		3
	ORP		x								x									x		3
	Temperature		x								x									x		3
	Turbidity		x								x									x		3
	Color		x								x									x		3
	Odor		x								x									x		3
Additional Lab Parameters - REPORT SEPARATELY	Bicarbonate (total)										x									x		2
	Carbonate (total)										x									x		2
	Iron (total)										x									x		2
	Magnesium (total)										x									x		2
	Manganese (total)										x									x		2
	Potassium (total)										x									x		2
	Sodium (total)										x									x		2
	Iron (filtered)										x									x		2
	Lithium (filtered)										x									x		2
	Manganese (filtered)										x									x		2
	Molybdenum (filtered)										x									x		2

Notes:

C:\Users\thompsons\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\24F0YPND\[Table_1_BGS_CCR_Rule_Sampling_2202.xls]Sheet1

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-225715-1

Login Number: 225715
List Number: 1
Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

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.	N/A	
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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ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-225716-1
Client Project/Site: Burlington Generating Station 25222066

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Authorized for release by:
3/23/2022 1:00:11 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandra.fredrick@eurofinset.com

Table of Contents

Case Narrative

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Job ID: 310-225716-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-225716-1

Comments
No additional comments.

Receipt
The samples were received on 2/23/2022 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 2.3º C.

RAD
Methods 903.0, RA-06-RC: Radium 226 batch 552717
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-307B (310-225716-1), MW-313B (310-225716-2), Field Blank (310-225716-3), (LCS 160-552717/1-A), (LCSD 160-552717/2-A) and (MB 160-552717/23-A)

Methods 904.0, RA-06-RC: Radium 228 batch 552721
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-307B (310-225716-1), MW-313B (310-225716-2), Field Blank (310-225716-3), (LCS 160-552721/1-A), (LCSD 160-552721/2-A) and (MB 160-552721/23-A)

Method PrecSep_0: Radium-228 Prep Batch 160-552721 The following samples were prepared at a reduced aliquot due to Matrix: MW-307B (310-225716-1), MW-313B (310-225716-2) and Field Blank (310-225716-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-552717 The following samples were prepared at a reduced aliquot due to Matrix: MW-307B (310-225716-1), MW-313B (310-225716-2) and Field Blank (310-225716-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-225716-1	MW-307B	Water	02/22/22 11:45	02/23/22 09:45
310-225716-2	MW-313B	Water	02/22/22 09:35	02/23/22 09:45
310-225716-3	Field Blank	Water	02/22/22 11:10	02/23/22 09:45

Detection Summary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Client Sample ID: MW-307B
Lab Sample ID: 310-225716-1

No Detections.

Client Sample ID: MW-313B
Lab Sample ID: 310-225716-2

No Detections.

Client Sample ID: Field Blank
Lab Sample ID: 310-225716-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Client Sample ID: MW-307B
Lab Sample ID: 310-225716-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.453**		0.274	0.277	1.00	0.369	pCi/L	02/28/22 09:27	03/23/22 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*40 - 110*	*02/28/22 09:27*	*03/23/22 07:26*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.257	U	0.300	0.301	1.00	0.495	pCi/L	02/28/22 09:52	03/22/22 13:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*97.5*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*
Y Carrier	*89.7*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.710**		0.406	0.409	5.00	0.495	pCi/L		03/23/22 11:16	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Client Sample ID: MW-313B
Lab Sample ID: 310-225716-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.240	U	0.280	0.281	1.00	0.459	pCi/L	02/28/22 09:27	03/23/22 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*02/28/22 09:27*	*03/23/22 07:26*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**0.672**		0.321	0.327	1.00	0.462	pCi/L	02/28/22 09:52	03/22/22 13:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*94.6*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*
Y Carrier	*92.0*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.912**		0.426	0.431	5.00	0.462	pCi/L		03/23/22 11:16	1

Client Sample ID: Field Blank
Lab Sample ID: 310-225716-3

Date Collected: 02/22/22 11:10
Matrix: Water

Date Received: 02/23/22 09:45

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	-0.00241	U	0.196	0.196	1.00	0.395	pCi/L	02/28/22 09:27	03/23/22 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*02/28/22 09:27*	*03/23/22 07:26*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.245	U	0.307	0.308	1.00	0.510	pCi/L	02/28/22 09:52	03/22/22 13:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*90.4*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*
Y Carrier	*90.1*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.245	U	0.364	0.365	5.00	0.510	pCi/L		03/23/22 11:16	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-552717/23-A
Matrix: Water
Analysis Batch: 556674

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552717

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.07881	U	0.152	0.152	1.00	0.271	pCi/L	02/28/22 09:27	03/23/22 07:27	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*02/28/22 09:27*	*03/23/22 07:27*	*1*

Lab Sample ID: LCS 160-552717/1-A
Matrix: Water
Analysis Batch: 556677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552717

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium 226			11.3	10.45		1.29	1.00	0.340	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.4*		*40 - 110*

Lab Sample ID: LCSD 160-552717/2-A
Matrix: Water
Analysis Batch: 556677

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 552717

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium 226			11.3	9.330		1.20	1.00	0.346	pCi/L	82	75 - 125	0.45	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*90.6*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-552721/23-A
Matrix: Water
Analysis Batch: 556465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552721

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.06947	U	0.250	0.250	1.00	0.435	pCi/L	02/28/22 09:52	03/22/22 13:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*88.7*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*
Y Carrier	*90.8*		*40 - 110*	*02/28/22 09:52*	*03/22/22 13:42*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-552721/1-A
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552721

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium 228			8.77	9.365		1.10	1.00	0.403	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba	*92.4*		*40 - 110*
Y Carrier	*89.3*		*40 - 110*

Lab Sample ID: LCSD 160-552721/2-A
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 552721

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium 228			8.77	7.551		0.943	1.00	0.411	pCi/L	86	75 - 125	0.89	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba	*90.6*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25222066

Job ID: 310-225716-1

Rad

Prep Batch: 552717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225716-1	MW-307B	Total/NA	Water	PrecSep-21	
310-225716-2	MW-313B	Total/NA	Water	PrecSep-21	
310-225716-3	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-552717/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-552717/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-552717/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 552721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-225716-1	MW-307B	Total/NA	Water	PrecSep_0	
310-225716-2	MW-313B	Total/NA	Water	PrecSep_0	
310-225716-3	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-552721/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-552721/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-552721/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Client Sample ID: MW-307B
Lab Sample ID: 310-225716-1
Date Collected: 02/22/22 11:45
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			552717	02/28/22 09:27	LPS	TAL SL
Total/NA	Analysis	903.0		1	556674	03/23/22 07:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			552721	02/28/22 09:52	LPS	TAL SL
Total/NA	Analysis	904.0		1	556465	03/22/22 13:42	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	556688	03/23/22 11:16	CAH	TAL SL

Client Sample ID: MW-313B
Lab Sample ID: 310-225716-2
Date Collected: 02/22/22 09:35
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			552717	02/28/22 09:27	LPS	TAL SL
Total/NA	Analysis	903.0		1	556674	03/23/22 07:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			552721	02/28/22 09:52	LPS	TAL SL
Total/NA	Analysis	904.0		1	556465	03/22/22 13:42	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	556688	03/23/22 11:16	CAH	TAL SL

Client Sample ID: Field Blank
Lab Sample ID: 310-225716-3
Date Collected: 02/22/22 11:10
Matrix: Water
Date Received: 02/23/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			552717	02/28/22 09:27	LPS	TAL SL
Total/NA	Analysis	903.0		1	556674	03/23/22 07:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			552721	02/28/22 09:52	LPS	TAL SL
Total/NA	Analysis	904.0		1	556465	03/22/22 13:42	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	556688	03/23/22 11:16	CAH	TAL SL

Laboratory References:
TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-07-23
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	07-01-22
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	12-31-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-22
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-22
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	NELAP	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	02-28-23
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	07-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

Method Summary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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310-225716 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY Madison	STATE WI	Project: Burlington GS	
Receipt Information			
Date/Time Received: DATE 2/23/22	TIME 0945	Received By: MRH	
Delivery Type: ☐ UPS ☒ FedEx ~~☒ FedEx Ground~~ MRH 2/23/22 ☐ US Mail ☐ Spee-Dee			
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No		*If yes:* Cooler ID:	
Multiple Coolers? ☒ Yes ~~☒ No~~		*If yes:* Cooler # 1 of 2	
Cooler Custody Seals Present? ☒ Yes ☐ No		*If yes:* Cooler custody seals intact? ☒ Yes ☐ No	
Sample Custody Seals Present? ☐ Yes ☒ No		*If yes:* Sample custody seals intact? ☐ Yes ☐ No	
Trip Blank Present? ☐ Yes ☒ No		*If yes:* Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE			
Thermometer ID: S		Correction Factor (°C): 0.0	
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): 2.3		Corrected Temp (°C): 2.3	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No			
a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project: Burlington GS

Receipt Information

Date/Time Received: DATE 2/23/22 | TIME 0945 | Received By: MRH

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: S | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.4 | Corrected Temp (°C): 1.4

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

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Client Information	Sampler: Paul Grover	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-68358-19635.1
Client Contact: Meghan Blodgett	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:

Address: 2830 Dairy Drive	Due Date Requested:	
City: Madison	TAT Requested (days):	
State, Zip: WI, 53718	Compliance Project: Δ Yes Δ No	
Phone:	PO #: Purchase Order Requested	
Email: mblodgett@scsengineers.com	WO #:	
Project Name: Burlington Generating Station	Project #: 31011020	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0 - Radium-226	904.0 - Radium 228	Ra226+228GFPC_P	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	-		
MW-307B	2/22/22	11:45	G	Water	N		X	X	X		
MW-313B		9:35		Water	N		X	X	X		
FIELD BLANK		11:10		Water	N		X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Paul A. Grover	2-22-22 9:50	SCS		2/22/22 0950	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Table 1. Sampling Points and Parameters - CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring - Burlington Generating Station / SCS Engineers Project #25221066

	Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	Field Blank	TOTAL
Appendix III Parameters	Boron										x									x	x	3
	Calcium										x									x	x	3
	Chloride										x									x	x	3
	Fluoride										x									x	x	3
	pH										x									x	x	3
	Sulfate										x									x	x	3
	TDS										x									x	x	3
Appendix IV Parameters	Antimony										x									x	x	3
	Arsenic		x								x									x	x	4
	Barium										x									x	x	3
	Beryllium										x									x	x	3
	Cadmium										x									x	x	3
	Chromium										x									x	x	3
	Cobalt										x									x	x	3
	Fluoride										x									x	x	3
	Lead										x									x	x	3
	Lithium										x									x	x	3
	Mercury										x									x	x	3
	Molybdenum										x									x	x	3
	Selenium										x									x	x	3
	Thallium										x									x	x	3
	Radium (report separately)										x									x	x	3
Field Parameters	Ferrous Iron (CheMetrics)										x									x		2
	Sulfide (CheMetrics)										x									x		2
	Groundwater Elevation		x								x									x		3
	pH (field)		x								x									x		3
	Specific Conductance		x								x									x		3
	Dissolved Oxygen		x								x									x		3
	ORP		x								x									x		3
	Temperature		x								x									x		3
	Turbidity		x								x									x		3
	Color		x								x									x		3
	Odor		x								x									x		3
Additional Lab Parameters - REPORT SEPARATELY	Bicarbonate (total)										x									x		2
	Carbonate (total)										x									x		2
	Iron (total)										x									x		2
	Magnesium (total)										x									x		2
	Manganese (total)										x									x		2
	Potassium (total)										x									x		2
	Sodium (total)										x									x		2
	Iron (filtered)										x									x		2
	Lithium (filtered)										x									x		2
	Manganese (filtered)										x									x		2
	Molybdenum (filtered)										x									x		2

Notes:

C:\Users\thompsons\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\24F0YPND\[Table_1_BGS_CCR_Rule_Sampling_2202.xls]Sheet1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-46877.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin: Iowa	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-225716-1
Address: 13715 Rider Trail North,	Due Date Requested: 3/24/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Burlington Generating Station 25222066	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-307B (310-225716-1)	2/22/22	11:45 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-313B (310-225716-2)	2/22/22	09:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
Field Blank (310-225716-3)	2/22/22	11:10 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2 22 22 1505		FEDEX		
Relinquished by: Fedex	Date/Time:	Company	Received by: Jena Worthington	Date/Time: 2-24-22 1223	Company GTMSR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

3/23/2022

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-225716-1

Login Number: 225716
List Number: 1
Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

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.	N/A	
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	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-225716-1

Login Number: 225716
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 02/25/22 10:14 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	N/A	
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	

Tracer/Carrier Summary

Client: SCS Engineers
Job ID: 310-225716-1
Project/Site: Burlington Generating Station 25222066

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
310-225716-1	MW-307B	97.5
310-225716-2	MW-313B	94.6
310-225716-3	Field Blank	90.4
LCS 160-552717/1-A	Lab Control Sample	92.4
LCSD 160-552717/2-A	Lab Control Sample Dup	90.6
MB 160-552717/23-A	Method Blank	88.7

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
310-225716-1	MW-307B	97.5	89.7
310-225716-2	MW-313B	94.6	92.0
310-225716-3	Field Blank	90.4	90.1
LCS 160-552721/1-A	Lab Control Sample	92.4	89.3
LCSD 160-552721/2-A	Lab Control Sample Dup	90.6	84.5
MB 160-552721/23-A	Method Blank	88.7	90.8

Tracer/Carrier Legend

Ba = Ba
Y = Y Carrier

C2 April 2022 Assessment Monitoring

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ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-228660-1
Client Project/Site: Burlington Gen Station - 25222066
Revision: 1

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Authorized for release by:
5/24/2022 2:46:15 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

Table of Contents

Job ID: 310-228660-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-228660-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 5/10/2022. The report (revision 1) is being revised due to: Sample ID updated for duplicate MW-304 on COC. Added as MW-301.

Receipt
The samples were received on 4/7/2022 5:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.8º C, 1.8º C, 2.3º C, 2.5º C and 2.5º C.

RAD
Method 903.0: Radium 226 batch 559862
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date

MW-305 (310-228660-1), MW-314 (310-228660-2), MW-303 (310-228660-3), MW-302A (310-228660-4), MW-302 (310-228660-5), MW-306 (310-228660-6), MW-307B (310-228660-7), MW-304 (310-228660-8), MW-313 (310-228660-9), MW-313A (310-228660-10), MW-313B (310-228660-11), MW-312 (310-228660-12), MW-301 (310-228660-13), MW-310 (310-228660-14), MW-308 (310-228660-15), MW-311 (310-228660-16), MW-309 (310-228660-17), MW-307 (310-228660-18), MW-307A (310-228660-19), MW-310A (310-228660-20), (LCS 160-559862/1-A), (LCSD 160-559862/2-A) and (MB 160-559862/23-A)

Method 904.0: Radium 228 batch 559863
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-305 (310-228660-1), MW-314 (310-228660-2), MW-303 (310-228660-3), MW-302A (310-228660-4), MW-302 (310-228660-5), MW-306 (310-228660-6), MW-307B (310-228660-7), MW-304 (310-228660-8), MW-313 (310-228660-9), MW-313A (310-228660-10), MW-313B (310-228660-11), MW-312 (310-228660-12), MW-301 (310-228660-13), MW-310 (310-228660-14), MW-308 (310-228660-15), MW-311 (310-228660-16), MW-309 (310-228660-17), MW-307 (310-228660-18), MW-307A (310-228660-19), MW-310A (310-228660-20), (LCS 160-559863/1-A), (LCSD 160-559863/2-A) and (MB 160-559863/23-A)

Method PrecSep_0: Radium-228 Prep Batch 160-559863
The following samples were prepared at a reduced aliquot due to Matrix: MW-305 (310-228660-1), MW-314 (310-228660-2), MW-303 (310-228660-3), MW-302A (310-228660-4), MW-306 (310-228660-6), MW-313 (310-228660-9), MW-313A (310-228660-10), MW-313B (310-228660-11), MW-312 (310-228660-12), MW-301 (310-228660-13), MW-310 (310-228660-14), MW-308 (310-228660-15), MW-311 (310-228660-16), MW-309 (310-228660-17), MW-307 (310-228660-18), MW-307A (310-228660-19) and MW-310A (310-228660-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-559862
The following samples were prepared at a reduced aliquot due to Matrix: MW-305 (310-228660-1), MW-314 (310-228660-2), MW-303 (310-228660-3), MW-302A (310-228660-4), MW-306 (310-228660-6), MW-313 (310-228660-9), MW-313A (310-228660-10), MW-313B (310-228660-11), MW-312 (310-228660-12), MW-301 (310-228660-13), MW-310 (310-228660-14), MW-308 (310-228660-15), MW-311 (310-228660-16), MW-309 (310-228660-17), MW-307 (310-228660-18), MW-307A (310-228660-19) and MW-310A (310-228660-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-228660-1	MW-305	Ground Water	04/06/22 17:40	04/07/22 17:35
310-228660-2	MW-314	Ground Water	04/06/22 16:34	04/07/22 17:35
310-228660-3	MW-303	Ground Water	04/05/22 16:08	04/07/22 17:35
310-228660-4	MW-302A	Ground Water	04/05/22 14:59	04/07/22 17:35
310-228660-5	MW-302	Ground Water	04/05/22 13:56	04/07/22 17:35
310-228660-6	MW-306	Ground Water	04/05/22 12:29	04/07/22 17:35
310-228660-7	MW-307B	Ground Water	04/05/22 11:16	04/07/22 17:35
310-228660-8	MW-304	Ground Water	04/05/22 08:53	04/07/22 17:35
310-228660-9	MW-313	Ground Water	04/06/22 10:13	04/07/22 17:35
310-228660-10	MW-313A	Ground Water	04/06/22 11:22	04/07/22 17:35
310-228660-11	MW-313B	Ground Water	04/06/22 12:50	04/07/22 17:35
310-228660-12	MW-312	Ground Water	04/06/22 15:19	04/07/22 17:35
310-228660-13	MW-301	Ground Water	04/06/22 14:06	04/07/22 17:35
310-228660-14	MW-310	Ground Water	04/04/22 11:47	04/07/22 17:35
310-228660-15	MW-308	Ground Water	04/04/22 16:16	04/07/22 17:35
310-228660-16	MW-311	Ground Water	04/04/22 13:40	04/07/22 17:35
310-228660-17	MW-309	Ground Water	04/04/22 15:08	04/07/22 17:35
310-228660-18	MW-307	Ground Water	04/05/22 08:34	04/07/22 17:35
310-228660-19	MW-307A	Ground Water	04/05/22 09:38	04/07/22 17:35
310-228660-20	MW-310A	Ground Water	04/06/22 18:30	04/07/22 17:35

Detection Summary

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-305 — Lab Sample ID: 310-228660-1

No Detections.

Client Sample ID: MW-314 — Lab Sample ID: 310-228660-2

No Detections.

Client Sample ID: MW-303 — Lab Sample ID: 310-228660-3

No Detections.

Client Sample ID: MW-302A — Lab Sample ID: 310-228660-4

No Detections.

Client Sample ID: MW-302 — Lab Sample ID: 310-228660-5

No Detections.

Client Sample ID: MW-306 — Lab Sample ID: 310-228660-6

No Detections.

Client Sample ID: MW-307B — Lab Sample ID: 310-228660-7

No Detections.

Client Sample ID: MW-304 — Lab Sample ID: 310-228660-8

No Detections.

Client Sample ID: MW-313 — Lab Sample ID: 310-228660-9

No Detections.

Client Sample ID: MW-313A — Lab Sample ID: 310-228660-10

No Detections.

Client Sample ID: MW-313B — Lab Sample ID: 310-228660-11

No Detections.

Client Sample ID: MW-312 — Lab Sample ID: 310-228660-12

No Detections.

Client Sample ID: MW-301 — Lab Sample ID: 310-228660-13

No Detections.

Client Sample ID: MW-310 — Lab Sample ID: 310-228660-14

No Detections.

Client Sample ID: MW-308 — Lab Sample ID: 310-228660-15

No Detections.

Client Sample ID: MW-311 — Lab Sample ID: 310-228660-16

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-309
Lab Sample ID: 310-228660-17

No Detections.

Client Sample ID: MW-307
Lab Sample ID: 310-228660-18

No Detections.

Client Sample ID: MW-307A
Lab Sample ID: 310-228660-19

No Detections.

Client Sample ID: MW-310A
Lab Sample ID: 310-228660-20

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-305
Date Collected: 04/06/22 17:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-1
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.470**		0.192	0.196	1.00	0.222	pCi/L	04/12/22 14:41	05/07/22 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:48*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.298	U	0.332	0.333	1.00	0.545	pCi/L	04/12/22 15:04	05/03/22 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*93.5*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:09*	*1*
Y Carrier	*87.5*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:09*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.768**		0.384	0.386	5.00	0.545	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-314
Date Collected: 04/06/22 16:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-2
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.506		0.200	0.205	1.00	0.222	pCi/L	04/12/22 14:41	05/07/22 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:48*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.795		0.337	0.345	1.00	0.454	pCi/L	04/12/22 15:04	05/03/22 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*86.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:09*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:09*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.30		0.392	0.401	5.00	0.454	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-303
Date Collected: 04/05/22 16:08
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-3
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.795		0.231	0.241	1.00	0.218	pCi/L	04/12/22 14:41	05/07/22 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:49*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.723		0.393	0.398	1.00	0.585	pCi/L	04/12/22 15:04	05/03/22 13:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*91.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:10*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:10*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.52		0.456	0.465	5.00	0.585	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-302A
Date Collected: 04/05/22 14:59
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-4
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.694		0.210	0.219	1.00	0.170	pCi/L	04/12/22 14:41	05/07/22 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:49*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.45		0.498	0.516	1.00	0.676	pCi/L	04/12/22 15:04	05/03/22 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*86.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:14*	*1*
Y Carrier	*81.5*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:14*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	2.14		0.540	0.561	5.00	0.676	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-302
Date Collected: 04/05/22 13:56
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-5
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.401**		0.156	0.160	1.00	0.165	pCi/L	04/12/22 14:41	05/07/22 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:50*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.286	U	0.304	0.305	1.00	0.496	pCi/L	04/12/22 15:04	05/03/22 13:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*78.6*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:15*	*1*
Y Carrier	*80.0*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:15*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.687**		0.342	0.344	5.00	0.496	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-306
Date Collected: 04/05/22 12:29
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-6
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0776	U	0.0985	0.0988	1.00	0.163	pCi/L	04/12/22 14:41	05/07/22 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:50*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.412	U	0.377	0.379	1.00	0.606	pCi/L	04/12/22 15:04	05/03/22 13:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*86.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:16*	*1*
Y Carrier	*83.0*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:16*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.489	U	0.390	0.392	5.00	0.606	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-307B
Lab Sample ID: 310-228660-7

Date Collected: 04/05/22 11:16
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.674		0.170	0.181	1.00	0.110	pCi/L	04/12/22 14:41	05/07/22 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:50*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.830		0.299	0.309	1.00	0.401	pCi/L	04/12/22 15:04	05/03/22 13:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*94.0*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*
Y Carrier	*83.0*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.50		0.344	0.358	5.00	0.401	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-304
Lab Sample ID: 310-228660-8

Date Collected: 04/05/22 08:53
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0974	U	0.0874	0.0878	1.00	0.130	pCi/L	04/12/22 14:41	05/07/22 13:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 13:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.371	U	0.261	0.263	1.00	0.404	pCi/L	04/12/22 15:04	05/03/22 13:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*87.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*
Y Carrier	*85.6*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.469**		0.275	0.277	5.00	0.404	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-313
Date Collected: 04/06/22 10:13
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-9
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.332		0.168	0.170	1.00	0.213	pCi/L	04/12/22 14:41	05/07/22 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:44*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.03		0.392	0.404	1.00	0.539	pCi/L	04/12/22 15:04	05/03/22 13:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*92.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.36		0.426	0.438	5.00	0.539	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-313A
Lab Sample ID: 310-228660-10

Date Collected: 04/06/22 11:22
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.333**		0.151	0.154	1.00	0.161	pCi/L	04/12/22 14:41	05/07/22 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:44*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.494	U	0.348	0.351	1.00	0.538	pCi/L	04/12/22 15:04	05/03/22 13:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*91.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.828**		0.379	0.383	5.00	0.538	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-313B
Lab Sample ID: 310-228660-11

Date Collected: 04/06/22 12:50
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.281		0.147	0.149	1.00	0.181	pCi/L	04/12/22 14:41	05/07/22 15:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:45*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.730		0.344	0.351	1.00	0.497	pCi/L	04/12/22 15:04	05/03/22 13:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*97.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*
Y Carrier	*87.9*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:17*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.01		0.374	0.381	5.00	0.497	pCi/L		05/09/22 22:54	1

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Client Sample ID: MW-312
Date Collected: 04/06/22 15:19
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-12
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.296**		0.143	0.145	1.00	0.154	pCi/L	04/12/22 14:41	05/07/22 15:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:46*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.147	U	0.353	0.353	1.00	0.606	pCi/L	04/12/22 15:04	05/03/22 13:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*89.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*
Y Carrier	*85.2*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.443	U	0.381	0.382	5.00	0.606	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-301
Lab Sample ID: 310-228660-13

Date Collected: 04/06/22 14:06
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.719		0.219	0.229	1.00	0.166	pCi/L	04/12/22 14:41	05/07/22 15:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:46*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.973		0.496	0.504	1.00	0.741	pCi/L	04/12/22 15:04	05/03/22 13:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*80.1*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.69		0.542	0.554	5.00	0.741	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-310
Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-14
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.220**		0.139	0.141	1.00	0.179	pCi/L	04/12/22 14:41	05/07/22 15:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:46*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.618	U	0.402	0.406	1.00	0.619	pCi/L	04/12/22 15:04	05/03/22 13:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*82.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:18*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.838**		0.425	0.430	5.00	0.619	pCi/L		05/09/22 22:54	1

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Client Sample ID: MW-308
Date Collected: 04/04/22 16:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-15
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.321		0.195	0.197	1.00	0.266	pCi/L	04/12/22 14:41	05/07/22 15:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.6*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:47*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.143	U	0.365	0.366	1.00	0.684	pCi/L	04/12/22 15:04	05/03/22 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*75.6*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:19*	*1*
Y Carrier	*86.7*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:19*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.321	U	0.414	0.416	5.00	0.684	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-311
Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-16
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.328**		0.169	0.172	1.00	0.213	pCi/L	04/12/22 14:41	05/07/22 15:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:47*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.265	U	0.318	0.319	1.00	0.525	pCi/L	04/12/22 15:04	05/03/22 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*91.5*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:19*	*1*
Y Carrier	*87.9*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:19*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.593**		0.360	0.362	5.00	0.525	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-309
Lab Sample ID: 310-228660-17
Date Collected: 04/04/22 15:08
Matrix: Ground Water
Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.358		0.187	0.190	1.00	0.243	pCi/L	04/12/22 14:41	05/07/22 15:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:47*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.489	U	0.343	0.346	1.00	0.531	pCi/L	04/12/22 15:04	05/03/22 13:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*95.0*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*
Y Carrier	*84.5*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.847		0.391	0.395	5.00	0.531	pCi/L		05/09/22 22:54	1

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Client Sample ID: MW-307

Date Collected: 04/05/22 08:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-18

Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0536	U	0.115	0.115	1.00	0.207	pCi/L	04/12/22 14:41	05/07/22 15:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:47*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.0809	U	0.289	0.289	1.00	0.510	pCi/L	04/12/22 15:04	05/03/22 13:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*89.6*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.134	U	0.311	0.311	5.00	0.510	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-307A
Lab Sample ID: 310-228660-19

Date Collected: 04/05/22 09:38
Matrix: Ground Water

Date Received: 04/07/22 17:35

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.326		0.195	0.198	1.00	0.278	pCi/L	04/12/22 14:41	05/07/22 15:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.8*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:47*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.0921	U	0.293	0.293	1.00	0.548	pCi/L	04/12/22 15:04	05/03/22 13:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*92.8*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*
Y Carrier	*84.1*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.326	U	0.352	0.354	5.00	0.548	pCi/L		05/09/22 22:54	1

Client Sample ID: MW-310A
Date Collected: 04/06/22 18:30
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-20
Matrix: Ground Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.706**		0.220	0.229	1.00	0.218	pCi/L	04/12/22 14:41	05/07/22 15:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:48*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.136	U	0.300	0.300	1.00	0.516	pCi/L	04/12/22 15:04	05/03/22 13:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*92.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*
Y Carrier	*85.6*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.842**		0.372	0.377	5.00	0.516	pCi/L		05/09/22 22:54	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-559862/23-A
Matrix: Water
Analysis Batch: 564353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 559862

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.07508	U	0.0875	0.0878	1.00	0.143	pCi/L	04/12/22 14:41	05/07/22 15:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*04/12/22 14:41*	*05/07/22 15:48*	*1*

Lab Sample ID: LCS 160-559862/1-A
Matrix: Water
Analysis Batch: 564353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 559862

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 226			11.3	9.816		1.08	1.00	0.145	pCi/L	87	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.8*		*40 - 110*

Lab Sample ID: LCSD 160-559862/2-A
Matrix: Water
Analysis Batch: 564353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 559862

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 226			11.3	10.68		1.16	1.00	0.150	pCi/L	94	75 - 125	0.39	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*92.8*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-559863/23-A
Matrix: Water
Analysis Batch: 563486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 559863

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.1622	U	0.252	0.252	1.00	0.424	pCi/L	04/12/22 15:04	05/03/22 13:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*98.3*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/12/22 15:04*	*05/03/22 13:20*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-559863/1-A
Matrix: Water
Analysis Batch: 563502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 559863

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 228			8.65	8.309		1.01	1.00	0.352	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba	*92.8*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Lab Sample ID: LCSD 160-559863/2-A
Matrix: Water
Analysis Batch: 563502

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 559863

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 228			8.65	9.472		1.12	1.00	0.406	pCi/L	109	75 - 125	0.55	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba	*92.8*		*40 - 110*
Y Carrier	*86.0*		*40 - 110*

Rad

Prep Batch: 559862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228660-1	MW-305	Total/NA	Ground Water	PrecSep-21	
310-228660-2	MW-314	Total/NA	Ground Water	PrecSep-21	
310-228660-3	MW-303	Total/NA	Ground Water	PrecSep-21	
310-228660-4	MW-302A	Total/NA	Ground Water	PrecSep-21	
310-228660-5	MW-302	Total/NA	Ground Water	PrecSep-21	
310-228660-6	MW-306	Total/NA	Ground Water	PrecSep-21	
310-228660-7	MW-307B	Total/NA	Ground Water	PrecSep-21	
310-228660-8	MW-304	Total/NA	Ground Water	PrecSep-21	
310-228660-9	MW-313	Total/NA	Ground Water	PrecSep-21	
310-228660-10	MW-313A	Total/NA	Ground Water	PrecSep-21	
310-228660-11	MW-313B	Total/NA	Ground Water	PrecSep-21	
310-228660-12	MW-312	Total/NA	Ground Water	PrecSep-21	
310-228660-13	MW-301	Total/NA	Ground Water	PrecSep-21	
310-228660-14	MW-310	Total/NA	Ground Water	PrecSep-21	
310-228660-15	MW-308	Total/NA	Ground Water	PrecSep-21	
310-228660-16	MW-311	Total/NA	Ground Water	PrecSep-21	
310-228660-17	MW-309	Total/NA	Ground Water	PrecSep-21	
310-228660-18	MW-307	Total/NA	Ground Water	PrecSep-21	
310-228660-19	MW-307A	Total/NA	Ground Water	PrecSep-21	
310-228660-20	MW-310A	Total/NA	Ground Water	PrecSep-21	
MB 160-559862/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-559862/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-559862/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 559863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228660-1	MW-305	Total/NA	Ground Water	PrecSep_0	
310-228660-2	MW-314	Total/NA	Ground Water	PrecSep_0	
310-228660-3	MW-303	Total/NA	Ground Water	PrecSep_0	
310-228660-4	MW-302A	Total/NA	Ground Water	PrecSep_0	
310-228660-5	MW-302	Total/NA	Ground Water	PrecSep_0	
310-228660-6	MW-306	Total/NA	Ground Water	PrecSep_0	
310-228660-7	MW-307B	Total/NA	Ground Water	PrecSep_0	
310-228660-8	MW-304	Total/NA	Ground Water	PrecSep_0	
310-228660-9	MW-313	Total/NA	Ground Water	PrecSep_0	
310-228660-10	MW-313A	Total/NA	Ground Water	PrecSep_0	
310-228660-11	MW-313B	Total/NA	Ground Water	PrecSep_0	
310-228660-12	MW-312	Total/NA	Ground Water	PrecSep_0	
310-228660-13	MW-301	Total/NA	Ground Water	PrecSep_0	
310-228660-14	MW-310	Total/NA	Ground Water	PrecSep_0	
310-228660-15	MW-308	Total/NA	Ground Water	PrecSep_0	
310-228660-16	MW-311	Total/NA	Ground Water	PrecSep_0	
310-228660-17	MW-309	Total/NA	Ground Water	PrecSep_0	
310-228660-18	MW-307	Total/NA	Ground Water	PrecSep_0	
310-228660-19	MW-307A	Total/NA	Ground Water	PrecSep_0	
310-228660-20	MW-310A	Total/NA	Ground Water	PrecSep_0	
MB 160-559863/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-559863/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-559863/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-305
Lab Sample ID: 310-228660-1
Date Collected: 04/06/22 17:40
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564353	05/07/22 13:48	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563502	05/03/22 13:09	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-314
Lab Sample ID: 310-228660-2
Date Collected: 04/06/22 16:34
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564353	05/07/22 13:48	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563502	05/03/22 13:09	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-303
Lab Sample ID: 310-228660-3
Date Collected: 04/05/22 16:08
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:49	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563502	05/03/22 13:10	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-302A
Lab Sample ID: 310-228660-4
Date Collected: 04/05/22 14:59
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:49	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563501	05/03/22 13:14	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-302
Lab Sample ID: 310-228660-5
Date Collected: 04/05/22 13:56
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563501	05/03/22 13:15	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-306
Lab Sample ID: 310-228660-6
Date Collected: 04/05/22 12:29
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:16	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-307B
Lab Sample ID: 310-228660-7
Date Collected: 04/05/22 11:16
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:17	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-304
Lab Sample ID: 310-228660-8
Date Collected: 04/05/22 08:53
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 13:51	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:17	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-313
Lab Sample ID: 310-228660-9
Date Collected: 04/06/22 10:13
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:44	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:17	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-313A
Lab Sample ID: 310-228660-10
Date Collected: 04/06/22 11:22
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:44	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:17	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-313B
Lab Sample ID: 310-228660-11
Date Collected: 04/06/22 12:50
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:45	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:17	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-312
Lab Sample ID: 310-228660-12
Date Collected: 04/06/22 15:19
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:46	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:18	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-301
Date Collected: 04/06/22 14:06
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-13
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:46	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:18	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-310
Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-14
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564348	05/07/22 15:46	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:18	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-308
Date Collected: 04/04/22 16:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-15
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564351	05/07/22 15:47	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:19	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-311
Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228660-16
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564351	05/07/22 15:47	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:19	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Client Sample ID: MW-309
Lab Sample ID: 310-228660-17
Date Collected: 04/04/22 15:08
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564351	05/07/22 15:47	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:20	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-307
Lab Sample ID: 310-228660-18
Date Collected: 04/05/22 08:34
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564351	05/07/22 15:47	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:20	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-307A
Lab Sample ID: 310-228660-19
Date Collected: 04/05/22 09:38
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564351	05/07/22 15:47	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:20	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Client Sample ID: MW-310A
Lab Sample ID: 310-228660-20
Date Collected: 04/06/22 18:30
Matrix: Ground Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			559862	04/12/22 14:41	BMP	TAL SL
Total/NA	Analysis	903.0		1	564353	05/07/22 15:48	FLC	TAL SL
Total/NA	Prep	PrecSep_0			559863	04/12/22 15:04	BMP	TAL SL
Total/NA	Analysis	904.0		1	563486	05/03/22 13:20	CLP	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	564728	05/09/22 22:54	EMH	TAL SL

Laboratory References:
TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	07-01-22
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	12-31-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-22
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-22
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-23
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	NELAP	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	02-28-23
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	05-10-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

Method Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-228660 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive STATE IA

Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 TIME 1735

Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 1 of 5

Cooler Custody Seals Present? ☒ Yes ~~☒ No~~ MRH 4/7/22 No *If yes* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: 0 Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.3 Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 2 of 5

Cooler Custody Seals Present? ☒ Yes ~~☒ No~~ MRH 4/7/22 *If yes* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.5 | *Corrected Temp (°C)*: 2.5

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 3 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.5 | Corrected Temp (°C): 2.5

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Con

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 4 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.8 | Corrected Temp (°C): 0.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other._____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes ☐ No	*If yes*	Cooler # 5 of 5
Cooler Custody Seals Present? No	☒ Yes ~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes ☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes ☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.8 | *Corrected Temp (°C)*: 1.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cedar Falls Division
3019 Venture Way
Cedar Falls IA 50613

sL me ca Des o nes SC
214

Phone 319 277 2401 or 1 800 - 750 - 2401
Fax 319 277 2425

Company: SCS engineers
Send Report To: Mblodgett@scsengineers.com
Address: 8450 Hickman Road suite 27
City/State/Zip Code: Clive, IA 50325
Telephone Number: 515 864 9340 Fax:
Sampled by: (Print Name) Rosa Cruz
(Signature)

Your PO #: 7522066
Invoice To
Project Name: Burlington Gen Station
Project Number: 31011020
Email Address: rcruz@scsengineers.com
CC

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White La	H_2SO_4 Glass(Yellow & White Labe	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify Stormwater	Analyze For: Radium	RUSH TAT (Must call ahea	Standard TAT	E-mail results	Fax Results	Send QC with report
MW 305	4 6 22	17 46	2	X				X							X						X					
MW 314	4-6 22	16 34	2	X				X							X						X					
MW 303	4 5 22	1608	2	X				X							X						X					
MW 302A	4-5 22	1459	2	X				X							X						X					
MW 302	4 5 22	1356	2	X				X							X						X					
MW 306	4-5 22	1229	2	X				X							X						X					
MW 307B	4-5 22	1116	2	X				X							X						X					
MW 304	4 5 22	853	2	X				X							X						X					
MW 313	4 6 22	10 13	2	X				X							X						X					
MW 313A	4 6 22	11 27	2	X				X							X						X					

NOTE All turn around times are calculated from the time of receipt at TestAmerica
NOTICE. **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments *additional charges* may be assessed.**
NOTE. There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES *Please fill in shaded areas*

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time
	1-7-22	16 20						
Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time
Shipped Via.			Comments:			Shipped Via		
Received for TestAmerica by	4-7-22 Date	1735 Time	Temperature Upon Receipt:			Laboratory Comments.		

Cedar Falls Division
3019 Venture Way
Cedar Falls, IA 50613

Phone 319 - 277 2401 or 1 - 800 - 750 2401
Fax 319 277 2425

estAmerica Des Moines SC
214

Company: SCS Engineers
Send Report To: mbledgett@scsengineers.com
Address: 8456 Hickman Road Suite 27
City/State/Zip Code: Clive, IA 50325
Telephone Number: 515 864-9340 Fax:
Sampled by: (Print Name) Rosa Cruz
(Signature)

Your PO #: 25271666
Invoice To
Project Name: Burlington Gen Station
Project Number: 31611020
Email Address: rcruz@scsengineers.com
CC

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White La	Preservative: H_2SO_4 Glass(Yellow & White Labe	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify Stormwater	Analyze For: Beryllium	RUSH TAT (Must call ahea	Standard TAT	E-mail results	Fax Results	Send QC with report
MW 313B	4-6-22	12 50	2	X				X							X						X					
MW 312	4 6 22	1519	2	X				X							X						X					
MW-309	4-6 22	1466	2	X				X							X						X					
MW 316	4-4-22	1147	2	X				X							X						X					
MW-308	4-4-22	1616	2	X				X							X						X					
MW-311	4-4 22	1346	2	X				X							X						X					
MW 309	4 4 22	1508	2	X				X							X						X					
MW 307	4-5-22	834	2	X				X							X						X					
MW-307D	4 5-22	938	2	X				X							X						X					
MW 310D	4-6-22	1430	2	X				X							X						X					

NOTE All turn around times are calculated from the time of receipt at TestAmerica
NOTICE **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments *additional charges* may be assessed**
NOTE. There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES Please fill in shaded areas

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time
	4-7-22	10 20						
Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time
Shipped Via	4-7-22	1735	Comments.			Shipped Via		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments.		

5/24/2022 (Rev. 1)

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-48472.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-228660-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/29/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Burlington Gen Station -	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-305 (310-228660-1)	4/6/22	17:40 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-314 (310-228660-2)	4/6/22	16:34 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-228660-3)	4/5/22	16:08 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302A (310-228660-4)	4/5/22	14:59 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-228660-5)	4/5/22	13:56 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-228660-6)	4/5/22	12:29 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307B (310-228660-7)	4/5/22	11:16 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-228660-6)	4/5/22	08:53 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-313 (310-228660-9)	4/6/22	10:13 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 4822 1500	Company	Received by: FED EX	Date/Time:	Company	
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: APR 1 1 2022 0900	Company	
Relinquished by:	Date/Time:	Company	Received by: Autumn R. Johnson	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-48472.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-228660-1
Address: 13715 Rider Trail North,	Due Date Requested: 4/29/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Burlington Gen Station -	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-313A (310-228660-10)	4/6/22	11:22 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-313B (310-228660-11)	4/6/22	12:50 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-312 (310-228660-12)	4/6/22	15:19 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-228660-13)	4/6/22	14:06 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-310 (310-228660-14)	4/4/22	11:47 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-308 (310-228660-15)	4/4/22	16:16 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-311 (310-228660-16)	4/4/22	13:40 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309 (310-228660-17)	4/4/22	15:08 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-228660-18)	4/5/22	08:34 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	4522 1500		FED EX		
2	Relinquished by: FED EX	Date/Time:	Company	Received by: [signature] Autumn R. Johnson	Date/Time: APR 1 1 2022 0900	Company: TA SFL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-48472.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-228660-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/29/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Burlington Gen Station -	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-307A (310-228660-19)	4/5/22	09:38 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-310A (310-228660-20)	4/6/22	18:30 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	4522 1500		FED EX		
2	FED EX			[signature]	APR 11 2022 0900	EASTL
3				Autumn R. Johnson		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-228660-1
SDG Number:

Login Number: 228660
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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.	N/A	
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	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-228660-1
SDG Number:

Login Number: 228660
List Number: 2
Creator: Booker, Autumn R

List Source: Eurofins St. Louis
List Creation: 04/11/22 04:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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.	N/A	
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	

Tracer/Carrier Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station - 25222066

Job ID: 310-228660-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
310-228660-1	MW-305	93.5
310-228660-2	MW-314	86.3
310-228660-3	MW-303	91.8
310-228660-4	MW-302A	86.8
310-228660-5	MW-302	78.6
310-228660-6	MW-306	86.3
310-228660-7	MW-307B	94.0
310-228660-8	MW-304	87.8
310-228660-9	MW-313	92.3
310-228660-10	MW-313A	91.8
310-228660-11	MW-313B	97.8
310-228660-12	MW-312	89.8
310-228660-13	MW-301	80.1
310-228660-14	MW-310	82.3
310-228660-15	MW-308	75.6
310-228660-16	MW-311	91.5
310-228660-17	MW-309	95.0
310-228660-18	MW-307	89.6
310-228660-19	MW-307A	92.8
310-228660-20	MW-310A	92.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
LCS 160-559862/1-A	Lab Control Sample	92.8
LCSD 160-559862/2-A	Lab Control Sample Dup	92.8
MB 160-559862/23-A	Method Blank	98.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
310-228660-1	MW-305	93.5	87.5
310-228660-2	MW-314	86.3	84.9
310-228660-3	MW-303	91.8	83.4
310-228660-4	MW-302A	86.8	81.5
310-228660-5	MW-302	78.6	80.0
310-228660-6	MW-306	86.3	83.0
310-228660-7	MW-307B	94.0	83.0
310-228660-8	MW-304	87.8	85.6

Tracer/Carrier Summary

Client: SCS Engineers
Job ID: 310-228660-1
Project/Site: Burlington Gen Station - 25222066

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
310-228660-9	MW-313	92.3	86.4
310-228660-10	MW-313A	91.8	82.2
310-228660-11	MW-313B	97.8	87.9
310-228660-12	MW-312	89.8	85.2
310-228660-13	MW-301	80.1	84.9
310-228660-14	MW-310	82.3	86.4
310-228660-15	MW-308	75.6	86.7
310-228660-16	MW-311	91.5	87.9
310-228660-17	MW-309	95.0	84.5
310-228660-18	MW-307	89.6	84.9
310-228660-19	MW-307A	92.8	84.1
310-228660-20	MW-310A	92.3	85.6

Tracer/Carrier Legend

Ba = Ba
Y = Y Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
LCS 160-559863/1-A	Lab Control Sample	92.8	87.9
LCSD 160-559863/2-A	Lab Control Sample Dup	92.8	86.0
MB 160-559863/23-A	Method Blank	98.3	83.4

Tracer/Carrier Legend

Ba = Ba
Y = Y Carrier

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-228664-1
Client Project/Site: Burlington Gen Station 25222066

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Authorized for release by:
4/26/2022 5:32:02 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

Table of Contents

Job ID: 310-228664-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-228664-1

Comments
No additional comments.

Receipt
The samples were received on 4/7/2022 5:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.8º C, 1.8º C, 2.3º C, 2.5º C and 2.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-228664-1	MW-301	Water	04/06/22 14:06	04/07/22 17:35
310-228664-2	MW-302	Water	04/05/22 13:56	04/07/22 17:35
310-228664-3	MW-302A	Water	04/05/22 14:59	04/07/22 17:35
310-228664-4	MW-303	Water	04/05/22 16:08	04/07/22 17:35
310-228664-5	MW-304	Water	04/05/22 08:53	04/07/22 17:35
310-228664-6	MW-305	Water	04/06/22 17:40	04/07/22 17:35
310-228664-7	MW-306	Water	04/05/22 12:29	04/07/22 17:35
310-228664-8	MW-307	Water	04/05/22 08:34	04/07/22 17:35
310-228664-9	MW-307A	Water	04/05/22 09:38	04/07/22 17:35
310-228664-10	MW-307B	Water	04/05/22 11:16	04/07/22 17:35
310-228664-11	MW-308	Water	04/04/22 16:16	04/07/22 17:35
310-228664-12	MW-309	Water	04/04/22 15:08	04/07/22 17:35
310-228664-13	MW-310	Water	04/04/22 11:47	04/07/22 17:35
310-228664-14	MW-310A	Water	04/06/22 18:30	04/07/22 17:35
310-228664-15	MW-311	Water	04/04/22 13:40	04/07/22 17:35
310-228664-16	MW-312	Water	04/06/22 15:19	04/07/22 17:35
310-228664-17	MW-313	Water	04/06/22 10:13	04/07/22 17:35
310-228664-18	MW-313A	Water	04/06/22 11:22	04/07/22 17:35
310-228664-19	MW-313B	Water	04/06/22 12:50	04/07/22 17:35
310-228664-20	MW-314	Water	04/06/22 16:34	04/07/22 17:35
310-228664-21	Field Blank	Water	04/06/22 13:21	04/07/22 17:35

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-301 — Lab Sample ID: 310-228664-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	43000		100	36	ug/L	1		6020A	Total/NA
Magnesium	78000		500	150	ug/L	1		6020A	Total/NA
Manganese	19000		100	36	ug/L	10		6020A	Total/NA
Potassium	3700		500	150	ug/L	1		6020A	Total/NA
Sodium	130000		1000	610	ug/L	1		6020A	Total/NA
Iron	40000		100	36	ug/L	1		6020A	Dissolved
Lithium	13		10	2.5	ug/L	1		6020A	Dissolved
Manganese	22000		100	36	ug/L	10		6020A	Dissolved
Molybdenum	53		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	740		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	740		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-228664-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1200		100	36	ug/L	1		6020A	Total/NA
Magnesium	14000		500	150	ug/L	1		6020A	Total/NA
Manganese	930		10	3.6	ug/L	1		6020A	Total/NA
Potassium	14000		500	150	ug/L	1		6020A	Total/NA
Sodium	33000		1000	610	ug/L	1		6020A	Total/NA
Iron	1300		100	36	ug/L	1		6020A	Dissolved
Lithium	80		10	2.5	ug/L	1		6020A	Dissolved
Manganese	1000		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	89		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	310		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	310		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-302A — Lab Sample ID: 310-228664-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	8800		100	36	ug/L	1		6020A	Total/NA
Magnesium	34000		500	150	ug/L	1		6020A	Total/NA
Manganese	4000		10	3.6	ug/L	1		6020A	Total/NA
Potassium	4400		500	150	ug/L	1		6020A	Total/NA
Sodium	70000		1000	610	ug/L	1		6020A	Total/NA
Iron	8400		100	36	ug/L	1		6020A	Dissolved
Lithium	21		10	2.5	ug/L	1		6020A	Dissolved
Manganese	3800		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	250		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	250		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 310-228664-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4600		100	36	ug/L	1		6020A	Total/NA
Magnesium	16000		500	150	ug/L	1		6020A	Total/NA
Manganese	3500		10	3.6	ug/L	1		6020A	Total/NA
Potassium	22000		500	150	ug/L	1		6020A	Total/NA
Sodium	29000		1000	610	ug/L	1		6020A	Total/NA
Iron	4400		100	36	ug/L	1		6020A	Dissolved
Lithium	77		10	2.5	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-303 (Continued)

Lab Sample ID: 310-228664-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	3400		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	180		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	210		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	210		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-304

Lab Sample ID: 310-228664-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	990		100	36	ug/L	1		6020A	Total/NA
Magnesium	6400		500	150	ug/L	1		6020A	Total/NA
Manganese	920		10	3.6	ug/L	1		6020A	Total/NA
Potassium	13000		500	150	ug/L	1		6020A	Total/NA
Sodium	51000		1000	610	ug/L	1		6020A	Total/NA
Iron	830		100	36	ug/L	1		6020A	Dissolved
Lithium	72		10	2.5	ug/L	1		6020A	Dissolved
Manganese	880		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	83		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	250		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	250		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-305

Lab Sample ID: 310-228664-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1700		100	36	ug/L	1		6020A	Total/NA
Magnesium	21000		500	150	ug/L	1		6020A	Total/NA
Manganese	2400		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6000		500	150	ug/L	1		6020A	Total/NA
Sodium	49000		1000	610	ug/L	1		6020A	Total/NA
Iron	1500		100	36	ug/L	1		6020A	Dissolved
Lithium	34		10	2.5	ug/L	1		6020A	Dissolved
Manganese	2300		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	1.5	J	2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	470		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	470		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-306

Lab Sample ID: 310-228664-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	6.0	J	10	3.6	ug/L	1		6020A	Total/NA
Potassium	22000		500	150	ug/L	1		6020A	Total/NA
Sodium	46000		1000	610	ug/L	1		6020A	Total/NA
Lithium	37		10	2.5	ug/L	1		6020A	Dissolved
Manganese	5.7	J	10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	81		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	100		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	100		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307

Lab Sample ID: 310-228664-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	7.5	J	10	3.6	ug/L	1		6020A	Total/NA
Potassium	38000		500	150	ug/L	1		6020A	Total/NA
Sodium	56000		1000	610	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 310-228664-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	47		10	2.5	ug/L	1		6020A	Dissolved
Manganese	6.8	J	10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	140		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	21		10	4.6	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	82		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	100		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307A — Lab Sample ID: 310-228664-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	530		100	36	ug/L	1		6020A	Total/NA
Magnesium	1600		500	150	ug/L	1		6020A	Total/NA
Manganese	420		10	3.6	ug/L	1		6020A	Total/NA
Potassium	3100		500	150	ug/L	1		6020A	Total/NA
Sodium	110000		1000	610	ug/L	1		6020A	Total/NA
Iron	440		100	36	ug/L	1		6020A	Dissolved
Lithium	7.7	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	400		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	150		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	150		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307B — Lab Sample ID: 310-228664-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2300		100	36	ug/L	1		6020A	Total/NA
Magnesium	15000		500	150	ug/L	1		6020A	Total/NA
Manganese	810		10	3.6	ug/L	1		6020A	Total/NA
Potassium	3200		500	150	ug/L	1		6020A	Total/NA
Sodium	35000		1000	610	ug/L	1		6020A	Total/NA
Iron	2100		100	36	ug/L	1		6020A	Dissolved
Lithium	10		10	2.5	ug/L	1		6020A	Dissolved
Manganese	770		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	58		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	130		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	130		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 310-228664-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	1300		500	150	ug/L	1		6020A	Total/NA
Manganese	130		10	3.6	ug/L	1		6020A	Total/NA
Potassium	39000		500	150	ug/L	1		6020A	Total/NA
Sodium	87000		1000	610	ug/L	1		6020A	Total/NA
Lithium	54		10	2.5	ug/L	1		6020A	Dissolved
Manganese	120		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	110		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	21		10	4.6	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	82		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	100		10	4.6	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-309 — Lab Sample ID: 310-228664-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	11000		100	36	ug/L	1		6020A	Total/NA
Magnesium	18000		500	150	ug/L	1		6020A	Total/NA
Manganese	3000		10	3.6	ug/L	1		6020A	Total/NA
Potassium	2100		500	150	ug/L	1		6020A	Total/NA
Sodium	81000		1000	610	ug/L	1		6020A	Total/NA
Iron	9100		100	36	ug/L	1		6020A	Dissolved
Lithium	2.7	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	2800		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	59		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	240		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	240		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-310 — Lab Sample ID: 310-228664-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	16000		100	36	ug/L	1		6020A	Total/NA
Magnesium	18000		500	150	ug/L	1		6020A	Total/NA
Manganese	3800		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1700		500	150	ug/L	1		6020A	Total/NA
Sodium	8400		1000	610	ug/L	1		6020A	Total/NA
Iron	15000		100	36	ug/L	1		6020A	Dissolved
Manganese	3700		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	5.6		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	240		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	240		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-310A — Lab Sample ID: 310-228664-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	85	J	100	36	ug/L	1		6020A	Total/NA
Magnesium	21000		500	150	ug/L	1		6020A	Total/NA
Manganese	280		10	3.6	ug/L	1		6020A	Total/NA
Potassium	5000		500	150	ug/L	1		6020A	Total/NA
Sodium	140000		1000	610	ug/L	1		6020A	Total/NA
Iron	88	J	100	36	ug/L	1		6020A	Dissolved
Lithium	38		10	2.5	ug/L	1		6020A	Dissolved
Manganese	150		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	17		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	450		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	450		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-311 — Lab Sample ID: 310-228664-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	17000		100	36	ug/L	1		6020A	Total/NA
Magnesium	31000		500	150	ug/L	1		6020A	Total/NA
Manganese	6000		40	14	ug/L	4		6020A	Total/NA
Potassium	2000		500	150	ug/L	1		6020A	Total/NA
Sodium	57000		1000	610	ug/L	1		6020A	Total/NA
Iron	17000		100	36	ug/L	1		6020A	Dissolved
Manganese	5700		40	14	ug/L	4		6020A	Dissolved
Molybdenum	8.6		2.0	1.2	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-311 (Continued) — Lab Sample ID: 310-228664-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	410		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	410		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-312 — Lab Sample ID: 310-228664-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	5700		100	36	ug/L	1		6020A	Total/NA
Magnesium	7700		500	150	ug/L	1		6020A	Total/NA
Manganese	8000		40	14	ug/L	4		6020A	Total/NA
Potassium	13000		500	150	ug/L	1		6020A	Total/NA
Sodium	67000		1000	610	ug/L	1		6020A	Total/NA
Iron	5200		100	36	ug/L	1		6020A	Dissolved
Lithium	28		10	2.5	ug/L	1		6020A	Dissolved
Manganese	7800		40	14	ug/L	4		6020A	Dissolved
Molybdenum	210		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	150		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	150		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313 — Lab Sample ID: 310-228664-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	7900		100	36	ug/L	1		6020A	Total/NA
Magnesium	12000		500	150	ug/L	1		6020A	Total/NA
Manganese	4300		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6200		500	150	ug/L	1		6020A	Total/NA
Sodium	140000		1000	610	ug/L	1		6020A	Total/NA
Iron	7400		100	36	ug/L	1		6020A	Dissolved
Lithium	19		10	2.5	ug/L	1		6020A	Dissolved
Manganese	4200		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	180		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	110		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	110		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313A — Lab Sample ID: 310-228664-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2000		100	36	ug/L	1		6020A	Total/NA
Magnesium	2100		500	150	ug/L	1		6020A	Total/NA
Manganese	370		10	3.6	ug/L	1		6020A	Total/NA
Potassium	7100		500	150	ug/L	1		6020A	Total/NA
Sodium	120000		1000	610	ug/L	1		6020A	Total/NA
Iron	850		100	36	ug/L	1		6020A	Dissolved
Lithium	11		10	2.5	ug/L	1		6020A	Dissolved
Manganese	350		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	97		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	120		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	120		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313B — Lab Sample ID: 310-228664-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1100		100	36	ug/L	1		6020A	Total/NA
Magnesium	7800		500	150	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-313B (Continued) — Lab Sample ID: 310-228664-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	510		10	3.6	ug/L	1		6020A	Total/NA
Potassium	5800		500	150	ug/L	1		6020A	Total/NA
Sodium	67000		1000	610	ug/L	1		6020A	Total/NA
Iron	1000		100	36	ug/L	1		6020A	Dissolved
Lithium	13		10	2.5	ug/L	1		6020A	Dissolved
Manganese	480		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	97		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	140		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	140		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-314 — Lab Sample ID: 310-228664-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	13000		100	36	ug/L	1		6020A	Total/NA
Magnesium	47000		500	150	ug/L	1		6020A	Total/NA
Manganese	7800		70	25	ug/L	7		6020A	Total/NA
Potassium	550		500	150	ug/L	1		6020A	Total/NA
Sodium	11000		1000	610	ug/L	1		6020A	Total/NA
Iron	12000		100	36	ug/L	1		6020A	Dissolved
Lithium	4.8	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	7700		70	25	ug/L	7		6020A	Dissolved
Molybdenum	1.6	J	2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	460		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	460		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 310-228664-21

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-301

Date Collected: 04/06/22 14:06
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-1

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	43000		100	36	ug/L		04/12/22 08:30	04/21/22 17:01	1
Magnesium	78000		500	150	ug/L		04/12/22 08:30	04/21/22 17:01	1
Manganese	19000		100	36	ug/L		04/12/22 08:30	04/22/22 18:13	10
Potassium	3700		500	150	ug/L		04/12/22 08:30	04/21/22 17:01	1
Sodium	130000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:01	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	40000		100	36	ug/L		04/13/22 09:00	04/21/22 19:16	1
Lithium	13		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:16	1
Manganese	22000		100	36	ug/L		04/13/22 09:00	04/22/22 17:46	10
Molybdenum	53		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	740		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	740		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-302

Date Collected: 04/05/22 13:56
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-2

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1200		100	36	ug/L		04/12/22 08:30	04/21/22 17:13	1
Magnesium	14000		500	150	ug/L		04/12/22 08:30	04/21/22 17:13	1
Manganese	930		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:13	1
Potassium	14000		500	150	ug/L		04/12/22 08:30	04/21/22 17:13	1
Sodium	33000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:13	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1300		100	36	ug/L		04/13/22 09:00	04/21/22 19:41	1
Lithium	80		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:41	1
Manganese	1000		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:41	1
Molybdenum	89		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	310		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	310		10	4.6	mg/L			04/11/22 10:38	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-302A

Date Collected: 04/05/22 14:59
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-3

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8800		100	36	ug/L		04/12/22 08:30	04/21/22 17:17	1
Magnesium	34000		500	150	ug/L		04/12/22 08:30	04/21/22 17:17	1
Manganese	4000		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:17	1
Potassium	4400		500	150	ug/L		04/12/22 08:30	04/21/22 17:17	1
Sodium	70000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8400		100	36	ug/L		04/13/22 09:00	04/21/22 19:45	1
Lithium	21		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:45	1
Manganese	3800		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:45	1
Molybdenum	120		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	250		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	250		10	4.6	mg/L			04/11/22 10:38	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-303

Date Collected: 04/05/22 16:08
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-4

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4600		100	36	ug/L		04/12/22 08:30	04/21/22 17:20	1
Magnesium	16000		500	150	ug/L		04/12/22 08:30	04/21/22 17:20	1
Manganese	3500		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:20	1
Potassium	22000		500	150	ug/L		04/12/22 08:30	04/21/22 17:20	1
Sodium	29000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:20	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4400		100	36	ug/L		04/13/22 09:00	04/21/22 19:48	1
Lithium	77		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:48	1
Manganese	3400		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:48	1
Molybdenum	180		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	210		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	210		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-304

Date Collected: 04/05/22 08:53
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-5

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	990		100	36	ug/L		04/12/22 08:30	04/21/22 17:23	1
Magnesium	6400		500	150	ug/L		04/12/22 08:30	04/21/22 17:23	1
Manganese	920		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:23	1
Potassium	13000		500	150	ug/L		04/12/22 08:30	04/21/22 17:23	1
Sodium	51000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	830		100	36	ug/L		04/13/22 09:00	04/21/22 19:54	1
Lithium	72		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:54	1
Manganese	880		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:54	1
Molybdenum	83		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	250		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	250		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-305

Date Collected: 04/06/22 17:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-6

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1700		100	36	ug/L		04/12/22 08:30	04/21/22 17:26	1
Magnesium	21000		500	150	ug/L		04/12/22 08:30	04/21/22 17:26	1
Manganese	2400		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:26	1
Potassium	6000		500	150	ug/L		04/12/22 08:30	04/21/22 17:26	1
Sodium	49000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1500		100	36	ug/L		04/13/22 09:00	04/21/22 19:57	1
Lithium	34		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:57	1
Manganese	2300		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:57	1
Molybdenum	1.5	J	2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	470		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	470		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-306

Date Collected: 04/05/22 12:29
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-7

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/21/22 17:29	1
Magnesium	<150		500	150	ug/L		04/12/22 08:30	04/21/22 17:29	1
Manganese	**6.0**	**J**	10	3.6	ug/L		04/12/22 08:30	04/21/22 17:29	1
Potassium	**22000**		500	150	ug/L		04/12/22 08:30	04/21/22 17:29	1
Sodium	**46000**		1000	610	ug/L		04/12/22 08:30	04/21/22 17:29	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/13/22 09:00	04/21/22 20:07	1
Lithium	**37**		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:07	1
Manganese	**5.7**	**J**	10	3.6	ug/L		04/13/22 09:00	04/21/22 20:07	1
Molybdenum	**81**		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**100**		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	**100**		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-307

Date Collected: 04/05/22 08:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-8

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/21/22 17:45	1
Magnesium	<150		500	150	ug/L		04/12/22 08:30	04/21/22 17:45	1
Manganese	**7.5**	**J**	10	3.6	ug/L		04/12/22 08:30	04/21/22 17:45	1
Potassium	**38000**		500	150	ug/L		04/12/22 08:30	04/21/22 17:45	1
Sodium	**56000**		1000	610	ug/L		04/12/22 08:30	04/21/22 17:45	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/13/22 09:00	04/21/22 20:10	1
Lithium	**47**		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:10	1
Manganese	**6.8**	**J**	10	3.6	ug/L		04/13/22 09:00	04/21/22 20:10	1
Molybdenum	**140**		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**21**		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	**82**		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	**100**		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-307A

Date Collected: 04/05/22 09:38
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-9

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	530		100	36	ug/L		04/12/22 08:30	04/21/22 17:49	1
Magnesium	1600		500	150	ug/L		04/12/22 08:30	04/21/22 17:49	1
Manganese	420		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:49	1
Potassium	3100		500	150	ug/L		04/12/22 08:30	04/21/22 17:49	1
Sodium	110000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	440		100	36	ug/L		04/13/22 09:00	04/21/22 20:01	1
Lithium	7.7	J	10	2.5	ug/L		04/13/22 09:00	04/21/22 20:01	1
Manganese	400		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:01	1
Molybdenum	120		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	150		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	150		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-307B

Date Collected: 04/05/22 11:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-10

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2300		100	36	ug/L		04/12/22 08:30	04/21/22 17:52	1
Magnesium	15000		500	150	ug/L		04/12/22 08:30	04/21/22 17:52	1
Manganese	810		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:52	1
Potassium	3200		500	150	ug/L		04/12/22 08:30	04/21/22 17:52	1
Sodium	35000		1000	610	ug/L		04/12/22 08:30	04/21/22 17:52	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2100		100	36	ug/L		04/13/22 09:00	04/21/22 20:13	1
Lithium	10		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:13	1
Manganese	770		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:13	1
Molybdenum	58		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	130		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	130		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-308

Date Collected: 04/04/22 16:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-11

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/21/22 17:55	1
Magnesium	**1300**		500	150	ug/L		04/12/22 08:30	04/21/22 17:55	1
Manganese	**130**		10	3.6	ug/L		04/12/22 08:30	04/21/22 17:55	1
Potassium	**39000**		500	150	ug/L		04/12/22 08:30	04/21/22 17:55	1
Sodium	**87000**		1000	610	ug/L		04/12/22 08:30	04/21/22 17:55	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/13/22 09:00	04/21/22 20:30	1
Lithium	**54**		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:30	1
Manganese	**120**		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:30	1
Molybdenum	**110**		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**21**		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	**82**		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	**100**		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-309

Date Collected: 04/04/22 15:08
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-12

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11000		100	36	ug/L		04/12/22 08:30	04/21/22 18:05	1
Magnesium	18000		500	150	ug/L		04/12/22 08:30	04/21/22 18:05	1
Manganese	3000		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:05	1
Potassium	2100		500	150	ug/L		04/12/22 08:30	04/21/22 18:05	1
Sodium	81000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:05	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	9100		100	36	ug/L		04/13/22 09:00	04/21/22 20:39	1
Lithium	2.7	J	10	2.5	ug/L		04/13/22 09:00	04/21/22 20:39	1
Manganese	2800		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:39	1
Molybdenum	59		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	240		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	240		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-310

Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-13

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**16000**		100	36	ug/L		04/12/22 08:30	04/21/22 18:08	1
Magnesium	**18000**		500	150	ug/L		04/12/22 08:30	04/21/22 18:08	1
Manganese	**3800**		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:08	1
Potassium	**1700**		500	150	ug/L		04/12/22 08:30	04/21/22 18:08	1
Sodium	**8400**		1000	610	ug/L		04/12/22 08:30	04/21/22 18:08	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**15000**		100	36	ug/L		04/13/22 09:00	04/21/22 20:43	1
Lithium	<2.5		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:43	1
Manganese	**3700**		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:43	1
Molybdenum	**5.6**		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**240**		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	**240**		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-310A

Date Collected: 04/06/22 18:30
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-14

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	85	J	100	36	ug/L		04/12/22 08:30	04/21/22 18:15	1
Magnesium	21000		500	150	ug/L		04/12/22 08:30	04/21/22 18:15	1
Manganese	280		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:15	1
Potassium	5000		500	150	ug/L		04/12/22 08:30	04/21/22 18:15	1
Sodium	140000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:15	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	88	J	100	36	ug/L		04/13/22 09:00	04/21/22 20:46	1
Lithium	38		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:46	1
Manganese	150		10	3.6	ug/L		04/13/22 09:00	04/21/22 20:46	1
Molybdenum	17		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	450		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	450		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-311

Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-15

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**17000**		100	36	ug/L		04/12/22 08:30	04/21/22 18:18	1
Magnesium	**31000**		500	150	ug/L		04/12/22 08:30	04/21/22 18:18	1
Manganese	**6000**		40	14	ug/L		04/12/22 08:30	04/22/22 18:41	4
Potassium	**2000**		500	150	ug/L		04/12/22 08:30	04/21/22 18:18	1
Sodium	**57000**		1000	610	ug/L		04/12/22 08:30	04/21/22 18:18	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**17000**		100	36	ug/L		04/13/22 09:00	04/21/22 20:52	1
Lithium	<2.5		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:52	1
Manganese	**5700**		40	14	ug/L		04/13/22 09:00	04/22/22 17:57	4
Molybdenum	**8.6**		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**410**		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	**410**		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-312

Date Collected: 04/06/22 15:19
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-16

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	5700		100	36	ug/L		04/12/22 08:30	04/21/22 18:24	1
Magnesium	7700		500	150	ug/L		04/12/22 08:30	04/21/22 18:24	1
Manganese	8000		40	14	ug/L		04/12/22 08:30	04/22/22 18:45	4
Potassium	13000		500	150	ug/L		04/12/22 08:30	04/21/22 18:24	1
Sodium	67000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:24	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	5200		100	36	ug/L		04/13/22 09:00	04/21/22 20:56	1
Lithium	28		10	2.5	ug/L		04/13/22 09:00	04/21/22 20:56	1
Manganese	7800		40	14	ug/L		04/13/22 09:00	04/22/22 18:01	4
Molybdenum	210		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	150		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	150		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-313

Date Collected: 04/06/22 10:13
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-17

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7900		100	36	ug/L		04/12/22 08:30	04/21/22 18:40	1
Magnesium	12000		500	150	ug/L		04/12/22 08:30	04/21/22 18:40	1
Manganese	4300		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:40	1
Potassium	6200		500	150	ug/L		04/12/22 08:30	04/21/22 18:40	1
Sodium	140000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:40	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7400		100	36	ug/L		04/13/22 09:00	04/21/22 21:02	1
Lithium	19		10	2.5	ug/L		04/13/22 09:00	04/21/22 21:02	1
Manganese	4200		10	3.6	ug/L		04/13/22 09:00	04/21/22 21:02	1
Molybdenum	180		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 21:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	110		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	110		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-313A

Date Collected: 04/06/22 11:22
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-18

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2000		100	36	ug/L		04/12/22 08:30	04/21/22 18:47	1
Magnesium	2100		500	150	ug/L		04/12/22 08:30	04/21/22 18:47	1
Manganese	370		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:47	1
Potassium	7100		500	150	ug/L		04/12/22 08:30	04/21/22 18:47	1
Sodium	120000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:47	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	850		100	36	ug/L		04/13/22 09:00	04/21/22 21:05	1
Lithium	11		10	2.5	ug/L		04/13/22 09:00	04/21/22 21:05	1
Manganese	350		10	3.6	ug/L		04/13/22 09:00	04/21/22 21:05	1
Molybdenum	97		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 21:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	120		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	120		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-313B

Date Collected: 04/06/22 12:50
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-19

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1100		100	36	ug/L		04/12/22 08:30	04/21/22 18:50	1
Magnesium	7800		500	150	ug/L		04/12/22 08:30	04/21/22 18:50	1
Manganese	510		10	3.6	ug/L		04/12/22 08:30	04/21/22 18:50	1
Potassium	5800		500	150	ug/L		04/12/22 08:30	04/21/22 18:50	1
Sodium	67000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:50	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1000		100	36	ug/L		04/13/22 09:00	04/21/22 21:12	1
Lithium	13		10	2.5	ug/L		04/13/22 09:00	04/21/22 21:12	1
Manganese	480		10	3.6	ug/L		04/13/22 09:00	04/21/22 21:12	1
Molybdenum	97		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 21:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	140		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	140		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-314

Date Collected: 04/06/22 16:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-20

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	13000		100	36	ug/L		04/12/22 08:30	04/21/22 18:53	1
Magnesium	47000		500	150	ug/L		04/12/22 08:30	04/21/22 18:53	1
Manganese	7800		70	25	ug/L		04/12/22 08:30	04/22/22 18:48	7
Potassium	550		500	150	ug/L		04/12/22 08:30	04/21/22 18:53	1
Sodium	11000		1000	610	ug/L		04/12/22 08:30	04/21/22 18:53	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	12000		100	36	ug/L		04/13/22 09:00	04/21/22 21:28	1
Lithium	4.8	J	10	2.5	ug/L		04/13/22 09:00	04/21/22 21:28	1
Manganese	7700		70	25	ug/L		04/13/22 09:00	04/22/22 18:05	7
Molybdenum	1.6	J	2.0	1.2	ug/L		04/13/22 09:00	04/21/22 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	460		10	4.6	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<4.6		10	4.6	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	460		10	4.6	mg/L			04/11/22 10:38	1

Client: SCS Engineers
Job ID: 310-228664-1
Project/Site: Burlington Gen Station 25222066

Client Sample ID: Field Blank
Lab Sample ID: 310-228664-21
Date Collected: 04/06/22 13:21
Matrix: Water
Date Received: 04/07/22 17:35

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/25/22 17:32	1
Magnesium	<150		500	150	ug/L		04/12/22 08:30	04/25/22 17:32	1
Manganese	<3.6		10	3.6	ug/L		04/12/22 08:30	04/25/22 17:32	1
Potassium	<150		500	150	ug/L		04/12/22 08:30	04/25/22 17:32	1
Sodium	<610		1000	610	ug/L		04/12/22 08:30	04/25/22 17:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-228664-1
Project/Site: Burlington Gen Station 25222066

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-349461/1-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/21/22 16:25	1
Magnesium	<150		500	150	ug/L		04/12/22 08:30	04/21/22 16:25	1
Manganese	<3.6		10	3.6	ug/L		04/12/22 08:30	04/21/22 16:25	1
Potassium	<150		500	150	ug/L		04/12/22 08:30	04/21/22 16:25	1
Sodium	<610		1000	610	ug/L		04/12/22 08:30	04/21/22 16:25	1

Lab Sample ID: LCS 310-349461/2-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	200	206		ug/L		103	80 - 120
Magnesium	2000	1960		ug/L		98	80 - 120
Manganese	100	96.3		ug/L		96	80 - 120
Potassium	2000	1900		ug/L		95	80 - 120
Sodium	2000	2110		ug/L		106	80 - 120

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	43000		200	42400	4	ug/L		-423	75 - 125
Magnesium	78000		2000	79600	4	ug/L		55	75 - 125
Potassium	3700		2000	5860		ug/L		109	75 - 125
Sodium	130000		2000	129000	4	ug/L		40	75 - 125

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	19000		100	20200	4	ug/L		770	75 - 125

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	43000		200	42900	4	ug/L		-154	75 - 125	1	20
Magnesium	78000		2000	80500	4	ug/L		103	75 - 125	1	20
Potassium	3700		2000	5870		ug/L		109	75 - 125	0	20
Sodium	130000		2000	131000	4	ug/L		150	75 - 125	2	20

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	19000		100	19600	4	ug/L		106	75 - 125	3	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 310-228664-11 DU
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	<36		<36		ug/L		NC	20
Magnesium	1300		1270		ug/L		3	20
Manganese	130		130		ug/L		2	20
Potassium	39000		37400		ug/L		3	20
Sodium	87000		83400		ug/L		4	20

Lab Sample ID: MB 310-349466/1-A
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/12/22 08:30	04/25/22 17:25	1
Magnesium	<150		500	150	ug/L		04/12/22 08:30	04/25/22 17:25	1
Manganese	<3.6		10	3.6	ug/L		04/12/22 08:30	04/25/22 17:25	1
Potassium	<150		500	150	ug/L		04/12/22 08:30	04/25/22 17:25	1
Sodium	<610		1000	610	ug/L		04/12/22 08:30	04/25/22 17:25	1

Lab Sample ID: LCS 310-349466/2-A
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	200	228		ug/L		114	80 - 120
Magnesium	2000	2110		ug/L		105	80 - 120
Manganese	100	107		ug/L		107	80 - 120
Potassium	2000	2080		ug/L		104	80 - 120
Sodium	2000	2270		ug/L		113	80 - 120

Lab Sample ID: 310-228664-21 MS
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	<36		200	220		ug/L		110	75 - 125
Magnesium	<150		2000	2090		ug/L		104	75 - 125
Manganese	<3.6		100	104		ug/L		104	75 - 125
Potassium	<150		2000	2090		ug/L		104	75 - 125
Sodium	<610		2000	2190		ug/L		109	75 - 125

Lab Sample ID: 310-228664-21 MSD
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	<36		200	228		ug/L		114	75 - 125	3	20
Magnesium	<150		2000	2200		ug/L		110	75 - 125	5	20
Manganese	<3.6		100	108		ug/L		108	75 - 125	3	20
Potassium	<150		2000	2200		ug/L		110	75 - 125	5	20
Sodium	<610		2000	2290		ug/L		115	75 - 125	5	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-349475/1-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		04/13/22 09:00	04/21/22 19:09	1
Lithium	<2.5		10	2.5	ug/L		04/13/22 09:00	04/21/22 19:09	1
Manganese	<3.6		10	3.6	ug/L		04/13/22 09:00	04/21/22 19:09	1
Molybdenum	<1.2		2.0	1.2	ug/L		04/13/22 09:00	04/21/22 19:09	1

Lab Sample ID: LCS 310-349475/2-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	200	194		ug/L		97	80 - 120
Lithium	200	188		ug/L		94	80 - 120
Manganese	100	92.0		ug/L		92	80 - 120
Molybdenum	200	198		ug/L		99	80 - 120

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 349475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	40000		200	40700	4	ug/L		223	75 - 125
Lithium	13		200	219		ug/L		103	75 - 125
Molybdenum	53		200	251		ug/L		99	75 - 125

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 349475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	22000		100	20800	4	ug/L		-1023	75 - 125

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 349475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	40000		200	41100	4	ug/L		388	75 - 125	1	20
Lithium	13		200	217		ug/L		102	75 - 125	1	20
Molybdenum	53		200	254		ug/L		100	75 - 125	1	20

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 349475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	22000		100	20200	4	ug/L		-1565	75 - 125	3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-228664-11 DU
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-308
Prep Type: Dissolved
Prep Batch: 349475

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	<36		<36		ug/L		NC	20
Lithium	54		52.5		ug/L		3	20
Manganese	120		121		ug/L		2	20
Molybdenum	110		113		ug/L		0.4	20

Method: 2320B - Alkalinity (Low Level)

Lab Sample ID: MB 310-350002/1
Matrix: Water
Analysis Batch: 350002

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/15/22 10:57	1

Lab Sample ID: LCS 310-350002/2
Matrix: Water
Analysis Batch: 350002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	1060		mg/L		106	90 - 110

Lab Sample ID: 310-228664-21 MS
Matrix: Water
Analysis Batch: 350002

Client Sample ID: Field Blank
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	<2.3		25.0	24.0		mg/L		96	69 - 126

Lab Sample ID: 310-228664-21 MSD
Matrix: Water
Analysis Batch: 350002

Client Sample ID: Field Blank
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	<2.3		25.0	24.2		mg/L		97	69 - 126	1	14

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-349416/1
Matrix: Water
Analysis Batch: 349416

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/11/22 10:38	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/11/22 10:38	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			04/11/22 10:38	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 310-349416/2
Matrix: Water
Analysis Batch: 349416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3			1000	1030		mg/L		103	90 - 110		

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 349416

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3	740		200	948		mg/L		103	71 - 130		

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 349416

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3	740		200	948		mg/L		103	71 - 130	0	10

Metals

Prep Batch: 349461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	3005A	
310-228664-2	MW-302	Total/NA	Water	3005A	
310-228664-3	MW-302A	Total/NA	Water	3005A	
310-228664-4	MW-303	Total/NA	Water	3005A	
310-228664-5	MW-304	Total/NA	Water	3005A	
310-228664-6	MW-305	Total/NA	Water	3005A	
310-228664-7	MW-306	Total/NA	Water	3005A	
310-228664-8	MW-307	Total/NA	Water	3005A	
310-228664-9	MW-307A	Total/NA	Water	3005A	
310-228664-10	MW-307B	Total/NA	Water	3005A	
310-228664-11	MW-308	Total/NA	Water	3005A	
310-228664-12	MW-309	Total/NA	Water	3005A	
310-228664-13	MW-310	Total/NA	Water	3005A	
310-228664-14	MW-310A	Total/NA	Water	3005A	
310-228664-15	MW-311	Total/NA	Water	3005A	
310-228664-16	MW-312	Total/NA	Water	3005A	
310-228664-17	MW-313	Total/NA	Water	3005A	
310-228664-18	MW-313A	Total/NA	Water	3005A	
310-228664-19	MW-313B	Total/NA	Water	3005A	
310-228664-20	MW-314	Total/NA	Water	3005A	
MB 310-349461/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-349461/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-228664-1 MS	MW-301	Total/NA	Water	3005A	
310-228664-1 MSD	MW-301	Total/NA	Water	3005A	
310-228664-11 DU	MW-308	Total/NA	Water	3005A	

Prep Batch: 349466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	3005A	
MB 310-349466/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-349466/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-228664-21 MS	Field Blank	Total/NA	Water	3005A	
310-228664-21 MSD	Field Blank	Total/NA	Water	3005A	

Prep Batch: 349475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Dissolved	Water	3005A	
310-228664-2	MW-302	Dissolved	Water	3005A	
310-228664-3	MW-302A	Dissolved	Water	3005A	
310-228664-4	MW-303	Dissolved	Water	3005A	
310-228664-5	MW-304	Dissolved	Water	3005A	
310-228664-6	MW-305	Dissolved	Water	3005A	
310-228664-7	MW-306	Dissolved	Water	3005A	
310-228664-8	MW-307	Dissolved	Water	3005A	
310-228664-9	MW-307A	Dissolved	Water	3005A	
310-228664-10	MW-307B	Dissolved	Water	3005A	
310-228664-11	MW-308	Dissolved	Water	3005A	
310-228664-12	MW-309	Dissolved	Water	3005A	
310-228664-13	MW-310	Dissolved	Water	3005A	
310-228664-14	MW-310A	Dissolved	Water	3005A	
310-228664-15	MW-311	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 349475 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-16	MW-312	Dissolved	Water	3005A	
310-228664-17	MW-313	Dissolved	Water	3005A	
310-228664-18	MW-313A	Dissolved	Water	3005A	
310-228664-19	MW-313B	Dissolved	Water	3005A	
310-228664-20	MW-314	Dissolved	Water	3005A	
MB 310-349475/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-349475/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-228664-1 MS	MW-301	Dissolved	Water	3005A	
310-228664-1 MSD	MW-301	Dissolved	Water	3005A	
310-228664-11 DU	MW-308	Dissolved	Water	3005A	

Analysis Batch: 350746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Dissolved	Water	6020A	349475
310-228664-1	MW-301	Total/NA	Water	6020A	349461
310-228664-2	MW-302	Dissolved	Water	6020A	349475
310-228664-2	MW-302	Total/NA	Water	6020A	349461
310-228664-3	MW-302A	Dissolved	Water	6020A	349475
310-228664-3	MW-302A	Total/NA	Water	6020A	349461
310-228664-4	MW-303	Dissolved	Water	6020A	349475
310-228664-4	MW-303	Total/NA	Water	6020A	349461
310-228664-5	MW-304	Dissolved	Water	6020A	349475
310-228664-5	MW-304	Total/NA	Water	6020A	349461
310-228664-6	MW-305	Dissolved	Water	6020A	349475
310-228664-6	MW-305	Total/NA	Water	6020A	349461
310-228664-7	MW-306	Dissolved	Water	6020A	349475
310-228664-7	MW-306	Total/NA	Water	6020A	349461
310-228664-8	MW-307	Dissolved	Water	6020A	349475
310-228664-8	MW-307	Total/NA	Water	6020A	349461
310-228664-9	MW-307A	Dissolved	Water	6020A	349475
310-228664-9	MW-307A	Total/NA	Water	6020A	349461
310-228664-10	MW-307B	Dissolved	Water	6020A	349475
310-228664-10	MW-307B	Total/NA	Water	6020A	349461
310-228664-11	MW-308	Dissolved	Water	6020A	349475
310-228664-11	MW-308	Total/NA	Water	6020A	349461
310-228664-12	MW-309	Dissolved	Water	6020A	349475
310-228664-12	MW-309	Total/NA	Water	6020A	349461
310-228664-13	MW-310	Dissolved	Water	6020A	349475
310-228664-13	MW-310	Total/NA	Water	6020A	349461
310-228664-14	MW-310A	Dissolved	Water	6020A	349475
310-228664-14	MW-310A	Total/NA	Water	6020A	349461
310-228664-15	MW-311	Dissolved	Water	6020A	349475
310-228664-15	MW-311	Total/NA	Water	6020A	349461
310-228664-16	MW-312	Dissolved	Water	6020A	349475
310-228664-16	MW-312	Total/NA	Water	6020A	349461
310-228664-17	MW-313	Dissolved	Water	6020A	349475
310-228664-17	MW-313	Total/NA	Water	6020A	349461
310-228664-18	MW-313A	Dissolved	Water	6020A	349475
310-228664-18	MW-313A	Total/NA	Water	6020A	349461
310-228664-19	MW-313B	Dissolved	Water	6020A	349475
310-228664-19	MW-313B	Total/NA	Water	6020A	349461

Metals (Continued)

Analysis Batch: 350746 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-20	MW-314	Dissolved	Water	6020A	349475
310-228664-20	MW-314	Total/NA	Water	6020A	349461
MB 310-349461/1-A	Method Blank	Total/NA	Water	6020A	349461
MB 310-349475/1-A	Method Blank	Total/NA	Water	6020A	349475
LCS 310-349461/2-A	Lab Control Sample	Total/NA	Water	6020A	349461
LCS 310-349475/2-A	Lab Control Sample	Total/NA	Water	6020A	349475
310-228664-1 MS	MW-301	Dissolved	Water	6020A	349475
310-228664-1 MS	MW-301	Total/NA	Water	6020A	349461
310-228664-1 MSD	MW-301	Dissolved	Water	6020A	349475
310-228664-1 MSD	MW-301	Total/NA	Water	6020A	349461
310-228664-11 DU	MW-308	Dissolved	Water	6020A	349475
310-228664-11 DU	MW-308	Total/NA	Water	6020A	349461

Analysis Batch: 350843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Dissolved	Water	6020A	349475
310-228664-1	MW-301	Total/NA	Water	6020A	349461
310-228664-15	MW-311	Dissolved	Water	6020A	349475
310-228664-15	MW-311	Total/NA	Water	6020A	349461
310-228664-16	MW-312	Dissolved	Water	6020A	349475
310-228664-16	MW-312	Total/NA	Water	6020A	349461
310-228664-20	MW-314	Dissolved	Water	6020A	349475
310-228664-20	MW-314	Total/NA	Water	6020A	349461
310-228664-1 MS	MW-301	Dissolved	Water	6020A	349475
310-228664-1 MS	MW-301	Total/NA	Water	6020A	349461
310-228664-1 MSD	MW-301	Dissolved	Water	6020A	349475
310-228664-1 MSD	MW-301	Total/NA	Water	6020A	349461

Analysis Batch: 351050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	6020A	349466
MB 310-349466/1-A	Method Blank	Total/NA	Water	6020A	349466
LCS 310-349466/2-A	Lab Control Sample	Total/NA	Water	6020A	349466
310-228664-21 MS	Field Blank	Total/NA	Water	6020A	349466
310-228664-21 MSD	Field Blank	Total/NA	Water	6020A	349466

General Chemistry

Analysis Batch: 349416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	SM 2320B	
310-228664-2	MW-302	Total/NA	Water	SM 2320B	
310-228664-3	MW-302A	Total/NA	Water	SM 2320B	
310-228664-4	MW-303	Total/NA	Water	SM 2320B	
310-228664-5	MW-304	Total/NA	Water	SM 2320B	
310-228664-6	MW-305	Total/NA	Water	SM 2320B	
310-228664-7	MW-306	Total/NA	Water	SM 2320B	
310-228664-8	MW-307	Total/NA	Water	SM 2320B	
310-228664-9	MW-307A	Total/NA	Water	SM 2320B	
310-228664-10	MW-307B	Total/NA	Water	SM 2320B	
310-228664-11	MW-308	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 349416 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-12	MW-309	Total/NA	Water	SM 2320B	
310-228664-13	MW-310	Total/NA	Water	SM 2320B	
310-228664-14	MW-310A	Total/NA	Water	SM 2320B	
310-228664-15	MW-311	Total/NA	Water	SM 2320B	
310-228664-16	MW-312	Total/NA	Water	SM 2320B	
310-228664-17	MW-313	Total/NA	Water	SM 2320B	
310-228664-18	MW-313A	Total/NA	Water	SM 2320B	
310-228664-19	MW-313B	Total/NA	Water	SM 2320B	
310-228664-20	MW-314	Total/NA	Water	SM 2320B	
MB 310-349416/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-349416/2	Lab Control Sample	Total/NA	Water	SM 2320B	
310-228664-1 MS	MW-301	Total/NA	Water	SM 2320B	
310-228664-1 MSD	MW-301	Total/NA	Water	SM 2320B	

Analysis Batch: 350002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	2320B	
MB 310-350002/1	Method Blank	Total/NA	Water	2320B	
LCS 310-350002/2	Lab Control Sample	Total/NA	Water	2320B	
310-228664-21 MS	Field Blank	Total/NA	Water	2320B	
310-228664-21 MSD	Field Blank	Total/NA	Water	2320B	

Client Sample ID: MW-301
Lab Sample ID: 310-228664-1
Date Collected: 04/06/22 14:06
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		10	350843	04/22/22 17:46	SAP	TAL CF
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:16	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	350843	04/22/22 18:13	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:01	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-302
Lab Sample ID: 310-228664-2
Date Collected: 04/05/22 13:56
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:41	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:13	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-302A
Lab Sample ID: 310-228664-3
Date Collected: 04/05/22 14:59
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:45	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:17	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-303
Lab Sample ID: 310-228664-4
Date Collected: 04/05/22 16:08
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:48	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:20	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228664-1
Project/Site: Burlington Gen Station 25222066

Client Sample ID: MW-304
Lab Sample ID: 310-228664-5
Date Collected: 04/05/22 08:53
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:54	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:23	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-305
Lab Sample ID: 310-228664-6
Date Collected: 04/06/22 17:40
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 19:57	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:26	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-306
Lab Sample ID: 310-228664-7
Date Collected: 04/05/22 12:29
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:07	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:29	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-307
Lab Sample ID: 310-228664-8
Date Collected: 04/05/22 08:34
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:10	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:45	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228664-1
Project/Site: Burlington Gen Station 25222066

Client Sample ID: MW-307A
Lab Sample ID: 310-228664-9
Date Collected: 04/05/22 09:38
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:01	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:49	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-307B
Lab Sample ID: 310-228664-10
Date Collected: 04/05/22 11:16
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:13	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:52	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-308
Lab Sample ID: 310-228664-11
Date Collected: 04/04/22 16:16
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:30	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:55	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-309
Lab Sample ID: 310-228664-12
Date Collected: 04/04/22 15:08
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:39	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:05	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-310
Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:43	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:08	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-310A
Date Collected: 04/06/22 18:30
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:46	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:15	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-311
Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		4	350843	04/22/22 17:57	SAP	TAL CF
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:52	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	350843	04/22/22 18:41	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:18	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-312
Date Collected: 04/06/22 15:19
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		4	350843	04/22/22 18:01	SAP	TAL CF
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 20:56	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	350843	04/22/22 18:45	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:24	SAP	TAL CF

Client Sample ID: MW-312
Lab Sample ID: 310-228664-16
Date Collected: 04/06/22 15:19
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-313
Lab Sample ID: 310-228664-17
Date Collected: 04/06/22 10:13
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 21:02	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:40	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-313A
Lab Sample ID: 310-228664-18
Date Collected: 04/06/22 11:22
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 21:05	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:47	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-313B
Lab Sample ID: 310-228664-19
Date Collected: 04/06/22 12:50
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 21:12	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:50	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: MW-314
Lab Sample ID: 310-228664-20
Date Collected: 04/06/22 16:34
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		7	350843	04/22/22 18:05	SAP	TAL CF
Dissolved	Prep	3005A			349475	04/13/22 09:00	ACM2	TAL CF
Dissolved	Analysis	6020A		1	350746	04/21/22 21:28	SAP	TAL CF

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Client Sample ID: MW-314

Lab Sample ID: 310-228664-20

Date Collected: 04/06/22 16:34

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		7	350843	04/22/22 18:48	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:53	SAP	TAL CF
Total/NA	Analysis	SM 2320B		1	349416	04/11/22 10:38	JMH2	TAL CF

Client Sample ID: Field Blank

Lab Sample ID: 310-228664-21

Date Collected: 04/06/22 13:21

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349466	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	351050	04/25/22 17:32	SAP	TAL CF
Total/NA	Analysis	2320B		1	350002	04/15/22 10:57	JMH2	TAL CF

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-228664-1
Project/Site: Burlington Gen Station 25222066

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-21 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL CF
2320B	Alkalinity (Low Level)	SM	TAL CF
SM 2320B	Alkalinity	SM	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-228664 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information					
Client	SCS Eng				
City/State	CITY Clive		STATE IA	Project	Burlington Gen
Receipt Information					
Date/Time Received	DATE 4/7/22		TIME 1735	Received By	MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other._____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 1 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: 0	Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.3	Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 2 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. _____ ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.5 | Corrected Temp (°C): 2.5

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 3 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.5 | Corrected Temp (°C): 2.5

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other._____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 4 of 5

Cooler Custody Seals Present? ☒ Yes ~~☒ No~~ MRH 4/7/22 *If yes* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 00

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 08 | Corrected Temp (°C): 08

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Eng

City/State: CITY Clive | STATE IA | Project: Burlington Gen

Receipt Information

Date/Time Received: DATE 4/7/22 | TIME 1735 | Received By: MRH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*	Cooler ID
Multiple Coolers?	☒ Yes	☐ No	*If yes*	Cooler # 5 of 5
Cooler Custody Seals Present? No	☒ Yes	~~☒ No~~ MRH 4/7/22	*If yes*	Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes*	Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes*	Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: 0 | Correction Factor (°C): 0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.8 | Corrected Temp (°C): 1.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

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Client Information	Sampler: Rosa Cruz	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-69720-17537 1
Client Contact: Rosa Cruz	Phone: 515 864-9346	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: SCS Engineers	PWSID:			Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested:			
City: Clive	TAT Requested (days):			
State, Zip: IA, 50325	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 25221066			
Email: rcruz@scsengineers.com	WO #:			
Project Name: Burlington Gen Station 25221066	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)
Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B Alkalinity N	6020A Metals (5) D	6020A D. Metals (4) D	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-301	4 6 22	14 06	6	Water			X	X	X		D Metals is field filtered
MW-302	4 5 22	1356	6	Water			X	X	X		
MW-302A	4 5 22	1459	6	Water			X	X	X		
MW-303	4 5 22	1608	6	Water			X	X	X		
MW-304	4 5 22	853	6	Water			X	X	X		
MW-305 Time 1746	4-6-22	~~4 6 22~~	6	Water			X	X	X		
MW-306	4 5 22	1229	6	Water			X	X	X		
MW-307	4-5 22	839	6	Water			X	X	X		
MW-307A	4 5 22	938	6	Water			X	X	X		
MW-307B	4 5 22	1116	6	Water			X	X	X		
MW-308	4-4 22	1616	6	Water			X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		4-7-22 10 26				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4-7-22 1735	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Rosa Cruz	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-69720-17537.2
Client Contact: Rosa Cruz	Phone: 515 864 9340	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: SCS Engineers	PWSID:			Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested:			
City: Clive	TAT Requested (days):			
State, Zip: IA, 50325	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 25221066			
Email: rcruz@scsengineers.com	WO #:			
Project Name: Burlington Gen Station 25221066	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A HCL M Hexane
B NaOH N None
C Zn Acetate O AsNaO2
D Nitric Acid P Na2O4S
E NaHSO4 Q Na2SO3
F MeOH R Na2S2O3
G Amchlor S H2SO4
H Ascorbic Acid T TSP Dodecahydrate
I Ice U Acetone
J DI Water V MCAA
K EDTA W pH 4-5
L EDA Z other (specify)

Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B Alkalinity	6020A Metals (5)	6020A D. Metals (4)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	D		
MW-309	4-4 22	1505	G	Water			X	X	X		
MW-310	4 4 22	1147	G	Water			X	X	X		
MW-310A	4 6 22	1830	G	Water			X	X	X		
MW-311	4-4-22	1346	G	Water			X	X	X		
MW-312	4-6 22	1519	G	Water			X	X	X		
MW-313	4 6 22	1015	G	Water			X	X	X		
MW-313A	4 6 22	1122	G	Water			X	X	X		
MW-313B	4 6 22	1250	G	Water			X	X	X		
MW-314	4-6 22	1634	G	Water			X	X	X		
Field Blank	4 6 22	1321	G	Water			X	X			
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II III, IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Rosa Cruz	4 7 22 1626				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					4-7-22 1735	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-228664-1

Login Number: 228664
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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.	N/A	
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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ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-228664-2
Client Project/Site: Burlington Gen Station 25222066

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Authorized for release by:
5/9/2022 12:11:44 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

Table of Contents

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Job ID: 310-228664-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-228664-2

Comments
No additional comments.

Receipt
The samples were received on 4/7/2022 5:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.8º C, 1.8º C, 2.3º C, 2.5º C and 2.5º C.

HPLC/IC
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-228664-1), MW-302 (310-228664-2), MW-302A (310-228664-3), MW-303 (310-228664-4), MW-304 (310-228664-5), MW-305 (310-228664-6), MW-306 (310-228664-7), MW-307 (310-228664-8), MW-307A (310-228664-9), MW-307B (310-228664-10), MW-308 (310-228664-11), MW-309 (310-228664-12), MW-310 (310-228664-13), MW-310A (310-228664-14), MW-311 (310-228664-15), MW-312 (310-228664-16), MW-313 (310-228664-17), MW-313A (310-228664-18), MW-313B (310-228664-19) and MW-314 (310-228664-20). Elevated reporting limits (RLs) are provided.

Method 9056A: The continuing calibration verification (CCV) associated with batch Fluoride recovered above the upper control limit for <AffectedAnalytes>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-301 (310-228664-1), MW-302 (310-228664-2), MW-302A (310-228664-3), MW-303 (310-228664-4), MW-304 (310-228664-5), MW-305 (310-228664-6), MW-306 (310-228664-7), MW-307 (310-228664-8), MW-307A (310-228664-9), MW-307B (310-228664-10), MW-308 (310-228664-11), MW-309 (310-228664-12), MW-310 (310-228664-13), MW-310A (310-228664-14), MW-311 (310-228664-15), MW-312 (310-228664-16), MW-313 (310-228664-17), MW-313A (310-228664-18), MW-313B (310-228664-19) and MW-314 (310-228664-20).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: The following samples were analyzed outside of analytical holding time due to test being added past hold: MW-301 (310-228664-1), MW-302 (310-228664-2), MW-302A (310-228664-3), MW-303 (310-228664-4), MW-304 (310-228664-5), MW-305 (310-228664-6), MW-306 (310-228664-7), MW-307 (310-228664-8), MW-307A (310-228664-9), MW-307B (310-228664-10), MW-308 (310-228664-11), MW-309 (310-228664-12), MW-310 (310-228664-13), MW-310A (310-228664-14), MW-311 (310-228664-15), MW-312 (310-228664-16), MW-313 (310-228664-17), MW-313A (310-228664-18), MW-313B (310-228664-19) and MW-314 (310-228664-20).

Method SM 2540C: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Field Blank (310-228664-21).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-228664-1	MW-301	Water	04/06/22 14:06	04/07/22 17:35
310-228664-2	MW-302	Water	04/05/22 13:56	04/07/22 17:35
310-228664-3	MW-302A	Water	04/05/22 14:59	04/07/22 17:35
310-228664-4	MW-303	Water	04/05/22 16:08	04/07/22 17:35
310-228664-5	MW-304	Water	04/05/22 08:53	04/07/22 17:35
310-228664-6	MW-305	Water	04/06/22 17:40	04/07/22 17:35
310-228664-7	MW-306	Water	04/05/22 12:29	04/07/22 17:35
310-228664-8	MW-307	Water	04/05/22 08:34	04/07/22 17:35
310-228664-9	MW-307A	Water	04/05/22 09:38	04/07/22 17:35
310-228664-10	MW-307B	Water	04/05/22 11:16	04/07/22 17:35
310-228664-11	MW-308	Water	04/04/22 16:16	04/07/22 17:35
310-228664-12	MW-309	Water	04/04/22 15:08	04/07/22 17:35
310-228664-13	MW-310	Water	04/04/22 11:47	04/07/22 17:35
310-228664-14	MW-310A	Water	04/06/22 18:30	04/07/22 17:35
310-228664-15	MW-311	Water	04/04/22 13:40	04/07/22 17:35
310-228664-16	MW-312	Water	04/06/22 15:19	04/07/22 17:35
310-228664-17	MW-313	Water	04/06/22 10:13	04/07/22 17:35
310-228664-18	MW-313A	Water	04/06/22 11:22	04/07/22 17:35
310-228664-19	MW-313B	Water	04/06/22 12:50	04/07/22 17:35
310-228664-20	MW-314	Water	04/06/22 16:34	04/07/22 17:35
310-228664-21	Field Blank	Water	04/06/22 13:21	04/07/22 17:35

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-301 — Lab Sample ID: 310-228664-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	550		10	4.0	mg/L	10		9056A	Total/NA
Arsenic	80		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	190		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	11000		1000	580	ug/L	10		6020A	Total/NA
Cadmium	0.19		0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	260		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.70		0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	12		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	55		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	1300	H	250	130	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.99				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-156.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	6.96				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1982				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	21.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-228664-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	310		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	86		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	320		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	11000		1000	580	ug/L	10		6020A	Total/NA
Cadmium	0.055	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	190		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.21	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	78		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	89		2.0	1.2	ug/L	1		6020A	Total/NA
Thallium	1.8		1.0	0.26	ug/L	1		6020A	Total/NA
Total Dissolved Solids	770	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	8.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.34				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-198.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	8.05				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	989				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302A — Lab Sample ID: 310-228664-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	450		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	3.0		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	310		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	15000		1000	580	ug/L	10		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-302A (Continued) — Lab Sample ID: 310-228664-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.087	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	160		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.20	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	22		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	910	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.28				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-153.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.12				mg/L	1		Field Sampling	Total/NA
pH, Field	7.25				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1108				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	5.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 310-228664-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	310		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	5.7		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	270		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	22000		1000	580	ug/L	10		6020A	Total/NA
Cadmium	0.097	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.35	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	80		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	190		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	650	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.20				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-155.8				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.10				mg/L	1		Field Sampling	Total/NA
pH, Field	7.36				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	845				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	21.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 310-228664-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	240		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	44		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	140		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	12000		1000	580	ug/L	10		6020A	Total/NA
Calcium	130		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	74		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	85		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	640	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.41				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 310-228664-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxidation Reduction Potential	-204.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	8.08				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	825				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 310-228664-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	19		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	0.92	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	210		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	2400		100	58	ug/L	1		6020A	Total/NA
Calcium	110		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.22	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	36		10	2.5	ug/L	1		6020A	Total/NA
Total Dissolved Solids	490	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.60				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-116.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.06				mg/L	1		Field Sampling	Total/NA
pH, Field	7.25				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	870				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 310-228664-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	48		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	19		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	3300		100	58	ug/L	1		6020A	Total/NA
Calcium	45		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	42		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	74		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	310	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	6.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.63				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-75.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.14				mg/L	1		Field Sampling	Total/NA
pH, Field	5.95				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	468.4				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.00				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-307

Lab Sample ID: 310-228664-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	190		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	41		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	41		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	3300		100	58	ug/L	1		6020A	Total/NA
Calcium	46		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	50		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	100		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	360	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	9.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.91				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-218.8				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.03				mg/L	1		Field Sampling	Total/NA
pH, Field	9.88				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	549.8				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-228664-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	46		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	4000		100	58	ug/L	1		6020A	Total/NA
Cadmium	0.084	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	11		0.50	0.19	mg/L	1		6020A	Total/NA
Lead	1.2		0.50	0.24	ug/L	1		6020A	Total/NA
Lithium	8.5	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	360	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.8	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.47				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-154.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.06				mg/L	1		Field Sampling	Total/NA
pH, Field	7.78				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	547.4				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	5.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-228664-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	180		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	450		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	6700		400	230	ug/L	4		6020A	Total/NA
Calcium	84		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	11		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	59		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	410	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-307B (Continued) — Lab Sample ID: 310-228664-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ground Water Elevation	522.37				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-147.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.08				mg/L	1		Field Sampling	Total/NA
pH, Field	7.36				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	627.3				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.5				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	6.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 310-228664-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	190		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	62		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	85		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	4400		100	58	ug/L	1		6020A	Total/NA
Calcium	42		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	57		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	100		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	470	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	9.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.61				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-246.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.08				mg/L	1		Field Sampling	Total/NA
pH, Field	9.58				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	680				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.9				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	5.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309 — Lab Sample ID: 310-228664-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	53		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	99		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	21		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	260		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	3900		100	58	ug/L	1		6020A	Total/NA
Calcium	59		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.42	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	2.9	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	62		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	450	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.74				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-139.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.24				mg/L	1		Field Sampling	Total/NA
pH, Field	7.18				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	748				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	21.00				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-310 — Lab Sample ID: 310-228664-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	74		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	52		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	270		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	230		100	58	ug/L	1		6020A	Total/NA
Calcium	80		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	1.2		0.50	0.19	ug/L	1		6020A	Total/NA
Molybdenum	5.2		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	320	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	525.44				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-177.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.14				mg/L	1		Field Sampling	Total/NA
pH, Field	7.38				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	548.8				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	10.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	19.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A — Lab Sample ID: 310-228664-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	89		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	1.2	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	61		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	910		100	58	ug/L	1		6020A	Total/NA
Calcium	52		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	2.6		0.50	0.19	ug/L	1		6020A	Total/NA
Lead	0.29	J	0.50	0.24	ug/L	1		6020A	Total/NA
Lithium	38		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	14		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	540	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.58				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-10.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.41				mg/L	1		Field Sampling	Total/NA
pH, Field	7.29				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	907				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	39.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-311 — Lab Sample ID: 310-228664-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	85		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	170		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	19		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	220		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1600		100	58	ug/L	1		6020A	Total/NA
Calcium	160		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.30	J	0.50	0.19	ug/L	1		6020A	Total/NA
Molybdenum	8.9		2.0	1.2	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-311 (Continued) — Lab Sample ID: 310-228664-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	750	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	523.78				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-177.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	7.22				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1190				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.8				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	7.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312 — Lab Sample ID: 310-228664-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	230		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	12		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	130		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	6900		400	230	ug/L	4		6020A	Total/NA
Cadmium	0.090	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	69		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.28	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	28		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	210		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	490	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.51				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-155.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.06				mg/L	1		Field Sampling	Total/NA
pH, Field	7.35				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	746				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	23.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313 — Lab Sample ID: 310-228664-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	200		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	200		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	4.3		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	290		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	5700		400	230	ug/L	4		6020A	Total/NA
Cadmium	0.086	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	57		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.33	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	18		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	190		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	620	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.48				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-153.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	7.14				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-313 (Continued) — Lab Sample ID: 310-228664-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Specific Conductance, Field	1076				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	15.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313A — Lab Sample ID: 310-228664-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	69		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.24	J	0.50	0.22	mg/L	5		9056A	Total/NA
Sulfate	110		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	170		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	4400		100	58	ug/L	1		6020A	Total/NA
Calcium	28		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	12		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	100		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	430	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.38				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-158.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	7.62				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	695				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	23.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313B — Lab Sample ID: 310-228664-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	52		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	210		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	5800		400	230	ug/L	4		6020A	Total/NA
Calcium	55		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	13		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	100		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	390	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.45				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-144.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.01				mg/L	1		Field Sampling	Total/NA
pH, Field	7.50				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	622.6				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-314 — Lab Sample ID: 310-228664-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	130		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	4.1		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	330		2.0	0.88	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-314 (Continued)
Lab Sample ID: 310-228664-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	360		100	58	ug/L	1		6020A	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.48	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	3.9	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	1.2	J	2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	630	H	50	26	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.27				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-82.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	6.79				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1001				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	35.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank
Lab Sample ID: 310-228664-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.1	J	5.0	0.96	ug/L	1		6020A	Total/NA
Thallium	0.31	J	1.0	0.26	ug/L	1		6020A	Total/NA
pH	6.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-301

Date Collected: 04/06/22 14:06
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-1

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		5.0	2.3	mg/L			04/28/22 09:07	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 09:07	5
Sulfate	**550**		10	4.0	mg/L			04/29/22 09:02	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:01	1
Arsenic	**80**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:01	1
Barium	**190**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:01	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:01	1
Boron	**11000**		1000	580	ug/L		04/12/22 08:30	04/22/22 18:13	10
Cadmium	**0.19**		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:01	1
Calcium	**260**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:01	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:01	1
Cobalt	**0.70**		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:01	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:01	1
Lithium	**12**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:01	1
Molybdenum	**55**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:01	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:01	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**	**H**	250	130	mg/L			04/28/22 16:02	1
pH	**7.1**	**HF**	0.1	0.1	SU			04/27/22 14:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.99**				ft			04/06/22 14:06	1
Oxidation Reduction Potential	**-156.9**				millivolts			04/06/22 14:06	1
Oxygen, Dissolved, Client Supplied	**0.13**				mg/L			04/06/22 14:06	1
pH, Field	**6.96**				SU			04/06/22 14:06	1
Specific Conductance, Field	**1982**				umhos/cm			04/06/22 14:06	1
Temperature, Field	**12.3**				Degrees C			04/06/22 14:06	1
Turbidity, Field	**21.00**				NTU			04/06/22 14:06	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-302

Date Collected: 04/05/22 13:56
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-2

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		5.0	2.3	mg/L			04/28/22 09:23	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 09:23	5
Sulfate	**310**		5.0	2.0	mg/L			04/28/22 09:23	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:13	1
Arsenic	**86**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:13	1
Barium	**320**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:13	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:13	1
Boron	**11000**		1000	580	ug/L		04/12/22 08:30	05/07/22 14:53	10
Cadmium	**0.055**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:13	1
Calcium	**190**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:13	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:13	1
Cobalt	**0.21**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:13	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:13	1
Lithium	**78**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:13	1
Molybdenum	**89**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:13	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:13	1
Thallium	**1.8**		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**770**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**8.1**	**HF**	0.1	0.1	SU			04/27/22 14:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.34**				ft			04/05/22 13:56	1
Oxidation Reduction Potential	**-198.6**				millivolts			04/05/22 13:56	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			04/05/22 13:56	1
pH, Field	**8.05**				SU			04/05/22 13:56	1
Specific Conductance, Field	**989**				umhos/cm			04/05/22 13:56	1
Temperature, Field	**12.3**				Degrees C			04/05/22 13:56	1
Turbidity, Field	**9.00**				NTU			04/05/22 13:56	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-302A

Date Collected: 04/05/22 14:59
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-3

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21**		5.0	2.3	mg/L			04/28/22 10:10	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 10:10	5
Sulfate	**450**		5.0	2.0	mg/L			04/28/22 10:10	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:17	1
Arsenic	**3.0**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:17	1
Barium	**310**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:17	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:17	1
Boron	**15000**		1000	580	ug/L		04/12/22 08:30	05/07/22 14:57	10
Cadmium	**0.087**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:17	1
Calcium	**160**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:17	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:17	1
Cobalt	**0.20**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:17	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:17	1
Lithium	**22**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:17	1
Molybdenum	**120**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:17	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:17	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**910**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.3**	**HF**	0.1	0.1	SU			04/27/22 14:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.28**				ft			04/05/22 14:59	1
Oxidation Reduction Potential	**-153.2**				millivolts			04/05/22 14:59	1
Oxygen, Dissolved, Client Supplied	**0.12**				mg/L			04/05/22 14:59	1
pH, Field	**7.25**				SU			04/05/22 14:59	1
Specific Conductance, Field	**1108**				umhos/cm			04/05/22 14:59	1
Temperature, Field	**12.7**				Degrees C			04/05/22 14:59	1
Turbidity, Field	**5.00**				NTU			04/05/22 14:59	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-303

Date Collected: 04/05/22 16:08
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-4

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16**		5.0	2.3	mg/L			04/28/22 10:25	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 10:25	5
Sulfate	**310**		5.0	2.0	mg/L			04/28/22 10:25	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:20	1
Arsenic	**5.7**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:20	1
Barium	**270**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:20	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:20	1
Boron	**22000**		1000	580	ug/L		04/12/22 08:30	05/07/22 15:01	10
Cadmium	**0.097**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:20	1
Calcium	**140**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:20	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:20	1
Cobalt	**0.35**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:20	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:20	1
Lithium	**80**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:20	1
Molybdenum	**190**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:20	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:20	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**650**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.5**	**HF**	0.1	0.1	SU			04/27/22 14:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.20**				ft			04/05/22 16:08	1
Oxidation Reduction Potential	**-155.8**				millivolts			04/05/22 16:08	1
Oxygen, Dissolved, Client Supplied	**0.10**				mg/L			04/05/22 16:08	1
pH, Field	**7.36**				SU			04/05/22 16:08	1
Specific Conductance, Field	**845**				umhos/cm			04/05/22 16:08	1
Temperature, Field	**12.7**				Degrees C			04/05/22 16:08	1
Turbidity, Field	**21.00**				NTU			04/05/22 16:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-304

Date Collected: 04/05/22 08:53
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-5

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27**		5.0	2.3	mg/L			04/28/22 10:41	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 10:41	5
Sulfate	**240**		5.0	2.0	mg/L			04/28/22 10:41	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:23	1
Arsenic	**44**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:23	1
Barium	**140**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:23	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:23	1
Boron	**12000**		1000	580	ug/L		04/12/22 08:30	05/07/22 15:05	10
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:23	1
Calcium	**130**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:23	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:23	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:23	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:23	1
Lithium	**74**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:23	1
Molybdenum	**85**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:23	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:23	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**640**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.9**	**HF**	0.1	0.1	SU			04/27/22 14:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.41**				ft			04/05/22 08:53	1
Oxidation Reduction Potential	**-204.7**				millivolts			04/05/22 08:53	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			04/05/22 08:53	1
pH, Field	**8.08**				SU			04/05/22 08:53	1
Specific Conductance, Field	**825**				umhos/cm			04/05/22 08:53	1
Temperature, Field	**13.2**				Degrees C			04/05/22 08:53	1
Turbidity, Field	**9.00**				NTU			04/05/22 08:53	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-305

Date Collected: 04/06/22 17:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-6

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31**		5.0	2.3	mg/L			04/28/22 10:57	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 10:57	5
Sulfate	**19**		5.0	2.0	mg/L			04/28/22 10:57	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:26	1
Arsenic	**0.92**	**J**	2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:26	1
Barium	**210**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:26	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:26	1
Boron	**2400**		100	58	ug/L		04/12/22 08:30	04/21/22 17:26	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:26	1
Calcium	**110**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:26	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:26	1
Cobalt	**0.22**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:26	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:26	1
Lithium	**36**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:26	1
Molybdenum	<1.2		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:26	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:26	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**490**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.4**	**HF**	0.1	0.1	SU			04/27/22 14:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.60**				ft			04/06/22 17:40	1
Oxidation Reduction Potential	**-116.2**				millivolts			04/06/22 17:40	1
Oxygen, Dissolved, Client Supplied	**0.06**				mg/L			04/06/22 17:40	1
pH, Field	**7.25**				SU			04/06/22 17:40	1
Specific Conductance, Field	**870**				umhos/cm			04/06/22 17:40	1
Temperature, Field	**14.3**				Degrees C			04/06/22 17:40	1
Turbidity, Field	**9.00**				NTU			04/06/22 17:40	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-306

Date Collected: 04/05/22 12:29
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-7

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		5.0	2.3	mg/L			04/28/22 11:43	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 11:43	5
Sulfate	**120**		5.0	2.0	mg/L			04/28/22 11:43	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:29	1
Arsenic	**48**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:29	1
Barium	**19**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:29	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:29	1
Boron	**3300**		100	58	ug/L		04/12/22 08:30	04/21/22 17:29	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:29	1
Calcium	**45**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:29	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:29	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:29	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:29	1
Lithium	**42**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:29	1
Molybdenum	**74**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:29	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:29	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**310**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**6.2**	**HF**	0.1	0.1	SU			04/27/22 14:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.63**				ft			04/05/22 12:29	1
Oxidation Reduction Potential	**-75.3**				millivolts			04/05/22 12:29	1
Oxygen, Dissolved, Client Supplied	**0.14**				mg/L			04/05/22 12:29	1
pH, Field	**5.95**				SU			04/05/22 12:29	1
Specific Conductance, Field	**468.4**				umhos/cm			04/05/22 12:29	1
Temperature, Field	**13.6**				Degrees C			04/05/22 12:29	1
Turbidity, Field	**4.00**				NTU			04/05/22 12:29	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-307

Date Collected: 04/05/22 08:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-8

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20**		5.0	2.3	mg/L			04/28/22 11:59	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 11:59	5
Sulfate	**190**		5.0	2.0	mg/L			04/28/22 11:59	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:45	1
Arsenic	**41**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:45	1
Barium	**41**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:45	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:45	1
Boron	**3300**		100	58	ug/L		04/12/22 08:30	04/21/22 17:45	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:45	1
Calcium	**46**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:45	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:45	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:45	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:45	1
Lithium	**50**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:45	1
Molybdenum	**100**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:45	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:45	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**9.9**	**HF**	0.1	0.1	SU			04/27/22 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.91**				ft			04/05/22 08:34	1
Oxidation Reduction Potential	**-218.8**				millivolts			04/05/22 08:34	1
Oxygen, Dissolved, Client Supplied	**0.03**				mg/L			04/05/22 08:34	1
pH, Field	**9.88**				SU			04/05/22 08:34	1
Specific Conductance, Field	**549.8**				umhos/cm			04/05/22 08:34	1
Temperature, Field	**13.4**				Degrees C			04/05/22 08:34	1
Turbidity, Field	**4.00**				NTU			04/05/22 08:34	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-307A

Date Collected: 04/05/22 09:38
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-9

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37**		5.0	2.3	mg/L			04/28/22 12:14	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 12:14	5
Sulfate	**120**		5.0	2.0	mg/L			04/28/22 12:14	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:49	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:49	1
Barium	**46**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:49	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:49	1
Boron	**4000**		100	58	ug/L		04/12/22 08:30	04/21/22 17:49	1
Cadmium	**0.084**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:49	1
Calcium	**11**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:49	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:49	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:49	1
Lead	**1.2**		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:49	1
Lithium	**8.5**	**J**	10	2.5	ug/L		04/12/22 08:30	04/21/22 17:49	1
Molybdenum	**120**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:49	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:49	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.8**	**HF**	0.1	0.1	SU			04/27/22 14:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.47**				ft			04/05/22 09:38	1
Oxidation Reduction Potential	**-154.0**				millivolts			04/05/22 09:38	1
Oxygen, Dissolved, Client Supplied	**0.06**				mg/L			04/05/22 09:38	1
pH, Field	**7.78**				SU			04/05/22 09:38	1
Specific Conductance, Field	**547.4**				umhos/cm			04/05/22 09:38	1
Temperature, Field	**13.4**				Degrees C			04/05/22 09:38	1
Turbidity, Field	**5.00**				NTU			04/05/22 09:38	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-307B

Date Collected: 04/05/22 11:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-10

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35**		5.0	2.3	mg/L			04/28/22 12:30	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 12:30	5
Sulfate	**180**		5.0	2.0	mg/L			04/28/22 12:30	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:52	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:52	1
Barium	**450**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:52	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:52	1
Boron	**6700**		400	230	ug/L		04/12/22 08:30	05/07/22 15:09	4
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:52	1
Calcium	**84**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:52	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:52	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:52	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:52	1
Lithium	**11**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:52	1
Molybdenum	**59**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:52	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:52	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.5**	**HF**	0.1	0.1	SU			04/27/22 14:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.37**				ft			04/05/22 11:16	1
Oxidation Reduction Potential	**-147.0**				millivolts			04/05/22 11:16	1
Oxygen, Dissolved, Client Supplied	**0.08**				mg/L			04/05/22 11:16	1
pH, Field	**7.36**				SU			04/05/22 11:16	1
Specific Conductance, Field	**627.3**				umhos/cm			04/05/22 11:16	1
Temperature, Field	**13.5**				Degrees C			04/05/22 11:16	1
Turbidity, Field	**6.00**				NTU			04/05/22 11:16	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-308

Date Collected: 04/04/22 16:16
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-11

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37**		5.0	2.3	mg/L			04/28/22 12:46	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 12:46	5
Sulfate	**190**		5.0	2.0	mg/L			04/28/22 12:46	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 17:55	1
Arsenic	**62**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 17:55	1
Barium	**85**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 17:55	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 17:55	1
Boron	**4400**		100	58	ug/L		04/12/22 08:30	04/21/22 17:55	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 17:55	1
Calcium	**42**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 17:55	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 17:55	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 17:55	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 17:55	1
Lithium	**57**		10	2.5	ug/L		04/12/22 08:30	04/21/22 17:55	1
Molybdenum	**100**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 17:55	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 17:55	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 17:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**470**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**9.6**	**HF**	0.1	0.1	SU			04/27/22 13:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.61**				ft			04/04/22 16:16	1
Oxidation Reduction Potential	**-246.6**				millivolts			04/04/22 16:16	1
Oxygen, Dissolved, Client Supplied	**0.08**				mg/L			04/04/22 16:16	1
pH, Field	**9.58**				SU			04/04/22 16:16	1
Specific Conductance, Field	**680**				umhos/cm			04/04/22 16:16	1
Temperature, Field	**13.9**				Degrees C			04/04/22 16:16	1
Turbidity, Field	**5.00**				NTU			04/04/22 16:16	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-309

Date Collected: 04/04/22 15:08
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-12

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53**		5.0	2.3	mg/L			04/28/22 13:01	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 13:01	5
Sulfate	**99**		5.0	2.0	mg/L			04/28/22 13:01	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:05	1
Arsenic	**21**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:05	1
Barium	**260**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:05	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:05	1
Boron	**3900**		100	58	ug/L		04/12/22 08:30	04/21/22 18:05	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:05	1
Calcium	**59**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:05	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:05	1
Cobalt	**0.42**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:05	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:05	1
Lithium	**2.9**	**J**	10	2.5	ug/L		04/12/22 08:30	04/21/22 18:05	1
Molybdenum	**62**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:05	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:05	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**450**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.3**	**HF**	0.1	0.1	SU			04/27/22 14:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.74**				ft			04/04/22 15:08	1
Oxidation Reduction Potential	**-139.4**				millivolts			04/04/22 15:08	1
Oxygen, Dissolved, Client Supplied	**0.24**				mg/L			04/04/22 15:08	1
pH, Field	**7.18**				SU			04/04/22 15:08	1
Specific Conductance, Field	**748**				umhos/cm			04/04/22 15:08	1
Temperature, Field	**13.0**				Degrees C			04/04/22 15:08	1
Turbidity, Field	**21.00**				NTU			04/04/22 15:08	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-310

Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-13

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		5.0	2.3	mg/L			04/28/22 13:17	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 13:17	5
Sulfate	**74**		5.0	2.0	mg/L			04/28/22 13:17	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:08	1
Arsenic	**52**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:08	1
Barium	**270**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:08	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:08	1
Boron	**230**		100	58	ug/L		04/12/22 08:30	04/21/22 18:08	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:08	1
Calcium	**80**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:08	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:08	1
Cobalt	**1.2**		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:08	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:08	1
Lithium	<2.5		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:08	1
Molybdenum	**5.2**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:08	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:08	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**320**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.2**	**HF**	0.1	0.1	SU			04/27/22 14:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**525.44**				ft			04/04/22 11:47	1
Oxidation Reduction Potential	**-177.3**				millivolts			04/04/22 11:47	1
Oxygen, Dissolved, Client Supplied	**0.14**				mg/L			04/04/22 11:47	1
pH, Field	**7.38**				SU			04/04/22 11:47	1
Specific Conductance, Field	**548.8**				umhos/cm			04/04/22 11:47	1
Temperature, Field	**10.6**				Degrees C			04/04/22 11:47	1
Turbidity, Field	**19.00**				NTU			04/04/22 11:47	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-310A

Date Collected: 04/06/22 18:30
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-14

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		5.0	2.3	mg/L			04/28/22 13:33	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 13:33	5
Sulfate	89		5.0	2.0	mg/L			04/28/22 13:33	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:15	1
Arsenic	1.2	J	2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:15	1
Barium	61		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:15	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:15	1
Boron	910		100	58	ug/L		04/12/22 08:30	04/21/22 18:15	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:15	1
Calcium	52		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:15	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:15	1
Cobalt	2.6		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:15	1
Lead	0.29	J	0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:15	1
Lithium	38		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:15	1
Molybdenum	14		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:15	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:15	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	540	H	50	26	mg/L			04/28/22 16:02	1
pH	7.4	HF	0.1	0.1	SU			04/27/22 14:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	522.58				ft			04/06/22 18:30	1
Oxidation Reduction Potential	-10.5				millivolts			04/06/22 18:30	1
Oxygen, Dissolved, Client Supplied	0.41				mg/L			04/06/22 18:30	1
pH, Field	7.29				SU			04/06/22 18:30	1
Specific Conductance, Field	907				umhos/cm			04/06/22 18:30	1
Temperature, Field	11.7				Degrees C			04/06/22 18:30	1
Turbidity, Field	39.00				NTU			04/06/22 18:30	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-311

Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-15

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85**		5.0	2.3	mg/L			04/28/22 13:48	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 13:48	5
Sulfate	**170**		5.0	2.0	mg/L			04/28/22 13:48	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:18	1
Arsenic	**19**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:18	1
Barium	**220**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:18	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:18	1
Boron	**1600**		100	58	ug/L		04/12/22 08:30	04/21/22 18:18	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:18	1
Calcium	**160**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:18	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:18	1
Cobalt	**0.30**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:18	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:18	1
Lithium	<2.5		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:18	1
Molybdenum	**8.9**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:18	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:18	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**750**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.3**	**HF**	0.1	0.1	SU			04/27/22 13:51	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**523.78**				ft			04/04/22 13:40	1
Oxidation Reduction Potential	**-177.6**				millivolts			04/04/22 13:40	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			04/04/22 13:40	1
pH, Field	**7.22**				SU			04/04/22 13:40	1
Specific Conductance, Field	**1190**				umhos/cm			04/04/22 13:40	1
Temperature, Field	**11.8**				Degrees C			04/04/22 13:40	1
Turbidity, Field	**7.00**				NTU			04/04/22 13:40	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-312

Date Collected: 04/06/22 15:19
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-16

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25**		5.0	2.3	mg/L			04/28/22 14:04	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 14:04	5
Sulfate	**230**		5.0	2.0	mg/L			04/28/22 14:04	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:24	1
Arsenic	**12**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:24	1
Barium	**130**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:24	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:24	1
Boron	**6900**		400	230	ug/L		04/12/22 08:30	04/22/22 18:45	4
Cadmium	**0.090**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:24	1
Calcium	**69**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:24	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:24	1
Cobalt	**0.28**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:24	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:24	1
Lithium	**28**		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:24	1
Molybdenum	**210**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:24	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:24	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**490**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.4**	**HF**	0.1	0.1	SU			04/27/22 14:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.51**				ft			04/06/22 15:19	1
Oxidation Reduction Potential	**-155.7**				millivolts			04/06/22 15:19	1
Oxygen, Dissolved, Client Supplied	**0.06**				mg/L			04/06/22 15:19	1
pH, Field	**7.35**				SU			04/06/22 15:19	1
Specific Conductance, Field	**746**				umhos/cm			04/06/22 15:19	1
Temperature, Field	**14.0**				Degrees C			04/06/22 15:19	1
Turbidity, Field	**23.00**				NTU			04/06/22 15:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-313

Date Collected: 04/06/22 10:13
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-17

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		5.0	2.3	mg/L			04/28/22 15:21	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 15:21	5
Sulfate	**200**		5.0	2.0	mg/L			04/28/22 15:21	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:40	1
Arsenic	**4.3**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:40	1
Barium	**290**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:40	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:40	1
Boron	**5700**		400	230	ug/L		04/12/22 08:30	05/07/22 15:12	4
Cadmium	**0.086**	**J**	0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:40	1
Calcium	**57**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:40	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:40	1
Cobalt	**0.33**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:40	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:40	1
Lithium	**18**		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:40	1
Molybdenum	**190**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:40	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:40	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:40	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.2**	**HF**	0.1	0.1	SU			04/27/22 14:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.48**				ft			04/06/22 10:13	1
Oxidation Reduction Potential	**-153.5**				millivolts			04/06/22 10:13	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			04/06/22 10:13	1
pH, Field	**7.14**				SU			04/06/22 10:13	1
Specific Conductance, Field	**1076**				umhos/cm			04/06/22 10:13	1
Temperature, Field	**14.4**				Degrees C			04/06/22 10:13	1
Turbidity, Field	**15.00**				NTU			04/06/22 10:13	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-313A

Date Collected: 04/06/22 11:22
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-18

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69**		5.0	2.3	mg/L			04/28/22 15:37	5
Fluoride	**0.24**	**J**	0.50	0.22	mg/L			04/28/22 15:37	5
Sulfate	**110**		5.0	2.0	mg/L			04/28/22 15:37	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:47	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:47	1
Barium	**170**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:47	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:47	1
Boron	**4400**		100	58	ug/L		04/12/22 08:30	04/21/22 18:47	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:47	1
Calcium	**28**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:47	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:47	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:47	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:47	1
Lithium	**12**		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:47	1
Molybdenum	**100**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:47	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:47	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**430**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.7**	**HF**	0.1	0.1	SU			04/27/22 14:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.38**				ft			04/06/22 11:22	1
Oxidation Reduction Potential	**-158.0**				millivolts			04/06/22 11:22	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			04/06/22 11:22	1
pH, Field	**7.62**				SU			04/06/22 11:22	1
Specific Conductance, Field	**695**				umhos/cm			04/06/22 11:22	1
Temperature, Field	**14.0**				Degrees C			04/06/22 11:22	1
Turbidity, Field	**23.00**				NTU			04/06/22 11:22	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-313B

Date Collected: 04/06/22 12:50
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-19

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52**		5.0	2.3	mg/L			04/28/22 15:52	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 15:52	5
Sulfate	**120**		5.0	2.0	mg/L			04/28/22 15:52	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:50	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:50	1
Barium	**210**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:50	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:50	1
Boron	**5800**		400	230	ug/L		04/12/22 08:30	05/07/22 15:16	4
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:50	1
Calcium	**55**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:50	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:50	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:50	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:50	1
Lithium	**13**		10	2.5	ug/L		04/12/22 08:30	04/21/22 18:50	1
Molybdenum	**100**		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:50	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:50	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**390**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.6**	**HF**	0.1	0.1	SU			04/27/22 14:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.45**				ft			04/06/22 12:50	1
Oxidation Reduction Potential	**-144.4**				millivolts			04/06/22 12:50	1
Oxygen, Dissolved, Client Supplied	**0.01**				mg/L			04/06/22 12:50	1
pH, Field	**7.50**				SU			04/06/22 12:50	1
Specific Conductance, Field	**622.6**				umhos/cm			04/06/22 12:50	1
Temperature, Field	**14.1**				Degrees C			04/06/22 12:50	1
Turbidity, Field	**9.00**				NTU			04/06/22 12:50	1

Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-314

Date Collected: 04/06/22 16:34
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-20

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		5.0	2.3	mg/L			04/28/22 16:08	5
Fluoride	<0.22		0.50	0.22	mg/L			04/28/22 16:08	5
Sulfate	**130**		5.0	2.0	mg/L			04/28/22 16:08	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 18:53	1
Arsenic	**4.1**		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 18:53	1
Barium	**330**		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 18:53	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 18:53	1
Boron	**360**		100	58	ug/L		04/12/22 08:30	04/21/22 18:53	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 18:53	1
Calcium	**150**		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 18:53	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 18:53	1
Cobalt	**0.48**	**J**	0.50	0.19	ug/L		04/12/22 08:30	04/21/22 18:53	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 18:53	1
Lithium	**3.9**	**J**	10	2.5	ug/L		04/12/22 08:30	04/21/22 18:53	1
Molybdenum	**1.2**	**J**	2.0	1.2	ug/L		04/12/22 08:30	04/21/22 18:53	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 18:53	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 18:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**630**	**H**	50	26	mg/L			04/28/22 16:02	1
pH	**7.1**	**HF**	0.1	0.1	SU			04/27/22 14:39	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**522.27**				ft			04/06/22 16:34	1
Oxidation Reduction Potential	**-82.0**				millivolts			04/06/22 16:34	1
Oxygen, Dissolved, Client Supplied	**0.13**				mg/L			04/06/22 16:34	1
pH, Field	**6.79**				SU			04/06/22 16:34	1
Specific Conductance, Field	**1001**				umhos/cm			04/06/22 16:34	1
Temperature, Field	**11.4**				Degrees C			04/06/22 16:34	1
Turbidity, Field	**35.00**				NTU			04/06/22 16:34	1

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: Field Blank

Date Collected: 04/06/22 13:21
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-21

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			04/29/22 13:44	1
Fluoride	<0.044		0.10	0.044	mg/L			04/29/22 13:44	1
Sulfate	<0.40		1.0	0.40	mg/L			04/29/22 13:44	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/25/22 17:32	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/25/22 17:32	1
Barium	<0.88		2.0	0.88	ug/L		04/12/22 08:30	04/25/22 17:32	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/25/22 17:32	1
Boron	<58		100	58	ug/L		04/12/22 08:30	04/25/22 17:32	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/25/22 17:32	1
Calcium	<0.19		0.50	0.19	mg/L		04/12/22 08:30	04/25/22 17:32	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/25/22 17:32	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/25/22 17:32	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/25/22 17:32	1
Lithium	<2.5		10	2.5	ug/L		04/12/22 08:30	04/25/22 17:32	1
Molybdenum	<1.2		2.0	1.2	ug/L		04/12/22 08:30	04/25/22 17:32	1
Selenium	**1.1**	**J**	5.0	0.96	ug/L		04/12/22 08:30	04/25/22 17:32	1
Thallium	**0.31**	**J**	1.0	0.26	ug/L		04/12/22 08:30	04/25/22 17:32	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:20	04/28/22 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26	H	50	26	mg/L			04/28/22 16:49	1
pH	**6.0**	**HF**	0.1	0.1	SU			04/27/22 14:37	1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-351492/3
Matrix: Water
Analysis Batch: 351492

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			04/28/22 08:37	1
Fluoride	<0.044		0.10	0.044	mg/L			04/28/22 08:37	1
Sulfate	<0.40		1.0	0.40	mg/L			04/28/22 08:37	1

Lab Sample ID: LCS 310-351492/4
Matrix: Water
Analysis Batch: 351492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	2.00	2.15		mg/L		107	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: 310-228664-2 MS
Matrix: Water
Analysis Batch: 351492

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	12		25.0	39.3		mg/L		109	80 - 120
Fluoride	<0.22		5.00	5.93		mg/L		119	80 - 120
Sulfate	310		25.0	341	4	mg/L		112	80 - 120

Lab Sample ID: 310-228664-2 MSD
Matrix: Water
Analysis Batch: 351492

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12		25.0	39.0		mg/L		108	80 - 120	1	15
Fluoride	<0.22		5.00	5.68		mg/L		114	80 - 120	4	15
Sulfate	310		25.0	340	4	mg/L		108	80 - 120	0	15

Lab Sample ID: MB 310-351740/3
Matrix: Water
Analysis Batch: 351740

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			04/29/22 13:01	1
Fluoride	<0.044		0.10	0.044	mg/L			04/29/22 13:01	1
Sulfate	<0.40		1.0	0.40	mg/L			04/29/22 13:01	1

Lab Sample ID: LCS 310-351740/4
Matrix: Water
Analysis Batch: 351740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.45		mg/L		95	90 - 110
Fluoride	2.00	2.02		mg/L		101	90 - 110
Sulfate	10.0	9.67		mg/L		97	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-349461/1-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/21/22 16:25	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/21/22 16:25	1
Barium	<0.88		2.0	0.88	ug/L		04/12/22 08:30	04/21/22 16:25	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/21/22 16:25	1
Boron	<58		100	58	ug/L		04/12/22 08:30	04/21/22 16:25	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/21/22 16:25	1
Calcium	<0.19		0.50	0.19	mg/L		04/12/22 08:30	04/21/22 16:25	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/21/22 16:25	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/21/22 16:25	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/21/22 16:25	1
Lithium	<2.5		10	2.5	ug/L		04/12/22 08:30	04/21/22 16:25	1
Molybdenum	<1.2		2.0	1.2	ug/L		04/12/22 08:30	04/21/22 16:25	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/21/22 16:25	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/21/22 16:25	1

Lab Sample ID: LCS 310-349461/2-A
Matrix: Water
Analysis Batch: 350746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	220		ug/L		110	80 - 120
Arsenic	200	197		ug/L		98	80 - 120
Barium	100	102		ug/L		102	80 - 120
Beryllium	100	103		ug/L		103	80 - 120
Boron	200	187		ug/L		93	80 - 120
Cadmium	100	103		ug/L		103	80 - 120
Calcium	2.00	1.92		mg/L		96	80 - 120
Chromium	100	103		ug/L		103	80 - 120
Cobalt	100	104		ug/L		104	80 - 120
Lead	200	215		ug/L		108	80 - 120
Lithium	200	203		ug/L		102	80 - 120
Molybdenum	200	211		ug/L		105	80 - 120
Selenium	400	364		ug/L		91	80 - 120
Thallium	200	214		ug/L		107	80 - 120

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.69		200	210		ug/L		105	75 - 125
Arsenic	80		200	267		ug/L		93	75 - 125
Barium	190		100	293		ug/L		104	75 - 125
Beryllium	<0.27		100	105		ug/L		105	75 - 125
Cadmium	0.19		100	102		ug/L		101	75 - 125
Calcium	260		2.00	257	4	mg/L		-52	75 - 125
Chromium	<1.1		100	98.0		ug/L		98	75 - 125
Cobalt	0.70		100	96.3		ug/L		96	75 - 125
Lead	<0.24		200	196		ug/L		98	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	12		200	227		ug/L		107	75 - 125
Molybdenum	55		200	260		ug/L		103	75 - 125
Selenium	<0.96		400	406		ug/L		102	75 - 125
Thallium	<0.26		200	195		ug/L		98	75 - 125

Lab Sample ID: 310-228664-1 MS
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	11000		200	11700	4	ug/L		542	75 - 125

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.69		200	216		ug/L		108	75 - 125	2	20
Arsenic	80		200	271		ug/L		96	75 - 125	2	20
Barium	190		100	309		ug/L		119	75 - 125	5	20
Beryllium	<0.27		100	106		ug/L		106	75 - 125	1	20
Cadmium	0.19		100	104		ug/L		104	75 - 125	2	20
Calcium	260		2.00	260	4	mg/L		94	75 - 125	1	20
Chromium	<1.1		100	100		ug/L		100	75 - 125	2	20
Cobalt	0.70		100	98.6		ug/L		98	75 - 125	2	20
Lead	<0.24		200	202		ug/L		101	75 - 125	3	20
Lithium	12		200	231		ug/L		110	75 - 125	2	20
Molybdenum	55		200	265		ug/L		105	75 - 125	2	20
Selenium	<0.96		400	419		ug/L		105	75 - 125	3	20
Thallium	<0.26		200	203		ug/L		102	75 - 125	4	20

Lab Sample ID: 310-228664-1 MSD
Matrix: Water
Analysis Batch: 350843

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	11000		200	10800	4	ug/L		95	75 - 125	8	20

Lab Sample ID: 310-228664-11 DU
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.69		<0.69		ug/L		NC	20
Arsenic	62		62.8		ug/L		1	20
Barium	85		81.9		ug/L		3	20
Beryllium	<0.27		<0.27		ug/L		NC	20
Boron	4400		4330		ug/L		2	20
Cadmium	<0.055		<0.055		ug/L		NC	20
Calcium	42		41.0		mg/L		1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-228664-11 DU
Matrix: Water
Analysis Batch: 350746

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 349461

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	<1.1		<1.1		ug/L		NC	20
Cobalt	<0.19		<0.19		ug/L		NC	20
Lead	<0.24		<0.24		ug/L		NC	20
Lithium	57		54.6		ug/L		5	20
Molybdenum	100		105		ug/L		4	20
Selenium	<0.96		<0.96		ug/L		NC	20
Thallium	<0.26		<0.26		ug/L		NC	20

Lab Sample ID: MB 310-349466/1-A
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		04/12/22 08:30	04/25/22 17:25	1
Arsenic	<0.75		2.0	0.75	ug/L		04/12/22 08:30	04/25/22 17:25	1
Barium	<0.88		2.0	0.88	ug/L		04/12/22 08:30	04/25/22 17:25	1
Beryllium	<0.27		1.0	0.27	ug/L		04/12/22 08:30	04/25/22 17:25	1
Boron	<58		100	58	ug/L		04/12/22 08:30	04/25/22 17:25	1
Cadmium	<0.055		0.10	0.055	ug/L		04/12/22 08:30	04/25/22 17:25	1
Calcium	<0.19		0.50	0.19	mg/L		04/12/22 08:30	04/25/22 17:25	1
Chromium	<1.1		5.0	1.1	ug/L		04/12/22 08:30	04/25/22 17:25	1
Cobalt	<0.19		0.50	0.19	ug/L		04/12/22 08:30	04/25/22 17:25	1
Lead	<0.24		0.50	0.24	ug/L		04/12/22 08:30	04/25/22 17:25	1
Lithium	<2.5		10	2.5	ug/L		04/12/22 08:30	04/25/22 17:25	1
Molybdenum	<1.2		2.0	1.2	ug/L		04/12/22 08:30	04/25/22 17:25	1
Selenium	<0.96		5.0	0.96	ug/L		04/12/22 08:30	04/25/22 17:25	1
Thallium	<0.26		1.0	0.26	ug/L		04/12/22 08:30	04/25/22 17:25	1

Lab Sample ID: LCS 310-349466/2-A
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	223		ug/L		112	80 - 120
Arsenic	200	203		ug/L		102	80 - 120
Barium	100	102		ug/L		102	80 - 120
Beryllium	100	106		ug/L		106	80 - 120
Boron	200	202		ug/L		101	80 - 120
Cadmium	100	102		ug/L		102	80 - 120
Calcium	2.00	2.04		mg/L		102	80 - 120
Chromium	100	98.0		ug/L		98	80 - 120
Cobalt	100	106		ug/L		106	80 - 120
Lead	200	212		ug/L		106	80 - 120
Lithium	200	213		ug/L		107	80 - 120
Molybdenum	200	208		ug/L		104	80 - 120
Selenium	400	390		ug/L		97	80 - 120
Thallium	200	209		ug/L		105	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-228664-21 MS
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.69		200	219		ug/L		109	75 - 125
Arsenic	<0.75		200	206		ug/L		103	75 - 125
Barium	<0.88		100	103		ug/L		103	75 - 125
Beryllium	<0.27		100	108		ug/L		108	75 - 125
Boron	<58		200	189		ug/L		94	75 - 125
Cadmium	<0.055		100	105		ug/L		105	75 - 125
Calcium	<0.19		2.00	2.04		mg/L		102	75 - 125
Chromium	<1.1		100	97.3		ug/L		97	75 - 125
Cobalt	<0.19		100	106		ug/L		106	75 - 125
Lead	<0.24		200	207		ug/L		103	75 - 125
Lithium	<2.5		200	213		ug/L		106	75 - 125
Molybdenum	<1.2		200	203		ug/L		101	75 - 125
Selenium	1.1	J	400	405		ug/L		101	75 - 125
Thallium	0.31	J	200	199		ug/L		99	75 - 125

Lab Sample ID: 310-228664-21 MSD
Matrix: Water
Analysis Batch: 351050

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 349466

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.69		200	226		ug/L		113	75 - 125	4	20
Arsenic	<0.75		200	216		ug/L		108	75 - 125	5	20
Barium	<0.88		100	105		ug/L		105	75 - 125	2	20
Beryllium	<0.27		100	112		ug/L		112	75 - 125	4	20
Boron	<58		200	203		ug/L		101	75 - 125	7	20
Cadmium	<0.055		100	107		ug/L		107	75 - 125	2	20
Calcium	<0.19		2.00	2.04		mg/L		102	75 - 125	0	20
Chromium	<1.1		100	102		ug/L		102	75 - 125	5	20
Cobalt	<0.19		100	109		ug/L		109	75 - 125	3	20
Lead	<0.24		200	214		ug/L		107	75 - 125	4	20
Lithium	<2.5		200	228		ug/L		114	75 - 125	7	20
Molybdenum	<1.2		200	210		ug/L		105	75 - 125	4	20
Selenium	1.1	J	400	413		ug/L		103	75 - 125	2	20
Thallium	0.31	J	200	206		ug/L		103	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-351240/1-A
Matrix: Water
Analysis Batch: 351414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:17	04/28/22 13:09	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 310-351240/2-A
Matrix: Water
Analysis Batch: 351414
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351240

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			1.67	1.60		ug/L		96	80 - 120		

Lab Sample ID: 310-228664-2 MS
Matrix: Water
Analysis Batch: 351414
Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 351240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	<0.11		1.67	1.44		ug/L		87	80 - 120		

Lab Sample ID: 310-228664-2 MSD
Matrix: Water
Analysis Batch: 351414
Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 351240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.11		1.67	1.55		ug/L		93	80 - 120	7	20

Lab Sample ID: MB 310-351241/1-A
Matrix: Water
Analysis Batch: 351414
Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		04/27/22 13:20	04/28/22 14:09	1

Lab Sample ID: LCS 310-351241/2-A
Matrix: Water
Analysis Batch: 351414
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351241

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			1.67	1.65		ug/L		99	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-351411/1
Matrix: Water
Analysis Batch: 351411
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			04/28/22 16:02	1

Lab Sample ID: LCS 310-351411/2
Matrix: Water
Analysis Batch: 351411
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	916		mg/L		92	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 310-228664-2 DU
Matrix: Water
Analysis Batch: 351411

Client Sample ID: MW-302
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	770	H		790		mg/L				3	20

Lab Sample ID: 310-228664-11 DU
Matrix: Water
Analysis Batch: 351411

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	470	H		440		mg/L				6	20

Lab Sample ID: MB 310-351420/1
Matrix: Water
Analysis Batch: 351420

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			04/28/22 16:49	1

Lab Sample ID: LCS 310-351420/2
Matrix: Water
Analysis Batch: 351420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	956		mg/L		96	90 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-351244/1
Matrix: Water
Analysis Batch: 351244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101	98 - 102		

Lab Sample ID: LCS 310-351244/27
Matrix: Water
Analysis Batch: 351244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101	98 - 102		

Lab Sample ID: 310-228664-1 DU
Matrix: Water
Analysis Batch: 351244

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1	HF		7.1		SU				0	20

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 310-228664-16 DU
Matrix: Water
Analysis Batch: 351244

Client Sample ID: MW-312
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.4	HF		7.4		SU				0	20

HPLC/IC

Analysis Batch: 351492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	9056A	
310-228664-1	MW-301	Total/NA	Water	9056A	
310-228664-2	MW-302	Total/NA	Water	9056A	
310-228664-3	MW-302A	Total/NA	Water	9056A	
310-228664-4	MW-303	Total/NA	Water	9056A	
310-228664-5	MW-304	Total/NA	Water	9056A	
310-228664-6	MW-305	Total/NA	Water	9056A	
310-228664-7	MW-306	Total/NA	Water	9056A	
310-228664-8	MW-307	Total/NA	Water	9056A	
310-228664-9	MW-307A	Total/NA	Water	9056A	
310-228664-10	MW-307B	Total/NA	Water	9056A	
310-228664-11	MW-308	Total/NA	Water	9056A	
310-228664-12	MW-309	Total/NA	Water	9056A	
310-228664-13	MW-310	Total/NA	Water	9056A	
310-228664-14	MW-310A	Total/NA	Water	9056A	
310-228664-15	MW-311	Total/NA	Water	9056A	
310-228664-16	MW-312	Total/NA	Water	9056A	
310-228664-17	MW-313	Total/NA	Water	9056A	
310-228664-18	MW-313A	Total/NA	Water	9056A	
310-228664-19	MW-313B	Total/NA	Water	9056A	
310-228664-20	MW-314	Total/NA	Water	9056A	
MB 310-351492/3	Method Blank	Total/NA	Water	9056A	
LCS 310-351492/4	Lab Control Sample	Total/NA	Water	9056A	
310-228664-2 MS	MW-302	Total/NA	Water	9056A	
310-228664-2 MSD	MW-302	Total/NA	Water	9056A	

Analysis Batch: 351740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	9056A	
MB 310-351740/3	Method Blank	Total/NA	Water	9056A	
LCS 310-351740/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 349461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	3005A	
310-228664-2	MW-302	Total/NA	Water	3005A	
310-228664-3	MW-302A	Total/NA	Water	3005A	
310-228664-4	MW-303	Total/NA	Water	3005A	
310-228664-5	MW-304	Total/NA	Water	3005A	
310-228664-6	MW-305	Total/NA	Water	3005A	
310-228664-7	MW-306	Total/NA	Water	3005A	
310-228664-8	MW-307	Total/NA	Water	3005A	
310-228664-9	MW-307A	Total/NA	Water	3005A	
310-228664-10	MW-307B	Total/NA	Water	3005A	
310-228664-11	MW-308	Total/NA	Water	3005A	
310-228664-12	MW-309	Total/NA	Water	3005A	
310-228664-13	MW-310	Total/NA	Water	3005A	
310-228664-14	MW-310A	Total/NA	Water	3005A	
310-228664-15	MW-311	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 349461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-16	MW-312	Total/NA	Water	3005A	
310-228664-17	MW-313	Total/NA	Water	3005A	
310-228664-18	MW-313A	Total/NA	Water	3005A	
310-228664-19	MW-313B	Total/NA	Water	3005A	
310-228664-20	MW-314	Total/NA	Water	3005A	
MB 310-349461/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-349461/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-228664-1 MS	MW-301	Total/NA	Water	3005A	
310-228664-1 MSD	MW-301	Total/NA	Water	3005A	
310-228664-11 DU	MW-308	Total/NA	Water	3005A	

Prep Batch: 349466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	3005A	
MB 310-349466/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-349466/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-228664-21 MS	Field Blank	Total/NA	Water	3005A	
310-228664-21 MSD	Field Blank	Total/NA	Water	3005A	

Analysis Batch: 350746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	6020A	349461
310-228664-2	MW-302	Total/NA	Water	6020A	349461
310-228664-3	MW-302A	Total/NA	Water	6020A	349461
310-228664-4	MW-303	Total/NA	Water	6020A	349461
310-228664-5	MW-304	Total/NA	Water	6020A	349461
310-228664-6	MW-305	Total/NA	Water	6020A	349461
310-228664-7	MW-306	Total/NA	Water	6020A	349461
310-228664-8	MW-307	Total/NA	Water	6020A	349461
310-228664-9	MW-307A	Total/NA	Water	6020A	349461
310-228664-10	MW-307B	Total/NA	Water	6020A	349461
310-228664-11	MW-308	Total/NA	Water	6020A	349461
310-228664-12	MW-309	Total/NA	Water	6020A	349461
310-228664-13	MW-310	Total/NA	Water	6020A	349461
310-228664-14	MW-310A	Total/NA	Water	6020A	349461
310-228664-15	MW-311	Total/NA	Water	6020A	349461
310-228664-16	MW-312	Total/NA	Water	6020A	349461
310-228664-17	MW-313	Total/NA	Water	6020A	349461
310-228664-18	MW-313A	Total/NA	Water	6020A	349461
310-228664-19	MW-313B	Total/NA	Water	6020A	349461
310-228664-20	MW-314	Total/NA	Water	6020A	349461
MB 310-349461/1-A	Method Blank	Total/NA	Water	6020A	349461
LCS 310-349461/2-A	Lab Control Sample	Total/NA	Water	6020A	349461
310-228664-1 MS	MW-301	Total/NA	Water	6020A	349461
310-228664-1 MSD	MW-301	Total/NA	Water	6020A	349461
310-228664-11 DU	MW-308	Total/NA	Water	6020A	349461

Analysis Batch: 350843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	6020A	349461
310-228664-16	MW-312	Total/NA	Water	6020A	349461

Metals (Continued)

Analysis Batch: 350843 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1 MS	MW-301	Total/NA	Water	6020A	349461
310-228664-1 MSD	MW-301	Total/NA	Water	6020A	349461

Analysis Batch: 351050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	6020A	349466
MB 310-349466/1-A	Method Blank	Total/NA	Water	6020A	349466
LCS 310-349466/2-A	Lab Control Sample	Total/NA	Water	6020A	349466
310-228664-21 MS	Field Blank	Total/NA	Water	6020A	349466
310-228664-21 MSD	Field Blank	Total/NA	Water	6020A	349466

Prep Batch: 351240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	7470A	
310-228664-2	MW-302	Total/NA	Water	7470A	
310-228664-3	MW-302A	Total/NA	Water	7470A	
310-228664-4	MW-303	Total/NA	Water	7470A	
310-228664-5	MW-304	Total/NA	Water	7470A	
310-228664-6	MW-305	Total/NA	Water	7470A	
310-228664-7	MW-306	Total/NA	Water	7470A	
310-228664-8	MW-307	Total/NA	Water	7470A	
310-228664-9	MW-307A	Total/NA	Water	7470A	
310-228664-10	MW-307B	Total/NA	Water	7470A	
310-228664-11	MW-308	Total/NA	Water	7470A	
310-228664-12	MW-309	Total/NA	Water	7470A	
310-228664-13	MW-310	Total/NA	Water	7470A	
310-228664-14	MW-310A	Total/NA	Water	7470A	
310-228664-15	MW-311	Total/NA	Water	7470A	
310-228664-16	MW-312	Total/NA	Water	7470A	
310-228664-17	MW-313	Total/NA	Water	7470A	
310-228664-18	MW-313A	Total/NA	Water	7470A	
310-228664-19	MW-313B	Total/NA	Water	7470A	
310-228664-20	MW-314	Total/NA	Water	7470A	
MB 310-351240/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-351240/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-228664-2 MS	MW-302	Total/NA	Water	7470A	
310-228664-2 MSD	MW-302	Total/NA	Water	7470A	

Prep Batch: 351241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	7470A	
MB 310-351241/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-351241/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 351414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	7470A	351240
310-228664-2	MW-302	Total/NA	Water	7470A	351240
310-228664-3	MW-302A	Total/NA	Water	7470A	351240
310-228664-4	MW-303	Total/NA	Water	7470A	351240
310-228664-5	MW-304	Total/NA	Water	7470A	351240

Metals (Continued)

Analysis Batch: 351414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-6	MW-305	Total/NA	Water	7470A	351240
310-228664-7	MW-306	Total/NA	Water	7470A	351240
310-228664-8	MW-307	Total/NA	Water	7470A	351240
310-228664-9	MW-307A	Total/NA	Water	7470A	351240
310-228664-10	MW-307B	Total/NA	Water	7470A	351240
310-228664-11	MW-308	Total/NA	Water	7470A	351240
310-228664-12	MW-309	Total/NA	Water	7470A	351240
310-228664-13	MW-310	Total/NA	Water	7470A	351240
310-228664-14	MW-310A	Total/NA	Water	7470A	351240
310-228664-15	MW-311	Total/NA	Water	7470A	351240
310-228664-16	MW-312	Total/NA	Water	7470A	351240
310-228664-17	MW-313	Total/NA	Water	7470A	351240
310-228664-18	MW-313A	Total/NA	Water	7470A	351240
310-228664-19	MW-313B	Total/NA	Water	7470A	351240
310-228664-20	MW-314	Total/NA	Water	7470A	351240
310-228664-21	Field Blank	Total/NA	Water	7470A	351241
MB 310-351240/1-A	Method Blank	Total/NA	Water	7470A	351240
MB 310-351241/1-A	Method Blank	Total/NA	Water	7470A	351241
LCS 310-351240/2-A	Lab Control Sample	Total/NA	Water	7470A	351240
LCS 310-351241/2-A	Lab Control Sample	Total/NA	Water	7470A	351241
310-228664-2 MS	MW-302	Total/NA	Water	7470A	351240
310-228664-2 MSD	MW-302	Total/NA	Water	7470A	351240

Analysis Batch: 352391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-2	MW-302	Total/NA	Water	6020A	349461
310-228664-3	MW-302A	Total/NA	Water	6020A	349461
310-228664-4	MW-303	Total/NA	Water	6020A	349461
310-228664-5	MW-304	Total/NA	Water	6020A	349461
310-228664-10	MW-307B	Total/NA	Water	6020A	349461
310-228664-17	MW-313	Total/NA	Water	6020A	349461
310-228664-19	MW-313B	Total/NA	Water	6020A	349461

General Chemistry

Analysis Batch: 351244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-228664-2	MW-302	Total/NA	Water	SM 4500 H+ B	
310-228664-3	MW-302A	Total/NA	Water	SM 4500 H+ B	
310-228664-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-228664-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-228664-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-228664-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-228664-8	MW-307	Total/NA	Water	SM 4500 H+ B	
310-228664-9	MW-307A	Total/NA	Water	SM 4500 H+ B	
310-228664-10	MW-307B	Total/NA	Water	SM 4500 H+ B	
310-228664-11	MW-308	Total/NA	Water	SM 4500 H+ B	
310-228664-12	MW-309	Total/NA	Water	SM 4500 H+ B	
310-228664-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-228664-14	MW-310A	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 351244 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-15	MW-311	Total/NA	Water	SM 4500 H+ B	
310-228664-16	MW-312	Total/NA	Water	SM 4500 H+ B	
310-228664-17	MW-313	Total/NA	Water	SM 4500 H+ B	
310-228664-18	MW-313A	Total/NA	Water	SM 4500 H+ B	
310-228664-19	MW-313B	Total/NA	Water	SM 4500 H+ B	
310-228664-20	MW-314	Total/NA	Water	SM 4500 H+ B	
310-228664-21	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-351244/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-351244/27	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-228664-1 DU	MW-301	Total/NA	Water	SM 4500 H+ B	
310-228664-16 DU	MW-312	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 351411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	SM 2540C	
310-228664-2	MW-302	Total/NA	Water	SM 2540C	
310-228664-3	MW-302A	Total/NA	Water	SM 2540C	
310-228664-4	MW-303	Total/NA	Water	SM 2540C	
310-228664-5	MW-304	Total/NA	Water	SM 2540C	
310-228664-6	MW-305	Total/NA	Water	SM 2540C	
310-228664-7	MW-306	Total/NA	Water	SM 2540C	
310-228664-8	MW-307	Total/NA	Water	SM 2540C	
310-228664-9	MW-307A	Total/NA	Water	SM 2540C	
310-228664-10	MW-307B	Total/NA	Water	SM 2540C	
310-228664-11	MW-308	Total/NA	Water	SM 2540C	
310-228664-12	MW-309	Total/NA	Water	SM 2540C	
310-228664-13	MW-310	Total/NA	Water	SM 2540C	
310-228664-14	MW-310A	Total/NA	Water	SM 2540C	
310-228664-15	MW-311	Total/NA	Water	SM 2540C	
310-228664-16	MW-312	Total/NA	Water	SM 2540C	
310-228664-17	MW-313	Total/NA	Water	SM 2540C	
310-228664-18	MW-313A	Total/NA	Water	SM 2540C	
310-228664-19	MW-313B	Total/NA	Water	SM 2540C	
310-228664-20	MW-314	Total/NA	Water	SM 2540C	
MB 310-351411/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-351411/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-228664-2 DU	MW-302	Total/NA	Water	SM 2540C	
310-228664-11 DU	MW-308	Total/NA	Water	SM 2540C	

Analysis Batch: 351420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-21	Field Blank	Total/NA	Water	SM 2540C	
MB 310-351420/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-351420/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 351255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-1	MW-301	Total/NA	Water	Field Sampling	
310-228664-2	MW-302	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 351255 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-228664-3	MW-302A	Total/NA	Water	Field Sampling	
310-228664-4	MW-303	Total/NA	Water	Field Sampling	
310-228664-5	MW-304	Total/NA	Water	Field Sampling	
310-228664-6	MW-305	Total/NA	Water	Field Sampling	
310-228664-7	MW-306	Total/NA	Water	Field Sampling	
310-228664-8	MW-307	Total/NA	Water	Field Sampling	
310-228664-9	MW-307A	Total/NA	Water	Field Sampling	
310-228664-10	MW-307B	Total/NA	Water	Field Sampling	
310-228664-11	MW-308	Total/NA	Water	Field Sampling	
310-228664-12	MW-309	Total/NA	Water	Field Sampling	
310-228664-13	MW-310	Total/NA	Water	Field Sampling	
310-228664-14	MW-310A	Total/NA	Water	Field Sampling	
310-228664-15	MW-311	Total/NA	Water	Field Sampling	
310-228664-16	MW-312	Total/NA	Water	Field Sampling	
310-228664-17	MW-313	Total/NA	Water	Field Sampling	
310-228664-18	MW-313A	Total/NA	Water	Field Sampling	
310-228664-19	MW-313B	Total/NA	Water	Field Sampling	
310-228664-20	MW-314	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Client Sample ID: MW-301

Date Collected: 04/06/22 14:06
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 09:07	JNR	TAL CF
Total/NA	Analysis	9056A		10	351492	04/29/22 09:02	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	350843	04/22/22 18:13	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:01	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:13	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:22	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 14:06	SLD	TAL CF

Client Sample ID: MW-302

Date Collected: 04/05/22 13:56
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 09:23	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	352391	05/07/22 14:53	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:13	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:15	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:09	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 13:56	SLD	TAL CF

Client Sample ID: MW-302A

Date Collected: 04/05/22 14:59
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 10:10	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	352391	05/07/22 14:57	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:17	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:22	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:07	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 14:59	SLD	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228664-2
Project/Site: Burlington Gen Station 25222066

Client Sample ID: MW-303
Lab Sample ID: 310-228664-4
Date Collected: 04/05/22 16:08
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 10:25	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	352391	05/07/22 15:01	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:20	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:24	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:06	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 16:08	SLD	TAL CF

Client Sample ID: MW-304
Lab Sample ID: 310-228664-5
Date Collected: 04/05/22 08:53
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 10:41	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		10	352391	05/07/22 15:05	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:23	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:30	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:04	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 08:53	SLD	TAL CF

Client Sample ID: MW-305
Lab Sample ID: 310-228664-6
Date Collected: 04/06/22 17:40
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 10:57	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:26	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:32	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:00	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 17:40	SLD	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228664-2
Project/Site: Burlington Gen Station 25222066

Client Sample ID: MW-306
Lab Sample ID: 310-228664-7
Date Collected: 04/05/22 12:29
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 11:43	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:29	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:34	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:02	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 12:29	SLD	TAL CF

Client Sample ID: MW-307
Lab Sample ID: 310-228664-8
Date Collected: 04/05/22 08:34
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 11:59	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:45	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:37	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:35	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 08:34	SLD	TAL CF

Client Sample ID: MW-307A
Lab Sample ID: 310-228664-9
Date Collected: 04/05/22 09:38
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 12:14	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:49	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:39	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:31	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 09:38	SLD	TAL CF

Client Sample ID: MW-307B
Lab Sample ID: 310-228664-10
Date Collected: 04/05/22 11:16
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 12:30	JNR	TAL CF

Client Sample ID: MW-307B

Lab Sample ID: 310-228664-10

Date Collected: 04/05/22 11:16

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	352391	05/07/22 15:09	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:52	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:41	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:33	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/05/22 11:16	SLD	TAL CF

Client Sample ID: MW-308

Lab Sample ID: 310-228664-11

Date Collected: 04/04/22 16:16

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 12:46	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 17:55	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:43	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 13:49	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/04/22 16:16	SLD	TAL CF

Client Sample ID: MW-309

Lab Sample ID: 310-228664-12

Date Collected: 04/04/22 15:08

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 13:01	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:05	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:45	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:11	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/04/22 15:08	SLD	TAL CF

Client Sample ID: MW-310

Lab Sample ID: 310-228664-13

Date Collected: 04/04/22 11:47

Matrix: Water

Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 13:17	JNR	TAL CF

Client Sample ID: MW-310

Date Collected: 04/04/22 11:47
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:08	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:47	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:28	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/04/22 11:47	SLD	TAL CF

Client Sample ID: MW-310A

Date Collected: 04/06/22 18:30
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 13:33	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:15	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:49	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:26	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 18:30	SLD	TAL CF

Client Sample ID: MW-311

Date Collected: 04/04/22 13:40
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 13:48	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:18	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:56	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 13:51	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/04/22 13:40	SLD	TAL CF

Client Sample ID: MW-312

Date Collected: 04/06/22 15:19
Date Received: 04/07/22 17:35

Lab Sample ID: 310-228664-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 14:04	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	350843	04/22/22 18:45	SAP	TAL CF

Client Sample ID: MW-312
Lab Sample ID: 310-228664-16
Date Collected: 04/06/22 15:19
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:24	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 13:58	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:44	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 15:19	SLD	TAL CF

Client Sample ID: MW-313
Lab Sample ID: 310-228664-17
Date Collected: 04/06/22 10:13
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 15:21	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	352391	05/07/22 15:12	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:40	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 14:00	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:13	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 10:13	SLD	TAL CF

Client Sample ID: MW-313A
Lab Sample ID: 310-228664-18
Date Collected: 04/06/22 11:22
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 15:37	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:47	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 14:02	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:48	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 11:22	SLD	TAL CF

Client Sample ID: MW-313B
Lab Sample ID: 310-228664-19
Date Collected: 04/06/22 12:50
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 15:52	JNR	TAL CF

Lab Chronicle

Client: SCS Engineers
Job ID: 310-228664-2
Project/Site: Burlington Gen Station 25222066

Client Sample ID: MW-313B
Lab Sample ID: 310-228664-19
Date Collected: 04/06/22 12:50
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		4	352391	05/07/22 15:16	SAP	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:50	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 14:04	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:30	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 12:50	SLD	TAL CF

Client Sample ID: MW-314
Lab Sample ID: 310-228664-20
Date Collected: 04/06/22 16:34
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	351492	04/28/22 16:08	JNR	TAL CF
Total/NA	Prep	3005A			349461	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	350746	04/21/22 18:53	SAP	TAL CF
Total/NA	Prep	7470A			351240	04/27/22 13:17	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 14:06	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351411	04/28/22 16:02	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:39	ARG	TAL CF
Total/NA	Analysis	Field Sampling		1	351255	04/06/22 16:34	SLD	TAL CF

Client Sample ID: Field Blank
Lab Sample ID: 310-228664-21
Date Collected: 04/06/22 13:21
Matrix: Water
Date Received: 04/07/22 17:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	351740	04/29/22 13:44	JNR	TAL CF
Total/NA	Prep	3005A			349466	04/12/22 08:30	ACM2	TAL CF
Total/NA	Analysis	6020A		1	351050	04/25/22 17:32	SAP	TAL CF
Total/NA	Prep	7470A			351241	04/27/22 13:20	EAM	TAL CF
Total/NA	Analysis	7470A		1	351414	04/28/22 14:13	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	351420	04/28/22 16:49	TGF	TAL CF
Total/NA	Analysis	SM 4500 H+ B		1	351244	04/27/22 14:37	ARG	TAL CF

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-228664-2
Project/Site: Burlington Gen Station 25222066

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-21 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Project/Site: Burlington Gen Station 25222066

Job ID: 310-228664-2

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
SM 4500 H+ B	pH	SM	TAL CF
Field Sampling	Field Sampling	EPA	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

>> Select a Lab or Service Center <<

#N/A
#N/A
#N/A
#N/A

Chain of Custody Record
Sample Origin: State of Nevada

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager:**		TALS Project #:
SCS Engineers	**Email:mblodgett@scsengineers.com**	**Site Contact:Rosa Cruz**	**Date:**	COC No:
2830 Dairy Drive	**Tel/Fax:608-345-9221**	**Lab Contact:**	**Carrier:**	_____ of _____ COCs
Madison, WI 53718	**Analysis Turnaround Time**			[1] Sampler:
(xxx) xxx-xxxx Phone 608-345-9221	☐ CALENDAR DAYS ☐ WORKING DAYS			[1] Refer to note below.
(xxx) xxx-xxxx FAX	TAT if different from Below _____			**For Lab Use Only:**
Project Name: Burlington Generating Station	☐ 2 weeks			Walk-in Client:
Site:	☐ 1 week			Lab Sampling:
P O # 25222066	☐ 2 days			Job / SDG No.:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	pH	TDS	Anions (Cl, F, SO4)	Mercury	6020 Metals (Sb, As, Ba, Be, B, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl)	Sample Specific Notes:
MW-301	4/6/2022	14:06	G	W		N		X	X	X	X	X	
MW-302	4/5/22	13:56	G	W		N		X	X	X	X	X	
MW-302A	4/5/22	14:59	G	W		N		X	X	X	X	X	
MW-303	4/5/22	16:08	G	W		N		X	X	X	X	X	
MW-304	4/5/22	8:53	G	W		N		X	X	X	X	X	
MW-305	4/6/22	17:40	G	W		N		X	X	X	X	X	
MW-306	4/5/22	12:29	G	W		N		X	X	X	X	X	
MW-307	4/5/22	8:34	G	W		N		X	X	X	X	X	
MW-307A	4/5/22	9:38	G	W		N		X	X	X	X	X	
MW-307B	4/5/22	11:16	G	W		N		X	X	X	X	X	
MW-308	4/4/22	16:16	G	W		N		X	X	X	X	X	

[1] I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)
Signature:_____Date_____

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	1	1	4	4													

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☑ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by: Rosa Cruz	Company: SCS	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-004, Rev. 1.28, dated 10/6/2020

>> Select a Lab or Service Center <<

#N/A
#N/A
#N/A
#N/A

Chain of Custody Record
Sample Origin: State of Nevada

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager:	Site Contact: Rosa Cruz	Date:	TALS Project #:
SCS Engineers	Email:mblodgett@scsengineers.com	Lab Contact:	Carrier:	COC No:
2830 Dairy Drive	Tel/Fax:608-345-9221			______ of ______ COCs
Madison, WI 53718	**Analysis Turnaround Time**			[1] Sampler:
(xxx) xxx-xxxx Phone 608-345-9221	☐ CALENDAR DAYS ☐ WORKING DAYS			[1] **Refer to note below.**
(xxx) xxx-xxxx FAX	TAT if different from Below ________			**For Lab Use Only:**
Project Name: Burlington Generating Station	☐ 2 weeks			Walk-in Client:
Site:	☐ 1 week			Lab Sampling:
P O # 25222066	☐ 2 days			Job / SDG No.:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	pH	TDS	Anions (Cl, F, SO4)	Mercury	6020 Metals (Sb, As, Ba, Be, B, Ca, Cd, Cr, Co, Pb, Li, Mo, Se, Tl)	Sample Specific Notes:
MW-309	4/4/2022	15:08	G	W		N		X	X	X	X	X	
MW-310	4/4/22	11:47	G	W		N		X	X	X	X	X	
MW-310A	4/6/22	18:30	G	W		N		X	X	X	X	X	
MW-311	4/4/22	13:40	G	W		N		X	X	X	X	X	
MW-312	4/6/22	15:19	G	W		N		X	X	X	X	X	
MW-313	4/6/22	10:13	G	W		N		X	X	X	X	X	
MW-313A	4/6/22	11:22	G	W		N		X	X	X	X	X	
MW-313B	4/6/22	12:50	G	W		N		X	X	X	X	X	
MW-314	4/6/22	16:34	G	W		N		X	X	X	X	X	
Field Blank	4/6/22	13:21	G	W		N		X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____________								1	1	1	4	4	

[1] I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)
Signature:____ Date________________

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☑ Return to Client ☐ Disposal by Lab ☐ Archive for________ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (^{o}C): Obs'd:________ Corr'd:________		Therm ID No.:__________
Relinquished by: Rosa Cruz	Company: SCS	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-004, Rev. 1.28, dated 10/6/2020

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-228664-2

Login Number: 228664
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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.	N/A	
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	

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25222066.00
April 2022

Sample	Sample Date/Time	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-301	4/6/2022 14:06	12.3	6.96	0.13	1,982	-156.9	21.00	522.99
MW-302	4/5/2022 13:56	12.3	8.05	0.07	989	-198.6	9.00	522.34
MW-302A	4/5/2022 14:59	12.7	7.25	0.12	1,108	-153.2	5.00	522.28
MW-303	4/5/2022 16:08	12.7	7.36	0.10	845	-155.8	21.00	522.20
MW-304	4/5/2022 8:53	13.2	8.08	0.07	825	-204.7	9.00	522.41
MW-305	4/6/2022 17:40	14.3	7.25	0.06	870	-116.2	9.00	522.60
MW-306	4/5/2022 12:29	13.6	5.95	0.14	468.4	-75.3	4.00	522.63
MW-307	4/5/2022 8:34	13.4	9.88	0.03	549.8	-218.8	4.00	522.91
MW-307A	4/5/2022 9:38	13.4	7.78	0.06	547.4	-154.0	5.00	522.47
MW-307B	4/5/2022 11:16	13.5	7.36	0.08	627.3	-147.0	6.00	522.37
MW-308	4/4/2022 16:16	13.9	9.58	0.08	680	-246.6	5.00	522.61
MW-309	4/4/2022 15:08	13.0	7.18	0.24	748	-139.4	21.00	522.74
MW-310	4/4/2022 11:47	10.6	7.38	0.14	548.8	-177.3	19.00	525.44
MW-310A	4/6/2022 18:30	11.7	7.29	0.41	907	-10.5	39.00	522.58
MW-311	4/4/2022 13:40	11.8	7.22	0.07	1,190	-177.6	7.00	523.78
MW-312	4/6/2022 15:19	14.0	7.35	0.06	746	-155.7	23.00	522.51
MW-313	4/6/2022 10:13	14.4	7.14	0.07	1,076	-153.5	15.00	522.48
MW-313A	4/6/2022 11:22	14.0	7.62	0.07	695	-158.0	23.00	522.38
MW-313B	4/6/2022 12:50	14.1	7.50	0.01	622.6	-144.4	9.00	522.45
MW-314	4/6/2022 16:34	11.4	6.79	0.13	1001	-82.0	35.00	522.27

Abbreviations:
mg/L = milligrams per liter
mV = millivolts
amsl = above mean sea level
µmhos/cm = micromohs per cm
-- = Not Applicable
NM = not measured

Created by: NDK Date: 10/15/2021
Last revision by: RM Date: 4/14/2022
Checked by: ACW Date: 4/15/2022

C:\Users\FredrickS\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\D84274O8\[2204 - BGS_CCR_Field.xlsx]GW Field Parameters

Appendix D

Historical Monitoring Results

Single Location

Name: IPL - Burlington

Location ID: MW-301
Number of Sampling Dates: 21

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/16/2017	10/16/2017	5/9/2018	8/13/2018	10/9/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020	3/1/2021	4/19/2021	10/13/2021	4/6/2022
Boron	ug/L	12400	10600	13100	10500	12000	14500	10500	14000	9900	9140	12800	8040	--	12000	8100	10000	12000	--	9600	7300	11000
Calcium	mg/L	156	100	178	131	140	220	156	211	140	85.3	174	103	--	150	130	140	220	--	240	260	260
Chloride	mg/L	23.3	22.4	22.3	21.6	21.3	20.7	21.5	20.8	22	22.7	21.7	21.5	--	21	20	22	20	--	18	19	19
Fluoride	mg/L	0.55	0.29	0.43	0.3	0.37	0.36	0.23	0.45	0.27	0.36	0.52	0.26	--	0.77	<0.23	0.26	<0.23	--	0.58	<0.28	<0.22
Field pH	Std. Units	7.27	7.65	7.53	7.61	7.41	7.37	7.36	6.89	7.58	7.4	7.91	7.34	6.38	7.53	6.85	6.99	7.07	6.88	7.03	7.01	6.96
Sulfate	mg/L	193	170	206	378	385	215	511	327	454	188	187	358	--	190	390	250	170	--	240	630	550
Total Dissolved Solids	mg/L	782	630	857	729	816	1020	960	1190	780	568	960	656	--	890	690	910	970	--	1200	1500	1300
Antimony	ug/L	0.062	0.12	0.13	0.073	<0.058	0.049	<0.026	0.2	--	<0.026	<0.15	0.08	--	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	39.4	35	44.1	36.9	39.7	46.1	33.4	42.7	--	34.9	40.1	37.7	--	42	40	46	54	--	61	66	80
Barium	ug/L	381	239	406	294	343	464	380	479	--	198	420	276	--	380	320	330	500	--	560	170	190
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.046	<0.012	0.014	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	0.032	<0.018	<0.018	<0.018	--	0.04	<0.07	<0.033	--	<0.077	<0.039	<0.039	<0.049	--	0.066	0.098	0.19
Chromium	ug/L	0.67	0.38	0.56	<0.34	0.44	0.34	0.17	0.49	--	0.25	0.36	0.12	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.64	<0.5	0.52	<0.5	<0.5	0.57	0.16	0.46	--	0.15	0.45	0.1	--	0.44	0.18	0.31	0.7	--	0.81	0.74	0.7
Lead	ug/L	0.31	<0.19	<0.19	<0.19	<0.19	0.091	0.12	0.23	--	0.17	0.13	<0.13	--	<0.27	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	10.3	11.7	<4.9	22.8	20.1	13.2	29.4	18.2	--	17.8	18.9	24.5	--	13	26	16	10	--	10	11	12
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	108	116	94.5	114	113	82.8	116	98.5	--	113	81.7	120	62.7	77	130	110	67	--	46	47	55
Selenium	ug/L	0.34	<0.18	0.29	<0.18	<0.18	0.4	0.1	0.35	--	0.25	0.28	0.13	--	<1	<1	<1	<1	--	1.3	0.97	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.08	0.08	0.059	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	1	<0.26	<0.26
Total Radium	pCi/L	1.33	0.933	2.03	0.643	0.512	1.16	1.86	1.81	--	0.712	1.15	1.5	--	1.15	1.03	0.928/0.928	1	--	1.02	0.97	1.69
Radium-226	pCi/L	0.6	0.144	0.367	0	0.0709	0.347	0.901	1.14	--	0.712	0.693	0.534	--	0.411	0.498	0.553/0.553	0.57	--	0.774	0.406	0.719
Radium-228	pCi/L	0.729	0.789	1.66	0.643	0.441	0.817	0.954	0.671	--	-0.016	0.459	0.966	--	0.736	0.527	<0.411/0.376	0.43	--	0.247	0.564	0.973
Field Oxidation Potential	mV	-135.3	-110.7	-162.3	-156.4	-146.1	-164.7	-89.6	-90.4	38	-167.1	-145	-63.5	-73.1	-144.7	-162.9	37.1	-187.5	-176.6	-162.4	-142.8	-156.9
Field Specific Conductance	umhos/cm	898	1702	2499	1776	1985	2507	859	1925	1065	600.8	1400	892	1055	1213	1063	1167	1503	1562	1760	1858	1982
Field Temperature	deg C	12.6	13.2	13.5	14.1	13.6	12.9	13	13.8	13.8	12.9	16.8	17.2	12.56	12.35	13.9	13.4	13.7	12.2	12.3	13.6	12.3
Groundwater Elevation	feet	522.63	521.07	521.81	527.48	525.38	523.08	523.21	519.96	522.13	525.51	520.19	528.01	523.38	528.15	--	523.94	519.26	521.1	522.87	519.4	522.99
Oxygen, Dissolved	mg/L	0.09	1.12	0.11	0.5	0.1	0.12	0.17	0.05	0.12	0.08	0.35	0.24	2.61	0.59	0.23	0.25	0.09	0.16	1.61	0.17	0.13
Turbidity	NTU	10.49	1	0.51	0.54	0.9	1.12	2.02	0.4	1.26	4.23	5.78	8.43	17.1	21.1	12.55	20.15	3.41	3.5	3.82	14.1	21
pH at 25 Degrees C	Std. Units	7	7.1	7	7.2	7.2	7.4	6.9	7.1	7.2	7.2	7.2	7	--	7	7.1	7	7.8	--	7.1	7	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	760	800	720	650	740
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34000	41000	39000	39000	40000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13000	13000	14000	16000	22000
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	41	44	49	53
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	760	800	720	650	740
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34000	40000	41000	38000	43000
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63000	68000	75000	72000	78000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12000	13000	15000	15000	19000
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4100	4000	3700	3300	3700
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45000	50000	63000	110000	130000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	13

Single Location

Name: IPL - Burlington

Location ID: MW-302
Number of Sampling Dates: 22

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/9/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020	3/1/2021	4/19/2021	10/12/2021	2/22/2022	4/5/2022
Boron	ug/L	8570	8400	9050	9500	9590	10100	10700	9450	10000	10200	10000	10400	--	12000	11000	13000	11000	--	11000	10000	--	11000
Calcium	mg/L	242	243	231	251	225	232	216	225	231	231	210	219	--	220	220	210	200	--	200	160	--	190
Chloride	mg/L	18.3	15.2	16.1	15.4	15.2	16.6	15	15.7	16.4	14.1	14.7	13.5	--	13	11	12	10	--	10	12	--	12
Fluoride	mg/L	0.11	<0.073	0.08	0.086	<0.027	<0.1	<0.1	<0.1	0.11	0.11	<0.063	<0.19	--	0.37	<0.23	<0.23	<0.23	--	<0.28	<0.28	--	<0.22
Field pH	Std. Units	8.17	8.06	8.3	8.24	8.22	8.71	8.06	8.38	8.72	8.19	9.32	7.89	6.94	8.7	7.49	7.88	7.87	7.95	8.15	8.28	8.16	8.05
Sulfate	mg/L	666	525	669	579	536	540	552	512	541	553	542	658	--	510	510	490	460	--	410	280	--	310
Total Dissolved Solids	mg/L	1040	1140	988	977	969	945	937	989	951	1080	1000	1030	--	1000	960	1000	910	--	860	680	--	770
Antimony	ug/L	0.14	0.15	<0.058	0.096	<0.058	0.043	0.04	0.16	--	<0.026	<0.15	0.082	--	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	--	<0.69
Arsenic	ug/L	71.3	68.4	64.1	73.5	64.9	49.1	72	58.5	--	56.2	49.6	76.4	--	53	73	110	76	--	75	100	94	86
Barium	ug/L	430	476	361	446	355	356	370	348	--	363	340	180	--	320	260	340	250	--	320	270	--	320
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.023	<0.012	0.012	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	--	<0.27
Cadmium	ug/L	0.043	<0.029	<0.029	<0.029	<0.029	<0.018	0.021	<0.018	--	0.037	<0.07	0.04	--	<0.077	<0.039	0.045	0.11	--	0.089	0.12	--	0.055
Chromium	ug/L	<0.34	<0.34	0.45	<0.34	0.46	0.15	0.11	0.31	--	0.22	0.33	0.097	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	--	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.19	0.24	0.24	--	0.19	0.15	0.18	--	0.19	0.23	0.21	0.26	--	0.21	0.27	--	0.21
Lead	ug/L	0.21	<0.19	<0.19	<0.19	<0.19	0.058	0.064	0.22	--	0.17	<0.12	<0.13	--	0.58	<0.27	<0.27	0.17	--	<0.21	<0.21	--	<0.24
Lithium	ug/L	60.5	69.6	37.6	64.2	62.6	57.3	60.7	56.9	--	65.4	61.4	57.8	59.9	56	57	55	64	--	64	64	--	78
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	<0.1	<0.1	--	<0.15	--	--	<0.11
Molybdenum	ug/L	85.8	84.4	92.5	105	104	105	131	113	--	118	121	122	123	100	100	140	130	--	130	91	--	89
Selenium	ug/L	0.3	0.22	0.27	0.2	<0.18	0.24	0.23	0.24	--	0.25	0.22	0.23	--	<1	<1	<1	1.1	--	1.4	<0.96	--	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.04	0.078	0.41	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	1.2	<0.26	--	1.8
Total Radium	pCi/L	1.82	1.11	0.202	1.24	1.59	1.13	1.84	1.2	--	1.51	1.53	2.15	--	0.872	0.644	0.626/0.626	0.245	--	0.906	1.22	--	0.687
Radium-226	pCi/L	0	0.392	0	0.803	0.604	0.639	0.713	0.238	--	0.621	0.443	1.1	--	0.362	0.374	0.263/0.263	0.245	--	0.493	0.605	--	0.401
Radium-228	pCi/L	1.82	0.715	0.202	0.439	0.987	0.494	1.13	0.962	--	0.886	1.09	1.05	--	0.51	0.27	<0.394/0.363	-0.113	--	0.413	0.611	--	0.286
Field Oxidation Potential	mV	-181.1	-147	-167.1	-194.3	-182.6	-227.8	-154.4	-179.2	-49.7	-217.2	-237	-198	-70.3	-215.8	-186.8	36.7	-237.1	-236.9	-225.8	-193.7	207.4	-198.6
Field Specific Conductance	umhos/cm	1032	2053	34.4	2202	2167	2037	833	1752	1165	1268	1226	1334	792	1164	1249	1245	1168	1101	1169	1043	1082	989
Field Temperature	deg C	12.7	12.7	13.6	13.8	13.7	13.2	12.94	13.7	13.9	13	14.9	15.2	12.16	11.41	14.46	12.9	12.9	12.3	12	13.8	12.5	12.3
Groundwater Elevation	feet	521.91	521.21	521.35	527.54	525.5	522.84	522.84	519.39	522.2	525.81	519.87	528.08	522.83	528.21	--	523.98	518.94	520.21	522.27	518.75	519.03	522.34
Oxygen, Dissolved	mg/L	0.1	0.8	9.35	0.39	0.21	0.12	0.13	0.18	0.09	1	0.15	0.3	2.68	0.58	0.28	0.18	0.08	0.11	0.07	0.18	0.13	0.07
Turbidity	NTU	10.65	2.56	0.19	1.36	0.47	1.99	0.59	0.25	2.04	2.25	3.75	6.48	22.1	18.8	1.16	25.27	0.07	2.7	4.07	31.2	2.1	9
pH at 25 Degrees C	Std. Units	7.8	7.8	7.6	7.8	7.9	8	7.6	7.8	8	7.9	8	7.7	--	8.1	7.7	7.6	8.2	--	8.2	7.9	--	8.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	240	190	220	560	--	310
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.2	<4.6	<4.6	--	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3200	2000	1600	2900	--	1300
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1600	1300	1100	1700	--	1000
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	120	130	120	110	--	89
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	240	190	220	560	--	310
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2900	2400	2000	3600	--	1200
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18000	15000	15000	17000	--	14000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1400	1300	1200	1700	--	930
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12000	13000	13000	12000	--	14000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24000	27000	30000	28000	--	33000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	66	59	63	--	80

Single Location

Name: IPL - Burlington

Location ID: MW-302A
Number of Sampling Dates: 6

Parameter Name	Units	9/9/2020	10/16/2020	3/1/2021	4/19/2021	10/12/2021	4/5/2022
Boron	ug/L	11000	11000	--	9400	9000	15000
Calcium	mg/L	120	130	--	140	140	160
Chloride	mg/L	27	23	--	17	20	21
Fluoride	mg/L	<0.23	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	7.31	7.26	7.2	7.34	7.69	7.25
Sulfate	mg/L	340	330	--	310	410	450
Total Dissolved Solids	mg/L	730	710	--	710	780	910
Antimony	ug/L	<0.51	1.7	--	<1.1	<1.1	<0.69
Arsenic	ug/L	2.9	2.9	--	2.1	1.7	3
Barium	ug/L	270	280	--	310	230	310
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.049	0.065	--	<0.051	<0.051	0.087
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.12	0.11	--	0.11	<0.19	0.2
Lead	ug/L	0.11	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	11	11	11	9.6	12	22
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	120	110	87	95	93	120
Selenium	ug/L	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.15	0.785	--	1.4	2.08	2.14
Radium-226	pCi/L	0.421	-0.0548	--	0.641	0.854	0.694
Radium-228	pCi/L	0.727	0.785	--	0.755	1.22	1.45
Field Oxidation Potential	mV	-142	-175.3	-165.6	-150.2	-115.3	-153.2
Field Specific Conductance	umhos/cm	1013	951	975	1026	1124	1108
Field Temperature	deg C	13.3	13.1	12.5	12.7	13.6	12.7
Groundwater Elevation	feet	519.71	518.79	520.14	522.25	518.64	522.28
Oxygen, Dissolved	mg/L	0.27	0.19	0.16	0.18	0.26	0.12
Turbidity	NTU	0.01	3.82	0.48	2.94	11.2	5
pH at 25 Degrees C	Std. Units	7.4	8	--	7.4	7.3	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	150	180	190	200	250
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.2	<2.3	<4.6	<4.6
Iron, dissolved	ug/L	--	8600	8600	7500	6600	8400
Manganese, dissolved	ug/L	--	3800	3500	3500	3300	3800
Molybdenum, dissolved	ug/L	--	120	90	89	99	120
Total Alkalinity as CaCO3	mg/L	--	150	180	190	200	250
Iron, total	ug/L	--	8400	8300	8000	6900	8800
Magnesium, total	ug/L	--	28000	32000	34000	33000	34000
Manganese, total	ug/L	--	3600	3300	3600	3500	4000
Potassium, total	ug/L	--	3600	3600	3500	3600	4400
Sodium, total	ug/L	--	34000	32000	33000	51000	70000
Lithium, dissolved	ug/L	--	--	12	9.1	12	21

Single Location

Name: IPL - Burlington

Location ID: MW-303
Number of Sampling Dates: 21

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020	3/1/2021	4/19/2021	10/13/2021	4/5/2022
Boron	ug/L	25800	27500	26700	26100	25400	28800	26600	24100	25400	22900	24500	24500	--	22000	21000	23000	19000	--	16000	17000	22000
Calcium	mg/L	86.3	79.9	81.3	87.8	71.2	88.6	105	79.4	84.5	87	85.9	87.8	--	86	91	120	120	--	140	130	140
Chloride	mg/L	17	16	16.3	16.1	14.4	15.2	17.3	15.3	15.3	15.1	15.7	16.3	--	15	16	18	17	--	15	17	16
Fluoride	mg/L	0.43	0.16	0.28	0.28	0.18	0.2	0.22	0.24	0.25	0.22	0.44	0.27	--	0.43	<0.23	0.27	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	7.39	7.48	7.57	7.56	7.64	7.57	7.24	6.97	8.59	7.51	8.03	7.1	6.46	7.79	7.13	7.12	7.19	7.15	7.25	7.25	7.36
Sulfate	mg/L	34.6	23.3	14.8	6.6	34.1	24.1	3.9	46	42.1	128	78.7	31.8	--	120	84	100	190	--	250	250	310
Total Dissolved Solids	mg/L	450	441	440	447	404	454	557	434	436	502	520	462	--	540	420	640	630	--	670	610	650
Antimony	ug/L	0.55	0.12	<0.058	0.09	<0.058	0.029	<0.026	0.13	--	<0.026	<0.15	<0.078	--	<0.53	<0.53	<0.58	0.57	--	<1.1	<1.1	<0.69
Arsenic	ug/L	38.6	26.5	44.5	33	12.8	21.7	48.1	30.9	--	7.9	52	29.8	--	6.4	17	18	14	--	15	14	5.7
Barium	ug/L	361	250	230	237	267	334	386	281	--	412	354	415	--	440	440	610	480	--	450	360	270
Beryllium	ug/L	0.9	<0.08	<0.08	<0.08	<0.08	0.019	0.018	0.02	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	0.58	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	0.018	--	0.028	<0.07	<0.033	--	<0.077	<0.039	<0.039	<0.049	--	<0.051	0.051	0.097
Chromium	ug/L	23.4	0.48	0.4	<0.34	0.78	0.2	0.43	0.38	--	0.27	0.29	0.69	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	7.8	0.56	0.55	0.64	<0.5	0.38	0.68	0.42	--	0.31	0.46	0.62	--	0.36	0.45	0.56	0.49	--	0.42	0.42	0.35
Lead	ug/L	21	<0.19	<0.19	<0.19	0.21	0.047	<0.033	0.14	--	0.21	0.22	0.54	--	0.49	<0.27	0.29	0.18	--	<0.21	<0.21	<0.24
Lithium	ug/L	35.8	34.6	24	30.3	48.8	46.6	26.2	45.1	--	50.7	42.1	35.8	51.6	52	46	48	59	--	66	61	80
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	67.4	55.4	39.4	34.2	52.8	51.7	33.8	73.1	--	75.4	77.9	56.5	--	110	76	66	84	--	120	120	190
Selenium	ug/L	2.2	<0.18	0.3	0.22	0.26	0.28	0.3	0.23	--	0.19	0.24	0.33	--	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.063	<0.036	0.13	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	2.18	0.522	1.59	0.464	1.98	1.53	1.86	2.19	--	1.64	1.79	1.91	--	1.26	1.04	0.892/0.892	1.26	--	2.21	0.678	1.52
Radium-226	pCi/L	0.866	0	0.269	0.393	0.677	0.542	0.734	1.37	--	0.677	0.462	0.997	--	0.552	0.728	0.804/0.804	0.317	--	0.866	0.628	0.795
Radium-228	pCi/L	1.31	0.522	1.32	0.0706	1.3	0.99	1.13	0.821	--	0.965	1.33	0.913	--	0.703	0.316	<0.511/0.0877	0.944	--	1.35	0.0509	0.723
Field Oxidation Potential	mV	-101.6	-113	-184.4	-164.5	-150.6	-163.9	-102.9	-132	21.3	-165.5	-153	-132	-68.1	-122.8	-161	58.1	-185.6	-174.2	-144.8	-118.4	-155.8
Field Specific Conductance	umhos/cm	513	1009	1271	1175	1024	1100	599.8	887	612.6	535.7	748	774	549	711	767	934	902	916	995	843	845
Field Temperature	deg C	13.8	13.9	14.2	14.8	14.3	14.1	14.2	14.4	14.5	13.8	16.8	15.6	13.62	12.63	14.91	14.8	13.7	13.6	13.2	13.9	12.7
Groundwater Elevation	feet	521.76	521.26	521.31	527.57	525.56	522.81	522.8	519.3	522.23	525.8	519.78	528.78	522.74	528.22	--	523.97	518.78	520.09	522.13	518.58	522.2
Oxygen, Dissolved	mg/L	0.08	1.02	1.31	0.48	0.1	0.1	0.2	0.07	0.13	0.11	0.24	1	2.38	0.67	0.26	0.18	0.12	0.12	0.19	0.16	0.1
Turbidity	NTU	487.4	2.45	0.24	3.76	3.85	4.42	2.57	0.46	2.79	0.97	14.26	17.3	19.4	18.2	5.36	16.03	2.03	1.82	4.35	13.6	21
pH at 25 Degrees C	Std. Units	7.2	7.4	7.2	7.3	7.6	7.6	6.9	7.2	7.3	7.4	7.3	7.1	--	7.4	7.4	7.2	8	--	7.3	7.3	7.5
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	290	210	280	270	210
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8700	7600	7500	7000	4400
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3900	3400	3800	4000	3400
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	120	110	130	180
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	290	210	280	270	210
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8500	7600	7900	6900	4600
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21000	20000	22000	20000	16000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3700	3400	4000	4000	3500
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22000	22000	23000	18000	22000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30000	33000	34000	28000	29000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	66	59	62	77

Single Location

Name: IPL - Burlington

Location ID: MW-304
Number of Sampling Dates: 21

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/9/2017	4/3/2017	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/15/2020	3/1/2021	4/19/2021	10/13/2021	4/5/2022
Boron	ug/L	5020	5050	5050	4910	5350	5340	5160	5370	5580	5140	5440	6180	--	6300	5100	6400	7400	--	7700	7600	12000
Calcium	mg/L	142	137	144	155	136	118	90.1	97.2	103	107	102	88.5	--	72	140	150	150	--	110	130	130
Chloride	mg/L	34.7	30	28.2	30.7	47.7	39.2	35.2	30.2	46.5	58.1	25.9	50.3	--	39	25	21	21	--	18	23	27
Fluoride	mg/L	0.092	<0.073	<0.027	0.072	<0.027	<0.1	<0.1	<0.1	0.12	0.11	0.13	<0.19	--	0.35	<0.23	<0.23	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	9.2	8.65	9.42	9.25	9.44	8.58	7.93	8.71	9.52	8.51	7.6	9.01	6.94	8.56	7.17	7.23	8.46	8.26	8.32	7.53	8.08
Sulfate	mg/L	397	324	383	431	330	263	211	216	248	273	188	271	--	140	220	250	420	--	280	220	240
Total Dissolved Solids	mg/L	706	678	718	721	651	593	519	501	540	657	551	537	--	460	710	750	820	--	640	570	640
Antimony	ug/L	0.77	0.77	0.76	0.51	0.8	0.63	0.51	0.88	--	0.75	0.3	0.77	--	0.66	<0.53	<0.58	0.52	--	<1.1	<1.1	<0.69
Arsenic	ug/L	60	59.4	64.3	58.9	68.7	60	58.4	65.6	--	57.2	45.4	58.3	--	59	36	35	49	--	41	32	44
Barium	ug/L	112	127	115	130	117	131	126	84.7	--	115	140	92	--	90	210	220	170	--	180	160	140
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.036	<0.012	<0.012	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018	--	<0.018	<0.07	0.054	--	<0.077	<0.039	<0.039	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	<0.34	<0.34	0.58	0.42	<0.34	0.16	0.087	0.3	--	0.22	0.34	0.091	--	<0.98	<0.98	<1.1	<4.4	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.13	0.11	0.1	--	0.098	<0.15	0.19	--	0.11	0.13	0.15	<0.36	--	<0.091	<0.19	<0.19
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	<0.033	0.9	--	<0.033	<0.12	<0.13	--	<0.27	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	52.4	57.8	48.5	61	70.7	52.1	44.1	51	--	63.8	34.3	82.4	35.9	52	38	47	92	--	75	60	74
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	0.11	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	101	105	118	131	121	90.6	67.4	66.8	--	126	74.9	113	47.4	58	47	45	140	--	100	59	85
Selenium	ug/L	<0.18	<0.18	0.23	0.24	0.24	0.31	0.19	0.26	--	0.24	0.21	0.26	--	<1	<1	<1	<4	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.068	<0.036	0.12	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.26	0.659	1.1	1.16	0.455	0.742	1.29	0.752	--	0.589	0.725	0.706	--	0.408	0.781	0.573/0.573	0.304	--	0.699	0.797	0.469
Radium-226	pCi/L	0	0.0649	0.22	0.458	0.067	0.48	0.928	0.404	--	0.405	0.151	0.233	--	0.116	0.353	0.3/0.3	0.0765	--	0.213	0.201	0.0974
Radium-228	pCi/L	1.26	0.594	0.881	0.704	0.388	0.262	0.362	0.348	--	0.184	0.574	0.473	--	0.292	0.428	<0.375/0.272	0.227	--	0.486	0.596	0.371
Field Oxidation Potential	mV	-309.5	-153	-301	-251.4	-274.8	-260.1	-160.6	-231.3	5.9	-273	-202	-100.2	-73.8	-216.7	-157.5	52.4	-282.6	-280.2	-257.8	-149	-204.7
Field Specific Conductance	umhos/cm	766	1455	1840	1712	1634	1427	512.5	971	756	906	836	780	460	658	934	1087	1062	971	935	806	825
Field Temperature	deg C	13.9	14	14.4	15.3	15	14.1	14.3	14.8	15.1	13.5	18.1	17.41	13.87	12.96	15.64	14.6	14.7	14.1	13.2	14.5	13.2
Groundwater Elevation	feet	521.78	521.28	521.37	527.57	525.62	522.87	522.9	519.23	522.32	525.85	519.81	528.82	522.8	528.27	--	524.02	518.69	520.15	522.24	518.68	522.41
Oxygen, Dissolved	mg/L	0.04	1.55	4.79	0.43	0.11	0.11	0.17	0.03	0.1	1.4	0.09	0.23	2.11	0.39	0.28	0.15	0.08	0.07	0.07	0.15	0.07
Turbidity	NTU	1.43	1.26	0.01	0.3	0	0.61	0.23	0.26	1.89	2.84	4.26	1.36	9.28	6.22	1.18	18.18	0.02	0.02	3.34	7.7	9
pH at 25 Degrees C	Std. Units	8.8	8.9	8.8	8.8	8.2	7.9	7.9	8.8	8.9	8.3	7.5	8.6	--	8	7.5	7.4	8.4	--	8.3	8	7.9
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	130	130	150	250	250
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.6	<2.3	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	720	1100	1300	1900	830
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	440	760	680	1100	880
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	140	140	99	90	83
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	130	130	150	250	250
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	660	1200	1500	2000	990
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3800	5200	6300	6600	6400
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	380	750	710	1100	920
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14000	15000	11000	12000	13000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	51000	46000	53000	46000	51000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	93	86	57	61	72

Single Location

Name: IPL - Burlington

Location ID: MW-305
Number of Sampling Dates: 20

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/3/2017	6/13/2017	8/16/2017	10/16/2017	5/9/2018	8/13/2018	10/10/2018	4/3/2019	10/11/2019	6/3/2020	10/15/2020	3/2/2021	4/20/2021	10/14/2021	4/6/2022
Boron	ug/L	1990	2040	1750	1730	1910	1880	2180	1950	2480	2000	2400	2040	2000	2100	2200	2400	--	2200	2400	2400
Calcium	mg/L	116	119	95.1	93.1	88.8	82.8	96.3	80.2	92.2	82.5	103	93.2	83	90	120	120	--	110	130	110
Chloride	mg/L	34.8	32.9	34.5	32.3	34.8	34.2	37	34.3	35.8	34.8	34.8	34.9	33	33	36	32	--	28	34	31
Fluoride	mg/L	0.45	0.28	0.3	0.43	0.34	0.42	0.43	0.48	0.43	0.48	0.45	0.44	0.75	0.37	0.45	<0.23	--	0.45	0.31	<0.22
Field pH	Std. Units	7.25	7.75	7.54	7.63	7.48	7.55	7.74	7	7.78	7.72	7.81	7.29	7.8	7.36	7.12	7.23	7.29	7.3	7.24	7.25
Sulfate	mg/L	35.7	68	26.9	38.1	19.2	10.2	35	13.4	24.6	11.7	24.8	19.6	10	8.8	33	54	--	28	52	19
Total Dissolved Solids	mg/L	574	590	502	467	455	410	532	435	437	441	542	490	470	490	640	600	--	420	570	490
Antimony	ug/L	0.11	0.11	<0.058	0.082	<0.058	<0.026	<0.026	0.13	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	0.91	0.4	0.33	0.61	0.23	0.32	0.22	0.32	--	0.28	0.39	0.44	<0.75	<0.75	<0.88	<0.88	--	<0.75	<0.75	0.92
Barium	ug/L	231	242	208	190	208	178	231	186	--	173	219	197	160	180	230	250	--	220	240	210
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.038	0.013	0.018	--	<0.012	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	0.43	0.36	0.57	0.76	0.54	0.29	0.27	0.43	--	0.25	0.21	0.27	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.14	0.2	0.15	--	0.14	<0.15	0.17	0.16	0.13	0.18	0.15	--	0.14	0.21	0.22
Lead	ug/L	0.22	<0.19	<0.19	<0.19	<0.19	0.19	0.11	0.24	--	0.034	<0.12	0.2	<0.27	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	24	29.8	17.2	25.2	28.5	25	26	26.6	--	27.8	33.6	27.6	29	26	28	34	--	36	32	36
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	--	0.12	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	0.6	0.79	1.2	1.2	0.76	0.89	1.1	1.3	--	0.87	1	0.72	<1.1	<1.1	<1.1	1.1	--	<1.3	<1.3	<1.2
Selenium	ug/L	<0.18	<0.18	0.19	<0.18	<0.18	0.19	<0.086	0.18	--	0.24	0.16	0.16	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.15	--	<0.036	--	<0.099	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.73	1.58	1.55	1.54	1.31	0.73	1.35	1.14	--	2.11	1.78	1.22	0.519	0.441	0.759/0.759	0.55	--	0.761	0.871	0.768
Radium-226	pCi/L	0.125	0.529	0.143	0.43	0.467	0.128	0.551	0.454	--	0.992	0.411	0.423	0.154	0.256	0.248/0.248	0.282	--	0.264	0.332	0.47
Radium-228	pCi/L	1.6	1.05	1.41	1.11	0.847	0.602	0.795	0.683	--	1.12	1.37	0.8	0.365	0.185	0.511/0.511	0.269	--	0.496	0.539	0.298
Field Oxidation Potential	mV	-142	-120	-133.3	-133.6	-119.8	-145.1	-80.8	-94.7	44.9	-146.8	-134	-140	-133.5	-132.9	39.8	-175	-154	-135.7	-95.1	-116.2
Field Specific Conductance	umhos/cm	807	1919	1611	1328	1371	1195	624	972	759	733	901	846	733	795	972	987	865	839	911	870
Field Temperature	deg C	14.9	14.9	15	15.1	14.7	14.9	15.5	15.4	15.1	15.2	16.3	16.2	14.47	14.29	15.9	14.6	14.8	14.7	14.7	14.3
Groundwater Elevation	feet	521.96	521.48	521.46	527.71	525.74	523.03	522.78	519.93	522.48	526.06	520.29	528.97	528.36	--	524.12	519	520.48	522.31	519.18	522.6
Oxygen, Dissolved	mg/L	0.13	1.18	0.92	0.44	0.16	0.13	0.09	0.11	0.14	1.4	0.35	0.2	0.59	0.2	0.14	0.37	0.44	0.11	0.17	0.06
Turbidity	NTU	10.6	1.79	0.41	1.15	0.46	1.88	0.89	0.25	0.71	0.64	3.85	4.94	3.88	3.02	13.46	0.02	0.02	1.97	9	9
pH at 25 Degrees C	Std. Units	7.1	7.2	7	7.4	7.8	7.5	7.1	7.3	7.2	7.5	7.5	7.3	7.4	7.5	7.3	8.1	--	7.5	7.4	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	470	410	390	550	470
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.6	<4.3	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3000	1800	1700	2100	1500
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2900	1900	2000	2900	2300
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.3	1.5
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	470	410	390	550	470
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3000	1900	1800	2100	1700
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26000	21000	22000	24000	21000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2800	1900	2100	2800	2400
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5700	6300	5500	6100	6000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54000	47000	51000	53000	49000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	31	34

Single Location

Name: IPL - Burlington

Location ID: MW-306
Number of Sampling Dates: 21

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017	10/16/2017	5/9/2018	8/14/2018	10/10/2018	3/11/2019	4/3/2019	10/11/2019	6/4/2020	10/15/2020	3/2/2021	4/19/2021	10/11/2021	4/5/2022
Boron	ug/L	3460	3340	3300	3340	3630	3770	3350	3700	3680	3480	3430	3350	--	2900	3100	3200	3200	--	3000	2800	3300
Calcium	mg/L	37.5	38.1	41.2	40.8	37.5	40.3	34.5	38.9	35.3	32	33.5	34.6	--	37	38	41	37	--	41	42	45
Chloride	mg/L	22.9	22.6	20.6	21.1	20.6	20.2	20.6	20.6	20.6	20.3	20.6	20.9	--	21	20	21	18	--	17	19	19
Fluoride	mg/L	0.093	<0.073	0.03	0.075	0.052	<0.1	<0.1	<0.1	0.15	0.12	0.1	<0.19	--	0.36	<0.23	<0.23	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	10.4	10.36	6.37	6.5	6.33	6.29	11.25	6.59	10.66	6.8	10.33	6.04	6.27	6.69	10.53	10.48	10	9.46	10.02	5.83	5.95
Sulfate	mg/L	152	132	135	137	123	120	126	93.4	97.5	107	111	121	--	110	110	120	71	--	110	120	120
Total Dissolved Solids	mg/L	333	321	348	333	307	302	305	312	301	396	303	289	--	320	290	320	300	--	260	250	310
Antimony	ug/L	1.2	1.2	1	1.2	1.3	1.2	1.4	0.92	--	1.2	1.4	1.2	--	1.1	1.2	1.1	0.9	--	1.4	<1.1	<0.69
Arsenic	ug/L	56.6	47.4	43.9	46.4	53.4	50.5	48.1	43.2	--	52.6	48	50.6	--	50	46	50	46	--	53	43	48
Barium	ug/L	21.2	18.2	18.8	15.5	14.4	14.8	14.1	14.3	--	13.6	15.5	14.8	--	14	14	16	16	--	19	17	19
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.024	0.054	<0.012	--	<0.012	0.14	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.036	<0.018	--	0.029	0.18	<0.033	--	<0.077	<0.039	<0.039	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	<0.34	<0.34	0.4	<0.34	0.45	0.49	0.31	0.43	--	0.24	0.25	0.18	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.034	0.046	0.054	--	0.035	0.18	<0.062	--	<0.091	<0.091	<0.091	<0.091	--	<0.091	<0.19	<0.19
Lead	ug/L	0.28	<0.19	<0.19	<0.19	0.19	0.16	0.25	0.3	--	0.26	0.69	0.37	--	<0.27	0.44	0.33	0.43	--	<0.21	0.26	<0.24
Lithium	ug/L	33.5	37.9	39.5	35.9	44.1	41.2	41.4	46.8	--	36.6	46.8	41.4	39.2	45	46	43	42	--	43	41	42
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	95.7	84.1	80.9	83.7	88.9	87.4	80.4	94.4	--	84.7	82.9	83.5	--	78	84	86	82	--	87	69	74
Selenium	ug/L	0.66	0.54	0.81	0.46	0.55	0.48	0.74	0.52	--	0.66	0.97	0.6	--	<1	<1	<1	<1	--	<0.96	1.2	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.15	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.28	0.858	0.208	0.0727	0.744	1.19	0.254	1.03	--	0.482	1.04	1.1	--	0.165	0.526	<0.313/0.0769	0.119	--	0.415	0.114	0.489
Radium-226	pCi/L	0.438	0.144	0	-0.143	0.0633	0.457	0.157	0.424	--	0.174	0.397	0.383	--	0.0333	0.21	<0.0638/0.0516	0.0226	--	0.121	0.11	0.0776
Radium-228	pCi/L	0.841	0.714	0.208	0.0727	0.681	0.731	0.0974	0.604	--	0.308	0.64	0.712	--	0.132	0.316	<0.313/0.0253	0.0962	--	0.294	0.00348	0.412
Field Oxidation Potential	mV	-127.8	-181	-155.5	-96.8	-26.7	-64.7	-151	-52.5	286.2	-104.3	-265	58.1	-88.9	-92.8	-165.1	59	-273.7	-196	-188	12.3	-75.3
Field Specific Conductance	umhos/cm	398	977	1000	874	864	823	331.7	662	447.9	354.2	447	478	343	4711	473	482	453.7	415	442	476.1	468.4
Field Temperature	deg C	14.5	14.4	14.8	14.8	14.4	14.5	15.8	14.9	14.8	14.7	15.9	17.25	14.27	13.44	14.28	14.4	14.1	14.1	13.8	16	13.6
Groundwater Elevation	feet	521.74	521.43	521.53	527.67	525.67	523.07	522.87	519.82	522.72	526	520.14	528.95	523.21	528.4	--	524.45	519.05	520.65	522.52	519.15	522.63
Oxygen, Dissolved	mg/L	0.11	0.57	1.91	0.14	0.06	0.12	0.22	0.03	0.37	0.05	0.3	0.38	0.8	0.69	0.21	0.16	0.11	0.39	0.34	0.28	0.14
Turbidity	NTU	0.4	0.1	0.4	0.97	0.19	0.14	0.81	0.1	0.35	0.71	2.88	2.67	0.56	0.81	1.84	15.96	0.02	0.02	0.02	6.9	4
pH at 25 Degrees C	Std. Units	9.9	10.2	6.1	6.8	7.1	6.8	10.2	6.8	9.7	6.5	10	6	--	6	10.5	10.3	9.6	--	10.3	6.2	6.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	68	<2.3	95	100
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	82	46	50	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<4	5.4	<4.4	8	5.7
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	77	81
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	130	110	74	95	100
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	54	<36	<36	<36
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<100	<100	<100	120	<150
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.4	6.5	<4.4	7.7	6
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20000	19000	23000	20000	22000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46000	50000	40000	45000	46000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	42	29	41	38	37

Single Location

Name: IPL - Burlington

Location ID: MW-307
Number of Sampling Dates: 21

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017	10/16/2017	5/9/2018	8/14/2018	10/10/2018	3/11/2019	4/3/2019	10/11/2019	6/4/2020	10/15/2020	3/2/2021	4/20/2021	10/11/2021	4/5/2022
Boron	ug/L	3720	3760	3720	3880	3960	4050	3740	3780	3920	3910	4090	3720	--	3400	3700	3600	3400	--	3400	3000	3300
Calcium	mg/L	31.9	30.8	31.3	34.1	31.3	32.3	28.1	29.8	31.3	27.3	27.2	27.6	--	29	31	37	36	--	39	42	46
Chloride	mg/L	23.5	22.6	21.4	21.6	21.3	20.9	21.3	20.7	20.8	20.1	20.1	21.6	--	21	19	21	17	--	17	19	20
Fluoride	mg/L	0.099	<0.073	0.032	0.079	0.057	<0.1	<0.1	<0.1	0.13	0.11	0.094	<0.19	--	0.51	<0.23	<0.23	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	10.28	10.19	10.6	10.5	10.82	10.94	10.74	10.8	10.46	10.3	10.12	9.88	9.71	10.39	10.14	10.03	10.05	9.96	10.02	9.89	9.88
Sulfate	mg/L	183	150	160	161	145	135	136	130	126	119	119	143	--	120	130	180	160	--	140	170	190
Total Dissolved Solids	mg/L	408	385	386	374	355	354	353	356	341	347	340	336	--	420	340	390	370	--	330	280	360
Antimony	ug/L	0.46	0.62	0.48	0.64	0.53	0.48	0.48	0.54	--	0.5	0.58	0.62	--	<0.53	<0.53	<0.58	0.56	--	<1.1	<1.1	<0.69
Arsenic	ug/L	53	57.4	57.1	59.2	59.2	56.2	55.8	52.8	--	54.3	52.3	52.8	--	43	47	47	47	--	52	34	41
Barium	ug/L	38.3	42.2	38.7	38.4	34.7	33.4	33	31.1	--	32.3	29	31.1	--	29	31	36	39	--	39	39	41
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.033	<0.012	<0.012	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	0.023	--	0.12	<0.07	0.068	--	<0.077	<0.039	0.044	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	<0.34	0.84	0.5	0.62	<0.34	0.19	0.24	0.33	--	0.27	0.36	0.15	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.037	0.042	0.034	--	0.033	<0.15	<0.062	--	<0.091	<0.091	<0.091	<0.091	--	<0.091	<0.19	<0.19
Lead	ug/L	0.48	1.1	0.36	0.36	0.45	0.43	0.43	0.46	--	0.39	0.43	0.49	--	0.37	0.41	<0.27	0.19	--	<0.21	<0.21	<0.24
Lithium	ug/L	43.1	45.6	42.4	45.1	49.6	48.4	42.2	47.5	--	47.8	56.1	45.4	50.7	50	48	48	51	--	53	52	50
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	0.047	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	0.12	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	146	155	142	150	154	154	155	152	--	154	155	159	156	100	130	130	140	--	140	85	100
Selenium	ug/L	0.47	0.45	0.46	0.45	0.44	0.42	0.46	0.42	--	0.36	0.41	0.36	--	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.18	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.6	0.194	0.882	0.552	0	0.651	0.85	0.673	--	0.0587	0.415	1.43	--	0.447	0.232	<0.471/0.277	0.18	--	0.0114	1.14	0.134
Radium-226	pCi/L	0.153	-0.064	0.068	0.197	-0.075	-0.156	0.735	0.393	--	0.0587	0	0.988	--	0.0752	0.218	<0.101/0.0806	0.18	--	0.0114	0.103	0.0536
Radium-228	pCi/L	1.45	0.258	0.814	0.355	-0.0697	0.651	0.115	0.28	--	-0.024	0.415	0.439	--	0.372	0.0141	<0.471/0.197	-2.16	--	-0.01	1.04	0.0809
Field Oxidation Potential	mV	-201.7	-168	-212.1	-289.4	-253.6	-287.1	-177.1	-168.9	-78.9	-168.6	-221	-87.3	-78.3	-167.8	-126.3	60.2	-269.7	-233	-242.4	-215.3	-218.8
Field Specific Conductance	umhos/cm	480.2	1142	1064	958	940	901	368.3	735	485.7	499.9	512	497	367	500	536	586	564.8	552	546	547.9	549.8
Field Temperature	deg C	14.2	14.1	14.2	14.6	14.4	14.4	14.9	14.6	14.7	14.4	15.6	15.64	14.36	13.56	14.37	14.8	14	14	13.9	14.4	13.4
Groundwater Elevation	feet	522.38	521.75	521.91	527.81	525.81	523.14	523.17	520.16	522.55	526.06	520.46	529.08	523.49	528.63	--	524.62	519.33	521.01	522.89	519.55	522.91
Oxygen, Dissolved	mg/L	0.08	0.6	6.01	0.29	0.11	0.28	0.12	0.19	0.18	1.1	0.49	0.22	1.07	0.68	0.24	0.3	0.11	0.38	0.08	0.16	0.03
Turbidity	NTU	1.54	0.46	0.6	1.4	0.6	0.14	3.11	1.98	0.32	1.87	5.09	1.85	1.05	3.1	3.23	14.33	0.02	0.49	2.38	8.2	4
pH at 25 Degrees C	Std. Units	9.8	10	9.8	10.1	9.6	9.8	9.8	9.8	9.8	9.9	9.9	9.9	--	10	10.2	10	9.5	--	10.4	10.2	9.9
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.9	35	<4.6	9.5	21
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	79	49	79	110	82
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6	5.3	5.1	6.5	6.8
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	140	130	140	90	140
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	84	89	120	100
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<100	<100	<100	<100	<150
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.4	5.4	5.5	6.4	7.5
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36000	38000	37000	36000	38000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54000	52000	53000	49000	56000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	52	51	50	47

Single Location

Name: IPL - Burlington

Location ID: MW-307A
Number of Sampling Dates: 6

Parameter Name	Units	9/9/2020	10/14/2020	3/2/2021	4/20/2021	10/11/2021	4/5/2022
Boron	ug/L	3900	4100	--	4100	4300	4000
Calcium	mg/L	10	11	--	11	10	11
Chloride	mg/L	34	31	--	28	31	37
Fluoride	mg/L	<0.23	<0.23	--	0.38	<0.28	<0.22
Field pH	Std. Units	7.83	7.8	7.66	7.74	7.83	7.78
Sulfate	mg/L	110	110	--	110	140	120
Total Dissolved Solids	mg/L	370	360	--	330	310	360
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75	<0.75
Barium	ug/L	45	47	--	48	43	46
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	0.058	0.052	--	<0.051	0.069	0.084
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.11	0.15	--	<0.091	<0.19	<0.19
Lead	ug/L	0.69	0.63	--	0.59	0.77	1.2
Lithium	ug/L	6.8	8.3	9.1	8.7	7.7	8.5
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	110	120	120	120	110	120
Selenium	ug/L	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.605	0.412	--	0.307	0.981	0.326
Radium-226	pCi/L	0.168	0.169	--	0.133	0.0614	0.326
Radium-228	pCi/L	0.438	0.243	--	0.175	0.92	-0.0921
Field Oxidation Potential	mV	-154.2	-189.9	-171	-167.3	-133.4	-154
Field Specific Conductance	umhos/cm	585	553.6	568	566	551	547.4
Field Temperature	deg C	14.4	14.6	14	13.7	14.4	13.4
Groundwater Elevation	feet	519.97	519	520.52	522.39	519.09	522.47
Oxygen, Dissolved	mg/L	0.17	0.18	0.29	0.13	0.12	0.06
Turbidity	NTU	0	2.96	0.95	2.89	7.4	5
pH at 25 Degrees C	Std. Units	8	7.9	--	8.1	7.8	7.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	110	94	93	100	150
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<2.3	<4.6	<4.6
Iron, dissolved	ug/L	--	460	450	430	390	440
Manganese, dissolved	ug/L	--	420	360	390	390	400
Molybdenum, dissolved	ug/L	--	120	120	120	120	120
Total Alkalinity as CaCO3	mg/L	--	110	94	93	100	150
Iron, total	ug/L	--	610	510	500	450	530
Magnesium, total	ug/L	--	1700	1500	1600	1500	1600
Manganese, total	ug/L	--	430	360	410	390	420
Potassium, total	ug/L	--	3100	3200	3100	2800	3100
Sodium, total	ug/L	--	110000	110000	110000	100000	110000
Lithium, dissolved	ug/L	--	--	9.6	8.3	6.9	7.7

Single Location

Name: IPL - Burlington

Location ID: MW-307B
Number of Sampling Dates: 4

Parameter Name	Units	7/1/2021	10/11/2021	2/22/2022	4/5/2022
Boron	ug/L	4700	2700	4000	6700
Calcium	mg/L	75	66	71	84
Chloride	mg/L	28	18	25	35
Fluoride	mg/L	<0.28	<0.28	<0.22	<0.22
Field pH	Std. Units	7.67	7.72	7.43	7.36
Sulfate	mg/L	110	77	120	180
Total Dissolved Solids	mg/L	330	230	310	410
Antimony	ug/L	<1.1	<1.1	<2.8	<0.69
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75
Barium	ug/L	260	310	350	450
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.051	0.065	<0.055	<0.055
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	0.26	<0.19	<0.19	<0.19
Lead	ug/L	<0.21	<0.21	<0.24	<0.24
Lithium	ug/L	9.6	7	9.4	11
Mercury	ug/L	<0.15	--	<0.11	<0.11
Molybdenum	ug/L	40	25	37	59
Selenium	ug/L	<0.96	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.955	1.38	0.71	1.5
Radium-226	pCi/L	0.289	0.377	0.453	0.674
Radium-228	pCi/L	0.666	1.01	0.257	0.83
Field Oxidation Potential	mV	-76.5	-130.6	211.7	-147
Field Specific Conductance	umhos/cm	587.1	459.6	570	627.3
Field Temperature	deg C	15.3	14.4	13.1	13.5
Groundwater Elevation	feet	520.12	519.13	519.37	522.37
Oxygen, Dissolved	mg/L	0.41	0.1	0.18	0.08
Turbidity	NTU	1.26	10.1	2.64	6
pH at 25 Degrees C	Std. Units	7.6	7.6	7.5	7.5
Bicarbonate Alkalinity as CaCO3	mg/L	150	160	160	130
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	1700	1200	1700	2100
Manganese, dissolved	ug/L	800	330	470	770
Molybdenum, dissolved	ug/L	40	28	37	58
Total Alkalinity as CaCO3	mg/L	150	160	160	130
Iron, total	ug/L	2100	1300	1900	2300
Magnesium, total	ug/L	15000	16000	15000	15000
Manganese, total	ug/L	850	310	500	810
Potassium, total	ug/L	3000	1600	2200	3200
Sodium, total	ug/L	23000	16000	23000	35000
Lithium, dissolved	ug/L	9.5	7	7.9	10

Single Location

Name: IPL - Burlington

Location ID: MW-308
Number of Sampling Dates: 21

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017	10/17/2017	5/8/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/4/2020	10/14/2020	3/2/2021	4/20/2021	10/12/2021	4/4/2022
Boron	ug/L	4960	4980	4870	4760	4980	5160	4680	4910	4850	5030	5070	4710	--	4300	4500	4700	4500	--	4300	3900	4400
Calcium	mg/L	39.8	36.8	35.1	33.5	33.2	34.2	30.1	32.3	32.6	28.7	28.7	28.5	--	32	30	34	37	--	38	38	42
Chloride	mg/L	72.3	65.7	53.1	47.8	43.5	42.6	40.6	39.8	38.2	36.2	36.7	35.9	--	38	40	58	45	--	39	41	37
Fluoride	mg/L	0.16	0.095	0.078	0.13	0.084	0.11	0.12	0.14	0.17	0.17	0.16	<0.19	--	0.37	<0.23	0.37	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	9.77	9.76	9.95	10.17	10.21	10.34	9.99	10.15	9.75	9.75	9.86	9.82	7.72	9.97	9.42	9.65	9.7	9.4	9.56	9.97	9.58
Sulfate	mg/L	222	187	180	194	192	175	188	181	177	164	167	193	--	170	160	190	160	--	140	190	190
Total Dissolved Solids	mg/L	577	548	541	495	474	494	501	483	472	494	468	440	--	490	400	470	460	--	430	410	470
Antimony	ug/L	0.29	0.34	0.22	0.38	0.33	0.28	0.32	0.3	--	0.32	0.32	0.36	--	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	83.8	80.5	84.2	82.6	86.4	83.1	80.3	77.9	--	79.1	82.5	79.5	--	78	72	76	69	--	73	59	62
Barium	ug/L	130	110	110	89.8	90.6	85.1	81.5	76.2	--	64.3	67.1	66.5	--	70	70	66	74	--	79	82	85
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.017	<0.012	<0.012	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	0.097	0.034	<0.018	0.035	<0.018	--	0.02	<0.07	0.058	--	<0.077	<0.039	0.044	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	0.46	0.41	0.52	<0.34	0.37	0.22	0.16	0.38	--	0.25	<0.19	0.16	--	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	0.068	0.069	--	0.057	<0.15	0.074	--	<0.091	<0.091	<0.091	<0.091	--	<0.091	<0.19	<0.19
Lead	ug/L	0.33	<0.19	<0.19	0.28	0.27	0.21	0.34	0.33	--	0.25	0.27	0.45	--	<0.27	<0.27	0.4	0.15	--	<0.21	<0.21	<0.24
Lithium	ug/L	45.6	45.8	41.5	41.2	47	46.9	42.4	44.1	--	46	52	43.6	48.9	50	52	48	51	--	54	58	57
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	0.047	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	--	0.13	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	153	139	133	138	140	140	136	137	--	140	140	145	135	110	120	120	110	--	120	81	100
Selenium	ug/L	0.69	0.47	0.58	0.45	0.68	0.4	0.3	0.47	--	0.31	0.43	0.4	--	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	<0.036	--	<0.036	--	<0.099	--	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.712	1.22	0.376	0.549	0	0.854	0.881	0.229	--	0.283	0.0726	0.334	--	0.328	0.288	<0.42/0.268	0.106	--	0.0966	-0.00135	0.321
Radium-226	pCi/L	0.0744	0	0.0777	0.312	0	0.213	0.4	0.063	--	0.182	0.0726	0.275	--	0.0363	0.202	<0.118/0.109	-0.0615	--	-0.0307	-0.00135	0.321
Radium-228	pCi/L	0.638	1.22	0.298	0.237	-0.059	0.641	0.481	0.166	--	0.101	-0.068	0.0585	--	0.291	0.0862	<0.42/0.159	0.106	--	0.0966	0	-0.143
Field Oxidation Potential	mV	-77.2	-149	-213.7	-239.6	-163.8	-300.6	-162.3	-139.8	-109.4	-158.2	-238	-201	-60.7	-142.3	-82.6	28	-264.6	-207.2	-172.9	-219.8	-246.6
Field Specific Conductance	umhos/cm	712	1678	1533	1306	1303	1258	514.6	1039	689	698	710	709	500	681	671	713	682	695	690	728	680
Field Temperature	deg C	14.2	14.2	14.3	14.6	13.7	14.1	14.9	14.5	14.6	14.4	15.4	15.3	14.06	14.04	14.64	15.4	14.7	13.9	14.1	15	13.9
Groundwater Elevation	feet	521.93	521.43	521.56	527.62	525.65	523.07	522.9	519.8	522.46	525.62	520.22	528.98	523.13	528.39	--	524.1	519.02	520.7	522.57	519.25	522.61
Oxygen, Dissolved	mg/L	0.09	0.81	0.16	0.55	0.11	0.16	0.2	0.21	0.09	1.5	0.11	0.2	2.57	1.16	0.21	0.23	0.1	0.11	0.08	0.06	0.08
Turbidity	NTU	1.83	0.42	0.34	0.73	1.27	0.43	1.56	0.61	0.6	1.26	4.63	1.35	1.68	1.66	2.93	13.38	0.15	0.02	1.77	8.8	5
pH at 25 Degrees C	Std. Units	9.4	9.6	9.3	9.7	9.4	9.2	9.5	9.4	9.4	9.4	9.4	9.5	--	9.6	9.9	9.6	9.6	--	9.8	10	9.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	69	38	4.7	21
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	39	75	95	82
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	290	210	250	30	120
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	110	110	82	110
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	140	110	110	99	100
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1700	1600	1800	420	1300
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	280	210	250	32	130
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	35000	38000	37000	40000	39000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84000	85000	88000	79000	87000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	54	51	57	54

Single Location

Name: IPL - Burlington

Location ID: MW-309
Number of Sampling Dates: 20

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017	10/17/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/3/2020	10/14/2020	3/1/2021	4/19/2021	10/12/2021	4/4/2022
Boron	ug/L	5270	5590	5180	5140	4880	3800	4070	4310	4400	4720	4930	4720	4200	4300	4400	4400	--	5000	4400	3900
Calcium	mg/L	118	100	99.2	126	141	156	118	130	101	83.6	74.1	72.4	73	68	82	59	--	76	71	59
Chloride	mg/L	145	152	126	117	104	82.7	89.5	92.5	85.4	112	111	105	100	74	84	64	--	85	79	53
Fluoride	mg/L	0.57	0.36	0.35	0.39	0.39	0.41	0.5	0.4	0.47	0.4	0.43	0.4	0.71	0.29	0.58	<0.23	--	0.36	0.39	<0.22
Field pH	Std. Units	7.33	7.43	7.66	7.66	7.37	7.31	7.1	7.62	8.5	7.25	7.39	7.46	7.45	7.19	7.09	7.61	7.22	7.26	7.18	7.18
Sulfate	mg/L	49	51.2	100	104	127	198	171	136	149	107	98.9	111	78	160	180	160	--	57	120	99
Total Dissolved Solids	mg/L	768	728	726	772	839	955	841	859	671	688	668	650	650	610	730	550	--	570	470	450
Antimony	ug/L	0.087	0.12	<0.058	0.09	<0.058	0.039	0.03	0.051	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	31.5	27.3	29.3	31.5	34.5	30	36.2	34.6	--	28.2	33.3	35.6	30	34	34	33	--	30	24	21
Barium	ug/L	384	337	316	364	362	264	256	274	--	154	180	194	130	180	260	220	--	340	370	260
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.037	0.012	<0.012	--	0.012	<0.12	<0.089	<0.27	<0.54	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.021	<0.018	--	0.021	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	0.38	0.35	0.53	<0.34	0.4	0.23	0.18	0.49	--	0.32	0.22	0.18	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	2.1	1.2	0.98	1.1	1.7	6.5	2.9	1.3	--	4.9	0.82	0.68	1.3	0.52	0.57	0.33	--	0.39	0.29	0.42
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	0.12	0.26	--	0.045	<0.12	<0.13	<0.27	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	<4.9	<4.9	<4.9	<4.9	<4.9	5	<2.9	6.3	--	<4.6	<4.6	<4.6	3.3	<5.4	2.4	<2.5	--	3.8	2.8	2.9
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	--	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	30.7	31.1	43.5	49.1	44.8	41.5	60.8	67.5	--	43.4	52.8	71.8	47	90	87	100	--	50	39	62
Selenium	ug/L	0.39	0.25	0.24	0.31	0.25	0.44	0.35	0.34	--	0.3	0.31	0.29	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	<0.036	--	<0.036	--	<0.099	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	2.55	2.28	1.74	1.38	0.455	1.76	0.846	1.09	--	0.218	0.96	1.05	0.42	0.596	<0.398/0.296	0.372	--	0.509	0.618	0.847
Radium-226	pCi/L	0.991	0.561	0.67	0.694	0.65	0.573	0.292	0.615	--	-0.061	0.28	0.127	0.126	0.274	0.182/0.182	0.142	--	0.336	0.553	0.358
Radium-228	pCi/L	1.56	1.72	1.07	0.69	0.39	1.19	0.554	0.47	--	0.218	0.68	0.919	0.295	0.322	<0.398/0.114	0.23	--	0.172	0.065	0.489
Field Oxidation Potential	mV	-138.9	-121	-150.9	-176.2	-131.4	-138	-60.7	-112.8	-31	-139.2	-143	-53.5	-99.4	-165.6	37	-208.4	-196.3	-170.7	-155.1	-139.4
Field Specific Conductance	umhos/cm	1034	2369	228.5	2265	2502	2528	936	1853	1058	813	1093	1038	997	1040	1086	851	816	1017	927	748
Field Temperature	deg C	13.4	13.4	13.8	14.6	14.3	13.9	14.2	14.6	14.6	13.5	14.2	15.67	12.6	13.73	14.8	14.3	13.7	13.2	15.3	13
Groundwater Elevation	feet	522.09	521.39	521.7	527.57	525.57	523.1	522.91	519.93	522.67	525.54	520.22	528.93	528.4	--	524.06	519.28	520.75	522.72	519.43	522.74
Oxygen, Dissolved	mg/L	0.1	0.78	2.36	0.54	0.11	0.2	0.15	0.2	0.08	0.05	0.14	0.18	0.51	0.21	0.23	0.14	0.12	0.16	0.17	0.24
Turbidity	NTU	3.93	0.59	0.58	0.72	5.84	15.11	4.62	4.61	3.08	6.49	12.67	34.45	20.1	8.93	18.88	18.9	13.8	21.2	19.6	21
pH at 25 Degrees C	Std. Units	7	7	7	7.2	7.3	7.4	6.9	7.2	7	7.4	7.3	7.1	7.1	7.2	7.2	7.2	--	7.3	7.2	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	190	250	310	280	240
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11000	9300	12000	14000	9100
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3400	2500	3700	3500	2800
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	49	39	59
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	190	250	310	280	240
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12000	11000	14000	15000	11000
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18000	18000	24000	22000	18000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3200	2500	3700	3500	3000
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1800	2600	2900	2600	2100
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	90000	97000	100000	79000	81000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8	2.7

Single Location

Name: IPL - Burlington

Location ID: MW-310
Number of Sampling Dates: 19

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017	4/4/2017	6/12/2017	8/16/2017	10/16/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/2/2020	10/14/2020	4/19/2021	10/12/2021	4/4/2022
Boron	ug/L	437	422	326	400	413	503	2210	365	305	217	256	268	560	380	500	290	220	310	230
Calcium	mg/L	166	181	140	167	145	180	116	139	105	104	102	107	120	120	130	92	190	84	80
Chloride	mg/L	154	196	96.9	143	113	187	94.7	121	38.3	24.4	33.8	67.1	88	59	87	17	16	14	10
Fluoride	mg/L	0.39	0.28	0.29	0.34	0.33	0.26	0.32	0.32	0.39	0.33	0.39	0.4	0.55	0.34	0.65	<0.23	0.37	<0.28	<0.22
Field pH	Std. Units	7.37	7.21	7.7	7.71	7.38	7.5	7.3	7.5	7.92	7.46	7.44	7.2	7.84	6.95	7.3	7.34	7.21	7.22	7.38
Sulfate	mg/L	53.1	47.7	54	62.6	48.5	34.3	101	41.3	35.1	28.8	27.2	37.9	21	51	100	19	55	55	74
Total Dissolved Solids	mg/L	879	1040	703	743	653	853	625	760	445	462	472	512	600	410	590	390	370	280	320
Antimony	ug/L	<0.058	0.12	<0.058	0.099	<0.058	0.032	0.048	0.1	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	1.9	<1.1	<1.1	<0.69
Arsenic	ug/L	60.6	60.2	64.1	74	72.6	79.8	64	68.2	--	57.8	56.2	62.1	65	61	55	63	16	63	52
Barium	ug/L	813	829	589	734	605	825	586	665	--	403	398	450	560	500	550	400	280	290	270
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.019	<0.012	<0.012	--	<0.012	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.025	<0.018	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049	<0.051	<0.051	<0.055
Chromium	ug/L	<0.34	<0.34	0.85	0.5	0.45	0.19	0.2	0.52	--	0.16	<0.19	0.082	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	2.6	2.7	1.8	2	1.6	1.9	1.4	1.8	--	1.2	1.4	1.4	1.9	1.9	2.3	1.5	0.29	1.4	1.2
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	0.081	0.64	--	0.044	<0.12	<0.13	<0.27	<0.27	<0.27	<0.11	<0.21	<0.21	<0.24
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9	<2.9	<2.9	7.7	--	<4.6	5.3	<4.6	<2.7	<2.7	<2.3	<2.5	<2.5	<2.5	<2.5
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	--	<0.1	<0.1	<0.15	--	<0.11
Molybdenum	ug/L	5.1	3.9	4.4	4.8	4.4	3.4	10	4.1	--	4.2	4	4.6	5.2	6	5.8	3.6	14	4.9	5.2
Selenium	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	0.24	0.18	0.2	--	0.14	<0.16	0.19	<1	<1	<1	<1	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.35	--	<0.036	--	<0.099	<0.27	--	<0.26	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	2.41	1.28	1.99	1.34	0.941	3.17	1.7	2.21	--	0.755	1.55	2.56	1.19	0.49	0.844/0.844	0.552	0.869	1.25	0.838
Radium-226	pCi/L	0.951	0.839	0.644	0.796	0.527	0.175	0.505	0.793	--	0	0.616	1.1	0.471	0.473	0.457/0.457	0.333	0.41	0.161	0.22
Radium-228	pCi/L	1.46	0.437	1.35	0.54	0.414	2.99	1.19	1.42	--	0.755	0.938	1.46	0.724	0.0174	0.387/0.387	0.219	0.46	1.09	0.618
Field Oxidation Potential	mV	-125.4	-122	-172.9	-184	-161.2	-175.4	-101.1	102.8	-63.6	-198.8	-194	-166	-175.8	-189.7	38.6	-223.6	-193.2	-181.6	-177.3
Field Specific Conductance	umhos/cm	1082	3170	2224	2295	2116	2528	742	1783	791	594.6	840	938	1034	961	881	711	735	668	548.8
Field Temperature	deg C	11.7	12.2	15.1	16.6	14.3	12	13.5	15.4	16.6	11.1	15	17	10.8	15.88	12.8	16.4	10.8	17.3	10.6
Groundwater Elevation	feet	525.43	524.13	524.84	527.58	525.78	525.52	524.94	523.89	525.49	525.79	523.69	529	528.62	--	525.36	523.81	525.46	524.69	525.44
Oxygen, Dissolved	mg/L	0.19	0.98	2.4	0.43	0.19	0.2	0.13	0.21	0.16	0.14	0.05	0.1	1.12	0.28	0.13	0.08	0.17	0.18	0.14
Turbidity	NTU	3	0.2	0.83	4.23	4.64	2.23	2.55	1.2	2.86	12.81	3.11	0	16.7	5.23	17.82	3.79	2.57	11.4	19
pH at 25 Degrees C	Std. Units	7.1	7	7	7.2	7.2	7.3	6.9	7.1	7.1	7.4	7.3	7.1	7	7.2	7.1	7.2	7.3	7.2	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	330	310	280	240
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16000	20000	15000	15000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4000	4200	3900	3700
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.2	5.6
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	330	310	280	240
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18000	20000	15000	16000
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24000	25000	20000	18000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4400	4300	3900	3800
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2700	2100	2100	1700
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13000	11000	12000	8400
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.5	<2.5

Single Location

Name: IPL - Burlington

Location ID: MW-310A
Number of Sampling Dates: 6

Parameter Name	Units	9/9/2020	10/16/2020	3/3/2021	4/20/2021	10/14/2021	4/6/2022
Boron	ug/L	2200	1200	--	1100	940	910
Calcium	mg/L	150	62	--	52	51	52
Chloride	mg/L	18	16	--	14	14	11
Fluoride	mg/L	0.27	<0.23	--	0.44	0.75	<0.22
Field pH	Std. Units	7.33	--	7.22	7.41	7.07	7.29
Sulfate	mg/L	100	130	--	120	99	89
Total Dissolved Solids	mg/L	570	620	--	660	520	540
Antimony	ug/L	1.1	1.5	--	<1.1	<1.1	<0.69
Arsenic	ug/L	15	5.1	--	3.5	3.6	1.2
Barium	ug/L	290	90	--	75	64	61
Beryllium	ug/L	2.3	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	0.69	0.062	--	<0.051	<0.051	<0.055
Chromium	ug/L	5.4	<1.1	--	1.5	<1.1	<1.1
Cobalt	ug/L	28	3.4	--	3	3	2.6
Lead	ug/L	20	3.5	--	2.8	3.3	0.29
Lithium	ug/L	32	36	--	40	34	38
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	19	33	--	24	20	14
Selenium	ug/L	1.5	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	4.91	0.878	--	2.51	4.2	0.842
Radium-226	pCi/L	2.48	0.662	--	1.04	1.44	0.706
Radium-228	pCi/L	2.44	0.215	--	1.47	2.76	0.136
Field Oxidation Potential	mV	145.3	--	145.9	55	153.3	-10.5
Field Specific Conductance	umhos/cm	1026	--	1051	1042	842	907
Field Temperature	deg C	14.2	--	13.2	11.7	15.5	11.7
Groundwater Elevation	feet	509.16	489.84	487.06	521.12	521.83	522.58
Oxygen, Dissolved	mg/L	4.68	--	3.1	3.69	2.04	0.41
Turbidity	NTU	714.3	--	--	0	80	39
pH at 25 Degrees C	Std. Units	7.7	7.6	--	7.6	6.5	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	410	400	410	440	450
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<2.3	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	<50	2100	<36	<36	88
Manganese, dissolved	ug/L	--	420	300	240	170	150
Molybdenum, dissolved	ug/L	--	--	--	--	21	17
Total Alkalinity as CaCO3	mg/L	--	410	400	410	440	450
Iron, total	ug/L	--	1600	1900	1000	950	85
Magnesium, total	ug/L	--	25000	25000	21000	20000	21000
Manganese, total	ug/L	--	470	330	250	270	280
Potassium, total	ug/L	--	6900	6600	5900	5200	5000
Sodium, total	ug/L	--	140000	170000	180000	140000	140000
Lithium, dissolved	ug/L	--	--	--	--	32	38

Single Location

Name: IPL - Burlington

Location ID: MW-311
Number of Sampling Dates: 20

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017	4/4/2017	6/12/2017	8/16/2017	10/16/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/2/2020	10/14/2020	3/1/2021	4/19/2021	10/12/2021	4/4/2022
Boron	ug/L	1810	2070	2320	2950	2160	2400	2130	360	2810	2200	2580	2820	1800	2800	2500	3500	--	2000	1800	1600
Calcium	mg/L	200	164	158	150	164	176	158	139	145	173	156	130	200	150	190	140	--	98	160	160
Chloride	mg/L	125	75.4	77.4	62.7	78.7	83.3	81.1	45	50.9	79.9	69.9	54	110	65	120	61	--	100	110	85
Fluoride	mg/L	0.38	0.27	0.28	0.35	0.32	0.27	0.36	0.36	0.36	0.31	0.36	0.35	0.41	0.37	0.64	<0.23	--	<0.28	<0.28	<0.22
Field pH	Std. Units	7.33	7.28	7.63	7.59	7.24	7.51	7.3	7.05	8.27	7.26	7.33	7.49	7.64	7.07	7.1	7.41	6.99	7.16	7.17	7.22
Sulfate	mg/L	283	179	170	161	179	184	173	112	119	176	144	127	230	130	220	110	--	200	190	170
Total Dissolved Solids	mg/L	1060	843	799	694	776	808	803	623	615	864	777	678	980	590	950	640	--	870	750	750
Antimony	ug/L	<0.058	0.12	<0.058	0.084	<0.058	<0.026	0.03	0.057	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	17.7	12.4	16.4	13	17.6	17.1	15.2	11.6	--	14	15.7	15.2	19	18	19	15	--	55	22	19
Barium	ug/L	292	248	232	229	244	240	248	198	--	256	239	214	280	210	300	220	--	370	230	220
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.036	0.013	<0.012	--	<0.023	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	0.45	0.42	0.51	<0.34	0.35	0.18	0.14	0.32	--	0.2	0.22	0.78	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.52	<0.5	<0.5	<0.5	<0.5	0.27	0.35	0.24	--	0.3	0.37	0.57	0.45	0.27	0.81	0.28	--	1.4	0.31	0.3
Lead	ug/L	0.2	<0.19	<0.19	<0.19	<0.19	<0.033	0.32	0.096	--	0.043	0.13	0.48	0.37	<0.27	1.1	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9	<2.9	<2.9	3.3	--	<4.6	<4.6	<4.6	<2.7	<2.7	<2.3	<2.5	--	<2.5	<2.5	<2.5
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	--	0.13	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	10.4	11.7	12.5	14.7	10.9	12.4	11.2	16	--	11.6	13.9	16.3	8.5	15	11	23	--	4.1	6.9	8.9
Selenium	ug/L	0.19	<0.18	<0.18	<0.18	0.2	0.17	0.19	0.12	--	0.17	0.18	0.23	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.14	--	<0.036	--	<0.099	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.831	1.22	1.19	0.22	1.19	1.13	0.785	1	--	0.987	0.969	0.819	0.815	0.599	0.802/0.802	0.297	--	0.52	0.189	0.593
Radium-226	pCi/L	0.207	0.18	0.605	0.149	0.299	0.484	0.445	0.653	--	0.183	0.502	0.245	0.198	0.354	0.324/0.324	0.104	--	0.224	0.256	0.328
Radium-228	pCi/L	0.624	1.04	0.581	0.0707	0.886	0.641	0.34	0.349	--	0.804	0.467	0.574	0.617	0.245	0.479/0.479	0.193	--	0.297	-0.0672	0.265
Field Oxidation Potential	mV	-129.9	-69.7	-139	-151.4	-171.4	-157.4	-102.5	-107.1	308.3	-143.3	-158	-62.2	145.8	-163.4	-1.1	-194	-179.2	-158.6	-157.6	-177.6
Field Specific Conductance	umhos/cm	1173	2425	2304	1833	2126	2059	865	1280	972	1282	1177	1003	1422	1088	1464	1041	1363	1473	1431	1190
Field Temperature	deg C	11.6	11.6	13	14.3	14.3	12.4	12.5	13.7	14.7	11.5	14.8	16.35	11.41	14.19	12.3	14.5	11.5	10.9	14.9	11.8
Groundwater Elevation	feet	523.72	521.8	522.92	527.34	525.16	524.01	523.55	521.12	523.44	525.08	521.06	528.49	528.2	--	524.05	520.59	522.89	523.89	522	523.78
Oxygen, Dissolved	mg/L	0.08	1.01	0.83	0.51	0.18	0.22	0.21	0.03	0.25	1.6	0.12	0.45	0.78	0.3	0.16	0.1	0.13	0.48	0.17	0.07
Turbidity	NTU	4.41	1.05	1.74	2.08	1.16	3	4.12	1.15	2.19	1.48	12.3	17.8	10.8	13.4	17.95	2.36	1.33	4.56	11.1	7
pH at 25 Degrees C	Std. Units	7	7.2	7.1	7.2	7.5	7.1	7	7.2	7.4	7.4	7.2	7.1	7	7.2	7	7.1	--	7.2	7.2	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	380	400	390	430	410
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16000	21000	20000	15000	17000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4300	5400	5600	4800	5700
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8	8.6
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	380	400	390	430	410
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16000	21000	20000	15000	17000
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30000	39000	39000	31000	31000
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4200	5700	5600	4800	6000
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2300	2200	2300	2200	2000
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36000	65000	62000	56000	57000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.5	<2.5

Single Location

Name: IPL - Burlington

Location ID: MW-312
Number of Sampling Dates: 8

Parameter Name	Units	6/6/2019	10/10/2019	6/3/2020	10/15/2020	3/1/2021	4/19/2021	10/14/2021	4/6/2022
Boron	ug/L	6100	6600	6700	6500	--	5800	5300	6900
Calcium	mg/L	67	71	74	78	--	84	70	69
Chloride	mg/L	27	25	36	23	--	20	24	25
Fluoride	mg/L	1.1	0.25	0.57	<0.23	--	0.33	<0.28	<0.22
Field pH	Std. Units	6.99	7.19	7.13	7.37	7.07	7.22	7.2	7.35
Sulfate	mg/L	220	230	200	210	--	190	190	230
Total Dissolved Solids	mg/L	540	510	670	560	--	540	480	490
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	14	15	22	19	--	18	17	12
Barium	ug/L	160	150	190	200	--	200	170	130
Beryllium	ug/L	<0.27	<0.54	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.077	0.044	0.095	0.066	--	0.053	0.086	0.09
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.65	0.36	0.67	0.5	--	0.54	0.42	0.28
Lead	ug/L	0.54	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	24	27	22	27	--	30	24	28
Mercury	ug/L	<0.1	--	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	290	280	320	290	--	310	240	210
Selenium	ug/L	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.875	0.438	0.543/0.543	0.627	--	0.218	0.071	0.443
Radium-226	pCi/L	0.301	0.433	0.356/0.356	0.443	--	0.218	0.123	0.296
Radium-228	pCi/L	0.574	0.00445	<0.323/0.187	0.184	--	-0.00944	-0.0521	0.147
Field Oxidation Potential	mV	-146.4	-163.8	53.3	-203.1	-192.4	-162.9	-143.4	-155.7
Field Specific Conductance	umhos/cm	783	785	878	854	814	875	688	746
Field Temperature	deg C	14.4	15.6	14.7	15.1	14.1	13.7	15.7	14
Groundwater Elevation	feet	--	--	524.05	518.68	520.12	522.2	518.78	522.51
Oxygen, Dissolved	mg/L	0.12	8.75	0.17	0.13	0.14	0.12	0.2	0.06
Turbidity	NTU	2.86	2.56	21.16	0.02	0.89	8.82	13.1	23
pH at 25 Degrees C	Std. Units	7.5	7.3	7.1	7.2	--	7.4	7.2	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	240	190	190	210	150
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<4.6	<4.2	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	11000	9800	11000	8500	5200
Manganese, dissolved	ug/L	--	--	--	8200	7500	7800	5900	7800
Molybdenum, dissolved	ug/L	--	--	--	300	300	300	250	210
Total Alkalinity as CaCO3	mg/L	--	--	--	240	190	190	210	150
Iron, total	ug/L	--	--	--	11000	10000	11000	8500	5700
Magnesium, total	ug/L	--	--	--	12000	12000	13000	9700	7700
Manganese, total	ug/L	--	--	--	7900	7900	8900	5900	8000
Potassium, total	ug/L	--	--	--	11000	13000	11000	11000	13000
Sodium, total	ug/L	--	--	--	73000	74000	76000	68000	67000
Lithium, dissolved	ug/L	--	--	--	--	--	--	23	28

Single Location

Name: IPL - Burlington

Location ID: MW-313
Number of Sampling Dates: 8

Parameter Name	Units	6/6/2019	10/10/2019	6/3/2020	10/15/2020	3/2/2021	4/19/2021	10/13/2021	4/6/2022
Boron	ug/L	7400	8500	8600	7600	--	6900	4800	5700
Calcium	mg/L	110	120	120	110	--	120	70	57
Chloride	mg/L	85	51	83	50	--	72	230	200
Fluoride	mg/L	0.33	0.28	0.52	<0.23	--	<0.28	0.47	<0.22
Field pH	Std. Units	6.94	7.06	7.03	7.16	6.98	7.09	7.25	7.14
Sulfate	mg/L	210	210	230	170	--	120	230	200
Total Dissolved Solids	mg/L	700	520	830	640	--	680	740	620
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	5.5	6.3	6.9	5.5	--	5.2	4.7	4.3
Barium	ug/L	510	490	680	610	--	630	390	290
Beryllium	ug/L	<0.27	<1.1	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.077	<0.039	0.039	<0.049	--	<0.051	0.069	0.086
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.41	0.32	0.23	0.19	--	0.2	<0.19	0.33
Lead	ug/L	<0.27	0.31	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	43	62	52	51	--	36	18	18
Mercury	ug/L	<0.1	--	0.13	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	130	110	130	100	--	140	170	190
Selenium	ug/L	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.987	1.7	1.81/1.81	1.26	--	2.3	1.6	1.36
Radium-226	pCi/L	0.532	0.968	1.18/1.18	0.52	--	0.861	0.524	0.332
Radium-228	pCi/L	0.455	0.736	0.631/0.631	0.739	--	1.44	1.07	1.03
Field Oxidation Potential	mV	-141.6	-163.4	50.9	-183.3	-148	-152.8	-117.9	-153.5
Field Specific Conductance	umhos/cm	1059	1007	1099	999	1224	1165	1198	1076
Field Temperature	deg C	14.9	16.04	17.2	15.3	14.8	14.5	15.9	14.4
Groundwater Elevation	feet	--	--	524.02	518.7	520.18	522.23	518.72	522.48
Oxygen, Dissolved	mg/L	0.07	0.37	0.29	0.14	0.13	0.21	0.1	0.07
Turbidity	NTU	7.23	11.03	50.81	14.3	7.46	4.54	24.8	15
pH at 25 Degrees C	Std. Units	7.4	7.2	7.1	7.2	--	7.3	7	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	380	310	190	110	110
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	14000	18000	18000	9800	7400
Manganese, dissolved	ug/L	--	--	--	--	7300	8400	4700	4200
Molybdenum, dissolved	ug/L	--	--	--	100	150	140	180	180
Total Alkalinity as CaCO3	mg/L	--	--	--	380	310	190	110	110
Iron, total	ug/L	--	--	--	15000	19000	18000	11000	7900
Magnesium, total	ug/L	--	--	--	21000	28000	29000	16000	12000
Manganese, total	ug/L	--	--	--	6300	8100	8700	4900	4300
Potassium, total	ug/L	--	--	--	14000	9500	9900	5500	6200
Sodium, total	ug/L	--	--	--	58000	82000	75000	160000	140000
Lithium, dissolved	ug/L	--	--	--	53	36	36	19	19

Single Location

Name: IPL - Burlington

Location ID: MW-313A
Number of Sampling Dates: 6

Parameter Name	Units	9/9/2020	10/15/2020	3/1/2021	4/19/2021	10/13/2021	4/6/2022
Boron	ug/L	4300	4200	--	4100	3500	4400
Calcium	mg/L	48	44	--	42	30	28
Chloride	mg/L	210	200	--	140	100	69
Fluoride	mg/L	<0.23	<0.23	--	0.46	0.38	0.24
Field pH	Std. Units	7.6	7.64	7.48	7.58	7.53	7.62
Sulfate	mg/L	200	190	--	150	140	110
Total Dissolved Solids	mg/L	730	660	--	580	440	430
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75	<0.75
Barium	ug/L	270	270	--	240	150	170
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.049	<0.049	--	<0.051	<0.051	<0.055
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	<0.091	<0.091	--	<0.091	<0.19	<0.19
Lead	ug/L	<0.11	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	13	13	15	14	11	12
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	120	120	110	100	100	100
Selenium	ug/L	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.5	0.914	--	1.09	1.76	0.828
Radium-226	pCi/L	0.513	0.431	--	0.428	0.496	0.333
Radium-228	pCi/L	0.984	0.483	--	0.659	1.26	0.494
Field Oxidation Potential	mV	-164.4	-190.1	-195.9	-172.1	-117.7	-158
Field Specific Conductance	umhos/cm	1243	1133	927	1023	757	695
Field Temperature	deg C	15.3	14.8	14.1	14.2	15.4	14
Groundwater Elevation	feet	515.36	518.61	520.02	522.11	518.62	522.38
Oxygen, Dissolved	mg/L	0.21	0.1	0.12	0.09	0.11	0.07
Turbidity	NTU	0	0.02	0.78	1.71	7.7	23
pH at 25 Degrees C	Std. Units	7.7	7.5	--	7.7	7.7	7.7
Bicarbonate Alkalinity as CaCO3	mg/L	--	88	94	97	130	120
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<4.3	<4.6	<4.6
Iron, dissolved	ug/L	--	1700	1400	1400	920	850
Manganese, dissolved	ug/L	--	680	530	600	420	350
Molybdenum, dissolved	ug/L	--	120	100	100	110	97
Total Alkalinity as CaCO3	mg/L	--	88	94	97	130	120
Iron, total	ug/L	--	1600	1400	1500	960	2000
Magnesium, total	ug/L	--	4300	3400	3900	2400	2100
Manganese, total	ug/L	--	670	530	600	420	370
Potassium, total	ug/L	--	12000	11000	11000	7600	7100
Sodium, total	ug/L	--	160000	150000	150000	130000	120000
Lithium, dissolved	ug/L	--	--	15	14	10	11

Single Location

Name: IPL - Burlington

Location ID: MW-313B
Number of Sampling Dates: 4

Parameter Name	Units	7/1/2021	10/13/2021	2/22/2022	4/6/2022
Boron	ug/L	4300	4200	5500	5800
Calcium	mg/L	70	44	51	55
Chloride	mg/L	160	89	56	52
Fluoride	mg/L	0.44	<0.28	<0.22	<0.22
Field pH	Std. Units	7.62	7.54	7.64	7.5
Sulfate	mg/L	170	140	120	120
Total Dissolved Solids	mg/L	620	420	360	390
Antimony	ug/L	<1.1	<1.1	<0.69	<0.69
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75
Barium	ug/L	210	170	190	210
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	0.06	0.09	<0.055	<0.055
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	0.25	<0.19	<0.19	<0.19
Lead	ug/L	<0.21	<0.21	<0.24	<0.24
Lithium	ug/L	18	13	13	13
Mercury	ug/L	<0.15	--	<0.11	<0.11
Molybdenum	ug/L	100	100	89	100
Selenium	ug/L	<0.96	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	1	0.457	0.912	1.01
Radium-226	pCi/L	0.447	0.356	0.24	0.281
Radium-228	pCi/L	0.557	0.101	0.672	0.73
Field Oxidation Potential	mV	-5.1	-90.8	210	-144.4
Field Specific Conductance	umhos/cm	1052	714	665	622.6
Field Temperature	deg C	15.2	15.4	13.7	14.1
Groundwater Elevation	feet	519.51	518.72	518.88	522.45
Oxygen, Dissolved	mg/L	0.37	0.09	0.17	0.01
Turbidity	NTU	0	8.6	2.4	9
pH at 25 Degrees C	Std. Units	6.4	7.7	7.6	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	100	140	140	140
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	880	700	1000	1000
Manganese, dissolved	ug/L	570	390	460	480
Molybdenum, dissolved	ug/L	100	110	91	97
Total Alkalinity as CaCO3	mg/L	100	140	140	140
Iron, total	ug/L	990	730	1100	1100
Magnesium, total	ug/L	9500	5800	7200	7800
Manganese, total	ug/L	590	410	430	510
Potassium, total	ug/L	9500	6800	5500	5800
Sodium, total	ug/L	130000	110000	69000	67000
Lithium, dissolved	ug/L	18	13	12	13

Single Location

Name: IPL - Burlington

Location ID: MW-314
Number of Sampling Dates: 1

Parameter Name	Units	4/6/2022
Boron	ug/L	360
Calcium	mg/L	150
Chloride	mg/L	13
Fluoride	mg/L	<0.22
Field pH	Std. Units	6.79
Sulfate	mg/L	130
Total Dissolved Solids	mg/L	630
Antimony	ug/L	<0.69
Arsenic	ug/L	4.1
Barium	ug/L	330
Beryllium	ug/L	<0.27
Cadmium	ug/L	<0.055
Chromium	ug/L	<1.1
Cobalt	ug/L	0.48
Lead	ug/L	<0.24
Lithium	ug/L	3.9
Mercury	ug/L	<0.11
Molybdenum	ug/L	1.2
Selenium	ug/L	<0.96
Thallium	ug/L	<0.26
Total Radium	pCi/L	1.3
Radium-226	pCi/L	0.506
Radium-228	pCi/L	0.795
Field Oxidation Potential	mV	-82
Field Specific Conductance	umhos/cm	1001
Field Temperature	deg C	11.4
Groundwater Elevation	feet	522.27
Oxygen, Dissolved	mg/L	0.13
Turbidity	NTU	35
pH at 25 Degrees C	Std. Units	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	460
Carbonate Alkalinity as CaCO3	mg/L	<4.6
Iron, dissolved	ug/L	12000
Manganese, dissolved	ug/L	7700
Molybdenum, dissolved	ug/L	1.6
Total Alkalinity as CaCO3	mg/L	460
Iron, total	ug/L	13000
Magnesium, total	ug/L	47000
Manganese, total	ug/L	7800
Potassium, total	ug/L	550
Sodium, total	ug/L	11000
Lithium, dissolved	ug/L	4.8

Appendix E

Statistical Evaluation

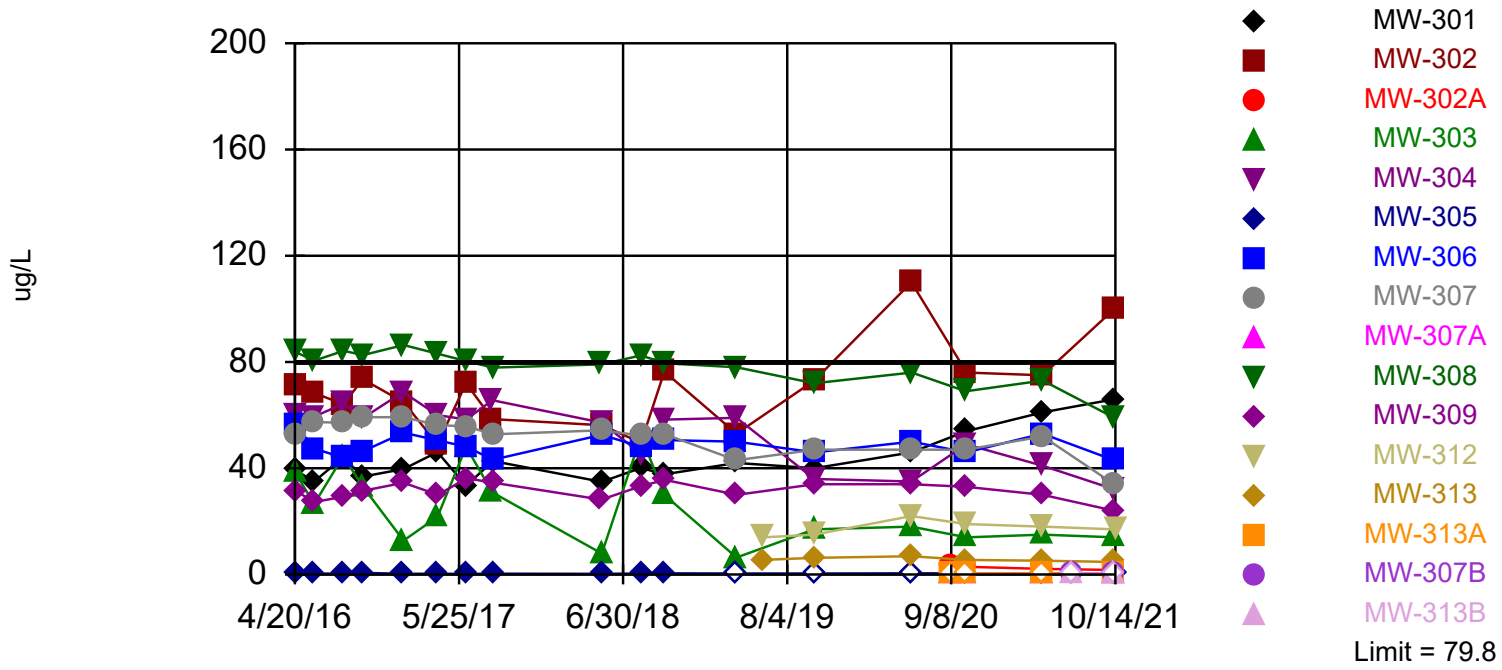
E1 October 2021 Statistical Evaluation

Hollow symbols indicate censored values.

Exceeds Limit: MW-302

Arsenic

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Most recent observation is compared with limit. Limit is highest of 34 background values. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Tolerance Limit Analysis Run 2/10/2022 3:56 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Arsenic (ug/L) Analysis Run 2/10/2022 3:56 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-303	MW-304	MW-305	MW-307	MW-302	MW-309	MW-310 (bg)	MW-311 (bg)
4/20/2016	39.4	38.6	60	0.91 (J)	53	71.3			
4/21/2016							31.5	60.6	17.7
6/6/2016	35	26.5	59.4	0.4 (J)	57.4	68.4			
6/7/2016							27.3	60.2	12.4
8/16/2016	44.1	44.5	64.3			64.1	29.3	64.1	16.4
8/17/2016				0.33 (J)	57.1				
10/3/2016	36.9	33	58.9	0.61 (J)	59.2	73.5	31.5	74	13
1/9/2017			68.7					72.6	17.6
1/10/2017	39.7	12.8		0.23 (J)	59.2	64.9	34.5		
4/3/2017	46.1	21.7	60	0.32 (J)		49.1			
4/4/2017					56.2		30	79.8	17.1
6/12/2017	33.4	48.1	58.4			72		64	15.2
6/13/2017				0.22 (J)	55.8		36.2		
8/15/2017		30.9	65.6			58.5			
8/16/2017	42.7			0.32 (J)	52.8		34.6	68.2	11.6
5/8/2018							28.2	57.8	14
5/9/2018	34.9	7.9	57.2	0.28 (J)	54.3	56.2			
8/13/2018	40.1	52	45.4	0.39 (J)		49.6			
8/14/2018					52.3		33.3	56.2	15.7
10/9/2018	37.7					76.4			
10/10/2018		29.8	58.3	0.44 (J)	52.8		35.6	62.1	15.2
4/3/2019	42	6.4	59	<0.75 (U)	43	53			
4/4/2019							30	65	19
6/6/2019									
10/10/2019	40	17	36			73			
10/11/2019				<0.75 (U)	47		34	61	18
6/2/2020								55	19
6/3/2020	46	18	35	<0.88 (U)		110	34		
6/4/2020					47				
9/9/2020									
10/14/2020							33	63	15
10/15/2020			49	<0.88 (U)	47				
10/16/2020	54	14				76			
4/19/2021	61	15	41			75	30	16	55
4/20/2021				<0.75 (U)	52				
7/1/2021									
10/11/2021					34				
10/12/2021						100	24	63	22
10/13/2021	66	14	32						
10/14/2021				<0.75 (U)					

Tolerance Limit

Constituent: Arsenic (ug/L) Analysis Run 2/10/2022 3:56 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-308	MW-306	MW-312	MW-313	MW-302A	MW-313A	MW-307A	MW-313B	MW-307B
4/20/2016									
4/21/2016	83.8	56.6							
6/6/2016	80.5	47.4							
6/7/2016									
8/16/2016									
8/17/2016	84.2	43.9							
10/3/2016	82.6	46.4							
1/9/2017									
1/10/2017	86.4	53.4							
4/3/2017									
4/4/2017	83.1	50.5							
6/12/2017									
6/13/2017	80.3	48.1							
8/15/2017									
8/16/2017	77.9	43.2							
5/8/2018	79.1								
5/9/2018		52.6							
8/13/2018	82.5								
8/14/2018		48							
10/9/2018									
10/10/2018	79.5	50.6							
4/3/2019	78	50							
4/4/2019									
6/6/2019			14	5.5					
10/10/2019	72		15	6.3					
10/11/2019		46							
6/2/2020									
6/3/2020			22	6.9					
6/4/2020	76	50							
9/9/2020					2.9	<0.88 (U)	<0.88 (U)		
10/14/2020	69						<0.88 (U)		
10/15/2020		46	19	5.5		<0.88 (U)			
10/16/2020					2.9				
4/19/2021		53	18	5.2	2.1	<0.75 (U)			
4/20/2021	73						<0.75		
7/1/2021								<0.75 (U)	<0.75 (U)
10/11/2021		43					<0.75 (U)		<0.75 (U)
10/12/2021	59				1.7 (J)				
10/13/2021				4.7		<0.75 (U)		<0.75 (U)	
10/14/2021			17						

Tolerance Limit

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/10/2022, 3:56 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	79.8	10/13/2021	66	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	**MW-302**	**79.8**	**10/12/2021**	**100**	**Yes**	**34**	**MW-310,MW-311**	**0**	**n/a**	**n/a**	**0.01194**	**NP Inter(normal...**
Arsenic (ug/L)	MW-302A	79.8	10/12/2021	1.7	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-303	79.8	10/13/2021	14	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-304	79.8	10/13/2021	32	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-305	79.8	10/14/2021	<0.75 (U)	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-306	79.8	10/11/2021	43	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-307	79.8	10/11/2021	34	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-307A	79.8	10/11/2021	<0.75 (U)	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-308	79.8	10/12/2021	59	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-309	79.8	10/12/2021	24	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-312	79.8	10/14/2021	17	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-313	79.8	10/13/2021	4.7	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-313A	79.8	10/13/2021	<0.75 (U)	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-307B	79.8	10/11/2021	<0.75 (U)	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...
Arsenic (ug/L)	MW-313B	79.8	10/13/2021	<0.75 (U)	No	34	MW-310,MW-311	0	n/a	n/a	0.01194	NP Inter(normal...

Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/23/2022, 2:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	46.1	36.9	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-302	80.16	59.96	79.8	No	17	0	No	0.01	Param.
Arsenic (ug/L)	MW-302A	3.762	1.038	79.8	No	4	0	No	0.01	Param.
Arsenic (ug/L)	MW-303	34.17	16.44	79.8	No	17	0	No	0.01	Param.
Arsenic (ug/L)	MW-304	64.3	41	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-305	0.44	0.28	79.8	No	17	35.29	No	0.01	NP (normality)
Arsenic (ug/L)	MW-306	51.16	46.34	79.8	No	17	0	No	0.01	Param.
Arsenic (ug/L)	MW-307	57.1	47	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-307A	0.44	0.375	79.8	No	4	100	No	0.0625	NP (NDs)
Arsenic (ug/L)	MW-308	83.1	73	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-309	33.64	29.54	79.8	No	17	0	No	0.01	Param.
Arsenic (ug/L)	MW-310 (bg)	68.2	57.8	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-310A (bg)	15	3.5	79.8	No	4	0	No	0.0625	NP (normality)
Arsenic (ug/L)	MW-311 (bg)	19	14	79.8	No	17	0	No	0.01	NP (normality)
Arsenic (ug/L)	MW-312	21.46	13.54	79.8	No	6	0	No	0.01	Param.
Arsenic (ug/L)	MW-313	6.77	4.597	79.8	No	6	0	No	0.01	Param.
Arsenic (ug/L)	MW-313A	0.44	0.375	79.8	No	4	100	No	0.0625	NP (NDs)
Lithium (ug/L)	MW-301	20.54	12.15	40	No	17	5.882	No	0.01	Param.
Lithium (ug/L)	**MW-302**	**64**	**56.9**	**40**	**Yes**	**18**	**0**	**No**	**0.01**	**NP (normality)**
Lithium (ug/L)	MW-302A	12.35	9.486	40	No	5	0	No	0.01	Param.
Lithium (ug/L)	MW-303	51.74	37.55	40	No	18	0	No	0.01	Param.
Lithium (ug/L)	**MW-304**	**66.08**	**47.03**	**40**	**Yes**	**18**	**0**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-305	30.78	25.25	40	No	17	0	No	0.01	Param.
Lithium (ug/L)	MW-306	43.63	39.07	40	No	18	0	No	0.01	Param.
Lithium (ug/L)	**MW-307**	**50.38**	**45.83**	**40**	**Yes**	**18**	**0**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-307A	9.63	6.61	40	No	5	0	No	0.01	Param.
Lithium (ug/L)	**MW-308**	**50.42**	**44.92**	**40**	**Yes**	**18**	**0**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-309	3.866	2.549	40	No	17	64.71	No	0.01	Param.
Lithium (ug/L)	MW-310 (bg)	5.3	2.5	40	No	17	88.24	No	0.01	NP (NDs)
Lithium (ug/L)	MW-310A (bg)	43.25	27.75	40	No	4	0	No	0.01	Param.
Lithium (ug/L)	MW-311 (bg)	4.9	2.5	40	No	17	94.12	No	0.01	NP (NDs)
Lithium (ug/L)	MW-312	29.62	21.72	40	No	6	0	No	0.01	Param.
Lithium (ug/L)	MW-313	64.75	22.59	40	No	6	0	No	0.01	Param.
Lithium (ug/L)	MW-313A	15.69	10.71	40	No	5	0	No	0.01	Param.
Molybdenum (ug/L)	MW-301	109.9	78.68	100	No	18	0	No	0.01	Param.
Molybdenum (ug/L)	**MW-302**	**121.1**	**100.7**	**100**	**Yes**	**18**	**0**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-302A	123.8	78.24	100	No	5	0	No	0.01	Param.
Molybdenum (ug/L)	MW-303	87.02	53.41	100	No	17	0	No	0.01	Param.
Molybdenum (ug/L)	MW-304	108.7	70.29	100	No	18	0	No	0.01	Param.
Molybdenum (ug/L)	MW-305	1.024	0.7679	100	No	16	31.25	No	0.01	Param.
Molybdenum (ug/L)	MW-306	88.05	80.49	100	No	17	0	No	0.01	Param.
Molybdenum (ug/L)	**MW-307**	**155**	**130**	**100**	**Yes**	**18**	**0**	**No**	**0.01**	**NP (normality)**
Molybdenum (ug/L)	**MW-307A**	**120**	**110**	**100**	**Yes**	**5**	**0**	**No**	**0.031**	**NP (normality)**
Molybdenum (ug/L)	**MW-308**	**140**	**120**	**100**	**Yes**	**18**	**0**	**No**	**0.01**	**NP (normality)**
Molybdenum (ug/L)	MW-309	68.83	42.93	100	No	17	0	No	0.01	Param.
Molybdenum (ug/L)	MW-310 (bg)	5.8	3.9	100	No	16	0	No	0.01	NP (normality)
Molybdenum (ug/L)	MW-310A (bg)	38.48	9.522	100	No	4	0	No	0.01	Param.
Molybdenum (ug/L)	MW-311 (bg)	14.98	9.738	100	No	17	0	No	0.01	Param.
Molybdenum (ug/L)	**MW-312**	**326.6**	**250**	**100**	**Yes**	**6**	**0**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-313	163.6	96.35	100	No	6	0	No	0.01	Param.

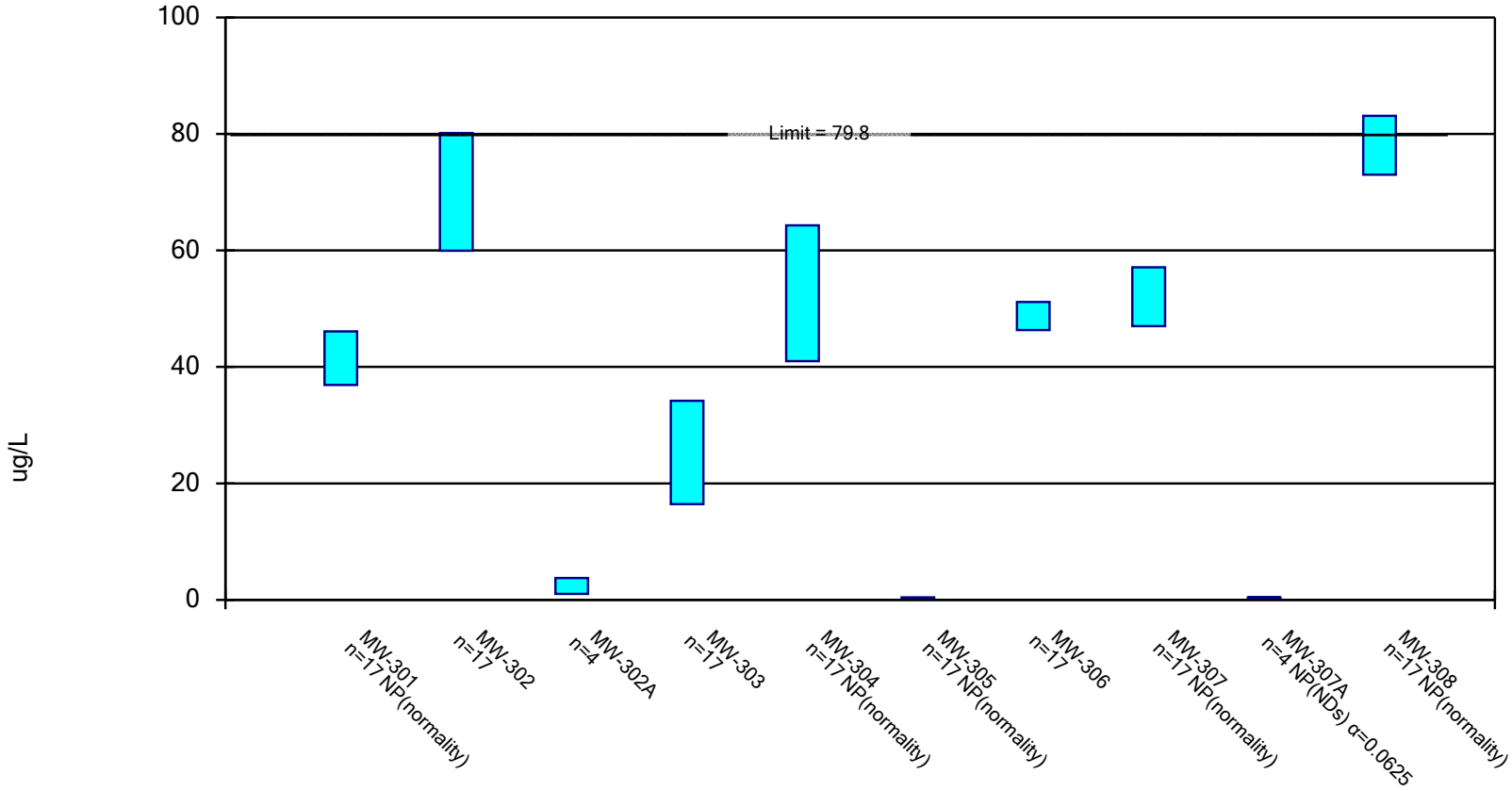
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/23/2022, 2:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (ug/L)	MW-313A	126.8	93.24	100	No	5	0	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
4/20/2016	39.4	71.3		38.6	60	0.91 (J)		53	
4/21/2016							56.6		
6/6/2016	35	68.4		26.5	59.4	0.4 (J)	47.4	57.4	
8/16/2016	44.1	64.1		44.5	64.3				
8/17/2016						0.33 (J)	43.9	57.1	
10/3/2016	36.9	73.5		33	58.9	0.61 (J)	46.4	59.2	
1/9/2017					68.7				
1/10/2017	39.7	64.9		12.8		0.23 (J)	53.4	59.2	
4/3/2017	46.1	49.1		21.7	60	0.32 (J)			
4/4/2017							50.5	56.2	
6/12/2017	33.4	72		48.1	58.4				
6/13/2017						0.22 (J)	48.1	55.8	
8/15/2017		58.5		30.9	65.6				
8/16/2017	42.7					0.32 (J)	43.2	52.8	
5/8/2018									
5/9/2018	34.9	56.2		7.9	57.2	0.28 (J)	52.6	54.3	
8/13/2018	40.1	49.6		52	45.4	0.39 (J)			
8/14/2018							48	52.3	
10/9/2018	37.7	76.4							
10/10/2018				29.8	58.3	0.44 (J)	50.6	52.8	
4/3/2019	42	53		6.4	59	<0.75 (U)	50	43	
10/10/2019	40	73		17	36				
10/11/2019						<0.75 (U)	46	47	
6/3/2020	46	110		18	35	<0.88 (U)			
6/4/2020							50	47	
9/9/2020			2.9						<0.88 (U)
10/14/2020									<0.88 (U)
10/15/2020					49	<0.88 (U)	46	47	
10/16/2020	54	76	2.9	14					
4/19/2021	61	75	2.1	15	41		53		
4/20/2021						<0.75 (U)		52	<0.75
10/11/2021							43	34	<0.75 (U)
10/12/2021		100	1.7 (J)						
10/13/2021	66			14	32				
10/14/2021						<0.75 (U)			
Mean	43.47	70.06	2.4	25.31	53.42	0.4018	48.75	51.77	0.4075
Std. Dev.	9.081	16.12	0.6	14.15	11.42	0.1591	3.845	6.508	0.03753
Upper Lim.	46.1	80.16	3.762	34.17	64.3	0.44	51.16	57.1	0.44
Lower Lim.	36.9	59.96	1.038	16.44	41	0.28	46.34	47	0.375

Confidence Interval

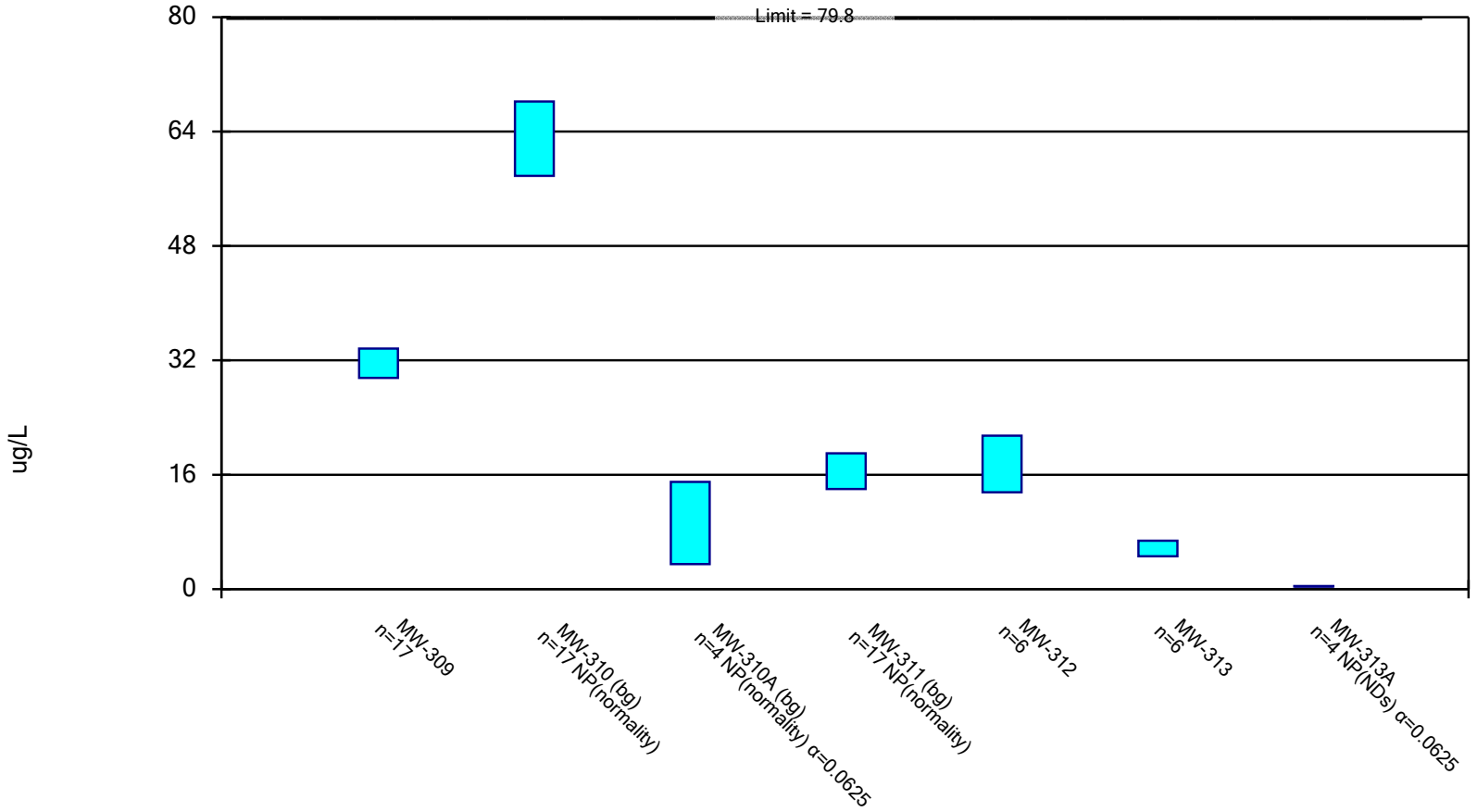
Constituent: Arsenic (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-308
4/20/2016	
4/21/2016	83.8
6/6/2016	80.5
8/16/2016	
8/17/2016	84.2
10/3/2016	82.6
1/9/2017	
1/10/2017	86.4
4/3/2017	
4/4/2017	83.1
6/12/2017	
6/13/2017	80.3
8/15/2017	
8/16/2017	77.9
5/8/2018	79.1
5/9/2018	
8/13/2018	82.5
8/14/2018	
10/9/2018	
10/10/2018	79.5
4/3/2019	78
10/10/2019	72
10/11/2019	
6/3/2020	
6/4/2020	76
9/9/2020	
10/14/2020	69
10/15/2020	
10/16/2020	
4/19/2021	
4/20/2021	73
10/11/2021	
10/12/2021	59
10/13/2021	
10/14/2021	
Mean	78.05
Std. Dev.	6.764
Upper Lim.	83.1
Lower Lim.	73

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

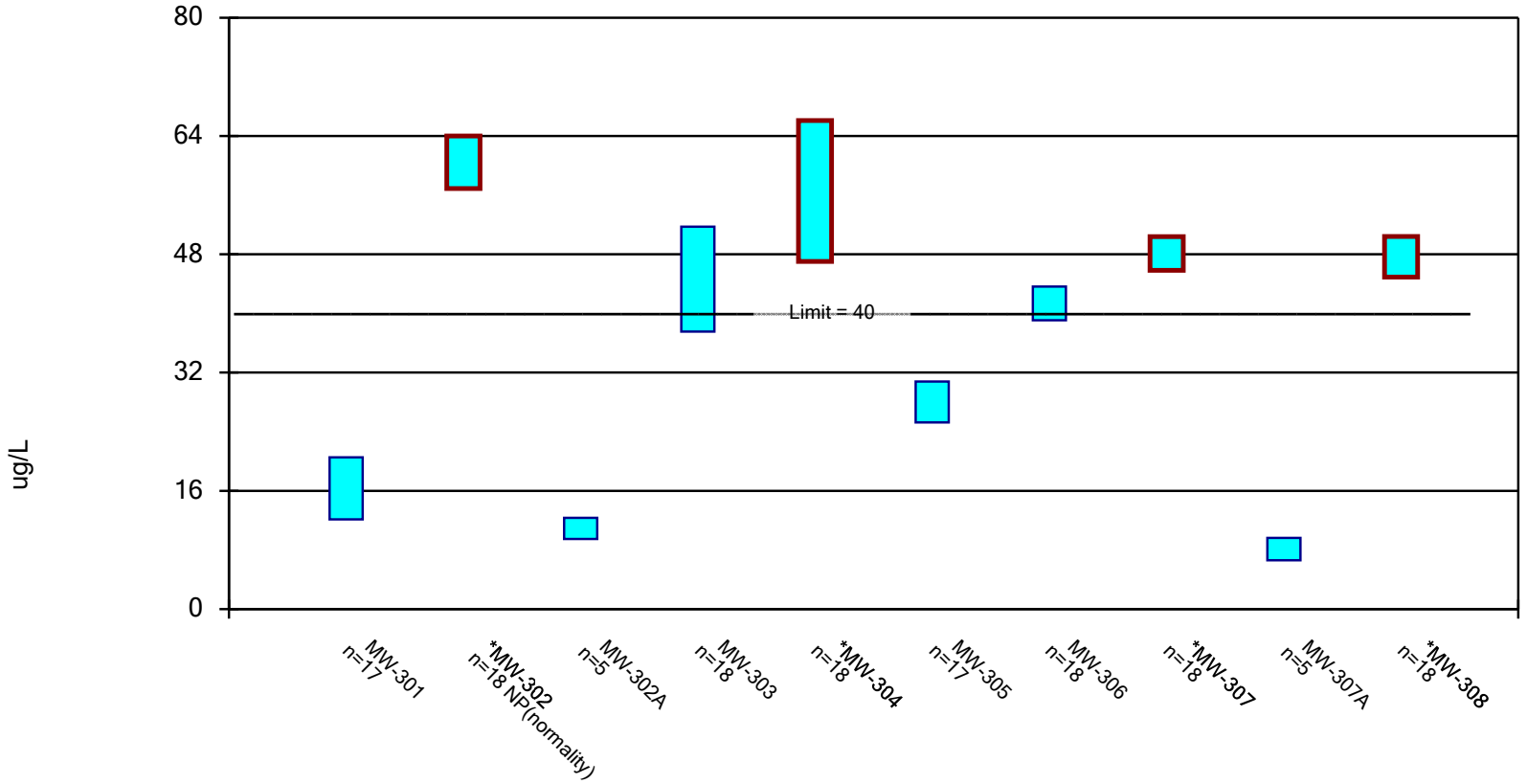
Constituent: Arsenic (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A
4/21/2016	31.5	60.6		17.7			
6/7/2016	27.3	60.2		12.4			
8/16/2016	29.3	64.1		16.4			
10/3/2016	31.5	74		13			
1/9/2017		72.6		17.6			
1/10/2017	34.5						
4/4/2017	30	79.8		17.1			
6/12/2017		64		15.2			
6/13/2017	36.2						
8/16/2017	34.6	68.2		11.6			
5/8/2018	28.2	57.8		14			
8/14/2018	33.3	56.2		15.7			
10/10/2018	35.6	62.1		15.2			
4/4/2019	30	65		19			
6/6/2019					14	5.5	
10/10/2019					15	6.3	
10/11/2019	34	61		18			
6/2/2020		55		19			
6/3/2020	34				22	6.9	
9/9/2020			15				<0.88 (U)
10/14/2020	33	63		15			
10/15/2020					19	5.5	<0.88 (U)
10/16/2020			5.1				
4/19/2021	30	16		55	18	5.2	<0.75 (U)
4/20/2021			3.5				
10/12/2021	24	63		22			
10/13/2021						4.7	<0.75 (U)
10/14/2021			3.6		17		
Mean	31.59	61.33	6.8	18.46	17.5	5.683	0.4075
Std. Dev.	3.276	13.34	5.515	9.78	2.881	0.791	0.03753
Upper Lim.	33.64	68.2	15	19	21.46	6.77	0.44
Lower Lim.	29.54	57.8	3.5	14	13.54	4.597	0.375

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
4/20/2016	10.3	60.5		35.8	52.4	24		43.1	
4/21/2016							33.5		
6/6/2016	11.7	69.6		34.6	57.8	29.8	37.9	45.6	
8/16/2016	<4.9 (U)	37.6		24	48.5				
8/17/2016						17.2	39.5	42.4	
10/3/2016	22.8	64.2		30.3	61	25.2	35.9	45.1	
1/9/2017					70.7				
1/10/2017	20.1	62.6		48.8		28.5	44.1	49.6	
4/3/2017	13.2	57.3		46.6	52.1	25			
4/4/2017							41.2	48.4	
6/12/2017	29.4	60.7		26.2	44.1				
6/13/2017						26	41.4	42.2	
8/15/2017		56.9		45.1	51				
8/16/2017	18.2					26.6	46.8	47.5	
5/8/2018									
5/9/2018	17.8	65.4		50.7	63.8	27.8	36.6	47.8	
8/13/2018	18.9	61.4		42.1	34.3	33.6			
8/14/2018							46.8	56.1	
10/9/2018	24.5	57.8							
10/10/2018				35.8	82.4	27.6	41.4	45.4	
3/11/2019							39.2	50.7	
3/12/2019		59.9		51.6	35.9				
4/3/2019	13	56		52	52	29	45	50	
10/10/2019	26	57		46	38				
10/11/2019						26	46	48	
6/3/2020	16	55		48	47	28			
6/4/2020							43	48	
9/9/2020			11						6.8 (J)
10/14/2020									8.3 (J)
10/15/2020					92	34	42	51	
10/16/2020	10	64	11	59					
3/1/2021			11						
3/2/2021									9.1 (J)
4/19/2021	10	64	9.6 (J)	66	75		43		
4/20/2021						36		53	8.7 (J)
10/11/2021							41	52	7.7 (J)
10/12/2021		64	12						
10/13/2021	11			61	60				
10/14/2021						32			
Mean	16.34	59.66	10.92	44.64	56.56	28.02	41.35	48.11	8.12
Std. Dev.	6.696	6.721	0.8556	11.73	15.75	4.412	3.771	3.755	0.9011
Upper Lim.	20.54	64	12.35	51.74	66.08	30.78	43.63	50.38	9.63
Lower Lim.	12.15	56.9	9.486	37.55	47.03	25.25	39.07	45.83	6.61

Confidence Interval

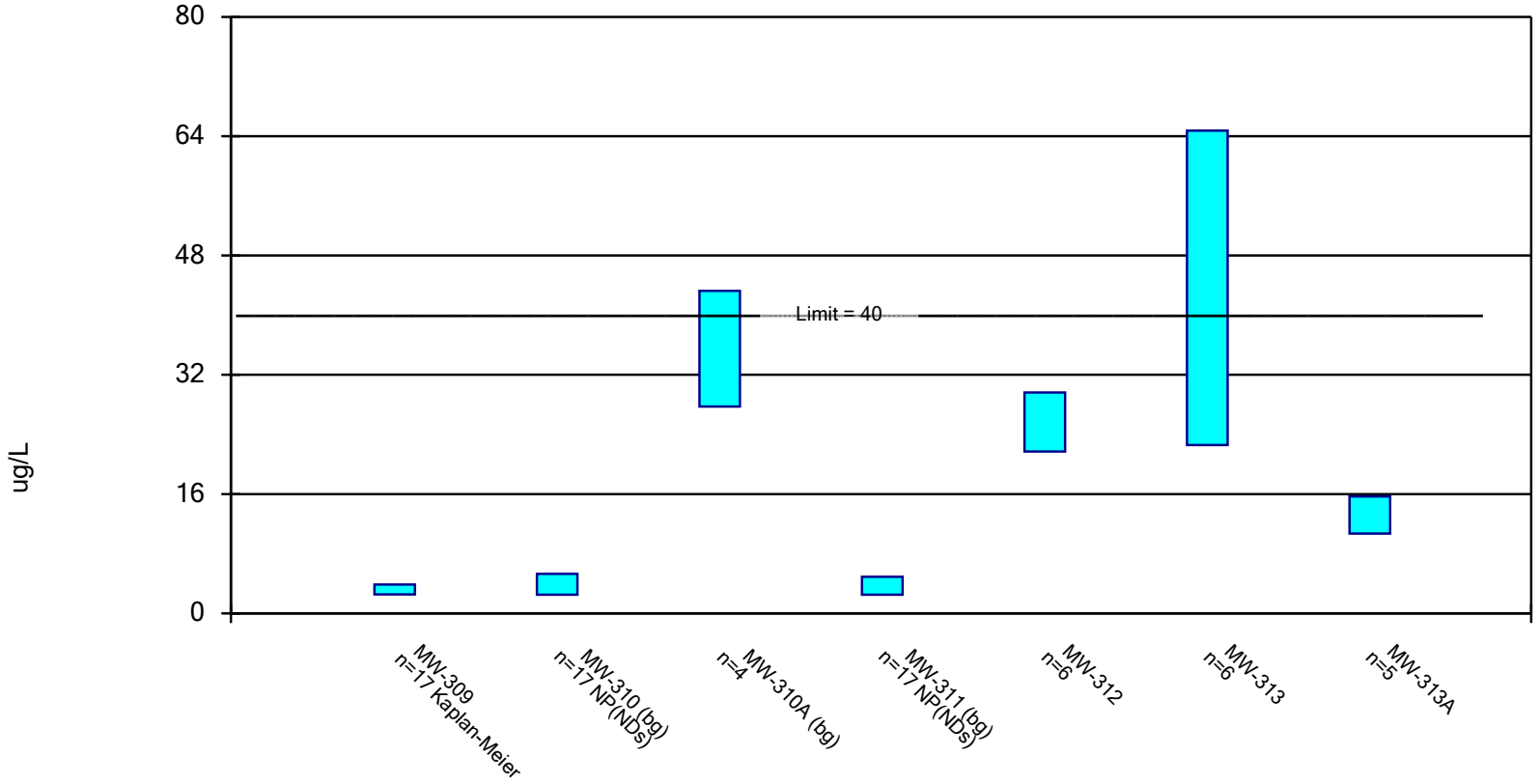
Constituent: Lithium (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-308
4/20/2016	
4/21/2016	45.6
6/6/2016	45.8
8/16/2016	
8/17/2016	41.5
10/3/2016	41.2
1/9/2017	
1/10/2017	47
4/3/2017	
4/4/2017	46.9
6/12/2017	
6/13/2017	42.4
8/15/2017	
8/16/2017	44.1
5/8/2018	46
5/9/2018	
8/13/2018	52
8/14/2018	
10/9/2018	
10/10/2018	43.6
3/11/2019	
3/12/2019	48.9
4/3/2019	50
10/10/2019	52
10/11/2019	
6/3/2020	
6/4/2020	48
9/9/2020	
10/14/2020	51
10/15/2020	
10/16/2020	
3/1/2021	
3/2/2021	
4/19/2021	
4/20/2021	54
10/11/2021	
10/12/2021	58
10/13/2021	
10/14/2021	
Mean	47.67
Std. Dev.	4.544
Upper Lim.	50.42
Lower Lim.	44.92

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

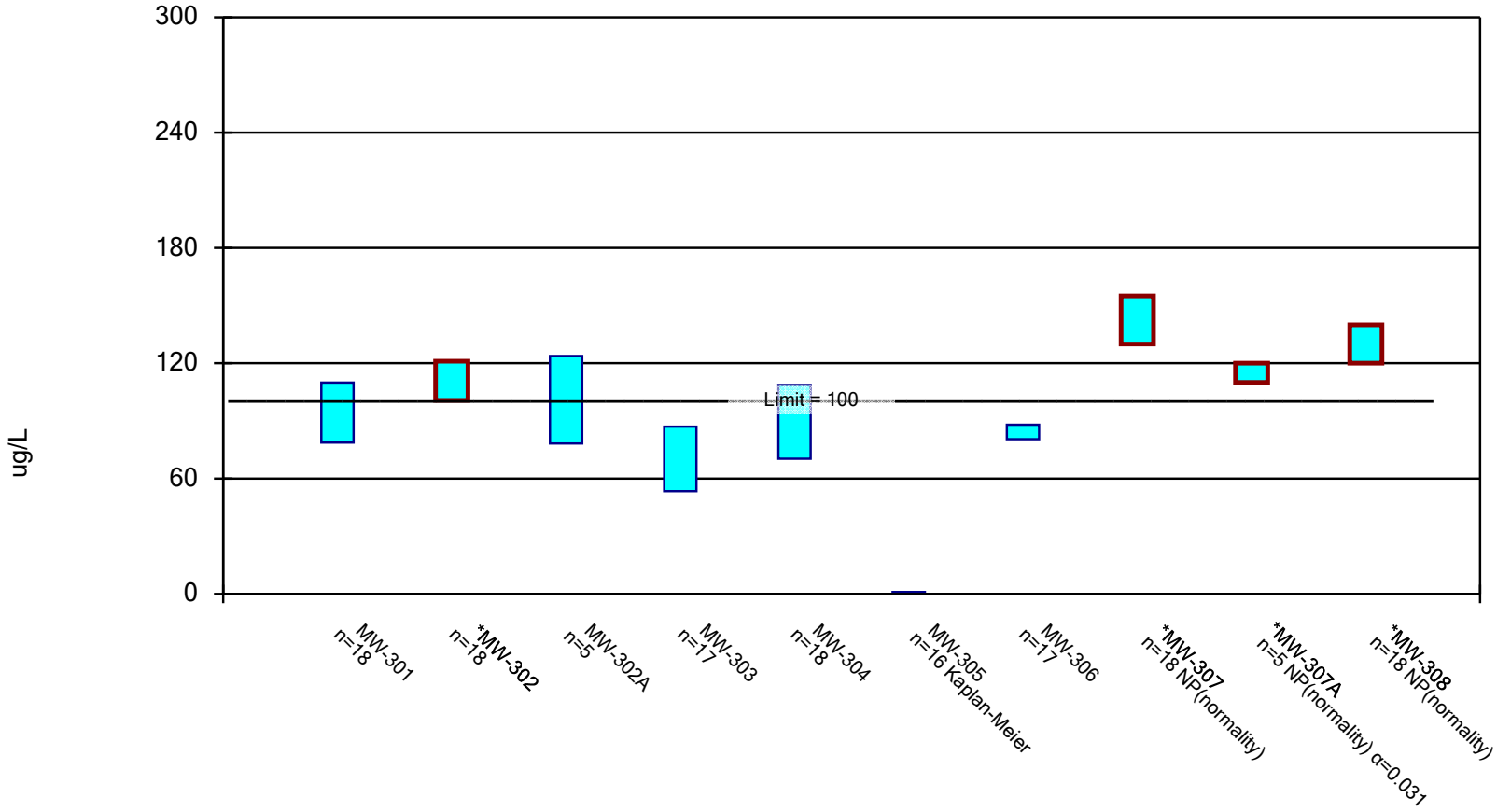
Constituent: Lithium (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A
4/21/2016	<4.9 (U)	<4.9 (U)		<4.9 (U)			
6/7/2016	<4.9 (U)	<4.9 (U)		<4.9 (U)			
8/16/2016	<4.9 (U)	<9.8 (U)		<9.8 (U)			
10/3/2016	<4.9 (U)	<4.9 (U)		<4.9 (U)			
1/9/2017		<4.9 (U)		<4.9 (U)			
1/10/2017	<4.9 (U)						
4/4/2017	5 (J)	<2.9 (U)		<2.9 (U)			
6/12/2017		<2.9 (U)		<2.9 (U)			
6/13/2017	<2.9 (U)						
8/16/2017	6.3 (J)	7.7 (J)		3.3 (J)			
5/8/2018	<4.6 (U)	<4.6 (U)		<4.6 (U)			
8/14/2018	<4.6 (U)	5.3 (J)		<4.6 (U)			
10/10/2018	<4.6 (U)	<4.6 (U)		<4.6 (U)			
4/4/2019	3.3 (J)	<2.7 (U)		<2.7 (U)			
6/6/2019					24	43	
10/10/2019					27	62	
10/11/2019	<5.4 (U)	<2.7 (U)		<2.7 (U)			
6/2/2020		<2.3 (U)		<2.3 (U)			
6/3/2020	2.4 (J)				22	52	
9/9/2020			32				13
10/14/2020	<2.5 (U)	<2.5 (U)		<2.5 (U)			
10/15/2020					27	51	13
10/16/2020			36				
3/1/2021							15
4/19/2021	3.8 (J)	<2.5 (U)		<2.5 (U)	30	36	14
4/20/2021			40				
10/12/2021	2.8 (J)	<2.5 (U)		<2.5 (U)			
10/13/2021						18	11
10/14/2021			34		24		
Mean	4.276	4.271	35.5	3.971	25.67	43.67	13.2
Std. Dev.	1.12	2.049	3.416	1.835	2.875	15.34	1.483
Upper Lim.	3.866	5.3	43.25	4.9	29.62	64.75	15.69
Lower Lim.	2.549	2.5	27.75	2.5	21.72	22.59	10.71

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
4/20/2016	108	85.8		67.4	101	0.6 (J)		146	
4/21/2016							95.7		
6/6/2016	116	84.4		55.4	105	0.79 (J)	84.1	155	
8/16/2016	94.5	92.5		39.4	118				
8/17/2016						1.2	80.9	142	
10/3/2016	114	105		34.2	131	1.2	83.7	150	
1/9/2017					121				
1/10/2017	113	104		52.8		0.76 (J)	88.9	154	
4/3/2017	82.8	105		51.7	90.6	0.89 (J)			
4/4/2017							87.4	154	
6/12/2017	116	131		33.8	67.4				
6/13/2017						1.1	80.4	155	
8/15/2017		113		73.1	66.8				
8/16/2017	98.5					1.3	94.4	152	
5/8/2018									
5/9/2018	113	118		75.4	126	0.87 (J)	84.7	154	
8/13/2018	81.7	121		77.9	74.9	1			
8/14/2018							82.9	155	
10/9/2018	120	122							
10/10/2018				56.5	113	0.72 (J)	83.5	159	
3/11/2019								156	
3/12/2019	62.7	123			47.4				
4/3/2019	77	100		110	58	<1.1 (U)	78	100	
10/10/2019	130	100		76	47				
10/11/2019						<1.1 (U)	84	130	
6/3/2020	110	140		66	45	<1.1 (U)			
6/4/2020							86	130	
9/9/2020			120						110
10/14/2020									120
10/15/2020					140		82	140	
10/16/2020	67	130	110	84					
3/1/2021			87						
3/2/2021									120
4/19/2021	46	130	95	120	100		87		
4/20/2021						<1.3 (U)		140	120
10/11/2021							69	85	110
10/12/2021		91	93						
10/13/2021	47			120	59				
10/14/2021						<1.3 (U)			
Mean	94.29	110.9	101	70.21	89.51	0.8362	84.27	142.1	116
Std. Dev.	25.81	16.85	13.58	26.82	31.76	0.2546	6.031	20.17	5.477
Upper Lim.	109.9	121.1	123.8	87.02	108.7	1.024	88.05	155	120
Lower Lim.	78.68	100.7	78.24	53.41	70.29	0.7679	80.49	130	110

Confidence Interval

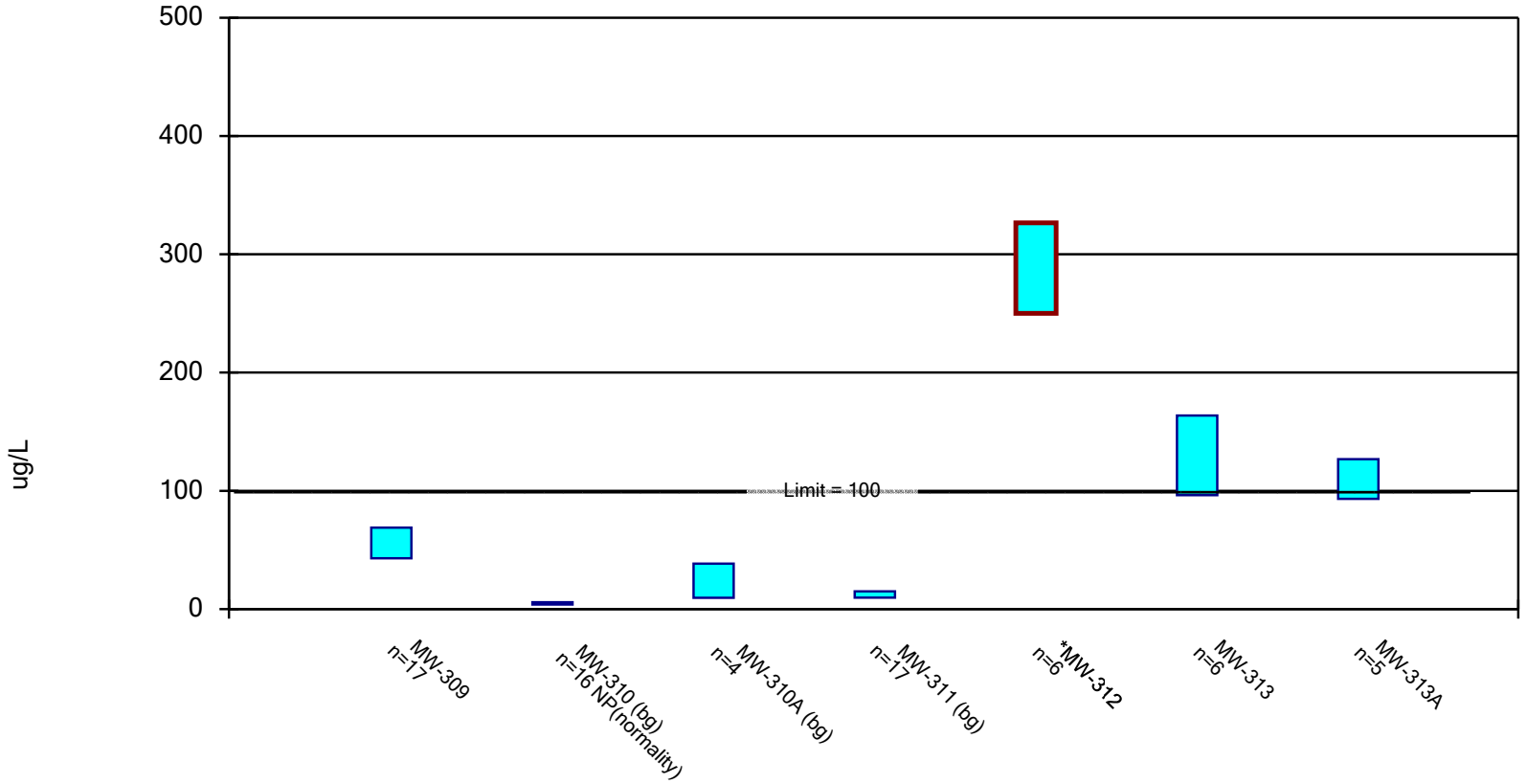
Constituent: Molybdenum (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-308
4/20/2016	
4/21/2016	153
6/6/2016	139
8/16/2016	
8/17/2016	133
10/3/2016	138
1/9/2017	
1/10/2017	140
4/3/2017	
4/4/2017	140
6/12/2017	
6/13/2017	136
8/15/2017	
8/16/2017	137
5/8/2018	140
5/9/2018	
8/13/2018	140
8/14/2018	
10/9/2018	
10/10/2018	145
3/11/2019	
3/12/2019	135
4/3/2019	110
10/10/2019	120
10/11/2019	
6/3/2020	
6/4/2020	120
9/9/2020	
10/14/2020	110
10/15/2020	
10/16/2020	
3/1/2021	
3/2/2021	
4/19/2021	
4/20/2021	120
10/11/2021	
10/12/2021	81
10/13/2021	
10/14/2021	
Mean	129.8
Std. Dev.	17.01
Upper Lim.	140
Lower Lim.	120

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 2/23/2022 2:12 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/23/2022 2:14 PM View: Background

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A
4/21/2016	30.7	5.1		10.4			
6/7/2016	31.1	3.9		11.7			
8/16/2016	43.5	4.4		12.5			
10/3/2016	49.1	4.8		14.7			
1/9/2017		4.4		10.9			
1/10/2017	44.8						
4/4/2017	41.5	3.4		12.4			
6/12/2017		10 (X)		11.2			
6/13/2017	60.8						
8/16/2017	67.5	4.1		16			
5/8/2018	43.4	4.2		11.6			
8/14/2018	52.8	4		13.9			
10/10/2018	71.8	4.6		16.3			
4/4/2019	47	5.2		8.5			
6/6/2019					290	130	
10/10/2019					280	110	
10/11/2019	90	6		15			
6/2/2020		5.8		11			
6/3/2020	87				320	130	
9/9/2020			19				120
10/14/2020	100	3.6		23			
10/15/2020					290	100	120
10/16/2020			33				
3/1/2021							110
4/19/2021	50	14		4.1	310	140	100
4/20/2021			24				
10/12/2021	39	4.9		6.9			
10/13/2021						170	100
10/14/2021			20		240		
Mean	55.88	5.15	24	12.36	288.3	130	110
Std. Dev.	20.66	2.469	6.377	4.183	27.87	24.49	10
Upper Lim.	68.83	5.8	38.48	14.98	326.6	163.6	126.8
Lower Lim.	42.93	3.9	9.522	9.738	250	96.35	93.24

E2 February 2022 Statistical Evaluation

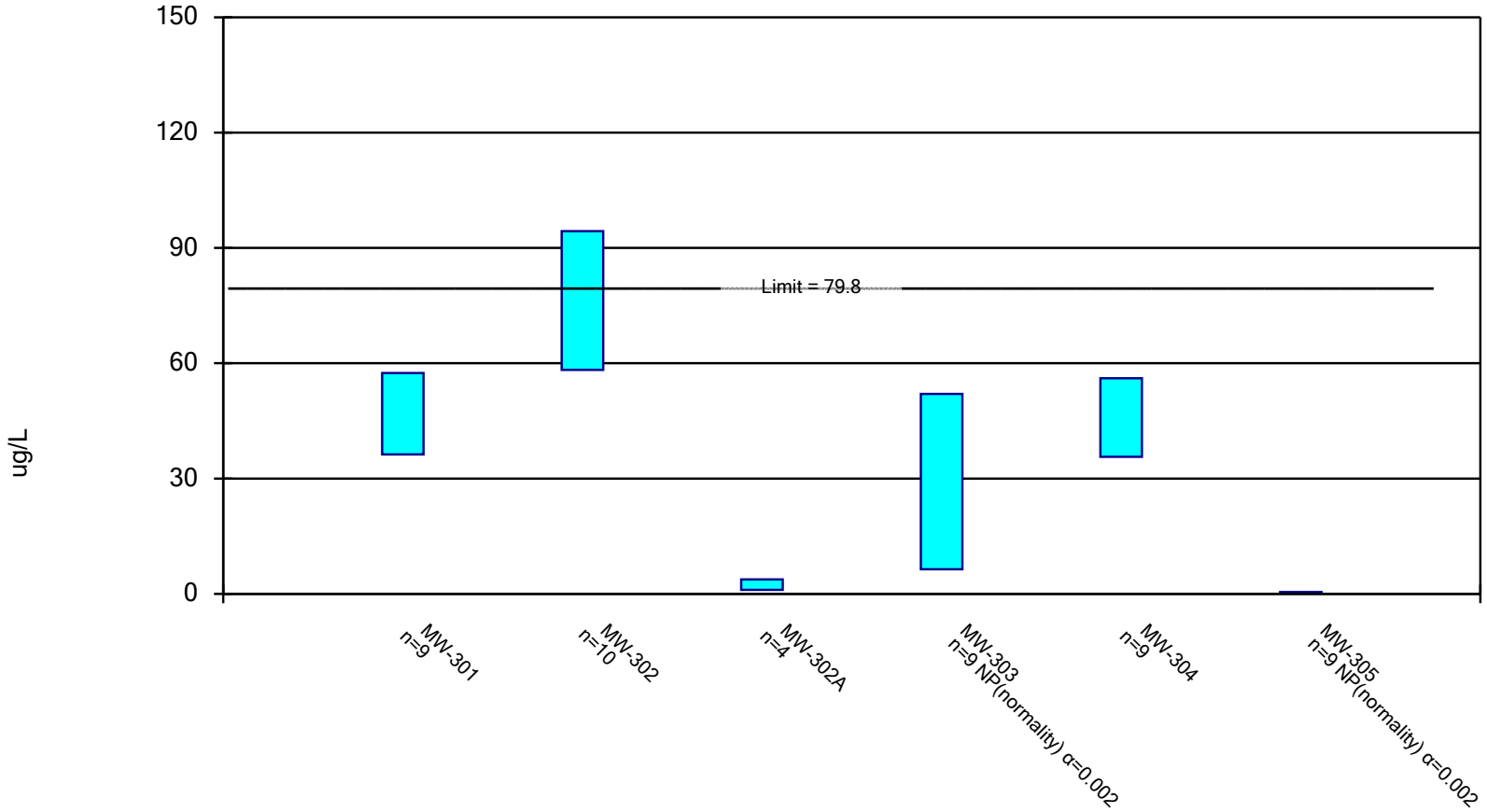
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 5/10/2022, 12:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	57.44	36.27	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302	94.37	58.27	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302A	3.762	1.038	79.8	No	4	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-303	52	6.4	79.8	No	9	0	None	No	0.002	NP (normality)
Arsenic (ug/L)	MW-304	56.1	35.65	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-305	0.44	0.28	79.8	No	9	66.67	None	No	0.002	NP (normality)
Arsenic (ug/L)	MW-306	52.01	45.59	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307	53.82	41.6	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307A	0.44	0.375	79.8	No	4	100	None	No	0.0625	NP (NDs)
Arsenic (ug/L)	MW-308	81.09	67.38	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-309	34.86	27.83	79.8	No	9	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-310 (bg)	65	16	79.8	No	9	0	None	No	0.002	NP (normality)
Arsenic (ug/L)	MW-310A (bg)	15	3.5	79.8	No	4	0	None	No	0.0625	NP (normality)
Arsenic (ug/L)	MW-311 (bg)	55	14	79.8	No	9	0	None	No	0.002	NP (normality)
Arsenic (ug/L)	MW-312	21.46	13.54	79.8	No	6	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-313	6.77	4.597	79.8	No	6	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-313A	0.44	0.375	79.8	No	4	100	None	No	0.0625	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/10/2022 12:26 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

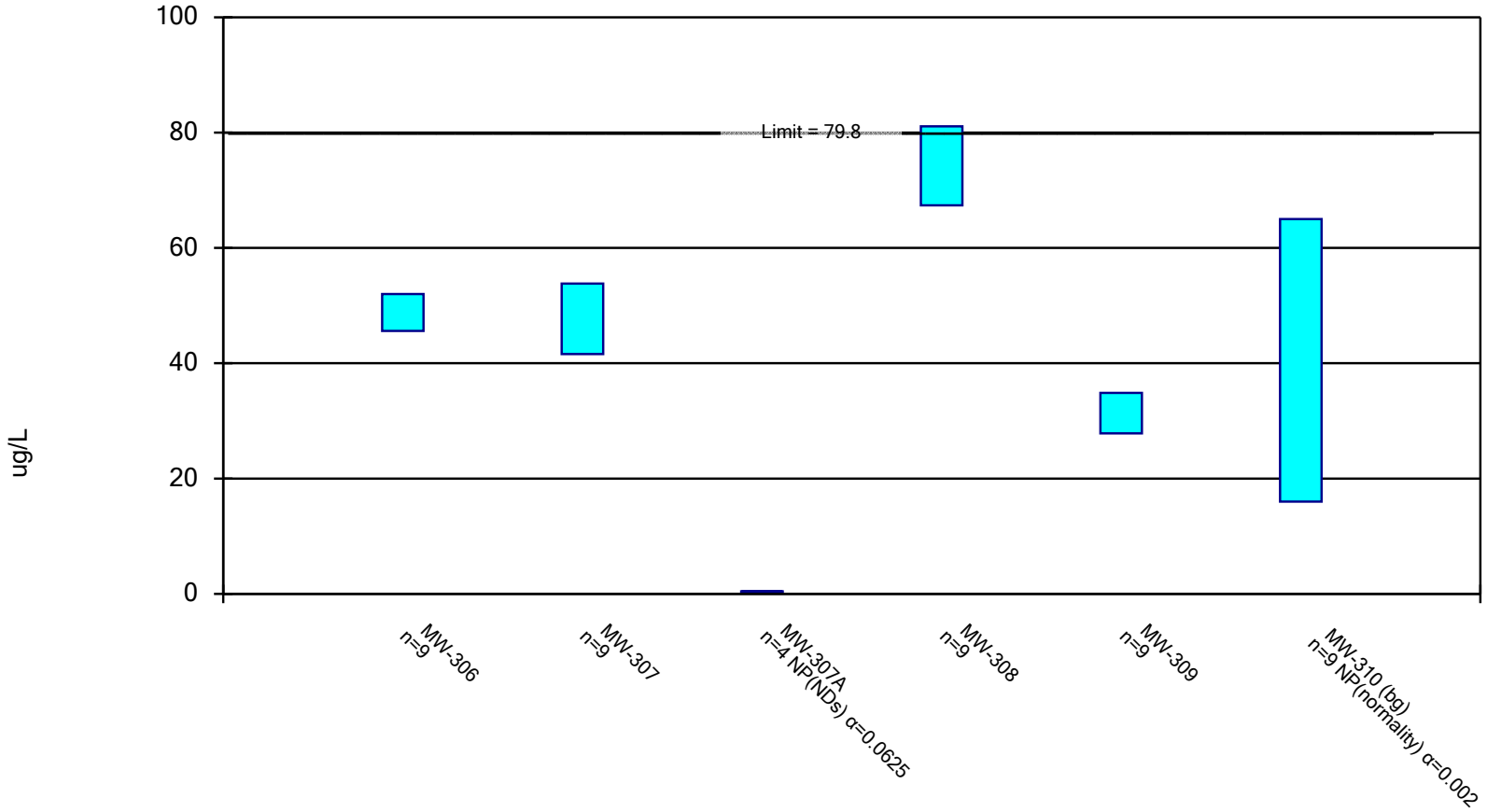
Constituent: Arsenic (ug/L) Analysis Run 5/10/2022 12:28 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305
5/9/2018	34.9	56.2		7.9	57.2	0.28 (J)
8/13/2018	40.1	49.6		52	45.4	0.39 (J)
10/9/2018	37.7	76.4				
10/10/2018				29.8	58.3	0.44 (J)
4/3/2019	42	53		6.4	59	<0.75 (U)
10/10/2019	40	73		17	36	
10/11/2019						<0.75 (U)
6/3/2020	46	110		18	35	<0.88 (U)
9/9/2020			2.9			
10/15/2020					49	<0.88 (U)
10/16/2020	54	76	2.9	14		
4/19/2021	61	75	2.1	15	41	
4/20/2021						<0.75 (U)
10/12/2021		100	1.7 (J)			
10/13/2021	66			14	32	
10/14/2021						<0.75 (U)
2/22/2022		94				
Mean	46.86	76.32	2.4	19.34	45.88	0.3878
Std. Dev.	10.96	20.23	0.6	13.95	10.59	0.05057
Upper Lim.	57.44	94.37	3.762	52	56.1	0.44
Lower Lim.	36.27	58.27	1.038	6.4	35.65	0.28

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/10/2022 12:26 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

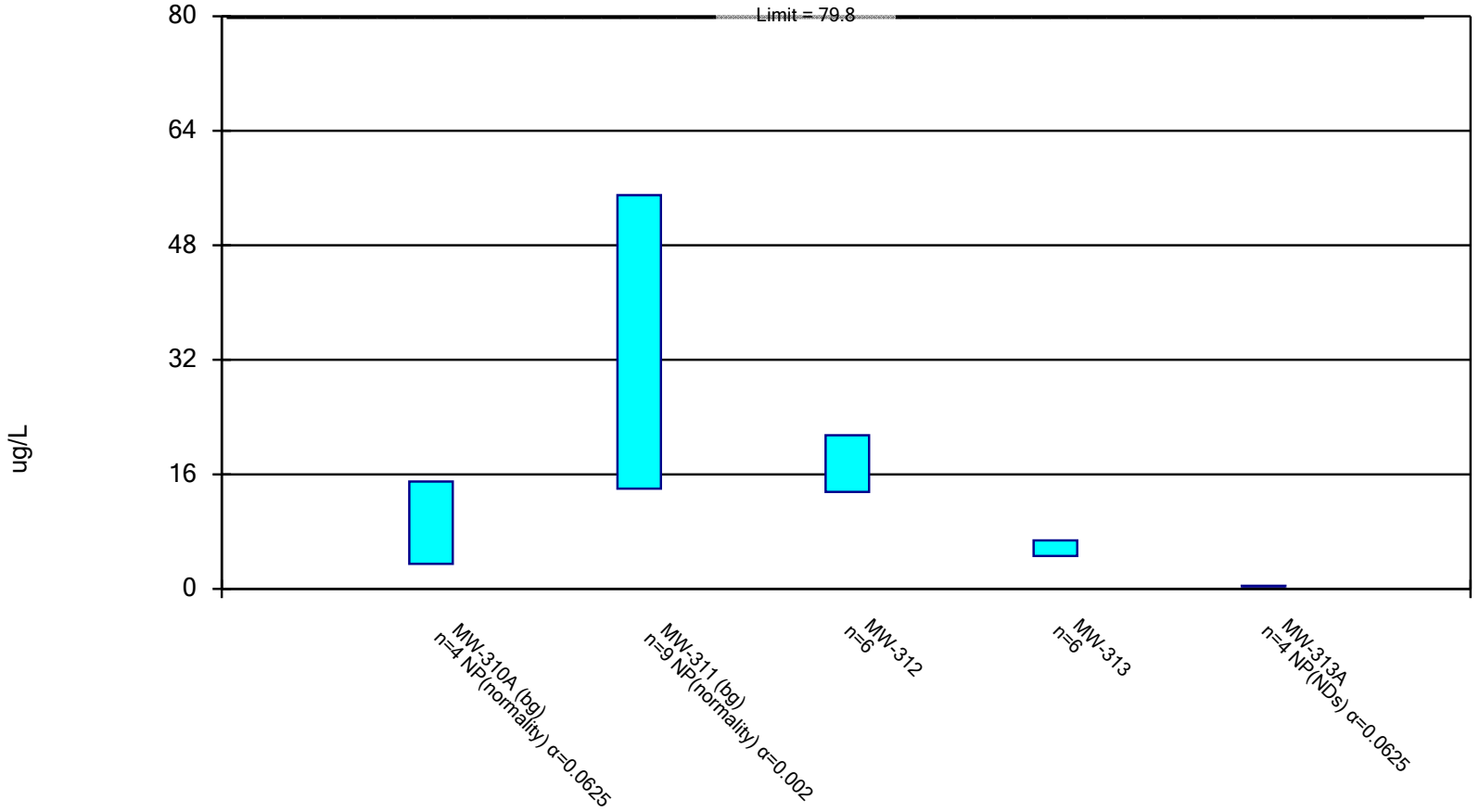
Constituent: Arsenic (ug/L) Analysis Run 5/10/2022 12:28 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-306	MW-307	MW-307A	MW-308	MW-309	MW-310 (bg)
5/8/2018				79.1	28.2	57.8
5/9/2018	52.6	54.3				
8/13/2018				82.5		
8/14/2018	48	52.3			33.3	56.2
10/10/2018	50.6	52.8		79.5	35.6	62.1
4/3/2019	50	43		78		
4/4/2019					30	65
10/10/2019				72		
10/11/2019	46	47			34	61
6/2/2020						55
6/3/2020					34	
6/4/2020	50	47		76		
9/9/2020			<0.88 (U)			
10/14/2020			<0.88 (U)	69	33	63
10/15/2020	46	47				
4/19/2021	53				30	16
4/20/2021		52	<0.75	73		
10/11/2021	43	34	<0.75 (U)			
10/12/2021				59	24	63
Mean	48.8	47.71	0.4075	74.23	31.34	55.46
Std. Dev.	3.32	6.329	0.03753	7.098	3.644	15.18
Upper Lim.	52.01	53.82	0.44	81.09	34.86	65
Lower Lim.	45.59	41.6	0.375	67.38	27.83	16

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/10/2022 12:26 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 5/10/2022 12:28 PM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A
5/8/2018		14			
8/14/2018		15.7			
10/10/2018		15.2			
4/4/2019		19			
6/6/2019			14	5.5	
10/10/2019			15	6.3	
10/11/2019		18			
6/2/2020		19			
6/3/2020			22	6.9	
9/9/2020	15				<0.88 (U)
10/14/2020		15			
10/15/2020			19	5.5	<0.88 (U)
10/16/2020	5.1				
4/19/2021		55	18	5.2	<0.75 (U)
4/20/2021	3.5				
10/12/2021		22			
10/13/2021				4.7	<0.75 (U)
10/14/2021	3.6		17		
Mean	6.8	21.43	17.5	5.683	0.4075
Std. Dev.	5.515	12.84	2.881	0.791	0.03753
Upper Lim.	15	55	21.46	6.77	0.44
Lower Lim.	3.5	14	13.54	4.597	0.375

E3 April 2022 Statistical Evaluation

Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 6/28/2022, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	63.3	37.04	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302	93.38	61.02	79.8	No	11	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302A	3.5	1.54	79.8	No	5	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-303	29.8	6.4	79.8	No	10	0	None	No	0.011	NP (normality)
Arsenic (ug/L)	MW-304	54.61	36.77	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-305	0.5827	0.2673	79.8	No	10	60	Kapla...	No	0.01	Param.
Arsenic (ug/L)	MW-306	51.52	45.92	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307	52.69	41.39	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307A	0.88	0.75	79.8	No	5	100	None	No	0.031	NP (NDs)
Arsenic (ug/L)	MW-308	79.91	66.11	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-309	34.54	26.08	79.8	No	10	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-310 (bg)	63	52	79.8	No	10	0	None	No	0.011	NP (normality)
Arsenic (ug/L)	MW-310A (bg)	15	1.2	79.8	No	5	0	None	No	0.031	NP (normality)
Arsenic (ug/L)	MW-311 (bg)	22	15	79.8	No	10	0	None	No	0.011	NP (normality)
Arsenic (ug/L)	MW-312	20.7	12.73	79.8	No	7	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-313	6.545	4.427	79.8	No	7	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-313A	0.88	0.75	79.8	No	5	100	None	No	0.031	NP (NDs)
Arsenic (ug/L)	MW-307B	0.75	0.75	79.8	No	4	100	None	No	0.0625	NP (NDs)
Arsenic (ug/L)	MW-313B	0.75	0.75	79.8	No	4	100	None	No	0.0625	NP (NDs)
Lithium (ug/L)	MW-301	21.12	10.72	40	No	10	0	None	No	0.01	Param.
Lithium (ug/L)	**MW-302**	**67.39**	**56.7**	**40**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-302A	22	9.6	40	No	6	0	None	No	0.0155	NP (normality)
Lithium (ug/L)	**MW-303**	**64**	**43.67**	**40**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (ug/L)	**MW-304**	**75.98**	**43**	**40**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-305	34.35	27.65	40	No	10	0	None	No	0.01	Param.
Lithium (ug/L)	MW-306	44.82	39.91	40	No	11	0	None	No	0.01	Param.
Lithium (ug/L)	**MW-307**	**52.62**	**47.75**	**40**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-307A	9.311	7.056	40	No	6	0	None	No	0.01	Param.
Lithium (ug/L)	**MW-308**	**54.59**	**47.32**	**40**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (ug/L)	MW-309	3.375	2.491	40	No	10	50	Kapla...	No	0.01	Param.
Lithium (ug/L)	MW-310 (bg)	2.3	1.25	40	No	10	90	Kapla...	No	0.011	NP (NDs)
Lithium (ug/L)	MW-310A (bg)	41.3	30.7	40	No	5	0	None	No	0.01	Param.
Lithium (ug/L)	MW-311 (bg)	2.3	1.25	40	No	10	100	None	No	0.011	NP (NDs)
Lithium (ug/L)	MW-312	29.29	22.71	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313	60.24	19.76	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313A	14.94	11.06	40	No	6	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307B	13.02	5.48	40	No	4	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313B	18	13	40	No	4	0	None	No	0.0625	NP (normality)
Molybdenum (ug/L)	MW-301	108.2	57.18	100	No	11	0	None	No	0.01	Param.
Molybdenum (ug/L)	**MW-302**	**129.2**	**100.6**	**100**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-302A	124	84.37	100	No	6	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-303	132.7	62.5	100	No	10	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-304	109.7	53.09	100	No	11	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-305	1	0.55	100	No	9	66.67	None	No	0.002	NP (normality)
Molybdenum (ug/L)	MW-306	86.23	75.99	100	No	10	0	None	No	0.01	Param.
Molybdenum (ug/L)	**MW-307**	**153.3**	**110.1**	**100**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	**MW-307A**	**120**	**110**	**100**	**Yes**	**6**	**0**	**None**	**No**	**0.0155**	**NP (normality)**
Molybdenum (ug/L)	**MW-308**	**136.3**	**103.9**	**100**	**Yes**	**11**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-309	83.63	44.97	100	No	10	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310 (bg)	6	4	100	No	10	0	None	No	0.011	NP (normality)

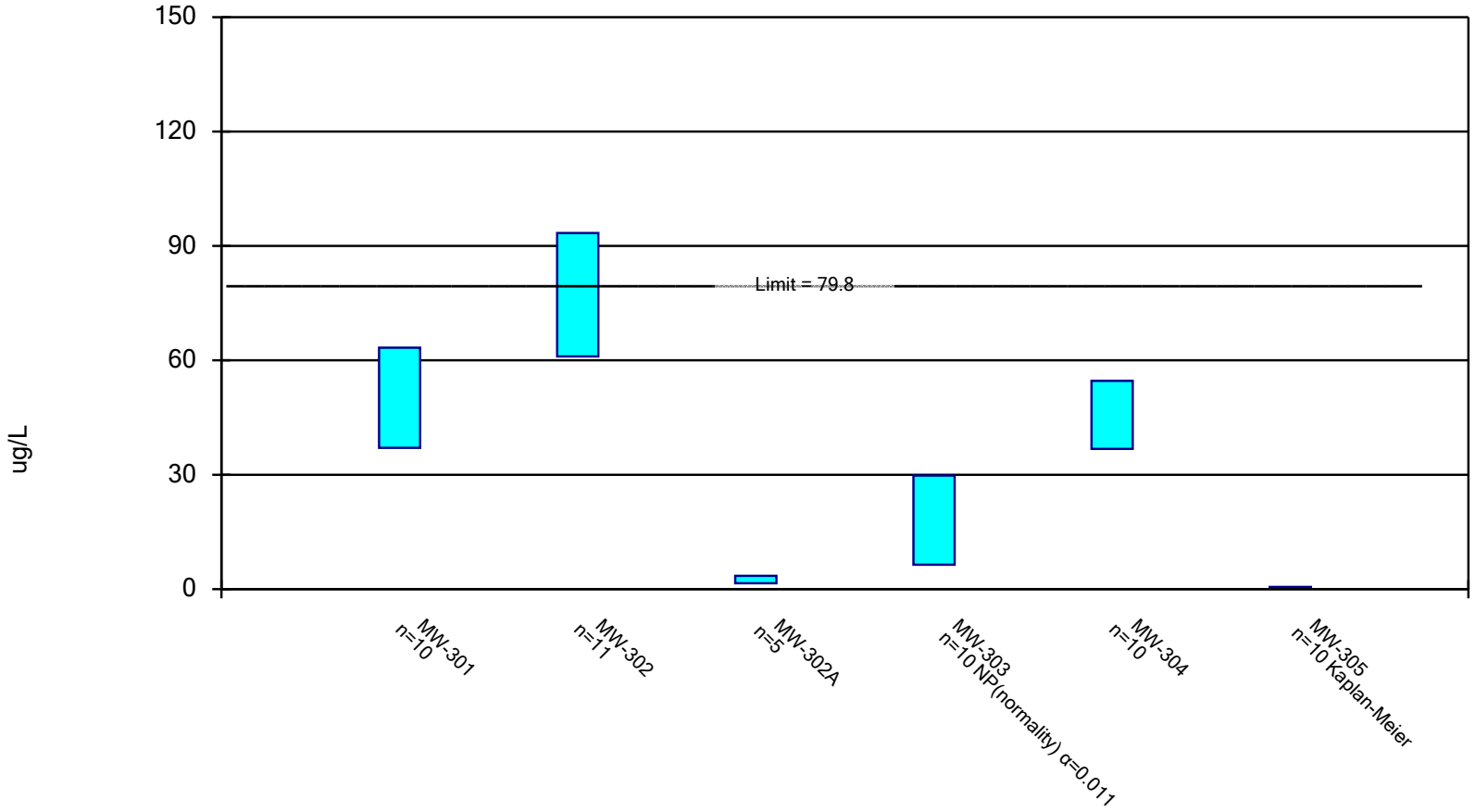
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 6/28/2022, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (ug/L)	MW-310A (bg)	33.91	10.09	100	No	5	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-311 (bg)	16.75	7.093	100	No	10	0	None	No	0.01	Param.
Molybdenum (ug/L)	**MW-312**	**323.5**	**230.8**	**100**	**Yes**	**7**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	**MW-313**	**176.4**	**100.7**	**100**	**Yes**	**7**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-313A	120	100	100	No	6	0	None	No	0.0155	NP (normality)
Molybdenum (ug/L)	MW-307B	72.22	8.283	100	No	4	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	100	89	100	No	4	0	None	No	0.0625	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

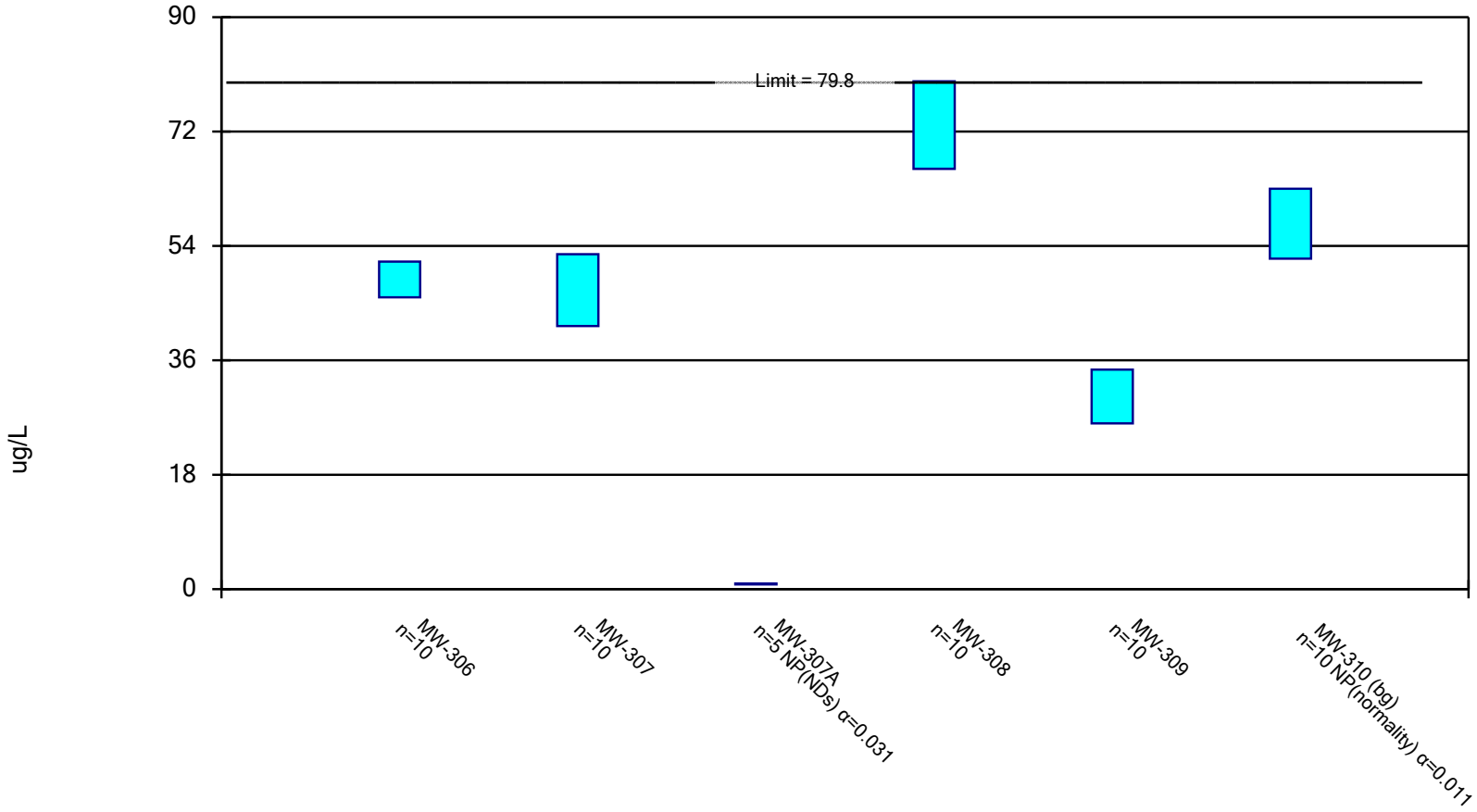
Constituent: Arsenic (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305
5/9/2018	34.9	56.2		7.9	57.2	0.28 (J)
8/13/2018	40.1	49.6		52	45.4	0.39 (J)
10/9/2018	37.7	76.4				
10/10/2018				29.8	58.3	0.44 (J)
4/3/2019	42	53		6.4	59	<0.75 (U)
10/10/2019	40	73		17	36	
10/11/2019						<0.75 (U)
6/3/2020	46	110		18	35	<0.88 (U)
9/9/2020			2.9			
10/15/2020					49	<0.88 (U)
10/16/2020	54	76	2.9	14		
4/19/2021	61	75	2.1	15	41	
4/20/2021						<0.75 (U)
10/12/2021		100	1.7 (J)			
10/13/2021	66			14	32	
10/14/2021						<0.75 (U)
2/22/2022		94				
4/5/2022		86	3	5.7	44	
4/6/2022	80					0.92 (J)
Mean	50.17	77.2	2.52	17.98	45.69	0.679
Std. Dev.	14.72	19.41	0.5848	13.84	10	0.2258
Upper Lim.	63.3	93.38	3.5	29.8	54.61	0.5827
Lower Lim.	37.04	61.02	1.54	6.4	36.77	0.2673

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

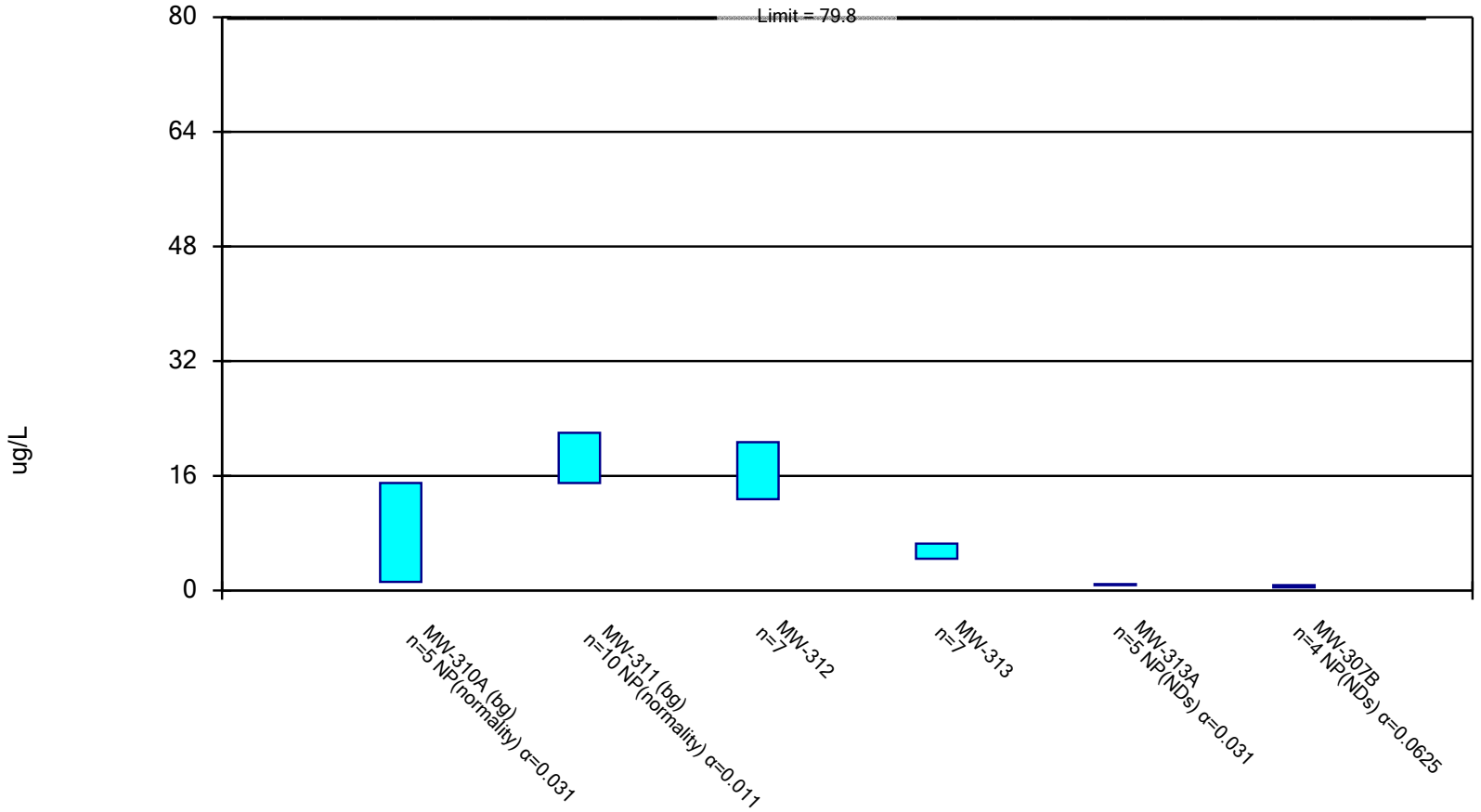
Constituent: Arsenic (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-306	MW-307	MW-307A	MW-308	MW-309	MW-310 (bg)
5/8/2018				79.1	28.2	57.8
5/9/2018	52.6	54.3				
8/13/2018				82.5		
8/14/2018	48	52.3			33.3	56.2
10/10/2018	50.6	52.8		79.5	35.6	62.1
4/3/2019	50	43		78		
4/4/2019					30	65
10/10/2019				72		
10/11/2019	46	47			34	61
6/2/2020						55
6/3/2020					34	
6/4/2020	50	47		76		
9/9/2020			<0.88 (U)			
10/14/2020			<0.88 (U)	69	33	63
10/15/2020	46	47				
4/19/2021	53				30	16
4/20/2021		52	<0.75	73		
10/11/2021	43	34	<0.75 (U)			
10/12/2021				59	24	63
4/4/2022				62	21	52
4/5/2022	48	41	<0.75 (U)			
Mean	48.72	47.04	0.802	73.01	30.31	55.11
Std. Dev.	3.14	6.333	0.0712	7.73	4.744	14.35
Upper Lim.	51.52	52.69	0.88	79.91	34.54	63
Lower Lim.	45.92	41.39	0.75	66.11	26.08	52

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

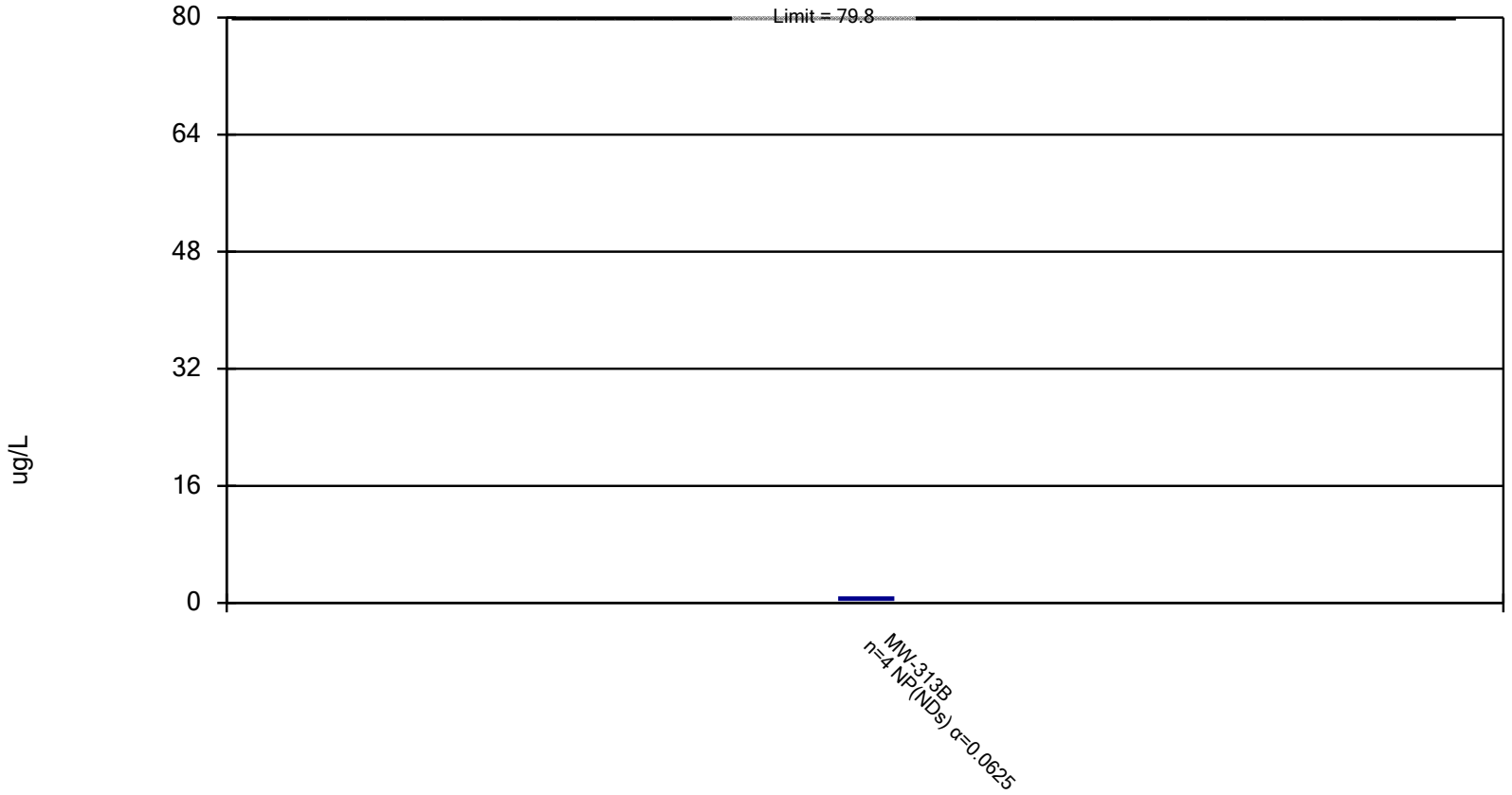
Constituent: Arsenic (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
5/8/2018		14				
8/14/2018		15.7				
10/10/2018		15.2				
4/4/2019		19				
6/6/2019			14	5.5		
10/10/2019			15	6.3		
10/11/2019		18				
6/2/2020		19				
6/3/2020			22	6.9		
9/9/2020	15				<0.88 (U)	
10/14/2020		15				
10/15/2020			19	5.5	<0.88 (U)	
10/16/2020	5.1					
4/19/2021		55	18	5.2	<0.75 (U)	
4/20/2021	3.5					
7/1/2021						<0.75 (U)
10/11/2021						<0.75 (U)
10/12/2021		22				
10/13/2021				4.7	<0.75 (U)	
10/14/2021	3.6		17			
2/22/2022						<0.75 (U)
4/4/2022		19				
4/5/2022						<0.75 (U)
4/6/2022	1.2 (J)		12	4.3	<0.75 (U)	
Mean	5.68	21.19	16.71	5.486	0.802	0.75
Std. Dev.	5.393	12.13	3.352	0.8915	0.0712	0
Upper Lim.	15	22	20.7	6.545	0.88	0.75
Lower Lim.	1.2	15	12.73	4.427	0.75	0.75

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

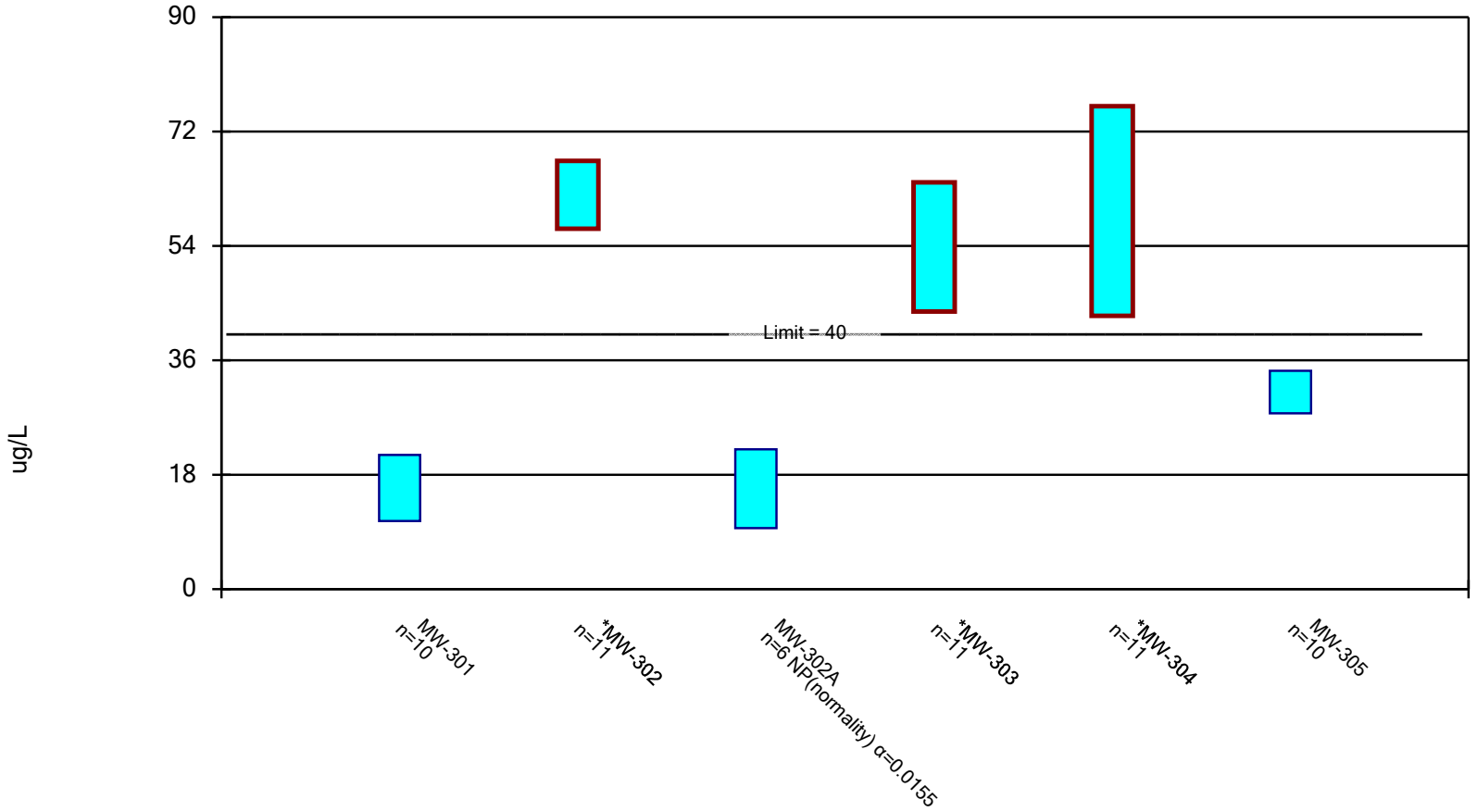
Constituent: Arsenic (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-313B
7/1/2021	<0.75 (U)
10/13/2021	<0.75 (U)
2/22/2022	<0.75 (U)
4/6/2022	<0.75 (U)
Mean	0.75
Std. Dev.	0
Upper Lim.	0.75
Lower Lim.	0.75

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

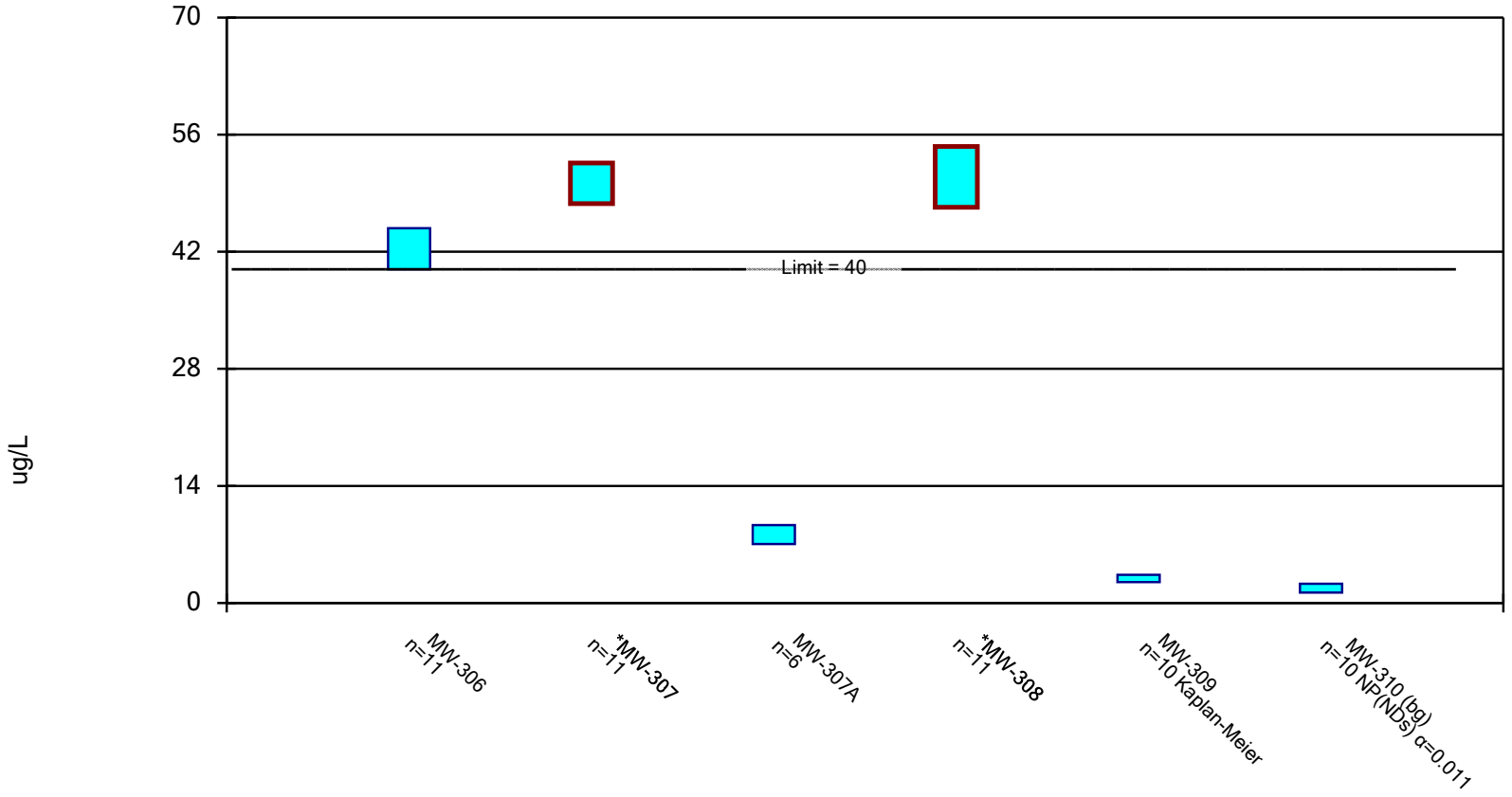
Constituent: Lithium (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305
5/9/2018	17.8	65.4		50.7	63.8	27.8
8/13/2018	18.9	61.4		42.1	34.3	33.6
10/9/2018	24.5	57.8				
10/10/2018				35.8	82.4	27.6
3/12/2019		59.9		51.6	35.9	
4/3/2019	13	56		52	52	29
10/10/2019	26	57		46	38	
10/11/2019						26
6/3/2020	16	55		48	47	28
9/9/2020			11			
10/15/2020					92	34
10/16/2020	10	64	11	59		
3/1/2021			11			
4/19/2021	10	64	9.6 (J)	66	75	
4/20/2021						36
10/12/2021		64	12			
10/13/2021	11			61	60	
10/14/2021						32
4/5/2022		78	22	80	74	
4/6/2022	12					36
Mean	15.92	62.05	12.77	53.84	59.49	31
Std. Dev.	5.829	6.418	4.588	12.2	19.79	3.75
Upper Lim.	21.12	67.39	22	64	75.98	34.35
Lower Lim.	10.72	56.7	9.6	43.67	43	27.65

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

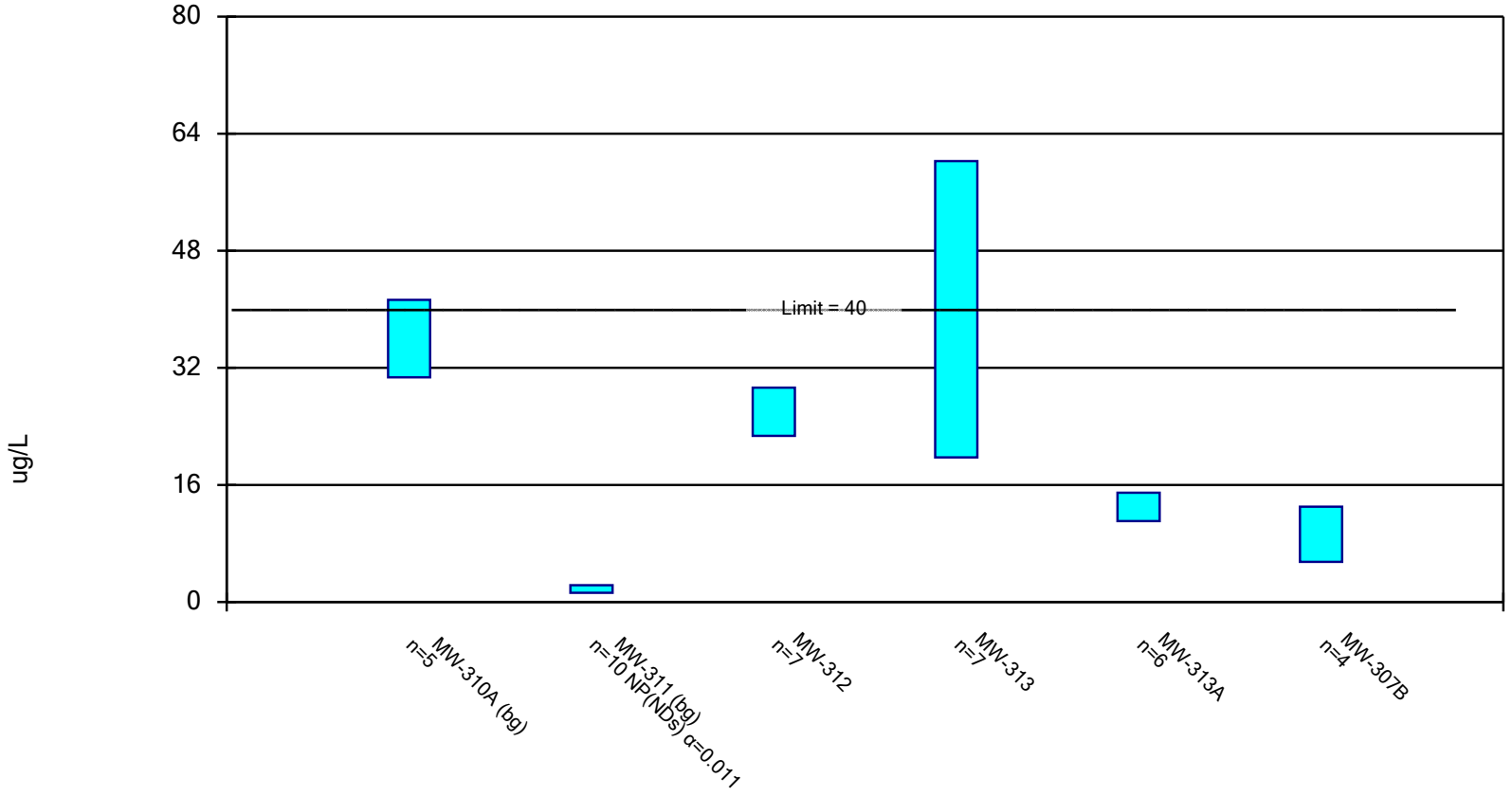
Constituent: Lithium (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-306	MW-307	MW-307A	MW-308	MW-309	MW-310 (bg)
5/8/2018				46	<4.6 (U)	<4.6 (U)
5/9/2018	36.6	47.8				
8/13/2018				52		
8/14/2018	46.8	56.1			<4.6 (U)	5.3 (J)
10/10/2018	41.4	45.4		43.6	<4.6 (U)	<4.6 (U)
3/11/2019	39.2	50.7				
3/12/2019				48.9		
4/3/2019	45	50		50		
4/4/2019					3.3 (J)	<2.7 (U)
10/10/2019				52		
10/11/2019	46	48			<5.4 (U)	<2.7 (U)
6/2/2020						<2.3 (U)
6/3/2020					2.4 (J)	
6/4/2020	43	48		48		
9/9/2020			6.8 (J)			
10/14/2020			8.3 (J)	51	<2.5 (U)	<2.5 (U)
10/15/2020	42	51				
3/2/2021			9.1 (J)			
4/19/2021	43				3.8 (J)	<2.5 (U)
4/20/2021		53	8.7 (J)	54		
10/11/2021	41	52	7.7 (J)			
10/12/2021				58	2.8 (J)	<2.5 (U)
4/4/2022				57	2.9 (J)	<2.5 (U)
4/5/2022	42	50	8.5 (J)			
Mean	42.36	50.18	8.183	50.95	2.605	1.875
Std. Dev.	2.949	2.921	0.8208	4.361	0.6833	1.279
Upper Lim.	44.82	52.62	9.311	54.59	3.375	2.3
Lower Lim.	39.91	47.75	7.056	47.32	2.491	1.25

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

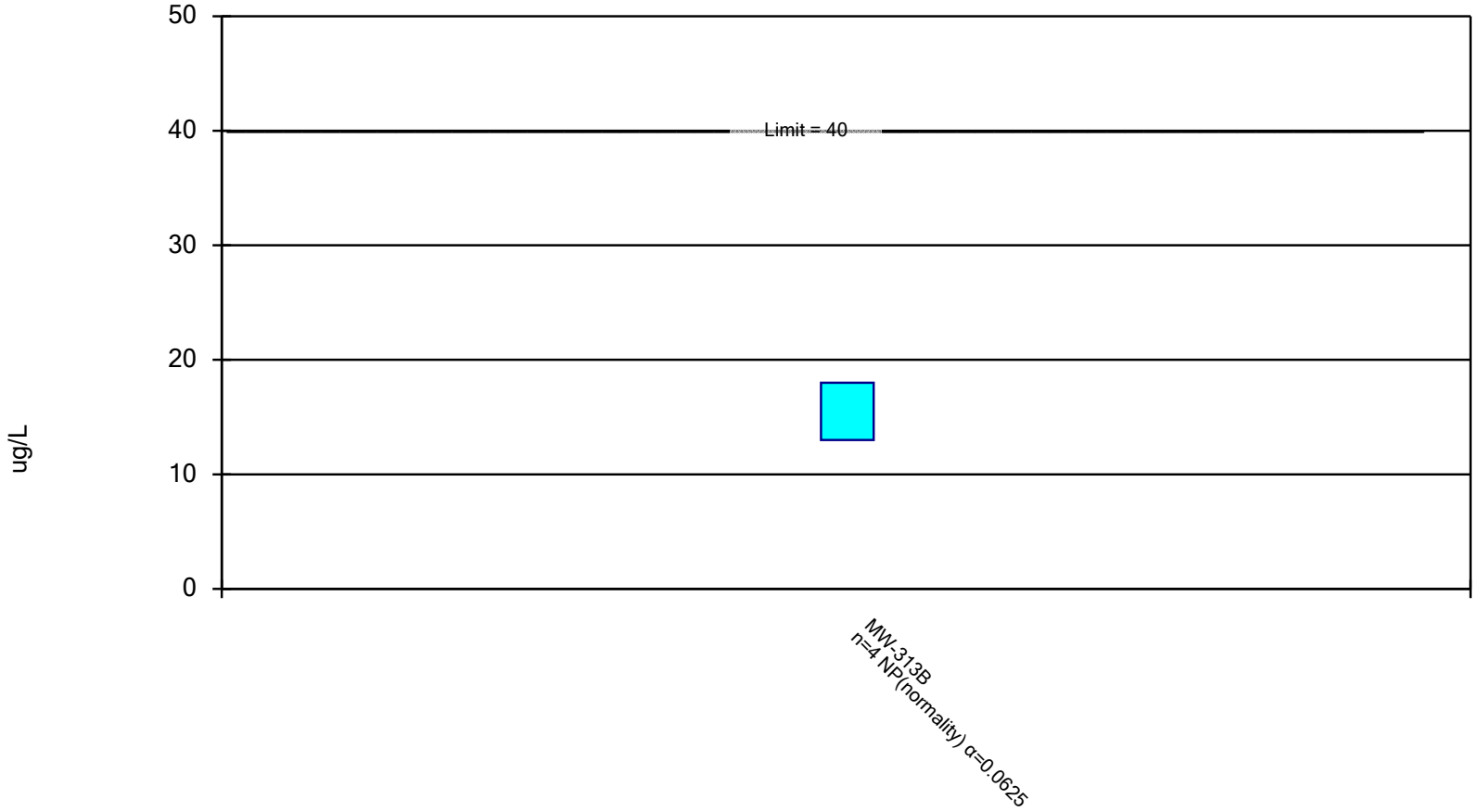
Constituent: Lithium (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
5/8/2018		<4.6 (U)				
8/14/2018		<4.6 (U)				
10/10/2018		<4.6 (U)				
4/4/2019		<2.7 (U)				
6/6/2019			24	43		
10/10/2019			27	62		
10/11/2019		<2.7 (U)				
6/2/2020		<2.3 (U)				
6/3/2020			22	52		
9/9/2020	32				13	
10/14/2020		<2.5 (U)				
10/15/2020			27	51	13	
10/16/2020	36					
3/1/2021					15	
4/19/2021		<2.5 (U)	30	36	14	
4/20/2021	40					
7/1/2021						9.6 (J)
10/11/2021						7 (J)
10/12/2021		<2.5 (U)				
10/13/2021				18	11	
10/14/2021	34		24			
2/22/2022						9.4 (J)
4/4/2022		<2.5 (U)				
4/5/2022						11
4/6/2022	38		28	18	12	
Mean	36	1.575	26	40	13	9.25
Std. Dev.	3.162	0.5035	2.769	17.04	1.414	1.66
Upper Lim.	41.3	2.3	29.29	60.24	14.94	13.02
Lower Lim.	30.7	1.25	22.71	19.76	11.06	5.48

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

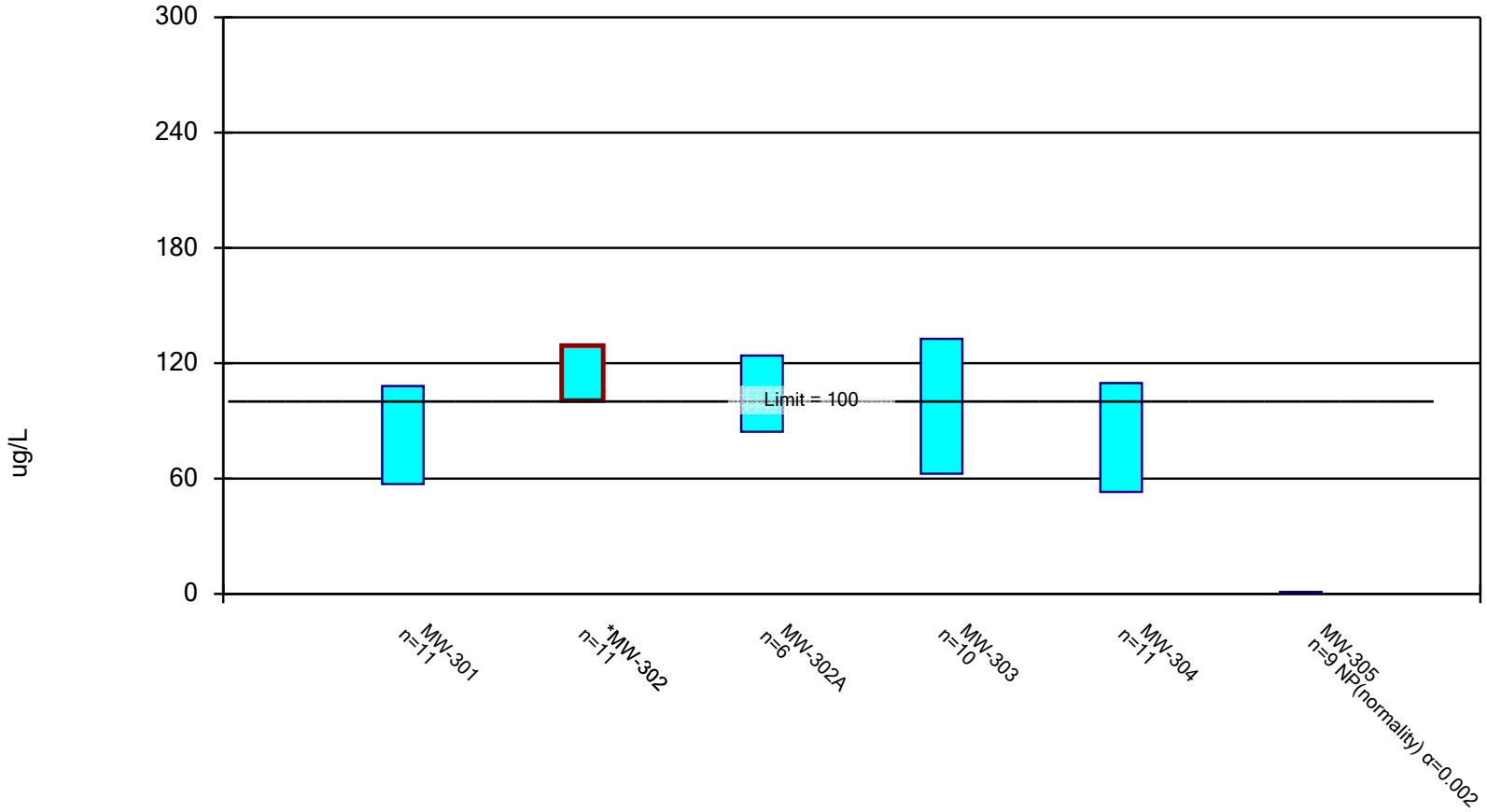
Constituent: Lithium (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-313B
7/1/2021	18
10/13/2021	13
2/22/2022	13
4/6/2022	13
Mean	14.25
Std. Dev.	2.5
Upper Lim.	18
Lower Lim.	13

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

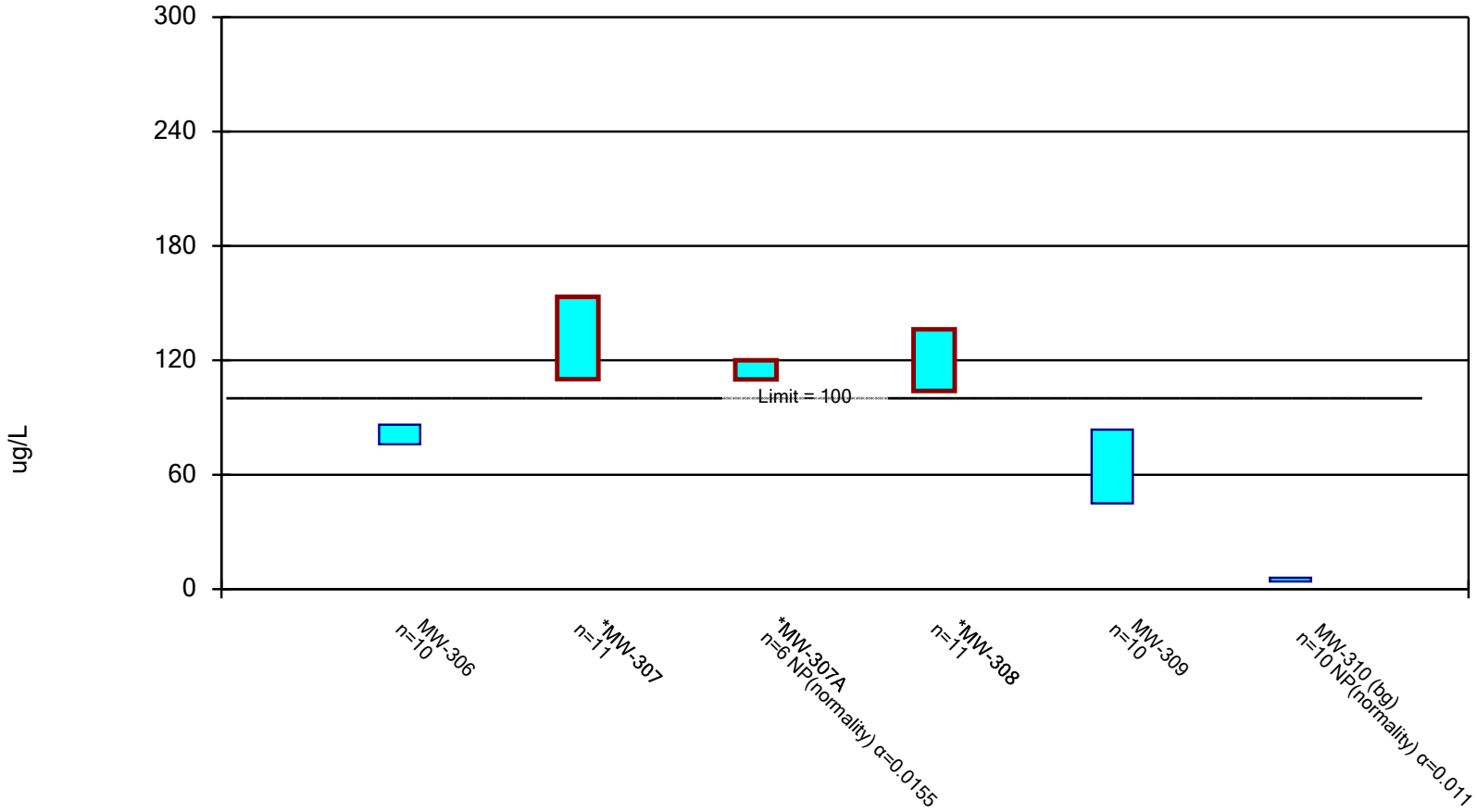
Constituent: Molybdenum (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305
5/9/2018	113	118		75.4	126	0.87 (J)
8/13/2018	81.7	121		77.9	74.9	1
10/9/2018	120	122				
10/10/2018				56.5	113	0.72 (J)
3/12/2019	62.7	123			47.4	
4/3/2019	77	100		110	58	<1.1 (U)
10/10/2019	130	100		76	47	
10/11/2019						<1.1 (U)
6/3/2020	110	140		66	45	<1.1 (U)
9/9/2020			120			
10/15/2020					140	
10/16/2020	67	130	110	84		
3/1/2021			87			
4/19/2021	46	130	95	120	100	
4/20/2021						<1.3 (U)
10/12/2021		91	93			
10/13/2021	47			120	59	
10/14/2021						<1.3 (U)
4/5/2022		89	120	190	85	
4/6/2022	55					<1.2 (U)
Mean	82.67	114.9	104.2	97.58	81.39	0.6822
Std. Dev.	30.6	17.13	14.41	39.32	33.97	0.1577
Upper Lim.	108.2	129.2	124	132.7	109.7	1
Lower Lim.	57.18	100.6	84.37	62.5	53.09	0.55

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

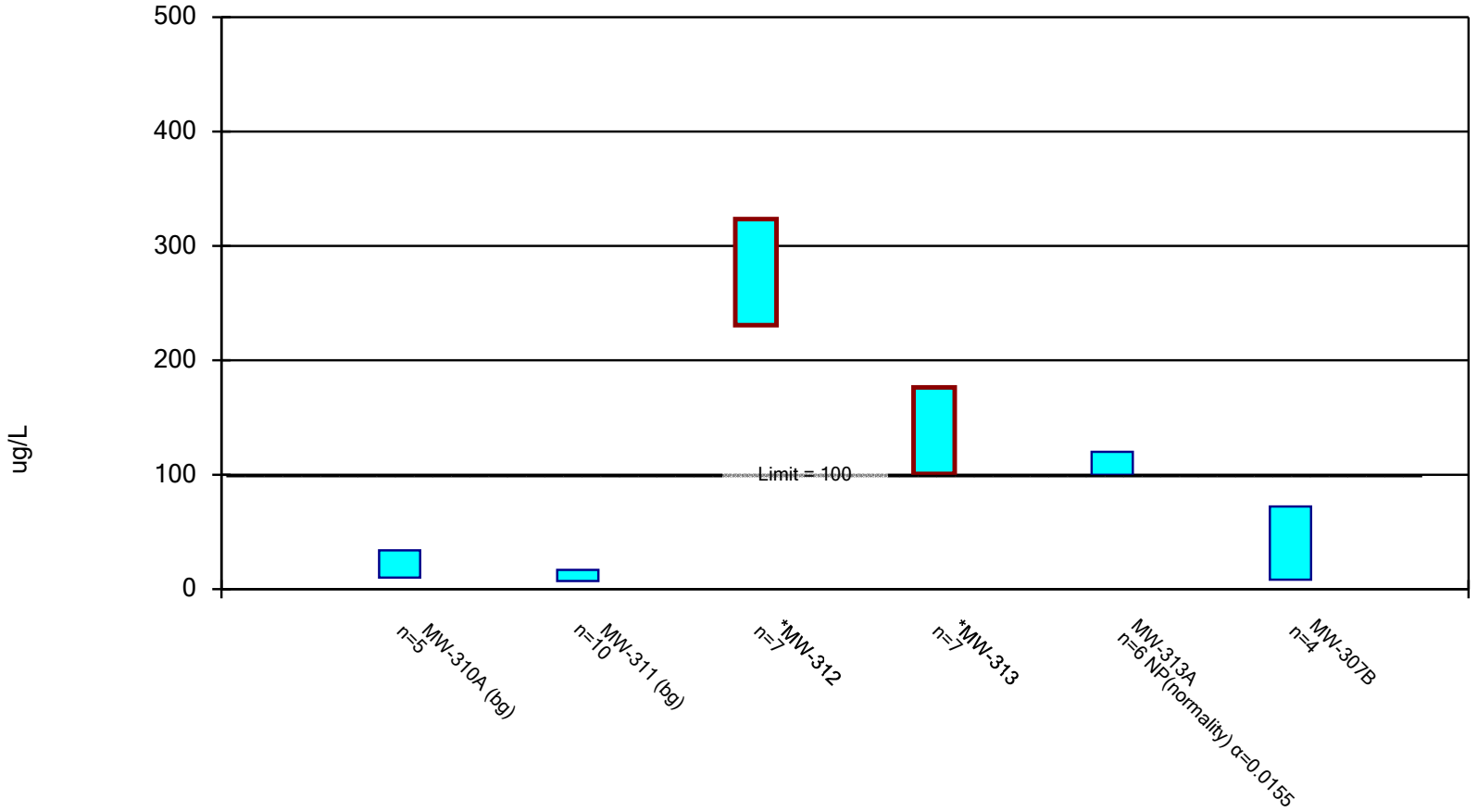
Constituent: Molybdenum (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-306	MW-307	MW-307A	MW-308	MW-309	MW-310 (bg)
5/8/2018				140	43.4	4.2
5/9/2018	84.7	154				
8/13/2018				140		
8/14/2018	82.9	155			52.8	4
10/10/2018	83.5	159		145	71.8	4.6
3/11/2019		156				
3/12/2019				135		
4/3/2019	78	100		110		
4/4/2019					47	5.2
10/10/2019				120		
10/11/2019	84	130			90	6
6/2/2020						5.8
6/3/2020					87	
6/4/2020	86	130		120		
9/9/2020			110			
10/14/2020			120	110	100	3.6
10/15/2020	82	140				
3/2/2021			120			
4/19/2021	87				50	14
4/20/2021		140	120	120		
10/11/2021	69	85	110			
10/12/2021				81	39	4.9
4/4/2022				100	62	5.2
4/5/2022	74	100	120			
Mean	81.11	131.7	116.7	120.1	64.3	5.75
Std. Dev.	5.739	25.9	5.164	19.42	21.67	2.997
Upper Lim.	86.23	153.3	120	136.3	83.63	6
Lower Lim.	75.99	110.1	110	103.9	44.97	4

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

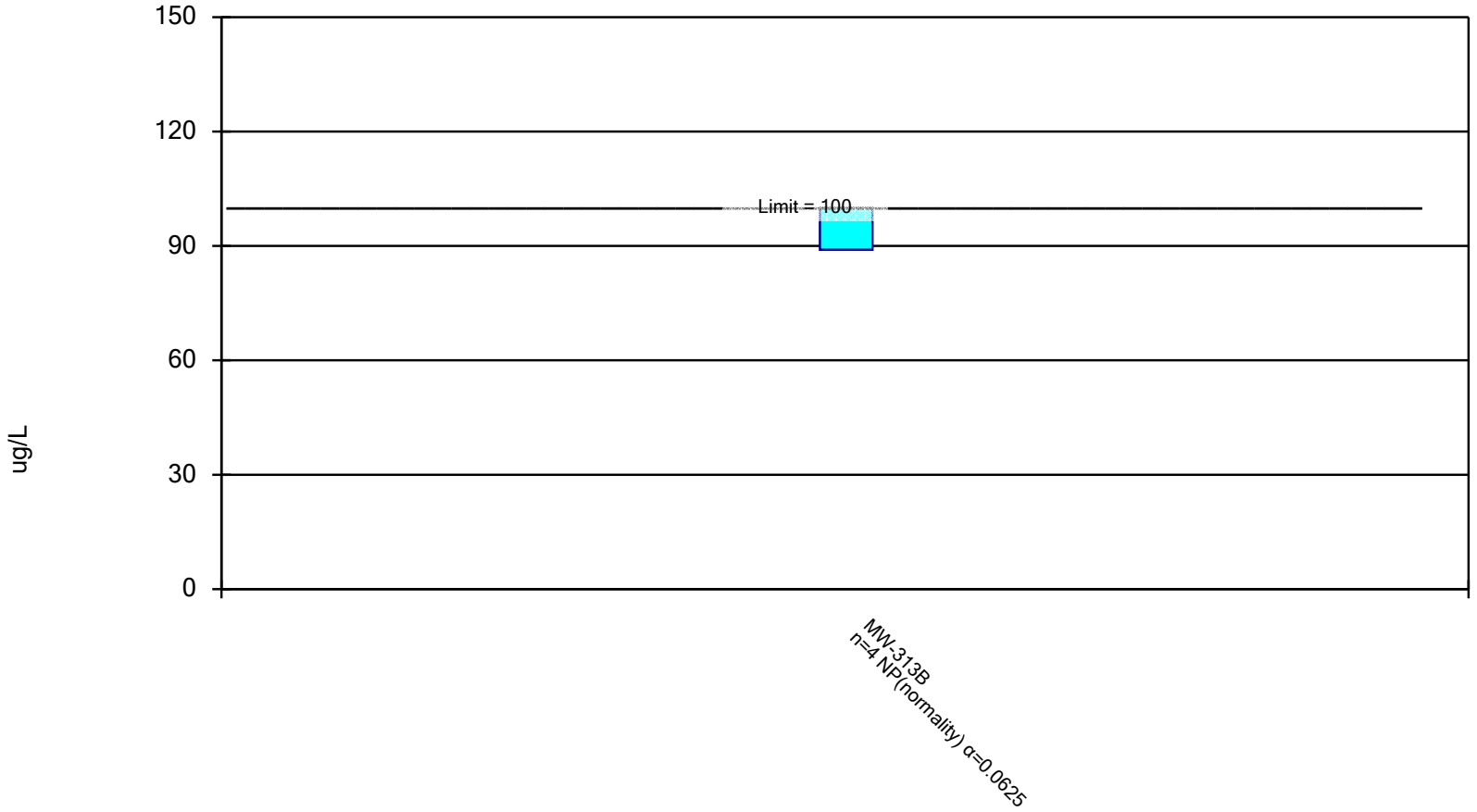
Constituent: Molybdenum (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
5/8/2018		11.6				
8/14/2018		13.9				
10/10/2018		16.3				
4/4/2019		8.5				
6/6/2019			290	130		
10/10/2019			280	110		
10/11/2019		15				
6/2/2020		11				
6/3/2020			320	130		
9/9/2020	19				120	
10/14/2020		23				
10/15/2020			290	100	120	
10/16/2020	33					
3/1/2021					110	
4/19/2021		4.1	310	140	100	
4/20/2021	24					
7/1/2021						40
10/11/2021						25
10/12/2021		6.9				
10/13/2021				170	100	
10/14/2021	20		240			
2/22/2022						37
4/4/2022		8.9				
4/5/2022						59
4/6/2022	14		210	190	100	
Mean	22	11.92	277.1	138.6	108.3	40.25
Std. Dev.	7.106	5.411	39.04	31.85	9.832	14.08
Upper Lim.	33.91	16.75	323.5	176.4	120	72.22
Lower Lim.	10.09	7.093	230.8	100.7	100	8.283

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 6/28/2022 10:46 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 6/28/2022 11:04 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-313B
7/1/2021	100
10/13/2021	100
2/22/2022	89
4/6/2022	100
Mean	97.25
Std. Dev.	5.5
Upper Lim.	100
Lower Lim.	89