2024 NC1 CCR Landfill Annual Groundwater Report

Nebraska City Station NC1 Ash Disposal Area

Nebraska City, Nebraska
January 31, 2025

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Professional Engineer Certification

I hereby certify that to the best of my knowledge that this groundwater monitoring annual report is designed to meet the performance standard in 40 CFR Part 257 of the Federal Coal Combustion Residuals (CCR) rule.

I am duly licensed Professional Engineer under the laws of the State of Nebraska.

Print Name: Lori Calub

Signature: Lori Calub

Date: 1-31-2025

License #: E-9881

My license renewal date is December 31, 2025

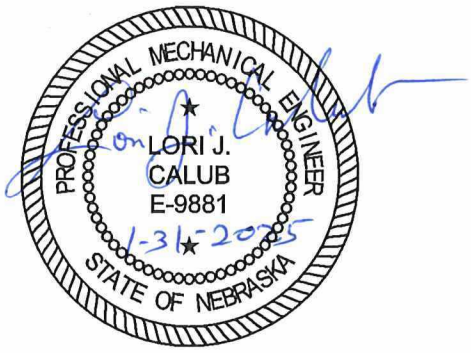

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Table of Contents

List of Figures

List of Tables

List of Appendices

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Executive Summary

Omaha Public Power District (OPPD) owns and operates a two-unit fossil fuel-fired generating station (NC1 and NC2), located 5.5 miles southeast of Nebraska City, Nebraska, along the west bank of the Missouri River. This generating station (Station or Site) has two (2) existing coal combustion residual (CCR) landfills for fossil fuel combustion ash disposal: the NC1 Ash Disposal Area (closed) and the NC2 Ash Disposal Area (active). On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257. The purpose of this report is to provide a summary of CCR groundwater monitoring system activities for calendar year 2024 for the assessment monitoring program under 40 CFR §257.95 for the NC1 Ash Disposal Area. Final closure for this CCR landfill was completed in November 2020.

The NC1 Ash Disposal Area transitioned from detection monitoring to assessment monitoring following the fall 2017 sampling event due to statistically significant increases (SSIs) above the background threshold values (BTVs) in downgradient monitoring wells. An alternate source demonstration (ASD), dated May 1, 2018, confirmed the SSIs above BTVs, and an assessment monitoring program was initiated in June 2018, as required by 40 CFR §257.95.

The October 2018 statistical analysis indicated one statistically significant level (SSL) for arsenic in monitoring well NC1MW-3. Another ASD was conducted in April 2019 to evaluate whether the SSL resulted from natural variation in groundwater quality (HDR, 2019b). Arsenic in upgradient monitoring well MW-14 is present at higher concentrations than both the EPA's maximum contaminant level and Nebraska Department of Environment and Energy (NDEE) groundwater protection standards (GWPS) established under Title 118 – Groundwater Quality Standards and Use Classification. As a result of the variability and detected arsenic concentrations in the background monitoring well, the previously published SSL for arsenic at NC1MW-3 was not considered an SSL, and the NC1 Ash Disposal Area remained in assessment monitoring.

Assessment monitoring samples were collected in April and October 2024 to assess whether there were SSIs and/or SSLs. This report covers the results of the 2024 sampling events. For the April 2024 sampling event, results of the analysis indicated eight (8) SSIs for Appendix III and Appendix IV constituents. For the October 2024 sampling event, results of the analysis indicated five (5) SSIs for Appendix III and Appendix IV constituents. Results of the 2024 SSIs are summarized in the table below.

Analysis of the Appendix IV constituents indicated there were no SSLs detected above the GWPS for either the April 2024 or October 2024 sampling events. OPPD will continue to monitor groundwater in accordance with the assessment monitoring program as specified in 40 CFR §257.96(b), and the next semi-annual sampling event is anticipated to occur in April 2025.

As specified in 40 CFR §257.90(e)(6), a section must be included 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 following table summarizes the requested information under 40 CFR §257.90(e)(6).

Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance			
§ 257.90(e)(6) 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. At a minimum, the summary must specify all of the following:		**NC1 Ash Disposal Area**	
§257.90(e)(6)(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 Program	
§257.90(e)(6)(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 Monitoring Program	
		Compliance Monitoring Event	
		April 2024	October 2024
§257.90(e)(6)(iii)	If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e):	Yes	Yes
§257.90(e)(6)(iii)(A)	Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase.	• NC1MW-3 – boron, calcium, sulfate, and TDS • NC1MW-4 – boron and sulfate • NC1MW-9 - calcium	• NC1MW-3 – boron and sulfate • NC1MW-4 – boron and sulfate
§257.90(e)(6)(iii)(B)	Provide the date when the assessment monitoring program was initiated for the CCR unit.	June 6, 2018	
§257.90(e)(6)(iv)	If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following:	No	No
§257.90(e)(6)(iv) (A)	Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase.	Not Applicable	Not Applicable
§257.90(e)(6)(iv) (B)	Provide the date when the assessment of corrective measures was initiated for the CCR unit.	Not Applicable	
§257.90(e)(6)(iv)(C)	Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.	Not Applicable	
§257.90(e)(6)(iv)(D)	Provide the date when the assessment of corrective measures was completed for the CCR unit.	Not Applicable	
§257.90(e)(6)(v)	Whether a remedy was selected pursuant to § 257.97 during the current annual	Not Applicable	

Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance		
§ 257.90(e)(6) 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. At a minimum, the summary must specify all of the following:		**NC1 Ash Disposal Area**
	reporting period, and if so, the date of remedy selection.	
§257.90(e)(6)(vi)	(vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.	Not Applicable

1 Introduction

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The CCR rule is formally promulgated in the United States Code of Federal Regulations (CFR), Title 40, Part 257 (EPA, 2015). The CCR rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Codes System code 221112, and facilities that produce or store CCR materials in surface impoundments or landfills. The CCR rule defines a set of requirements for the disposal and handling of CCR within units (defined as either landfills or surface impoundments). This regulation applies to the Omaha Public Power District (OPPD), Nebraska City Generating Station (Station or Site).

1.1 Purpose

Specified in 40 CFR §257.90(e), an owner or operator of an existing CCR landfill must prepare an annual groundwater monitoring and corrective action report to summarize key actions completed, problems encountered, and upcoming activities related to the groundwater monitoring system. The information included in this report complies with the requirements established in 40 CFR §257.90(e) and provides a summary of CCR groundwater monitoring system activities for the NC1 Ash Disposal Area for calendar year 2024.

1.2 Facility Information

OPPD owns and operates a two-unit fossil fuel-fired generating station (NC1 and NC2), located 5.5 miles southeast of Nebraska City, Nebraska, along the west bank of the Missouri River (**Figure 1**). This Station has two (2) existing CCR landfills: the NC1 Ash Disposal Area (closed) and the NC2 Ash Disposal Area (active). The CCR landfills are permitted under the current Nebraska Department of Environment and Energy (NDEE) Title 132 and EPA's CCR regulations for fossil fuel combustion ash disposal. This annual report covers the NC1 Ash Disposal Area (NDEE Permit No. NE0054712, Facility ID 58343).

The NC1 Ash Disposal Area is an unlined CCR landfill of approximately 52 acres that was originally constructed as 16 acres in 1979. In 1982, the Station received a state permit to expand the disposal area from the original 16 acres to the current 52 acres. The NC1 Ash Disposal Area began receiving fly ash and bottom ash in 1979 and was closed in phases. Phase 1 closure was completed in 2015. Final closure for the landfill was completed in November 2020. Final closure was approved by the Nebraska Department of Environment and Energy (NDEE) on February 24, 2021. **Figure 2** identifies the relevant CCR unit for this report and the supporting monitoring well network.

2 Monitoring Program Summary

The groundwater monitoring system currently consists of four upgradient/background monitoring wells (NC2MW-4, MW-11, MW-13, MW-14), three downgradient monitoring wells (NC1MW-2, NC1MW-4, NC1MW-9), and one downgradient/cross-gradient monitoring well (NC1MW-3).

Monitoring well details for the monitoring network, including the date of installation, is provided in **Table 1**. The locations of the monitoring wells in the groundwater monitoring program with respect to the CCR unit, NC1 Ash Disposal Area, are shown in the attached **Figure 2**.

2.1 Summary of Monitoring Program Transitions

OPPD complies with Nebraska State regulations (NDEE Title 132) and the EPA's regulations for the disposal of CCR, as specified in 40 CFR Part 257 (CCR Rule). As part of these regulatory programs, the NC1 Ash Disposal Area is monitored semi-annually under detection or assessment monitoring programs. Under the detection monitoring program, constituents listed in Appendix III of 40 CFR Part 257 are evaluated for statistically significant increases (SSIs) above background. Under the assessment monitoring program, constituents listed in Appendix IV of 40 CFR Part 257 are evaluated for SSIs above background and for statistically significant levels (SSLs) over groundwater protection standards (GWPS). The following table outlines the transition of groundwater monitoring programs and subsequent actions and reports.

Date	Groundwater Compliance Monitoring Milestones
01/31/2018	Detection monitoring. SSIs detected in November 2017 in downgradient monitoring for 11 monitoring well/constituent pairs. Constituents included boron, calcium, chloride, sulfate, and total dissolved solids (TDS).
05/29/2018	Alternate source demonstration (ASD) to evaluate potential error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Notification published for unsuccessful ASD.
06/06/2018	Initiation of assessment monitoring program in accordance with 40 CFR §257.95.
07/12/2018	Installed additional upgradient monitoring well (MW-14).
10/04/2018	Subsequent assessment monitoring sampling conducted in accordance with 40 CFR §257.95.
02/14/2019	Notification of SSLs above GWPS for arsenic in MW-3.
04/08/2019	ASD to evaluate potential error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Notification published for successful ASD.
04/10/2019	Semi-annual assessment monitoring. SSIs detected for 13 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, arsenic, and molybdenum. There were no SSLs detected.
10/18/2019	Semi-annual assessment monitoring. SSIs detected for 13 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, cobalt, and molybdenum. There were no SSLs detected.
04/21/2020	Semi-annual assessment monitoring. SSIs detected for 12 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, and molybdenum. There were no SSLs detected.
10/06/2020	Semi-annual assessment monitoring. SSIs detected for 15 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, molybdenum, and selenium. There were no SSLs detected.
04/13/2021	Semi-annual assessment monitoring. SSIs detected for 9 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, molybdenum, and thallium. There were no SSLs detected.
10/12/2021	Semi-annual assessment monitoring. SSIs detected for 12 monitoring well/constituent pairs. Constituents included boron, cadmium, calcium, sulfate, TDS, molybdenum, and thallium. There were no SSLs detected.

Date	Groundwater Compliance Monitoring Milestones
4/4/2022	Semi-annual assessment monitoring. SSIs detected for 8 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, and molybdenum. There were no SSLs detected.
10/3/2022	Semi-annual assessment monitoring. SSIs detected for 8 monitoring well/constituent pairs. Constituents included boron, calcium, sulfate, TDS, and molybdenum. There were no SSLs detected.
4/1/2023	Semi-annual assessment monitoring. SSIs detected for 8 monitoring well/constituent pairs. Constituents included arsenic, boron, calcium, molybdenum, sulfate, and TDS. There were no SSLs detected.
10/3/2023	Semi-annual assessment monitoring. SSIs detected for 4 monitoring well/constituent pairs. Constituents included boron, molybdenum, and sulfate. There were no SSLs detected.
4/15/2024	Semi-annual assessment monitoring. SSIs detected for 8 monitoring well/constituent pairs. Constituents included boron, calcium, molybdenum, sulfate, and TDS. There were no SSLs detected.
10/7/2024	Semi-annual assessment monitoring. SSIs detected for 5 monitoring well/constituent pairs. Constituents included boron, molybdenum, and sulfate. There were no SSLs detected.

2.2 Groundwater Monitoring Network Condition Assessment

OPPD personnel evaluated the condition of each monitoring well in the groundwater monitoring network during the semi-annual sampling events in April 2024 and October 2024. During this period, no repairs were required. The wells were noted in good working condition, concrete pads were intact, and no damage was observed to the protective well casings. No monitoring wells were added to or abandoned from the certified groundwater monitoring system in 2024.

3 Data Evaluation and Summary

3.1 Summary of Sampling Activities

Groundwater sampling events were conducted by OPPD personnel in April 2024 and October 2024 as continuation of the assessment monitoring program. Samples were collected in general compliance with 40 CFR §257.90(c), which requires groundwater monitoring be conducted throughout the active life and post-closure care period of the CCR unit for each well in the monitoring network. The NC1 Ash Disposal Area is currently in the post-closure care period. The number of samples collected for the background and downgradient wells during each groundwater sample event, whether the sample was collected during detection or assessment monitoring programs, and the date of each event is summarized in **Table 2**.

Groundwater sampling was conducted by OPPD personnel in general accordance with the facility's NDEE Title 132 Groundwater Sampling and Analysis Plan (HDR, 2016) and the Groundwater Monitoring System Certification (HDR, 2019a). Samples were collected from the certified network wells and were analyzed for Appendix III and Appendix IV constituents during both the April 2024 and October 2024 sampling events. Field sampling forms are provided in **Appendix A**. The collected groundwater samples were analyzed by Eurofins in Cedar Falls, Iowa. The laboratory analytical reports are provided in **Appendix B**.

3.2 Groundwater Elevations & Flow Direction

During each groundwater sampling event, static groundwater level measurements were recorded at the monitoring wells specified in **Table 1** prior to purging and sampling activities. Groundwater measurements of both monitoring network wells and groundwater elevation only wells, as defined in the CCR Groundwater Monitoring System *(*HDR, 2019a), were used to develop groundwater contours (**Figure 3** and **Figure 4**). Monitoring well static groundwater elevations are provided in **Table 3**. Groundwater flow estimated from measurements collected on April 11, 2024 indicated a flow direction to the south-southeast with an average flow velocity of 0.0080 feet per day (ft/day) to 0.0453 ft/day. Groundwater flow estimated from measurements collected on October 4, 2024, indicated a flow direction to the south-southeast with an average flow velocity of 0.00913 ft/day to 0.0517 ft/day. The April 2024 and October 2024 flow velocities are based on a range of hydraulic conductivity at the Site of 6.96 ft/day to 39.4 ft/day (HDR, 2019a).

3.3 Assessment Monitoring Groundwater Sampling

The NC1 Ash Disposal Area was monitored semi-annually in 2024 as continuation of the assessment monitoring program in accordance with 40 CFR §257.95(b). Appendix III and Appendix IV constituents were analyzed for both semi-annual sampling events, meeting the requirements of 40 CFR §257.95. The results of the assessment monitoring events in April 2024 and October 2024 are presented in **Table 4** (Appendix III constituents) and **Table 5** (Appendix IV constituents).

3.4 Statistical Analysis Results

In the assessment monitoring program, Appendix III and IV constituents are statistically analyzed to evaluate for SSIs above the calculated background threshold values (BTVs), and Appendix IV constituents are statistically analyzed to evaluate for SSLs above the GWPS. Statistical analysis was performed with Sanitas™ statistical analysis software in accordance with the methods described in the Groundwater Monitoring Statistical Certification (HDR, 2018). Statistically derived BTVs for Appendix III and IV constituents are provided in **Table 6**. The BTVs were last updated following the April 2023 sampling event and include data from March 2016 through April 2023. BTVs are updated every two years or during a monitoring program transition, in accordance with Chapter 21 of the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (EPA, 2009). The established GWPS for all Appendix IV constituents are provided in **Table 7**. Results of the statistical analysis of designated in-network downgradient monitoring wells from the April and October 2024 sampling events are provided in **Appendix C**.

Assessment monitoring samples were collected in April and October 2024 to assess whether there were SSIs and/or SSLs. For the April 2024 sampling event, results of the analysis indicated eight (8) SSIs for Appendix III and Appendix IV constituents.

- Boron in NC1MW-3
- Boron in NC1MW-4
- Molybdenum in NC1MW-2
- Sulfate in NC1MW-3

- Calcium in NC1MW-3
- Calcium in NC1MW-9
- Sulfate in NC1MW-4
- TDS in NC1MW-3

For the October 2024 sampling event, results of the analysis indicated five (5) SSIs for Appendix III and Appendix IV constituents.

- Boron in NC1MW-3
- Boron in NC1MW-4
- Molybdenum in NC1MW-2
- Sulfate in NC1MW-3
- Sulfate in NC1MW-4

Analysis of the Appendix IV constituents indicated there were no SSLs detected above the GWPS for either the April 2024 or October 2024 sampling events.

3.5 Other Information Required under 40 CFR §257.90-98

No other information is required under 40 CFR §257.90-98 at this time.

4 Key Activities for Upcoming Year

OPPD will continue to monitor the NC1 Ash Disposal Area in accordance with the assessment monitoring program, as specified in 40 CFR §257.95(b). The next semi-annual assessment monitoring sampling event is anticipated to occur in April 2025.

5 References

EPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Unified Guidance*. Environmental Protection Agency Office of Resource Conservation and Recovery. EPA 530/R-09-007. March 2009.

EPA, 2015. 40 CFR Part 257; *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*; Final Rule, Federal Register vol. 80, no. 74. Environmental Protection Agency. April 17, 2015.

HDR, 2016. *Groundwater Sampling and Analysis Plan*. NC1 Ash Disposal Area. Nebraska City, Nebraska. Revised February 2016.

HDR, 2018. *Groundwater Monitoring Statistical Certification.* NC1 Ash Disposal Area. Nebraska City, Nebraska. Revised July 2018.

HDR, 2019a. *Groundwater Monitoring System Certification.* NC1 Ash Disposal Area. Nebraska City, Nebraska. Revised June 2019.

HDR, 2019b. *Alternate Source Demonstration Evaluation for SSLs Memo.* NC1 Ash Disposal Area. Nebraska City, Nebraska. April 2019.

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Figures

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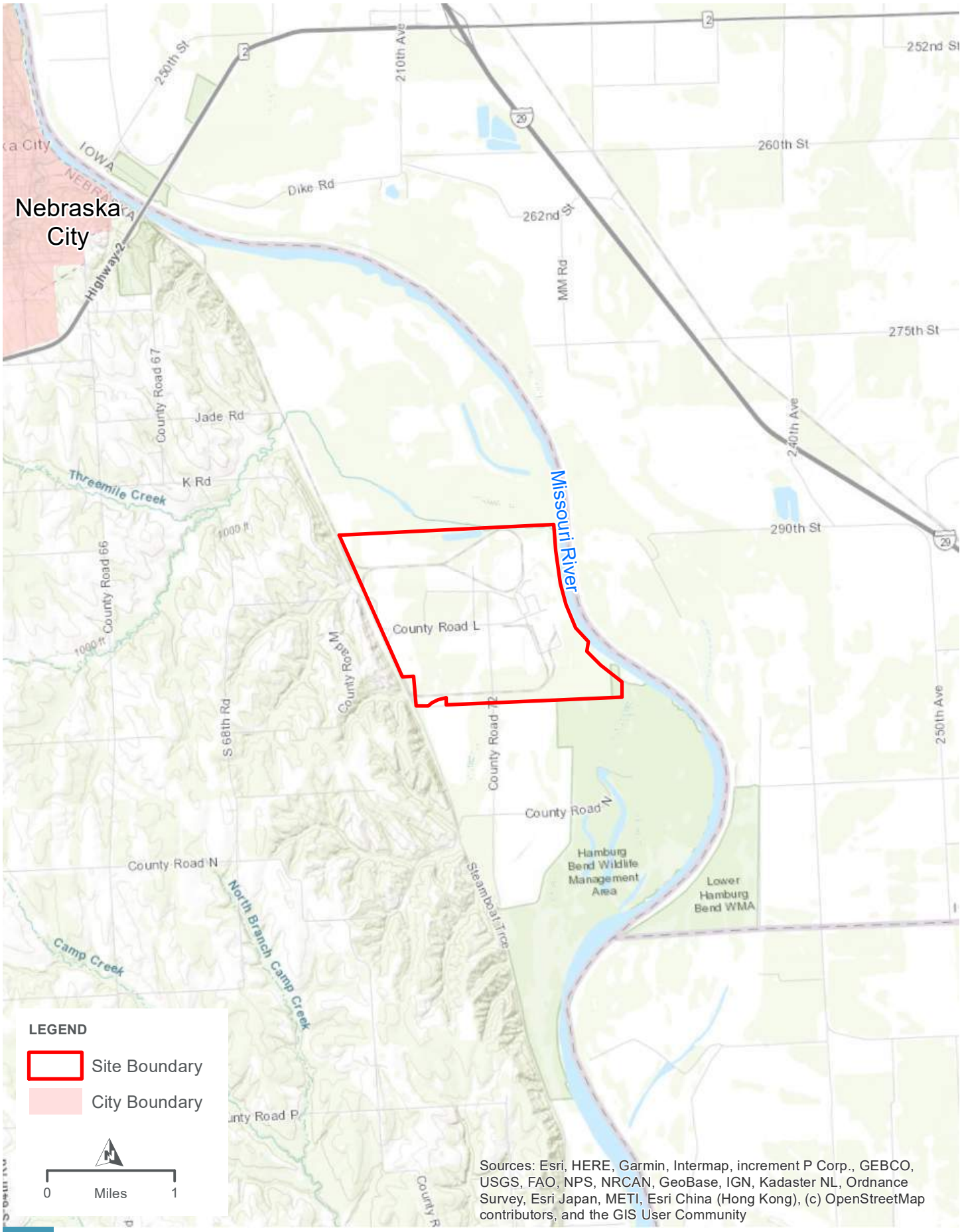

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

SITE LOCATION MAP

OPPD - NEBRASKA CITY STATION

FIGURE 1

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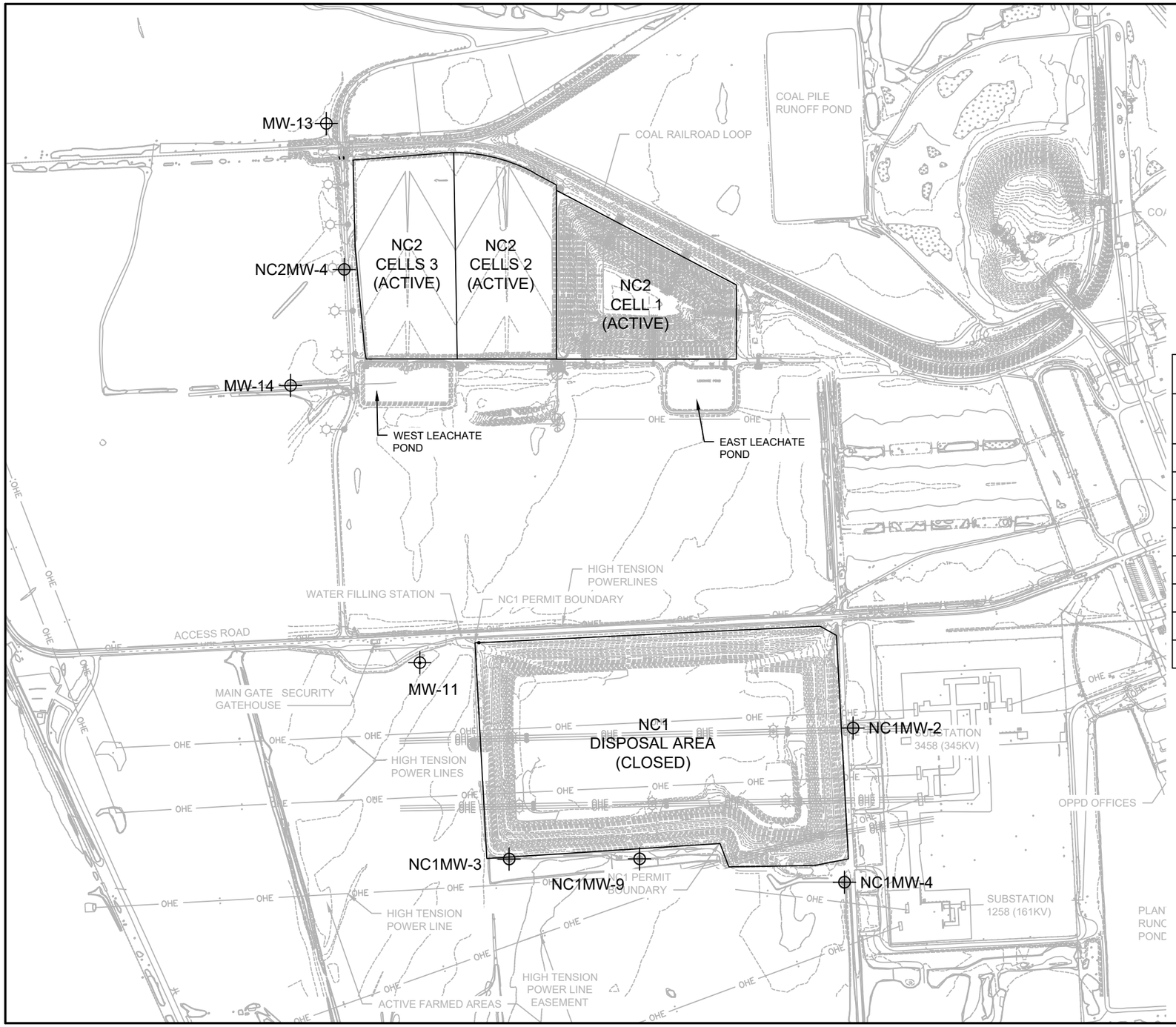

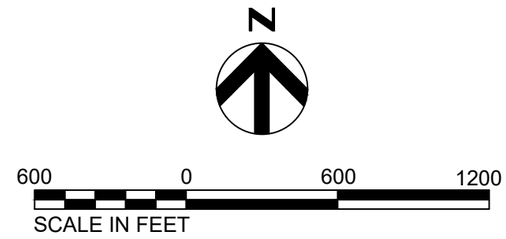

MONITORING WELL NETWORK

WELL ID	NORTHING	EASTING	ELEVATION (TOC)	WELL DEPTH (BGS)	LOCATION WITH RESPECT TO NC1 ASH DISPOSAL AREA
MW-11	315305.14	2808934.31	918.44	20.00	BACKGROUND / UPGRADIENT
MW-13	318186.64	2808434.68	918.05	13.00	BACKGROUND / UPGRADIENT
MW-14	316786.47	2808244.03	920.99	18.00	BACKGROUND / UPGRADIENT
NC2MW-4	317405.90	2808530.80	919.62	14.00	BACKGROUND / UPGRADIENT
NC1MW-2	314956.72	2811249.03	919.42	17.80	DOWNGRADIENT
NC1MW-3	314256.45	2809411.68	919.85	19.50	DOWNGRADIENT / CROSS GRADIENT
NC1MW-4	314132.49	2811203.55	919.63	20.30	DOWNGRADIENT
NC1MW-9	314257.38	208108.93	920.09	20.00	DOWNGRADIENT

NOTES:

1. TOC = TOP OF CASING
2. TOP OF CASING ELEVATION DETERMINED BY SURVEY DATA OBTAINED JUNE 2019.
3. BGS = BELOW GROUND SURFACE.
4. NORTHING AND EASTING COORDINATES ARE NEBRASKA STATE PLANE WHICH HAVE BEEN TRANSLATED BY THE SURVEYOR.

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OPPD NEBRASKA CITY ASH LANDFILL
NEBRASKA CITY UNIT 1 - NC1
MONITORING WELL LOCATION MAP

2024 GROUNDWATER MONITORING REPORT

DATE
MAY 2024

FIGURE
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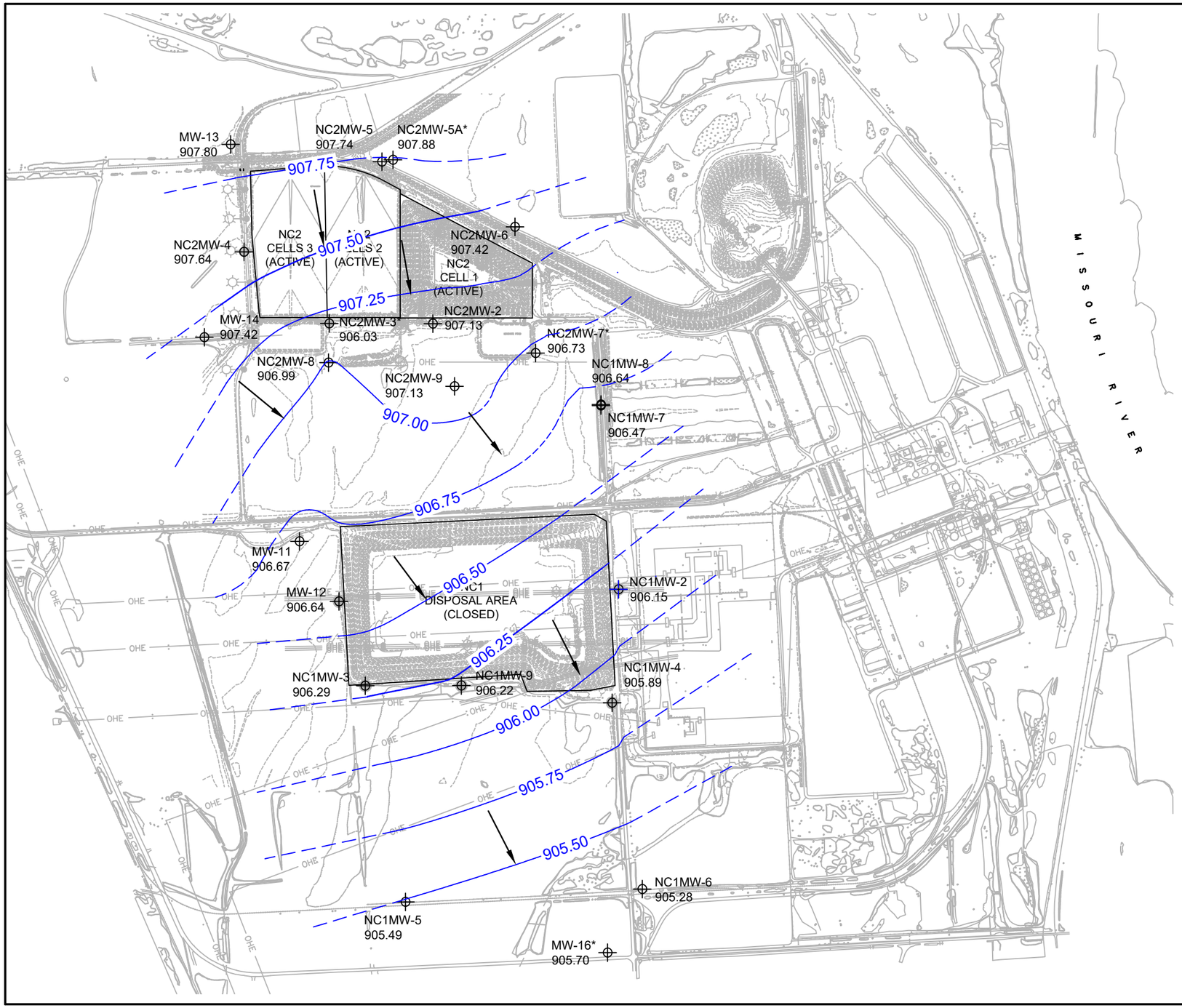

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SCALE IN FEET

LEGEND:

- MONITORING WELL
- 907.29 — GROUNDWATER ELEVATION
- 907.00 — GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. MONITORING WELL NC1MW-7 WAS NOT USED IN GENERATION OF CONTOUR MAP DUE TO BEING SCREENED AT A DEEPER INTERVAL.
2. * - SYMBOL INDICATES GROUNDWATER ELEVATION APPEARS TO BE ANOMALOUS. MONITORING WELL WAS NOT USED IN GENERATION OF CONTOUR MAP.

VELOCITY COMPUTATIONS

TRACER VELOCITY = $V_T = \frac{Ki}{n}$

K = HYDRAULIC CONDUCTIVITY (SEE TABLE)

i = GRADIENT = $\frac{1.0\ FT}{2{,}147\ FT}$ = 0.000466FT/FT

n = POROSITY = 0.405

	K	V_T
LOW	6.96 FT/DAY	0.0080 FT/DAY
HIGH	39.4 FT/DAY	0.0453 FT/DAY

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OPPD NEBRASKA CITY ASH LANDFILL GROUNDWATER CONTOUR MAP APRIL 2024

2024 GROUNDWATER MONITORING REPORT

DATE
MAY 2024

FIGURE
03

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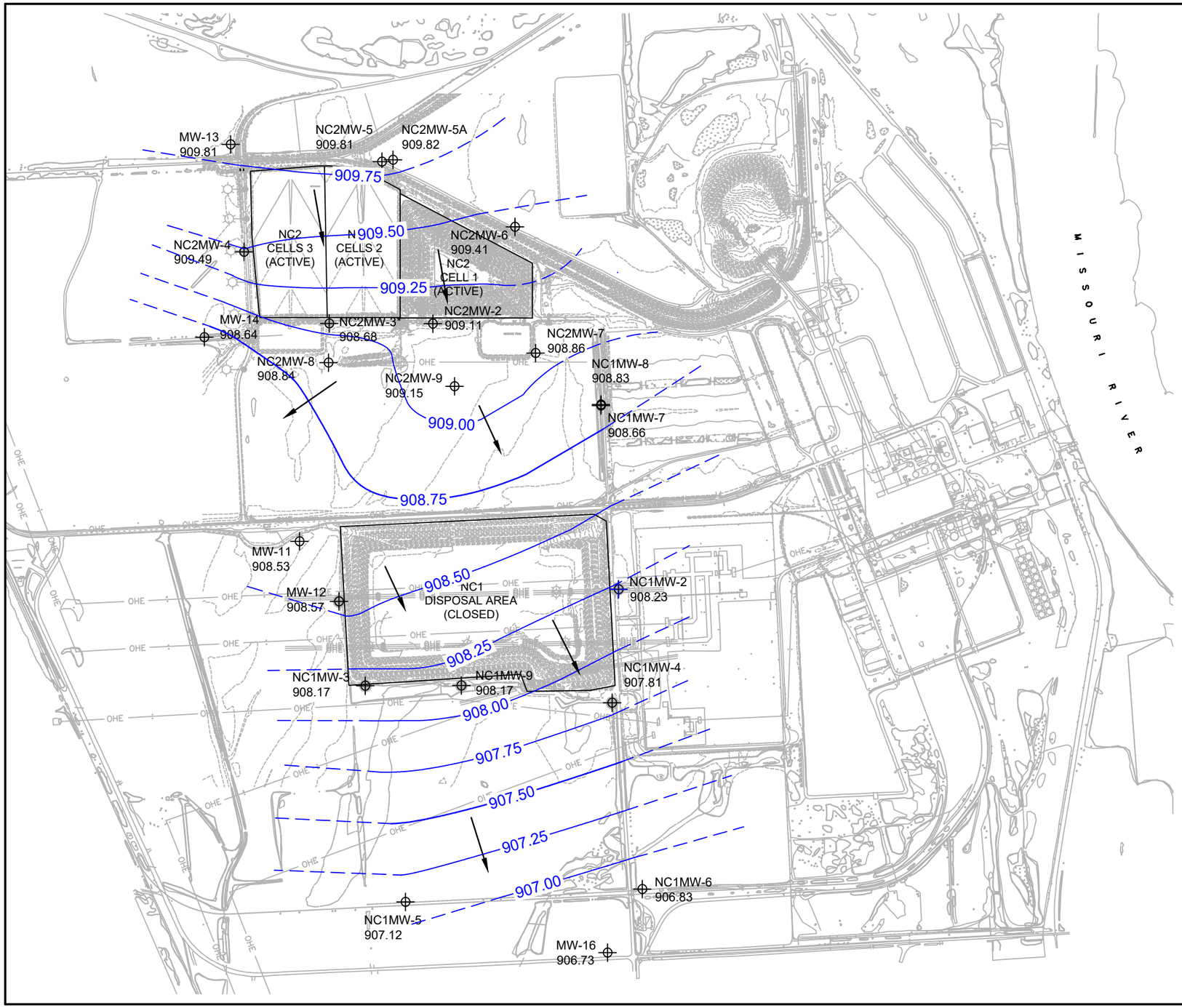

N

800 0 800 1600

SCALE IN FEET

LEGEND:

⊕	MONITORING WELL
907.29	GROUNDWATER ELEVATION
907.00	GROUNDWATER CONTOUR
- - - - - -	INFERRED GROUNDWATER CONTOUR
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. MONITORING WELL NC1MW-7 WAS NOT USED IN GENERATION OF CONTOUR MAP DUE TO BEING SCREENED AT A DEEPER INTERVAL.
2. * - SYMBOL INDICATES GROUNDWATER ELEVATION APPEARS TO BE ANOMALOUS. MONITORING WELL WAS NOT USED IN GENERATION OF CONTOUR MAP.

VELOCITY COMPUTATIONS

TRACER VELOCITY = $V_T = \frac{Ki}{n}$

K = HYDRAULIC CONDUCTIVITY (SEE TABLE)

i = GRADIENT = $\frac{1.0\ FT}{1{,}882\ FT}$ = 0.000531FT/FT

n = POROSITY = 0.405

	K	V_T
LOW	6.96 FT/DAY	0.00913 FT/DAY
HIGH	39.4 FT/DAY	0.0517 FT/DAY

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OPPD NEBRASKA CITY ASH LANDFILL GROUNDWATER CONTOUR MAP OCTOBER 2024

2024 GROUNDWATER MONITORING REPORT

DATE
NOV 2024

FIGURE
04

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Tables

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Table 1 - Groundwater Monitoring System
Omaha Public Power District - NC1 Ash Disposal Area

Monitoring Well ID	Date Installed	Well Depth (feet bgs)	Location w/ respect to NC1 Ash Disposal Area	Ground Surface Elevation (feet AMSL)	Top of Well Casing Elevation (feet AMSL)
CCR Monitoring Network Wells					
NC2MW-4	9/8/2004	14.0	Background/Upgradient	917.07	919.62
MW-11	1/16/2004	20.0	Background/Upgradient	915.72	918.44
MW-13	1/26/2016	13.0	Background/Upgradient	915.97	918.05
MW-14	7/12/2018	18.0	Background/Upgradient	917.99	920.99
NC1MW-2	3/14/1995	17.8	Downgradient	917.23	919.42
NC1MW-3	3/13/1995	19.5	Downgradient/Cross-gradient	917.10	919.85
NC1MW-4	3/13/1995	20.3	Downgradient	916.79	919.63
NC1MW-9	1/21/1999	20.0	Downgradient	917.52	920.09
Water Level Only Wells					
NC1MW-5	3/17/1995	16.6	Downgradient/Cross-gradient	917.61	920.70
NC1MW-6	3/13/1995	16.5	Downgradient	914.01	916.67
NC1MW-7	1/20/1999	40.5	Upgradient/Cross-gradient	917.12	919.20
NC1MW-8	1/21/1999	20.0	Upgradient/Cross-gradient	917.19	919.68
NC2MW-2	9/8/2004	17	Upgradient	919.80	922.55
NC2MW-3	9/8/2004	16	Upgradient	913.30	919.58
NC2MW-5	9/16/2004	16	Upgradient	919.34	922.76
NC2MW-5A	9/16/2019	17.2	Upgradient	919.13	922.05
NC2MW-6	9/7/2004	14	Upgradient	916.30	919.72
NC2MW-7	11/6/2013	24	Upgradient	915.11	918.20
NC2MW-8	7/9/2018	15	Upgradient	915.20	917.97
NC2MW-9	9/17/2019	18.0	Upgradient	917.49	920.35
MW-12	3/26/2004	18.1	Cross-gradient	917.91	920.36

Notes:
bgs - below ground surface
AMSL - above mean sea level

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Table 2 - Groundwater Sampling Event Summary
Omaha Public Power District - NC1 Ash Disposal Area

Monitoring Well ID	# of Background Samples	Background Sample Dates	# of Detection Monitoring Samples	Detection Monitoring Sample Dates[1]	# of Assessment Monitoring Samples	Assessment Monitoring Sample Dates[2] [3] [5] [6]
Current Background Monitoring Wells						
NC2MW-4	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	16	6/6/2018, 10/4/2018, 4/8/2019, 10/15/2019, 1/30/2020, 4/20/2020, 4/27/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
MW-11	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 4/8/2019, 10/16/2019, 4/20/2020, 10/6/2020, 4/13/2021, 10/5/2021, 4/5/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
MW-13[3]	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 1/30/2020, 4/20/2020, 4/27/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
MW-14[4]	8	10/4/2018, 1/15/2019, 3/5/2019, 4/8/2019, 10/16/2019, 1/30/2020, 4/20/2020, 10/5/2020	0	N/A	8	4/13/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
Downgradient Monitoring Wells						
NC1MW-2	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 4/8/2019, 10/18/2019, 4/20/2020, 10/6/2020, 4/13/2021, 10/5/2021, 4/5/2022, 10/4/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC1MW-3	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 4/9/2019, 10/18/2019, 4/21/2020, 10/6/2020, 4/13/2021, 10/6/2021, 4/6/2022, 10/4/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC1MW-4	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 4/9/2019, 10/18/2019, 4/21/2020, 10/6/2020, 4/13/2021, 10/5/2021, 4/5/2022, 10/4/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC1MW-9	8	3/9/2016, 6/7/2016, 10/3/2016, 11/18/2016, 2/14/2017, 4/25/2017, 6/20/2017, 7/13/2017	2	11/8/2017, 3/13/2018	14	6/6/2018, 10/4/2018, 4/10/2019, 10/18/2019, 4/21/2020, 10/6/2020, 4/13/2021, 10/6/2021, 4/6/2022, 10/4/2022, 4/11/2023, 10/11/2023, 4/15/2024, 10/7/2024

Notes:

[1] The March 13, 2018 Detection Monitoring event was completed as an Alternate Source Demonstration (ASD) due to detected SSIs in November 2017.

[2] The June 6, 2018 sampling event was completed for initiation of the Assessment Monitoring Program.

[3] MW-13 submerged under water during April and October 2019 sampling events.

[4] Monitoring well MW-14 was installed in July 2018.

[5] The January 30, 2020 Assessment Monitoring event was completed as a verification sampling event due to detected SSIs in October 2019.

[6] The April 27, 2020 sampling was conducted for the NC2 Monitoring Network, but data has been included into the NC1 database.

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Table 3 - Groundwater Elevations

Omaha Public Power District - NC1 Ash Disposal Area

	CCR Monitoring Network Wells															
	NC2MW-4		MW-11		MW-13		MW-14		NC1MW-2		NC1MW-3		NC1MW-4		NC1MW-9	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	919.62		918.44		918.05		920.99		919.42		919.85		919.63		920.09	
Date	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)
3/9/2016	6.95	912.67	6.90	911.54	4.61	913.44	*MW-14 installed 7/12/2018*		8.90	910.52	8.95	910.90	9.50	910.13	9.30	910.79
6/7/2016	6.06	913.56	5.85	912.59	3.95	914.10			7.04	912.38	7.75	912.10	7.41	NM	7.88	912.21
10/3/2016	6.25	913.37	6.34	912.10	4.03	914.02			8.45	910.97	8.35	911.50	9.10	NM	8.76	911.33
11/18/2016	6.79	912.83	7.37	911.07	4.43	913.62			9.30	910.12	9.36	910.49	10.10	909.53	7.75	912.34
2/14/2017	7.52	912.10	7.95	910.49	5.20	912.85			10.10	909.32	9.91	909.94	10.85	908.78	10.41	909.68
4/25/2017	6.20	913.42	6.24	912.20	4.02	914.03			8.10	911.32	8.25	911.60	8.84	910.79	8.65	911.44
6/20/2017	6.75	912.87	7.85	910.59	4.72	913.33			7.60	911.82	7.95	911.90	8.20	911.43	8.15	911.94
7/13/2017	7.10	912.52	6.25	912.19	5.00	913.05			8.40	911.02	8.75	911.10	9.10	910.53	9.10	910.99
11/8/2017	12.20	907.42	10.95	907.49	8.25	909.80			11.55	907.87	11.90	907.95	11.60	908.03	12.10	907.99
3/13/2018	10.18	909.44	9.85	908.59	8.10	909.95			11.50	907.92	11.85	908.00	12.16	907.47	12.22	907.87
6/6/2018	6.80	912.82	6.80	911.64	4.56	913.49			5.30	914.12	7.15	912.70	7.10	912.53	8.90	911.19
10/4/2018	4.14	915.48	4.45	913.99	1.63	916.42	7.35	913.64	5.78	913.64	6.60	913.25	6.66	912.97	6.87	913.22
1/15/2019	NM	NM	NM	NM	NM	NM	8.15	912.84	NM	NM	NM	NM	NM	NM	NM	NM
3/5/2019	NM	NM	NM	NM	NM	NM	8.75	912.24	NM	NM	NM	NM	NM	NM	NM	NM
4/8/2019	3.53	916.09	3.04	915.40	NM	NM	5.73	915.26	4.17	915.25	4.69	915.16	4.58	915.05	4.85	915.24
10/14/2019	3.47	916.15	2.90	915.54	NM	NM	5.75	915.24	3.64	915.78	4.56	915.29	4.33	915.30	4.65	915.44
4/20/2020	5.24	914.38	5.48	912.96	2.94	915.11	7.59	913.40	6.82	912.60	7.42	912.43	7.60	912.03	7.69	912.40
10/2/2020	9.65	909.97	9.37	909.07	7.76	910.29	11.47	909.52	10.52	908.90	11.13	908.72	11.17	908.46	11.35	908.74
4/6/2021	6.76	912.86	7.01	911.43	4.73	913.32	8.51	912.48	8.91	910.51	8.90	910.95	9.53	910.10	9.34	910.75
10/1/2021	10.17	909.45	9.88	908.56	8.32	909.73	11.98	909.01	11.27	908.15	11.74	908.11	11.84	907.79	12.00	908.09
4/1/2022	10.27	909.35	10.42	908.02	8.19	909.86	11.74	909.25	12.52	906.90	12.22	907.63	13.01	906.62	12.74	907.35
10/1/2022	11.82	907.80	11.31	907.13	10.04	908.01	13.87	907.12	12.62	906.80	13.09	906.76	13.12	906.51	13.28	906.81
4/6/2023	12.43	907.19	12.20	906.24	9.97	908.08	14.01	906.98	13.81	905.61	13.94	905.91	14.25	905.38	14.29	905.80
10/2/2023	11.20	908.42	10.83	907.61	9.48	908.57	13.30	907.69	12.12	907.30	12.56	907.29	12.57	907.06	12.76	907.33
4/11/2024	11.98	907.64	11.77	906.67	10.25	907.80	13.57	907.42	13.27	906.15	13.56	906.29	13.74	905.89	13.87	906.22
10/4/2024	10.13	909.49	9.91	908.53	8.24	909.81	12.35	908.64	11.19	908.23	11.68	908.17	11.82	907.81	11.92	908.17

Notes:

TOC: Top of PVC well casing

NM = not measured

AMSL = above mean sea level

Table 3 - Groundwater Elevations

Omaha Public Power District - NC1 Ash Disposal Area

	Water Level Only Wells															
	NC1MW-5		NC1MW-6		NC1MW-7		NC1MW-8		NC2MW-2		NC2MW-3		NC2MW-5		NC2MW-6	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	920.70		916.67		919.20		919.68		922.55		919.58		922.76		919.72	
Date	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/9/2016	10.82	909.88	7.55	909.12	8.25	910.95	8.60	911.08	10.80	911.75	4.05	912.17	6.98	915.78	7.95	911.77
6/7/2016	9.67	911.03	6.31	910.36	6.43	912.77	6.80	912.88	8.96	913.59	2.55	913.67	7.67	915.09	6.02	913.70
10/3/2016	12.99	907.71	6.86	909.81	7.94	911.26	8.53	911.15	8.91	913.64	2.31	913.91	5.30	917.46	5.95	913.77
11/18/2016	11.25	909.45	8.20	908.47	8.72	910.48	9.10	910.58	10.90	911.65	4.10	912.12	9.25	913.51	8.10	911.62
2/14/2017	11.70	909.00	8.80	907.87	9.60	909.60	10.00	909.68	11.70	910.85	4.95	911.27	10.20	912.56	9.00	910.72
4/25/2017	10.30	910.40	7.02	909.65	7.41	911.79	7.75	911.93	9.85	912.70	3.21	913.01	8.48	914.28	7.00	912.72
6/20/2017	10.72	909.98	7.42	909.25	7.85	911.35	8.04	911.64	10.30	912.25	3.42	912.80	9.82	912.94	7.35	912.37
7/13/2017	10.50	910.20	8.10	908.57	8.32	910.88	8.89	910.79	10.76	911.79	4.25	911.97	10.15	912.61	7.90	911.82
11/8/2017	10.90	909.80	8.70	907.97	9.05	910.15	9.18	910.50	15.10	907.45	12.10	904.12	14.20	908.56	11.20	908.52
3/13/2018	NM	NM	NM	NM	NM	NM	NM	NM	13.90	908.65	7.15	909.07	12.95	909.81	10.88	908.84
6/6/2018	NM	NM	NM	NM	NM	NM	NM	NM	10.35	912.20	3.70	912.52	9.70	913.06	7.25	912.47
10/4/2018	8.85	911.85	5.41	911.26	4.48	914.72	5.14	914.54	7.39	915.16	0.80	915.42	4.95	917.81	4.30	915.42
1/15/2019	10.06	910.64	6.56	910.11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
3/5/2019	NM	NM	8.08	908.59	NM	NM	NM	NM	6.70	915.85	NM	NM	4.56	918.20	4.18	915.54
4/8/2019	NM	NM	NM	NM	3.68	915.52	3.98	915.70	6.34	916.21	0.21	916.01	4.48	918.28	3.75	915.97
10/14/2019	NM	NM	NM	NM	3.01	916.19	3.33	916.35	9.09	913.46	2.56	913.66	5.81	916.95	6.11	913.61
4/20/2020	9.70	911.00	6.16	910.51	6.05	913.15	6.36	913.32	8.83	913.72	2.36	913.86	6.37	916.39	5.97	913.75
10/2/2020	12.90	907.80	9.11	907.56	10.06	909.14	10.36	909.32	12.92	909.63	10.34	909.24	12.63	910.13	9.90	909.82
4/6/2021	10.95	909.75	7.58	909.09	8.20	911.00	8.54	911.14	10.57	911.98	7.72	911.86	5.87	916.89	7.62	912.10
10/1/2021	13.54	907.16	9.66	907.01	10.69	908.51	11.02	908.66	13.48	909.07	11.55	908.03	13.15	909.61	10.38	909.34
4/1/2022	14.02	906.68	10.72	905.95	11.99	907.21	12.29	907.39	14.14	908.41	12.00	907.58	6.29	916.47	11.21	908.51
10/1/2022	14.82	905.88	11.05	905.62	11.91	907.29	12.23	907.45	14.60	907.95	12.72	906.86	14.90	907.86	11.84	907.88
4/6/2023	15.61	905.09	11.87	904.80	13.22	905.98	13.57	906.11	15.95	906.60	13.79	905.79	NM[1]	NM[1]	14.02	905.70
10/2/2023	14.27	906.43	10.33	906.34	11.51	907.69	11.83	907.85	14.41	908.14	11.87	907.71	NM[1]	NM[1]	11.35	908.37
4/11/2024	15.21	905.49	11.39	905.28	12.73	906.47	13.04	906.64	15.42	907.13	13.55	906.03	15.02	907.74	12.30	907.42
10/4/2024	13.58	907.12	9.84	906.83	10.54	908.66	10.85	908.83	13.44	909.11	10.90	908.68	12.95	909.81	10.31	909.41

Notes:

TOC: Top of PVC well casing

NM = not measured

AMSL = above mean sea level

[1] NC2MW-5 was dry during the April and October 2023 sampling events; therefore, no water level was obtained.

Table 3 - Groundwater Elevations

Omaha Public Power District - NC1 Ash Disposal Area

	Water Level Only Wells													
	NC2MW-7		NC2MW-8		NC2MW-5A		NC2MW-9		MW-12		MW-16		MW-17	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	918.20		917.97		922.05		920.35		920.36		916.77		913.53	
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)
3/9/2016	7.04	911.16	*Well Installed 7/9/2018*		*Well Installed 9/16/2019*		*Well Installed 9/17/2019*		9.00	911.36	9.00	907.77	NM	NM
6/7/2016	4.80	913.40							7.80	912.56	7.80	908.97	NM	NM
10/3/2016	5.40	912.80							8.40	911.96	8.40	908.37	NM	NM
11/18/2016	7.20	911.00							9.35	911.01	9.35	907.42	NM	NM
2/14/2017	8.15	910.05							9.95	910.41	9.95	906.82	NM	NM
4/25/2017	5.96	912.24							8.20	912.16	8.20	908.57	NM	NM
6/20/2017	6.35	911.85							8.40	911.96	8.40	908.37	NM	NM
7/13/2017	6.80	911.40							8.52	911.84	8.52	908.25	NM	NM
11/8/2017	10.50	907.70							12.55	907.81	12.55	904.22	NM	NM
3/13/2018	10.00	908.20							NM	NM	NM	NM	NM	NM
6/6/2018	6.35	911.85							NM	NM	NM	NM	NM	NM
10/4/2018	3.20	915.00	3.15	914.82					6.55	913.81	8.49	908.28	8.59	904.94
1/15/2019	NM	NM	6.67	911.30					NM	NM	7.14	NM	4.00	909.53
3/5/2019	2.74	915.46	NM	NM					NM	NM	8.45	908.32	9.29	904.24
4/8/2019	2.27	915.93	2.38	915.59					4.89	915.47	NM	NM	NM	NM
10/14/2019	5.37	912.83	4.75	913.22	4.38	917.67	4.19	916.16	4.77	915.59	NM	NM	NM	NM
4/20/2020	4.99	913.21	4.59	913.38	7.49	914.56	6.76	913.59	7.41	912.95	NM	NM	NM	NM
10/2/2020	8.81	909.39	8.68	909.29	11.88	910.17	10.81	909.54	11.29	909.07	NM	NM	NM	NM
4/6/2021	6.76	911.44	6.03	911.94	8.70	913.35	8.56	911.79	8.97	911.39	7.91	908.86	5.19	908.34
10/1/2021	9.37	908.83	9.16	908.81	12.39	909.66	11.42	908.93	11.86	908.50	9.98	906.79	*Well Decommissioned 6/9/2021*	
4/1/2022	10.45	907.75	9.61	908.36	11.57	910.48	12.09	908.26	12.35	908.01	10.89	905.88		
10/1/2022	10.79	907.41	11.66	906.31	14.20	907.85	12.77	907.58	13.24	907.12	11.39	905.38		
4/6/2023	11.94	906.26	11.49	906.48	14.67	907.38	13.80	906.55	14.13	906.23	12.13	904.64		
10/2/2023	10.32	907.88	10.04	907.93	13.35	908.70	12.33	908.02	12.64	907.72	10.74	906.03		
4/11/2024	11.47	906.73	10.98	906.99	14.17	907.88	13.22	907.13	13.72	906.64	11.07	905.70		
10/4/2024	9.34	908.86	9.13	908.84	12.23	909.82	11.20	909.15	11.79	908.57	10.04	906.73		

Notes:

TOC: Top of PVC well casing

NM = not measured

AMSL = above mean sea level

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Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC2MW-4	3/9/2016	<0.2	131	<5	<0.5	6.94	46.2	546
	3/14/2016	<0.2	126	6.27	0.213	6.84	48.3	536
	6/3/2016	<0.2	130	<5	<0.5	6.9	46.8	668
	6/7/2016	<0.2	129	<5	<0.5	6.95	45.6	660
	8/31/2016	<0.2	91.1	7.13	0.646	7.20	29.7	574
	10/3/2016	<0.2	127	<5	<0.5	7.33	32	542
	11/17/2016	<0.2	130	<5	1.28	7.19	34	548
	11/18/2016	<0.2	132	<5	1.1	7.30	33.6	574
	2/14/2017	<0.2	148	<5	<0.5	7.72	39.3	544
	2/15/2017	<0.2	142	10.8	2.43	7.63	39.7	526
	4/24/2017	<0.2	126	<5	1.08	7.08	38.6	574
	4/25/2017	<0.2	122	<5	<0.5	7.28	38.3	594
	6/15/2017	<0.2	122	<5	<0.5	7.09	32.2	552
	6/20/2017	<0.2	119	<5	<0.5	7.13	33.1	558
	7/12/2017	<0.2	104	<5	<0.5	7.88	32.7	580
	7/13/2017	<0.2	112	<5	<0.5	7.98	32.7	664
	11/8/2017	<0.2	133	<5	<0.5	7.15	43.5	556
	11/9/2017	<0.2	134	<5	<0.5	7.18	42.8	568
	3/13/2018	<0.2	138	<5	0.53	6.71 / 7.28 **	42.6	478
	6/6/2018	<0.2	128	<5	<0.5	7.15	43.9	542
	10/4/2018	<0.2	117	<5	<0.5	6.81	42.4	520
	4/8/2019	<0.2	137	<5	<0.5	6.71	40.9	560
	10/15/2019	<0.2	142	5.38	<0.5	6.57	35.0	528
	1/30/2020	0.115J	142	<5	<0.5	6.54	44.5	544
	4/20/2020	<0.1	127	5.05	0.421J	6.61	51.9	526
	4/27/2020	<0.073	134	5.37	0.315J	6.88	52.6	550
	10/5/2020	0.0996J	154	5.60	<0.23	6.81	46.1	608
	4/12/2021	0.0838J	103	4.93J	0.311J	6.27	61.6	448
	10/4/2021	0.119	128	4.86J	<0.275	6.53	62.6	486
	4/4/2022	0.126	128	3.29J	<0.220	6.02 / 7.3^	60.4	444
	10/4/2022	0.160	118	5.30	<0.220	7.08	37.4	442
	4/10/2023	0.223	125	5.76	<0.375	6.96	49.0	616
	10/10/2023	0.126	119	4.22J	<0.375	6.12	44.8	430
	4/15/2024	0.0951J	143	5.00	<0.375	6.32	51.7	468
	10/7/2024	0.158	133	5.55	0.511J	6.90	52.3	470
MW-11	3/9/2016	0.811	99.6	<5	<0.5	7.07	128	468
	6/7/2016	0.704	93.4	5.16	<0.5	7.16	27.1	536
	10/3/2016	1.35	107	<5	<0.5	7.36	122	528
	11/18/2016	1.38	115	<5	0.95	7.32	119	512
	2/14/2017	1.25	118	8.57	2.09	7.18	113	532
	4/25/2017	1.02	102	6.17	1.44	7.26	94.7	508
	6/20/2017	0.843	76.1	<5	0.562	7.19	80.4	400
	7/13/2017	1.01	69.9	<5	0.538	7.62	74.2	520
	11/8/2017	1.05	87.2	<5	0.62	6.95	120	492
	3/13/2018	0.63	77.1	<5	<0.5	7.00 / 7.69 **	109	302
	6/6/2018	0.737	86.5	5.09	<0.5	7.16	145	428

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-11 (cont'd)	10/4/2018	1.14	96.5	5.60	0.568	6.93	148	486
	4/8/2019	0.698	91.3	14.3	<0.5	7.41	126	470
	10/16/2019	1.53	132	15.3	0.558	6.64	164	608
	4/20/2020	1.04	116	14.3	0.430J	6.78	170	556
	10/6/2020	1.16	84.3	6.82	0.444J	6.82	127	410
	4/13/2021	0.474	52.4	5.42	0.323J	6.78	35.1	212
	10/5/2021	0.335	79.5	5.82	<0.275	6.53	<2.45	240
	4/5/2022	0.225	59.6	7.76	<0.220	6.80	30.5	198
	10/3/2022	0.371	72.8	5.64	<0.220	7.50	3.70J	302
	4/10/2023	0.214	58.9	6.24	<0.375	6.70	11.0	278
	10/10/2023	0.318	53.5	7.34	<0.375	6.78	<2.10	204
	4/15/2024	0.325	65.9	5.86	<0.375	7.30	3.75J	246
	10/7/2024	0.428	64.5	7.76	<0.375	7.05	<2.10	238
MW-13	3/9/2016	<0.2	96.3	11.8	<0.5	7.20	44.8	408
	3/14/2016	<0.2	90.6	11.4	<0.5	6.97	47.7	438
	6/3/2016	<0.2	87.9	12	<0.5	7.11	37.6	360
	6/7/2016	<0.2	87.1	11.7	<0.5	7.14	39.3	484
	8/31/2016	<0.2	66.6	11.1	<0.5	7.71	31.3	414
	10/3/2016	<0.2	85.4	10.7	<0.5	7.37	29.7	388
	11/17/2016	<0.2	84.2	9.33	0.803	7.79	34.7	430
	11/18/2016	<0.2	86.2	9.65	0.647	7.14	34.4	410
	2/14/2017	<0.2	106	20.7	3.64	7.29	39.9	472
	2/15/2017	<0.2	94.9	11.2	<0.5	7.21	40.9	448
	4/24/2017	<0.2	94.1	12	0.789	7.27	39.5	520
	4/25/2017	<0.2	93.5	12.1	0.80	7.36	38.9	430
	6/15/2017	<0.2	91.1	12.4	<0.5	7.28	34.2	454
	6/20/2017	<0.2	88.6	12.7	0.51	7.17	35.6	456
	7/12/2017	<0.2	95.8	16.8	<0.5	8.1	42	676
	7/13/2017	<0.2	94.1	12.5	<0.5	8.09	39.8	592
	11/8/2017	<0.2	90.2	12.7	0.608	7.00	37.4	498
	11/9/2017	<0.2	95.2	12.4	0.55	7.12	36.4	488
	3/13/2018	<0.2	93.8	12.7	<0.5	6.89 / 7.51**	38.2	388
	6/6/2018	<0.2	99.4	12.6	<0.5	6.84	70.4	504
	10/4/2018	<0.2	87.3	14.1	0.738	6.88	33.6	410
	4/8/2019[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/15/2019[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/30/2020[2]	0.121J	93.7	17.2	<0.5	6.96	44.5	464
	4/20/2020	0.133J	120	17.3	0.399J	6.93	371	742
	4/27/2020	0.134	102	17.2	0.383J	6.87	271	622
	10/5/2020	0.0955J	118	12.8	<0.23	6.9	46.2	508
	4/12/2021	0.0653J	66.9	5.5	0.441J	6.58	101	350
	10/4/2021	0.105	126	11.5	<0.275	6.99	47.4	510
	4/4/2022	0.0931J	130	10.7	<0.220	6.15 / 7.2^	48.8	470
	10/3/2022	0.113	112	9.85	<0.220	6.90	13.3	470
	4/10/2023	0.136	120	12.2	<0.375	6.95	31.6	736
	10/10/2023	0.0986J	141	11.4	1.0	6.65	7.56	544
	4/15/2024	0.0852J	138	12.5	<0.375	7.02	77.1	524
	10/7/2024	0.114	137	12.2	<0.375	6.96	59.3	534

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-14	10/4/2018	0.226	129	9.07	0.751	6.85	59.1	700
	1/15/2019	0.257	116	8.61	<0.5	6.53	51.9	730
	3/5/2019	0.231	155	9.76	<0.5	6.70	59.8	752
	4/8/2019	0.296	156	8.46	<0.5	6.81	43.2	840
	10/15/2019	0.272	155	6.99	<0.5	6.52	24.2	600
	1/30/2020[2]	0.235	128	7.05	0.298J	6.6	25.4	708
	4/20/2020	0.278	158	7.95	0.52	6.85	27.7	678
	10/5/2020	0.322	157	8.73	0.339J	6.65	19.9	702
	4/13/2021	0.263	152	8.57	0.495J	6.17	12.3	672
	10/4/2021	0.246	168	9.65	<0.275	7.07	36.0	706
	4/4/2022	0.277	171	8.25	<0.220	7.09 / 7.2^	27.4	678
	10/3/2022	0.282	151	7.36	<0.220	7.40	3.29J	670
	4/10/2023	0.236	146	7.72	<0.375	7.12	<2.10	690
	10/10/2023	0.284	153	7.96	0.412J	6.71	4.88J	670
	4/15/2024	0.261	165	8.03	<0.375	7.11	<2.10	668
	10/7/2024	0.289	154	8.14	<0.375	6.92	5.92	658
NC1MW-2	3/9/2016	0.301	122	<5	0.664	6.84	90.2	456
	6/7/2016	0.205	94.4	<5	<0.5	6.99	60.1	404
	10/3/2016	0.327	103	<5	<0.5	7.29	39.8	370
	11/18/2016	0.333	121	<5	1.82	7.01	59.5	516
	2/14/2017	0.427	122	<5	<0.5	7.48	99.1	580
	4/25/2017	0.226	87	<5	1.40	7.40	59.8	536
	6/20/2017	<0.2	112	<5	<0.5	7.12	54.4	496
	7/13/2017	0.225	110	<5	<0.5	7.48	44.5	524
	11/8/2017	<0.2	135	<5	0.55	7.02	121	592
	3/13/2018	<0.2	94.0	<5	0.57	6.85 / 7.53 **	61.0	362
	6/6/2018	0.27	88.8	<5	<0.5	7.06	48.3	344
	10/4/2018	<0.2	115	<5	<0.5	6.78	70.0	400
	4/8/2019	<0.2	111	<5	<0.5	6.68	66.3	418
	10/18/2019	0.305	112	<5	<0.5	6.84	52.0	332
	4/20/2020	<0.1	119	2.81J	0.614	6.78	54.4	424
	10/6/2020	0.141	77.7	4.61J	0.301J	6.81	57.4	272
	4/13/2021	0.233	91.6	3.82J	0.294J	6.69	54.4	318
	10/5/2021	0.430	103	5.31	<0.275	6.54	72.1	340
	4/5/2022	1.23	138	8.03	<0.220	6.74	159	564
	10/4/2022	1.30	127	8.62	<0.220	6.89	152	634
	4/10/2023	0.680	100	6.96	0.399J	6.76	99.8	436
	10/10/2023	0.442	74.8	3.08J	<0.375	6.88	50.8	302
	4/15/2024	0.323	115	3.65J	<0.375	7.26	74.8	416
	10/7/2024	0.203	119	3.48J	<0.375	7.27	57.5	394
NC1MW-3	3/9/2016	1.88	227	14.3	0.508	6.73	457	1150
	6/7/2016	2.56	213	18.4	<0.5	6.9	446	1180
	10/3/2016	1.63	147	10.5	<0.5	7.33	326	794
	11/18/2016	1.66	156	9.00	3.91	7.05	149	732
	2/14/2017	1.66	170	11.0	2.97	7.56	286	852
	4/25/2017	1.97	166	10.1	0.974	7.27	338	924

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC1MW-3 (cont'd)	6/20/2017	2.42	155	10.5	0.591	6.99	361	1070
	7/13/2017	2.55	169	7.81	0.603	7.85	334	1080
	11/8/2017	2.04	144	9.53	0.648	7.14	339	852
	3/13/2018	1.97	154	10.8	<0.5	6.85 / 7.42 **	362	846
	6/6/2018	2.60	155	12.5	<0.5	6.40	324	948
	10/4/2018	2.32	163	8.88	0.541	7.15	432	944
	4/9/2019	2.33	186	7.96	<0.5	7.32	427	1040
	10/18/2019	2.42	166	9.91	0.527	7.08	361	760
	4/21/2020	2.98	169	9.09	0.693	6.92	346	916
	10/6/2020	2.57	173	7.13	0.520	6.76	354	976
	4/13/2021	3.14	180	9.11	0.557	6.63	372	1000
	10/6/2021	2.77	181	9.86	<0.275	6.34	395	998
	4/6/2022	3.11	182	9.98	<0.220	6.60	392	994
	10/4/2022	2.43	163	7.78	<0.220	6.98	263	874
	4/10/2023	2.63	185	7.80	0.390J	6.79	292	906
	10/11/2023	2.34	153	7.44	0.399J	7.04	191	752
	4/15/2024	2.59	181	7.08	<0.375	7.25	261	856
	10/7/2024	2.31	165	7.79	<0.375	7.13	177	756
NC1MW-4	3/9/2016	1.83	227	10.5	<0.5	7.25	373	896
	6/7/2016	1.22	107	<5	<0.5	7.29	344	667
	10/3/2016	1.29	104	<5	<0.5	7.52	262	546
	11/18/2016	1.40	124	<5	0.876	7.25	310	712
	2/14/2017	1.59	139	<5	<0.5	7.48	295	760
	4/25/2017	1.39	102	5.19	<0.5	7.39	244	582
	6/20/2017	1.16	89.9	<5	<0.5	7.22	210	448
	7/13/2017	1.41	88.2	<5	<0.5	7.62	196	696
	11/8/2017	1.13	97.6	6.39	<0.5	7.05	234	480
	3/13/2018	1.21	111	6.04	<0.5	7.16 / 7.31 **	250	560
	6/6/2018	1.45	145	<5	<0.5	7.60	294	822
	10/4/2018	1.15	115	5.39	0.569	7.41	263	580
	4/9/2019	1.28	120	5.78	<0.5	7.65	231	586
	10/18/2019	1.34	151	5.64	0.501	7.33	238	572
	4/21/2020	1.53	145	5.68	0.507	7.11	229	658
	10/6/2020	1.77	172	6.65	0.535	6.86	272	778
	4/13/2021	1.44	98.4	5.71	0.441J	6.87	165	498
	10/5/2021	1.25	114	6.82	<0.275	6.68	210	518
	4/5/2022	2.27	141	5.36	<0.220	6.94	214	564
	10/4/2022	1.96	122	5.19	<0.220	7.02	196	548
	4/10/2023	2.33	145	4.91J	<0.375	6.85	206	660
	10/10/2023	1.50	137	4.75J	<0.375	7.05	279	674
	4/15/2024	1.60	145	4.47J	<0.375	7.45	275	716
	10/7/2024	1.97	139	5.39	<0.375	7.04	287	748
NC1MW-9	3/9/2016	3.65	125	<5	0.547	7.08	284	808
	6/7/2016	2.44	126	<5	<0.5	6.90	133	660
	10/3/2016	3.57	149	<5	0.578	7.58	244	740
	11/18/2016	4.44	181	6.31	3.40	7.08	270	944

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC1MW-9 (cont'd)	2/14/2017	2.5	139	5.95	1.78	7.52	247	770
	4/25/2017	2.5	164	5.8	0.934	7.12	291	1100
	6/20/2017	1.39	174	5.69	<0.5	7.06	218	870
	7/13/2017	1.68	144	<5	0.68	7.58	159	792
	11/8/2017	2.65	167	5.77	0.735	7.16	344	846
	3/13/2018	2.6	132	5.74	<0.5	6.93 / 7.48 **	276	754
	6/6/2018	2.45	149.0	<5	0.732	5.80	221	708
	10/4/2018	1.28	148	8.56	0.777	7.27	158	678
	4/10/2019	2.59	164	5.34	<0.5	7.03	184	756
	10/18/2019	1.31	157	5.13	0.605	7.06	206	780
	4/21/2020	1.46	169	5.90	0.68	7.10	177	802
	10/6/2020	2.60	160	5.35	0.739	6.87	234	882
	4/13/2021	1.50	160	6.5	0.504	6.7	162	768
	10/6/2021	1.45	174	6.84	<0.275	6.41	219	822
	4/6/2022	0.703	152	6.33	0.930	6.71	88.6	666
	10/4/2022	0.790	156	6.03	<0.220	6.91	140	718
	4/11/2023	0.699	149	6.55	0.444J	7.05	132	726
	10/11/2023	0.399	154	6.78	0.406J	7.02	104	646
	4/15/2024	0.459	170	6.77	<0.375	7.13	142	732
	10/7/2024	0.361	161	7.62	<0.375	7.00	116	674

Notes:

[1] MW-13 was surrounded by ponding water during the April and October 2019 sampling events, therfore N/A designates the well was not sampled.

[2]MW-13 and MW-14 were sampled as part of the NC2 verification sampling event in January 2020.

"<" for the period of March 2016 through October 2019, the symbol indicates analyte not detected above the Reporting Limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the Method Detection Limit, which is the value shown following the "<" symbol.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

** The first pH value obtained in the field during the ASD sampling event on March 13, 2018 and was found to be an outlier due to equipment errors. The second pH value was a verification sample obtained in the field on March 19, 2018.

^Field measurements of pH for select samples were observed to be anomalous due to instrument error. The pH for these samples were also analyzed by the laboratory. The first pH value is the field measured value, and the second pH value is the lab measured value.

J - Denotes result is less than the Reporting Limit but greater than the Method Detection Limit, therefore the concentration is an approximate value and was not used as a statistically significant detection.

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Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents													
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC2MW-4	3/9/2016	<0.001	<0.002	0.281	<0.001	<0.0005	<0.005	<0.0005	1.54	<0.5	0.00199	<0.05	<0.0002	0.00272	<0.005	<0.001
	3/14/2016	<0.001	<0.002	0.276	<0.001	<0.0005	<0.005	<0.0005	0.563	0.213	0.00065	<0.05	<0.0002	0.00239	<0.005	<0.001
	6/3/2016	<0.001	<0.002	0.288	<0.001	<0.0005	<0.005	<0.0005	0.739	<0.5	0.000737	<0.05	<0.0002	0.00252	<0.005	<0.001
	6/7/2016	<0.001	<0.002	0.293	<0.001	<0.0005	<0.005	<0.0005	1.21	<0.5	0.000951	<0.05	<0.0002	0.00283	<0.005	<0.001
	8/31/2016	<0.001	<0.002	0.296	<0.001	<0.0005	<0.005	<0.0005	1.04	0.646	0.00162	<0.05	<0.0002	0.00597	<0.005	<0.001
	10/3/2016	<0.001	<0.002	0.283	<0.001	<0.0005	<0.005	<0.0005	1.19	<0.5	<0.0005	<0.05	<0.0002	0.00421	<0.005	<0.001
	11/17/2016	<0.001	<0.002	0.284	<0.001	<0.0005	<0.005	<0.0005	1.03	1.28	0.000536	<0.05	<0.0002	0.00393	<0.005	<0.001
	11/18/2016	<0.001	<0.002	0.283	<0.001	<0.0005	<0.005	<0.0005	0.984	1.1	0.00127	<0.05	<0.0002	0.00288	<0.005	<0.001
	2/14/2017	<0.001	<0.002	0.300	<0.001	<0.0005	<0.005	0.00129	0.894	<0.5	0.0032	<0.05	<0.0002	0.0028	<0.005	<0.001
	2/15/2017	<0.001	<0.002	0.272	<0.001	<0.0005	<0.005	0.000584	0.647	2.43	0.00196	<0.05	<0.0002	0.00224	<0.005	<0.001
	4/24/2017	<0.001	<0.002	0.287	<0.001	<0.0005	<0.005	<0.0005	1.08	1.08	0.000802	<0.05	<0.0002	0.00422	<0.005	<0.001
	4/25/2017	<0.001	<0.002	0.300	<0.001	<0.0005	<0.005	<0.0005	1.23	<0.5	0.000714	<0.05	<0.0002	0.00323	<0.005	<0.001
	6/15/2017	<0.001	<0.002	0.249	<0.001	<0.0005	<0.005	0.000521	1.29	<0.5	0.00165	<0.05	<0.0002	0.00233	<0.005	<0.001
	6/20/2017	<0.001	<0.002	0.258	<0.001	<0.0005	<0.005	<0.0005	1.16	<0.5	0.000754	<0.05	<0.0002	0.00551	0.00593	<0.001
	7/12/2017	<0.001	<0.002	0.232	<0.001	<0.0005	<0.005	<0.0005	1.42	<0.5	0.000549	<0.05	<0.0002	0.00587	<0.005	<0.001
	7/13/2017	<0.001	<0.002	0.236	<0.001	<0.0005	<0.005	<0.0005	0.76	<0.5	0.000787	<0.05	<0.0002	0.00326	<0.005	<0.001
	3/13/2018	<0.001	<0.002	0.297	<0.001	<0.0005	<0.005	<0.0005	1.71	0.53	0.00192	0.0318	<0.0002	<0.002	0.0112	<0.001
	6/6/2018	<0.001	<0.002	0.329	<0.001	<0.0005	<0.005	0.000502	1.9	<0.5	0.00154	0.0292	<0.0002	0.0049	0.008	<0.001
	10/4/2018	N.S.[1]	<0.002	0.321	N.S.[1]	N.S.[1]	N.S.[1]	<0.0005	1.13	<0.5	0.000565	0.0332	N.S.[1]	0.00707	<0.005	N.S.[1]
	4/8/2019	<0.001	<0.002	0.351	<0.001	<0.0005	<0.005	<0.0005	0.980	<0.5	<0.0005	0.0351	<0.0002	0.00283	<0.005	<0.001
	10/15/2019	<0.001	<0.002	0.39	<0.001	0.000138	<0.005	<0.0005	1.22	<0.5	<0.0005	0.0343	<0.0002	0.00412	<0.005	<0.001
	1/30/2020	<0.00058	0.00109J	0.34	<0.000270	0.0000720J	<0.0011	0.000531	0.610	<0.5	0.00167	0.0347	<0.0001	0.00177J	<0.001	<0.00026
	4/20/2020	0.000609J	<0.00088	0.303	<0.000270	<0.000039	<0.0011	0.000167J	0.684	0.421J	0.000624	0.0305	<0.0001	0.00191J	<0.001	<0.00026
	4/27/2020 [4]	<0.00058	<0.00088	0.335	<0.000270	0.0000470J	<0.0011	0.000121J	0.743	0.315J	0.000398J	0.0284	<0.0001	0.00192J	<0.001	<0.00026
	10/5/2020	<0.00051	0.00348	<0.00051	<0.000270	0.0000970J	0.00164J	0.00122	-0.927U	<0.23	0.00243	0.0349	<0.0001	0.00272	<0.001	<0.00026
	4/12/2021	<0.00110	0.00113J	0.268	<0.000270	0.0000580J	<0.00110	0.000256J	0.984	0.311J	0.000833	0.023	<0.000150	0.0112	0.0111	<0.000260
	10/4/2021	<0.00110	0.00275	0.420	0.000571J	0.000469	0.00110J	0.00203	8.39	<0.275	0.0061	0.0324	<0.000150	0.00154J	0.00391J	0.000527J
	4/4/2022	<0.000690	0.00150J	0.338	<0.000270	0.0000820J	<0.00110	0.000723	0.555U	<0.220	0.00208	0.0301	<0.000110	0.00609	0.0146	<0.000260
	10/4/2022	<0.000690	0.00114J	0.347	<0.000270	0.0000600J	<0.00110	0.000383J	2.64	<0.220	0.000736	0.0303	<0.000110	0.00422	<0.000960	<0.000260
	4/10/2023	<0.00100	0.00605	0.473	0.000423J	0.000168J	0.0103	0.00415	1.49	<0.375	0.00639	0.0397	<0.000140	0.00466	0.00417J	<0.000260
	10/10/2023	<0.00100	0.00196J	0.342	<0.000330	0.000155J	<0.00110	0.00164	3.17	<0.375	0.00360	0.0311	<0.000140	0.00302	0.00965	<0.000260
	4/15/2024	<0.00100	0.00250	0.466	<0.000330	<0.000100	<0.00120	0.00122	1.30	<0.375	0.00213	0.0339	<0.000110	0.00262	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00115J	0.375	<0.000330	<0.000100	<0.00120	0.000228J	3.35	0.511J	0.000616	0.0366	<0.000110	0.00623	0.00567	<0.000570
MW-11	3/9/2016	<0.001	<0.002	0.215	<0.001	<0.0005	<0.005	<0.0005	0.714	<0.5	<0.0005	<0.05	<0.0002	0.00361	<0.005	<0.001
	6/7/2016	<0.001	<0.002	0.212	<0.001	<0.0005	<0.005	<0.0005	0.589	<0.5	<0.0005	<0.05	<0.0002	0.00477	<0.005	<0.001
	10/3/2016	<0.001	<0.002	0.233	<0.001	<0.0005	<0.005	<0.0005	1.1	<0.5	<0.0005	<0.05	<0.0002	0.0082	<0.005	<0.001
	11/18/2016	<0.001	<0.002	0.251	<0.001	<0.0005	<0.005	<0.0005	1.13	0.95	<0.0005	<0.05	<0.0002	0.00659	<0.005	<0.001
	2/14/2017	<0.001	<0.002	0.246	<0.001	<0.0005	<0.005	<0.0005	0.225	2.09	<0.0005	<0.05	<0.0002	0.00471	<0.005	<0.001
	4/25/2017	<0.001	<0.002	0.249	<0.001	<0.0005	<0.005	<0.0005	0.358	1.44	<0.0005	<0.05	<0.0002	0.005	<0.005	<0.001
	6/20/2017	0.00235	<0.002	0.156	<0.001	<0.0005	<0.005	0.000549	0.398	0.562	<0.0005	<0.05	<0.0002	0.00788	<0.005	<0.001
	7/13/2017	<0.001	<0.002	0.146	<0.001	<0.0005	<0.005	0.00085	0.397	0.538	<0.0005	<0.05	0.000262	0.00905	<0.005	<0.001
	3/13/2018	<0.001	0.00272	0.154	<0.001	<0.0005	<0.005	0.00104	0.414	<0.5	<0.0005	0.0143	<0.0002	0.00269	0.00503	<0.001
	6/6/2018	<0.001	<0.002	0.172	<0.001	<0.0005	<0.005	0.000779	0.494	<0.5	0.00118	0.0123	<0.0002	0.00996	0.0071	<0.001
	10/4/2018	N.S.[1]	<0.002	0.185	N.S.[1]	N.S.[1]	N.S.[1]	<0.0005	0.958	0.568	<0.0005	0.0197	N.S.[1]	0.00883	<0.005	N.S.[1]

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-11 (cont'd)	4/8/2019	<0.001	<0.002	0.162	<0.001	<0.0005	<0.005	<0.0005	0.228	<0.5	0.000519	0.0162	<0.0002	0.00609	<0.005	<0.001
	10/16/2019	<0.001	0.00497	0.255	<0.001	<0.0001	<0.005	0.00305	0.684	0.558	<0.0005	0.0201	<0.0002	0.0120	<0.00500	<0.001
	4/20/2020	<0.00058	0.00201	0.184	<0.000270	<0.000039	<0.0011	0.000452J	0.134U	0.430J	<0.00027	0.0168	<0.0001	0.00990	<0.001	<0.00026
	10/6/2020	<0.00051	0.00983	0.159	<0.000270	<0.000049	<0.0011	0.00375	0.326U	0.444J	0.000301J	0.0112	<0.0001	0.0164	<0.001	<0.00026
	4/13/2021	<0.00110	0.00452	0.131	<0.000270	0.0000900J	<0.00110	0.000873	0.570	0.323J	0.000572	0.00252J	<0.000150	0.0299	0.00138J	<0.000260
	10/5/2021	<0.00110	0.0237	0.253	<0.000270	0.000179	<0.00110	0.00131	0.378U	<2.45	0.000537	<0.00250	<0.000150	0.0201	.00125J	<0.000260
	4/5/2022	<0.000690	0.0113	0.191	<0.000270	<0.0000550	0.00141J	0.00128	0.550U	<0.220	0.00124	<0.00250	<0.000110	0.0235	0.00161J	<0.000260
	10/3/2022	<0.000690	0.0170	0.252	<0.000270	<0.0000550	<0.00110	0.00108	1.91	<0.220	0.000783	0.00264J	<0.000110	0.00370	<0.000960	<0.000260
	4/10/2023	<0.00100	0.0142	0.171	<0.000330	<0.000100	<0.00110	0.000839	0.100U	<0.375	0.000896	0.00261J	<0.000140	0.00794	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0120	0.187	<0.000330	<0.000100	<0.00110	0.000261J	0.471U	<0.375	0.000351J	0.00254J	<0.000140	0.00511	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0118	0.205	<0.000330	<0.000100	<0.00120	0.000327J	0.146U	<0.375	0.000452J	0.00261J	<0.000110	0.00323	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00721	0.218	<0.000330	<0.000100	<0.00120	0.000337J	2.37	<0.375	0.000278J	0.00280J	<0.000110	<0.00130	<0.00140	<0.000570
MW-13	3/9/2016	<0.001	0.00492	0.302	<0.001	<0.0005	<0.005	0.000817	1.14	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	3/14/2016	<0.001	0.00545	0.288	<0.001	<0.0005	<0.005	0.00105	0.741	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/3/2016	<0.001	0.00607	0.324	<0.001	<0.0005	<0.005	0.00122	1.01	<0.5	0.000704	<0.05	<0.0002	0.00216	<0.005	<0.001
	6/7/2016	<0.001	0.00591	0.317	<0.001	<0.0005	<0.005	0.00118	0.69	<0.5	0.000623	<0.05	<0.0002	<0.002	<0.005	<0.001
	8/31/2016	<0.001	0.00623	0.342	<0.001	<0.0005	<0.005	0.00107	1.09	<0.5	<0.0005	<0.05	<0.0002	0.00258	<0.005	<0.001
	10/3/2016	<0.001	0.00709	0.319	<0.001	<0.0005	<0.005	0.00103	1.01	<0.5	<0.0005	<0.05	<0.0002	0.00264	<0.005	<0.001
	11/17/2016	<0.001	0.00515	0.322	<0.001	<0.0005	<0.005	0.000873	1.37	0.803	0.00089	<0.05	<0.0002	0.00221	<0.005	<0.001
	11/18/2016	<0.001	0.0058	0.333	<0.001	<0.0005	<0.005	0.000916	0.745	0.647	<0.0005	<0.05	<0.0002	0.00235	<0.005	<0.001
	2/14/2017	<0.001	0.00304	0.349	<0.001	<0.0005	<0.005	0.000925	0.532	3.64	<0.0005	<0.05	<0.0002	0.00228	<0.005	<0.001
	2/15/2017	<0.001	0.00289	0.321	<0.001	<0.0005	<0.005	0.000883	0.407	<0.5	<0.0005	<0.05	<0.0002	0.00207	<0.005	<0.001
	4/24/2017	<0.001	0.0024	0.336	<0.001	<0.0005	<0.005	0.00135	0.579	0.789	0.000516	<0.05	<0.0002	<0.002	<0.005	<0.001
	4/25/2017	<0.001	0.00269	0.358	<0.001	<0.0005	<0.005	0.00141	0.429	0.80	0.000522	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/15/2017	<0.001	0.00371	0.318	<0.001	<0.0005	<0.005	0.00127	0.8	<0.5	<0.0005	<0.05	<0.0002	0.0021	<0.005	<0.001
	6/20/2017	<0.001	0.00268	0.311	<0.001	<0.0005	<0.005	0.00119	0.483	0.51	0.00171	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/12/2017	<0.001	0.00263	0.328	<0.001	<0.0005	<0.005	0.00112	1.56	<0.5	<0.0005	<0.05	<0.0002	0.00207	<0.005	<0.001
	7/13/2017	<0.001	0.00325	0.33	<0.001	<0.0005	<0.005	0.00108	0.502	<0.5	<0.0005	<0.05	<0.0002	0.00206	<0.005	<0.001
	3/13/2018	<0.001	0.00283	0.305	<0.001	<0.0005	<0.005	0.00222	0.412	<0.5	0.00102	0.0265	<0.0002	<0.002	<0.005	<0.001
	6/6/2018	<0.001	0.00262	0.282	<0.001	<0.0005	<0.005	0.00236	1.89	<0.5	0.00577	0.0423	<0.0002	<0.002	0.00553	<0.001
	10/4/2018	N.S.[1]	0.00965	0.388	N.S.[1]	N.S.[1]	N.S.[1]	0.00191	1.62	0.738	0.00216	0.0316	N.S.[1]	0.00243	<0.005	N.S.[1]
	4/8/2019[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/15/2019[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/30/2020[3]	<0.00058	0.00824	0.230	<0.000270	<0.000039	<0.0011	0.00198	0.0337U	<0.5	0.000335J	0.0273	<0.0001	0.00187J	<0.001	<0.00026
	4/20/2020	<0.00058	0.00867	0.177	<0.000270	<0.000039	<0.0011	0.00193	0.438	0.399J	0.000311J	0.0374	<0.0001	0.00457	<0.001	<0.00026
	4/27/2020 [4]	<0.00058	0.0111	0.167	<0.000270	<0.000039	<0.0011	0.00208	-0.0922	0.383J	0.000297J	0.0348	<0.0001	0.00335	<0.001	<0.00026
	10/5/2020	<0.00051	0.0188	0.225	<0.000270	<0.000049	<0.0011	0.000384J	0.872	<0.23	0.000178J	0.0322	<0.0001	<0.0011	<0.001	<0.00026
	4/12/2021	<0.00110	0.00487	0.0815	<0.000270	<0.0000510	<0.00110	0.00099	0.429U	0.441J	0.000353J	0.0199	<0.000150	0.00443	0.00194J	<0.000260
	10/4/2021	<0.00110	0.0402	0.257	<0.000270	<0.0000510	<0.00110	0.00102	1.84	<0.275	<0.000260	0.0330	<0.000150	<0.00130	<0.000960	<0.000260
	4/4/2022	<0.000690	0.0134	0.202	<0.000270	<0.0000550	<0.00110	0.000879	0.500U	<0.220	0.000698	0.0329	<0.000110	<0.00120	<0.000960	<0.000260
	10/3/2022	<0.000690	0.0151	0.253	<0.000270	<0.0000550	<0.00110	0.000419J	1.24	<0.220	<0.000240	0.0301	<0.000110	<0.00120	<0.000960	<0.000260
	4/10/2023	<0.00100	0.0112	0.281	<0.000330	<0.000100	<0.00110	0.000591	1.06	<0.375	<0.000240	0.0345	<0.000140	<0.000910	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0411	0.313	<0.000330	<0.000100	<0.00110	0.000726	1.22	1.00	0.000375J	0.0385	<0.000140	0.00175J	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0120	0.275	<0.000330	<0.000100	<0.00120	0.000593	1.35	<0.375	<0.000260	0.0362	<0.000110	<0.00130	<0.00140	<0.000570
	10/7/2024	<0.00100	0.0122	0.329	<0.000330	<0.000100	<0.00120	0.000292J	3.53	<0.375	0.000310J	0.0380	<0.000110	<0.00130	<0.00140	<0.000570

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-14	10/4/2018	<0.001	0.0330	0.306	<0.001	<0.0005	<0.005	0.00290	1.48	0.751	<0.0005	0.0480	<0.0002	0.00293	<0.005	<0.001
	1/15/2019	<0.001	0.0301	0.309	<0.001	<0.0005	<0.005	0.00424	1.20	<0.5	<0.0005	0.0507	<0.0002	<0.002	<0.005	<0.001
	3/5/2019	<0.001	0.0253	0.301	<0.001	<0.0005	<0.005	0.00477	1.75	<0.5	<0.0005	0.0569	<0.0002	0.00227	<0.005	<0.001
	4/8/2019	<0.001	0.0368	0.309	<0.001	<0.0005	<0.005	0.00391	1.03	<0.5	<0.0005	0.0557	<0.0002	<0.002	<0.005	<0.001
	10/16/2019	<0.001	0.0893	0.359	<0.001	<0.0001	<0.005	0.00265	1.81	<0.5	<0.0005	0.0528	<0.0002	<0.002	<0.005	<0.001
	1/30/2020[3]	<0.00058	0.0513	0.266	<0.000270	<0.000039	<0.0011	0.00209	0.976	0.298J	<0.00027	0.0453	<0.0001	<0.0011	<0.001	<0.00026
	4/20/2020	<0.00058	0.0621	0.306	<0.000270	<0.000039	<0.0011	0.00216	1.03	0.520	<0.00027	0.0555	<0.0001	<0.0011	<0.001	<0.00026
	10/5/2020	<0.00051	0.0863	0.335	<0.000270	<0.000049	<0.0011	0.00257	2.45	0.339J	<0.000110	0.0497	<0.0001	<0.0011	<0.001	<0.00026
	4/13/2021	<0.00110	0.0455	0.318	<0.000270	<0.0000510	<0.00110	0.00116	1.51	0.495J	<0.000210	0.0548	<0.000150	<0.00130	<0.000960	<0.000260
	10/4/2021	<0.00110	0.0494	0.367	<0.000270	<0.0000510	<0.00110	0.00167	3.90	<0.275	0.000211J	0.0525	<0.000150	<0.00130	<0.000960	<0.000260
	4/4/2022	<0.000690	0.0266	0.324	<0.000270	<0.0000550	<0.00110	0.00104	1.89	<0.220	<0.000240	0.0558	<0.000110	<0.00120	<0.000960	<0.000260
	10/3/2022	<0.000690	0.0768	0.324	<0.000270	<0.0000550	<0.00110	0.000351J	3.11	<0.220	0.000277J	0.0516	<0.000110	<0.00120	<0.000960	<0.000260
	4/10/2023	<0.00100	0.0646	0.288	<0.000330	<0.000100	<0.00110	0.000292J	1.85	<0.375	<0.000240	0.0520	<0.000140	<0.000910	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0995	0.394	<0.000330	<0.000100	<0.00110	0.000548	2.20	0.412J	0.000656	0.0584	<0.000140	0.00122J	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0775	0.314	<0.000330	<0.000100	<0.00120	0.000247J	1.96	<0.375	<0.000260	0.0580	<0.000110	<0.00130	<0.00140	<0.000570
	10/7/2024	<0.00100	0.143	0.401	<0.000330	<0.000100	<0.00120	0.00105	3.07	<0.375	<0.000260	0.0578	<0.000110	<0.00130	<0.00140	<0.000570
NC1MW-2	3/9/2016	<0.001	<0.002	0.123	<0.001	<0.0005	<0.0005	<0.0005	0.552	0.664	<0.0005	<0.05	<0.0002	0.0444	<0.005	<0.001
	6/7/2016	<0.001	<0.002	0.0956	<0.001	<0.0005	<0.0005	<0.0005	0.305	<0.5	<0.0005	<0.05	<0.0002	0.0718	<0.005	<0.001
	10/3/2016	<0.001	<0.002	0.104	<0.001	<0.0005	<0.0005	<0.0005	0.586	<0.5	<0.0005	<0.05	<0.0002	0.12	<0.005	<0.001
	11/18/2016	<0.001	<0.002	0.126	<0.001	<0.0005	<0.0005	<0.0005	0.415	1.82	<0.0005	<0.05	<0.0002	0.095	<0.005	<0.001
	2/14/2017	<0.001	<0.002	0.123	<0.001	<0.0005	<0.0005	<0.0005	0.254	<0.5	<0.0005	<0.05	<0.0002	0.0654	<0.005	<0.001
	4/25/2017	<0.001	<0.002	0.0889	<0.001	<0.0005	<0.0005	<0.0005	0.396	1.4	<0.0005	<0.05	<0.0002	0.0489	<0.005	<0.001
	6/20/2017	<0.001	<0.002	0.116	<0.001	<0.0005	<0.0005	<0.0005	0.174	<0.5	<0.0005	<0.05	<0.0002	0.038	<0.005	<0.001
	7/13/2017	<0.001	<0.002	0.122	<0.001	<0.0005	<0.0005	<0.0005	0.375	<0.5	<0.0005	<0.05	<0.0002	0.0374	<0.005	<0.001
	3/13/2018	<0.001	<0.002	0.125	<0.001	<0.0005	<0.0005	<0.0005	0.656	0.57	<0.0005	<0.01	<0.0002	0.0446	<0.005	<0.001
	6/6/2018	<0.001	<0.002	0.122	<0.001	<0.0005	<0.0005	0.00143	0.615	<0.5	0.000713	<0.01	<0.0002	0.0711	<0.005	<0.001
	10/4/2018	N.S.[1]	<0.002	0.153	N.S.[1]	N.S.[1]	N.S.[1]	<0.0005	1.01	<0.5	0.000795	<0.01	N.S.[1]	0.0680	<0.005	N.S.[1]
	4/8/2019	<0.001	<0.002	0.126	<0.001	<0.0005	<0.005	<0.0005	0.494	<0.5	<0.0005	<0.01	<0.0002	0.0803	<0.005	<0.001
	10/18/2019	<0.001	<0.002	0.179	<0.001	0.000230	<0.005	0.000548	0.334	<0.5	<0.0005	0.0117	<0.0002	0.0872	<0.005	<0.001
	4/21/2020	<0.00058	<0.000880	0.128	<0.000270	0.0000930J	<0.0011	<0.0000910	0.192U	0.614	<0.00027	0.00764J	<0.0001	0.0938	<0.001	<0.00026
	10/6/2020	<0.00051	<0.000880	0.108	<0.000270	0.0000650J	<0.0011	0.000133J	0.376U	0.301J	0.000135J	0.00729J	<0.0001	0.121	<0.001	<0.00026
	4/13/2021	<0.00110	0.000878J	0.134	<0.000270	0.000176	<0.00110	0.000238J	0.552	0.264J	0.000463J	0.00998J	<0.000150	0.0886	<0.000960	0.00278
	10/5/2021	0.00111J	0.00179J	0.154	0.000387J	0.000592	<0.00110	0.000568	0.536U	<0.275	0.000968	0.0124	<0.000150	0.102	0.00346J	0.00106
	4/5/2022	<0.000690	0.000884J	0.222	<0.000270	0.0000860J	<0.00110	0.000258J	0.282U	<0.220	<0.000240	0.0176	<0.000110	0.0668	<0.000960	<0.000260
	10/4/2022	0.000699J	0.000978J	0.194	<0.000270	0.000131	<0.00110	0.000218J	0.724	<0.220	0.000403J	0.0163	<0.000110	0.0654	0.00418J	0.000597J
	4/10/2023	<0.00100	0.000757J	0.140	<0.000330	0.000168J	<0.00110	0.000241J	0.371U	0.399J	<0.000240	0.0148	<0.000140	0.0576	<0.00140	<0.000260
	10/10/2023	<0.00100	0.000908J	0.110	<0.000330	<0.000100	<0.00110	<0.000170	0.814	<0.375	<0.000240	0.0102	<0.000140	0.0553	<0.00140	<0.000260
	4/15/2024	<0.00100	0.000656J	0.142	<0.000330	<0.000100	<0.00120	<0.000170	0.489U	<0.375	<0.000260	0.00930J	<0.000110	0.0604	<0.00140	<0.000570
	10/7/2024	<0.00100	0.000657J	0.156	<0.000330	<0.000100	<0.00120	<0.000170	0.893	<0.375	<0.000260	0.0102	<0.000110	0.0615	<0.00140	<0.000570

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents													
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC1MW-3	3/9/2016	<0.001	0.0135	0.112	<0.001	<0.0005	<0.0005	0.00239	0.0759	0.508	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/7/2016	<0.001	0.00901	0.111	<0.001	<0.0005	<0.0005	0.00364	0.81	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	10/3/2016	<0.001	0.00761	0.0887	<0.001	<0.0005	<0.0005	0.00267	0.15	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/18/2016	<0.001	0.031	0.101	<0.001	<0.0005	<0.0005	0.00334	0.736	3.91	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/14/2017	<0.001	0.0248	0.092	<0.001	<0.0005	<0.0005	0.00268	0.436	2.97	0.000553	<0.05	<0.0002	<0.002	<0.005	<0.001
	4/25/2017	<0.001	0.0131	0.106	<0.001	<0.0005	<0.0005	0.00144	0.242	0.974	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/20/2017	<0.001	0.0195	0.115	<0.001	<0.0005	<0.0005	0.00196	0.711	0.591	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/13/2017	<0.001	0.0302	0.116	<0.001	<0.0005	<0.0005	0.00257	0.339	0.603	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	3/13/2018	<0.001	0.0111	0.0786	<0.001	<0.0005	<0.0005	0.00192	0.728	<0.5	<0.0005	0.0262	<0.0002	<0.002	<0.005	<0.001
	6/6/2018	<0.001	0.0412	0.128	<0.001	<0.0005	<0.0005	0.00219	0.922	<0.5	0.00296	0.0325	<0.0002	0.0021	<0.005	<0.001
	10/4/2018	N.S.[1]	0.0352	0.141	N.S.[1]	N.S.[1]	N.S.[1]	0.00120	1.12	0.541	0.000833	0.0326	N.S.[1]	<0.002	<0.005	N.S.[1]
	4/9/2019	<0.001	0.0143	0.0938	<0.001	<0.0005	<0.005	0.00250	0.348	<0.5	<0.0005	0.0271	<0.0002	<0.002	<0.005	<0.001
	10/18/2019	<0.001	0.0333	0.135	<0.001	<0.0001	<0.005	0.00182	0.146	0.527	<0.0005	0.0316	<0.0002	<0.002	<0.005	<0.001
	4/21/2020	<0.00058	0.0242	0.103	<0.000270	<0.000039	<0.00110	0.00228	0.0567U	0.693	<0.00027	0.0375	<0.0001	0.00140J	<0.001	<0.000260
	10/6/2020	<0.00051	0.0317	0.126	<0.000270	<0.00027	<0.00110	0.00153	0.994	0.520	<0.000110	0.0361	<0.0001	<0.0011	<0.001	<0.000260
	4/13/2021	<0.00110	0.0354	0.144	<0.000270	0.0000830J	<0.00110	0.00191	0.743	0.557	<0.000210	0.0435	<0.000510	0.00293	<0.000960	0.0032
	10/6/2021	<0.00110	0.0368	0.144	<0.000270	<0.0000510	<0.00110	0.00137	0.470U	<0.275	<0.000210	0.0361	<0.000510	0.00179J	<0.000960	<0.000260
	4/6/2022	<0.000690	0.0470	0.142	<0.000270	<0.0000550	<0.00110	0.00228	1.32	<0.220	<0.000240	0.0406	<0.000110	0.00157J	<0.000960	<0.000260
	10/4/2022	<0.000690	0.0463	0.115	<0.000270	<0.0000550	<0.00110	0.00145	0.707	<0.220	<0.000240	0.0410	<0.000110	0.00182J	<0.000960	<0.000260
	4/10/2023	<0.00100	0.140	0.173	<0.000330	<0.000100	<0.00110	0.00464	0.950	0.390J	0.000319J	0.0457	<0.000140	0.00255	<0.00140	<0.000260
	10/11/2023	<0.00100	0.0703	0.129	<0.000330	<0.000100	<0.00110	0.000771	0.429U	0.399J	<0.000240	0.0427	<0.000140	0.00260	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0484	0.127	<0.000330	<0.000100	<0.00120	0.000924	0.427U	<0.375	<0.000260	0.0434	<0.000110	0.00209	<0.00140	<0.000570
	10/7/2024	<0.00100	0.0666	0.141	<0.000330	<0.000100	<0.00120	0.000931	0.645U	<0.375	<0.000260	0.0434	<0.000110	0.00303	<0.00140	<0.000570
NC1MW-4	3/9/2016	<0.001	0.00336	0.195	<0.001	<0.0005	<0.0005	<0.0005	0.753	<0.5	<0.0005	<0.05	<0.0002	0.0053	<0.005	<0.001
	6/7/2016	<0.001	0.0029	0.100	<0.001	<0.0005	<0.0005	<0.0005	0.37	<0.5	<0.0005	<0.05	<0.0002	0.017	<0.005	<0.001
	10/3/2016	<0.001	0.0032	0.090	<0.001	<0.0005	<0.0005	<0.0005	0.343	<0.5	<0.0005	<0.05	<0.0002	0.0297	<0.005	<0.001
	11/18/2016	<0.001	0.00254	0.115	<0.001	<0.0005	<0.0005	<0.0005	0.182	0.876	<0.0005	<0.05	<0.0002	0.0199	<0.005	<0.001
	2/14/2017	<0.001	0.00433	0.119	<0.001	<0.0005	<0.0005	<0.0005	0.301	<0.5	0.00052	<0.05	<0.0002	0.0139	<0.005	<0.001
	4/25/2017	<0.001	0.00344	0.0968	<0.001	<0.0005	<0.0005	<0.0005	0.313	<0.5	<0.0005	<0.05	<0.0002	0.0249	<0.005	<0.001
	6/20/2017	<0.001	0.00334	0.0679	<0.001	<0.0005	<0.0005	<0.0005	0.0408	<0.5	<0.0005	<0.05	<0.0002	0.0356	<0.005	<0.001
	7/13/2017	<0.001	0.00381	0.0687	<0.001	<0.0005	<0.0005	<0.0005	0.0901	<0.5	<0.0005	<0.05	<0.0002	0.0317	<0.005	<0.001
	3/13/2018	<0.001	0.00265	0.0781	<0.001	<0.0005	<0.0005	<0.0005	0.286	<0.5	<0.0005	0.0114	<0.0002	0.0207	<0.005	<0.001
	6/6/2018	<0.001	0.00821	0.129	<0.001	<0.0005	<0.0005	0.000636	0.577	<0.5	<0.0005	0.01	<0.0002	0.0422	<0.005	<0.001
	10/4/2018	N.S.[1]	0.00641	0.0975	N.S.[1]	N.S.[1]	N.S.[1]	<0.0005	0.802	0.569	<0.0005	0.0135	N.S.[1]	0.0233	<0.005	N.S.[1]
	4/9/2019	<0.001	0.00223	0.0652	<0.001	<0.0005	<0.005	<0.0005	0.0157	<0.5	<0.0005	0.011	<0.0002	0.0269	<0.005	<0.001
	10/18/2019	<0.001	0.00347	0.119	<0.001	<0.0001	<0.005	0.000642	-0.000469U	0.501	<0.0005	0.0137	<0.0002	0.0183	<0.005	<0.001
	4/21/2020	<0.00058	0.00162J	0.0878	<0.000270	0.000310	<0.0011	0.000974	0.0118U	0.507	<0.00027	0.0183	<0.0001	0.00302	<0.001	<0.000260
	10/6/2020	<0.00051	0.00120J	0.152	<0.000270	0.000208	<0.0011	0.00138	0.00604U	0.535	<0.000110	0.0238	<0.0001	<0.0011	0.00199J	<0.000260
	4/13/2021	<0.00110	0.00190J	0.0768	<0.000270	0.000133	<0.00110	0.000976	0.151U	0.441J	<0.000210	0.019	<0.000150	0.00154J	<0.000960	0.000313J
	10/5/2021	<0.00110	0.00125J	0.111	<0.000270	0.000134	<0.00110	0.00200	1.08	<0.275	<0.000210	0.0187	<0.000150	0.00664	<0.000960	<0.000260
	4/5/2022	<0.000690	0.00121J	0.124	<0.000270	0.0000980J	<0.00110	0.00159	1.13	<0.220	<0.000240	0.0192	<0.000110	0.00320	0.00114J	<0.000260
	10/4/2022	<0.000690	0.00125J	0.111	<0.000270	0.000134	<0.00110	0.00190	1.03	<0.220	<0.000240	0.0208	<0.000110	0.00996	<0.000960	<0.000260
	4/10/2023	<0.00100	0.00187J	0.146	<0.000330	0.000211	<0.00110	0.00471	1.45	<0.375	<0.000240	0.0242	<0.000140	0.0150	0.00584	<0.000260
	10/10/2023	<0.00100	0.00175J	0.121	<0.000330	<0.00110	<0.00110	0.000857	1.72	<0.375	<0.000240	0.0241	<0.000140	0.00469	0.00140	<0.000260
	4/15/2024	<0.00100	0.00184J	0.114	<0.000330	<0.000100	<0.00120	0.000402J	0.565	<0.375	<0.000260	0.0217	<0.000110	0.00446	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00217	0.209	<0.000330	0.000162J	<0.00120	0.000788	1.34	<0.375	<0.000260	0.0231	<0.000110	0.00277	<0.00140	<0.000570

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC1 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC1MW-9	3/9/2016	<0.001	0.00995	0.0865	<0.001	<0.0005	<0.0005	0.00121	0.629	0.547	<0.0005	<0.05	<0.0002	0.0111	0.0634	<0.001
	6/7/2016	<0.001	0.00624	0.0816	<0.001	<0.0005	<0.0005	<0.0005	0.577	<0.5	<0.0005	<0.05	<0.0002	0.0204	0.00958	<0.001
	10/3/2016	<0.001	0.00605	0.0847	<0.001	<0.0005	<0.0005	0.000683	0.23	0.578	<0.0005	<0.05	<0.0002	0.0435	0.0388	<0.001
	11/18/2016	<0.001	0.00828	0.106	<0.001	<0.0005	<0.0005	0.000648	1.13	3.4	<0.0005	<0.05	<0.0002	0.0222	0.0162	<0.001
	2/14/2017	<0.001	0.0122	0.0836	<0.001	<0.0005	<0.0005	0.00147	0.425	1.78	<0.0005	<0.05	<0.0002	0.0169	0.0138	<0.001
	4/25/2017	<0.001	0.0164	0.115	<0.001	<0.0005	<0.0005	0.00124	0.592	0.934	<0.0005	<0.05	<0.0002	0.0473	0.0101	<0.001
	6/20/2017	<0.001	0.01	0.114	<0.001	<0.0005	<0.0005	0.00295	0.473	<0.5	<0.0005	<0.05	<0.0002	0.0486	<0.005	<0.001
	7/13/2017	<0.001	0.00885	0.0952	<0.001	<0.0005	<0.0005	0.000878	0.294	0.68	<0.0005	<0.05	<0.0002	0.0302	<0.005	<0.001
	3/13/2018	<0.001	0.0107	0.0838	<0.001	<0.0005	<0.0005	0.00063	0.412	<0.5	<0.0005	0.0198	<0.0002	0.0354	<0.005	<0.001
	6/6/2018	<0.001	0.0114	0.111	<0.001	<0.0005	<0.0005	0.00109	0.827	0.732	<0.0005	0.0189	<0.0002	0.0474	<0.005	<0.001
	10/4/2018	N.S.[1]	0.0101	0.109	N.S.[1]	N.S.[1]	N.S.[1]	0.00492	1.39	0.777	<0.0005	0.0201	N.S.[1]	0.0399	<0.005	N.S.[1]
	4/10/2019	<0.001	0.00681	0.153	<0.001	<0.0005	<0.005	0.00559	0.415	<0.5	<0.0005	0.0254	<0.0002	0.0196	0.0120	<0.001
	10/18/2019	<0.001	0.00784	0.165	<0.001	0.000100	<0.005	0.00323	0.695	0.605	<0.0005	0.0310	<0.0002	0.0230	<0.005	<0.001
	4/21/2020	<0.00058	0.0104	0.125	<0.000270	0.0000440J	<0.0011	0.00114	0.687	0.680	<0.00027	0.0314	<0.0001	0.0266	0.00328J	<0.000260
	10/6/2020	<0.00051	0.0157	0.134	<0.000270	<0.000049	<0.0011	0.00115	0.828	0.739	<0.000110	0.0269	<0.0001	0.0315	0.0188	<0.000260
	4/13/2021	<0.00110	0.011	0.12	<0.000270	0.0000890J	<0.00110	0.00143	0.205U	0.504	<0.000210	0.0343	<0.000150	0.0234	0.00280J	<0.000260
	10/6/2021	<0.00110	0.0121	0.139	<0.000270	0.0000780J	<0.00110	0.00202	1.54	<0.275	<0.000210	0.0318	<0.000150	0.0243	0.00115J	<0.000260
	4/6/2022	0.000976J	0.0140	0.122	<0.000270	0.0000960J	<0.00110	0.00174	1.10	0.930	<0.000240	0.0367	<0.000110	0.0174	0.00168J	<0.000260
	10/4/2022	<0.000690	0.0222	0.146	<0.000270	<0.0000550	<0.00110	0.00153	0.972	<0.220	<0.000240	0.0346	<0.000110	0.0179	<0.000960	<0.000260
	4/11/2023	<0.00100	0.0157	0.119	<0.000330	<0.000100	<0.00110	0.00111	0.750	0.444J	<0.000240	0.0333	<0.000140	0.0156	0.00174J	<0.000260
	10/11/2023	<0.00100	0.0490	0.174	<0.000330	<0.000100	<0.00110	0.00103	1.44	0.406J	<0.000240	0.0423	<0.000140	0.0132	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0307	0.154	<0.000330	<0.000100	<0.00120	0.00161	1.21	<0.375	<0.000260	0.0434	<0.000110	0.0141	<0.00140	<0.000570
	10/7/2024	<0.00100	0.0440	0.174	<0.000330	<0.000100	<0.00120	0.00123	1.28	<0.375	<0.000260	0.0446	<0.000110	0.0150	<0.00140	<0.000570

Notes:

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

"<" for the period of March 2016 through October 2019, the symbol indicates analyte not detected above the Reporting Limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the Method Detection Limit, which is the value shown following the "<" symbol.

"U" data qualifier (radium) indicates parameter was analyzed for but is less than the sample detection limit as defined in the analytical laboratory data package.

N.S. = Not Sampled.

J - Denotes result is less than the Reporting Limit but greater than the Method Detection Limit, therefore the concentration is an approximate value and was not used as a statistically significant detection.

[1]Constituent not sampled because only detected Appendix IV constituents were tested, in accordance with 40 CFR 257.95(d)(1).

[2]MW-13 was submerged under water during April and October 2019 sampling events, therefore N/A designates well not sampled.

[3]MW-13 and MW-14 were sampled as part of the NC2 verification sampling event in January 2020.

[4]NC2MW-4 and MW-13 were sampled as part of the NC2 sampling event on April 27, 2020.

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Table 6 - Background Threshold Values for Assessment Monitoring
Omaha Public Power District - NC1 Ash Disposal Area

Constituents	Units	Background Threshold Values (BTVs)
Appendix III (Detection Monitoring)		
Boron	mg/l	1.53
Calcium	mg/l	168
Chloride	mg/l	17.3
Fluoride [1]	mg/l	1.28
pH (LPL) [2]	SU	6.30
pH (UPL) [3]	SU	7.83
Sulfate	mg/l	170
TDS	mg/l	774
Appendix IV (Assessment Monitoring)		
Antimony	mg/l	0.002
Arsenic	mg/l	0.0893
Barium	mg/l	0.426
Beryllium	mg/l	0.001
Cadmium	mg/l	0.0005
Chromium	mg/l	0.005
Cobalt	mg/l	0.00477
Fluoride [1]	mg/l	1.28
Lead	mg/l	0.00639
Lithium	mg/l	0.0569
Mercury	mg/l	0.000262
Molybdenum	mg/l	0.0299
Radium 226 + 228	pCi/l	3.11
Selenium	mg/l	0.0146
Thallium	mg/l	0.001

Notes:

[1] Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

[2] Indicates the lower bound of the range is the lower prediction limit (LPL).

[3] Indicates the upper bound is the upper prediction limit (UPL).

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Table 7 - Established Groundwater Protection Standards
Omaha Public Power District - NC1 Ash Disposal Area

Constituents	Units	Established Groundwater Protection Standard (GWPS)[1]
Appendix IV (Assessment Monitoring)		
Antimony	mg/l	0.006
Arsenic	mg/l	0.0893[2]
Barium	mg/l	2.0
Beryllium	mg/l	0.004
Cadmium	mg/l	0.005
Chromium	mg/l	0.1
Cobalt	mg/l	0.006
Fluoride	mg/l	4.0
Lead	mg/l	0.015
Lithium	mg/l	0.0569[2]
Mercury	mg/l	0.002
Molybdenum	mg/l	0.1
Radium 226 + 228	pCi/l	5.0
Selenium	mg/l	0.05
Thallium	mg/l	0.002

Notes:

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

[2] GWPS is established as the upper prediction limit (UPL) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

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Appendix A

Field Sampling Forms

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NEBRASKA CITY STATION

Water Levels Prior to Purging (Feet Below TOC)

NC1MW2	Date of Sampling	4/11/2024	Time of Sampling	14:07	Static Water Level	13.27
NC1MW3	Date of Sampling	4/11/2024	Time of Sampling	14:34	Static Water Level	13.56
NC1MW4	Date of Sampling	4/11/2024	Time of Sampling	14:10	Static Water Level	13.74
NC1MW5	Date of Sampling	4/11/2024	Time of Sampling	14:22	Static Water Level	15.21
NC1MW6	Date of Sampling	4/11/2024	Time of Sampling	14:17	Static Water Level	11.39
NC1MW7	Date of Sampling	4/11/2024	Time of Sampling	13:54	Static Water Level	12.73
NC1MW8	Date of Sampling	4/11/2024	Time of Sampling	13:52	Static Water Level	13.04
NC1MW9	Date of Sampling	4/11/2024	Time of Sampling	14:41	Static Water Level	13.87
NC2MW2	Date of Sampling	4/11/2024	Time of Sampling	13:42	Static Water Level	15.42
NC2MW3	Date of Sampling	4/11/2024	Time of Sampling	13:34	Static Water Level	13.55
NC2MW4	Date of Sampling	4/11/2024	Time of Sampling	13:08	Static Water Level	11.98
NC2MW5	Date of Sampling	4/11/2024	Time of Sampling	13:20	Static Water Level	15.02
NC2MW6	Date of Sampling	4/11/2024	Time of Sampling	13:25	Static Water Level	12.30
NC2MW7	Date of Sampling	4/11/2024	Time of Sampling	13:49	Static Water Level	11.47
NC2MW8	Date of Sampling	4/11/2024	Time of Sampling	13:39	Static Water Level	10.98
MW11	Date of Sampling	4/11/2024	Time of Sampling	13:59	Static Water Level	11.77
MW12	Date of Sampling	4/11/2024	Time of Sampling	14:02	Static Water Level	13.72
MW13	Date of Sampling	4/11/2024	Time of Sampling	13:03	Static Water Level	10.25
MW14	Date of Sampling	4/11/2024	Time of Sampling	13:13	Static Water Level	13.57

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW2 - 5**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 74°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:32	Pump Start Time	12:34
Static Water Level (+/- 0.01 feet)*	13.18	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	16.40	Time to Purge Well (hours:minutes)	0:23
Pump Intake Elevation (+/- 0.01 feet)*	905.59	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	1.99		
Actual Volume of Water Purged (mL)	3,600		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:43	1,350	16.13	2.16	2.9	7.23	0.683	13.14
12:46	1,800	15.28	1.50	1.4	7.27	0.694	13.14
12:49	2,250	15.17	0.90	0.5	7.25	0.707	13.13
12:51	2,700	14.99	0.81	1.0	7.27	0.711	13.13
12:54	3,150	15.04	0.79	1.6	7.26	0.709	13.13
12:57	3,600	15.04	0.77	1.3	7.26	0.714	13.14

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:57	3,600	15.04	0.77	1.3	7.26	0.714	13.14
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17

Notes / Unusual Occurrences: None

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW3 - 8**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 80°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:00	Pump Start Time	14:05
Static Water Level (+/- 0.01 feet)*	13.50	Purge Rate (mL/minute)	175
Bottom of Well Casing (+/- 0.01 feet)*	22.20	Time to Purge Well (hours:minutes)	0:40
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	5.37		
Actual Volume of Water Purged (mL)	7,000		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:13	1,400	15.61	9.45	486	7.24	1.36	13.50
14:16	1,925	15.12	10.04	234	7.24	1.36	13.50
14:19	2,450	15.33	9.07	168.0	7.24	1.36	13.50
14:22	2,975	15.41	9.61	91.8	7.25	1.35	13.50
14:25	3,500	15.17	9.26	54.5	7.25	1.34	13.50
14:28	4,025	15.13	9.31	35.6	7.28	1.37	13.50
14:31	4,550	15.55	9.03	31.2	7.24	1.36	13.50
14:33	4,900	15.14	9.17	26.8	7.25	1.36	13.50
14:36	5,425	15.34	9.04	25.7	7.25	1.35	13.50
14:39	5,950	15.44	9.29	18.8	7.25	1.35	13.50
14:42	6,475	15.20	9.10	18.0	7.24	1.35	13.50
14:45	7,000	15.45	8.85	17.9	7.25	1.36	13.50

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:45	7,000	15.45	8.85	17.9	7.25	1.36	13.50
Duplicate?	Yes, DUP1	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		400

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW4 - 6**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 78°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:15	Pump Start Time	13:17
Static Water Level (+/- 0.01 feet)*	13.62	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	17.70	Time to Purge Well (hours:minutes)	0:18
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.52		
Actual Volume of Water Purged (mL)	2,700		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:23	900	17.40	9.13	8.6	7.43	1.15	13.63
13:26	1,350	17.08	8.98	18.5	7.46	1.11	13.63
13:29	1,800	16.87	8.86	13.0	7.47	1.09	13.63
13:32	2,250	16.81	8.81	12.2	7.45	1.11	13.63
13:35	2,700	16.85	8.77	12.3	7.45	1.11	13.63

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:35	2,700	16.85	8.77	12.3	7.45	1.11	13.63
Duplicate?	Yes, DUP1	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17

Notes / Unusual Occurrences: Clear Color with Suspended Sand in Sample

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **NC2MW4 - 2**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 66°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:55	Pump Start Time	10:00
Static Water Level (+/- 0.01 feet)*	12.02	Purge Rate (mL/minute)	100-150
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	1.53		
Actual Volume of Water Purged (mL)	1,950		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:05	750	13.82	7.80	55.1	6.31	0.907	13.45
10:08	1,050	13.91	7.74	57.4	6.30	0.912	14.10
10:11	1,350	13.82	7.76	79.6	6.29	0.912	Top of Pump
10:14	1,650	13.80	7.70	42.7	6.31	0.913	Top of Pump
10:17	1,950	13.77	7.67	73.6	6.32	0.914	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:17	1,950	13.77	7.67	73.6	6.32	0.914	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Light Brown	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: Well Began Purging Dry, Sampled at 10:17

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW9 - 10**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 84°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:30	Pump Start Time	15:30
Static Water Level (+/- 0.01 feet)*	13.80	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	22.40	Time to Purge Well (hours:minutes)	0:20
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	5.31		
Actual Volume of Water Purged (mL)	3,000		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
15:35	750	20.58	2.80	59.1	7.15	1.07	13.80
15:38	1,200	21.64	6.62	58.9	7.13	1.05	13.80
15:41	1,650	21.60	1.45	63.6	7.14	1.06	13.80
15:44	2,100	21.72	1.37	63.3	7.14	1.05	13.80
15:47	2,550	21.66	1.38	66.0	7.14	1.05	13.80
15:50	3,000	21.73	1.33	64.0	7.13	1.05	13.80

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
15:50	3,000	21.73	1.33	64.0	7.13	1.05	13.80
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW11 - 4**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 73°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:25	Pump Start Time	11:27
Static Water Level (+/- 0.01 feet)*	11.77	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	21.85	Time to Purge Well (hours:minutes)	0:22
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	6.22		
Actual Volume of Water Purged (mL)	4,400		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:35	1,600	15.86	9.50	39.6	7.29	0.446	13.90
11:38	2,200	15.99	9.46	36.7	7.29	0.446	14.03
11:40	2,600	15.85	9.43	34.7	7.27	0.446	14.18
11:43	3,200	15.75	9.40	31.7	7.29	0.446	14.24
11:46	3,800	15.92	9.50	32.2	7.28	0.447	14.30
11:49	4,400	15.86	9.39	32.1	7.30	0.446	14.34

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:49	4,400	15.86	9.39	32.1	7.30	0.446	14.34
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW13 - 1**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 60°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:24	Pump Start Time	9:25
Static Water Level (+/- 0.01 feet)*	Top of Pump	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	15.19	Time to Purge Well (hours:minutes)	0:25
Pump Intake Elevation (+/- 0.01 feet)*	908.30	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	5,250		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
9:30	750	13.33	6.40	68.5	6.89	0.954	Top of Pump
9:33	1,200	12.84	9.84	53.3	6.90	0.952	Top of Pump
9:36	2,400	12.90	9.91	32.2	6.87	0.942	Top of Pump
9:39	3,600	12.90	9.60	31.3	6.94	0.942	Top of Pump
9:41	3,900	12.77	9.30	27.5	6.99	0.944	Top of Pump
9:44	4,350	12.54	10.00	25.5	7.00	0.944	Top of Pump
9:47	4,800	12.72	9.99	19.7	6.98	0.944	Top of Pump
9:50	5,250	12.75	9.95	20.0	7.02	0.945	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
9:50	5,250	12.75	9.95	20.0	7.02	0.945	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW14 - 3**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 67°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:20	Pump Start Time	10:21
Static Water Level (+/- 0.01 feet)*	14.53	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	Not Measured	Time to Purge Well (hours:minutes)	0:29
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	5,800		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:26	1,000	15.87	10.70	120	7.07	1.22	14.22
10:29	1,600	14.76	10.19	112.0	7.19	1.22	14.50
10:31	2,000	14.20	10.39	124.0	7.12	1.22	14.76
10:34	2,600	14.56	10.28	85.8	7.05	1.22	14.90
10:37	3,200	14.19	10.22	122	7.10	1.22	15.05
10:40	3,800	14.02	10.19	53.6	7.17	1.22	15.30
10:43	4,400	14.38	9.70	62.6	7.11	1.23	15.43
10:47	5,200	14.12	10.07	62.3	7.12	1.23	15.75
10:50	5,800	14.62	10.01	55.6	7.11	1.22	15.82

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:50	5,800	14.62	10.01	55.6	7.11	1.22	15.82
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 4/15/2024
Time: 7:17

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multi-Parameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	NA
Conductivity	4.35	µS/cm
Turbidity	0.0	NTU
DO	9.89	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

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NEBRASKA CITY STATION

Water Levels Prior to Purging (Feet Below TOC)

NC1MW2	Date of Sampling	10/4/2024	Time of Sampling	9:34	Static Water Level	11.19
NC1MW3	Date of Sampling	10/4/2024	Time of Sampling	10:04	Static Water Level	11.68
NC1MW3D	Date of Sampling	10/4/2024	Time of Sampling	10:06	Static Water Level	13.35
NC1MW4	Date of Sampling	10/4/2024	Time of Sampling	9:37	Static Water Level	11.82
NC1MW4D	Date of Sampling	10/4/2024	Time of Sampling	9:39	Static Water Level	10.54
NC1MW5	Date of Sampling	10/4/2024	Time of Sampling	9:49	Static Water Level	13.58
NC1MW6	Date of Sampling	10/4/2024	Time of Sampling	9:44	Static Water Level	9.84
NC1MW6D	Date of Sampling	10/4/2024	Time of Sampling	9:45	Static Water Level	9.83
NC1MW7	Date of Sampling	10/4/2024	Time of Sampling	9:15	Static Water Level	10.54
NC1MW8	Date of Sampling	10/4/2024	Time of Sampling	9:14	Static Water Level	10.85
NC1MW9	Date of Sampling	10/4/2024	Time of Sampling	10:09	Static Water Level	11.92
NC1MW9D	Date of Sampling	10/4/2024	Time of Sampling	10:10	Static Water Level	13.32
NC2MW2	Date of Sampling	10/4/2024	Time of Sampling	9:04	Static Water Level	13.44
NC2MW3	Date of Sampling	10/4/2024	Time of Sampling	8:56	Static Water Level	10.90
NC2MW4	Date of Sampling	10/4/2024	Time of Sampling	8:17	Static Water Level	10.13
NC2MW5	Date of Sampling	10/4/2024	Time of Sampling	8:43	Static Water Level	12.95
NC2MW5A	Date of Sampling	10/4/2024	Time of Sampling	8:46	Static Water Level	12.23
NC2MW6	Date of Sampling	10/4/2024	Time of Sampling	8:49	Static Water Level	10.31
NC2MW7	Date of Sampling	10/4/2024	Time of Sampling	9:13	Static Water Level	9.34
NC2MW8	Date of Sampling	10/4/2024	Time of Sampling	8:59	Static Water Level	9.13
NC2MW9	Date of Sampling	10/4/2024	Time of Sampling	9:10	Static Water Level	11.20
MW11	Date of Sampling	10/4/2024	Time of Sampling	9:24	Static Water Level	9.91
MW12	Date of Sampling	10/4/2024	Time of Sampling	9:28	Static Water Level	11.79
MW13	Date of Sampling	10/4/2024	Time of Sampling	8:14	Static Water Level	8.24
MW14	Date of Sampling	10/4/2024	Time of Sampling	8:23	Static Water Level	12.35
MW16	Date of Sampling	10/4/2024	Time of Sampling	9:54	Static Water Level	10.04

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW2 - 5**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, 69°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:32	Pump Start Time	16:33
Static Water Level (+/- 0.01 feet)*	11.17	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	16.40	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	905.59	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	3.23		
Actual Volume of Water Purged (mL)	2,550		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:38	750	17.43	1.64	4.4	7.40	0.759	11.17
16:41	1,200	17.39	1.16	3.3	7.35	0.751	11.17
16:44	1,650	17.33	0.90	3.6	7.32	0.749	11.17
16:47	2,100	17.27	0.87	2.7	7.30	0.745	11.17
16:50	2,550	17.22	0.86	2.5	7.27	0.743	11.17

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:50	2,550	17.22	0.86	2.5	7.27	0.743	11.17
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53

Notes / Unusual Occurrences: None

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW3 - 8**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy, 74°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:33	Pump Start Time	13:34
Static Water Level (+/- 0.01 feet)*	11.69	Purge Rate (mL/minute)	300
Bottom of Well Casing (+/- 0.01 feet)*	22.20	Time to Purge Well (hours:minutes)	0:26
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	6.49		
Actual Volume of Water Purged (mL)	7,800		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:39	1,500	17.11	0.00	238	7.01	1.29	11.69
13:42	2,400	16.70	0.00	192	7.06	1.29	11.69
13:45	3,300	16.56	0.00	137.0	7.09	1.29	11.69
13:48	4,200	16.42	0.00	92.6	7.13	1.29	11.69
13:51	5,100	16.31	0.00	59.4	7.13	1.29	11.69
13:54	6,000	16.27	0.00	42.2	7.13	1.29	11.69
13:57	6,900	16.25	0.00	29.4	7.13	1.29	11.69
14:00	7,800	16.26	0.00	22.3	7.13	1.29	11.69

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:00	7,800	16.26	0.00	22.3	7.13	1.29	11.69
Duplicate?	Yes, DUP1	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		300

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/8/2024, 11:52

Notes / Unusual Occurrences: None

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW4 - 6**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:56	Pump Start Time	12:59
Static Water Level (+/- 0.01 feet)*	11.82	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	17.70	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	3.63		
Actual Volume of Water Purged (mL)	2,800		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:04	1,000	18.64	0.46	31.2	7.00	1.14	11.82
13:07	1,600	18.53	0.12	36.1	7.00	1.15	11.82
13:10	2,200	18.44	0.07	25.1	7.02	1.16	11.82
13:13	2,800	18.37	0.04	21.9	7.04	1.15	11.82

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:13	2,800	18.37	0.04	21.9	7.04	1.15	11.82
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/8/2024, 11:52
Notes / Unusual Occurrences: Clear Color with Suspended Sand in Sample			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **NC2MW4 - 2**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 55°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:00	Pump Start Time	11:02
Static Water Level (+/- 0.01 feet)*	10.11	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.71		
Actual Volume of Water Purged (mL)	1,400		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:07	500	16.80	0.69	30.4	7.10	0.962	10.55
11:10	800	16.85	0.27	20.9	6.98	0.957	10.67
11:13	1,100	16.85	0.29	11.9	6.92	0.951	10.83
11:16	1,400	16.89	0.32	8.8	6.90	0.950	10.96

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:16	1,400	16.89	0.32	8.8	6.90	0.950	10.96
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences:			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW9 - 10**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy, 76°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:27	Pump Start Time	14:28
Static Water Level (+/- 0.01 feet)*	11.93	Purge Rate (mL/minute)	250
Bottom of Well Casing (+/- 0.01 feet)*	22.40	Time to Purge Well (hours:minutes)	0:29
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	6.46		
Actual Volume of Water Purged (mL)	7,250		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:33	1,250	16.50	0.38	247	7.12	1.19	11.93
14:36	2,000	16.13	0.00	298	7.01	1.19	11.93
14:39	2,750	16.12	0.00	227	7.01	1.20	11.93
14:42	3,500	16.12	0.00	131	7.03	1.20	11.93
14:45	4,250	16.14	0.00	82.1	7.05	1.20	11.93
14:48	5,000	16.08	0.00	48.9	7.04	1.20	11.93
14:51	5,750	16.04	0.00	33.3	7.02	1.20	11.93
14:54	6,500	15.98	0.00	25.6	7.01	1.20	11.93
14:57	7,250	15.94	0.00	23.4	7.00	1.20	11.93

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:57	7,250	15.94	0.00	23.4	7.00	1.20	11.93
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		250

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/8/2024, 11:52
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW11 - 4**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 66°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:25	Pump Start Time	12:28
Static Water Level (+/- 0.01 feet)*	9.91	Purge Rate (mL/minute)	100-200
Bottom of Well Casing (+/- 0.01 feet)*	21.85	Time to Purge Well (hours:minutes)	0:20
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	7.37		
Actual Volume of Water Purged (mL)	2,500		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:33	1,000	17.52	6.73	17.0	7.39	0.460	12.03
12:36	1,300	17.93	7.64	14.4	7.20	0.464	11.94
12:39	1,600	18.20	7.72	13.9	7.17	0.465	11.77
12:42	1,900	18.42	7.53	12.8	7.07	0.464	11.57
12:45	2,200	18.64	7.55	11.0	7.05	0.462	11.43
12:48	2,500	18.78	7.60	11.5	7.05	0.460	11.40

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:48	2,500	18.78	7.60	11.5	7.05	0.460	11.40
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW13 - 1**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 54°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:18	Pump Start Time	10:23
Static Water Level (+/- 0.01 feet)*	8.27	Purge Rate (mL/minute)	250
Bottom of Well Casing (+/- 0.01 feet)*	15.19	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	908.30	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	4.27		
Actual Volume of Water Purged (mL)	4,250		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:28	1,250	17.04	0.33	21.6	7.11	0.981	8.27
10:31	2,000	16.63	0.08	21.4	7.03	0.997	8.27
10:34	2,750	16.60	0.00	27.3	6.98	0.998	8.27
10:37	3,500	16.52	0.00	24.7	6.96	0.997	8.27
10:40	4,250	16.43	0.00	19.4	6.96	0.996	8.27

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:40	4,250	16.43	0.00	19.4	6.96	0.996	8.27
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		250

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 1	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW14 - 3**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 62°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:39	Pump Start Time	11:41
Static Water Level (+/- 0.01 feet)*	12.27	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	Not Measured	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	3,200		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:46	1,000	15.65	1.03	13.1	7.14	1.27	12.78
11:49	1,600	15.42	1.00	9.2	6.91	1.27	12.91
11:52	2,000	15.40	1.07	8.5	6.90	1.27	13.07
11:55	2,600	15.47	1.12	6.4	6.91	1.27	13.19
11:58	3,200	15.49	1.13	7.2	6.92	1.27	13.31

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:58	3,200	15.49	1.13	7.2	6.92	1.27	13.31
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 10/7/2024
Time: 8:53

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multi-Parameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	NA
Conductivity	4.47	µS/cm
Turbidity	0.0	NTU
DO	9.87	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

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Appendix B

Analytical Laboratory Reports

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eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 4/26/2024 11:42:50 AM

JOB DESCRIPTION

Nebraska City Station Unit 1 CCR/Landfill

JOB NUMBER

310-279078-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
4/26/2024 11:42:50 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-279078-1 — Eurofins Cedar Falls

Job Narrative
310-279078-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 4:40 PM. 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 -0.7°C and -0.1°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC1MW2 (310-279078-1), NC1MW3 (310-279078-2), NC1MW4 (310-279078-3), NC1MW9 (310-279078-4), MW11 (310-279078-5), MW14 (310-279078-6) and DUP1 (310-279078-7). 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279078-1	NC1MW2	Water	04/15/24 13:00	04/17/24 16:40
310-279078-2	NC1MW3	Water	04/15/24 14:45	04/17/24 16:40
310-279078-3	NC1MW4	Water	04/15/24 13:36	04/17/24 16:40
310-279078-4	NC1MW9	Water	04/15/24 15:50	04/17/24 16:40
310-279078-5	MW11	Water	04/15/24 11:50	04/17/24 16:40
310-279078-6	MW14	Water	04/15/24 10:50	04/17/24 16:40
310-279078-7	DUP1	Water	04/15/24 08:20	04/17/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2 — Lab Sample ID: 310-279078-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.65	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	74.8		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.000656	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.142		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.323		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	115		0.500	0.190	mg/L	1		6020B	Total/NA
Lithium	0.00930	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0604		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	416		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW3 — Lab Sample ID: 310-279078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.08		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	261		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0484		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.127		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	2.59		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	181		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000924		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0434		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00209		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	856		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW4 — Lab Sample ID: 310-279078-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.47	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	275		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00184	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.114		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	1.60		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	145		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000402	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0217		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00446		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	716		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW9 — Lab Sample ID: 310-279078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.77		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	142		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0307		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.154		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.459		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	170		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00161		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0434		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0141		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	732		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: MW11 — Lab Sample ID: 310-279078-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.86		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	3.75	J	5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0118		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.205		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.325		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	65.9		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000327	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000452	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.00261	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00323		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	246		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW14 — Lab Sample ID: 310-279078-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.03		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0775		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.314		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.261		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	165		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000247	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0580		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	668		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP1 — Lab Sample ID: 310-279078-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.01		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	260		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0470		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.125		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	2.55		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	177		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000895		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0422		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00186	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	878		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-279078-1
Date Collected: 04/15/24 13:00
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.65**	**J**	5.00	2.25	mg/L			04/19/24 11:43	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 11:43	5
Sulfate	**74.8**		5.00	2.10	mg/L			04/19/24 11:43	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:31	1
Arsenic	**0.000656**	**J**	0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:31	1
Barium	**0.142**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:31	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:31	1
Boron	**0.323**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:31	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:31	1
Calcium	**115**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:31	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:31	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:31	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:31	1
Lithium	**0.00930**	**J**	0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:31	1
Molybdenum	**0.0604**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:31	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:31	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**416**		50.0	42.0	mg/L			04/18/24 18:10	1

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW3
Lab Sample ID: 310-279078-2

Date Collected: 04/15/24 14:45
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.08**		5.00	2.25	mg/L			04/19/24 12:21	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 12:21	5
Sulfate	**261**		5.00	2.10	mg/L			04/19/24 12:21	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:33	1
Arsenic	**0.0484**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:33	1
Barium	**0.127**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:33	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:33	1
Boron	**2.59**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:33	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:33	1
Calcium	**181**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:33	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:33	1
Cobalt	**0.000924**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:33	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:33	1
Lithium	**0.0434**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:33	1
Molybdenum	**0.00209**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:33	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:33	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**856**		50.0	42.0	mg/L			04/18/24 18:10	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW4
Lab Sample ID: 310-279078-3
Date Collected: 04/15/24 13:36
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.47**	**J**	5.00	2.25	mg/L			04/19/24 12:33	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 12:33	5
Sulfate	**275**		5.00	2.10	mg/L			04/19/24 12:33	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:37	1
Arsenic	**0.00184**	**J**	0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:37	1
Barium	**0.114**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:37	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:37	1
Boron	**1.60**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:37	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:37	1
Calcium	**145**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:37	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:37	1
Cobalt	**0.000402**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:37	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:37	1
Lithium	**0.0217**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:37	1
Molybdenum	**0.00446**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:37	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:37	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**716**		50.0	42.0	mg/L			04/18/24 18:10	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW9
Lab Sample ID: 310-279078-4
Date Collected: 04/15/24 15:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.77**		5.00	2.25	mg/L			04/19/24 12:46	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 12:46	5
Sulfate	**142**		5.00	2.10	mg/L			04/19/24 12:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:39	1
Arsenic	**0.0307**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:39	1
Barium	**0.154**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:39	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:39	1
Boron	**0.459**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:39	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:39	1
Calcium	**170**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:39	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:39	1
Cobalt	**0.00161**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:39	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:39	1
Lithium	**0.0434**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:39	1
Molybdenum	**0.0141**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:39	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:39	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**732**		50.0	42.0	mg/L			04/18/24 18:10	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: MW11
Lab Sample ID: 310-279078-5
Date Collected: 04/15/24 11:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.86**		5.00	2.25	mg/L			04/19/24 12:59	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 12:59	5
Sulfate	**3.75**	**J**	5.00	2.10	mg/L			04/19/24 12:59	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:50	1
Arsenic	**0.0118**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:50	1
Barium	**0.205**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:50	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:50	1
Boron	**0.325**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:50	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:50	1
Calcium	**65.9**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:50	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:50	1
Cobalt	**0.000327**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:50	1
Lead	**0.000452**	**J**	0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:50	1
Lithium	**0.00261**	**J**	0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:50	1
Molybdenum	**0.00323**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:50	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:50	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**246**		50.0	42.0	mg/L			04/18/24 18:10	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: MW14
Lab Sample ID: 310-279078-6
Date Collected: 04/15/24 10:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.03**		5.00	2.25	mg/L			04/19/24 13:11	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 13:11	5
Sulfate	<2.10		5.00	2.10	mg/L			04/19/24 13:11	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:52	1
Arsenic	**0.0775**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:52	1
Barium	**0.314**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:52	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:52	1
Boron	**0.261**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:52	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:52	1
Calcium	**165**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:52	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:52	1
Cobalt	**0.000247**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:52	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:52	1
Lithium	**0.0580**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:52	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:52	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:52	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**668**		50.0	42.0	mg/L			04/18/24 18:10	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: DUP1
Lab Sample ID: 310-279078-7

Date Collected: 04/15/24 08:20
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.01**		5.00	2.25	mg/L			04/19/24 13:24	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 13:24	5
Sulfate	**260**		5.00	2.10	mg/L			04/19/24 13:24	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:55	1
Arsenic	**0.0470**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:55	1
Barium	**0.125**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:55	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:55	1
Boron	**2.55**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:55	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:55	1
Calcium	**177**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:55	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:55	1
Cobalt	**0.000895**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:55	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:55	1
Lithium	**0.0422**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:55	1
Molybdenum	**0.00186**	**J**	0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:55	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:55	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**878**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Qualifiers

HPLC/IC

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.

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.

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 310-419465/3
Matrix: Water
Analysis Batch: 419465

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			04/19/24 10:38	1
Fluoride	<0.0750		0.200	0.0750	mg/L			04/19/24 10:38	1
Sulfate	<0.420		1.00	0.420	mg/L			04/19/24 10:38	1

Lab Sample ID: LCS 310-419465/4
Matrix: Water
Analysis Batch: 419465

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	9.895		mg/L		99	90 - 110
Fluoride	2.00	2.078		mg/L		104	90 - 110
Sulfate	10.0	10.69		mg/L		107	90 - 110

Lab Sample ID: 310-279078-1 MS
Matrix: Water
Analysis Batch: 419465

Client Sample ID: NC1MW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3.65	J	25.0	27.56		mg/L		96	80 - 120
Fluoride	<0.375		5.00	5.253		mg/L		105	80 - 120
Sulfate	74.8		25.0	99.23		mg/L		98	80 - 120

Lab Sample ID: 310-279078-1 MSD
Matrix: Water
Analysis Batch: 419465

Client Sample ID: NC1MW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3.65	J	25.0	27.64		mg/L		96	80 - 120	0	15
Fluoride	<0.375		5.00	5.234		mg/L		105	80 - 120	0	15
Sulfate	74.8		25.0	99.67		mg/L		99	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-419190/1-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 13:50	1
Barium	<0.000660		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 13:50	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 13:50	1
Boron	<0.0760		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Calcium	<0.190		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 13:50	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 13:50	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 13:50	1

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

Lab Sample ID: MB 310-419190/1-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 13:50	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 13:50	1

Lab Sample ID: LCS 310-419190/2-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2143		mg/L		107	80 - 120
Arsenic	0.200	0.2070		mg/L		104	80 - 120
Barium	0.100	0.1073		mg/L		107	80 - 120
Beryllium	0.100	0.1004		mg/L		100	80 - 120
Boron	0.200	0.2022		mg/L		101	80 - 120
Cadmium	0.100	0.1012		mg/L		101	80 - 120
Calcium	2.00	1.910		mg/L		95	80 - 120
Chromium	0.100	0.09635		mg/L		96	80 - 120
Cobalt	0.100	0.1096		mg/L		110	80 - 120
Lead	0.200	0.2098		mg/L		105	80 - 120
Lithium	0.200	0.2099		mg/L		105	80 - 120
Molybdenum	0.200	0.1991		mg/L		100	80 - 120
Selenium	0.400	0.3979		mg/L		99	80 - 120
Thallium	0.100	0.1094		mg/L		109	80 - 120

Lab Sample ID: 310-279078-2 DU
Matrix: Water
Analysis Batch: 419931

Client Sample ID: NC1MW3
Prep Type: Total/NA
Prep Batch: 419190

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00100		<0.00100		mg/L		NC	20
Arsenic	0.0484		0.04726		mg/L		2	20
Barium	0.127		0.1259		mg/L		1	20
Beryllium	<0.000330		<0.000330		mg/L		NC	20
Boron	2.59		2.578		mg/L		0.4	20
Cadmium	<0.000100		<0.000100		mg/L		NC	20
Calcium	181		179.4		mg/L		0.8	20
Chromium	<0.00120		<0.00120		mg/L		NC	20
Cobalt	0.000924		0.0009130		mg/L		1	20
Lead	<0.000260		<0.000260		mg/L		NC	20
Lithium	0.0434		0.04274		mg/L		1	20
Molybdenum	0.00209		0.001944	J	mg/L		7	20
Selenium	<0.00140		<0.00140		mg/L		NC	20
Thallium	<0.000570		<0.000570		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-419705/1-A
Matrix: Water
Analysis Batch: 419773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:27	04/24/24 15:21	1

Lab Sample ID: LCS 310-419705/2-A
Matrix: Water
Analysis Batch: 419773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001838		mg/L		110	80 - 120

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

Lab Sample ID: MB 310-419199/1
Matrix: Water
Analysis Batch: 419199

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	<42.0		50.0	42.0	mg/L			04/18/24 18:10	1

Lab Sample ID: LCS 310-419199/2
Matrix: Water
Analysis Batch: 419199

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	956.0		mg/L		96	90 - 110

Lab Sample ID: 310-279078-1 DU
Matrix: Water
Analysis Batch: 419199

Client Sample ID: NC1MW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	416		402.0		mg/L		3	20

Lab Sample ID: MB 310-419200/1
Matrix: Water
Analysis Batch: 419200

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	<42.0		50.0	42.0	mg/L			04/18/24 18:19	1

Lab Sample ID: LCS 310-419200/2
Matrix: Water
Analysis Batch: 419200

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	948.0		mg/L		95	90 - 110

HPLC/IC

Analysis Batch: 419465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	9056A	
310-279078-2	NC1MW3	Total/NA	Water	9056A	
310-279078-3	NC1MW4	Total/NA	Water	9056A	
310-279078-4	NC1MW9	Total/NA	Water	9056A	
310-279078-5	MW11	Total/NA	Water	9056A	
310-279078-6	MW14	Total/NA	Water	9056A	
310-279078-7	DUP1	Total/NA	Water	9056A	
MB 310-419465/3	Method Blank	Total/NA	Water	9056A	
LCS 310-419465/4	Lab Control Sample	Total/NA	Water	9056A	
310-279078-1 MS	NC1MW2	Total/NA	Water	9056A	
310-279078-1 MSD	NC1MW2	Total/NA	Water	9056A	

Metals

Prep Batch: 419190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	3005A	
310-279078-2	NC1MW3	Total/NA	Water	3005A	
310-279078-3	NC1MW4	Total/NA	Water	3005A	
310-279078-4	NC1MW9	Total/NA	Water	3005A	
310-279078-5	MW11	Total/NA	Water	3005A	
310-279078-6	MW14	Total/NA	Water	3005A	
310-279078-7	DUP1	Total/NA	Water	3005A	
MB 310-419190/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-279078-2 DU	NC1MW3	Total/NA	Water	3005A	

Prep Batch: 419705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	7470A	
310-279078-2	NC1MW3	Total/NA	Water	7470A	
310-279078-3	NC1MW4	Total/NA	Water	7470A	
310-279078-4	NC1MW9	Total/NA	Water	7470A	
310-279078-5	MW11	Total/NA	Water	7470A	
310-279078-6	MW14	Total/NA	Water	7470A	
310-279078-7	DUP1	Total/NA	Water	7470A	
MB 310-419705/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-419705/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 419773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	7470A	419705
310-279078-2	NC1MW3	Total/NA	Water	7470A	419705
310-279078-3	NC1MW4	Total/NA	Water	7470A	419705
310-279078-4	NC1MW9	Total/NA	Water	7470A	419705
MB 310-419705/1-A	Method Blank	Total/NA	Water	7470A	419705
LCS 310-419705/2-A	Lab Control Sample	Total/NA	Water	7470A	419705

Analysis Batch: 419780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-5	MW11	Total/NA	Water	7470A	419705

Metals (Continued)

Analysis Batch: 419780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-6	MW14	Total/NA	Water	7470A	419705
310-279078-7	DUP1	Total/NA	Water	7470A	419705

Analysis Batch: 419931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	6020B	419190
310-279078-2	NC1MW3	Total/NA	Water	6020B	419190
310-279078-3	NC1MW4	Total/NA	Water	6020B	419190
310-279078-4	NC1MW9	Total/NA	Water	6020B	419190
310-279078-5	MW11	Total/NA	Water	6020B	419190
310-279078-6	MW14	Total/NA	Water	6020B	419190
310-279078-7	DUP1	Total/NA	Water	6020B	419190
MB 310-419190/1-A	Method Blank	Total/NA	Water	6020B	419190
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	6020B	419190
310-279078-2 DU	NC1MW3	Total/NA	Water	6020B	419190

General Chemistry

Analysis Batch: 419199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	SM 2540C	
310-279078-2	NC1MW3	Total/NA	Water	SM 2540C	
310-279078-3	NC1MW4	Total/NA	Water	SM 2540C	
310-279078-4	NC1MW9	Total/NA	Water	SM 2540C	
310-279078-5	MW11	Total/NA	Water	SM 2540C	
310-279078-6	MW14	Total/NA	Water	SM 2540C	
MB 310-419199/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-419199/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-279078-1 DU	NC1MW2	Total/NA	Water	SM 2540C	

Analysis Batch: 419200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-7	DUP1	Total/NA	Water	SM 2540C	
MB 310-419200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-419200/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-279078-1
Date Collected: 04/15/24 13:00
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 11:43
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:31
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419773	A6US	EET CF	04/24/24 16:12
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Client Sample ID: NC1MW3
Lab Sample ID: 310-279078-2
Date Collected: 04/15/24 14:45
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 12:21
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:33
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419773	A6US	EET CF	04/24/24 16:15
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Client Sample ID: NC1MW4
Lab Sample ID: 310-279078-3
Date Collected: 04/15/24 13:36
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 12:33
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:37
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419773	A6US	EET CF	04/24/24 16:17
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Client Sample ID: NC1MW9
Lab Sample ID: 310-279078-4
Date Collected: 04/15/24 15:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 12:46
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:39
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419773	A6US	EET CF	04/24/24 16:19
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: MW11
Lab Sample ID: 310-279078-5
Date Collected: 04/15/24 11:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 12:59
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:50
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:25
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Client Sample ID: MW14
Lab Sample ID: 310-279078-6
Date Collected: 04/15/24 10:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 13:11
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:52
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:29
Total/NA	Analysis	SM 2540C		1	419199	D7CP	EET CF	04/18/24 18:10

Client Sample ID: DUP1
Lab Sample ID: 310-279078-7
Date Collected: 04/15/24 08:20
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 13:24
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:55
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:27
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:31
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-24

Method Summary

Client: Omaha Public Power District
Job ID: 310-279078-1
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET 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:

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

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310-279078 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1646 | Received By: BB

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 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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.7 | Corrected Temp (°C): -0.7

• **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: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

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?	☐ 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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.1 | Corrected Temp (°C): -0.1

• **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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (402) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	Analysis Requested
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 CCR / Landfill	TestAmenca Project #: 31007558	
Site: Nebraska City Station Unit 1	SSOW#:	

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	Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N		
NC1MW2	4-15-24	1300	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW3	4-15-24	1445	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW4	4-15-24	1336	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW9	4-15-24	1550	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW11	4-15-24	1150	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW14	4-15-24	1050	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP1	4-15-24	0800	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	
2		4-17-24 0800				
3					4/17/24	Eurofins

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

4/26/2024

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279078-1

SDG Number:

Login Number: 279078

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 5/21/2024 10:18:21 AM

JOB DESCRIPTION

Nebraska City Station Unit 1 CCR/Landfill

JOB NUMBER

310-279078-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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5/21/2024 10:18:21 AM

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Table of Contents

Job ID: 310-279078-2 — Eurofins Cedar Falls

Job Narrative
310-279078-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 4:40 PM. 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 -0.7°C and -0.1°C.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279078-1	NC1MW2	Water	04/15/24 13:00	04/17/24 16:40
310-279078-2	NC1MW3	Water	04/15/24 14:45	04/17/24 16:40
310-279078-3	NC1MW4	Water	04/15/24 13:36	04/17/24 16:40
310-279078-4	NC1MW9	Water	04/15/24 15:50	04/17/24 16:40
310-279078-5	MW11	Water	04/15/24 11:50	04/17/24 16:40
310-279078-6	MW14	Water	04/15/24 10:50	04/17/24 16:40
310-279078-7	DUP1	Water	04/15/24 08:20	04/17/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2 **Lab Sample ID: 310-279078-1**

No Detections.

Client Sample ID: NC1MW3 **Lab Sample ID: 310-279078-2**

No Detections.

Client Sample ID: NC1MW4 **Lab Sample ID: 310-279078-3**

No Detections.

Client Sample ID: NC1MW9 **Lab Sample ID: 310-279078-4**

No Detections.

Client Sample ID: MW11 **Lab Sample ID: 310-279078-5**

No Detections.

Client Sample ID: MW14 **Lab Sample ID: 310-279078-6**

No Detections.

Client Sample ID: DUP1 **Lab Sample ID: 310-279078-7**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-279078-1

Date Collected: 04/15/24 13:00
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0678	U	0.0887	0.0889	1.00	0.148	pCi/L	04/23/24 08:36	05/18/24 12:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 12:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.421	U	0.365	0.367	1.00	0.573	pCi/L	04/23/24 08:40	05/15/24 16:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*
Y Carrier	*78.5*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.489	U	0.376	0.378	5.00	0.573	pCi/L		05/20/24 15:18	1

Client Sample ID: NC1MW3
Lab Sample ID: 310-279078-2

Date Collected: 04/15/24 14:45
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.191		0.111	0.112	1.00	0.136	pCi/L	04/23/24 08:36	05/18/24 16:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:09*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.236	U	0.310	0.311	1.00	0.518	pCi/L	04/23/24 08:40	05/15/24 16:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:32*	*1*
Y Carrier	*82.6*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:32*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.427	U	0.329	0.331	5.00	0.518	pCi/L		05/20/24 15:18	1

Client Sample ID: NC1MW4
Lab Sample ID: 310-279078-3

Date Collected: 04/15/24 13:36
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.135**		0.0937	0.0945	1.00	0.124	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.430	U	0.340	0.343	1.00	0.523	pCi/L	04/23/24 08:40	05/15/24 16:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:32*	*1*
Y Carrier	*78.5*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:32*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.565**		0.353	0.356	5.00	0.523	pCi/L		05/20/24 15:18	1

Client Sample ID: NC1MW9
Lab Sample ID: 310-279078-4

Date Collected: 04/15/24 15:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.242		0.138	0.140	1.00	0.188	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.968		0.418	0.428	1.00	0.550	pCi/L	04/23/24 08:40	05/15/24 16:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:44*	*1*
Y Carrier	*79.3*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.21		0.440	0.450	5.00	0.550	pCi/L		05/20/24 15:18	1

Client Sample ID: MW11
Lab Sample ID: 310-279078-5

Date Collected: 04/15/24 11:50
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.152	U	0.133	0.134	1.00	0.200	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00649	U	0.462	0.462	1.00	0.859	pCi/L	04/23/24 08:40	05/15/24 16:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:44*	*1*
Y Carrier	*76.6*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.146	U	0.481	0.481	5.00	0.859	pCi/L		05/20/24 15:18	1

Client Sample ID: MW14
Lab Sample ID: 310-279078-6

Date Collected: 04/15/24 10:50
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.472		0.180	0.185	1.00	0.171	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.49		0.625	0.640	1.00	0.836	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*79.6*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.96		0.650	0.666	5.00	0.836	pCi/L		05/20/24 17:28	1

Client Sample ID: DUP1
Lab Sample ID: 310-279078-7

Date Collected: 04/15/24 08:20
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.126	U	0.0938	0.0945	1.00	0.130	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.2*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.625**		0.412	0.416	1.00	0.609	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.2*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*71.0*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.751**		0.423	0.427	5.00	0.609	pCi/L		05/20/24 17:28	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

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: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-658173/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 662384
Prep Batch: 658173

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06634	U	0.0969	0.0971	1.00	0.165	pCi/L	04/23/24 08:36	05/18/24 09:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:36*	*05/18/24 09:44*	*1*

Lab Sample ID: LCS 160-658173/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 662384
Prep Batch: 658173

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	11.30		1.25	1.00	0.159	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*

Lab Sample ID: 310-279078-1 DU
Client Sample ID: NC1MW2
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 662267
Prep Batch: 658173

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.0678	U		0.06310	U	0.0781	1.00	0.128	pCi/L			0.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*97.2*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-658175/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 661646
Prep Batch: 658175

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4991		0.333	0.336	1.00	0.488	pCi/L	04/23/24 08:40	05/15/24 16:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*
Y Carrier	*80.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-658175/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 661646
Prep Batch: 658175

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.94	9.112		1.29	1.00	0.552	pCi/L	102	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

Lab Sample ID: 310-279078-1 DU
Client Sample ID: NC1MW2
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 661646
Prep Batch: 658175

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.421	U		0.1904	U	0.326	1.00	0.559	pCi/L			0.33	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*97.2*		*30 - 110*
Y Carrier	*74.8*		*30 - 110*

Rad

Prep Batch: 658173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	PrecSep-21	
310-279078-2	NC1MW3	Total/NA	Water	PrecSep-21	
310-279078-3	NC1MW4	Total/NA	Water	PrecSep-21	
310-279078-4	NC1MW9	Total/NA	Water	PrecSep-21	
310-279078-5	MW11	Total/NA	Water	PrecSep-21	
310-279078-6	MW14	Total/NA	Water	PrecSep-21	
310-279078-7	DUP1	Total/NA	Water	PrecSep-21	
MB 160-658173/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-658173/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-279078-1 DU	NC1MW2	Total/NA	Water	PrecSep-21	

Prep Batch: 658175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279078-1	NC1MW2	Total/NA	Water	PrecSep_0	
310-279078-2	NC1MW3	Total/NA	Water	PrecSep_0	
310-279078-3	NC1MW4	Total/NA	Water	PrecSep_0	
310-279078-4	NC1MW9	Total/NA	Water	PrecSep_0	
310-279078-5	MW11	Total/NA	Water	PrecSep_0	
310-279078-6	MW14	Total/NA	Water	PrecSep_0	
310-279078-7	DUP1	Total/NA	Water	PrecSep_0	
MB 160-658175/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-658175/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-279078-1 DU	NC1MW2	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-279078-1
Date Collected: 04/15/24 13:00
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 12:33
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661646	SWS	EET SL	05/15/24 16:31
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:18

Client Sample ID: NC1MW3
Lab Sample ID: 310-279078-2
Date Collected: 04/15/24 14:45
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:09
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661646	SWS	EET SL	05/15/24 16:32
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:18

Client Sample ID: NC1MW4
Lab Sample ID: 310-279078-3
Date Collected: 04/15/24 13:36
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661646	SWS	EET SL	05/15/24 16:32
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:18

Client Sample ID: NC1MW9
Lab Sample ID: 310-279078-4
Date Collected: 04/15/24 15:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:44
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:18

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Client Sample ID: MW11
Lab Sample ID: 310-279078-5
Date Collected: 04/15/24 11:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:44
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:18

Client Sample ID: MW14
Lab Sample ID: 310-279078-6
Date Collected: 04/15/24 10:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: DUP1
Lab Sample ID: 310-279078-7
Date Collected: 04/15/24 08:20
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

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	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

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

Method Summary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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310-279078 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1646 | Received By: BB

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 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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.7 | Corrected Temp (°C): -0.7

• **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: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 9/17/24 | TIME 1640 | Received By: BB

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?	☐ 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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.1 | Corrected Temp (°C): -0.1

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (402) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	Analysis Requested
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 CCR / Landfill	TestAmenca Project #: 31007558	
Site: Nebraska City Station Unit 1	SSOW#:	

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	Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N		
NC1MW2	4-15-24	1300	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW3	4-15-24	1445	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW4	4-15-24	1336	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW9	4-15-24	1550	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW11	4-15-24	1150	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW14	4-15-24	1050	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP1	4-15-24	0800	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	
2		4-17-24 0800				
3					4/17/24	Eurofins

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

5/21/2024

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: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-71431.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-279078-2
Address: 13715 Rider Trail North,	Due Date Requested: 5/21/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Station Unit 1 CCR/Landfill	Project #: 31007558			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC1MW2 (310-279078-1)	4/15/24	13:00 Central		Water			X	X	X	2	
NC1MW3 (310-279078-2)	4/15/24	14:45 Central		Water			X	X	X	2	
NC1MW4 (310-279078-3)	4/15/24	13:36 Central		Water			X	X	X	2	
NC1MW9 (310-279078-4)	4/15/24	15:50 Central		Water			X	X	X	2	
MW11 (310-279078-5)	4/15/24	11:50 Central		Water			X	X	X	2	
MW14 (310-279078-6)	4/15/24	10:50 Central		Water			X	X	X	2	
DUP1 (310-279078-7)	4/15/24	08:20 Central		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our 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 compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) 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
	4/18/24 1155				
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: APR 19 2024 0830	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: 06/08/2021

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279078-2
SDG Number:

Login Number: 279078
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: Omaha Public Power District

Job Number: 310-279078-2
SDG Number:

Login Number: 279078
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 04/19/24 02:06 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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-279078-2
Project/Site: Nebraska City Station Unit 1 CCR/Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-279078-1	NC1MW2	96.4
310-279078-1 DU	NC1MW2	97.2
310-279078-2	NC1MW3	92.4
310-279078-3	NC1MW4	99.7
310-279078-4	NC1MW9	98.0
310-279078-5	MW11	97.2
310-279078-6	MW14	95.9
310-279078-7	DUP1	99.2
LCS 160-658173/2-A	Lab Control Sample	91.1
MB 160-658173/1-A	Method Blank	97.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-279078-1	NC1MW2	96.4	78.5
310-279078-1 DU	NC1MW2	97.2	74.8
310-279078-2	NC1MW3	92.4	82.6
310-279078-3	NC1MW4	99.7	78.5
310-279078-4	NC1MW9	98.0	79.3
310-279078-5	MW11	97.2	76.6
310-279078-6	MW14	95.9	79.6
310-279078-7	DUP1	99.2	71.0
LCS 160-658175/2-A	Lab Control Sample	91.1	83.0
MB 160-658175/1-A	Method Blank	97.2	80.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 4/26/2024 11:45:22 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR / Landfill

JOB NUMBER

310-279197-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-279197-1 — Eurofins Cedar Falls

Job Narrative
310-279197-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/18/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC2MW4 (310-279197-1) and MW13 (310-279197-2). 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279197-1	NC2MW4	Water	04/15/24 10:17	04/18/24 16:40
310-279197-2	MW13	Water	04/15/24 09:50	04/18/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4 — Lab Sample ID: 310-279197-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.00		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	51.7		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00250		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.466		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.0951	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	143		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00122		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00213		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0339		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00262		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	468		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-279197-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.5		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	77.1		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0120		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.275		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.0852	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	138		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000593		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0362		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	524		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1
Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.00**		5.00	2.25	mg/L			04/20/24 12:09	5
Fluoride	<0.375		1.00	0.375	mg/L			04/20/24 12:09	5
Sulfate	**51.7**		5.00	2.10	mg/L			04/20/24 12:09	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:27	1
Arsenic	**0.00250**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:27	1
Barium	**0.466**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:27	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:27	1
Boron	**0.0951**	**J**	0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:27	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:27	1
Calcium	**143**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:27	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:27	1
Cobalt	**0.00122**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:27	1
Lead	**0.00213**		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:27	1
Lithium	**0.0339**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:27	1
Molybdenum	**0.00262**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:27	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:27	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:30	04/24/24 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**468**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: MW13
Lab Sample ID: 310-279197-2
Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.5**		5.00	2.25	mg/L			04/19/24 15:55	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 15:55	5
Sulfate	**77.1**		5.00	2.10	mg/L			04/19/24 15:55	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:29	1
Arsenic	**0.0120**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:29	1
Barium	**0.275**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:29	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:29	1
Boron	**0.0852**	**J**	0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:29	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:29	1
Calcium	**138**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:29	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:29	1
Cobalt	**0.000593**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:29	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:29	1
Lithium	**0.0362**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:29	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:29	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:29	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:30	04/24/24 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**524**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

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.

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 310-419465/3
Matrix: Water
Analysis Batch: 419465

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			04/19/24 10:38	1
Fluoride	<0.0750		0.200	0.0750	mg/L			04/19/24 10:38	1
Sulfate	<0.420		1.00	0.420	mg/L			04/19/24 10:38	1

Lab Sample ID: LCS 310-419465/4
Matrix: Water
Analysis Batch: 419465

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	9.895		mg/L		99	90 - 110
Fluoride	2.00	2.078		mg/L		104	90 - 110
Sulfate	10.0	10.69		mg/L		107	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-419190/1-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 13:50	1
Barium	<0.000660		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 13:50	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 13:50	1
Boron	<0.0760		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Calcium	<0.190		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 13:50	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 13:50	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 13:50	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 13:50	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 13:50	1

Lab Sample ID: LCS 310-419190/2-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2143		mg/L		107	80 - 120
Arsenic	0.200	0.2070		mg/L		104	80 - 120
Barium	0.100	0.1073		mg/L		107	80 - 120
Beryllium	0.100	0.1004		mg/L		100	80 - 120
Boron	0.200	0.2022		mg/L		101	80 - 120
Cadmium	0.100	0.1012		mg/L		101	80 - 120
Calcium	2.00	1.910		mg/L		95	80 - 120
Chromium	0.100	0.09635		mg/L		96	80 - 120
Cobalt	0.100	0.1096		mg/L		110	80 - 120

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

Lab Sample ID: LCS 310-419190/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419931 — **Prep Batch: 419190**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2098		mg/L		105	80 - 120
Lithium	0.200	0.2099		mg/L		105	80 - 120
Molybdenum	0.200	0.1991		mg/L		100	80 - 120
Selenium	0.400	0.3979		mg/L		99	80 - 120
Thallium	0.100	0.1094		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 310-279197-2 DU — **Client Sample ID: MW13**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419780 — **Prep Batch: 419705**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.000110		<0.000110		mg/L		NC	20

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

Lab Sample ID: MB 310-419200/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42.0		50.0	42.0	mg/L			04/18/24 18:19	1

Lab Sample ID: LCS 310-419200/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	948.0		mg/L		95	90 - 110

Lab Sample ID: 310-279197-2 DU — **Client Sample ID: MW13**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	524		526.0		mg/L		0.4	20

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

HPLC/IC

Analysis Batch: 419465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	9056A	
310-279197-2	MW13	Total/NA	Water	9056A	
MB 310-419465/3	Method Blank	Total/NA	Water	9056A	
LCS 310-419465/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 419190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	3005A	
310-279197-2	MW13	Total/NA	Water	3005A	
MB 310-419190/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 419705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	7470A	
310-279197-2	MW13	Total/NA	Water	7470A	
310-279197-2 DU	MW13	Total/NA	Water	7470A	

Analysis Batch: 419780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	7470A	419705
310-279197-2	MW13	Total/NA	Water	7470A	419705
310-279197-2 DU	MW13	Total/NA	Water	7470A	419705

Analysis Batch: 419931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	6020B	419190
310-279197-2	MW13	Total/NA	Water	6020B	419190
MB 310-419190/1-A	Method Blank	Total/NA	Water	6020B	419190
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	6020B	419190

General Chemistry

Analysis Batch: 419200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	SM 2540C	
310-279197-2	MW13	Total/NA	Water	SM 2540C	
MB 310-419200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-419200/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-279197-2 DU	MW13	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/20/24 12:09
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:27
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:30
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:40
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 15:55
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:29
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:30
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:42
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-24

Method Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET 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:

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

eurofins | Environment Testing America

310-279197 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

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 # _____ of _____

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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s)	COC No
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	Analysis Requested
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559	
Site: Nebraska City Station Unit 1 & 2	SSOW#:	

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 Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	D	D	N		
NC2MW4	4/15/24	10:17	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	4/15/24	9:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	EF
2		4-17-24 0800	EF			
3				88	4/17/24	EF

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks

4/26/2024

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279197-1

SDG Number:

Login Number: 279197

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 5/22/2024 10:17:09 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR / Landfill

JOB NUMBER

310-279197-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
5/22/2024 10:17:09 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-279197-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/18/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-658654:

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: NC2MW4 (310-279197-1) . Analytical results are reported with the detection limit achieved.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279197-1	NC2MW4	Water	04/15/24 10:17	04/18/24 16:40
310-279197-2	MW13	Water	04/15/24 09:50	04/18/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

No Detections.

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.170		0.114	0.115	1.00	0.149	pCi/L	04/25/24 09:29	05/21/24 07:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*04/25/24 09:29*	*05/21/24 07:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13	G	0.688	0.696	1.00	1.02	pCi/L	04/25/24 09:33	05/16/24 13:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*
Y Carrier	*81.1*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.697	0.705	5.00	1.02	pCi/L		05/22/24 08:31	1

Client Sample ID: MW13
Date Collected: 04/15/24 09:50
Date Received: 04/18/24 16:40

Lab Sample ID: 310-279197-2
Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0966	0.0978	1.00	0.120	pCi/L	04/25/24 09:29	05/21/24 07:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*04/25/24 09:29*	*05/21/24 07:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.18		0.504	0.515	1.00	0.657	pCi/L	04/25/24 09:33	05/16/24 13:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*
Y Carrier	*82.6*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.35		0.513	0.524	5.00	0.657	pCi/L		05/22/24 08:31	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
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: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-658653/1-A
Matrix: Water
Analysis Batch: 662554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658653

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03231	U	0.0750	0.0751	1.00	0.136	pCi/L	04/25/24 09:29	05/20/24 20:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*04/25/24 09:29*	*05/20/24 20:12*	*1*

Lab Sample ID: LCS 160-658653/2-A
Matrix: Water
Analysis Batch: 662554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658653

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.43		1.13	1.00	0.140	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.4*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-658654/1-A
Matrix: Water
Analysis Batch: 661995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658654

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09748	U	0.249	0.249	1.00	0.442	pCi/L	04/25/24 09:33	05/16/24 12:11	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*04/25/24 09:33*	*05/16/24 12:11*	*1*
Y Carrier	*84.5*		*30 - 110*	*04/25/24 09:33*	*05/16/24 12:11*	*1*

Lab Sample ID: LCS 160-658654/2-A
Matrix: Water
Analysis Batch: 661995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658654

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.94	9.781		1.32	1.00	0.494	pCi/L	109	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.4*		*30 - 110*
Y Carrier	*84.9*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Rad

Prep Batch: 658653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	PrecSep-21	
310-279197-2	MW13	Total/NA	Water	PrecSep-21	
MB 160-658653/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-658653/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 658654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	PrecSep_0	
310-279197-2	MW13	Total/NA	Water	PrecSep_0	
MB 160-658654/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-658654/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658653	MLT	EET SL	04/25/24 09:29
Total/NA	Analysis	9315		1	662737	SCB	EET SL	05/21/24 07:38
Total/NA	Prep	PrecSep_0			658654	MLT	EET SL	04/25/24 09:33
Total/NA	Analysis	9320		1	661878	SCB	EET SL	05/16/24 13:44
Total/NA	Analysis	Ra226_Ra228		1	662916	FLC	EET SL	05/22/24 08:31

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658653	MLT	EET SL	04/25/24 09:29
Total/NA	Analysis	9315		1	662737	SCB	EET SL	05/21/24 07:38
Total/NA	Prep	PrecSep_0			658654	MLT	EET SL	04/25/24 09:33
Total/NA	Analysis	9320		1	661878	SCB	EET SL	05/16/24 13:44
Total/NA	Analysis	Ra226_Ra228		1	662916	FLC	EET SL	05/22/24 08:31

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

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	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

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

Method Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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310-279197 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

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 # _____ of _____
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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s)	COC No
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District		**Analysis Requested**		Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559	
Site: Nebraska City Station Unit 1 & 2	SSOW#:	

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 Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	D	D	N		
NC2MW4	4/15/24	10:17	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	4/15/24	9:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	EF
2		4-17-24 0800	EF			
3				88	4/17/24	EF

Custody Seals Intact: Δ Yes Δ No

Custody Seal No

Cooler Temperature(s) °C and Other Remarks

5/22/2024

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: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-71431.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-279197-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/22/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 1 & 2 CCR / Landfill	Project #: 31007559			
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Analysis Requested

Preservation Codes: -

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)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW4 (310-279197-1)	4/15/24	10:17 Central		Water			X	X	X	2	
MW13 (310-279197-2)	4/15/24	09:50 Central		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our 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 compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) 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
	4/18/24 1155		M. Pinette		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: APR 19 2024 0835	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: 06/08/2021

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279197-2

SDG Number:

Login Number: 279197

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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: Omaha Public Power District

Job Number: 310-279197-2
SDG Number:

Login Number: 279197
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 04/19/24 02:18 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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-279197-1	NC2MW4	91.4
310-279197-2	MW13	90.6
LCS 160-658653/2-A	Lab Control Sample	95.4
MB 160-658653/1-A	Method Blank	104

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-279197-1	NC2MW4	91.4	81.1
310-279197-2	MW13	90.6	82.6
LCS 160-658654/2-A	Lab Control Sample	95.4	84.9
MB 160-658654/1-A	Method Blank	104	84.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 10/22/2024 10:53:39 AM

JOB DESCRIPTION

Nebraska City Unit 1 CCR/Landfill

JOB NUMBER

310-292384-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
10/22/2024 10:53:39 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-292384-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC1MW2 (310-292384-1), NC1MW3 (310-292384-2), NC1MW4 (310-292384-3), NC1MW9 (310-292384-4), MW11 (310-292384-5), MW14 (310-292384-6) and DUP1 (310-292384-7). 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292384-1	NC1MW2	Water	10/07/24 16:50	10/09/24 16:35
310-292384-2	NC1MW3	Water	10/08/24 14:00	10/09/24 16:35
310-292384-3	NC1MW4	Water	10/08/24 13:13	10/09/24 16:35
310-292384-4	NC1MW9	Water	10/08/24 14:57	10/09/24 16:35
310-292384-5	MW11	Water	10/07/24 12:48	10/09/24 16:35
310-292384-6	MW14	Water	10/07/24 11:58	10/09/24 16:35
310-292384-7	DUP1	Water	10/08/24 00:00	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW2 — Lab Sample ID: 310-292384-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.48	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	57.5		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.000657	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.156		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.203		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	119		0.500	0.190	mg/L	1		6020B	Total/NA
Lithium	0.0102		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0615		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	394		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW3 — Lab Sample ID: 310-292384-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.79		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	177		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0666		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.141		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	2.31		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	165		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000931		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0434		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00303		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	756		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW4 — Lab Sample ID: 310-292384-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.39		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	287		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00217		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.209		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	1.97		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000162	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	139		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000788		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0231		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00277		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	748		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC1MW9 — Lab Sample ID: 310-292384-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.62		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	116		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0440		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.174		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.361		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	161		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00123		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0446		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0150		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	674		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Project/Site: Nebraska City Unit 1 CCR/Landfill

Job ID: 310-292384-1

Client Sample ID: MW11 — Lab Sample ID: 310-292384-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.76		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.00721		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.218		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.428		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	64.5		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000337	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000278	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.00280	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	238		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW14 — Lab Sample ID: 310-292384-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.14		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	5.92		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.143		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.401		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.289		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	154		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00105		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0578		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	658		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP1 — Lab Sample ID: 310-292384-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.32		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	178		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0669		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.140		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	2.27		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	160		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000937		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0419		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00297		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	748		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-292384-1
Date Collected: 10/07/24 16:50
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.48**	**J**	5.00	2.25	mg/L			10/16/24 14:50	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 14:50	5
Sulfate	**57.5**		5.00	2.10	mg/L			10/16/24 14:50	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 13:53	1
Arsenic	**0.000657**	**J**	0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 13:53	1
Barium	**0.156**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 13:53	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 13:53	1
Boron	**0.203**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 13:53	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 13:53	1
Calcium	**119**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 13:53	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 13:53	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 13:53	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 13:53	1
Lithium	**0.0102**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 13:53	1
Molybdenum	**0.0615**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 13:53	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 13:53	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**394**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW3
Lab Sample ID: 310-292384-2
Date Collected: 10/08/24 14:00
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.79**		5.00	2.25	mg/L			10/16/24 15:02	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 15:02	5
Sulfate	**177**		5.00	2.10	mg/L			10/16/24 15:02	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:07	1
Arsenic	**0.0666**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:07	1
Barium	**0.141**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:07	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:07	1
Boron	**2.31**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:07	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:07	1
Calcium	**165**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:07	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:07	1
Cobalt	**0.000931**		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:07	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:07	1
Lithium	**0.0434**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:07	1
Molybdenum	**0.00303**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:07	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:07	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**756**		50.0	42.0	mg/L			10/11/24 16:52	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW4
Lab Sample ID: 310-292384-3
Date Collected: 10/08/24 13:13
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.39**		5.00	2.25	mg/L			10/16/24 15:38	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 15:38	5
Sulfate	**287**		5.00	2.10	mg/L			10/16/24 15:38	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:09	1
Arsenic	**0.00217**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:09	1
Barium	**0.209**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:09	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:09	1
Boron	**1.97**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:09	1
Cadmium	**0.000162**	**J**	0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:09	1
Calcium	**139**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:09	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:09	1
Cobalt	**0.000788**		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:09	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:09	1
Lithium	**0.0231**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:09	1
Molybdenum	**0.00277**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:09	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:09	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**748**		50.0	42.0	mg/L			10/11/24 16:52	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW9
Lab Sample ID: 310-292384-4
Date Collected: 10/08/24 14:57
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.62**		5.00	2.25	mg/L			10/16/24 15:50	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 15:50	5
Sulfate	**116**		5.00	2.10	mg/L			10/16/24 15:50	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:11	1
Arsenic	**0.0440**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:11	1
Barium	**0.174**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:11	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:11	1
Boron	**0.361**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:11	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:11	1
Calcium	**161**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:11	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:11	1
Cobalt	**0.00123**		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:11	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:11	1
Lithium	**0.0446**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:11	1
Molybdenum	**0.0150**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:11	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:11	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**674**		50.0	42.0	mg/L			10/11/24 16:52	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: MW11
Lab Sample ID: 310-292384-5
Date Collected: 10/07/24 12:48
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.76**		5.00	2.25	mg/L			10/16/24 16:02	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 16:02	5
Sulfate	<2.10		5.00	2.10	mg/L			10/16/24 16:02	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:14	1
Arsenic	**0.00721**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:14	1
Barium	**0.218**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:14	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:14	1
Boron	**0.428**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:14	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:14	1
Calcium	**64.5**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:14	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:14	1
Cobalt	**0.000337**	**J**	0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:14	1
Lead	**0.000278**	**J**	0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:14	1
Lithium	**0.00280**	**J**	0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:14	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:14	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:14	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110	F1	0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**238**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: MW14
Lab Sample ID: 310-292384-6
Date Collected: 10/07/24 11:58
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.14**		5.00	2.25	mg/L			10/16/24 16:14	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 16:14	5
Sulfate	**5.92**		5.00	2.10	mg/L			10/16/24 16:14	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:16	1
Arsenic	**0.143**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:16	1
Barium	**0.401**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:16	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:16	1
Boron	**0.289**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:16	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:16	1
Calcium	**154**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:16	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:16	1
Cobalt	**0.00105**		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:16	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:16	1
Lithium	**0.0578**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:16	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:16	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:16	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**658**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: DUP1
Lab Sample ID: 310-292384-7

Date Collected: 10/08/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.32**		5.00	2.25	mg/L			10/16/24 16:26	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 16:26	5
Sulfate	**178**		5.00	2.10	mg/L			10/16/24 16:26	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:18	1
Arsenic	**0.0669**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:18	1
Barium	**0.140**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:18	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:18	1
Boron	**2.27**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:18	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:18	1
Calcium	**160**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:18	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:18	1
Cobalt	**0.000937**		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:18	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:18	1
Lithium	**0.0419**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:18	1
Molybdenum	**0.00297**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:18	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:18	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**748**		50.0	42.0	mg/L			10/11/24 16:52	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Qualifiers

HPLC/IC

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.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-436817/3
Matrix: Water
Analysis Batch: 436817

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			10/16/24 11:37	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/16/24 11:37	1
Sulfate	<0.420		1.00	0.420	mg/L			10/16/24 11:37	1

Lab Sample ID: LCS 310-436817/4
Matrix: Water
Analysis Batch: 436817

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	9.655		mg/L		97	90 - 110
Fluoride	2.00	1.955		mg/L		98	90 - 110
Sulfate	10.0	10.01		mg/L		100	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 13:11	1
Barium	<0.000660		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 13:11	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 13:11	1
Boron	<0.0760		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Calcium	<0.190		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 13:11	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 13:11	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 13:11	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 13:11	1

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:29	1

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2160		mg/L		108	80 - 120
Arsenic	0.200	0.2158		mg/L		108	80 - 120
Barium	0.100	0.1053		mg/L		105	80 - 120
Beryllium	0.100	0.1035		mg/L		103	80 - 120

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

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2199		mg/L		110	80 - 120
Cadmium	0.100	0.1024		mg/L		102	80 - 120
Calcium	2.00	2.093		mg/L		105	80 - 120
Chromium	0.100	0.1072		mg/L		107	80 - 120
Cobalt	0.100	0.1038		mg/L		104	80 - 120
Lead	0.200	0.2190		mg/L		109	80 - 120
Lithium	0.200	0.2148		mg/L		107	80 - 120
Molybdenum	0.200	0.2058		mg/L		103	80 - 120
Selenium	0.400	0.4050		mg/L		101	80 - 120

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.08547		mg/L		85	80 - 120

Lab Sample ID: 310-292384-1 DU
Matrix: Water
Analysis Batch: 436544

Client Sample ID: NC1MW2
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00100		<0.00100		mg/L		NC	20
Arsenic	0.000657	J	0.0006330	J	mg/L		4	20
Barium	0.156		0.1532		mg/L		2	20
Beryllium	<0.000330		<0.000330		mg/L		NC	20
Boron	0.203		0.1772		mg/L		13	20
Cadmium	<0.000100		<0.000100		mg/L		NC	20
Calcium	119		117.2		mg/L		2	20
Chromium	<0.00120		0.003959	J	mg/L		NC	20
Cobalt	<0.000170		<0.000170		mg/L		NC	20
Lead	<0.000260		<0.000260		mg/L		NC	20
Lithium	0.0102		0.008442	J	mg/L		19	20
Molybdenum	0.0615		0.06049		mg/L		2	20
Selenium	<0.00140		<0.00140		mg/L		NC	20

Lab Sample ID: 310-292384-1 DU
Matrix: Water
Analysis Batch: 437043

Client Sample ID: NC1MW2
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Thallium	<0.000570		<0.000570		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-436304/1-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:04	1

Lab Sample ID: LCS 310-436304/2-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001694		mg/L		102	80 - 120

Lab Sample ID: 310-292384-5 MS
Matrix: Water
Analysis Batch: 436502

Client Sample ID: MW11
Prep Type: Total/NA
Prep Batch: 436304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000110	F1	0.00167	0.003069	F1	mg/L		184	80 - 120

Lab Sample ID: 310-292384-5 MSD
Matrix: Water
Analysis Batch: 436502

Client Sample ID: MW11
Prep Type: Total/NA
Prep Batch: 436304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000110	F1	0.00167	<0.000110	F1	mg/L		0	80 - 120	NC	20

Lab Sample ID: MB 310-436310/1-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 16:01	1

Lab Sample ID: LCS 310-436310/2-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001528		mg/L		92	80 - 120

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

Lab Sample ID: MB 310-435878/1
Matrix: Water
Analysis Batch: 435878

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	<42.0		50.0	42.0	mg/L			10/10/24 16:19	1

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

Lab Sample ID: LCS 310-435878/2
Matrix: Water
Analysis Batch: 435878

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	1038		mg/L		104	88 - 110		

Lab Sample ID: MB 310-436022/1
Matrix: Water
Analysis Batch: 436022

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	<42.0		50.0	42.0	mg/L			10/11/24 16:52	1

Lab Sample ID: LCS 310-436022/2
Matrix: Water
Analysis Batch: 436022

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	1022		mg/L		102	88 - 110		

HPLC/IC

Analysis Batch: 436817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	9056A	
310-292384-2	NC1MW3	Total/NA	Water	9056A	
310-292384-3	NC1MW4	Total/NA	Water	9056A	
310-292384-4	NC1MW9	Total/NA	Water	9056A	
310-292384-5	MW11	Total/NA	Water	9056A	
310-292384-6	MW14	Total/NA	Water	9056A	
310-292384-7	DUP1	Total/NA	Water	9056A	
MB 310-436817/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436817/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 435877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	3005A	
310-292384-2	NC1MW3	Total/NA	Water	3005A	
310-292384-3	NC1MW4	Total/NA	Water	3005A	
310-292384-4	NC1MW9	Total/NA	Water	3005A	
310-292384-5	MW11	Total/NA	Water	3005A	
310-292384-6	MW14	Total/NA	Water	3005A	
310-292384-7	DUP1	Total/NA	Water	3005A	
MB 310-435877/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-292384-1 DU	NC1MW2	Total/NA	Water	3005A	

Prep Batch: 436304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-5	MW11	Total/NA	Water	7470A	
310-292384-6	MW14	Total/NA	Water	7470A	
310-292384-7	DUP1	Total/NA	Water	7470A	
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-292384-5 MS	MW11	Total/NA	Water	7470A	
310-292384-5 MSD	MW11	Total/NA	Water	7470A	

Prep Batch: 436310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	7470A	
310-292384-2	NC1MW3	Total/NA	Water	7470A	
310-292384-3	NC1MW4	Total/NA	Water	7470A	
310-292384-4	NC1MW9	Total/NA	Water	7470A	
MB 310-436310/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-436310/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 436502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	7470A	436310
310-292384-2	NC1MW3	Total/NA	Water	7470A	436310
310-292384-3	NC1MW4	Total/NA	Water	7470A	436310
310-292384-4	NC1MW9	Total/NA	Water	7470A	436310
310-292384-5	MW11	Total/NA	Water	7470A	436304

Metals (Continued)

Analysis Batch: 436502 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-6	MW14	Total/NA	Water	7470A	436304
310-292384-7	DUP1	Total/NA	Water	7470A	436304
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	436304
MB 310-436310/1-A	Method Blank	Total/NA	Water	7470A	436310
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	436304
LCS 310-436310/2-A	Lab Control Sample	Total/NA	Water	7470A	436310
310-292384-5 MS	MW11	Total/NA	Water	7470A	436304
310-292384-5 MSD	MW11	Total/NA	Water	7470A	436304

Analysis Batch: 436544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	6020B	435877
310-292384-2	NC1MW3	Total/NA	Water	6020B	435877
310-292384-3	NC1MW4	Total/NA	Water	6020B	435877
310-292384-4	NC1MW9	Total/NA	Water	6020B	435877
310-292384-5	MW11	Total/NA	Water	6020B	435877
310-292384-6	MW14	Total/NA	Water	6020B	435877
310-292384-7	DUP1	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877
310-292384-1 DU	NC1MW2	Total/NA	Water	6020B	435877

Analysis Batch: 437043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	6020B	435877
310-292384-2	NC1MW3	Total/NA	Water	6020B	435877
310-292384-3	NC1MW4	Total/NA	Water	6020B	435877
310-292384-4	NC1MW9	Total/NA	Water	6020B	435877
310-292384-5	MW11	Total/NA	Water	6020B	435877
310-292384-6	MW14	Total/NA	Water	6020B	435877
310-292384-7	DUP1	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877
310-292384-1 DU	NC1MW2	Total/NA	Water	6020B	435877

General Chemistry

Analysis Batch: 435878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	SM 2540C	
310-292384-5	MW11	Total/NA	Water	SM 2540C	
310-292384-6	MW14	Total/NA	Water	SM 2540C	
MB 310-435878/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-435878/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 436022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-2	NC1MW3	Total/NA	Water	SM 2540C	
310-292384-3	NC1MW4	Total/NA	Water	SM 2540C	
310-292384-4	NC1MW9	Total/NA	Water	SM 2540C	
310-292384-7	DUP1	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 436022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-436022/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-436022/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Client Sample ID: NC1MW2
Lab Sample ID: 310-292384-1

Date Collected: 10/07/24 16:50
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 14:50
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 13:53
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 14:52
Total/NA	Prep	7470A			436310	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 16:53
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC1MW3
Lab Sample ID: 310-292384-2

Date Collected: 10/08/24 14:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 15:02
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:07
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 14:56
Total/NA	Prep	7470A			436310	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 17:02
Total/NA	Analysis	SM 2540C		1	436022	MDU9	EET CF	10/11/24 16:52

Client Sample ID: NC1MW4
Lab Sample ID: 310-292384-3

Date Collected: 10/08/24 13:13
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 15:38
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:09
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 14:58
Total/NA	Prep	7470A			436310	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 17:05
Total/NA	Analysis	SM 2540C		1	436022	MDU9	EET CF	10/11/24 16:52

Client Sample ID: NC1MW9
Lab Sample ID: 310-292384-4

Date Collected: 10/08/24 14:57
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 15:50
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:11

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW9
Lab Sample ID: 310-292384-4
Date Collected: 10/08/24 14:57
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:00
Total/NA	Prep	7470A			436310	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 17:07
Total/NA	Analysis	SM 2540C		1	436022	MDU9	EET CF	10/11/24 16:52

Client Sample ID: MW11
Lab Sample ID: 310-292384-5
Date Collected: 10/07/24 12:48
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 16:02
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:14
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:03
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:08
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: MW14
Lab Sample ID: 310-292384-6
Date Collected: 10/07/24 11:58
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 16:14
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:16
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:05
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:18
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: DUP1
Lab Sample ID: 310-292384-7
Date Collected: 10/08/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 16:26
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:18
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:07

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: DUP1
Lab Sample ID: 310-292384-7
Date Collected: 10/08/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:21
Total/NA	Analysis	SM 2540C		1	436022	MDU9	EET CF	10/11/24 16:52

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292384-1
Project/Site: Nebraska City Unit 1 CCR/Landfill

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

Method Summary

Client: Omaha Public Power District
Project/Site: Nebraska City Unit 1 CCR/Landfill

Job ID: 310-292384-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET 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:

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

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310-292384 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

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 # _____ of _____
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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.2 | Corrected Temp (°C): 0.2

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (402) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 CCR / Landfill	TestAmerica Project #: 31007558			
Site: Nebraska City Station Unit 1	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 - Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:				D	D	N		
NC1MW2	10/7/2024	16:50	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW3	10/8/2024	14:00	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW4	10/9/2024	13:13	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW9	10/8/2024	14:57	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW11	10/7/2024	12:48	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW14	10/7/2024	11:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP1	10/8/2024	---	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	10/8/2024 17:05	OPPD		10-9-24 0630	ET
2		10-9-24 0800	ET			
3					10/9/24 1635	ET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292384-1

SDG Number:

Login Number: 292384

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 11/8/2024 10:03:31 AM

JOB DESCRIPTION

Nebraska City Unit 1 CCR/Landfill

JOB NUMBER

310-292384-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-292384-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292384-1	NC1MW2	Water	10/07/24 16:50	10/09/24 16:35
310-292384-2	NC1MW3	Water	10/08/24 14:00	10/09/24 16:35
310-292384-3	NC1MW4	Water	10/08/24 13:13	10/09/24 16:35
310-292384-4	NC1MW9	Water	10/08/24 14:57	10/09/24 16:35
310-292384-5	MW11	Water	10/07/24 12:48	10/09/24 16:35
310-292384-6	MW14	Water	10/07/24 11:58	10/09/24 16:35
310-292384-7	DUP1	Water	10/08/24 00:00	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW2 **Lab Sample ID: 310-292384-1**

No Detections.

Client Sample ID: NC1MW3 **Lab Sample ID: 310-292384-2**

No Detections.

Client Sample ID: NC1MW4 **Lab Sample ID: 310-292384-3**

No Detections.

Client Sample ID: NC1MW9 **Lab Sample ID: 310-292384-4**

No Detections.

Client Sample ID: MW11 **Lab Sample ID: 310-292384-5**

No Detections.

Client Sample ID: MW14 **Lab Sample ID: 310-292384-6**

No Detections.

Client Sample ID: DUP1 **Lab Sample ID: 310-292384-7**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC1MW2
Lab Sample ID: 310-292384-1

Date Collected: 10/07/24 16:50
Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0441	U	0.0861	0.0861	1.00	0.152	pCi/L	10/14/24 08:50	11/05/24 14:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*30 - 110*	*10/14/24 08:50*	*11/05/24 14:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.849**		0.499	0.505	1.00	0.716	pCi/L	10/14/24 08:54	10/30/24 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*
Y Carrier	*83.0*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.893**		0.506	0.512	5.00	0.716	pCi/L		11/07/24 15:24	1

Client Sample ID: NC1MW3
Lab Sample ID: 310-292384-2

Date Collected: 10/08/24 14:00
Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.305		0.122	0.125	1.00	0.136	pCi/L	10/14/24 08:50	11/05/24 14:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*30 - 110*	*10/14/24 08:50*	*11/05/24 14:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.440	0.441	1.00	0.733	pCi/L	10/14/24 08:54	10/30/24 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*
Y Carrier	*83.7*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.645	U	0.457	0.458	5.00	0.733	pCi/L		11/07/24 15:24	1

Client Sample ID: NC1MW4
Lab Sample ID: 310-292384-3

Date Collected: 10/08/24 13:13
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.421**		0.161	0.165	1.00	0.171	pCi/L	10/14/24 08:50	11/05/24 14:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*10/14/24 08:50*	*11/05/24 14:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.915	U	0.621	0.626	1.00	0.920	pCi/L	10/14/24 08:54	10/30/24 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*
Y Carrier	*82.2*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.34**		0.642	0.647	5.00	0.920	pCi/L		11/07/24 15:24	1

Client Sample ID: NC1MW9
Lab Sample ID: 310-292384-4
Date Collected: 10/08/24 14:57
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.341		0.123	0.127	1.00	0.118	pCi/L	10/14/24 08:50	11/05/24 14:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/14/24 08:50*	*11/05/24 14:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.938		0.479	0.486	1.00	0.650	pCi/L	10/14/24 08:54	10/30/24 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*
Y Carrier	*86.4*		*30 - 110*	*10/14/24 08:54*	*10/30/24 16:19*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.28		0.495	0.502	5.00	0.650	pCi/L		11/07/24 15:24	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: Nebraska City Unit 1 CCR/Landfill

Job ID: 310-292384-2

Client Sample ID: MW11

Date Collected: 10/07/24 12:48
Date Received: 10/09/24 16:35

Lab Sample ID: 310-292384-5

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.165		0.0916	0.0928	1.00	0.101	pCi/L	10/15/24 08:08	11/06/24 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.20		0.626	0.658	1.00	0.708	pCi/L	10/15/24 08:17	10/27/24 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*
Y Carrier	*82.6*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.37		0.633	0.665	5.00	0.708	pCi/L		11/07/24 15:24	1

Client Sample ID: MW14
Lab Sample ID: 310-292384-6
Date Collected: 10/07/24 11:58
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.414		0.150	0.154	1.00	0.150	pCi/L	10/15/24 08:08	11/06/24 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:27*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.66		0.747	0.786	1.00	0.868	pCi/L	10/15/24 08:17	10/27/24 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*
Y Carrier	*78.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.07		0.762	0.801	5.00	0.868	pCi/L		11/08/24 09:50	1

Client Sample ID: DUP1
Lab Sample ID: 310-292384-7

Date Collected: 10/08/24 00:00
Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.207		0.106	0.107	1.00	0.137	pCi/L	10/15/24 08:08	11/06/24 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.1*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:27*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.422	0.432	1.00	0.555	pCi/L	10/15/24 08:17	10/27/24 11:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.1*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*
Y Carrier	*79.3*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.21		0.435	0.445	5.00	0.555	pCi/L		11/08/24 09:50	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

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: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-683399/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 686849
Prep Batch: 683399

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.005888	U	0.0501	0.0501	1.00	0.111	pCi/L	10/14/24 08:50	11/05/24 14:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*30 - 110*	*10/14/24 08:50*	*11/05/24 14:38*	*1*

Lab Sample ID: LCS 160-683399/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 686849
Prep Batch: 683399

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.094		0.982	1.00	0.0995	pCi/L	95	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.5*		*30 - 110*

Lab Sample ID: MB 160-683568/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687156
Prep Batch: 683568

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05652	U	0.0614	0.0616	1.00	0.0976	pCi/L	10/15/24 08:08	11/06/24 09:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:28*	*1*

Lab Sample ID: LCS 160-683568/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687133
Prep Batch: 683568

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.197		0.975	1.00	0.116	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-683400/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 685861
Prep Batch: 683400

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2575	U	0.408	0.409	1.00	0.696	pCi/L	10/14/24 08:54	10/30/24 15:51	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110	10/14/24 08:54	10/30/24 15:51	1
Y Carrier	78.1		30 - 110	10/14/24 08:54	10/30/24 15:51	1

Lab Sample ID: LCS 160-683400/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685861 — **Prep Batch: 683400**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.39	8.688		1.29	1.00	0.569	pCi/L	104	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.5		30 - 110
Y Carrier	81.1		30 - 110

Lab Sample ID: MB 160-683569/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685362 — **Prep Batch: 683569**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6667		0.353	0.359	1.00	0.494	pCi/L	10/15/24 08:17	10/27/24 11:36	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.9		30 - 110	10/15/24 08:17	10/27/24 11:36	1
Y Carrier	81.9		30 - 110	10/15/24 08:17	10/27/24 11:36	1

Lab Sample ID: LCS 160-683569/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685362 — **Prep Batch: 683569**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.39	10.30		1.75	1.00	1.05	pCi/L	123	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.1		30 - 110
Y Carrier	80.0		30 - 110

Rad

Prep Batch: 683399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	PrecSep-21	
310-292384-2	NC1MW3	Total/NA	Water	PrecSep-21	
310-292384-3	NC1MW4	Total/NA	Water	PrecSep-21	
310-292384-4	NC1MW9	Total/NA	Water	PrecSep-21	
MB 160-683399/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683399/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 683400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-1	NC1MW2	Total/NA	Water	PrecSep_0	
310-292384-2	NC1MW3	Total/NA	Water	PrecSep_0	
310-292384-3	NC1MW4	Total/NA	Water	PrecSep_0	
310-292384-4	NC1MW9	Total/NA	Water	PrecSep_0	
MB 160-683400/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683400/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 683568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-5	MW11	Total/NA	Water	PrecSep-21	
310-292384-6	MW14	Total/NA	Water	PrecSep-21	
310-292384-7	DUP1	Total/NA	Water	PrecSep-21	
MB 160-683568/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683568/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 683569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292384-5	MW11	Total/NA	Water	PrecSep_0	
310-292384-6	MW14	Total/NA	Water	PrecSep_0	
310-292384-7	DUP1	Total/NA	Water	PrecSep_0	
MB 160-683569/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683569/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: NC1MW2
Lab Sample ID: 310-292384-1
Date Collected: 10/07/24 16:50
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683399	BCE	EET SL	10/14/24 08:50
Total/NA	Analysis	9315		1	686865	CMM	EET SL	11/05/24 14:44
Total/NA	Prep	PrecSep_0			683400	BCE	EET SL	10/14/24 08:54
Total/NA	Analysis	9320		1	685861	FLC	EET SL	10/30/24 16:19
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: NC1MW3
Lab Sample ID: 310-292384-2
Date Collected: 10/08/24 14:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683399	BCE	EET SL	10/14/24 08:50
Total/NA	Analysis	9315		1	686865	CMM	EET SL	11/05/24 14:44
Total/NA	Prep	PrecSep_0			683400	BCE	EET SL	10/14/24 08:54
Total/NA	Analysis	9320		1	685861	FLC	EET SL	10/30/24 16:19
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: NC1MW4
Lab Sample ID: 310-292384-3
Date Collected: 10/08/24 13:13
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683399	BCE	EET SL	10/14/24 08:50
Total/NA	Analysis	9315		1	686865	CMM	EET SL	11/05/24 14:44
Total/NA	Prep	PrecSep_0			683400	BCE	EET SL	10/14/24 08:54
Total/NA	Analysis	9320		1	685861	FLC	EET SL	10/30/24 16:19
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: NC1MW9
Lab Sample ID: 310-292384-4
Date Collected: 10/08/24 14:57
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683399	BCE	EET SL	10/14/24 08:50
Total/NA	Analysis	9315		1	686865	CMM	EET SL	11/05/24 14:44
Total/NA	Prep	PrecSep_0			683400	BCE	EET SL	10/14/24 08:54
Total/NA	Analysis	9320		1	685861	FLC	EET SL	10/30/24 16:19
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Client Sample ID: MW11
Lab Sample ID: 310-292384-5
Date Collected: 10/07/24 12:48
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687133	SWS	EET SL	11/06/24 09:20
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:38
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: MW14
Lab Sample ID: 310-292384-6
Date Collected: 10/07/24 11:58
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:27
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:38
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/08/24 09:50

Client Sample ID: DUP1
Lab Sample ID: 310-292384-7
Date Collected: 10/08/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:27
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:38
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/08/24 09:50

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

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	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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310-292384 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: KB

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 # _____ of _____
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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.2 | Corrected Temp (°C): 0.2

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (402) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 CCR / Landfill	TestAmerica Project #: 31007558			
Site: Nebraska City Station Unit 1	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 - Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:				D	D	N		
NC1MW2	10/7/2024	16:50	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW3	10/8/2024	14:00	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW4	10/9/2024	13:13	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC1MW9	10/8/2024	14:57	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW11	10/7/2024	12:48	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW14	10/7/2024	11:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP1	10/8/2024	---	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	10/9/2024 17:05	OPPD		10-9-24 0630	ET
2		10-9-24 0800	ET			
3					10/9/24 1635	ET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

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

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-77220.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-292384-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/12/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 1 CCR/Landfill	Project #: 31007558			Other:
Site:	SSOW#:			

Analysis Requested

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)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC1MW2 (310-292384-1)	10/7/24	16:50 Central	G	Water			X	X	X	2	
NC1MW3 (310-292384-2)	10/8/24	14:00 Central	G	Water			X	X	X	2	
NC1MW4 (310-292384-3)	10/8/24	13:13 Central	G	Water			X	X	X	2	
NC1MW9 (310-292384-4)	10/8/24	14:57 Central	G	Water			X	X	X	2	
MW11 (310-292384-5)	10/7/24	12:48 Central	G	Water			X	X	X	2	
MW14 (310-292384-6)	10/7/24	11:58 Central	G	Water			X	X	X	2	
DUP1 (310-292384-7)	10/8/24	Central	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our 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 compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) 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
	10/10/24 1315		Sierra Worthington	OCT 11 2024 0915	GRSN
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: 06/06/2024

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292384-2
SDG Number:

Login Number: 292384
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: Omaha Public Power District

Job Number: 310-292384-2
SDG Number:

Login Number: 292384
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/11/24 12:04 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?	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-292384-2
Project/Site: Nebraska City Unit 1 CCR/Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
		Ba						
Lab Sample ID	Client Sample ID	(30-110)						
310-292384-1	NC1MW2	84.3						
310-292384-2	NC1MW3	86.8						
310-292384-3	NC1MW4	88.1						
310-292384-4	NC1MW9	85.1						
310-292384-5	MW11	89.9						
310-292384-6	MW14	85.3						
310-292384-7	DUP1	90.1						
LCS 160-683399/2-A	Lab Control Sample	96.5						
LCS 160-683568/2-A	Lab Control Sample	91.1						
MB 160-683399/1-A	Method Blank	91.1						
MB 160-683568/1-A	Method Blank	91.9						

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
		Ba	Y					
Lab Sample ID	Client Sample ID	(30-110)	(30-110)					
310-292384-1	NC1MW2	84.3	83.0					
310-292384-2	NC1MW3	86.8	83.7					
310-292384-3	NC1MW4	88.1	82.2					
310-292384-4	NC1MW9	85.1	86.4					
310-292384-5	MW11	89.9	82.6					
310-292384-6	MW14	85.3	78.9					
310-292384-7	DUP1	90.1	79.3					
LCS 160-683400/2-A	Lab Control Sample	96.5	81.1					
LCS 160-683569/2-A	Lab Control Sample	91.1	80.0					
MB 160-683400/1-A	Method Blank	91.1	78.1					
MB 160-683569/1-A	Method Blank	91.9	81.9					

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 10/22/2024 10:54:18 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR/Landfill

JOB NUMBER

310-292386-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-292386-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW13 (310-292386-2). 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292386-1	NC2MW4	Water	10/07/24 11:16	10/09/24 16:35
310-292386-2	MW13	Water	10/07/24 10:40	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4 — Lab Sample ID: 310-292386-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.55		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.511	J	1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	52.3		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00115	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.375		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.158		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	133		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000228	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000616		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0366		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00623		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00567		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	470		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-292386-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.2		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	59.3		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0122		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.329		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.114		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	137		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000292	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000310	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0380		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	534		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1
Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.55**		5.00	2.25	mg/L			10/17/24 20:03	5
Fluoride	**0.511**	**J**	1.00	0.375	mg/L			10/17/24 20:03	5
Sulfate	**52.3**		5.00	2.10	mg/L			10/17/24 20:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:20	1
Arsenic	**0.00115**	**J**	0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:20	1
Barium	**0.375**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:20	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:20	1
Boron	**0.158**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:20	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:20	1
Calcium	**133**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:20	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:20	1
Cobalt	**0.000228**	**J**	0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:20	1
Lead	**0.000616**		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:20	1
Lithium	**0.0366**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:20	1
Molybdenum	**0.00623**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:20	1
Selenium	**0.00567**		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:20	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**470**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: MW13
Lab Sample ID: 310-292386-2
Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.2**		5.00	2.25	mg/L			10/17/24 20:15	5
Fluoride	<0.375		1.00	0.375	mg/L			10/17/24 20:15	5
Sulfate	**59.3**		5.00	2.10	mg/L			10/17/24 20:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:22	1
Arsenic	**0.0122**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:22	1
Barium	**0.329**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:22	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:22	1
Boron	**0.114**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:22	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:22	1
Calcium	**137**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:22	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:22	1
Cobalt	**0.000292**	**J**	0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:22	1
Lead	**0.000310**	**J**	0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:22	1
Lithium	**0.0380**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:22	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:22	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:22	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**534**		50.0	42.0	mg/L			10/10/24 16:19	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Qualifiers

HPLC/IC

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.

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.

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 310-436854/3
Matrix: Water
Analysis Batch: 436854

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			10/17/24 15:23	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/17/24 15:23	1
Sulfate	<0.420		1.00	0.420	mg/L			10/17/24 15:23	1

Lab Sample ID: LCS 310-436854/4
Matrix: Water
Analysis Batch: 436854

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	9.857		mg/L		99	90 - 110
Fluoride	2.00	1.998		mg/L		100	90 - 110
Sulfate	10.0	10.13		mg/L		101	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 13:11	1
Barium	<0.000660		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 13:11	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 13:11	1
Boron	<0.0760		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Calcium	<0.190		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 13:11	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 13:11	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 13:11	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 13:11	1

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:29	1

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2160		mg/L		108	80 - 120
Arsenic	0.200	0.2158		mg/L		108	80 - 120
Barium	0.100	0.1053		mg/L		105	80 - 120
Beryllium	0.100	0.1035		mg/L		103	80 - 120

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

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2199		mg/L		110	80 - 120
Cadmium	0.100	0.1024		mg/L		102	80 - 120
Calcium	2.00	2.093		mg/L		105	80 - 120
Chromium	0.100	0.1072		mg/L		107	80 - 120
Cobalt	0.100	0.1038		mg/L		104	80 - 120
Lead	0.200	0.2190		mg/L		109	80 - 120
Lithium	0.200	0.2148		mg/L		107	80 - 120
Molybdenum	0.200	0.2058		mg/L		103	80 - 120
Selenium	0.400	0.4050		mg/L		101	80 - 120

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.08547		mg/L		85	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-436304/1-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:04	1

Lab Sample ID: LCS 310-436304/2-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001694		mg/L		102	80 - 120

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

Lab Sample ID: MB 310-435878/1
Matrix: Water
Analysis Batch: 435878

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	<42.0		50.0	42.0	mg/L			10/10/24 16:19	1

Lab Sample ID: LCS 310-435878/2
Matrix: Water
Analysis Batch: 435878

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	1038		mg/L		104	88 - 110

HPLC/IC

Analysis Batch: 436854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	9056A	
310-292386-2	MW13	Total/NA	Water	9056A	
MB 310-436854/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436854/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 435877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	3005A	
310-292386-2	MW13	Total/NA	Water	3005A	
MB 310-435877/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 436304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	7470A	
310-292386-2	MW13	Total/NA	Water	7470A	
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 436502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	7470A	436304
310-292386-2	MW13	Total/NA	Water	7470A	436304
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	436304
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	436304

Analysis Batch: 436544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	6020B	435877
310-292386-2	MW13	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877

Analysis Batch: 437043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	6020B	435877
310-292386-2	MW13	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877

General Chemistry

Analysis Batch: 435878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	SM 2540C	
310-292386-2	MW13	Total/NA	Water	SM 2540C	
MB 310-435878/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-435878/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 20:03
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:20
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:18
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:48
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 20:15
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:22
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:20
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:50
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

Method Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET 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:

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

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310-292386 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

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 # _____ of _____
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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.1 | Corrected Temp (°C): 0.1

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 1 & 2	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 - Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW4	10/7/2024	11:16	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	10/7/2024	10:40	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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: Kyle K. Uhing	10/8/2024 17:05	OPPD		10-9-24 0630	LT
Relinquished by:	Date/Time: 10-9-24 0600	Company LT	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/9/24 1637	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292386-1

SDG Number:

Login Number: 292386

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 11/8/2024 10:03:36 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR/Landfill

JOB NUMBER

310-292386-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
11/8/2024 10:03:36 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-292386-2 — Eurofins Cedar Falls

Job Narrative
310-292386-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292386-1	NC2MW4	Water	10/07/24 11:16	10/09/24 16:35
310-292386-2	MW13	Water	10/07/24 10:40	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

No Detections.

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1
Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283		0.106	0.109	1.00	0.104	pCi/L	10/15/24 08:08	11/06/24 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:27*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.07		0.596	0.659	1.00	0.504	pCi/L	10/15/24 08:17	10/27/24 11:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*
Y Carrier	*80.0*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.35		0.605	0.668	5.00	0.504	pCi/L		11/07/24 15:24	1

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: MW13
Lab Sample ID: 310-292386-2
Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169		0.0883	0.0896	1.00	0.106	pCi/L	10/15/24 08:08	11/06/24 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:28*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.36		0.632	0.703	1.00	0.539	pCi/L	10/15/24 08:17	10/27/24 11:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*
Y Carrier	*78.5*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.53		0.638	0.709	5.00	0.539	pCi/L		11/07/24 15:24	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

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: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-683568/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687156
Prep Batch: 683568

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05652	U	0.0614	0.0616	1.00	0.0976	pCi/L	10/15/24 08:08	11/06/24 09:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:28*	*1*

Lab Sample ID: LCS 160-683568/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687133
Prep Batch: 683568

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.197		0.975	1.00	0.116	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-683569/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 685362
Prep Batch: 683569

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6667		0.353	0.359	1.00	0.494	pCi/L	10/15/24 08:17	10/27/24 11:36	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:36*	*1*
Y Carrier	*81.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:36*	*1*

Lab Sample ID: LCS 160-683569/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 685362
Prep Batch: 683569

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.39	10.30		1.75	1.00	1.05	pCi/L	123	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*
Y Carrier	*80.0*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Rad

Prep Batch: 683568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	PrecSep-21	
310-292386-2	MW13	Total/NA	Water	PrecSep-21	
MB 160-683568/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683568/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 683569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	PrecSep_0	
310-292386-2	MW13	Total/NA	Water	PrecSep_0	
MB 160-683569/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683569/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:27
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:39
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:28
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:39
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

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	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-292386 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

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 # _____ of _____
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: Y | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.1 | Corrected Temp (°C): 0.1

• 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

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 1 & 2	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 - Na2S2SO3
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)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW4	10/7/2024	11:16	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	10/7/2024	10:40	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

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	Kyle K. Uhing	10/8/2024 17:05	OPPD		10-9-24 0630	LT
2	Relinquished by	Date/Time 10-9-24 0600	LT	Received by	Date/Time	Company
3	Relinquished by	Date/Time:	Company	Received by	Date/Time 10/9/24 1637	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

11/8/2024

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

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-77220.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-292386-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/12/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 1 & 2 CCR/Landfill	Project #: 31007559			
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Analysis Requested

Preservation Codes: -

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)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW4 (310-292386-1)	10/7/24	11:16 Central	G	Water			X	X	X	2	
MW13 (310-292386-2)	10/7/24	10:40 Central	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our 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 compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/9/24 1015	Company	Received by: Sierra Worthington	Date/Time: OCT 11 2024 0915	Company GEL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292386-2
SDG Number:

Login Number: 292386
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: Omaha Public Power District

Job Number: 310-292386-2
SDG Number:

Login Number: 292386
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/11/24 12:04 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?	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-292386-1	NC2MW4	85.6
310-292386-2	MW13	86.3
LCS 160-683568/2-A	Lab Control Sample	91.1
MB 160-683568/1-A	Method Blank	91.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-292386-1	NC2MW4	85.6	80.0
310-292386-2	MW13	86.3	78.5
LCS 160-683569/2-A	Lab Control Sample	91.1	80.0
MB 160-683569/1-A	Method Blank	91.9	81.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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Appendix C

Semi-Annual Statistical Analysis Memos

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Technical Memorandum

Date:	Friday, June 28, 2024
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs Nebraska City Station Unit 1 - NC1 Ash Disposal Area Spring 2024 Title 132 Groundwater Monitoring Report

Omaha Public Power District operates a two-unit (Unit 1 and Unit 2) fossil fuel-fired generating plant at the Nebraska City Station, herein referenced as “Station” or “Site. The Station is located southeast of Nebraska City, Nebraska. The Station has two coal combustion residual (CCR) landfills for fossil fuel combustion ash disposal known as the NC1 Ash Disposal Area and the NC2 Ash Disposal Area. Both NC1 and NC2 Ash Disposal Areas are subject to the United States Environmental Protection Agency’s (EPA’s) final CCR rule promulgated under U.S. Code of Federal Regulations (CFR), Title 40, Part 257 and Nebraska Department of Environment and Energy’s Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the NC1 Ash Disposal Area. The NC1 Ash Disposal Area is an unlined CCR landfill which encompasses a total area of approximately 52 acres. Final closure of the landfill was completed in November 2020.

Groundwater sampling was completed as part of an assessment monitoring program for the NC1 Ash Disposal Area, as specified in 40 CFR §257.95(d) and Title 132 Chapter 7 Section 005.06. The statistical analysis of groundwater data was performed in accordance with the methods described in the Groundwater Monitoring Statistical Certification, dated July 31, 2018, and the facility’s sampling and analysis plan as permitted under Title 132. The background ranges should be evaluated every two years, in accordance with Chapter 21 of the EPA’s Statistical Analysis of Groundwater Monitoring Data – Unified Guidance (EPA, 2009). The background threshold values (BTVs) were updated as part of the April 2023 sampling event, calculated with data obtained during monitoring events performed between March 2016 and April 2023.

Downgradient sampling results from the spring 2024 assessment monitoring were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standard (GWPS). The calculated BTVs and the evaluation for SSIs over background for the Appendix III (detection monitoring) constituents and Appendix IV (assessment monitoring) constituents are provided in **Table D-1**. The calculated lower confidence levels and the evaluation for SSLs above the GWPS for the Appendix IV (assessment monitoring) constituents are provided in **Table D-2**.

Table D-1. Summary of Evaluation for SSIs over Background (April 2024)

		Well ID:	NC1MW-2	NC1MW-3	NC1MW-4	NC1MW-9
Constituent	*BTV (UPL):*	*Unit*	*Assessment Monitoring Results*			
Detection Monitoring (Appendix III) Constituents						
Boron	*1.53*	*mg/L*	0.323	**2.59**	**1.60**	0.459
Calcium	*168*	*mg/L*	115	**181**	145	**170**
Chloride	*17.3*	*mg/L*	3.65J	7.08	4.47J	6.77
Fluoride	*1.28*	*mg/L*	<0.375	<0.375	<0.375	<0.375
pH	*6.30 – 7.83**	*SU*	7.26	7.25	7.45	7.13
Sulfate	*170*	*mg/L*	74.8	**261**	**275**	142
TDS	*774*	*mg/L*	416	**856**	716	732
Assessment Monitoring (Appendix IV) Constituents						
Antimony	0.002	*mg/L*	<0.00100	<0.00100	<0.00100	<0.00100
Arsenic	0.0893	*mg/L*	0.000656J	0.0484	0.00184J	0.0307
Barium	0.426	*mg/L*	0.142	0.127	0.114	0.154
Beryllium	0.001	*mg/L*	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	0.0005	*mg/L*	<0.000100	<0.000100	<0.000100	<0.000100
Chromium	0.005	*mg/L*	<0.00120	<0.00120	<0.00120	<0.00120
Cobalt	0.00477	*mg/L*	<0.000170	0.000924	0.000402J	0.00161
Fluoride	*1.28*	*mg/L*	<0.375	<0.375	<0.375	<0.375
Lead	0.00639	*mg/L*	<0.000260	<0.000260	<0.000260	<0.000260
Lithium	0.0569	*mg/L*	0.00930J	0.0434	0.0217	0.0434
Mercury	0.000262	*mg/L*	<0.000110	<0.000110	<0.000110	<0.000110
Molybdenum	0.0299	*mg/L*	**0.0604**	0.00209	0.00446	0.0141
Radium 226+228	3.11	*pCi/L*	0.489U	0.427U	0.565	1.21
Selenium	0.0146	*mg/L*	<0.00140	<0.00140	<0.00140	<0.00140
Thallium	0.001	*mg/L*	<0.000570	<0.000570	<0.000570	<0.000570

Bold and underlined concentration indicates an SSI over background.
* indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).
J – Value is less than the Reporting Limit but above the Method Detection Limit, therefore value is an approximation.
U – Value is less than the sample detection limit.

Table D-2. Summary of Evaluation for SSLs over GWPS (April 2024)

Well ID:			NC1MW-2	NC1MW-3	NC1MW-4	NC1MW-9
Constituent	*GWPS[1]*	*Unit*	*Lower Confidence Levels – Assessment Monitoring (Appendix IV) Constituents*			
Antimony	*0.006*	*mg/L*	0.000699	0.00100	0.00100	0.000976
Arsenic	*0.0893[2]*	*mg/L*	0.0007716	0.03312	0.001214	0.01267
Barium	*2.00*	*mg/L*	0.124	0.1257	0.1039	0.1257
Beryllium	*0.004*	*mg/L*	0.000330	0.000330	0.000330	0.000330
Cadmium	*0.005*	*mg/L*	0.00008323	0.000083	0.00009807	0.000078
Chromium	*0.1*	*mg/L*	0.0012	0.0012	0.0012	0.0012
Cobalt	*0.006*	*mg/L*	0.0001557	0.001186	0.0008894	0.001223
Fluoride	*4.00*	*mg/L*	0.2833	0.375	0.3918	0.3892
Lead	*0.015*	*mg/L*	0.0001225	0.00026	0.00026	0.00026
Lithium	*0.0569[2]*	*mg/L*	0.009776	0.0388	0.01985	0.03179
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.1*	*mg/L*	0.06101	0.001852	0.002673	0.01549
Radium 226+228	*5.0*	*pCi/L*	0.3593	0.501	0.4873	0.721
Selenium	*0.05*	*mg/L*	0.0014	0.0014	0.00114	0.00115
Thallium	*0.002*	*mg/L*	0.00057	0.00057	0.000313	0.00057

Bold and underlined concentration indicates an SSL over the GWPS.
[1] GWPS is established as the EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.
[2] GWPS is established as the UPL when the background level is higher than the EPA MCL.

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Technical Memorandum

Date:	Wednesday, November 27, 2024
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs Nebraska City Station Unit 1 - NC1 Ash Disposal Area Fall 2024 Title 132 Groundwater Monitoring Report

Omaha Public Power District operates a two-unit (Unit 1 and Unit 2) fossil fuel-fired generating plant at the Nebraska City Station, herein referenced as “Station” or “Site. The Station is located southeast of Nebraska City, Nebraska. The Station has two coal combustion residual (CCR) landfills for fossil fuel combustion ash disposal known as the NC1 Ash Disposal Area and the NC2 Ash Disposal Area. Both NC1 and NC2 Ash Disposal Areas are subject to the United States Environmental Protection Agency’s (EPA’s) final CCR rule promulgated under U.S. Code of Federal Regulations (CFR), Title 40, Part 257 and Nebraska Department of Environment and Energy’s (NDEE’s) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the NC1 Ash Disposal Area. The NC1 Ash Disposal Area is an unlined CCR landfill which encompasses a total area of approximately 52 acres. Final closure of the landfill was completed in November 2020.

Groundwater sampling was completed as part of an assessment monitoring program for the NC1 Ash Disposal Area, as specified in 40 CFR §257.95(d) and Title 132 Chapter 7 Section 005.06. The statistical analysis of groundwater data was performed in accordance with the methods described in the Groundwater Monitoring Statistical Certification, dated July 31, 2018, and the facility’s groundwater sampling and analysis plan as permitted under Title 132. The background ranges should be evaluated every two years, in accordance with Chapter 21 of EPA’s Statistical Analysis of Groundwater Monitoring Data – Unified Guidance (EPA, 2009). The background threshold values (BTVs) were last updated as part of the April 2023 sampling event, calculated with data obtained during monitoring events performed between March 2016 and April 2023.

Downgradient sampling results from the fall 2024 assessment monitoring were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standard (GWPS). The calculated BTVs and the evaluation for SSIs over background for the Appendix III (detection monitoring) constituents and Appendix IV (assessment monitoring) constituents are provided in **Table D-1**. The calculated lower confidence levels and the evaluation for SSLs above the GWPS for the Appendix IV (assessment monitoring) constituents are provided in **Table D-2**.

Table D-1. Summary of Evaluation for SSIs over Background (October 2024)

		Well ID:	NC1MW-2	NC1MW-3	NC1MW-4	NC1MW-9
Constituent	*BTV (UPL):*	*Unit*	*Assessment Monitoring Results*			
Detection Monitoring (Appendix III) Constituents						
Boron	*1.53*	*mg/L*	0.203	**2.31**	**1.97**	0.361
Calcium	*168*	*mg/L*	119	165	139	161
Chloride	*17.3*	*mg/L*	3.48J	7.79	5.39	7.62
Fluoride	*1.28*	*mg/L*	<0.375	<0.375	<0.375	<0.375
pH	*6.30 – 7.83**	*SU*	7.27	7.13	7.04	7.00
Sulfate	*170*	*mg/L*	57.5	**177**	**287**	116
TDS	*774*	*mg/L*	394	756	748	674
Assessment Monitoring (Appendix IV) Constituents						
Antimony	0.002	*mg/L*	<0.00100	<0.00100	<0.00100	<0.00100
Arsenic	0.0893	*mg/L*	0.000657J	0.0666	0.00217	0.0440
Barium	0.426	*mg/L*	0.156	0.141	0.209	0.174
Beryllium	0.001	*mg/L*	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	0.0005	*mg/L*	<0.000100	<0.000100	0.000162J	<0.000100
Chromium	0.005	*mg/L*	<0.00120	<0.00120	<0.00120	<0.00120
Cobalt	0.00477	*mg/L*	<0.000170	0.000931	0.000788	0.00123
Fluoride	*1.28*	*mg/L*	<0.375	<0.375	<0.375	<0.375
Lead	0.00639	*mg/L*	<0.000260	<0.000260	<0.000260	<0.000260
Lithium	0.0569	*mg/L*	0.0102	0.0434	0.0231	0.0446
Mercury	0.000262	*mg/L*	<0.000110	<0.000110	<0.000110	<0.000110
Molybdenum	0.0299	*mg/L*	**0.0615**	0.00303	0.00277	0.0150
Radium 226+228	3.11	*pCi/L*	0.893	0.645U	1.34	1.28
Selenium	0.0146	*mg/L*	<0.00140	<0.00140	<0.00140	<0.00140
Thallium	0.001	*mg/L*	<0.000570	<0.000570	<0.000570	<0.000570

Bold and underlined concentration indicates an SSI over background.
* indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).
J – Value is less than the Reporting Limit but above the Method Detection Limit, therefore value is an approximation.
U – Value is less than the sample detection limit.

Table D-2. Summary of Evaluation for SSLs over GWPS (October 2024)

Well ID:			NC1MW-2	NC1MW-3	NC1MW-4	NC1MW-9
Constituent	*GWPS[1]*	*Unit*	*Lower Confidence Levels – Assessment Monitoring (Appendix IV) Constituents*			
Antimony	*0.006*	*mg/L*	0.000699	0.00100	0.00100	0.000976
Arsenic	*0.0893[2]*	*mg/L*	0.0007114	0.03835	0.001286	0.01488
Barium	*2.00*	*mg/L*	0.1327	0.1279	0.1009	0.1283
Beryllium	*0.004*	*mg/L*	0.000330	0.000330	0.000330	0.000330
Cadmium	*0.005*	*mg/L*	0.00007798	0.000083	0.0001048	0.000078
Chromium	*0.1*	*mg/L*	0.0012	0.0012	0.0012	0.0012
Cobalt	*0.006*	*mg/L*	0.0001824	0.001047	0.0008545	0.001239
Fluoride	*4.00*	*mg/L*	0.294	0.375	0.375	0.375
Lead	*0.015*	*mg/L*	0.0001225	0.00026	0.00026	0.00026
Lithium	*0.0569[2]*	*mg/L*	0.01044	0.04012	0.01982	0.03425
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.1*	*mg/L*	0.05856	0.001926	0.003044	0.01483
Radium 226+228	*5.0*	*pCi/L*	0.3991	0.519	0.7239	0.7755
Selenium	*0.05*	*mg/L*	0.0014	0.0014	0.00114	0.001146
Thallium	*0.002*	*mg/L*	0.00057	0.00057	0.000313	0.00057

Bold and underlined concentration indicates an SSL over the GWPS.

[1] GWPS is established as the EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.

[2] GWPS is established as the UPL when the background level is higher than the EPA MCL.