2023 NOS Landfill Annual Groundwater Report

North Omaha Station NOS Ash Landfill

Omaha, Nebraska
January 31, 2024

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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 a duly licensed Professional Engineer under the laws of the State of Nebraska.

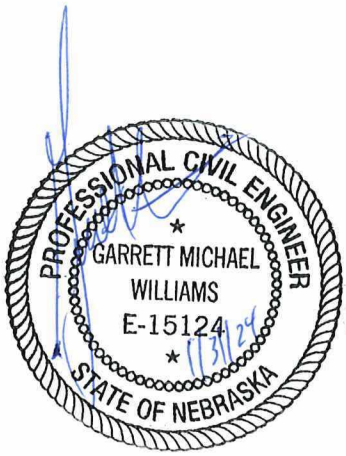
Print Name: Garrett Williams

Signature:

Date: 1/31/24

License #: E-15124

My license renewal date is December 31, 2024.



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Executive Summary

Omaha Public Power District (OPPD) owns and operates a five-unit generating plant at the North Omaha Station (NOS) in Omaha, Nebraska. Units 1, 2, and 3 were converted to natural gas, while Units 4 and 5 operate as coal-burning units. NOS is located east of Pershing Drive and Craig Street, approximately 3.5 miles northwest of Eppley Airfield, along the west bank of the Missouri River at river mile 625.2. On April 17, 2015, the United States Environmental Protection Agency 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 2023 for the assessment monitoring program under 40 CFR §257.95.

The NOS Ash Landfill transitioned from detection monitoring to assessment monitoring following the November 2017 sampling event due to statistically significant increases (SSIs) above the background threshold values in downgradient monitoring wells. OPPD evaluated an alternate source demonstration (ASD) for the SSIs, but the ASD was unsuccessful and OPPD initiated assessment monitoring in June 2018 and a subsequent event in October 2018. Results indicated multiple Appendix IV constituents at statistically significant levels (SSLs) above the groundwater protection standards (GWPS). OPPD published a notification of the exceedances on February 14, 2019, and a notification of initiation of assessment of corrective measures (ACM) on May 30, 2019 (HDR, 2019a). An initial ACM Report was completed on July 5, 2019.

Additional site information to better understand the hydrogeologic system near the NOS Ash Landfill was obtained through the following studies and reports:

- Nebraska Department of Environment and Energy (NDEE) Title 132: Nature and Extent Investigation Report (HDR, 2019b)
- Hydrogeologic and Geochemical Conceptual Site Model (HDR, 2020b)
- Groundwater Flow Model and Corrective Measures Evaluation Report (HDR, 2020c)
- Evaluation of Potential Groundwater Impacts to Missouri River (HDR, 2021a)
- Groundwater Fate & Transport Model and Corrective Measures Evaluation Report (HDR, 2021b)

Results of the investigations and modeling were presented at a public meeting with interested and affected parties on September 22, 2021. NDEE provided final approval for long-term groundwater monitoring and post-closure landfill capping for the final remedy on October 19, 2021. The Remedy Selection Report [RSR] (HDR, 2021d) dated December 13, 2021, was provided to NDEE. In an e-mail dated March 21, 2022, the NDEE provided comments on the RSR. NDEE comments indicated unusable coal could not be disposed of in the landfill unit. In response to NDEE's March 21, 2022, comments and due to changes in the remedy, the RSR was revised into a Remedial Action Plan / Remedy Selection Report [RAP/RSR] (dated November 17, 2022) and submitted to NDEE. In an e-mail dated November 30, 2022, the NDEE provided comments on the RAP/RSR. OPPD worked with NDEE's permitting section on submitting a major modification for closure of the landfill. The NDEE approved the major

modification on December 13, 2023. The closure of the landfill is ongoing and will be completed by mid-2024.

Two semi-annual sampling events were conducted in 2023: one sampling event in April 2023 and one sampling event in October 2023. Results of the April 2023 analysis indicated 40 SSIs for Appendix III and Appendix IV constituents and 9 SSLs for Appendix IV constituents. No new SSLs were identified during the April 2023 sampling event. Results of the October 2023 analysis indicated 42 SSIs for Appendix III and Appendix IV constituents and 9 SSLs for Appendix IV constituents. No new SSLs were identified during the October 2023 sampling event. Results of the 2023 SSIs and SSLs are summarized in the table below.

The Site will continue to be monitored 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 2024. 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:		**NOS 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 2023	October 2023
§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.	• MW-2 – boron, calcium, sulfate • MW-5 – boron, calcium, sulfate, TDS • MW-6 – boron, calcium, chloride, sulfate • MW-8 – boron, sulfate • MW-13 – boron, calcium, sulfate, TDS • MW-15 – boron, sulfate • MW-17 – boron, calcium, sulfate, TDS	• MW-2 – boron, calcium, sulfate • MW-5 – boron, calcium, sulfate, TDS • MW-6 – boron, calcium, chloride, sulfate, TDS • MW-8 – boron, pH, sulfate • MW-13 – boron, sulfate, TDS • MW-15 – boron, calcium, sulfate

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:		**NOS Ash Disposal Area**	
			• MW-17 – boron, calcium, sulfate, TDS
§257.90(e)(6)(iii)(B)	Provide the date when the assessment monitoring program was initiated for the CCR unit.	June 5, 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:	Yes	Yes
§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.	• MW-2 – arsenic • MW-5 – arsenic, lithium • MW-13 – arsenic, molybdenum • MW-15 – molybdenum, selenium • MW-17 – cobalt, lithium	• MW-2 – arsenic • MW-5 – arsenic, lithium • MW-13 – arsenic, molybdenum • MW-15 – molybdenum, selenium • MW-17 – cobalt, lithium
§257.90(e)(6)(iv)(B)	Provide the date when the assessment of corrective measures was initiated for the CCR unit.	May 1, 2019: Initiation of assessment of corrective measures May 30, 2019 – Assessment of Corrective Measures	
§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.	September 22, 2021	
§257.90(e)(6)(iv)(D)	Provide the date when the assessment of corrective measures was completed for the CCR unit.	December 13, 2021 – Remedy Selection Report	
§257.90(e)(6)(v)	Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection.	NDEE Title 132 Remedial Action Plan: The NDEE approved a major permit modification on December 13, 2023. The closure of the landfill is ongoing and will be completed by mid-2024.	
§257.90(e)(6)(vi)	(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	Remedial activities have been initiated. Landfill closure activities have commenced and will be completed by mid-2024.	

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. Disposal of CCR from Electric Utilities final rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257 (EPA, 2015). The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Classification 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) North Omaha Station (NOS).

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 any 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 calendar year 2023.

1.2 Facility Information

OPPD owns and operates a five-unit generating plant at NOS, herein referenced as “Station” or “Site”, in Omaha, Nebraska. Units 1, 2, and 3 were converted to natural gas, while units 4 and 5 were retrofitted with air pollution control equipment and are operating as coal-burning units. The Station is located east of Pershing Drive and Craig Street, approximately 3.5 miles northwest of Eppley Airfield, along the west bank of the Missouri River at river mile 625.2 (**Figure 1**). The first generating unit was placed in service in July 1954, and the fifth unit was placed in operation in 1968. Beneficial use and disposal of the fossil fuel combustion ash has occurred on the Site since the 1950s.

This Station has one existing active CCR landfill. The NOS Ash Landfill is permitted under the current Nebraska Department of Environment and Energy (NDEE) Title 132 regulations for fossil fuel combustion ash disposal areas (NDEE Permit No. NE0054739, Facility ID 59763). Prior to the NDEE approved major modification to the permit, the regulated NOS Ash Landfill consisted of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion permitted for ash disposal. A major permit modification was approved by NDEE for early closure of the NOS Ash Landfill. The permit modification revised the total area of the ash disposal area to 18.503 acres. During 2023, closure activities were initiated at the NOS Ash Landfill. The closure activities are tentatively scheduled to be completed by mid-2024. **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 includes ten monitoring wells consisting of three upgradient/background monitoring wells (MW-9, MW-18, MW-19) and seven downgradient/ compliance monitoring wells (MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17) (HDR, 2020a). Monitoring well details for the monitoring network, including the date of installation, is provided in **Table 1**. The location of the monitoring wells in the groundwater monitoring program with respect to the NOS Ash Landfill are shown in **Figure 2**.

2.1 Transition of Monitoring Programs

On January 31, 2018, OPPD published statistically significant increases (SSIs) detected in November 2017 in downgradient monitoring wells at the NOS Ash Landfill for 17 monitoring well/constituent pairs. These SSIs were noted in multiple wells and included boron, calcium, chloride, sulfate, and total dissolved solids (TDS) from the Appendix III constituents. OPPD conducted an alternate source demonstration (ASD) for the SSIs to evaluate potential error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The ASD was unsuccessful and OPPD published a notification (dated May 29, 2018) stating the facility had initiated an assessment monitoring program in accordance with 40 CFR §257.95.

Assessment monitoring was initiated in June 2018 and a subsequent event was conducted in October 2018. During each event, background and compliance monitoring wells were sampled, and samples were analyzed for both 40 CFR §257 Appendix III and 40 CFR §257 Appendix IV constituents. Results of the statistical analysis of the data indicated multiple Appendix IV constituents were detected at statistically significant levels (SSLs) above the groundwater protection standards (GWPS). OPPD published a notification of the SSLs on February 14, 2019 (OPPD, 2019), and a notification of initiation of assessment of corrective measures (ACM). An initial ACM report was completed on July 5, 2019 (HDR, 2019a). During the completion of the report, data gaps were identified. Additional site information was obtained and submitted in the NDEE Title 132 Nature & Extent Report (HDR, 2019b).

Following the initial ACM Report, additional information necessary to understand the hydrogeologic system at the NOS Ash Landfill was obtained. A Conceptual Site Model (CSM) was prepared to describe the site-specific geologic and hydrogeologic regimes (HDR, 2020b). Using the CSM, a groundwater flow model was prepared to create a digital representation of the groundwater flow system (HDR, 2020c). The groundwater flow model was used to develop a transient model that simulated the fate and transport of constituents of interest (COIs) at the Site (HDR, 2021b). During the 2021 reporting period, semi-annual updates describing the progress in selecting a corrective action at the NOS Ash Landfill were completed on January 4, 2021, and July 2, 2021. Results of the investigations and modeling were presented at a public meeting with interested and affected parties on September 22, 2021. The Remedy Selection Report [RSR] (HDR, 2021d) was completed on December 13, 2021. In an e-mail dated March 21, 2022, the NDEE provided comments on the RSR. NDEE comments indicated unusable coal could not be disposed of in the onsite CCR landfill unit. In response to NDEE's March 21, 2022, comments, the RSR was revised into a Remedial Action Plan / Remedy Selection Report [RAP/RSR] (dated November 17, 2022) and submitted to NDEE. In an e-mail dated November

30, 2022, the NDEE provided comments on the RAP/RSR. OPPD worked with NDEE's permitting section on submitting a major modification for closure of the landfill. The NDEE approved the major modification on December 13, 2023. The closure of the landfill is ongoing and will be completed by mid-2024.

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 2023 and October 2023. During this 2023 reporting period, the concrete pad at monitoring well MW-6 was noted as needing repairs during the April 2023 sampling event. The concrete pad was repaired within 30 days of the observation. The remaining wells were noted in good working condition, concrete pads were intact, and no damage was observed to the protective well casings during 2023.

While the certified groundwater monitoring system remained unchanged in 2023, non-network monitoring wells MW-22, MW-27, MW-28, MW-29, and MW-30, which were installed as part of the Nature and Extent Investigations, were decommissioned on September 28, 2023. These monitoring wells were decommissioned in preparation for closure activities of the landfill. Well decommissioning forms for monitoring wells MW-22, MW-27, MW-28, MW-29, and MW-30 are included in **Appendix D**.

3 Data Evaluation and Summary

3.1 Summary of Sampling Activities

Groundwater sampling events were conducted by OPPD personnel in April 2023 and October 2023 as continuation of the assessment monitoring program in accordance with 40 CFR §257.96(b). Samples were collected in 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 current background and downgradient well in the monitoring network. The number of samples collected for each background and downgradient well during each groundwater sampling 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 accordance with the facility's NDEE Title 132 Groundwater Sampling and Analysis Plan (HDR, 2019c) and the CCR Groundwater Monitoring System Certification (HDR, 2020a). Samples were analyzed for Appendix III and Appendix IV constituents during both semi-annual sampling events. Field sampling forms from these sampling events are provided in **Appendix A**. The collected groundwater samples were analyzed by Eurofins, and laboratory analytical reports are provided in **Appendix B**.

3.2 Groundwater Elevations & Flow Direction

Static groundwater level measurements were recorded at the monitoring wells specified in **Table 1** prior to purging and sampling activities conducted during the groundwater sampling events. Groundwater measurements from both monitoring network wells and water level only wells, as specified in **Table 1**, were used to develop groundwater contours for semi-annual

sampling events in 2023. Monitoring well static groundwater elevations are provided in **Table 3**. Groundwater measurements collected during the April 2023 sampling event indicated a flow direction to the east/northeast, with an average flow velocity of 0.00417 ft/day to 0.289 ft/day (**Figure 3**). Groundwater measurements collected during the October 2023 sampling event indicated a flow direction to the east/northeast with an average flow velocity of 0.00326 ft/day to 0.226 ft/day (**Figure 4**). The flow velocities are based on a range of hydraulic conductivity at the Site of 0.0544 ft/day to 3.77 ft/day (HDR, 2020a).

3.3 Assessment Monitoring Groundwater Sampling

The NOS Ash Landfill was monitored semi-annually in 2023 as continuation of the assessment monitoring program in accordance with 40 CFR §257.96(b). Appendix III and Appendix IV constituents were analyzed for both the April 2023 and October 2023 sampling events, meeting the requirements of 40 CFR §257.95. The results of the assessment monitoring events 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 statistically significant levels (SSLs) above the GWPS. Statistical analyses were performed using Sanitas™ statistical analysis software in accordance with the methods described in the Groundwater Monitoring Statistical Methods Certification (HDR, 2021c). Statistically derived BTVs for Appendix III and IV constituents are provided in **Table 6**. 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 BTVs were updated as part of the October 2023 statistical analysis. The established GWPS on all Appendix IV constituents are provided in **Table 7**. Results of the statistical analysis of designated in-network downgradient monitoring wells from the April 2023 and October 2023 sampling events are provided in **Appendix C**.

Semi-annual sampling events were conducted in April 2023 and October 2023. Results of the April 2023 analysis indicated 40 SSIs for Appendix III and Appendix IV constituents, as follows:

- Arsenic in MW-2, MW-5, MW-13, and MW-17
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-13, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Selenium in MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-5, MW-13, and MW-17
- Thallium in MW-2 and MW-5

No new SSLs were identified during the April 2023 sampling event. Analysis of the Appendix IV constituents indicated 9 SSLs detected above the GWPS during the April 2023 sampling event:

- Arsenic in MW-2, MW-5, and MW-13
- Cobalt in MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

Results of the October 2023 analysis indicated 42 SSIs for Appendix III and Appendix IV constituents, as follows:

- Arsenic in MW-2, MW-5, MW-13, and MW-17
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-15, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, MW-15, and MW-17
- pH in MW-8
- Selenium in MW-13 and MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-5, MW-6, MW-13, and MW-17
- Thallium in MW-2 and MW-5

No new SSLs were identified during the October 2023 sampling event. Analysis of the Appendix IV constituents indicated 9 SSLs detected above the GWPS during the October 2023 sampling event:

- Arsenic in MW-2, MW-5, and MW-13
- Cobalt in MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

3.5 Other Information Required under 40 CFR §257.90-98

OPPD has continued to comply with CCR Rule regulations and selected a remedy at the NOS Ash Landfill as noted in the RSR (HDR, 2021d) dated December 13, 2021. During the 2022 reporting period, OPPD received comments from NDEE on the RSR dated March 21, 2022. Following NDEE's feedback, the RSR was revised into the RAP/RSR dated November 17, 2022. In collaboration with NDEE's permitting section, OPPD submitted a major permit modification application on March 29, 2023, for landfill closure. NDEE approved the major modification in a letter dated December 13, 2023. Landfill closure is currently underway and scheduled for completion by mid-2024. No other information is required under 40 CFR §257.90-98 at this time.

4 Key Activities for Upcoming Year

OPPD will continue to implement the selected remedy outlined in the RAP/RSR (HDR, 2022). Landfill closure activities are tentatively planned to be completed by mid-2024 with the construction of a landfill cap. Landfill capping will include the closure of both the NOS Ash Disposal Area and the retired landfill. The Site will continue to be monitored 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 2024.

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; *Disposal of Coal Combustion Residuals from Electric Utilities*; Final Rule, Federal Register vol. 80, no. 74. Environmental Protection Agency. April 17, 2015.

HDR, 2019a. *Assessment of Corrective Measures for Groundwater at Omaha Public Power District (OPPD) North Omaha Station*. Omaha, Nebraska. July 5, 2019.

HDR, 2019b. *Title 132 Nature & Extent Report*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. December 18, 2019.

HDR, 2019c. *Groundwater Sampling and Analysis Plan*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. September 2019. Revised December 2019

HDR, 2020a. *CCR Groundwater Monitoring System Certification (rev. 3)*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. Amended January 24, 2020.

HDR, 2020b. *Hydrogeologic and Geochemical Conceptual Site Model*. NOS Ash Disposal Area. Omaha, Nebraska. May 5, 2020.

HDR, 2020c. *Groundwater Flow Model and Corrective Measures Evaluation Report*. NOS Ash Disposal Area. Omaha, Nebraska. June 18, 2020.

HDR, 2021a. *Evaluation of Potential Groundwater Impacts to Missouri River*. NOS Ash Disposal Area. Omaha, Nebraska. March 9, 2021.

HDR, 2021b. *Groundwater Fate & Transport Model and Corrective Measures Evaluation Report*. NOS Ash Disposal Area. Omaha, Nebraska. May 11, 2021.

HDR, 2021c. *Groundwater Monitoring Statistical Methods Certification*. NOS Ash Disposal Area. Omaha,
Nebraska. Revised December 2021.

HDR, 2021d. *Groundwater Remedy Selection Report*. NOS Ash Disposal Area. Omaha, Nebraska. December 13, 2021.

HDR, 2022. *Remedial Action Plan / Remedy Selection Report*. NOS Ash Disposal Area. Omaha, Nebraska. November 17, 2022.

OPPD, 2019. Memorandum. *Notification of Appendix IV SSLs exceeding the GWPS*. NOS Ash Disposal Area. Omaha, Nebraska. February 14, 2019.

Figures

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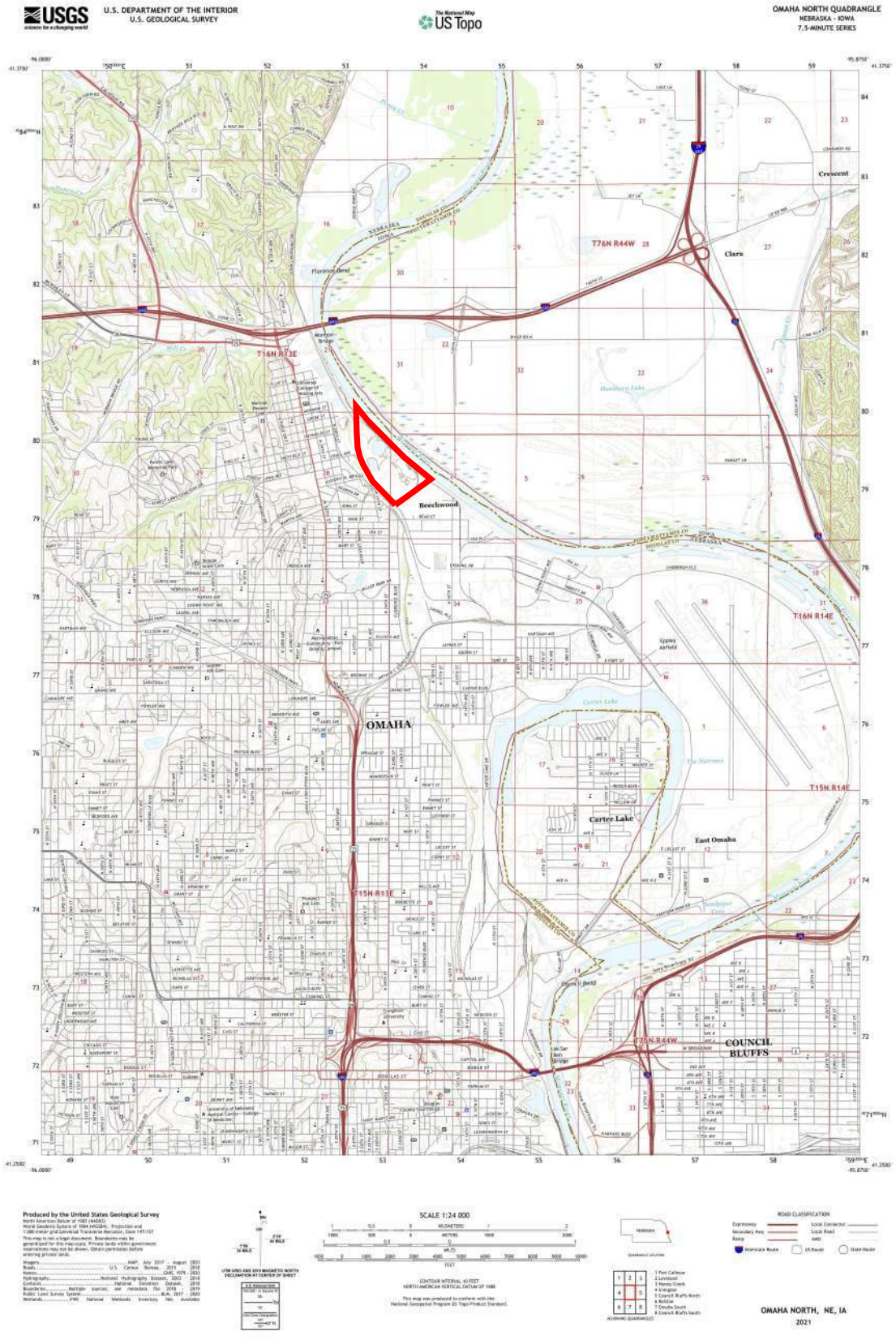

Site Boundary

SITE LOCATION MAP

OPPD - NORTH OMAHA STATION

FIGURE 1

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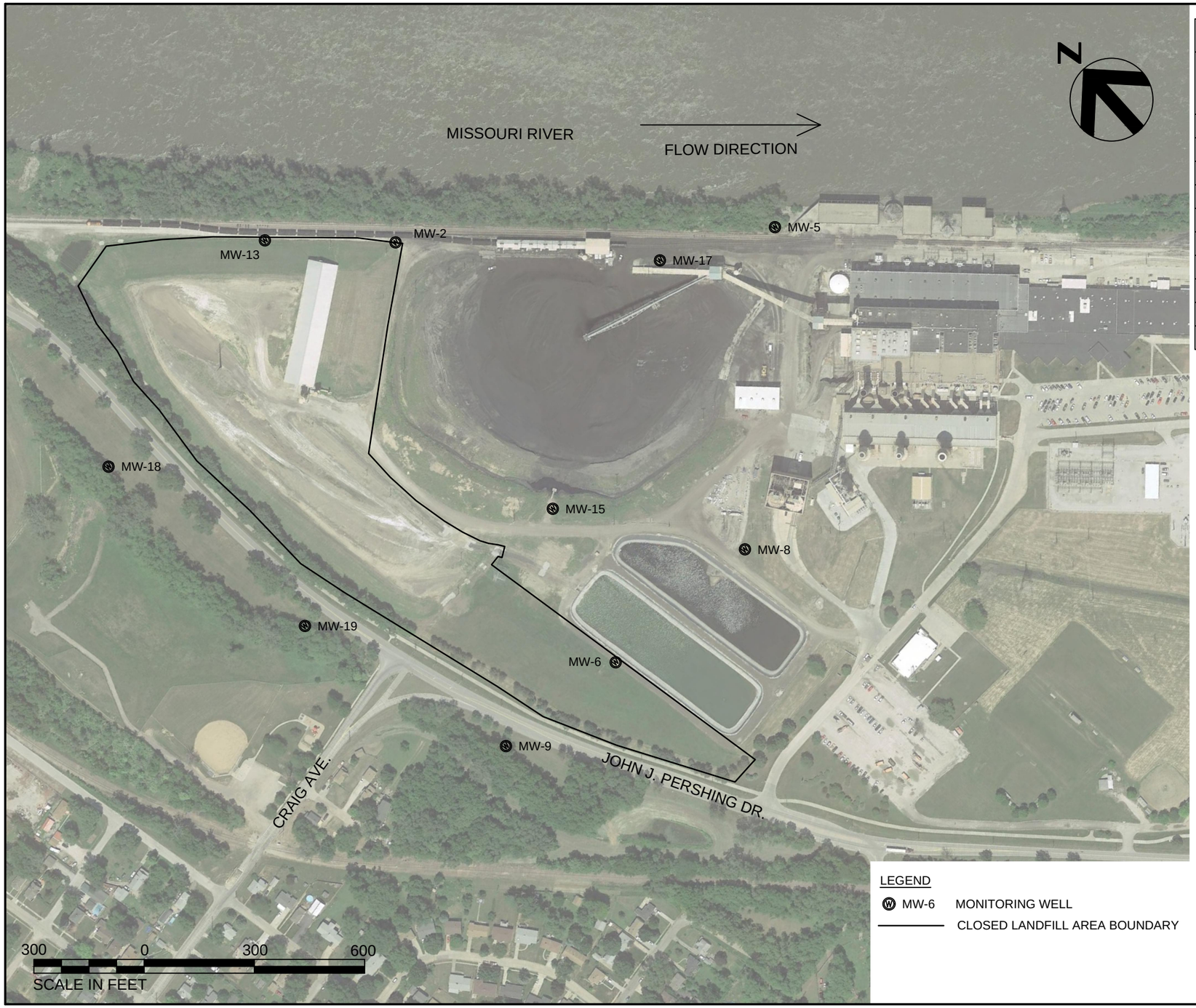

LEGEND

MW-6 MONITORING WELL

CLOSED LANDFILL AREA BOUNDARY

COMPLIANCE AND BACKGROUND MONITORING WELLS

WELL ID	NORTHING	EASTING	SURFACE ELEVATION (FEET AMSL)	TOP OF CASING ELEVATION (FEET AMSL)	INSTALL DATE	COMMENTS
MW-2	572580	2753258	998.30	1001.41	3/6/1995	DOWNGRADIENT
MW-5	571959.9	2754084	998.10	1000.96	3/2/1995	DOWNGRADIENT
MW-6	571316.1	2753000	999.60	1002.65	3/8/1995	CROSS-GRADIENT
MW-8	571331.8	2753467	1000.30	1003.59	3/7/1995	CROSS-GRADIENT
MW-9	571328	2752624	1027.10	1026.47	5/4/1996	BACKGROUND
MW-13	572808.9	2752986	999.02	1001.91	4/12/2001	DOWNGRADIENT
MW-15	571747.9	2753132	1002.80	1005.39	4/12/2001	DOWNGRADIENT
MW-17	572087.4	2753785	999.60	1002.54	5/10/2007	DOWNGRADIENT
MW-18	572600.9	2752267	1037.10	1037.00	12/1/2015	BACKGROUND
MW-19*	571927.2	2752407	1037.30	1037.10	1/20/2016	BACKGROUND

NOTES:

1. * FLUSH MOUNT WELL.
2. AMSL - ABOVE MEAN SEA LEVEL.

Omaha Public Power District

OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
MONITORING WELL LOCATION MAP

2023 GROUNDWATER MONITORING

DATE
JANUARY 2024

FIGURE
2

C:\pwworking\central01\d3630246\Figure 1 - Title 132 and CCR - FALL 2023.dwg, Title 132, 1/5/2024 10:58:05 AM, BBUNKER

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MISSOURI RIVER

FLOW DIRECTION

MW-23
984.23

MW-13
979.37

MW-2
976.85

MW-25S
976.57

MW-5
977.69

MW-17
982.41

MW-29
989.27

MW-30
989.90

MW-22
990.90

MW-26S
990.75

MW-18
998.73

MW-15
992.17

MW-4
989.15

MW-12
985.38

MW-8
984.17

MW-28
993.50

MW-19S
1001.26

MW-19
999.28

MW-20
983.14

MW-6
987.21

MW-27
988.42

MW-11
DRY

MW-10
984.61

MW-7
982.83

MW-9
998.10

PROCESS WATER POND

ASH LANDFILL DRAINAGE POND

CRAIG AVE.

JOHN J. PERSHING DR.

978 980 982 984 986 988 990 992 994 996 998 1000

N

CLOSED LANDFILL AREA BOUNDARY

RAILROAD TRACKS

MW-15 989.91 — MONITORING WELL AND GROUNDWATER ELEVATION

MW-4D — BEDROCK MONITORING WELL

990 — GROUNDWATER CONTOURS (AMSL) *DASHED WHERE INFERRED

EXISTING CONTOURS

INFERRED GROUNDWATER FLOW DIRECTION

NOTES

1. CONTOURS WERE DEVELOPED USING COMPLIANCE & BACKGROUND MONITORING WELLS AND WATER LEVEL ONLY WELLS. BEDROCK WELLS ARE NOT INCLUDED IN THE CONTOURS.
2. SCREENED INTERVALS FOR WELLS MW-4, MW-6, MW-7, MW-8 AND MW-19 ARE DEEPER IN THE SATURATED FORMATION THAN SURROUNDING WELLS, GROUNDWATER ELEVATIONS FROM THESE WELLS WERE NOT USED IN CONTOUR DEVELOPMENT SINCE THE DATA MAY NOT BE INDICATIVE OF THE WATER TABLE SURFACE ELEVATION.

GROUNDWATER FLOW VELOCITY

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

K = HYDRAULIC CONDUCTIVITY (SEE TABLE BELOW)

i = GRADIENT = $\frac{1ft}{43.3ft}$ = 0.0231 FT/FT

n = POROSITY = 0.3

K	V_T
0.0544 FT/DAY	0.00417 FT/DAY
3.77 FT/DAY	0.289 FT/DAY

200 0 200 400

SCALE IN FEET

Omaha Public Power District

OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
GROUNDWATER CONTOUR MAP - APRIL 2023

2023 GROUNDWATER MONITORING

DATE
JANUARY 2024

FIGURE
3

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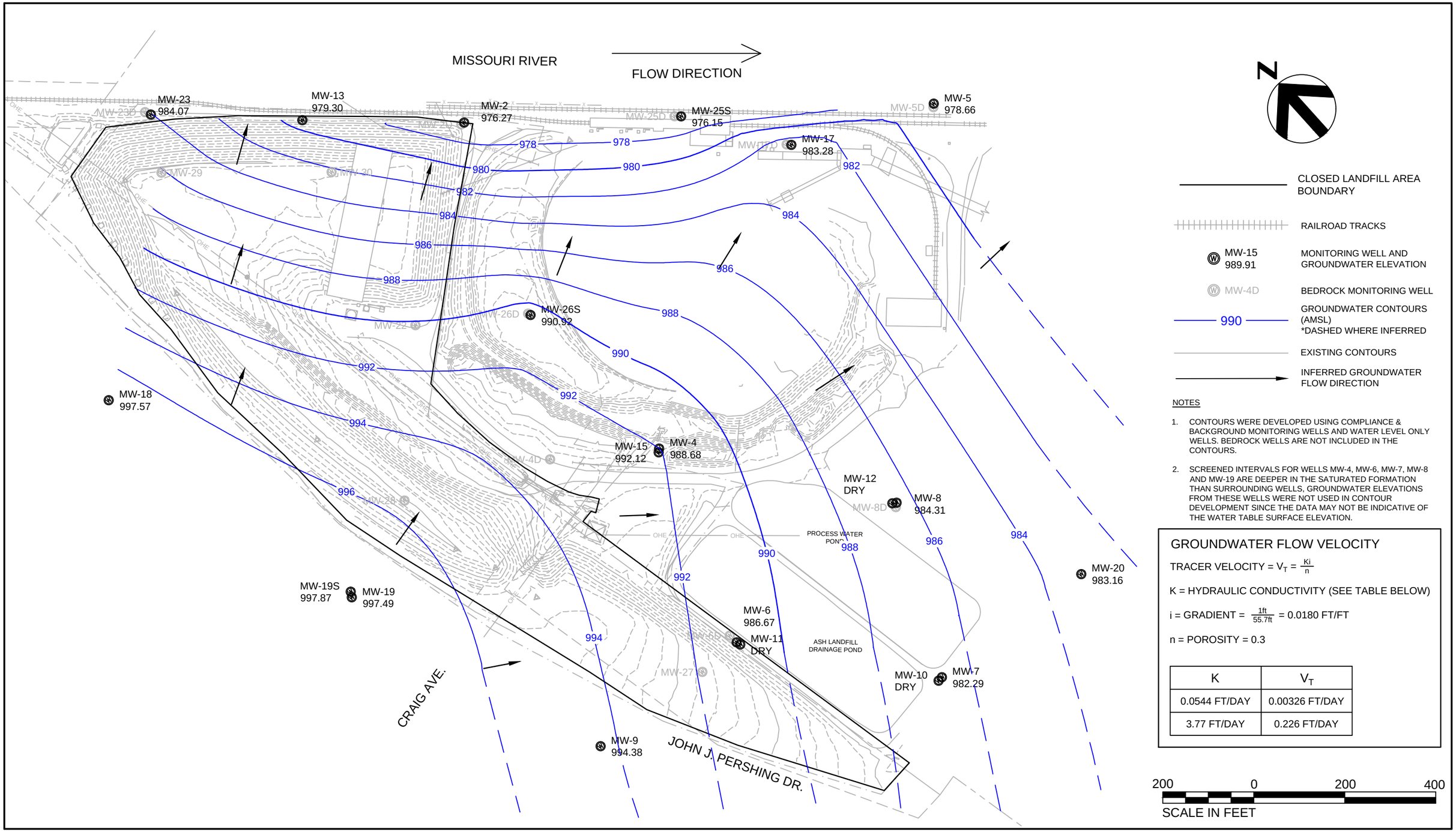

NOTES

1. CONTOURS WERE DEVELOPED USING COMPLIANCE & BACKGROUND MONITORING WELLS AND WATER LEVEL ONLY WELLS. BEDROCK WELLS ARE NOT INCLUDED IN THE CONTOURS.
2. SCREENED INTERVALS FOR WELLS MW-4, MW-6, MW-7, MW-8 AND MW-19 ARE DEEPER IN THE SATURATED FORMATION THAN SURROUNDING WELLS, GROUNDWATER ELEVATIONS FROM THESE WELLS WERE NOT USED IN CONTOUR DEVELOPMENT SINCE THE DATA MAY NOT BE INDICATIVE OF THE WATER TABLE SURFACE ELEVATION.

GROUNDWATER FLOW VELOCITY

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

K = HYDRAULIC CONDUCTIVITY (SEE TABLE BELOW)

i = GRADIENT = $\frac{1ft}{55.7ft}$ = 0.0180 FT/FT

n = POROSITY = 0.3

K	V_T
0.0544 FT/DAY	0.00326 FT/DAY
3.77 FT/DAY	0.226 FT/DAY

Omaha Public Power District

OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
GROUNDWATER CONTOUR MAP - OCTOBER 2023

2023 GROUNDWATER MONITORING

DATE
JANUARY 2024

FIGURE
4

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Tables

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Table 1 - Groundwater Monitoring System
Omaha Public Power District - NOS Ash Landfill

Monitoring Well ID	Date Installed	Well Depth[1] (feet bgs)	Location w/respect to NOS Ash Landfill	Ground Surface Elevation (feet AMSL)	Top of Well Casing Elevation[2] (feet AMSL)
CCR Monitoring Network Wells					
MW-2	3/6/1995	30	Downgradient	998.30	1001.41
MW-5	3/2/1995	30	Downgradient	998.10	1000.96
MW-6	3/8/1995	31	Cross-gradient	999.60	1002.65
MW-8	3/7/1995	30	Cross-gradient	1000.30	1003.59
MW-9	5/4/1996	63	Background/Upgradient	1027.10	1026.47
MW-13	4/12/2001	30	Downgradient	999.02	1001.91
MW-15	4/12/2001	15	Downgradient	1002.80	1005.39
MW-17	5/10/2007	30	Downgradient	999.60	1002.54
MW-18	12/1/2015	71	Background/Upgradient	1037.10	1036.70
MW-19	1/20/2016	76	Background/Upgradient	1037.30	1036.91
Water Level Only Wells[3]					
MW-4	3/6/1995	33	Water Level Only Well	1001.30	1004.59
MW-7	3/81995	30	Water Level Only Well	999.10	1001.85
MW-10	4/11/2001	15	Water Level Only Well	1000.13	1002.48
MW-11	4/11/2001	15	Water Level Only Well	1000.49	1002.99
MW-12	4/11/2001	15	Water Level Only Well	1001.35	1003.78
MW-19S	10/21/2019	46	Water Level Only Well	1036.71	1036.21
MW-20	11/9/2015	35	Water Level Only Well	991.20	993.47
MW-23	2/26/2019	24	Water Level Only Well	997.70	1000.81
MW-25S	10/18/2019	28	Water Level Only Well	999.24	1002.51
MW-26S	10/18/2020	28	Water Level Only Well	1008.24	1011.54

Notes:

[1] bgs - below ground surface

[2] AMSL - above mean sea level

[3] Monitoring wells MW-22, MW-27, MW-28, MW-29, and MW-30 were decommissioned in October 2023 as part of the landfill closure project.

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Table 2 - Groundwater Sampling Event Summary
Omaha Public Power District - NOS Ash Landfill

Monitoring Well ID	# of Initial Background Samples	Initial Background Sample Dates	# of Detection Monitoring Samples	Detection Monitoring Sample Dates [1]	# of Assessment Monitoring Samples	Assessment Monitoring Sample Dates [2] [3]
Current Background Monitoring Wells						
MW-9	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/20/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021, 4/11/2022, 10/5/2022, 4/3/2023, 10/3/2023
MW-18	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021, 4/11/2022, 10/5/2022, 4/3/2023, 10/3/2023
MW-19	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021, 4/11/2022, 10/5/2022, 4/3/2023, 10/3/2023
Downgradient Monitoring Wells						
MW-2	8	3/22/2016, 6/14/2016, 11/29/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017, 11/7/2017	1	3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023
MW-5	8	3/23/2016, 6/14/2016, 11/29/2016, 5/2/2017, 6/5/2018, 10/10/2018, 4/16/2019, 10/1/2019	0	N/A[4]	9	10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023
MW-6	8	3/22/2016, 6/14/2016, 11/28/2016, 5/2/2017, 3/9/2018, 6/5/2018, 10/9/2018, 4/15/2019	0	N/A[4]	9	10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023
MW-8	8	3/23/2016, 6/14/2016, 11/29/2016, 5/2/2017, 6/5/2018, 10/10/2018, 4/15/2019, 10/1/2019	0	N/A[4]	9	10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023
MW-13	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/11/2021, 4/11/2022, 10/5/2022, 4/3/2023, 10/4/2023
MW-15	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023
MW-17	8	3/22/2016, 6/14/2016, 9/2/2016, 11/29/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	12	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021, 4/11/2022, 10/5/2022, 4/4/2023, 10/4/2023

Notes:

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

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

[3] The April 2019 sampling event was completed as part of the initiation of Assessment of Corrective Measures in accordance with 40 CFR 257.96(b).

[4] Monitoring wells MW-5, MW-6, and MW-8 were added to the network after the April 2019 sampling event to coordinate with the NDEE Title 132 Permit.

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Table 3 - Groundwater Elevations
Omaha Public Power District - NOS Ash Landfill

	CCR Monitoring Network Wells																			
	MW-2		MW-5		MW-6		MW-8		MW-9		MW-13		MW-15		MW-17		MW-18		MW-19	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation [1]		TOC Elevation [2]	
	1001.41		1000.96		1002.65		1003.59		1026.47		1001.91		1005.39		1002.54		1036.70		1036.91	
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation	Measured Depth to Water (ft)	GW Elevation	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)
3/22/2016	21.20	980.21	20.30	980.66	12.75	989.90	17.55	986.04	22.41	1004.06	17.41	984.50	10.90	994.49	17.18	985.36	34.75	1002.25	33.85	1003.25
6/14/2016	21.65	979.76	19.15	981.81	12.05	990.60	16.00	987.59	22.10	1004.37	17.40	984.51	10.40	994.99	16.10	986.44	33.92	1003.08	33.40	1003.70
9/2/2016	22.90	978.51	20.50	980.46	13.30	989.35	17.48	986.11	24.70	1001.77	22.50	979.41	10.90	994.49	17.50	985.04	35.50	1001.50	34.95	1002.15
11/28/2016	22.06	979.35	20.55	980.41	13.48	989.17	18.18	985.41	24.65	1001.82	18.20	983.71	11.30	994.09	17.51	985.03	35.35	1001.35	34.91	1002.00
2/17/2017	22.45	978.96	20.73	980.23	13.89	988.76	18.67	984.92	24.70	1001.77	18.80	983.11	11.65	993.74	18.25	984.29	35.95	1000.75	35.30	1001.61
5/2/2017	22.00	979.41	20.25	980.71	13.40	989.25	11.32	992.27	23.71	1002.76	18.41	983.50	10.45	994.94	17.12	985.42	34.80	1001.90	34.22	1002.69
6/19/2017	22.00	979.41	19.60	981.36	12.50	990.15	16.45	987.14	23.90	1002.57	18.30	983.61	10.60	994.79	16.55	985.99	34.70	1002.00	34.20	1002.71
7/31/2017	23.10	978.31	20.21	980.75	13.37	989.28	11.38	992.21	26.65	999.82	19.25	982.66	12.15	993.24	17.10	985.44	36.40	1000.30	35.85	1001.06
11/7/2017	22.95	978.46	23.45	977.51	12.20	990.45	15.80	987.79	21.30	1005.17	19.40	982.51	12.75	992.64	17.50	985.04	36.39	1000.31	35.86	1001.05
3/9/2018	23.33	978.08	21.25	979.71	13.10	989.55	17.17	986.42	26.35	1000.12	20.21	981.70	13.75	991.64	19.21	983.33	36.31	1000.39	37.06	999.85
4/23/2018	23.50	977.91	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	29.27	997.20	20.35	981.56	12.70	992.69	19.00	983.54	35.63	1001.07	35.15	1001.76
6/5/2018	22.43	978.98	19.47	981.49	14.17	988.48	18.27	985.32	26.52	999.95	18.90	983.01	12.12	993.27	17.10	985.44	35.52	1001.18	35.81	1001.10
10/9/2018	19.49	981.92	17.08	983.88	13.49	989.16	17.05	986.54	25.47	1001.00	15.93	985.98	10.71	994.68	14.71	987.83	33.94	1002.76	33.78	1003.13
4/15/2019	17.74	983.67	16.51	984.45	12.78	989.87	17.17	986.42	23.36	1003.11	14.16	987.75	10.67	994.72	14.73	987.81	32.68	1004.02	32.70	1004.21
10/1/2019	16.02	985.39	14.76	986.20	13.17	989.48	16.96	986.63	26.01	1000.46	12.94	988.97	10.76	994.63	13.74	988.80	33.52	1003.18	33.53	1003.38
4/14/2020	21.32	980.09	19.01	981.95	13.15	989.50	17.51	986.08	23.89	1002.58	17.38	984.53	11.29	994.10	16.50	986.04	33.74	1002.96	33.47	1003.44
10/1/2020	23.82	977.59	21.05	979.91	14.98	987.67	19.13	984.46	30.10	996.37	20.39	981.52	14.22	991.17	18.51	984.03	38.03	998.67	37.86	999.05
4/1/2021	23.21	978.20	21.09	979.87	14.07	988.58	17.23	986.36	26.65	999.82	20.58	981.33	10.83	994.56	18.58	983.96	36.00	1000.70	35.29	1001.62
10/11/2021	23.87	977.54	20.41	980.55	14.70	987.95	18.57	985.02	29.34	997.13	20.41	981.50	11.36	994.03	17.78	984.76	36.88	999.82	36.45	1000.46
4/7/2022	23.61	977.80	22.96	978.00	14.42	988.23	19.10	984.49	26.18	1000.29	21.69	980.22	12.18	993.21	19.72	982.82	36.63	1000.07	35.77	1001.14
10/1/2022	24.86	976.55	21.97	978.99	15.60	987.05	19.45	984.14	30.80	995.67	22.04	979.87	15.48	989.91	19.22	983.32	38.70	998.00	38.25	998.66
4/3/2023	24.56	976.85	23.27	977.69	15.44	987.21	19.42	984.17	28.37	998.10	22.54	979.37	13.22	992.17	20.13	982.41	37.97	998.73	37.63	999.28
10/2/2023	25.14	976.27	22.30	978.66	15.98	986.67	19.28	984.31	32.09	994.38	22.61	979.30	13.27	992.12	19.26	983.28	39.43	997.27	39.42	997.49

Notes:
TOC: Top of PVC well casing
N.D. = not detected
N.M. = not measured
AMSL = above mean sea level
[1] The casing of MW-18 was cut on November 28, 2016. Prior to this date, the top of casing was 1037.00.
[2] The casing of MW-19 was cut on November 28, 2016. Prior to this date, the top of casing was 1037.10.

Table 3 - Groundwater Elevations
Omaha Public Power District - NOS Ash Landfill

	Water Level Only Wells																			
	MW-4		MW-7		MW-10		MW-11		MW-12		MW-19S		MW-20		MW-22		MW-23		MW-25S	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	1004.59		1001.85		1002.48		1002.99		1002.99		1036.21		993.47		1009.31		1000.81		1002.51	
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)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/22/2016	11.84	992.75	16.57	985.28	15.50	986.98	10.83	992.16	16.34	986.65			8.17	985.30	N.M.	N.M.	N.M.	N.M.		
6/14/2016	11.19	993.40	15.70	986.15	14.50	987.98	10.05	992.94	14.55	988.44			7.60	985.87	N.M.	N.M.	N.M.	N.M.		
9/2/2016	12.20	992.39	17.21	984.64	16.04	986.44	11.30	991.69	15.60	987.39			8.35	985.12	N.M.	N.M.	N.M.	N.M.		
11/28/2016	12.30	992.29	17.80	984.05	16.80	985.68	12.20	990.79	17.25	985.74			9.00	984.47	N.M.	N.M.	N.M.	N.M.		
2/17/2017	12.90	991.69	18.30	983.55	16.99	985.49	12.54	990.45	17.71	985.28			9.41	984.06	N.M.	N.M.	N.M.	N.M.		
5/2/2017	12.35	992.24	16.69	985.16	15.55	986.93	12.45	990.54	9.39	993.60			8.20	985.27	N.M.	N.M.	N.M.	N.M.		
6/19/2017	11.85	992.74	16.15	985.70	14.95	987.53	10.50	992.49	15.00	987.99			8.05	985.42	N.M.	N.M.	N.M.	N.M.		
7/31/2017	12.45	992.14	16.72	985.13	16.00	986.48	13.02	989.97	10.20	992.79	*Installed 10/21/2019*		8.70	984.77	N.M.	N.M.	N.M.	N.M.	*Installed 10/18/2019*	
11/7/2017	12.80	991.79	15.65	986.20	14.25	988.23	12.00	990.99	14.42	988.57			9.03	984.44	N.M.	N.M.	N.M.	N.M.		
3/9/2018	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	12.81	990.18	N.M.	N.M.				N.M.	N.M.	N.M.	N.M.	N.M.		
4/23/2018	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.			N.M.	N.M.	N.M.	N.M.	N.M.	N.M.		
6/5/2018	13.66	990.93	17.51	984.34	16.27	986.21	12.98	990.01	16.11	986.88			6.08	987.39	N.M.	N.M.	N.M.	N.M.		
10/9/2018	11.94	992.65	16.71	985.14	15.51	986.97	12.81	990.18	13.05	989.94			7.00	986.47	N.M.	N.M.	N.M.	N.M.		
4/15/2019	11.44	993.15	16.21	985.64	15.03	987.45	11.64	991.35	16.23	986.76			7.49	985.98	12.16	997.15	10.77	990.04		
10/1/2019	11.79	992.80	16.90	984.95	15.75	986.73	11.94	991.05	15.73	987.26			N.M.	N.M.	N.M.	N.M.	9.37	991.44		
4/14/2020	12.40	992.19	16.72	985.13	15.74	986.74	12.04	990.95	16.40	986.59	25.39	1010.82	8.20	985.27	12.92	996.39	11.87	988.94	24.29	978.22
10/1/2020	14.41	990.18	19.27	982.58	18.10	984.38	13.94	989.05	17.59	985.40	34.93	1001.28	10.26	983.21	15.53	993.78	14.93	985.88	25.28	977.23
4/1/2021	13.02	991.57	17.12	984.73	15.06	987.42	12.93	990.06	14.57	988.42	31.86	1004.35	8.28	985.19	14.73	994.58	14.32	986.49	24.91	977.60
10/11/2021	13.27	991.32	18.55	983.30	17.50	984.98	14.06	988.93	17.46	985.53	32.48	1003.73	9.40	984.07	15.48	993.83	13.90	986.91	25.27	977.24
4/7/2022	14.05	990.54	18.38	983.47	17.30	985.18	13.97	989.02	17.56	985.43	29.56	1006.65	9.83	983.64	16.27	993.04	14.91	985.90	25.50	977.01
10/1/2022	15.66	988.93	19.46	982.39	18.20	984.28	14.21	988.78	17.73	985.26	36.88	999.33	10.38	983.09	17.46	991.85	15.78	985.03	26.12	976.39
4/3/2023	15.44	989.15	19.02	982.83	17.87	984.61	N.D.	N.D.	17.61	985.38	34.95	1001.26	10.33	983.14	18.41	990.90	16.58	984.23	25.94	976.57
10/2/2023	15.91	988.68	19.56	982.29	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	38.34	997.87	10.31	983.16	*Abandoned*		16.74	984.07	26.36	976.15

Notes:
TOC: Top of PVC well casing
N.D. = not detected
N.M. = not measured
AMSL = above mean sea level

Table 3 - Groundwater Elevations
Omaha Public Power District - NOS Ash Landfill

	Water Level Only Wells									
	MW-26S		MW-27		MW-28		MW-29		MW-30	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	1011.54		1021.09		1043.74		1031.59		1029.75	
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)
3/22/2016										
6/14/2016										
9/2/2016										
11/28/2016										
2/17/2017										
5/2/2017										
6/19/2017										
7/31/2017	*Installed 10/18/2019*		*Installed 2/6//2020*		*Installed 2/6/2020*		*Installed 2/4/2020*		*Installed 2/5/2020*	
11/7/2017										
3/9/2018										
4/23/2018										
6/5/2018										
10/9/2018										
4/15/2019										
10/1/2019										
4/14/2020	18.35	993.19	28.72	992.37	43.95	999.79	35.58	996.01	33.65	996.10
10/1/2020	19.26	992.28	31.37	989.72	47.18	996.56	38.15	993.44	36.24	993.51
4/1/2021	18.04	993.50	31.03	990.06	46.72	997.02	39.42	992.17	37.08	992.67
10/11/2021	17.68	993.86	32.07	989.02	46.42	997.32	38.41	993.18	36.60	993.15
4/7/2022	19.17	992.37	31.96	989.13	47.69	996.05	39.72	991.87	37.48	992.27
10/1/2022	20.94	990.60	32.80	988.29	48.95	994.79	40.30	991.29	38.35	991.40
4/3/2023	20.79	990.75	32.67	988.42	50.24	993.50	42.32	989.27	39.85	989.90
10/2/2023	20.62	990.92	*Abandoned*		*Abandoned*		*Abandoned*		*Abandoned*	

Notes:
TOC: Top of PVC well casing
N.D. = not detected
N.M. = not measured
AMSL = above mean sea level

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Table 4 - Appendix III Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-2	3/22/2016	1.6	267	23.1	<0.5	6.85	1320	1920
	6/14/2016	1.52	278	25.7	<0.5	6.80	774	1560
	9/2/2016	1.22	197	24.9	<0.5	7.04	503	2890
	11/28/2016	1.31	262	24.4	0.318	7.49	650	1420
	2/17/2017	1.92	292	19.3	0.563	7.79	915	2120
	5/2/2017	1.79	300	22.9	1.94	7.27	889	1840
	6/19/2017	1.48	277	24.1	<0.5	7.09	631	2020
	7/31/2017	1.81	299	24.8	0.583	7.37	799	1850
	11/7/2017	1.59	263	21.2	0.529	7.29	907	2210
	3/9/2018	1.88	292	27.4	<0.5	6.73	745	1570
	6/5/2018	1.15	239	28.5	<0.5	7.02	618	1460
	10/9/2018	1.38	302	22.2	<0.5	6.96	808	1720
	4/15/2019	2.26	339	22.5	<0.5	7.07	753	1850
	10/1/2019	2.17	306	18.2	<0.5	6.89	841	1930
	4/14/2020	1.90	319	22.0	0.427J	6.59	816	1670
	10/7/2020	2.16	265	21.4	0.352J	6.81	807	1840
	4/5/2021	1.30	243	36.9	<0.275	6.73	553	1340
	10/12/2021	1.03	222	33.6	<0.275	6.44	467	940
	4/11/2022	1.44	284	28.7	0.232J	6.87	707	1490
	10/5/2022	0.863	226	32.9	<0.220	6.89	354	1230
	4/4/2023	1.09	249	35.0	0.539	6.55	476	1080
	10/4/2023	0.590	193	40.2	<0.375	6.75	302	1090
MW-5	3/23/2016	0.545	458	47.7	<0.5	NA	1230	3150
	6/14/2016	0.533	434	52.1	<0.5	NA	1160	2530
	11/29/2016	0.565	443	44.3	<0.5	NA	1340	3150
	5/2/2017	0.564	435	46.9	1.82	NA	1330	2910
	6/5/2018	0.580	413	44.2	<0.5	7.44	1230	2610
	10/10/2018	0.528	412	41.6	<0.5	7.03	1240	2410
	4/16/2019[1]	NA	NA	NA	NA	7.34	1150	NA
	10/1/2019	0.614	428	40.9	<0.5	6.88	1160	2620
	4/14/2020	0.573	439	40.7	0.460J	6.70	1080	2120
	10/8/2020	0.664	424	39.7	<0.23	6.81	1200	2380
	4/5/2021	0.592	380	40.5	0.642	7.22	1100	2020
	10/12/2021	0.530	330	45.7	<0.275	6.61	993	1530
	4/11/2022	0.729	415	39.6	<0.220	7.00	1040	1790
	10/5/2022	0.580	391	34.2	0.516	7.07	1010	2160
	4/4/2023	0.541	329	42.0	0.428J	7.13	865	1420
	10/4/2023	0.504	335	37.6	<0.375	6.86	943	1870
MW-6	3/23/2016	0.376	263	217	<0.5	NA	219	1200
	6/14/2016	0.383	261	230	<0.5	NA	226	1100
	11/28/2016	0.468	314	272	<0.5	NA	366	1730
	5/2/2017	0.461	279	224	1.32	NA	314	1340
	3/9/2018	<0.8	316	315	0.525	6.44	349	1240
	6/5/2018	0.589	339	287	<0.5	7.03	293	1690
	10/9/2018	0.415	250	181	0.52	7.03	179	988
	4/15/2019[1]	NA	NA	NA	NA	6.83	213	NA
	10/1/2019	0.543	348	326	0.511	6.67	309	1400
	4/14/2020	0.517	347	349	0.487J	6.55	297	1380
	10/7/2020	0.557	319	409	0.373J	6.47	346	320
	4/5/2020	0.502	283	313	0.310J	6.65	275	1280
	10/12/2021	0.502	289	324	<0.275	6.32	277	1100
	4/11/2022	0.592	285	308	0.244J	6.65	241	1230
	10/5/2022	0.620	300	330	0.637	6.64	235	1360
	4/4/2023	0.623	322	375	0.524	6.52	288	1140
	10/4/2023	0.663	304	345	<0.375	6.77	278	1380

Table 4 - Appendix III Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-8	3/23/2016	1.01	133	10.6	<0.5	NA	618	964
	6/14/2016	0.974	142	15.1	0.518	NA	608	934
	11/29/2016	1.04	143	9.38	<0.5	NA	589	956
	5/2/2017	1.04	121	10.5	1.7	NA	519	814
	6/5/2018	1.54	149	12.9	<0.5	8.24	519	908
	10/10/2018	1.52	132	10.8	<0.5	7.96	548	900
	4/15/2019[1]	NA	NA	NA	NA	7.88	611	NA
	10/1/2019	2.18	159	9.03	<0.5	7.21	604	1010
	4/14/2020	2.22	162	10.9	0.577	7.60	565	948
	10/8/2020	2.24	139	10.8	<0.23	7.65	560	986
	4/5/2021	2.04	127	10.6	<0.275	7.77	528	814
	10/12/2021	2.20	137	10.8	<0.275	7.51	526	826
	4/11/2022	2.70	141	10.4	<0.220	7.54	561	918
	10/5/2022	2.30	140	10.8	0.266J	7.97	496	916
	4/4/2023	2.21	138	12.4	0.349J	7.69	609	860
	10/4/2023	2.71	155	12.8	<0.375	8.25	588	1050
MW-9	3/22/2016	<0.2	147	121	1.35	6.83	23	708
	6/14/2016	<0.2	159	165	0.864	6.78	31.7	770
	9/2/2016	<0.2	122	146	<0.5	7.27	19.9	766
	11/28/2016	<0.2	166	177	<0.5	7.02	35.4	790
	2/17/2017	<0.2	116	120	0.585	7.47	26.2	640
	5/2/2017	<0.2	148	127	1.84	7.35	25.5	760
	19/6/2017	<0.2	150	149	0.52	6.99	22.0	888
	7/31/2017	<0.2	190	275	0.617	7.87	57.1	1180
	11/7/2017	<0.2	153	220	0.55	7.46	37.7	1090
	3/20/2018	<0.2	146	210	<0.5	6.68	46.1	844
	6/5/2018	<0.2	185	231	<0.5	7.00	57.5	1190
	10/9/2018	<0.2	159	194	0.592	6.74	45.5	872
	4/15/2019	<0.2	157	127	0.947	7.00	32.7	610
	10/1/2019	<0.2	140	164	<0.5	6.56	40.1	728
	4/13/2020	<0.1	165	160	0.562	6.58	36.4	732
	10/7/2020	0.101	145	217	0.410J	6.74	48.0	820
	4/5/2021	0.125	158	164	0.422J	6.46	30.6	724
	10/11/2021	<0.0580	137	135	<0.275	6.38	17.9	664
	4/11/2022	0.0960J	180	176	0.380J	6.84	47.5	820
	10/5/2022	0.160	158	157	0.274J	6.85	30.4	774
	4/3/2023	<0.0760	188	199	0.507	6.25	54.3	826
	10/3/2023	0.0993J	155	166	<0.375	6.45	31.6	768
MW-13	3/22/2016	2.05	127	7.97	0.796	6.89	486	1050
	6/14/2016	1.97	138	6.7	<0.5	6.70	500	1030
	9/2/2016	2.02	116	8.06	0.652	7.03	458	1170
	11/28/2016	2.21	155	11.3	2.55	7.25	583	1140
	2/17/2017	2.02	153	6.35	<0.5	7.44	603	1320
	5/2/2017	1.8	156	7.52	1.05	7.30	650	1450
	6/19/2017	2.09	179	7.83	<0.5	7.07	590	1400
	7/31/2017	2.26	133	6.3	0.587	7.20	512	1150
	11/7/2017	1.71	129	6.81	0.67	6.79	581	1080
	3/9/2018	1.98	152	7.35	0.53	7.03	663	1340
	6/5/2018	1.78	151	7.93	<0.5	8.31	654	1490
	10/9/2018	1.77	161	7.05	<0.5	6.96	644	1190
	4/15/2019	2.73	215	10.5	1.05	7.13	808	1420
	10/1/2019	2.46	206	8.24	0.544	6.92	673	1440

Table 4 - Appendix III Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-13 (cont'd)	4/14/2020	2.22	213	9.24	0.817	6.58	794	1410
	10/7/2020	2.19	188	8.82	0.391J	6.89	821	1640
	4/5/2021	1.70	144	7.98	0.496J	6.69	790	1330
	10/11/2021	1.62	169	8.47	<0.275	6.26	888	980
	4/11/2022	1.89	171	7.52	0.340J	6.76	893	1460
	10/5/2022	1.50	157	8.09	<0.220	6.69	840	1460
	4/3/2023	1.71	230	9.17	0.62	6.29	1100	1730
	10/4/2023	1.73	182	8.16	<0.375	6.57	880	1610
MW-15	3/22/2016	3.11	311	24.3	<0.5	7.09	262	1510
	6/14/2016	5.39	340	13	<0.5	6.80	934	1640
	9/2/2016	3.36	220	3.52	0.278	6.97	625	1460
	11/28/2016	2.87	285	28.2	3.48	7.32	886	1500
	2/17/2017	2.81	266	16.8	<0.5	7.65	863	1370
	2/5/2017	2.80	263	11.2	0.878	7.02	861	1280
	6/19/2017	2.57	248	10.0	<0.5	7.05	643	1320
	7/31/2017	3.01	247	11.4	<0.5	7.02	641	1140
	7/11/2017	4.13	293	11.6	<0.5	7.10	900	1520
	3/9/2018	4.10	283	13.4	<0.5	7.24	819	1330
	6/5/2018	3.26	265	16.6	<0.5	7.42	745	1640
	10/9/2018	2.48	230	11.5	<0.5	7.10	656	1130
	4/15/2019	4.65	256	8.07	<0.5	7.09	634	1070
	10/1/2019	5.13	306	6.6	<0.5	6.61	633	1220
	4/14/2020	3.60	239	7.81	<0.23	7.68	514	928
	10/7/2020	3.44	199	9.51	<0.23	7.14	495	978
	4/5/2021	3.36	224	6.19	<0.275	7.09	586	974
	10/12/2021	1.94	190	7.32	<0.275	6.54	500	876
	4/11/2022	3.09	226	7.91	<0.220	7.07	589	962
	10/5/2022	2.82	229	7.17	<0.220	7.08	468	1010
	4/4/2023	2.57	189	12.20	<0.220	7.60	576	942
	10/4/2023	3.41	222	13.4	<0.375	7.50	564	1030
MW-16	3/22/2016	0.367	180	64.7	1.84	6.86	345	948
	6/14/2016	0.409	180	65.5	<0.5	6.67	340	968
	9/2/2016	0.333	143	57.3	<0.5	7.18	277	1160
	11/28/2016	0.312	184	60.7	<0.5	7.11	357	1040
	2/17/2017	0.433	181	59.2	1.37	7.51	374	1410
	5/2/2017	0.320	184	60.7	1.85	7.26	381	1030
	6/19/2017	0.371	194	59.3	<0.5	6.97	326	1460
	7/31/2017	0.423	200	57.9	0.53	7.12	352	1200
	Abandoned on August 4, 2017							
MW-17	3/23/2016	0.668	392	51.3	1.36	6.60	1010	3150
	6/14/2016	0.706	376	50	<0.5	6.59	990	2360
	2/09/2016	0.637	320	43.0	<0.5	6.98	807	2660
	11/29/2016	0.644	390	49.7	<0.5	6.76	1080	2640
	2/17/2017	0.700	380	62.6	2.91	7.31	1010	2250
	5/2/2017	0.649	364	45.3	1.66	7.47	1090	3040
	6/19/2017	0.679	373	42.3	<0.5	6.93	944	2640
	7/31/2017	0.753	365	44.4	<0.5	7.05	913	2300
	11/7/2017	0.660	323	46.2	<0.5	7.14	952	2590
	3/9/2018	0.745	357	46.8	1.29	6.31	907	2010
	6/5/2018	0.745	363	43.6	<0.5	6.95	918	1990
	10/10/2018	0.615	328	41.9	<0.5	6.39	872	1980
	4/15/2019	0.762	297	38.7	0.573	6.53	834	1900

Table 4 - Appendix III Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-17 (cont'd)	10/1/2019	0.783	342	32.7	<0.5	6.06	724	1890
	4/14/2020	0.757	323	30.2	0.274J	6.31	671	1650
	10/8/2020	0.709	269	31.1	<0.23	6.39	684	1600
	4/5/2021	0.695	274	30.1	<0.275	6.70	677	1500
	10/12/2021	0.580	287	33.0	<0.275	6.21	708	1210
	4/11/2022	0.715	321	37.7	<0.220	6.67	807	1630
	10/5/2022	0.629	333	36.2	0.640	6.49	787	1870
	4/4/2023	0.562	325	40.4	0.545	6.59	829	1580
	10/4/2023	0.720	356	41.5	<0.375	6.51	865	2200
MW-18	3/22/2016	<0.2	115	<5	<0.5	6.86	24.8	504
	6/14/2016	<0.2	96.1	<5	<0.5	7.18	5	468
	9/2/2016	<0.2	73.4	<5	<0.5	7.20	<5	460
	11/28/2016	<0.2	97.6	<5	<0.5	7.47	<5	628
	2/17/2017	<0.2	94.8	<5	0.508	7.70	<5	474
	5/2/2017	<0.2	98.9	<5	1.32	7.27	<5	542
	6/19/2017	<0.2	98.4	<5	<0.5	7.20	<5	514
	7/31/2017	<0.2	98.8	<5	0.632	7.63	<5	468
	7/11/2017	<0.2	87.5	<5	0.704	7.22	<5	518
	3/9/2018	<0.2	97.3	<5	0.530	6.46	<5	438
	6/5/2018	<0.2	106	<5	0.528	6.91	<5	438
	10/9/2018	<0.2	94.2	<5	0.817	6.64	<5	398
	4/15/2019	<0.2	74.6	<5	0.518	6.51	<5	416
	10/1/2019	<0.2	97.00	<5	<0.5	6.11	<5	384
	4/13/2020	<0.1	111	3.55J	0.559	6.43	<3.55	414
	10/7/2020	0.0811J	72.6	6.48	0.320J	6.75	<3.55	316
	4/5/2021	0.123	98.3	3.63J	0.540	6.24	<2.45	384
	10/11/2021	<0.0580	96.2	3.76J	<0.275	6.52	<2.45	348
	4/11/2022	0.0833J	102	2.74J	0.412J	6.89	<2.00	448
	10/5/2022	0.0884J	87.4	4.86J	<0.220	6.88	<2.00	378
	4/3/2023	<0.0760	92.9	5.26	0.534	6.15	<2.00	368
	10/3/2023	<0.0760	92.5	3.70J	<0.375	6.17	<2.10	402
MW-19	3/22/2016	<0.2	103	6.5	<0.5	6.85	29.5	494
	6/14/2016	<0.2	110	7.2	<0.5	6.80	29.9	508
	9/2/2016	<0.2	82.8	<5	<0.5	7.12	21.5	492
	11/28/2016	<0.2	110	6.02	<0.5	7.29	20.7	484
	2/17/2017	<0.2	90.5	3.55	0.418	7.49	15.7	484
	5/2/2017	<0.2	107	3.7	0.804	7.39	10.6	566
	6/19/2017	<0.2	103	<5	<0.5	7.05	10.2	518
	7/31/2017	<0.2	105	<5	0.693	7.53	8.35	480
	11/7/2017	<0.2	93.0	<5	<0.5	6.98	6.91	410
	3/9/2018	<0.2	113	<5	<0.5	6.53	8.89	426
	6/5/2018	<0.2	100	<5	0.524	6.91	5.53	440
	10/9/2018	<0.2	106	11.9	<0.5	6.49	16.5	460
	4/15/2019	<0.2	101	<5	0.905	6.73	<5	444
	10/1/2019	<0.2	113	<5	0.511	6.05	<5	438
	4/13/2020	0.113J	123	3.83J	0.701	6.49	<3.55	432
	10/7/2020	0.107	109	23.3	0.469J	6.79	33.5	482
	4/5/2021	0.119	101	3.44J	0.517	6.30	<2.45	402
	10/11/2021	0.0629J	104	3.68J	<0.275	6.46	<2.45	356
	4/11/2022	0.0935J	113	<2.25	0.390J	6.83	<2.00	376
	10/5/2022	0.110	115	22.7	<0.220	6.91	35.6	494
	4/3/2023	<0.0760	111	3.48J	0.509	6.00	<2.00	398
	10/3/2023	0.0931J	113	23.7	<0.375	6.27	43.2	502

Notes:
mg/L = milligrams per liter
S.U. = Standard Units
NA = Analyte Not Analyzed/Measured
< = 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).
J = Value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-2	3/22/2016	<0.001	0.245	0.115	<0.001	<0.0005	<0.005	0.000514	0.664	<0.5	0.000601	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.234	0.113	<0.001	<0.0005	<0.005	0.000566	0.488	<0.5	0.00211	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.22	0.104	<0.001	<0.0005	<0.005	0.000619	0.300	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	0.204	0.0952	<0.001	<0.0005	<0.005	0.000559	0.914	0.318	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	0.234	0.126	<0.001	<0.0005	<0.005	0.000656	0.679	0.563	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.231	0.118	<0.001	<0.0005	<0.005	0.000833	0.123	1.94	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.212	0.101	<0.001	<0.0005	<0.005	0.000725	0.469	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.217	0.117	<0.001	<0.0005	<0.005	0.000953	0.549	0.583	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	0.137	0.0923	NA	<0.0005	<0.005	NA	NA	0.529	<0.0005	NA	<0.0002	NA	<0.005	NA
	3/9/2018	<0.001	0.219	0.113	<0.001	<0.0005	<0.005	0.000620	1.050	<0.5	<0.0005	0.0415	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.225	0.0896	<0.001	<0.0005	<0.005	0.000997	0.422	<0.5	0.000586	0.0330	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	0.247	0.112	NA	<0.0005	<0.005	0.00135	0.901	<0.5	<0.0005	0.0423	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.234	0.140	<0.001	<0.0005	<0.005	0.00156	1.010	<0.5	<0.0005	0.0444	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.141	0.141	<0.001	<0.0001	<0.005	0.000828	0.620	<0.5	<0.0005	0.0424	<0.0002	<0.002	<0.005	<0.001
	4/14/2020	<0.00058	0.241	0.0997	<0.00027	<0.000039	<0.0011	0.00113	0.455	0.427J	0.000437J	0.0398	<0.0001	<0.0011	<0.001	<0.00026
	10/7/2020	<0.00051	0.224	0.100	<0.00027	<0.000049	<0.00110	0.000535	0.846	0.352J	0.000455J	0.0392	<0.0001	0.00112J	<0.001	<0.00026
	4/5/2021	<0.00110	0.213	0.100	<0.00027	<0.000051	<0.00110	0.000472J	0.493	<0.275	0.000515	0.0435	<0.000150	<0.00130	<0.00096	<0.00026
	10/12/2021	<0.00110	0.191	0.0880	<0.00027	<0.000051	<0.00110	0.000437J	0.856	<0.275	<0.000210	0.0404	<0.000150	<0.00130	<0.00096	<0.00026
	4/11/2022	<0.000690	0.237	0.116	<0.000270	<0.0000550	<0.00110	0.000635	0.167U	0.232J	0.000304J	0.0513	<0.000110	0.00128J	<0.000960	<0.000260
	10/5/2022	<0.000690	0.163	0.105	<0.000270	<0.0000550	<0.00110	0.000379J	1.67	<0.220	<0.000240	0.0433	<0.000110	0.00123J	<0.000960	<0.000260
	4/4/2023	<0.00100	0.215	0.111	0.000356J	0.000132J	<0.00110	0.000626	0.405U	0.539	0.000358J	0.0426	<0.000140	0.00194J	0.00225J	0.00101
	10/4/2023	<0.00100	0.237	0.104	<0.000330	<0.000100	<0.00110	0.000350J	1.47	<0.375	<0.000240	0.0440	<0.000140	0.00188J	<0.00140	0.00278
MW-5	3/23/2016	<0.001	0.0432	0.0437	<0.001	<0.0005	<0.005	<0.0005	0.391U	<0.5	<0.0005	0.0799	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.0389	0.0701	<0.001	<0.0005	<0.005	0.000509	0.653	<0.5	<0.0005	0.0866	<0.0002	<0.002	<0.005	<0.001
	11/29/2016	<0.001	0.0564	0.0491	<0.001	<0.0005	<0.005	<0.0005	0.637	<0.5	<0.0005	0.0894	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.0544	0.0488	<0.001	<0.0005	<0.005	<0.0005	0.0966U	1.82	<0.0005	0.0819	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.0486	0.0447	<0.001	<0.0005	<0.005	<0.0005	NA	<0.5	0.00262	0.07	<0.0002	<0.002	<0.005	<0.001
	10/10/2018	<0.001	0.0549	0.0402	NA	<0.0005	<0.005	<0.0005	0.305	<0.5	0.000627	0.0797	<0.0002	<0.002	<0.005	NA
	4/16/2019	NA	0.0545	0.0625	NA	<0.0005	<0.005	NA	NA	NA	<0.0005	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.0557	0.0467	<0.001	<0.0001	<0.005	<0.0005	0.373U	<0.5	<0.0005	0.0869	<0.0002	<0.002	<0.005	<0.001
	4/14/2020	<0.00058	0.0568	0.0669	<0.00027	<0.000039	<0.0011	0.000388J	0.0513U	0.460J	0.000542	0.0718	<0.0001	<0.0011	<0.001	<0.00026
	10/8/2020	<0.00051	0.0681	0.0477	<0.00027	<0.000049	<0.0011	0.000350J	0.722	<0.23	<0.00011	0.0848	<0.0001	0.00110J	<0.001	<0.00026
	4/5/2021	<0.0011	0.0614	0.0458	<0.00027	0.000054J	<0.00110	0.000350J	0.387U	0.642	<0.00021	0.0818	<0.000150	0.00157J	<0.00096	<0.00026
	10/12/2021	0.00174J	0.0625	0.0430	0.000737J	0.000861	<0.00110	0.00125	0.187U	<0.275	0.00187	0.0690	<0.000150	0.00367	0.00419J	0.00313
	4/11/2022	<0.00276	0.0701	0.0479	<0.00108	<0.000220	<0.00440	<0.000760	0.130U	<0.220	0.00109J	0.0967	<0.000110	0.00532J	<0.00384	<0.00114J
	10/5/2022	<0.000690	0.0637	0.0483	<0.000270	<0.0000550	<0.00110	0.000450J	0.573	0.516	<0.000240	0.0794	<0.000110	0.00189J	<0.000960	<0.000260
	4/4/2023	<0.00100	0.0648	0.0427	<0.000330	0.000125J	<0.00110	0.000493J	1.30	0.428J	0.000702	0.0701	<0.000140	0.00294	0.00261J	0.00116
	10/4/2023	<0.00100	0.0573	0.0546	<0.000330	0.000161J	<0.00110	0.000446J	1.59	<0.375	<0.000240	0.0694	<0.000140	0.00221	0.00171J	0.00417
MW-6	3/22/2016	<0.001	0.0365	0.183	<0.001	0.00213	<0.005	0.00592	1.16	<0.5	0.00596	<0.05	<0.0002	0.0435	<0.005	<0.001
	6/14/2016	<0.001	0.0324	0.225	<0.001	<0.0005	<0.005	0.00527	0.825	<0.5	0.00269	<0.05	<0.0002	0.0507	<0.005	<0.001
	11/28/2016	<0.001	0.0133	0.166	<0.001	<0.0005	<0.005	0.0064	0.653	<0.5	0.00139	<0.05	<0.0002	0.0696	<0.005	<0.001
	5/2/2017	<0.001	0.0243	0.195	<0.001	<0.0005	<0.005	0.00562	0.819	1.32	0.00169	<0.05	<0.0002	0.061	<0.005	<0.001
	3/9/2018	<0.004	0.0194	0.165	<0.004	<0.002	<0.02	0.00654	0.673	0.525	<0.002	0.0407	<0.0002	0.0683	<0.02	<0.004
	6/5/2018	<0.001	0.0136	0.196	<0.001	0.000564	<0.005	0.007	NA	<0.5	0.00319	0.048	<0.0002	0.0702	<0.005	<0.001
	10/9/2018	<0.001	0.0393	0.295	NA	0.000834	<0.005	0.00661	1.05	0.52	0.0066	0.0407	<0.0002	0.0537	<0.005	NA
	4/15/2019	NA	0.02	0.212	NA	<0.0005	<0.005	NA	NA	NA	0.00286	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.017	0.192	<0.001	0.000317	<0.005	0.00761	0.985	0.511	0.00287	0.051	<0.0002	0.0654	<0.005	<0.001
	4/14/2020	<0.00058	0.0198	0.197	<0.00027	0.000209	<0.0011	0.00673	0.462U	0.487J	0.00132	0.0432	<0.0001	0.0605	<0.001	<0.00026
	10/7/2020	<0.00051	0.0123	0.143	<0.00027	0.00025	<0.0011	0.0077	0.827	0.373J	0.00159	0.0461	<0.0001	0.0642	<0.001	<0.00026
	4/5/2021	<0.00110	0.0119	0.192	<0.00027	0.000198	<0.0011	0.00613	0.456U	0.310J	0.000707	0.0454	<0.000150	0.0550	<0.00096	<0.00026
	10/12/2021	<0.00110	0.0324	0.174	<0.00027	0.000181	<0.0011	0.00610	0.910	<0.275	0.000739	0.0424	<0.000150	0.0563	<0.00096	<0.00026
	4/11/2022	0.000693J	0.0211	0.167	<0.000270	0.000146	<0.00110	0.00581	1.73	0.244J	0.000836	0.0503	<0.000110	0.0598	<0.000960	<0.000260
	10/5/2022	<0.000690	0.0128	0.147	<0.000270	0.000152	<0.00110	0.00594	0.954	0.637	0.000533	0.0465	<0.000110	0.0633	<0.000960	<0.000260
	4/4/2023	<0.00100	0.00712	0.176	<0.000330	0.000288	<0.00110	0.00741	0.197U	0.524	0.00110	0.0478	<0.000140	0.0690	<0.00140	<0.000260
	10/4/2023	<0.00100	0.0115	0.136	<0.000330	0.000144J	<0.00110	0.00552	1.20	<0.375	<0.000240	0.0507	<0.000140	0.0603	<0.00140	0.000524J

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-8	3/23/2016	<0.001	0.0163	0.088	<0.001	<0.0005	<0.005	<0.0005	0.353U	<0.5	0.00168	<0.05	<0.0002	0.107	<0.005	<0.001
	6/14/2016	<0.001	0.0162	0.1	<0.001	<0.0005	<0.005	<0.0005	0.380U	0.518	0.00169	<0.05	<0.0002	0.102	<0.005	<0.001
	11/29/2016	<0.001	0.021	0.0954	<0.001	<0.0005	<0.005	0.000516	0.565	<0.5	0.0019	<0.05	<0.0002	0.0994	<0.005	<0.001
	5/2/2017	<0.001	0.0256	0.0813	<0.001	<0.0005	<0.005	<0.0005	0.647	1.7	0.00155	<0.05	<0.0002	0.101	<0.005	<0.001
	6/5/2018	<0.001	0.0189	0.0954	<0.001	<0.0005	<0.005	0.00281	NA	<0.5	0.00956	0.0115	<0.0002	0.0753	<0.005	<0.001
	10/10/2018	<0.001	0.0121	0.0892	NA	<0.0005	<0.005	0.000864	0.31	<0.5	0.002	0.0108	<0.0002	0.095	<0.005	NA
	4/16/2019	NA	0.0122	0.101	NA	<0.0005	<0.005	NA	NA	NA	0.000657	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.0106	0.101	<0.001	<0.0001	<0.005	0.000623	0.535U	<0.5	<0.0005	0.0149	<0.0002	0.111	<0.005	<0.001
	10/1/2019	<0.001	0.0106	0.101	<0.001	<0.0001	<0.005	0.000623	0.535U	<0.5	<0.0005	0.0149	<0.0002	0.111	<0.005	<0.001
	4/14/2020	<0.00058	0.012	0.0955	<0.00027	<0.000039	<0.0011	0.000503	0.215U	0.577	0.000349J	0.0131	<0.0001	0.102	<0.001	<0.00026
	10/8/2020	<0.00051	0.00998	0.0851	<0.00027	0.0000660J	<0.0011	0.000543	0.216U	<0.23	0.000146J	0.0133	<0.0001	0.101	<0.001	<0.00026
	4/5/2021	<0.00110	0.011	0.0846	<0.00027	0.0000780J	<0.0011	0.000487J	0.488	<0.275	0.000488J	0.0118	<0.00015	0.100	<0.00096	<0.00026
	10/12/2021	<0.00110	0.0104	0.0806	<0.00027	0.0000790J	<0.0011	0.000611	0.355	<0.275	0.000263J	0.0124	<0.00015	0.0944	<0.00096	<0.00026
	4/11/2022	<0.000690	0.0112	0.0819	<0.000270	<0.0000550	<0.00110	0.000549	0.506U	<0.220	0.000268J	0.0138	<0.000110	0.100	<0.000960	<0.000260
	10/5/2022	<0.000690	0.0111	0.0802	<0.000270	<0.0000550	<0.00110	0.000497J	0.516U	0.266J	<0.000240	0.0126	<0.000110	0.0982	<0.000960	<0.000260
	4/4/2023	<0.00100	0.0101	0.0776	<0.000330	<0.000100	<0.00110	0.000463J	0.247U	0.349J	<0.000240	0.0115	<0.000140	0.0833	<0.00140	<0.000260
	10/4/2023	<0.00100	0.0116	0.0791	<0.000330	<0.000100	<0.00110	0.000717	0.933	<0.375	<0.000240	0.0147	<0.000140	0.0903	<0.00140	<0.000260
MW-9	3/22/2016	<0.001	0.00454	0.442	<0.001	<0.0005	<0.005	0.00146	1.240	1.35	0.00366	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.00542	0.542	<0.001	<0.0005	<0.005	0.00148	0.822	0.864	0.00339	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.00397	0.538	<0.001	<0.0005	<0.005	0.00103	2.010	<0.5	0.00289	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	0.00572	0.536	<0.001	<0.0005	<0.005	0.00159	1.910	<0.5	0.00499	0.0533	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	0.0118	0.383	<0.001	<0.0005	0.00555	0.00265	0.623	0.585	0.00419	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.00423	0.487	<0.001	<0.0005	<0.005	0.000974	1.160	1.84	0.00246	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.00345	0.481	<0.001	<0.0005	<0.005	0.00123	2.620	0.517	0.00322	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.00662	0.624	<0.001	<0.0005	<0.005	0.00195	3.280	0.617	0.00474	0.0505	0.00022	<0.002	<0.005	<0.001
	07/11/2017	NA	0.00772	0.500	NA	<0.0005	<0.005	NA	NA	0.55	0.00461	NA	<0.0002	NA	<0.005	NA
	3/20/2018	<0.001	0.00777	0.526	<0.001	<0.0005	<0.005	0.000895	1.250	<0.5	0.00284	0.0428	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.00768	0.625	<0.001	<0.0005	<0.005	0.00293	2.450	<0.5	0.00885	0.0541	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	0.00571	0.469	NA	<0.0005	<0.005	0.00150	2.410	0.592	0.00407	0.0482	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.00677	0.576	<0.001	<0.0005	<0.005	0.00234	1.030	0.947	0.00559	0.0426	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.0054	0.468	<0.001	<0.001	<0.005	<0.0005	0.939	<0.5	0.000655	0.0473	<0.0002	<0.002	<0.005	<0.001
	4/13/2020	<0.00058	0.00626	0.605	<0.00027	0.000161	0.00154J	0.00166	1.16	0.562	0.00392	0.048	<0.0001	<0.0011	<0.001	<0.00026
	10/7/2020	<0.00051	0.00544	0.523	<0.00027	<0.000049	<0.0011	0.000199J	1.38	0.410J	0.000464J	0.0478	<0.0001	<0.0011	<0.001	<0.00026
	4/5/2021	<0.00110	0.0042	0.562	<0.00027	0.000168	0.00137J	0.00119	1.83	0.422J	0.00289	0.0504	<0.00015	<0.00130	<0.00096	<0.00026
	10/11/2021	<0.00110	0.00188J	0.477	<0.00027	0.0000740J	<0.00110	0.000556	1.37	<0.275	0.00122	0.0446	<0.00015	<0.00130	<0.00096	<0.00026
	4/11/2022	<0.000690	0.00782	0.642	<0.000270	0.000264	0.00345J	0.00346	1.80	0.380J	0.00665	0.0572	<0.000110	<0.00120	<0.000960	<0.000260
	10/5/2022	<0.000690	0.00307	0.556	<0.000270	<0.0000550	<0.00110	0.000579	1.26	0.274J	0.00136	0.0515	<0.000110	<0.00120	<0.000960	<0.000260
	4/3/2023	<0.00100	0.0143	0.726	0.000681J	0.000626	0.0208	0.00851	2.09U	0.507	0.0126	0.0547	<0.000140	0.00234	0.00208J	<0.000260
	10/3/2023	<0.00100	0.00285	0.550	<0.000330	0.000111J	0.00113J	0.00112	2.27	<0.375	0.00229	0.0536	<0.000140	0.00100J	<0.00140	<0.000260
MW-13	3/22/2016	<0.001	0.0923	0.0652	<0.001	<0.0005	<0.005	<0.0005	0.575	0.796	<0.0005	<0.05	<0.0002	0.704	0.0205	<0.001
	6/14/2016	<0.001	0.217	0.0906	<0.001	<0.0005	<0.005	<0.0005	0.389	<0.5	<0.0005	<0.05	<0.0002	0.592	0.0141	<0.001
	9/2/2016	<0.001	0.142	0.0825	<0.001	<0.0005	<0.005	<0.0005	0.362	0.652	<0.0005	<0.05	<0.0002	0.945	0.0313	<0.001
	11/28/2016	<0.001	0.154	0.0959	<0.001	<0.0005	<0.005	<0.0005	0.27	2.55	<0.0005	<0.05	<0.0002	0.837	0.0248	<0.001
	2/17/2017	<0.001	0.112	0.0946	<0.001	<0.0005	<0.005	<0.0005	0.455	<0.5	<0.0005	<0.05	<0.0002	0.817	0.0345	<0.001
	5/2/2017	<0.001	0.133	0.0882	<0.001	<0.0005	<0.005	<0.0005	0.301	1.05	<0.0005	<0.05	<0.0002	0.951	0.0403	<0.001
	6/19/2017	<0.001	0.26	0.118	<0.001	<0.0005	<0.005	<0.0005	0.3	<0.5	<0.0005	<0.05	<0.0002	0.881	0.0372	<0.001
	7/31/2017	<0.001	0.274	0.112	<0.001	<0.0005	<0.005	<0.0005	0.298	0.587	<0.0005	<0.05	<0.0002	0.839	0.0233	<0.001
	07/11/2017	NA	0.0925	0.0682	NA	<0.0005	<0.005	NA	NA	0.67	<0.0005	NA	<0.0002	NA	0.00837	NA
	3/9/2018	<0.001	0.205	0.0982	<0.001	<0.0005	<0.005	0.000613	0.546	0.53	<0.0005	0.0212	<0.0002	1.22	0.0609	<0.001
	6/5/2018	<0.001	0.0544	0.0605	<0.001	<0.0005	<0.005	0.000718	0.374	<0.5	<0.0005	0.0205	<0.0002	1.28	0.0483	<0.001
	10/9/2018	<0.001	0.0782	0.0775	NA	<0.0005	<0.005	<0.0005	0.435	<0.5	<0.0005	0.0213	<0.0002	0.980	0.0298	NA
	4/15/2019	<0.001	0.108	0.119	<0.001	<0.0005	<0.005	<0.0005	0.223U	1.05	<0.0005	0.0274	<0.0002	0.916	0.0150	<0.001
	10/1/2019	<0.001	0.104	0.113	<0.001	0.000294	<0.005	<0.0005	0.770	0.544	<0.0005	0.0283	<0.0002	0.915	0.0204	<0.001

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-13 (cont'd)	4/14/2020	<0.00058	0.0901	0.0979	<0.00027	0.000226	<0.0011	0.000527	0.231U	0.817	<0.00027	0.0232	<0.0001	1.22	0.0357	<0.00026
	10/7/2020	<0.00051	0.167	0.111	<0.00027	0.000464	<0.0011	0.000661	0.672	0.391J	<0.00011	0.0256	<0.0001	1.41	0.0408	<0.00026
	4/5/2021	<0.00110	0.0892	0.0848	<0.00027	0.000409	<0.0011	0.000567	0.506	0.496J	0.00137	0.024	<0.0015	1.52	0.0377	<0.00026
	10/11/2021	<0.00110	0.183	0.116	<0.00027	0.000542	<0.0011	0.000790	1.67	<0.275	<0.000210	0.0234	<0.00015	1.29	0.0288	<0.00026
	4/11/2022	<0.000690	0.0813	0.0837	<0.000270	0.000254	<0.00110	0.000563	0.770	0.340J	<0.000240	0.0303	<0.000110	1.15	0.0133	<0.000260
	10/5/2022	<0.000690	0.0558	0.0768	<0.000270	0.000278	<0.00110	0.000755	0.588U	<0.220	<0.000240	0.0299	<0.000110	1.30	0.022	<0.000260
	4/3/2023	<0.00100	0.0209	0.0666	<0.000330	0.000173J	<0.00110	0.000523	-0.0737U	0.620	<0.000240	0.0408	<0.000140	0.695	0.00344J	<0.000260
	10/4/2023	<0.00100	0.0224	0.0541	<0.000330	0.000604	<0.00110	0.000456J	0.331U	<0.375	<0.000240	0.0390	<0.000140	1.08	0.00807	<0.000260
MW-15	3/22/2016	0.00145	<0.002	0.0314	<0.001	<0.0005	0.0194	<0.0005	0.245	<0.5	<0.0005	<0.05	<0.0002	0.389	0.104	<0.001
	6/14/2016	0.00195	<0.002	0.0552	<0.001	<0.0005	0.0199	<0.0005	0.378	<0.5	0.000668	<0.05	<0.0002	0.254	0.115	<0.001
	9/2/2016	0.0015	<0.002	0.066	<0.001	<0.0005	0.00548	<0.0005	0.0439	0.278	<0.0005	<0.05	<0.0002	0.319	0.0867	<0.001
	11/28/2016	0.00166	<0.002	0.0523	<0.001	<0.0005	<0.005	<0.0005	0.871	3.48	<0.0005	<0.05	<0.0002	0.402	0.0896	<0.001
	2/17/2017	0.00204	0.00241	0.0448	<0.001	<0.0005	<0.005	<0.0005	0.143	<0.5	<0.0005	<0.05	<0.0002	0.408	0.105	<0.001
	5/2/2017	0.0013	<0.002	0.0382	<0.001	<0.0005	0.0153	<0.0005	0.158	0.878	<0.0005	<0.05	<0.0002	0.316	0.0785	<0.001
	6/19/2017	0.00119	<0.002	0.0447	<0.001	<0.0005	0.00678	<0.0005	0.229	<0.5	<0.0005	<0.05	<0.0002	0.242	0.0638	<0.001
	7/31/2017	0.00131	<0.002	0.0467	<0.001	<0.0005	<0.005	<0.0005	0.455	<0.5	<0.0005	<0.05	<0.0002	0.264	0.0699	<0.001
	07/11/2017	NA	0.00240	0.0428	NA	<0.0005	0.0253	NA	NA	<0.5	<0.0005	NA	<0.0002	NA	0.0850	NA
	3/9/2018	0.00172	0.00337	0.0405	<0.001	<0.0005	<0.005	<0.0005	0.232	<0.5	<0.0005	0.0126	<0.0002	0.353	0.0653	<0.001
	6/5/2018	0.00157	<0.002	0.0424	<0.001	<0.0005	0.0267	<0.0005	0.282U	<0.5	<0.0005	<0.0100	<0.0002	0.353	0.0934	<0.001
	10/9/2018	0.00168	<0.002	0.0394	NA	<0.0005	0.0182	<0.0005	0.303U	<0.5	<0.0005	0.0139	<0.0002	0.290	0.0631	NA
	4/15/2019	0.00207	<0.002	0.0752	<0.001	<0.0005	0.0204	<0.0005	-0.0756U	<0.5	<0.0005	0.0111	<0.0002	0.208	0.0553	<0.001
	10/1/2019	0.00218	<0.002	0.0666	<0.001	0.000109	0.0284	<0.0005	0.419U	<0.5	<0.0005	0.0156	<0.0002	0.245	0.068	<0.001
	4/14/2020	0.00122	0.00159J	0.0701	<0.00027	0.0000540J	0.00495J	<0.000091	0.175U	<0.23	<0.00027	0.00782J	<0.0001	0.211	0.056	<0.00026
	10/7/2020	0.00155	0.0023	0.0612	<0.00027	0.0000710J	0.00178J	<0.000091	0.162U	<0.23	0.000224J	0.00986J	<0.0001	0.216	0.054	<0.00026
	4/5/2021	0.00126J	0.00149J	0.0644	<0.00027	0.0000860J	0.0363	<0.000091	-0.0719U	<0.275	<0.000260	0.0145	<0.00015	0.219	0.0568	<0.00026
	10/12/2021	0.00115J	0.00468	0.0553	<0.00027	0.000118	0.00686	<0.000910	0.383	<0.275	<0.000210	0.0130	<0.00015	0.235	0.0532	<0.00026
	4/11/2022	0.00183J	0.00154J	0.0490	<0.000270	0.0000650J	0.00789	<0.000190	0.189U	<0.220	<0.000240	0.00812J	<0.000110	0.274	0.0699	<0.000260
	10/5/2022	0.00153J	0.00227	0.0584	<0.000270	<0.0000550	0.00386J	<0.000190	0.716	<0.220	<0.000240	0.0118	<0.000110	0.197	0.0830	<0.000260
	4/4/2023	0.00152J	0.00187J	0.0493	<0.000330	<0.000100	0.00213J	<0.000170	-0.0933U	<0.220	<0.000240	0.00837J	<0.000140	0.247	0.0815	<0.000260
	10/4/2023	0.00159J	0.00229	0.0454	<0.000330	0.000155J	0.00167J	<0.000170	0.983	<0.375	<0.000240	0.0142	<0.000140	0.267	0.0623	<0.000260
MW-16	3/22/2016	<0.001	<0.002	0.0665	<0.001	<0.0005	<0.005	0.00083	0.214	1.84	<0.0005	<0.05	<0.0002	0.018	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.0730	<0.001	<0.0005	<0.005	0.000634	0.392	<0.5	<0.0005	0.0514	<0.0002	0.0125	<0.005	<0.001
	9/2/2016	<0.001	0.00233	0.0837	<0.001	<0.0005	<0.005	0.00126	0.22	<0.5	<0.0005	<0.05	<0.0002	0.0262	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.0794	<0.001	<0.0005	<0.005	0.000925	0.436	<0.5	<0.0005	0.0501	<0.0002	0.0193	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.0857	<0.001	<0.0005	<0.005	0.00102	0.362	1.37	<0.0005	0.053	<0.0002	0.0164	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.0818	<0.001	<0.0005	<0.005	0.000952	0.354	1.85	<0.0005	0.0503	<0.0002	0.00651	<0.005	<0.001
	6/19/2017	<0.001	<0.002	0.0752	<0.001	<0.0005	<0.005	0.000769	0.463	<0.5	<0.0005	<0.05	<0.0002	0.0105	<0.005	<0.001
	7/31/2017	<0.001	<0.002	0.0722	<0.001	<0.0005	<0.005	0.000519	0.353	0.528	<0.0005	<0.05	<0.0002	0.0185	<0.005	<0.001
	Abandoned on August 4, 2017															
MW-17	3/23/2016	<0.001	0.00735	0.0276	<0.001	<0.0005	<0.005	0.00813	0.366	1.36	<0.0005	0.114	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.0360	0.0396	<0.001	<0.0005	<0.005	0.0127	0.469	<0.5	<0.0005	0.129	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.0152	0.0424	<0.001	<0.0005	<0.005	0.0134	0.651	<0.5	<0.0005	0.116	<0.0002	<0.002	<0.005	<0.001
	11/29/2016	<0.001	0.00691	0.0356	<0.001	<0.0005	<0.005	0.00829	0.479	<0.5	<0.0005	0.116	<0.0002	0.00219	<0.005	<0.001
	2/17/2017	<0.001	0.0219	0.0406	<0.001	<0.0005	<0.005	0.0112	NA	2.91	0.0071	0.115	<0.0002	0.00214	<0.005	<0.001
	5/2/2017	<0.001	0.0300	0.0411	<0.001	<0.0005	<0.005	0.0113	0.059	1.66	<0.0005	0.116	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.0163	0.0361	<0.001	<0.0005	<0.005	0.012	0.777	<0.5	<0.0005	0.114	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.0159	0.0373	<0.001	<0.0005	<0.005	0.0123	0.284	<0.5	<0.0005	0.109	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	0.00794	0.0305	NA	<0.0005	<0.005	NA	NA	<0.5	<0.0005	NA	<0.0002	NA	<0.005	NA
	3/9/2018	<0.001	0.0257	0.0351	<0.001	<0.0005	<0.005	0.0107	0.738	1.29	<0.0005	0.112	<0.0002	0.0032	<0.005	<0.001
	6/5/2018	<0.001	0.0224	0.0505	<0.001	<0.0005	<0.005	0.0134	0.960	<0.5	<0.0005	0.0990	<0.0002	0.00356	<0.005	<0.001
	10/10/2018	<0.001	0.0173	0.0346	NA	<0.0005	<0.005	0.0114	1.02	<0.5	<0.0005	0.104	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.0102	0.0369	<0.001	<0.0005	<0.005	0.0103	0.328U	0.573	<0.0005	0.0948	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.0117	0.0407	<0.001	<0.0001	<0.005	0.0123	1.12	<0.5	<0.0005	0.12	<0.0002	0.00212	<0.005	<0.001

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	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-17 (cont'd)	4/14/2020	<0.00058	0.0111	0.033	<0.00027	<0.000039	<0.0011	0.0101	0.467	0.274J	<0.00027	0.0969	<0.0001	0.00264	<0.001	<0.00026
	10/8/2020	<0.00051	0.0206	0.0323	<0.00027	<0.000049	<0.0011	0.00898	0.702	<0.23	<0.00011	0.0948	<0.0001	<0.00440	<0.001	<0.00026
	4/5/2021	<0.00110	0.00927	0.0341	<0.00027	<0.000051	<0.0011	0.00915	0.654	<0.275	<0.00021	0.0974	<0.00015	0.00398	<0.00096	<0.00026
	10/12/2021	<0.00110	0.0166	0.0364	<0.00027	<0.000051	<0.0011	0.00983	0.605	<0.275	<0.00021	0.0902	<0.00015	0.00184J	<0.00096	<0.00026
	4/11/2022	<0.000690	0.0203	0.0377	<0.000270	<0.0000550	<0.00110	0.00975	0.554	<0.220	<0.000240	0.107	<0.000110	0.00355	<0.000960	<0.000260
	10/5/2022	<0.000690	0.0405	0.0413	<0.000270	<0.0000550	<0.00110	0.0108	0.884	0.640	<0.000240	0.103	<0.000110	0.00214	<0.000960	<0.000260
	4/4/2023	<0.00100	0.0806	0.0420	<0.000330	<0.000100	<0.00110	0.0104	0.178U	0.545	<0.000240	0.0972	<0.000140	0.00260	<0.00140	<0.000260
	10/4/2023	<0.00100	0.0257	0.0385	<0.000330	<0.000100	<0.00110	0.0119	1.28	<0.375	<0.000240	0.119	<0.000140	0.00472	<0.00140	<0.000260
MW-18	3/22/2016	<0.001	0.00345	0.343	<0.001	<0.0005	<0.005	0.00152	2.7	<0.5	0.00479	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.319	<0.001	<0.0005	<0.005	<0.0005	0.72	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	<0.002	0.307	<0.001	<0.0005	<0.005	<0.0005	0.814	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.306	<0.001	<0.0005	<0.005	<0.0005	1.56	<0.5	0.000577	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.314	<0.001	<0.0005	<0.005	<0.0005	0.907	0.508	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.329	<0.001	<0.0005	<0.005	<0.0005	NA	1.32	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	<0.002	0.304	<0.001	<0.0005	<0.005	<0.0005	0.465	<0.5	<0.0005	<0.05	0.000204	<0.002	<0.005	<0.001
	7/31/2017	<0.001	<0.002	0.309	<0.001	<0.0005	<0.005	<0.0005	0.899	0.632	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	0.704	NA	NA	NA	NA	NA	NA
	3/9/2018	<0.001	<0.002	0.303	<0.001	<0.0005	<0.005	<0.0005	1.090	0.530	0.00137	0.0282	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.00327	0.449	<0.001	0.000537	<0.005	0.00271	2.20	0.528	0.0114	0.0243	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	<0.002	0.293	NA	<0.0005	<0.005	<0.0005	1.21	0.817	0.000938	0.0254	NA	<0.002	<0.005	NA
	4/15/2019	<0.001	<0.002	0.272	<0.001	<0.0005	<0.005	<0.0005	0.765	0.518	<0.0005	0.0203	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	<0.002	0.321	<0.001	<0.0001	<0.005	<0.0005	0.666	<0.5	<0.0005	0.0263	<0.0002	<0.002	<0.005	<0.001
	4/13/2020	<0.00058	0.00165J	0.328	<0.00027	<0.000039	<0.0011	<0.000091	0.246U	0.559	0.000813	0.0262	<0.0001	<0.0011	<0.001	<0.00026
	10/7/2020	<0.00051	0.000972J	0.215	<0.00027	<0.000049	<0.0011	0.000092J	0.396U	0.320J	0.000219J	0.0203	<0.0001	<0.0011	<0.001	<0.00026
	4/5/2021	<0.00110	0.00126J	0.329	<0.00027	0.000241	<0.0011	0.000099J	0.776	0.540	0.000349J	0.0268	<0.00015	<0.0013	<0.00096	<0.00026
	10/11/2021	<0.00110	0.00175J	0.311	0.000603J	0.000550	0.00117J	0.000654	1.58	<0.275	0.00106	0.0269	<0.00015	<0.0013	<0.00096	<0.00026
	4/11/2022	<0.000690	0.00124J	0.317	<0.000270	<0.0000550	<0.00110	<0.000190	0.776	0.412J	0.000276J	0.0279	<0.000110	<0.00120	<0.000960	<0.000110
	10/5/2022	<0.000690	0.00125J	0.266	<0.000270	<0.0000550	<0.00110	<0.000190	1.47	<0.220	0.000323J	0.0231	<0.000110	<0.00120	<0.000960	<0.000260
	4/3/2023	<0.00100	0.00141J	0.287	<0.000330	<0.000100	<0.00110	0.000184J	0.963	0.534	0.000454J	0.0240	<0.000140	<0.000910	<0.00140	<0.000260
	10/3/2023	<0.00100	0.00143J	0.256	<0.000330	<0.000100	<0.00110	<0.000170	1.57	<0.375	0.000243J	0.0279	<0.000140	<0.000910	<0.00140	<0.000260
MW-19	3/22/2016	<0.001	<0.002	0.33	<0.001	<0.0005	<0.005	<0.0005	1.93	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.324	<0.001	<0.0005	<0.005	<0.0005	0.386	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	<0.002	0.325	<0.001	<0.0005	<0.005	<0.0005	1.55	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.317	<0.001	<0.0005	<0.005	<0.0005	1.14	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.281	<0.001	<0.0005	<0.005	<0.0005	0.82	0.418	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.328	<0.001	<0.0005	<0.005	<0.0005	NA	0.804	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	19/6/2017	<0.001	<0.002	0.297	<0.001	<0.0005	<0.005	<0.0005	0.744	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	31/7/2017	<0.001	<0.002	0.296	<0.001	<0.0005	<0.005	<0.0005	1	0.693	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA
	3/9/2018	<0.001	<0.002	0.323	<0.001	<0.0005	<0.005	<0.0005	0.691	<0.5	<0.0005	0.0334	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	<0.002	0.355	<0.001	<0.0005	<0.005	<0.0005	1.40	0.524	0.00121	0.0306	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	<0.002	0.334	NA	<0.0005	<0.005	<0.0005	0.364U	<0.5	<0.0005	0.0336	NA	<0.002	<0.005	NA
	4/15/2019	<0.001	<0.002	0.322	<0.001	<0.0005	<0.005	<0.0005	0.614	0.905	<0.0005	0.0333	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	<0.002	0.331	<0.001	<0.0001	<0.005	<0.0005	0.932	0.511	<0.0005	0.0386	<0.0002	<0.002	<0.005	<0.001
	4/13/2020	<0.00058	<0.00088	0.328	<0.00027	<0.000039	<0.0011	<0.000091	0.623	0.701	<0.00027	0.0359	<0.0001	<0.0011	<0.001	<0.00026
	10/7/2020	<0.00051	<0.00088	0.363	<0.00027	<0.000049	<0.0011	<0.000091	0.698U	0.469J	<0.00011	0.0363	<0.0001	<0.0011	<0.001	<0.00026
	4/5/2021	<0.00110	<0.00075	0.297	<0.00027	<0.000051	<0.0011	<0.000091	0.977	0.517	<0.00021	0.0343	<0.00015	<0.0013	<0.00096	<0.00026
	10/11/2021	<0.00110	<0.00075	0.292	<0.00027	<0.000051	<0.0011	<0.00019	1.58	<0.275	<0.00021	0.0355	<0.00015	<0.0013	<0.00096	<0.00026
	4/11/2022	<0.000690	<0.000750	0.305	<0.000270	<0.0000550	<0.00110	<0.000190	1.23	0.390J	<0.000240	0.0373	<0.000110	<0.00120	<0.000960	<0.000260
	10/5/2022	<0.000690	<0.000750	0.392	<0.000270	<0.0000550	<0.00110	<0.000190	1.64	<0.220	<0.000240	0.0355	<0.000110	<0.00120	<0.000960	<0.000260
	4/3/2023	<0.00100	<0.000530	0.307	<0.000330	<0.000100	<0.00110	<0.000170	0.799	0.509	<0.000240	0.0356	<0.000140	<0.000910	<0.00140	<0.000260
	10/3/2023	<0.00100	<0.000530	0.461	<0.000330	<0.000100	<0.00110	<0.000170	1.64	<0.375	<0.000240	0.0385	<0.000140	<0.000910	<0.00140	<0.000260

Notes:
mg/L = milligrams per liter
pCi/L = picoCuries per liter
NA = Analyte Not Analyzed/Measured
< = 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).
U = Result is less than the sample detection limit.
J = Value is less than the Reporting Limit but greater than or equal to the Method Detection Limit. The concentration is an approximate value.

Table 6 - Background Threshold Values for Assessment Monitoring
Omaha Public Power District - NOS Ash Landfill

Constituents	Units	Background Threshold Values (BTVs)
Appendix III		
Boron	mg/l	0.200
Calcium	mg/l	190
Chloride	mg/l	275
Fluoride [1]	mg/l	0.944
pH (LPL) [2]	SU	6.03
pH (UPL) [3]	SU	7.68
Sulfate	mg/l	57.5
TDS	mg/l	1,190
Appendix IV		
Antimony	mg/l	0.002
Arsenic	mg/l	0.0143
Barium	mg/l	0.726
Beryllium	mg/l	0.001
Cadmium	mg/l	0.000662
Chromium	mg/l	0.00590
Cobalt	mg/l	0.00346
Fluoride [1]	mg/l	0.944
Lead	mg/l	0.00885
Lithium	mg/l	0.0624
Mercury	mg/l	0.000214
Molybdenum	mg/l	0.00234
Radium 226 + 228	pCi/l	4.13
Selenium	mg/l	0.005
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 - NOS Ash Landfill

Constituents	Units	Established Groundwater Protection Standard (GWPS)[1]
Appendix IV		
Antimony	mg/l	0.006
Arsenic	mg/l	0.0143[2]
Barium	mg/l	2
Beryllium	mg/l	0.004
Cadmium	mg/l	0.005
Chromium	mg/l	0.1
Cobalt	mg/l	0.006
Flouride	mg/l	4
Lead	mg/l	0.015
Lithium	mg/l	0.0624[2]
Mercury	mg/l	0.002
Molybdenum	mg/l	0.1
Radium 226 + 228	pCi/l	5
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 tolerance limit (UTL) 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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NORTH OMAHA STATION

Water Levels Prior to Purging (Feet Below TOC)

MW2	Date of Sampling	4/3/2023	Time of Sampling	12:48	Static Water Level	24.56
MW4	Date of Sampling	4/3/2023	Time of Sampling	13:14	Static Water Level	15.44
MW5	Date of Sampling	4/3/2023	Time of Sampling	14:43	Static Water Level	23.27
MW6	Date of Sampling	4/3/2023	Time of Sampling	13:50	Static Water Level	15.44
MW7	Date of Sampling	4/3/2023	Time of Sampling	14:03	Static Water Level	19.02
MW8	Date of Sampling	4/3/2023	Time of Sampling	14:06	Static Water Level	19.42
MW9	Date of Sampling	4/3/2023	Time of Sampling	12:27	Static Water Level	28.37
MW10	Date of Sampling	4/3/2023	Time of Sampling	14:02	Static Water Level	17.87
MW11	Date of Sampling	4/3/2023	Time of Sampling	13:53	Static Water Level	Dry@14.23
MW12	Date of Sampling	4/3/2023	Time of Sampling	14:07	Static Water Level	17.61
MW13	Date of Sampling	4/3/2023	Time of Sampling	12:45	Static Water Level	22.54
MW15	Date of Sampling	4/3/2023	Time of Sampling	13:13	Static Water Level	13.22
MW17	Date of Sampling	4/3/2023	Time of Sampling	14:18	Static Water Level	20.13
MW18	Date of Sampling	4/3/2023	Time of Sampling	12:12	Static Water Level	37.97
MW19	Date of Sampling	4/3/2023	Time of Sampling	12:22	Static Water Level	37.63
MW20	Date of Sampling	4/3/2023	Time of Sampling	14:12	Static Water Level	10.33
MW22	Date of Sampling	4/3/2023	Time of Sampling	13:21	Static Water Level	18.41
MW23	Date of Sampling	4/3/2023	Time of Sampling	12:40	Static Water Level	16.58

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW2 - 5**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Overcast, 44°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	8:27	Pump Start Time	8:29
Static Water Level (+/- 0.01 feet)*	24.50	Purge Rate (mL/minute)	100-200
Bottom of Well Casing (+/- 0.01 feet)*	28.35	Time to Purge Well (hours:minutes)	0:23
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)	2.38		
Actual Volume of Water Purged (mL)	4,600		

*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)
8:34	500	11.12	6.76	60.3	6.67	1.57	24.72
8:37	1,600	11.31	3.84	38.5	6.81	1.67	24.78
8:40	2,200	11.65	3.42	36.9	6.77	1.73	24.80
8:43	2,800	11.89	3.10	35.0	6.54	1.75	24.81
8:46	3,400	11.99	2.73	33.8	6.54	1.77	24.82
8:49	4,000	12.01	2.79	29.6	6.54	1.77	24.82
8:52	4,600	12.04	2.74	23.7	6.55	1.78	24.83

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)
8:52	4,600	12.04	2.74	23.7	6.55	1.78	24.83
Duplicate?	Yes, DUP1	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, ~30 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	4/4/2023, 8:18
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW5 - 10**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 68°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:55	Pump Start Time	14:57
Static Water Level (+/- 0.01 feet)*	23.15	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	33.20	Time to Purge Well (hours:minutes)	0:11
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)	6.21		
Actual Volume of Water Purged (mL)	1,650		

*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)
15:02	750	17.99	2.11	48.2	7.18	2.07	23.37
15:05	1,200	17.80	2.18	21.4	7.15	2.08	23.40
15:08	1,650	17.62	2.21	15.9	7.13	2.09	23.43

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)
15:08	1,650	17.62	2.21	15.9	7.13	2.09	23.43
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	4/4/2023, 8:18
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW6 - 7**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Overcast, 51°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:24	Pump Start Time	11:25
Static Water Level (+/- 0.01 feet)*	15.48	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	33.18	Time to Purge Well (hours:minutes)	0:30
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)	10.93		
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)
11:30	500	13.11	3.78	10.3	6.73	2.27	15.74
11:33	800	13.15	1.61	8.2	6.63	2.30	15.75
11:36	1,100	13.24	1.19	9.3	6.60	2.33	15.77
11:39	1,400	13.37	0.73	10.1	6.56	2.36	15.78
11:42	1,700	13.43	0.59	9.1	6.56	2.36	15.79
11:45	2,000	13.41	0.51	10.1	6.56	2.37	15.79
11:48	2,300	13.46	0.42	11.9	6.56	2.37	15.80
11:52	2,700	13.46	0.36	11.9	6.56	2.37	15.81
11:55	3,000	13.50	0.34	12.2	6.52	2.37	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)
11:55	3,000	13.50	0.34	12.2	6.52	2.37	15.82
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	Light Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/4/2023, 8:18

Notes / Unusual Occurrences: Cement Pad Needs Repair

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW8 - 8**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 59°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:36	Pump Start Time	12:37
Static Water Level (+/- 0.01 feet)*	19.37	Purge Rate (mL/minute)	150-250
Bottom of Well Casing (+/- 0.01 feet)*	25.45	Time to Purge Well (hours:minutes)	0:23
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)	3.75		
Actual Volume of Water Purged (mL)	3,950		

*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)
12:42	1,250	14.92	8.00	4.9	8.36	1.18	21.14
12:45	1,700	15.40	7.96	3.5	8.27	1.13	20.66
12:48	2,150	15.69	7.80	0.1	7.77	1.14	20.47
12:51	2,600	15.89	7.18	0.0	7.75	1.14	20.32
12:54	3,050	16.29	7.00	0.0	7.68	1.14	20.17
12:57	3,500	16.27	6.92	1.5	7.66	1.16	20.14
13:00	3,950	16.30	6.88	0.0	7.69	1.17	20.13

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)
13:00	3,950	16.30	6.88	0.0	7.69	1.17	20.13
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	4/4/2023, 8:18
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW9 - 3**	Date: 4/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Overcast, Windy, 58°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:58	Pump Start Time	17:00
Static Water Level (+/- 0.01 feet)*	28.17	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	56.65	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)	17.59		
Actual Volume of Water Purged (mL)	3,900		

*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)
17:05	750	12.32	8.50	107.0	6.20	1.48	29.98
17:08	1,200	12.27	7.77	71.7	6.17	1.52	30.17
17:11	1,650	12.22	7.71	109	6.17	1.54	30.32
17:14	2,100	12.24	7.65	166	6.19	1.55	30.42
17:17	2,550	12.23	7.56	286	6.20	1.56	30.56
17:20	3,000	12.20	7.52	327	6.22	1.56	30.64
17:23	3,450	12.16	7.49	334	6.24	1.56	30.72
17:26	3,900	12.20	7.44	347	6.25	1.56	30.80

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)
17:26	3,900	12.20	7.44	347	6.25	1.56	30.80
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Turbid	QED Pump Control Information	CPM-2, 28/2, ~35 psi
Sample Color	Light Brown	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/3/2023, 15:13

Notes / Unusual Occurrences: Increasing Turbidity - Sampled Early

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW13 - 4**	Date: 4/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Overcast, Breezy, 56°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	18:09	Pump Start Time	18:11
Static Water Level (+/- 0.01 feet)*	22.49	Purge Rate (mL/minute)	75-100
Bottom of Well Casing (+/- 0.01 feet)*	23.98	Time to Purge Well (hours:minutes)	0:27
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)	0.92		
Actual Volume of Water Purged (mL)	2,450		

*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)
18:18	700	12.62	11.27	79.5	6.02	1.94	Top of Pump
18:23	1,200	12.54	11.00	32.0	6.02	2.04	Top of Pump
18:28	1,700	12.39	9.30	24.6	6.26	2.23	Top of Pump
18:33	2,075	12.34	9.21	22.1	6.27	2.24	Top of Pump
18:38	2,450	12.35	9.22	20.5	6.29	2.25	Top of Pump

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)
18:38	2,450	12.35	9.22	20.5	6.29	2.25	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		75

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	Unknown Odor	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/3/2023, 15:13
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW15 - 6**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Overcast, 48°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:51	Pump Start Time	9:53
Static Water Level (+/- 0.01 feet)*	13.22	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	15.60	Time to Purge Well (hours:minutes)	0:44
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)	1.47		
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)
9:58	500	12.21	3.42	15.7	7.10	1.28	Top of Pump
10:01	800	12.22	2.89	5.0	7.14	1.25	Top of Pump
10:04	1,100	12.15	2.49	1.0	7.21	1.25	Top of Pump
10:07	1,400	12.15	2.30	0.4	7.29	1.25	Top of Pump
10:10	1,700	12.17	2.04	0.0	7.68	1.25	Top of Pump
10:13	2,000	12.18	1.94	0.0	7.64	1.25	Top of Pump
10:16	2,300	12.20	1.71	0.0	7.65	1.25	Top of Pump
10:19	2,600	12.24	1.48	0.0	7.65	1.25	Top of Pump
10:22	2,900	12.28	1.36	0.0	7.65	1.25	Top of Pump
10:25	3,200	12.29	1.28	0.0	7.64	1.25	Top of Pump
10:28	3,500	12.34	1.15	0.0	7.64	1.25	Top of Pump
10:31	3,800	12.37	1.07	0.0	7.63	1.25	Top of Pump
10:34	4,100	12.40	1.04	0.0	7.63	1.26	Top of Pump
10:37	4,400	12.45	1.01	0.3	7.60	1.26	Top of Pump

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)
10:37	4,400	12.45	1.01	0.3	7.60	1.26	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	Clear	QED Pump Control Information	CPM-2, 28/2, ~15 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	4/4/2023, 8:18
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481), Cathy King
Monitoring Well Identification - Sample Number: **MW17 - 9**	Date: 4/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 64°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:50	Pump Start Time	13:54
Static Water Level (+/- 0.01 feet)*	19.91	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	25.45	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)	3.42		
Actual Volume of Water Purged (mL)	4,350		

*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)
13:59	750	17.23	8.15	12.8	6.47	2.34	21.22
14:02	1,200	16.69	7.34	13.0	6.45	2.37	21.50
14:05	1,650	16.79	6.89	18.4	6.47	2.39	21.64
14:08	2,100	16.77	6.55	18.3	6.49	2.39	21.84
14:11	2,550	16.81	6.31	18.4	6.52	2.39	21.90
14:14	3,000	16.75	6.34	16.0	6.53	2.38	Top of Pump
14:17	3,450	16.64	5.82	10.3	6.55	2.36	Top of Pump
14:20	3,900	16.69	5.80	10.3	6.56	2.34	Top of Pump
14:23	4,350	16.74	5.74	10.2	6.59	2.32	Top of Pump

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)
14:23	4,350	16.74	5.74	10.2	6.59	2.32	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	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	4/4/2023, 8:18
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW18 - 1**	Date: 4/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Cloudy, Breezy, 58°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:10	Pump Start Time	15:17
Static Water Level (+/- 0.01 feet)*	38.14	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	70.90	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)	20.23		
Actual Volume of Water Purged (mL)	4,350		

*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)
15:22	750	14.46	3.51	44.6	6.52	0.669	39.40
15:25	1,200	13.39	2.72	30.9	6.47	0.719	39.96
15:28	1,650	13.44	2.36	17.9	6.36	0.732	40.40
15:31	2,100	13.20	2.20	13.9	6.28	0.737	40.67
15:34	2,550	13.23	2.02	9.9	6.26	0.741	41.06
15:37	3,000	13.24	1.98	8.6	6.20	0.744	41.42
15:40	3,450	13.09	1.95	10.3	6.18	0.736	41.73
15:43	3,900	12.98	1.99	11.3	6.16	0.727	42.05
15:46	4,350	13.07	1.96	12.1	6.15	0.725	42.24

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)
15:46	4,350	13.07	1.96	12.1	6.15	0.725	42.24
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, 28/2, ~65 psi
Sample Color	Light Yellow	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Light Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/3/2023, 15:13
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW19 - 2**	Date: 4/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Cloudy, Breezy, 59°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:16	Pump Start Time	16:19
Static Water Level (+/- 0.01 feet)*	37.65	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	76.70	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)	24.11		
Actual Volume of Water Purged (mL)	3,400		

*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)
16:24	1,000	13.44	3.44	14.7	6.18	0.779	37.75
16:27	1,600	13.00	2.70	8.5	6.04	0.743	37.75
16:30	2,200	12.84	2.40	5.9	6.01	0.741	37.75
16:33	2,800	12.76	2.34	3.7	6.00	0.739	37.75
16:36	3,400	12.72	2.37	2.7	6.00	0.739	37.75

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)
16:36	3,400	12.72	2.37	2.7	6.00	0.739	37.75
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, ~65 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/3/2023, 15:13

Notes / Unusual Occurrences: None

Equipment Calibration Sheet

Date: 4/3/2023
Time: 15:13

Person Calibrating Instrument: Kyle K. Uhing

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

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.30	µS/cm
Turbidity	0.0	NTU
DO	10.56	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

.

Equipment Calibration Sheet

Date: 4/4/2023
Time: 8:18

Person Calibrating Instrument: Kyle K. Uhing

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

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.45	µS/cm
Turbidity	0.1	NTU
DO	9.46	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

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NORTH OMAHA STATION

Water Levels Prior to Purging (Feet Below TOC)

MW2	Date of Sampling	10/2/2023	Time of Sampling	16:57	Static Water Level	25.14
MW4	Date of Sampling	10/2/2023	Time of Sampling	17:18	Static Water Level	15.91
MW5	Date of Sampling	10/2/2023	Time of Sampling	17:44	Static Water Level	22.30
MW6	Date of Sampling	10/2/2023	Time of Sampling	17:22	Static Water Level	15.98
MW7	Date of Sampling	10/2/2023	Time of Sampling	17:29	Static Water Level	19.56
MW8	Date of Sampling	10/2/2023	Time of Sampling	17:32	Static Water Level	19.28
MW9	Date of Sampling	10/2/2023	Time of Sampling	16:41	Static Water Level	32.09
MW10	Date of Sampling	10/2/2023	Time of Sampling	17:27	Static Water Level	Dry@18.15
MW11	Date of Sampling	10/2/2023	Time of Sampling	17:23	Static Water Level	Dry@14.25
MW12	Date of Sampling	10/2/2023	Time of Sampling	17:34	Static Water Level	Dry@17.77
MW13	Date of Sampling	10/2/2023	Time of Sampling	16:54	Static Water Level	22.61
MW15	Date of Sampling	10/2/2023	Time of Sampling	17:17	Static Water Level	13.27
MW17	Date of Sampling	10/2/2023	Time of Sampling	17:37	Static Water Level	19.26
MW18	Date of Sampling	10/2/2023	Time of Sampling	16:27	Static Water Level	39.43
MW19	Date of Sampling	10/2/2023	Time of Sampling	16:33	Static Water Level	39.42
MW20	Date of Sampling	10/2/2023	Time of Sampling	17:52	Static Water Level	10.31
MW23	Date of Sampling	10/2/2023	Time of Sampling	16:50	Static Water Level	16.74

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW2 - 5**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Clear, 58°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:09	Pump Start Time	9:12
Static Water Level (+/- 0.01 feet)*	25.16	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	28.35	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)	1.97		
Actual Volume of Water Purged (mL)	3,100		

*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)
9:17	1,000	16.20	3.75	144	6.89	1.63	25.36
9:20	1,300	15.73	2.97	114	6.77	1.60	25.54
9:23	1,600	15.49	2.38	87.1	6.75	1.59	25.60
9:26	1,900	15.40	3.00	68.4	6.75	1.58	25.64
9:29	2,200	15.37	3.02	49.4	6.74	1.57	25.68
9:32	2,500	15.37	1.78	41.1	6.74	1.56	25.71
9:35	2,800	15.36	1.70	32.9	6.74	1.56	25.73
9:38	3,100	15.38	1.69	23.4	6.75	1.56	25.74

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)
9:38	3,100	15.38	1.69	23.4	6.75	1.56	25.74
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, ~30 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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW5 - 10**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 68°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:35	Pump Start Time	14:37
Static Water Level (+/- 0.01 feet)*	22.31	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	33.20	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)	6.72		
Actual Volume of Water Purged (mL)	1,700		

*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)
14:42	500	19.44	8.81	123	6.98	2.35	22.47
14:45	800	18.42	8.88	71.4	6.84	2.38	22.47
14:48	1,100	17.97	8.60	23.0	6.85	2.38	22.47
14:51	1,400	17.92	8.58	15.4	6.86	2.38	22.47
14:54	1,700	17.91	8.51	12.7	6.86	2.39	22.48

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)
14:54	1,700	17.91	8.51	12.7	6.86	2.39	22.48
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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW6 - 7**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 61°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:17	Pump Start Time	11:19
Static Water Level (+/- 0.01 feet)*	16.03	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	33.18	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)	10.59		
Actual Volume of Water Purged (mL)	1,700		

*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)
11:24	500	17.44	8.80	7.2	6.88	2.23	16.51
11:27	800	16.37	8.27	4.9	6.86	2.26	16.60
11:30	1,100	16.15	7.70	4.0	6.82	2.27	16.62
11:33	1,400	15.54	7.62	3.3	6.79	2.27	16.66
11:36	1,700	15.55	7.55	3.9	6.77	2.27	16.68

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)
11:36	1,700	15.55	7.55	3.9	6.77	2.27	16.68
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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW8 - 8**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Cloudy, Sunny, 64°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:08	Pump Start Time	12:11
Static Water Level (+/- 0.01 feet)*	19.29	Purge Rate (mL/minute)	100-200
Bottom of Well Casing (+/- 0.01 feet)*	25.45	Time to Purge Well (hours:minutes)	0:23
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)	3.80		
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)
12:16	1,000	15.92	7.80	13.0	8.35	1.25	20.72
12:19	1,300	15..7	7.77	6.4	8.37	1.19	20.86
12:22	1,600	15.67	7.46	3.9	8.37	1.19	20.87
12:25	1,900	15.63	7.37	4.4	8.35	1.20	20.89
12:28	2,200	15.59	6.74	2.6	8.30	1.21	20.90
12:31	2,500	15.67	6.79	4.4	8.28	1.22	20.91
12:34	2,800	15.80	6.61	1.8	8.25	1.23	20.90

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)
12:34	2,800	15.80	6.61	1.8	8.25	1.23	20.90
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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW9 - 3**	Date: 10/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	19:09	Pump Start Time	19:14
Static Water Level (+/- 0.01 feet)*	32.07	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	56.65	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)	15.18		
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)
19:19	750	13.80	0.00	368.0	6.39	1.67	36.25
19:22	1,200	13.94	0.00	370	6.42	1.66	36.40
19:25	1,650	14.03	0.00	373	6.44	1.66	36.54
19:28	2,100	14.14	0.00	368	6.45	1.64	36.74
19:31	2,550	14.22	0.00	368	6.45	1.63	36.82

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)
19:31	2,550	14.22	0.00	368	6.45	1.63	36.82
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 28/2, ~35 psi
Sample Color	Light Brown	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	10/3/2023, 17:29

Notes / Unusual Occurrences: Stable Turbidity - Sampled Early

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW13 - 4**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Clear, 57°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	8:00	Pump Start Time	8:09
Static Water Level (+/- 0.01 feet)*	22.60	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	23.98	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)	0.85		
Actual Volume of Water Purged (mL)	1,900		

*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)
8:14	1,000	15.08	5.49	37.4	6.40	2.00	Top of Pump
8:17	1,300	14.40	2.66	16.6	6.58	2.01	Top of Pump
8:20	1,600	14.50	2.58	18.6	6.57	2.00	Top of Pump
8:23	1,900	14.43	2.50	18.4	6.57	2.00	Top of Pump

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)
8:23	1,900	14.43	2.50	18.4	6.57	2.00	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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW15 - 6**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, 61°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:27	Pump Start Time	10:29
Static Water Level (+/- 0.01 feet)*	Top of Pump	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	15.60	Time to Purge Well (hours:minutes)	0:11
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)	1,100		

*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)
10:34	500	16.64	8.38	17.1	7.46	1.26	Top of Pump
10:37	800	16.28	8.28	7.8	7.50	1.31	Top of Pump
10:40	1,100	16.17	8.24	5.8	7.50	1.32	Top of Pump

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)
10:40	1,100	16.17	8.24	5.8	7.50	1.32	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	Clear	QED Pump Control Information	CPM-2, 28/2, ~15 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	10/4/2023, 8:03
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW17 - 9**	Date: 10/4/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Cloudy, Sunny, 67°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:04	Pump Start Time	13:12
Static Water Level (+/- 0.01 feet)*	19.35	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	25.45	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)	3.77		
Actual Volume of Water Purged (mL)	2,900		

*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)
13:17	500	17.98	1.67	220	6.50	2.38	20.78
13:20	800	17.72	0.89	226.0	6.44	2.46	20.97
13:23	1,100	17.27	0.57	175	6.49	2.47	21.23
13:26	1,400	17.20	0.60	177.0	6.51	2.47	21.47
13:29	1,700	17.27	0.43	113	6.48	2.46	21.76
13:32	2,000	17.23	0.45	77.2	6.50	2.46	21.88
13:35	2,300	17.22	0.47	45.1	6.48	2.45	22.13
13:38	2,600	17.26	0.50	35.7	6.50	2.46	Top of Pump
13:41	2,900	17.40	0.53	22.2	6.51	2.45	Top of Pump

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)
13:41	2,900	17.40	0.53	22.2	6.51	2.45	Top of Pump
Duplicate?	Yes, DUP1	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	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	10/4/2023, 8:03

Notes / Unusual Occurrences: None

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW18 - 1**	Date: 10/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, 76°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	17:28	Pump Start Time	17:34
Static Water Level (+/- 0.01 feet)*	39.31	Purge Rate (mL/minute)	100-200
Bottom of Well Casing (+/- 0.01 feet)*	70.90	Time to Purge Well (hours:minutes)	0:24
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)	19.51		
Actual Volume of Water Purged (mL)	4,300		

*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)
17:39	1,000	20.82	9.75	51.3	5.98	0.643	40.42
17:42	1,600	16.97	8.02	34.5	6.05	0.677	41.03
17:45	2,200	16.48	7.48	31.7	6.09	0.692	41.50
17:48	2,800	14.52	6.48	14.9	6.12	0.713	42.85
17:51	3,400	14.43	5.70	16.3	6.16	0.713	43.65
17:54	3,700	14.53	5.80	13.7	6.17	0.702	44.12
17:55	4,000	14.56	5.86	14.5	6.17	0.694	44.34
17:58	4,300	14.54	5.81	14.2	6.17	0.690	44.49

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)
17:58	4,300	14.54	5.81	14.2	6.17	0.690	44.49
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, 28/2, ~65 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	10/3/2023, 17:29
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD North Omaha Station	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW19 - 2**	Date: 10/3/2023
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, 74°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	18:20	Pump Start Time	18:23
Static Water Level (+/- 0.01 feet)*	39.38	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	76.70	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)	23.04		
Actual Volume of Water Purged (mL)	2,000		

*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)
18:28	500	14.47	4.27	19.8	6.26	0.692	39.60
18:31	800	14.42	3.61	15.1	6.22	0.700	39.56
18:34	1,100	14.38	3.27	17.5	6.22	0.703	39.54
18:37	1,400	14.33	2.85	14.0	6.23	0.783	39.54
18:40	1,700	14.28	2.91	8.0	6.25	0.786	39.54
18:43	2,000	14.22	2.84	4.0	6.27	0.790	39.54

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)
18:43	2,000	14.22	2.84	4.0	6.27	0.790	39.54
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, ~65 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Light Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/3/2023, 17:29
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 10/3/2023
Time: 17:29

Person Calibrating Instrument: Kyle K. Uhing

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

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.42	µS/cm
Turbidity	0.1	NTU
DO	9.41	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

.

Equipment Calibration Sheet

Date: 10/4/2023
Time: 8:03

Person Calibrating Instrument: Kyle K. Uhing

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

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.48	µS/cm
Turbidity	0.0	NTU
DO	9.16	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

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Appendix B

Laboratory Analytical Reports

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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 5/5/2023 11:28:19 AM

JOB DESCRIPTION

North Omaha Station CCR

JOB NUMBER

310-252797-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Eurofins Cedar Falls

Job Notes

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Table of Contents

Case Narrative

Job ID: 310-252797-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-252797-1

Comments
No additional comments.

Receipt
The samples were received on 4/5/2023 4:30 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 0.6° C and 1.9° C.

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

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

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

Narrative

Job Narrative
310-252797-2

Receipt
The samples were received on 4/5/2023 4:30 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 0.6°C and 1.9°C

Gas Flow Proportional Counter
Method 9315_Ra226: Radium-226 batch 607138The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW9 (310-252797-5). Analytical results are reported with the detection limit achieved.

Method 9315_Ra226: Radium-226 batch 607138Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.MW2 (310-252797-1), MW5 (310-252797-2), MW6 (310-252797-3), MW8 (310-252797-4), MW9 (310-252797-5), MW13 (310-252797-6), MW15 (310-252797-7), MW17 (310-252797-8), MW18 (310-252797-9), MW19 (310-252797-10), DUP1 (310-252797-11), (LCS 160-607138/2-A), (MB 160-607138/1-A), (160-49552-D-2-A) and (160-49552-B-2-A DU)

Method 9320_Ra228: Radium-228 batch 607140The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW9 (310-252797-5). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 607140Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.MW2 (310-252797-1), MW5 (310-252797-2), MW6 (310-252797-3), MW8 (310-252797-4), MW9 (310-252797-5), MW13 (310-252797-6), MW15 (310-252797-7), MW17 (310-252797-8), MW18 (310-252797-9), MW19 (310-252797-10), DUP1 (310-252797-11), (LCS 160-607140/2-A), (MB 160-607140/1-A), (160-49552-D-2-B) and (160-49552-B-2-B DU)

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.

Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Job ID: 310-252797-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

Sample Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-252797-1	MW2	Water	04/04/23 08:52	04/05/23 16:30
310-252797-2	MW5	Water	04/04/23 15:08	04/05/23 16:30
310-252797-3	MW6	Water	04/04/23 11:55	04/05/23 16:30
310-252797-4	MW8	Water	04/04/23 13:00	04/05/23 16:30
310-252797-5	MW9	Water	04/03/23 17:26	04/05/23 16:30
310-252797-6	MW13	Water	04/03/23 18:38	04/05/23 16:30
310-252797-7	MW15	Water	04/04/23 10:32	04/05/23 16:30
310-252797-8	MW17	Water	04/04/23 14:23	04/05/23 16:30
310-252797-9	MW18	Water	04/03/23 15:46	04/05/23 16:30
310-252797-10	MW19	Water	04/03/23 16:36	04/05/23 16:30
310-252797-11	DUP1	Water	04/04/23 00:00	04/05/23 16:30

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW2 — Lab Sample ID: 310-252797-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35.0		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.539	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	476		5.00	2.00	mg/L	5		9056A	Total/NA
Arsenic	0.215		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.111		0.00200	0.000640	mg/L	1		6020B	Total/NA
Beryllium	0.000356	J	0.00100	0.000330	mg/L	1		6020B	Total/NA
Boron	1.09		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000132	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	249		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000626		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000358	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0426		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00194	J	0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00225	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00101		0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1080		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW5 — Lab Sample ID: 310-252797-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42.0		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.428	J B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	865		20.0	8.00	mg/L	20		9056A	Total/NA
Arsenic	0.0648		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0427		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.541		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000125	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	329		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000493	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000702		0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0701		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00294		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00261	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00116		0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1420		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW6 — Lab Sample ID: 310-252797-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	375		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.524	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	288		5.00	2.00	mg/L	5		9056A	Total/NA
Arsenic	0.00712		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.176		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.623		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000288		0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	322		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00741		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00110		0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0478		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0690		0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1140		250	170	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: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW8 — Lab Sample ID: 310-252797-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.4		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.349	J B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	609		20.0	8.00	mg/L	20		9056A	Total/NA
Arsenic	0.0101		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0776		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	2.21		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	138		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000463	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0115		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0833		0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	860		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW9 — Lab Sample ID: 310-252797-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	199		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.507	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	54.3		5.00	2.00	mg/L	5		9056A	Total/NA
Arsenic	0.0143		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.726		0.00200	0.000640	mg/L	1		6020B	Total/NA
Beryllium	0.000681	J	0.00100	0.000330	mg/L	1		6020B	Total/NA
Cadmium	0.000626		0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	188		0.500	0.190	mg/L	1		6020B	Total/NA
Chromium	0.0208		0.00500	0.00110	mg/L	1		6020B	Total/NA
Cobalt	0.00851		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.0126		0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0547		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00234		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00208	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	826		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-252797-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.17		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.620	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	1100		20.0	8.00	mg/L	20		9056A	Total/NA
Arsenic	0.0209		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0666		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	1.71		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000173	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	230		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000523		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0408		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.695		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00344	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1730		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15 — Lab Sample ID: 310-252797-7

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

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-252797-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	576		20.0	8.00	mg/L	20		9056A	Total/NA
Antimony	0.00152	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.00187	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0493		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	2.57		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	189		0.500	0.190	mg/L	1		6020B	Total/NA
Chromium	0.00213	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Lithium	0.00837	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.247		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.0815		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	942		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-252797-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	40.4		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.545	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	829		20.0	8.00	mg/L	20		9056A	Total/NA
Arsenic	0.0806		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0420		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.562		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	325		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.0104		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0972		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00260		0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1580		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-252797-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.26		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.534	B	0.500	0.220	mg/L	5		9056A	Total/NA
Arsenic	0.00141	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.287		0.00200	0.000640	mg/L	1		6020B	Total/NA
Calcium	92.9		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000184	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000454	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0240		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	368		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-252797-10

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
Fluoride	0.509	B	0.500	0.220	mg/L	5		9056A	Total/NA
Barium	0.307		0.00200	0.000640	mg/L	1		6020B	Total/NA
Calcium	111		0.500	0.190	mg/L	1		6020B	Total/NA
Lithium	0.0356		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	398		50.0	34.0	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: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: DUP1

Lab Sample ID: 310-252797-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34.6		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.528	B	0.500	0.220	mg/L	5		9056A	Total/NA
Sulfate	474		5.00	2.00	mg/L	5		9056A	Total/NA
Arsenic	0.211		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.112		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	1.05		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	248		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000500		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0410		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00113	J	0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1260		50.0	34.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW2

Lab Sample ID: 310-252797-1

Date Collected: 04/04/23 08:52
Matrix: Water
Date Received: 04/05/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.0**		5.00	2.25	mg/L			04/12/23 19:34	5
Fluoride	**0.539**	**B**	0.500	0.220	mg/L			04/12/23 19:34	5
Sulfate	**476**		5.00	2.00	mg/L			04/12/23 19:34	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		04/10/23 08:45	04/11/23 18:58	1
Arsenic	**0.215**		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 18:58	1
Barium	**0.111**		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 18:58	1
Beryllium	**0.000356**	**J**	0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 18:58	1
Boron	**1.09**		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 18:58	1
Cadmium	**0.000132**	**J**	0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 18:58	1
Calcium	**249**		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 18:58	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 18:58	1
Cobalt	**0.000626**		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 18:58	1
Lead	**0.000358**	**J**	0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 18:58	1
Lithium	**0.0426**		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 18:58	1
Molybdenum	**0.00194**	**J**	0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 18:58	1
Selenium	**0.00225**	**J**	0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 18:58	1
Thallium	**0.00101**		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 18:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1080**		250	170	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.224	U	0.211	0.212	1.00	0.324	pCi/L	04/12/23 10:51	05/04/23 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	92.7		*30 - 110*	*04/12/23 10:51*	*05/04/23 09:00*	*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	0.181	U	0.362	0.363	1.00	0.632	pCi/L	04/12/23 11:37	05/03/23 11:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	92.7		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:50*	*1*
Y Carrier	85.2		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:50*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW2

Lab Sample ID: 310-252797-1

Date Collected: 04/04/23 08:52
Matrix: Water
Date Received: 04/05/23 16:30

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	0.405	U	0.419	0.420	5.00	0.632	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW5
Date Collected: 04/04/23 15:08
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-2
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.0		5.00	2.25	mg/L			04/12/23 19:50	5
Fluoride	0.428	J B	0.500	0.220	mg/L			04/12/23 19:50	5
Sulfate	865		20.0	8.00	mg/L			04/13/23 09:20	20

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		04/10/23 08:45	04/11/23 19:09	1
Arsenic	0.0648		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 19:09	1
Barium	0.0427		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 19:09	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 19:09	1
Boron	0.541		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 19:09	1
Cadmium	0.000125	J	0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 19:09	1
Calcium	329		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 19:09	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 19:09	1
Cobalt	0.000493	J	0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 19:09	1
Lead	0.000702		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 19:09	1
Lithium	0.0701		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 19:09	1
Molybdenum	0.00294		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 19:09	1
Selenium	0.00261	J	0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 19:09	1
Thallium	0.00116		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 19:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1420		250	170	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.134	U	0.215	0.215	1.00	0.373	pCi/L	04/12/23 10:51	05/04/23 09:00	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	04/12/23 10:51	05/04/23 09:00	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	1.16		0.593	0.602	1.00	0.853	pCi/L	04/12/23 11:37	05/03/23 11:50	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	04/12/23 11:37	05/03/23 11:50	1
Y Carrier	85.2		30 - 110	04/12/23 11:37	05/03/23 11:50	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW5
Date Collected: 04/04/23 15:08
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-2
Matrix: Water

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		0.631	0.639	5.00	0.853	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW6
Date Collected: 04/04/23 11:55
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-3
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	375		5.00	2.25	mg/L			04/12/23 20:06	5
Fluoride	0.524	B	0.500	0.220	mg/L			04/12/23 20:06	5
Sulfate	288		5.00	2.00	mg/L			04/12/23 20:06	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		04/10/23 08:45	04/11/23 19:36	1
Arsenic	0.00712		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 19:36	1
Barium	0.176		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 19:36	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 19:36	1
Boron	0.623		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 19:36	1
Cadmium	0.000288		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 19:36	1
Calcium	322		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 19:36	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 19:36	1
Cobalt	0.00741		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 19:36	1
Lead	0.00110		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 19:36	1
Lithium	0.0478		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 19:36	1
Molybdenum	0.0690		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 19:36	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 19:36	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 19:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1140		250	170	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.280	U	0.231	0.232	1.00	0.353	pCi/L	04/12/23 10:51	05/04/23 09:01	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		30 - 110	04/12/23 10:51	05/04/23 09:01	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	-0.0832	U	0.296	0.296	1.00	0.575	pCi/L	04/12/23 11:37	05/03/23 11:51	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		30 - 110	04/12/23 11:37	05/03/23 11:51	1
Y Carrier	81.1		30 - 110	04/12/23 11:37	05/03/23 11:51	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW6
Date Collected: 04/04/23 11:55
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-3
Matrix: Water

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	0.197	U	0.375	0.376	5.00	0.575	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW8 — **Lab Sample ID: 310-252797-4**
Date Collected: 04/04/23 13:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.4		5.00	2.25	mg/L			04/12/23 20:21	5
Fluoride	0.349	J B	0.500	0.220	mg/L			04/12/23 20:21	5
Sulfate	609		20.0	8.00	mg/L			04/13/23 09:36	20

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		04/10/23 08:45	04/11/23 19:48	1
Arsenic	0.0101		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 19:48	1
Barium	0.0776		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 19:48	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 19:48	1
Boron	2.21		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 19:48	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 19:48	1
Calcium	138		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 19:48	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 19:48	1
Cobalt	0.000463	J	0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 19:48	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 19:48	1
Lithium	0.0115		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 19:48	1
Molybdenum	0.0833		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 19:48	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 19:48	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 19:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	860		50.0	34.0	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.184	U	0.200	0.201	1.00	0.324	pCi/L	04/12/23 10:51	05/04/23 09:01	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		30 - 110	04/12/23 10:51	05/04/23 09:01	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	0.0634	U	0.314	0.314	1.00	0.565	pCi/L	04/12/23 11:37	05/03/23 11:52	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		30 - 110	04/12/23 11:37	05/03/23 11:52	1
Y Carrier	84.9		30 - 110	04/12/23 11:37	05/03/23 11:52	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW8 — **Lab Sample ID: 310-252797-4**
Date Collected: 04/04/23 13:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	0.247	U	0.372	0.373	5.00	0.565	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW9 — **Lab Sample ID: 310-252797-5**
Date Collected: 04/03/23 17:26 — **Matrix: Water**
Date Received: 04/05/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		5.00	2.25	mg/L			04/12/23 20:37	5
Fluoride	0.507	B	0.500	0.220	mg/L			04/12/23 20:37	5
Sulfate	54.3		5.00	2.00	mg/L			04/12/23 20:37	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		04/10/23 08:45	04/11/23 20:02	1
Arsenic	0.0143		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:02	1
Barium	0.726		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:02	1
Beryllium	0.000681	J	0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:02	1
Boron	<0.0760		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:02	1
Cadmium	0.000626		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:02	1
Calcium	188		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:02	1
Chromium	0.0208		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:02	1
Cobalt	0.00851		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:02	1
Lead	0.0126		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:02	1
Lithium	0.0547		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:02	1
Molybdenum	0.00234		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:02	1
Selenium	0.00208	J	0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:02	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	826		50.0	34.0	mg/L			04/06/23 13:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.55	G	0.976	0.986	1.00	1.36	pCi/L	04/12/23 10:51	05/04/23 09:05	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.4		30 - 110	04/12/23 10:51	05/04/23 09:05	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	0.543	U G	1.33	1.33	1.00	2.36	pCi/L	04/12/23 11:37	05/03/23 11:52	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.4		30 - 110	04/12/23 11:37	05/03/23 11:52	1
Y Carrier	81.5		30 - 110	04/12/23 11:37	05/03/23 11:52	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW9 — **Lab Sample ID: 310-252797-5**
Date Collected: 04/03/23 17:26 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	2.09	U	1.65	1.66	5.00	2.36	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW13 — **Lab Sample ID: 310-252797-6**
Date Collected: 04/03/23 18:38 — **Matrix: Water**
Date Received: 04/05/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.17		5.00	2.25	mg/L			04/12/23 20:52	5
Fluoride	0.620	B	0.500	0.220	mg/L			04/12/23 20:52	5
Sulfate	1100		20.0	8.00	mg/L			04/13/23 09:51	20

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		04/10/23 08:45	04/11/23 20:15	1
Arsenic	0.0209		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:15	1
Barium	0.0666		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:15	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:15	1
Boron	1.71		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:15	1
Cadmium	0.000173	J	0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:15	1
Calcium	230		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:15	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:15	1
Cobalt	0.000523		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:15	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:15	1
Lithium	0.0408		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:15	1
Molybdenum	0.695		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:15	1
Selenium	0.00344	J	0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:15	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1730		250	170	mg/L			04/06/23 13:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162	U	0.230	0.231	1.00	0.390	pCi/L	04/12/23 10:51	05/04/23 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*30 - 110*	*04/12/23 10:51*	*05/04/23 09:05*	*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	0.330	0.331	1.00	0.679	pCi/L	04/12/23 11:37	05/03/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:52*	*1*
Y Carrier	*89.3*		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:52*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW13 — **Lab Sample ID: 310-252797-6**
Date Collected: 04/03/23 18:38 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	-0.0737	U	0.402	0.404	5.00	0.679	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW15 — **Lab Sample ID: 310-252797-7**
Date Collected: 04/04/23 10:32 — **Matrix: Water**
Date Received: 04/05/23 16:30

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			04/12/23 21:08	5
Fluoride	<0.220		0.500	0.220	mg/L			04/12/23 21:08	5
Sulfate	576		20.0	8.00	mg/L			04/13/23 10:07	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00152	J	0.00200	0.00100	mg/L		04/10/23 08:45	04/11/23 20:28	1
Arsenic	0.00187	J	0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:28	1
Barium	0.0493		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:28	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:28	1
Boron	2.57		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:28	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:28	1
Calcium	189		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:28	1
Chromium	0.00213	J	0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:28	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:28	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:28	1
Lithium	0.00837	J	0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:28	1
Molybdenum	0.247		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:28	1
Selenium	0.0815		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:28	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	942		50.0	34.0	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0907	U	0.141	0.141	1.00	0.243	pCi/L	04/12/23 10:51	05/04/23 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*04/12/23 10:51*	*05/04/23 09:05*	*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	-0.184	U	0.216	0.216	1.00	0.468	pCi/L	04/12/23 11:37	05/03/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:52*	*1*
Y Carrier	*84.9*		*30 - 110*	*04/12/23 11:37*	*05/03/23 11:52*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW15 — **Lab Sample ID: 310-252797-7**
Date Collected: 04/04/23 10:32 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	-0.0933	U	0.258	0.258	5.00	0.468	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW17
Date Collected: 04/04/23 14:23
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-8
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.4		5.00	2.25	mg/L			04/12/23 21:23	5
Fluoride	0.545	B	0.500	0.220	mg/L			04/12/23 21:23	5
Sulfate	829		20.0	8.00	mg/L			04/13/23 10:22	20

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		04/10/23 08:45	04/11/23 20:39	1
Arsenic	0.0806		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:39	1
Barium	0.0420		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:39	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:39	1
Boron	0.562		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:39	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:39	1
Calcium	325		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:39	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:39	1
Cobalt	0.0104		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:39	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:39	1
Lithium	0.0972		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:39	1
Molybdenum	0.00260		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:39	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:39	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:58	04/12/23 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1580		250	170	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00808	U	0.135	0.135	1.00	0.268	pCi/L	04/12/23 10:51	05/04/23 09:05	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110	04/12/23 10:51	05/04/23 09:05	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	0.169	U	0.274	0.275	1.00	0.468	pCi/L	04/12/23 11:37	05/03/23 11:52	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110	04/12/23 11:37	05/03/23 11:52	1
Y Carrier	90.8		30 - 110	04/12/23 11:37	05/03/23 11:52	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW17
Date Collected: 04/04/23 14:23
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-8
Matrix: Water

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	0.178	U	0.305	0.306	5.00	0.468	pCi/L		05/04/23 16:36	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW18
Date Collected: 04/03/23 15:46
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-9
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.26		5.00	2.25	mg/L			04/12/23 21:39	5
Fluoride	0.534	B	0.500	0.220	mg/L			04/12/23 21:39	5
Sulfate	<2.00		5.00	2.00	mg/L			04/12/23 21:39	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		04/10/23 08:45	04/11/23 20:42	1
Arsenic	0.00141	J	0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:42	1
Barium	0.287		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:42	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:42	1
Boron	<0.0760		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:42	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:42	1
Calcium	92.9		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:42	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:42	1
Cobalt	0.000184	J	0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:42	1
Lead	0.000454	J	0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:42	1
Lithium	0.0240		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:42	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:42	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:42	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:58	04/12/23 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	368		50.0	34.0	mg/L			04/06/23 13:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.611		0.290	0.295	1.00	0.345	pCi/L	04/12/23 10:51	05/04/23 09:05	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		30 - 110	04/12/23 10:51	05/04/23 09:05	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	0.353	U	0.411	0.412	1.00	0.676	pCi/L	04/12/23 11:37	05/03/23 11:54	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		30 - 110	04/12/23 11:37	05/03/23 11:54	1
Y Carrier	86.4		30 - 110	04/12/23 11:37	05/03/23 11:54	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW18
Date Collected: 04/03/23 15:46
Date Received: 04/05/23 16:30

Lab Sample ID: 310-252797-9
Matrix: Water

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	0.963		0.503	0.507	5.00	0.676	pCi/L		05/04/23 16:36	1

Client Sample ID: MW19 — **Lab Sample ID: 310-252797-10**
Date Collected: 04/03/23 16:36 — **Matrix: Water**
Date Received: 04/05/23 16:30

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			04/12/23 21:55	5
Fluoride	0.509	B	0.500	0.220	mg/L			04/12/23 21:55	5
Sulfate	<2.00		5.00	2.00	mg/L			04/12/23 21:55	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		04/10/23 08:45	04/11/23 20:46	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:46	1
Barium	0.307		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:46	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:46	1
Boron	<0.0760		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:46	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:46	1
Calcium	111		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:46	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:46	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:46	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:46	1
Lithium	0.0356		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:46	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:46	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:46	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:58	04/12/23 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	398		50.0	34.0	mg/L			04/06/23 13:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.392		0.250	0.253	1.00	0.339	pCi/L	04/12/23 10:51	05/04/23 09:04	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110	04/12/23 10:51	05/04/23 09:04	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	0.407	U	0.434	0.435	1.00	0.704	pCi/L	04/12/23 11:37	05/03/23 11:54	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110	04/12/23 11:37	05/03/23 11:54	1
Y Carrier	80.7		30 - 110	04/12/23 11:37	05/03/23 11:54	1

Client Sample ID: MW19 — **Lab Sample ID: 310-252797-10**
Date Collected: 04/03/23 16:36 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	0.799		0.501	0.503	5.00	0.704	pCi/L		05/04/23 16:36	1

Client Sample ID: DUP1 — **Lab Sample ID: 310-252797-11**
Date Collected: 04/04/23 00:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.6		5.00	2.25	mg/L			04/12/23 22:41	5
Fluoride	0.528	B	0.500	0.220	mg/L			04/12/23 22:41	5
Sulfate	474		5.00	2.00	mg/L			04/12/23 22:41	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		04/10/23 08:45	04/11/23 20:49	1
Arsenic	0.211		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 20:49	1
Barium	0.112		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 20:49	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 20:49	1
Boron	1.05		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 20:49	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 20:49	1
Calcium	248		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 20:49	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 20:49	1
Cobalt	0.000500		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 20:49	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 20:49	1
Lithium	0.0410		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 20:49	1
Molybdenum	0.00113	J	0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 20:49	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 20:49	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 20:49	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:58	04/12/23 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1260		50.0	34.0	mg/L			04/07/23 14:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.250	U	0.246	0.247	1.00	0.385	pCi/L	04/12/23 10:51	05/04/23 09:04	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110	04/12/23 10:51	05/04/23 09:04	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	0.630	U	0.449	0.453	1.00	0.671	pCi/L	04/12/23 11:37	05/03/23 11:54	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110	04/12/23 11:37	05/03/23 11:54	1
Y Carrier	86.4		30 - 110	04/12/23 11:37	05/03/23 11:54	1

Client Sample ID: DUP1 — **Lab Sample ID: 310-252797-11**
Date Collected: 04/04/23 00:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

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	0.879		0.512	0.516	5.00	0.671	pCi/L		05/04/23 16:36	1

Definitions/Glossary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-384251/3
Matrix: Water
Analysis Batch: 384251

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			04/12/23 18:32	1
Fluoride	0.05900	J	0.100	0.0440	mg/L			04/12/23 18:32	1
Sulfate	<0.400		1.00	0.400	mg/L			04/12/23 18:32	1

Lab Sample ID: LCS 310-384251/4
Matrix: Water
Analysis Batch: 384251

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.04		mg/L		100	90 - 110
Fluoride	2.00	2.031		mg/L		102	90 - 110
Sulfate	10.0	10.30		mg/L		103	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-383656/1-A
Matrix: Water
Analysis Batch: 384068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/10/23 08:45	04/11/23 18:41	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/10/23 08:45	04/11/23 18:41	1
Barium	<0.000640		0.00200	0.000640	mg/L		04/10/23 08:45	04/11/23 18:41	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/10/23 08:45	04/11/23 18:41	1
Boron	<0.0760		0.100	0.0760	mg/L		04/10/23 08:45	04/11/23 18:41	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/10/23 08:45	04/11/23 18:41	1
Calcium	<0.190		0.500	0.190	mg/L		04/10/23 08:45	04/11/23 18:41	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/10/23 08:45	04/11/23 18:41	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/10/23 08:45	04/11/23 18:41	1
Lead	<0.000240		0.000500	0.000240	mg/L		04/10/23 08:45	04/11/23 18:41	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/10/23 08:45	04/11/23 18:41	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		04/10/23 08:45	04/11/23 18:41	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/10/23 08:45	04/11/23 18:41	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/10/23 08:45	04/11/23 18:41	1

Lab Sample ID: LCS 310-383656/2-A
Matrix: Water
Analysis Batch: 384068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1803		mg/L		90	80 - 120
Arsenic	0.200	0.1848		mg/L		92	80 - 120
Barium	0.100	0.09087		mg/L		91	80 - 120
Beryllium	0.100	0.09296		mg/L		93	80 - 120
Boron	0.200	0.1636		mg/L		82	80 - 120
Cadmium	0.100	0.08873		mg/L		89	80 - 120
Calcium	2.00	1.673		mg/L		84	80 - 120
Chromium	0.100	0.09390		mg/L		94	80 - 120
Cobalt	0.100	0.09216		mg/L		92	80 - 120

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

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

Lab Sample ID: LCS 310-383656/2-A
Matrix: Water
Analysis Batch: 384068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.1824		mg/L		91	80 - 120
Lithium	0.200	0.1877		mg/L		94	80 - 120
Molybdenum	0.200	0.1848		mg/L		92	80 - 120
Selenium	0.400	0.3472		mg/L		87	80 - 120
Thallium	0.200	0.1804		mg/L		90	80 - 120

Lab Sample ID: 310-252797-1 MS
Matrix: Water
Analysis Batch: 384068

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 383656

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00100		0.200	0.2106		mg/L		105	75 - 125
Arsenic	0.215		0.200	0.4288		mg/L		107	75 - 125
Barium	0.111		0.100	0.2134		mg/L		103	75 - 125
Beryllium	0.000356	J	0.100	0.1010		mg/L		101	75 - 125
Boron	1.09		0.200	1.282	4	mg/L		96	75 - 125
Cadmium	0.000132	J	0.100	0.09531		mg/L		95	75 - 125
Calcium	249		2.00	252.3	4	mg/L		169	75 - 125
Chromium	<0.00110		0.100	0.1028		mg/L		103	75 - 125
Cobalt	0.000626		0.100	0.1002		mg/L		100	75 - 125
Lead	0.000358	J	0.200	0.1946		mg/L		97	75 - 125
Lithium	0.0426		0.200	0.2376		mg/L		98	75 - 125
Molybdenum	0.00194	J	0.200	0.2063		mg/L		102	75 - 125
Selenium	0.00225	J	0.400	0.4025		mg/L		100	75 - 125
Thallium	0.00101		0.200	0.1916		mg/L		95	75 - 125

Lab Sample ID: 310-252797-1 MSD
Matrix: Water
Analysis Batch: 384068

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 383656

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00100		0.200	0.2196		mg/L		110	75 - 125	4	20
Arsenic	0.215		0.200	0.4301		mg/L		107	75 - 125	0	20
Barium	0.111		0.100	0.2123		mg/L		101	75 - 125	1	20
Beryllium	0.000356	J	0.100	0.1004		mg/L		100	75 - 125	1	20
Boron	1.09		0.200	1.305	4	mg/L		108	75 - 125	2	20
Cadmium	0.000132	J	0.100	0.09595		mg/L		96	75 - 125	1	20
Calcium	249		2.00	247.7	4	mg/L		-62	75 - 125	2	20
Chromium	<0.00110		0.100	0.1025		mg/L		103	75 - 125	0	20
Cobalt	0.000626		0.100	0.1000		mg/L		99	75 - 125	0	20
Lead	0.000358	J	0.200	0.1962		mg/L		98	75 - 125	1	20
Lithium	0.0426		0.200	0.2341		mg/L		96	75 - 125	1	20
Molybdenum	0.00194	J	0.200	0.2088		mg/L		103	75 - 125	1	20
Selenium	0.00225	J	0.400	0.4119		mg/L		102	75 - 125	2	20
Thallium	0.00101		0.200	0.1937		mg/L		96	75 - 125	1	20

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

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

Lab Sample ID: 310-252797-11 DU
Matrix: Water
Analysis Batch: 384068

Client Sample ID: DUP1
Prep Type: Total/NA
Prep Batch: 383656

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00100		<0.00100		mg/L		NC	20
Arsenic	0.211		0.2205		mg/L		4	20
Barium	0.112		0.1154		mg/L		3	20
Beryllium	<0.000330		<0.000330		mg/L		NC	20
Boron	1.05		1.087		mg/L		4	20
Cadmium	<0.000100		<0.000100		mg/L		NC	20
Calcium	248		257.0		mg/L		3	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.000500		0.0005130		mg/L		3	20
Lead	<0.000240		<0.000240		mg/L		NC	20
Lithium	0.0410		0.04200		mg/L		2	20
Molybdenum	0.00113	J	0.001167	J	mg/L		3	20
Selenium	<0.00140		<0.00140		mg/L		NC	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-383913/1-A
Matrix: Water
Analysis Batch: 384132

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:56	04/12/23 12:49	1

Lab Sample ID: LCS 310-383913/2-A
Matrix: Water
Analysis Batch: 384132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001542		mg/L		93	80 - 120

Lab Sample ID: MB 310-383914/1-A
Matrix: Water
Analysis Batch: 384132

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383914

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		04/11/23 10:58	04/12/23 13:53	1

Lab Sample ID: LCS 310-383914/2-A
Matrix: Water
Analysis Batch: 384132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383914

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001696		mg/L		102	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 310-252797-8 MS — Client Sample ID: MW17
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 384132 — Prep Batch: 383914

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000140		0.00167	0.001487		mg/L		89	80 - 120

Lab Sample ID: 310-252797-8 MSD — Client Sample ID: MW17
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 384132 — Prep Batch: 383914

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000140		0.00167	0.001473		mg/L		88	80 - 120	1	20

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

Lab Sample ID: MB 310-383468/1 — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 383468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34.0		50.0	34.0	mg/L			04/06/23 13:01	1

Lab Sample ID: LCS 310-383468/2 — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 383468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	974.0		mg/L		97	90 - 110

Lab Sample ID: MB 310-383636/1 — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 383636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34.0		50.0	34.0	mg/L			04/07/23 14:10	1

Lab Sample ID: LCS 310-383636/2 — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 383636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	946.0		mg/L		95	90 - 110

Lab Sample ID: 310-252797-3 DU — Client Sample ID: MW6
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 383636

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1140		1110		mg/L		3	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-607138/1-A — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 610056 — Prep Batch: 607138

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1059	U	0.146	0.146	1.00	0.246	pCi/L	04/12/23 10:51	05/04/23 09:00	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		30 - 110	04/12/23 10:51	05/04/23 09:00	1

Lab Sample ID: LCS 160-607138/2-A — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 610056 — Prep Batch: 607138

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.12		1.24	1.00	0.234	pCi/L	89	70 - 113

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.9		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-607140/1-A — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 609835 — Prep Batch: 607140

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.04305	U	0.279	0.279	1.00	0.518	pCi/L	04/12/23 11:37	05/03/23 11:49	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		30 - 110	04/12/23 11:37	05/03/23 11:49	1
Y Carrier	81.9		30 - 110	04/12/23 11:37	05/03/23 11:49	1

Lab Sample ID: LCS 160-607140/2-A — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 609835 — Prep Batch: 607140

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.99	9.290		1.25	1.00	0.495	pCi/L	116	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.9		30 - 110
Y Carrier	84.1		30 - 110

HPLC/IC

Analysis Batch: 384251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	9056A	
310-252797-2	MW5	Total/NA	Water	9056A	
310-252797-2	MW5	Total/NA	Water	9056A	
310-252797-3	MW6	Total/NA	Water	9056A	
310-252797-4	MW8	Total/NA	Water	9056A	
310-252797-4	MW8	Total/NA	Water	9056A	
310-252797-5	MW9	Total/NA	Water	9056A	
310-252797-6	MW13	Total/NA	Water	9056A	
310-252797-6	MW13	Total/NA	Water	9056A	
310-252797-7	MW15	Total/NA	Water	9056A	
310-252797-7	MW15	Total/NA	Water	9056A	
310-252797-8	MW17	Total/NA	Water	9056A	
310-252797-8	MW17	Total/NA	Water	9056A	
310-252797-9	MW18	Total/NA	Water	9056A	
310-252797-10	MW19	Total/NA	Water	9056A	
310-252797-11	DUP1	Total/NA	Water	9056A	
MB 310-384251/3	Method Blank	Total/NA	Water	9056A	
LCS 310-384251/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 383656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	3005A	
310-252797-2	MW5	Total/NA	Water	3005A	
310-252797-3	MW6	Total/NA	Water	3005A	
310-252797-4	MW8	Total/NA	Water	3005A	
310-252797-5	MW9	Total/NA	Water	3005A	
310-252797-6	MW13	Total/NA	Water	3005A	
310-252797-7	MW15	Total/NA	Water	3005A	
310-252797-8	MW17	Total/NA	Water	3005A	
310-252797-9	MW18	Total/NA	Water	3005A	
310-252797-10	MW19	Total/NA	Water	3005A	
310-252797-11	DUP1	Total/NA	Water	3005A	
MB 310-383656/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-383656/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-252797-1 MS	MW2	Total/NA	Water	3005A	
310-252797-1 MSD	MW2	Total/NA	Water	3005A	
310-252797-11 DU	DUP1	Total/NA	Water	3005A	

Prep Batch: 383913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	7470A	
310-252797-2	MW5	Total/NA	Water	7470A	
310-252797-3	MW6	Total/NA	Water	7470A	
310-252797-4	MW8	Total/NA	Water	7470A	
310-252797-5	MW9	Total/NA	Water	7470A	
310-252797-6	MW13	Total/NA	Water	7470A	
310-252797-7	MW15	Total/NA	Water	7470A	
MB 310-383913/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-383913/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals

Prep Batch: 383914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-8	MW17	Total/NA	Water	7470A	
310-252797-9	MW18	Total/NA	Water	7470A	
310-252797-10	MW19	Total/NA	Water	7470A	
310-252797-11	DUP1	Total/NA	Water	7470A	
MB 310-383914/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-383914/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-252797-8 MS	MW17	Total/NA	Water	7470A	
310-252797-8 MSD	MW17	Total/NA	Water	7470A	

Analysis Batch: 384068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	6020B	383656
310-252797-2	MW5	Total/NA	Water	6020B	383656
310-252797-3	MW6	Total/NA	Water	6020B	383656
310-252797-4	MW8	Total/NA	Water	6020B	383656
310-252797-5	MW9	Total/NA	Water	6020B	383656
310-252797-6	MW13	Total/NA	Water	6020B	383656
310-252797-7	MW15	Total/NA	Water	6020B	383656
310-252797-8	MW17	Total/NA	Water	6020B	383656
310-252797-9	MW18	Total/NA	Water	6020B	383656
310-252797-10	MW19	Total/NA	Water	6020B	383656
310-252797-11	DUP1	Total/NA	Water	6020B	383656
MB 310-383656/1-A	Method Blank	Total/NA	Water	6020B	383656
LCS 310-383656/2-A	Lab Control Sample	Total/NA	Water	6020B	383656
310-252797-1 MS	MW2	Total/NA	Water	6020B	383656
310-252797-1 MSD	MW2	Total/NA	Water	6020B	383656
310-252797-11 DU	DUP1	Total/NA	Water	6020B	383656

Analysis Batch: 384132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	7470A	383913
310-252797-2	MW5	Total/NA	Water	7470A	383913
310-252797-3	MW6	Total/NA	Water	7470A	383913
310-252797-4	MW8	Total/NA	Water	7470A	383913
310-252797-5	MW9	Total/NA	Water	7470A	383913
310-252797-6	MW13	Total/NA	Water	7470A	383913
310-252797-7	MW15	Total/NA	Water	7470A	383913
310-252797-8	MW17	Total/NA	Water	7470A	383914
310-252797-9	MW18	Total/NA	Water	7470A	383914
310-252797-10	MW19	Total/NA	Water	7470A	383914
310-252797-11	DUP1	Total/NA	Water	7470A	383914
MB 310-383913/1-A	Method Blank	Total/NA	Water	7470A	383913
MB 310-383914/1-A	Method Blank	Total/NA	Water	7470A	383914
LCS 310-383913/2-A	Lab Control Sample	Total/NA	Water	7470A	383913
LCS 310-383914/2-A	Lab Control Sample	Total/NA	Water	7470A	383914
310-252797-8 MS	MW17	Total/NA	Water	7470A	383914
310-252797-8 MSD	MW17	Total/NA	Water	7470A	383914

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

General Chemistry

Analysis Batch: 383468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-5	MW9	Total/NA	Water	SM 2540C	
310-252797-6	MW13	Total/NA	Water	SM 2540C	
310-252797-9	MW18	Total/NA	Water	SM 2540C	
310-252797-10	MW19	Total/NA	Water	SM 2540C	
MB 310-383468/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-383468/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 383636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	SM 2540C	
310-252797-2	MW5	Total/NA	Water	SM 2540C	
310-252797-3	MW6	Total/NA	Water	SM 2540C	
310-252797-4	MW8	Total/NA	Water	SM 2540C	
310-252797-7	MW15	Total/NA	Water	SM 2540C	
310-252797-8	MW17	Total/NA	Water	SM 2540C	
310-252797-11	DUP1	Total/NA	Water	SM 2540C	
MB 310-383636/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-383636/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-252797-3 DU	MW6	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 607138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	PrecSep-21	
310-252797-2	MW5	Total/NA	Water	PrecSep-21	
310-252797-3	MW6	Total/NA	Water	PrecSep-21	
310-252797-4	MW8	Total/NA	Water	PrecSep-21	
310-252797-5	MW9	Total/NA	Water	PrecSep-21	
310-252797-6	MW13	Total/NA	Water	PrecSep-21	
310-252797-7	MW15	Total/NA	Water	PrecSep-21	
310-252797-8	MW17	Total/NA	Water	PrecSep-21	
310-252797-9	MW18	Total/NA	Water	PrecSep-21	
310-252797-10	MW19	Total/NA	Water	PrecSep-21	
310-252797-11	DUP1	Total/NA	Water	PrecSep-21	
MB 160-607138/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-607138/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 607140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252797-1	MW2	Total/NA	Water	PrecSep_0	
310-252797-2	MW5	Total/NA	Water	PrecSep_0	
310-252797-3	MW6	Total/NA	Water	PrecSep_0	
310-252797-4	MW8	Total/NA	Water	PrecSep_0	
310-252797-5	MW9	Total/NA	Water	PrecSep_0	
310-252797-6	MW13	Total/NA	Water	PrecSep_0	
310-252797-7	MW15	Total/NA	Water	PrecSep_0	
310-252797-8	MW17	Total/NA	Water	PrecSep_0	
310-252797-9	MW18	Total/NA	Water	PrecSep_0	
310-252797-10	MW19	Total/NA	Water	PrecSep_0	
310-252797-11	DUP1	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Rad (Continued)

Prep Batch: 607140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-607140/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-607140/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW2 — **Lab Sample ID: 310-252797-1**
Date Collected: 04/04/23 08:52 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 19:34
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 18:58
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:34
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610056	FLC	EET SL	05/04/23 09:00
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609835	FLC	EET SL	05/03/23 11:50
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW5 — **Lab Sample ID: 310-252797-2**
Date Collected: 04/04/23 15:08 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 19:50
Total/NA	Analysis	9056A		20	384251	QTZ5	EET CF	04/13/23 09:20
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 19:09
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:36
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610056	FLC	EET SL	05/04/23 09:00
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609835	FLC	EET SL	05/03/23 11:50
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW6 — **Lab Sample ID: 310-252797-3**
Date Collected: 04/04/23 11:55 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 20:06
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 19:36
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:38
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610056	FLC	EET SL	05/04/23 09:01

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Client Sample ID: MW6 — **Lab Sample ID: 310-252797-3**
Date Collected: 04/04/23 11:55 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:51
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW8 — **Lab Sample ID: 310-252797-4**
Date Collected: 04/04/23 13:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 20:21
Total/NA	Analysis	9056A		20	384251	QTZ5	EET CF	04/13/23 09:36
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 19:48
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:40
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610056	FLC	EET SL	05/04/23 09:01
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:52
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW9 — **Lab Sample ID: 310-252797-5**
Date Collected: 04/03/23 17:26 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 20:37
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:02
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:42
Total/NA	Analysis	SM 2540C		1	383468	ENB7	EET CF	04/06/23 13:01
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:05
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:52
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW13 — **Lab Sample ID: 310-252797-6**
Date Collected: 04/03/23 18:38 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 20:52
Total/NA	Analysis	9056A		20	384251	QTZ5	EET CF	04/13/23 09:51
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:15
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:45
Total/NA	Analysis	SM 2540C		1	383468	ENB7	EET CF	04/06/23 13:01
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:05
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:52
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW15 — **Lab Sample ID: 310-252797-7**
Date Collected: 04/04/23 10:32 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 21:08
Total/NA	Analysis	9056A		20	384251	QTZ5	EET CF	04/13/23 10:07
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:28
Total/NA	Prep	7470A			383913	XXW3	EET CF	04/11/23 10:56
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:47
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:05
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:52
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW17 — **Lab Sample ID: 310-252797-8**
Date Collected: 04/04/23 14:23 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 21:23
Total/NA	Analysis	9056A		20	384251	QTZ5	EET CF	04/13/23 10:22
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:39
Total/NA	Prep	7470A			383914	XXW3	EET CF	04/11/23 10:58
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 13:57
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10

Client Sample ID: MW17 — **Lab Sample ID: 310-252797-8**
Date Collected: 04/04/23 14:23 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:05
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	609834	FLC	EET SL	05/03/23 11:52
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW18 — **Lab Sample ID: 310-252797-9**
Date Collected: 04/03/23 15:46 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 21:39
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:42
Total/NA	Prep	7470A			383914	XXW3	EET CF	04/11/23 10:58
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 14:04
Total/NA	Analysis	SM 2540C		1	383468	ENB7	EET CF	04/06/23 13:01
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:05
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	610009	FLC	EET SL	05/03/23 11:54
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: MW19 — **Lab Sample ID: 310-252797-10**
Date Collected: 04/03/23 16:36 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 21:55
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:46
Total/NA	Prep	7470A			383914	XXW3	EET CF	04/11/23 10:58
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 14:06
Total/NA	Analysis	SM 2540C		1	383468	ENB7	EET CF	04/06/23 13:01
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:04
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	610009	FLC	EET SL	05/03/23 11:54
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

Client Sample ID: DUP1 — **Lab Sample ID: 310-252797-11**
Date Collected: 04/04/23 00:00 — **Matrix: Water**
Date Received: 04/05/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	384251	QTZ5	EET CF	04/12/23 22:41
Total/NA	Prep	3005A			383656	DHM5	EET CF	04/10/23 08:45
Total/NA	Analysis	6020B		1	384068	ZRI4	EET CF	04/11/23 20:49
Total/NA	Prep	7470A			383914	XXW3	EET CF	04/11/23 10:58
Total/NA	Analysis	7470A		1	384132	XXW3	EET CF	04/12/23 14:08
Total/NA	Analysis	SM 2540C		1	383636	ENB7	EET CF	04/07/23 14:10
Total/NA	Prep	PrecSep-21			607138	KAC	EET SL	04/12/23 10:51
Total/NA	Analysis	9315		1	610057	FLC	EET SL	05/04/23 09:04
Total/NA	Prep	PrecSep_0			607140	KAC	EET SL	04/12/23 11:37
Total/NA	Analysis	9320		1	610009	FLC	EET SL	05/03/23 11:54
Total/NA	Analysis	Ra226_Ra228		1	610093	EMH	EET SL	05/04/23 16:36

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

Laboratory: Eurofins Cedar Falls
The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-23

Laboratory: Eurofins St. Louis
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	06-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

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

Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

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

eurofins | Environment Testing America

310-252797 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 4/5/23 TIME 1630 Received By: AM

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: W Correction Factor (°C): +0.2

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

Uncorrected Temp (°C): 1.7 Corrected Temp (°C): 1.9

• 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

MW2, MW6, MW17, MW18, MW19

Document: CED-P-SAM-FRM45521
Revision: 26
Date: 27 Jan 2022

Eurofins Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

eurofins | Environment Testing America

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 4/5/23 TIME 1630 Received By: AM

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: W Correction Factor (°C): +0.2

• 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): 0.6

• 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

Document: CED-P-SAM-FRM45521
Revision: 26
Date: 27 Jan 2022

Eurofins Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

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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TestAmerica Omaha SC 268

Client Information

Client Contact: Kyle Uhing
Company: Omaha Public Power District
Address: Attn: Accounts Payable, 4E/EP-5 444 South 16th Street Mall
City: Omaha
State, Zip: NE 68102-2247
Phone:
Email: kkuhing@oppd.com
Project Name: North Omaha Station
Site:

Sampler: Kyle K. Uhing
Phone:
PWSID:
Due Date Requested:
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: Contract #00241140
WO #: Release #00006
Project #: 31007560
SSOW#:

Lab PM: Thompson, Shirley J
E-Mail: Shirley.Thompson@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No.: 310-78928-14894.1
Page: Page 1 of 1
Job #:

Analysis Requested: Field Filtered Sample (Yes or No); Perform MS/MSD (Yes or No); 2540C_Calcd, 9056A_ORGFM_28D; 6020A, 7470A; 9315_Ra226, 9320_Ra228; Total Number of containers

Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other; M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix	2540C_Calcd, 9056A_ORGFM_28D (N)	6020A, 7470A (D)	9315_Ra226, 9320_Ra228 (D)	Special Instructions/Note
MW2	4/4/23	8:53	G	Water	X	X	X	
MW5	4/4/23	15:58	G	Water	X	X	X	
MW6	4/6/23	11:55	G	Water	X	X	X	
MW8	4/4/23	13:00	G	Water	X	X	X	
MW9	4/3/23	17:26	G	Water	X	X	X	
MW13	4/3/23	14:38	G	Water	X	X	X	
MW15	4/4/23	10:31	G	Water	X	X	X	
MW17	4/4/23	13:23	G	Water	X	X	X	
MW18	4/3/23	15:46	G	Water	X	X	X	
MW19	4/3/23	16:36	G	Water	X	X	X	
DUP1	4/4/23	—	G	Water	X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ___ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: 3-7-23 Time: 1060 Method of Shipment: Drop off

Relinquished by: [signature] Date/Time: 4/5/2023 1:30 Company: OPPD Received by: [signature] Date/Time: 4/5/23 0735 Company: ETA

Relinquished by: [signature] Date/Time: 4/5/23 0800 Company: ETA Received by: Date/Time: Company:

Relinquished by: Date/Time: Company: Received by: [signature] Date/Time: 4/5/23 1630 Company: Eurofins

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Chain of Custody Record

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Client Information (Sub Contract Lab)

Client Contact: Shipping/Receiving
Company: TestAmerica Laboratories, Inc.
Address: 13715 Rider Trail North,
City: Earth City
State, Zip: MO, 63045
Phone: 314-298-8566(Tel) 314-298-8757(Fax)
Project Name: North Omaha Station CCR
Project #: 31007560

Lab PM: Thompson, Shirley J
E-Mail: Shirley.Thompson@et.eurofinsus.com
Accreditations Required (See note): NELAP - Oregon
State of Origin: Nebraska
COC No: 310-59994.1
Page: Page 1 of 2
Job #: 310-252797-1
Due Date Requested: 4/18/2023

Analysis Requested: 9315_Ra226/PrecSep_21 Standard Target List; 9320_Ra228/PrecSep_0 Standard Target List; Ra226Ra228_GFPC

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Matrix	9315	9320	Ra226Ra228_GFPC	Total Number of containers
MW2 (310-252797-1)	4/4/23	08:52 Central	Water	X	X	X	2
MW5 (310-252797-2)	4/4/23	15:08 Central	Water	X	X	X	2
MW6 (310-252797-3)	4/4/23	11:55 Central	Water	X	X	X	2
MW8 (310-252797-4)	4/4/23	13:00 Central	Water	X	X	X	2
MW9 (310-252797-5)	4/3/23	17:26 Central	Water	X	X	X	2
MW13 (310-252797-6)	4/3/23	18:18 Central	Water	X	X	X	2
MW15 (310-252797-7)	4/4/23	10:12 Central	Water	X	X	X	2
MW17 (310-252797-8)	4/4/23	14:23 Central	Water	X	X	X	2
MW18 (310-252797-9)	4/3/23	15:46 Central	Water	X	X	X	2

Possible Hazard Identification: Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)
Primary Deliverable Rank: 2
Relinquished by: 4/6/23 1330
Received by: fedex
Received by: 4/7/23 0915

Chain of Custody Record

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Client Information (Sub Contract Lab)

Client Contact: Shipping/Receiving
Company: TestAmerica Laboratories, Inc.
Address: 13715 Rider Trail North,
City: Earth City
State, Zip: MO, 63045
Phone: 314-298-8566(Tel) 314-298-8757(Fax)
Project Name: North Omaha Station CCR
Project #: 31007560

Lab PM: Thompson, Shirley J
E-Mail: Shirley.Thompson@et.eurofinsus.com
Accreditations Required (See note): NELAP - Oregon
State of Origin: Nebraska
COC No: 310-59994.2
Page: Page 2 of 2
Job #: 310-252797-1
Due Date Requested: 4/18/2023

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Matrix	9315	9320	Total Number of containers
MW19 (310-252797-10)	4/3/23	15:36 Central	Water	X	X	2
DUP1 (310-252797-11)	4/4/23	Central	Water	X	X	2

Primary Deliverable Rank: 2
Relinquished by: 4/6/23 1330
Received by: fedex
Received by: 4/7/23 0915

Login Sample Receipt Checklist

Client: Omaha Public Power District
Job Number: 310-252797-2

Login Number: 252797
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.	N/A	
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: 310-252797-2

Login Number: 252797
List Number: 2
Creator: Sharkey-Gonzalez, Briana L
List Source: Eurofins St. Louis
List Creation: 04/07/23 02:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-252797-1

Method: 9315 - Radium-226 (GFPC)
Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
310-252797-1	MW2	92.7
310-252797-2	MW5	88.6
310-252797-3	MW6	92.4
310-252797-4	MW8	93.7
310-252797-5	MW9	73.4
310-252797-6	MW13	93.2
310-252797-7	MW15	100
310-252797-8	MW17	98.0
310-252797-9	MW18	90.6
310-252797-10	MW19	91.1
310-252797-11	DUP1	82.0
LCS 160-607138/2-A	Lab Control Sample	93.9
MB 160-607138/1-A	Method Blank	82.3

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)
Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-252797-1	MW2	92.7	85.2
310-252797-2	MW5	88.6	85.2
310-252797-3	MW6	92.4	81.1
310-252797-4	MW8	93.7	84.9
310-252797-5	MW9	73.4	81.5
310-252797-6	MW13	93.2	89.3
310-252797-7	MW15	100	84.9
310-252797-8	MW17	98.0	90.8
310-252797-9	MW18	90.6	86.4
310-252797-10	MW19	91.1	80.7
310-252797-11	DUP1	82.0	86.4
LCS 160-607140/2-A	Lab Control Sample	93.9	84.1
MB 160-607140/1-A	Method Blank	82.3	81.9

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 11/7/2023 2:11:16 PM Revision 1

JOB DESCRIPTION

North Omaha Station CCR
CCR Parameters (Q1 and Q3)

JOB NUMBER

310-266569-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Eurofins Cedar Falls

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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Revision 1

Authorized for release by
Tayler Sanderson, Project Manager I
Tayler.Sanderson@et.eurofinsus.com
(319)595-2017

Eurofins Cedar Falls is a laboratory within Eurofins Environment Testing North Central, LLC, a company within Eurofins Environment Testing Group of Companies

Table of Contents

Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Job ID: 310-266569-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-266569-1

REVISION

The report being provided is a revision of the original report sent on 11/6/2023. The report (revision 1) is being revised due to Client requested one report without iron results.

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 10/5/2023 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2°C, 1.4°C and 2.8°C

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW2 (310-266569-1), MW5 (310-266569-2), MW6 (310-266569-3), MW8 (310-266569-4), MW9 (310-266569-5), MW13 (310-266569-6), MW15 (310-266569-7), MW17 (310-266569-8), MW18 (310-266569-9), MW19 (310-266569-10) and DUP-1 (310-266569-11). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The continuing calibration verification (CCV) associated with batch 310-402757 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 7470A: The following samples were analyzed outside of analytical holding time due to a lab organizational error: MW2 (310-266569-1), MW5 (310-266569-2), MW6 (310-266569-3), MW8 (310-266569-4), MW9 (310-266569-5), MW13 (310-266569-6), MW15 (310-266569-7), MW17 (310-266569-8), MW18 (310-266569-9), MW19 (310-266569-10) and DUP-1 (310-266569-11).

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.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 batch 631364
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
MW2 (310-266569-1), MW5 (310-266569-2), MW6 (310-266569-3), MW8 (310-266569-4), MW9 (310-266569-5), MW13 (310-266569-6), MW15 (310-266569-7), MW17 (310-266569-8), MW18 (310-266569-9), MW19 (310-266569-10), DUP-1 (310-266569-11), (LCS 160-631364/2-A), (MB 160-631364/1-A) and (310-266569-D-8-B DU)

Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Job ID: 310-266569-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

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
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-266569-1	MW2	Ground Water	10/04/23 09:38	10/05/23 16:50
310-266569-2	MW5	Ground Water	10/04/23 14:54	10/05/23 16:50
310-266569-3	MW6	Ground Water	10/04/23 11:36	10/05/23 16:50
310-266569-4	MW8	Ground Water	10/04/23 12:34	10/05/23 16:50
310-266569-5	MW9	Ground Water	10/03/23 19:31	10/05/23 16:50
310-266569-6	MW13	Ground Water	10/04/23 08:23	10/05/23 16:50
310-266569-7	MW15	Ground Water	10/04/23 10:40	10/05/23 16:50
310-266569-8	MW17	Ground Water	10/04/23 13:41	10/05/23 16:50
310-266569-9	MW18	Ground Water	10/03/23 17:58	10/05/23 16:50
310-266569-10	MW19	Ground Water	10/03/23 18:43	10/05/23 16:50
310-266569-11	DUP-1	Ground Water	10/03/23 00:00	10/05/23 16:50

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW2 — Lab Sample ID: 310-266569-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	40.2		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	302		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.237		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.104		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.590		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	193		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000350	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0440		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00188	J	0.00200	0.000910	mg/L	1		6020B	Total/NA
Thallium	0.00278	F1	0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1090		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW5 — Lab Sample ID: 310-266569-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37.6		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	943		100	42.0	mg/L	100		9056A	Total/NA
Arsenic	0.0573		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0546		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.504		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000161	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	335		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000446	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0694		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00221		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00171	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00417		0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1870		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW6 — Lab Sample ID: 310-266569-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	345		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	278		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0115		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.136		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.663		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000144	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	304		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00552		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0507		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0603		0.00200	0.000910	mg/L	1		6020B	Total/NA
Thallium	0.000524	J	0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1380		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW8 — Lab Sample ID: 310-266569-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.8		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	588		100	42.0	mg/L	100		9056A	Total/NA
Arsenic	0.0116		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0791		0.00200	0.000640	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW8 (Continued)

Lab Sample ID: 310-266569-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.71		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	155		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000717		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0147		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0903		0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1050		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW9

Lab Sample ID: 310-266569-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	166		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	31.6		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00285		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.550		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.0993	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000111	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	155		0.500	0.190	mg/L	1		6020B	Total/NA
Chromium	0.00113	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Cobalt	0.00112		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00229		0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0536		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00100	J	0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	768		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13

Lab Sample ID: 310-266569-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.16		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	880		100	42.0	mg/L	100		9056A	Total/NA
Arsenic	0.0224		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0541		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	1.73		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000604		0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	182		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000456	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0390		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	1.08		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.00807		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1610		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15

Lab Sample ID: 310-266569-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.4		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	564		100	42.0	mg/L	100		9056A	Total/NA
Antimony	0.00159	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.00229		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0454		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	3.41		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000155	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	222		0.500	0.190	mg/L	1		6020B	Total/NA
Chromium	0.00167	J	0.00500	0.00110	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-266569-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0142		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.267		0.00200	0.000910	mg/L	1		6020B	Total/NA
Selenium	0.0623		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1030		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-266569-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	41.5		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	865		100	42.0	mg/L	100		9056A	Total/NA
Arsenic	0.0257		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0385		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.720		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	356		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.0119		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.119		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00472		0.00200	0.000910	mg/L	1		6020B	Total/NA
Total Dissolved Solids	2200		250	170	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-266569-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.70	J	5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.00143	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.256		0.00200	0.000640	mg/L	1		6020B	Total/NA
Calcium	92.5		0.500	0.190	mg/L	1		6020B	Total/NA
Lead	0.000243	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Lithium	0.0279		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	402		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-266569-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23.7		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	43.2		5.00	2.10	mg/L	5		9056A	Total/NA
Barium	0.461		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.0931	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	113		0.500	0.190	mg/L	1		6020B	Total/NA
Lithium	0.0385		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	502		50.0	34.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 310-266569-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	41.4		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	865		100	42.0	mg/L	100		9056A	Total/NA
Arsenic	0.0234		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0381		0.00200	0.000640	mg/L	1		6020B	Total/NA
Boron	0.707		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	352		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.0117		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.116		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00191	J	0.00200	0.000910	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 310-266569-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1920		50.0	34.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW2

Lab Sample ID: 310-266569-1

Date Collected: 10/04/23 09:38
Matrix: Ground Water
Date Received: 10/05/23 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.2		5.00	2.25	mg/L			10/13/23 22:24	5
Fluoride	<0.375		1.00	0.375	mg/L			10/13/23 22:24	5
Sulfate	302		5.00	2.10	mg/L			10/13/23 22:24	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		10/09/23 11:00	10/16/23 17:46	1
Arsenic	0.237		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 17:46	1
Barium	0.104		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 17:46	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 17:46	1
Boron	0.590		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 17:46	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 17:46	1
Calcium	193		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 17:46	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 17:46	1
Cobalt	0.000350	J	0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 17:46	1
Lead	<0.000240		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 16:23	1
Lithium	0.0440		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 17:46	1
Molybdenum	0.00188	J	0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 16:23	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 17:46	1
Thallium	0.00278	F1	0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 17:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1090		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.184		0.116	0.117	1.00	0.148	pCi/L	10/10/23 12:16	11/01/23 13:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	91.4		30 - 110	10/10/23 12:16	11/01/23 13:24	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	1.29		0.549	0.562	1.00	0.730	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	91.4		30 - 110	10/10/23 12:19	10/27/23 10:26	1
Y Carrier	83.7		30 - 110	10/10/23 12:19	10/27/23 10:26	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW2 — **Lab Sample ID: 310-266569-1**
Date Collected: 10/04/23 09:38 — **Matrix: Ground Water**
Date Received: 10/05/23 16:50

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	1.47		0.561	0.574	5.00	0.730	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW5 — **Lab Sample ID: 310-266569-2**
Date Collected: 10/04/23 14:54 — **Matrix: Ground Water**
Date Received: 10/05/23 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.6		5.00	2.25	mg/L			10/13/23 23:01	5
Fluoride	<0.375		1.00	0.375	mg/L			10/13/23 23:01	5
Sulfate	943		100	42.0	mg/L			10/13/23 23:13	100

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		10/09/23 11:00	10/16/23 17:53	1
Arsenic	0.0573		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 17:53	1
Barium	0.0546		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 17:53	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 17:53	1
Boron	0.504		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 17:53	1
Cadmium	0.000161	J	0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 17:53	1
Calcium	335		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 17:53	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 17:53	1
Cobalt	0.000446	J	0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 17:53	1
Lead	<0.000240		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 17:29	1
Lithium	0.0694		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 17:53	1
Molybdenum	0.00221		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:29	1
Selenium	0.00171	J	0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 17:53	1
Thallium	0.00417		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 17:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1870		250	170	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.154		0.109	0.110	1.00	0.147	pCi/L	10/10/23 12:16	11/01/23 13:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	90.2		30 - 110	10/10/23 12:16	11/01/23 13:24	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	1.44		0.532	0.549	1.00	0.641	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	90.2		30 - 110	10/10/23 12:19	10/27/23 10:26	1
Y Carrier	82.6		30 - 110	10/10/23 12:19	10/27/23 10:26	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW5 — **Lab Sample ID: 310-266569-2**
Date Collected: 10/04/23 14:54 — **Matrix: Ground Water**
Date Received: 10/05/23 16:50

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	1.59		0.543	0.560	5.00	0.641	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW6 — **Lab Sample ID: 310-266569-3**
Date Collected: 10/04/23 11:36 — **Matrix: Ground Water**
Date Received: 10/05/23 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	345		5.00	2.25	mg/L			10/13/23 23:25	5
Fluoride	<0.375		1.00	0.375	mg/L			10/13/23 23:25	5
Sulfate	278		5.00	2.10	mg/L			10/13/23 23:25	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		10/09/23 11:00	10/16/23 17:55	1
Arsenic	0.0115		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 17:55	1
Barium	0.136		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 17:55	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 17:55	1
Boron	0.663		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 17:55	1
Cadmium	0.000144	J	0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 17:55	1
Calcium	304		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 17:55	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 17:55	1
Cobalt	0.00552		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 17:55	1
Lead	<0.000240		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 17:32	1
Lithium	0.0507		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 17:55	1
Molybdenum	0.0603		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:32	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 17:55	1
Thallium	0.000524	J	0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 17:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1380		50.0	34.0	mg/L			10/06/23 13:53	1

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		0.113	0.114	1.00	0.153	pCi/L	10/10/23 12:16	11/01/23 13:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	100		30 - 110	10/10/23 12:16	11/01/23 13:24	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	1.03		0.473	0.482	1.00	0.642	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	100		30 - 110	10/10/23 12:19	10/27/23 10:26	1
Y Carrier	84.1		30 - 110	10/10/23 12:19	10/27/23 10:26	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW6
Date Collected: 10/04/23 11:36
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-3
Matrix: Ground Water

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	1.20		0.486	0.495	5.00	0.642	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW8
Date Collected: 10/04/23 12:34
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-4
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.8		5.00	2.25	mg/L			10/13/23 23:37	5
Fluoride	<0.375		1.00	0.375	mg/L			10/13/23 23:37	5
Sulfate	588		100	42.0	mg/L			10/13/23 23:49	100

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		10/09/23 11:00	10/16/23 17:58	1
Arsenic	0.0116		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 17:58	1
Barium	0.0791		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 17:58	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 17:58	1
Boron	2.71		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 17:58	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 17:58	1
Calcium	155		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 17:58	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 17:58	1
Cobalt	0.000717		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 17:58	1
Lead	<0.000240	^+	0.000500	0.000240	mg/L		10/09/23 11:00	10/16/23 17:58	1
Lithium	0.0147		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 17:58	1
Molybdenum	0.0903		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:35	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 17:58	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 17:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1050		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0829	0.0835	1.00	0.117	pCi/L	10/10/23 12:16	11/01/23 13:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*10/10/23 12:16*	*11/01/23 13:24*	*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	0.824		0.363	0.371	1.00	0.475	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*
Y Carrier	*86.4*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW8
Date Collected: 10/04/23 12:34
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-4
Matrix: Ground Water

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	0.933		0.372	0.380	5.00	0.475	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW9
Date Collected: 10/03/23 19:31
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-5
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	166		5.00	2.25	mg/L			10/14/23 00:01	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 00:01	5
Sulfate	31.6		5.00	2.10	mg/L			10/14/23 00:01	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		10/09/23 11:00	10/16/23 18:00	1
Arsenic	0.00285		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:00	1
Barium	0.550		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:00	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:00	1
Boron	0.0993	J	0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:00	1
Cadmium	0.000111	J	0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:00	1
Calcium	155		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:00	1
Chromium	0.00113	J	0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:00	1
Cobalt	0.00112		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:00	1
Lead	0.00229		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 17:39	1
Lithium	0.0536		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:00	1
Molybdenum	0.00100	J	0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:39	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:00	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	768		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.574		0.227	0.233	1.00	0.220	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*10/10/23 12:16*	*11/01/23 13:25*	*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	1.70		0.717	0.734	1.00	0.904	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*
Y Carrier	*81.9*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW9
Date Collected: 10/03/23 19:31
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-5
Matrix: Ground Water

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	2.27		0.752	0.770	5.00	0.904	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW13
Date Collected: 10/04/23 08:23
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-6
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.16		5.00	2.25	mg/L			10/14/23 00:13	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 00:13	5
Sulfate	880		100	42.0	mg/L			10/14/23 00:25	100

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		10/09/23 11:00	10/16/23 18:02	1
Arsenic	0.0224		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:02	1
Barium	0.0541		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:02	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:02	1
Boron	1.73		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:02	1
Cadmium	0.000604		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:02	1
Calcium	182		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:02	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:02	1
Cobalt	0.000456	J	0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:02	1
Lead	<0.000240	^+	0.000500	0.000240	mg/L		10/09/23 11:00	10/16/23 18:02	1
Lithium	0.0390		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:02	1
Molybdenum	1.08		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:42	1
Selenium	0.00807		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:02	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1610		250	170	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106		0.0777	0.0783	1.00	0.102	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/10/23 12:16*	*11/01/23 13:25*	*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	0.225	U	0.297	0.298	1.00	0.496	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*
Y Carrier	*84.5*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW13
Date Collected: 10/04/23 08:23
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-6
Matrix: Ground Water

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	0.331	U	0.307	0.308	5.00	0.496	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW15
Date Collected: 10/04/23 10:40
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-7
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.4		5.00	2.25	mg/L			10/14/23 00:37	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 00:37	5
Sulfate	564		100	42.0	mg/L			10/14/23 00:49	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00159	J	0.00200	0.00100	mg/L		10/09/23 11:00	10/16/23 18:18	1
Arsenic	0.00229		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:18	1
Barium	0.0454		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:18	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:18	1
Boron	3.41		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:18	1
Cadmium	0.000155	J	0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:18	1
Calcium	222		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:18	1
Chromium	0.00167	J	0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:18	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:18	1
Lead	<0.000240	^+	0.000500	0.000240	mg/L		10/09/23 11:00	10/16/23 18:18	1
Lithium	0.0142		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:18	1
Molybdenum	0.267		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:48	1
Selenium	0.0623		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:18	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1030		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0608	U	0.0722	0.0724	1.00	0.117	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.9*		*30 - 110*	*10/10/23 12:16*	*11/01/23 13:25*	*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	0.922		0.371	0.381	1.00	0.460	pCi/L	10/10/23 12:19	10/27/23 10:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.9*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*
Y Carrier	*83.0*		*30 - 110*	*10/10/23 12:19*	*10/27/23 10:26*	*1*

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW15
Date Collected: 10/04/23 10:40
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-7
Matrix: Ground Water

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	0.983		0.378	0.388	5.00	0.460	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW17
Date Collected: 10/04/23 13:41
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-8
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.5		5.00	2.25	mg/L			10/14/23 01:26	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 01:26	5
Sulfate	865		100	42.0	mg/L			10/14/23 01:38	100

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		10/09/23 11:00	10/16/23 18:21	1
Arsenic	0.0257		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:21	1
Barium	0.0385		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:21	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:21	1
Boron	0.720		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:21	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:21	1
Calcium	356		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:21	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:21	1
Cobalt	0.0119		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:21	1
Lead	<0.000240	^+	0.000500	0.000240	mg/L		10/09/23 11:00	10/16/23 18:21	1
Lithium	0.119		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:21	1
Molybdenum	0.00472		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:51	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:21	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2200		250	170	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.140		0.0944	0.0952	1.00	0.130	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	95.6		30 - 110	10/10/23 12:16	11/01/23 13:25	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	1.14		0.402	0.416	1.00	0.491	pCi/L	10/10/23 12:19	10/27/23 10:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	95.6		30 - 110	10/10/23 12:19	10/27/23 10:27	1
Y Carrier	84.5		30 - 110	10/10/23 12:19	10/27/23 10:27	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW17
Date Collected: 10/04/23 13:41
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-8
Matrix: Ground Water

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		0.413	0.427	5.00	0.491	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW18
Date Collected: 10/03/23 17:58
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-9
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.70	J	5.00	2.25	mg/L			10/14/23 01:50	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 01:50	5
Sulfate	<2.10		5.00	2.10	mg/L			10/14/23 01:50	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		10/09/23 11:00	10/16/23 18:23	1
Arsenic	0.00143	J	0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:23	1
Barium	0.256		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:23	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:23	1
Boron	<0.0760		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:23	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:23	1
Calcium	92.5		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:23	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:23	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:23	1
Lead	0.000243	J	0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 17:55	1
Lithium	0.0279		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:23	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:55	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:23	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	402		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.346		0.143	0.146	1.00	0.143	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	96.8		30 - 110	10/10/23 12:16	11/01/23 13:25	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	1.22		0.601	0.612	1.00	0.861	pCi/L	10/10/23 12:19	10/27/23 10:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	96.8		30 - 110	10/10/23 12:19	10/27/23 10:27	1
Y Carrier	78.9		30 - 110	10/10/23 12:19	10/27/23 10:27	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW18
Date Collected: 10/03/23 17:58
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-9
Matrix: Ground Water

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	1.57		0.618	0.629	5.00	0.861	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW19
Date Collected: 10/03/23 18:43
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-10
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.7		5.00	2.25	mg/L			10/14/23 02:02	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 02:02	5
Sulfate	43.2		5.00	2.10	mg/L			10/14/23 02:02	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		10/09/23 11:00	10/16/23 18:25	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:25	1
Barium	0.461		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:25	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:25	1
Boron	0.0931	J	0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:25	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:25	1
Calcium	113		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:25	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:25	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:25	1
Lead	<0.000240		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 17:58	1
Lithium	0.0385		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:25	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 17:58	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:25	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	502		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.774		0.213	0.224	1.00	0.175	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	91.0		30 - 110	10/10/23 12:16	11/01/23 13:25	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	0.863		0.557	0.563	1.00	0.832	pCi/L	10/10/23 12:19	10/27/23 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	91.0		30 - 110	10/10/23 12:19	10/27/23 10:29	1
Y Carrier	74.4		30 - 110	10/10/23 12:19	10/27/23 10:29	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW19
Date Collected: 10/03/23 18:43
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-10
Matrix: Ground Water

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	1.64		0.596	0.606	5.00	0.832	pCi/L		11/06/23 15:47	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: DUP-1
Date Collected: 10/03/23 00:00
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-11
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.4		5.00	2.25	mg/L			10/14/23 02:14	5
Fluoride	<0.375		1.00	0.375	mg/L			10/14/23 02:14	5
Sulfate	865		100	42.0	mg/L			10/14/23 02:26	100

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		10/09/23 11:00	10/16/23 18:27	1
Arsenic	0.0234		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 18:27	1
Barium	0.0381		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 18:27	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 18:27	1
Boron	0.707		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 18:27	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 18:27	1
Calcium	352		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 18:27	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 18:27	1
Cobalt	0.0117		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 18:27	1
Lead	<0.000240	^+	0.000500	0.000240	mg/L		10/09/23 11:00	10/16/23 18:27	1
Lithium	0.116		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 18:27	1
Molybdenum	0.00191	J	0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 16:55	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 18:27	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 18:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140	H	0.000200	0.000140	mg/L		11/03/23 11:33	11/06/23 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1920		50.0	34.0	mg/L			10/06/23 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130		0.0857	0.0865	1.00	0.113	pCi/L	10/10/23 12:16	11/01/23 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	95.6		30 - 110	10/10/23 12:16	11/01/23 13:25	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	0.515	U	0.352	0.355	1.00	0.531	pCi/L	10/10/23 12:19	10/27/23 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	95.6		30 - 110	10/10/23 12:19	10/27/23 10:29	1
Y Carrier	81.1		30 - 110	10/10/23 12:19	10/27/23 10:29	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: DUP-1
Date Collected: 10/03/23 00:00
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-11
Matrix: Ground Water

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		0.362	0.365	5.00	0.531	pCi/L		11/06/23 15:47	1

Definitions/Glossary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-402633/3
Matrix: Water
Analysis Batch: 402633

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			10/13/23 18:35	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/13/23 18:35	1
Sulfate	<0.420		1.00	0.420	mg/L			10/13/23 18:35	1

Lab Sample ID: LCS 310-402633/4
Matrix: Water
Analysis Batch: 402633

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	9.691		mg/L		97	90 - 110
Fluoride	2.00	2.034		mg/L		102	90 - 110
Sulfate	10.0	9.900		mg/L		99	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-401805/1-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/09/23 11:00	10/16/23 17:42	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/09/23 11:00	10/16/23 17:42	1
Barium	<0.000640		0.00200	0.000640	mg/L		10/09/23 11:00	10/16/23 17:42	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/09/23 11:00	10/16/23 17:42	1
Boron	<0.0760		0.100	0.0760	mg/L		10/09/23 11:00	10/16/23 17:42	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/09/23 11:00	10/16/23 17:42	1
Calcium	<0.190		0.500	0.190	mg/L		10/09/23 11:00	10/16/23 17:42	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/09/23 11:00	10/16/23 17:42	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/09/23 11:00	10/16/23 17:42	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/09/23 11:00	10/16/23 17:42	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/09/23 11:00	10/16/23 17:42	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/09/23 11:00	10/16/23 17:42	1

Lab Sample ID: MB 310-401805/1-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.000240		0.000500	0.000240	mg/L		10/09/23 11:00	10/17/23 16:16	1
Molybdenum	<0.000910		0.00200	0.000910	mg/L		10/09/23 11:00	10/17/23 16:16	1

Lab Sample ID: LCS 310-401805/2-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2284		mg/L		114	80 - 120
Arsenic	0.200	0.2081		mg/L		104	80 - 120
Barium	0.100	0.09206		mg/L		92	80 - 120
Beryllium	0.100	0.09797		mg/L		98	80 - 120

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

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

Lab Sample ID: LCS 310-401805/2-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2056		mg/L		103	80 - 120
Cadmium	0.100	0.09978		mg/L		100	80 - 120
Calcium	2.00	1.819		mg/L		91	80 - 120
Chromium	0.100	0.1090		mg/L		109	80 - 120
Cobalt	0.100	0.1149		mg/L		115	80 - 120
Iron	0.200	0.2274		mg/L		114	80 - 120
Lithium	0.200	0.2172		mg/L		109	80 - 120
Selenium	0.400	0.4044		mg/L		101	80 - 120
Thallium	0.200	0.1644		mg/L		82	80 - 120

Lab Sample ID: LCS 310-401805/2-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.1991		mg/L		100	80 - 120
Molybdenum	0.200	0.1868		mg/L		93	80 - 120

Lab Sample ID: 310-266569-1 MS
Matrix: Ground Water
Analysis Batch: 402757

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 401805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00100		0.200	0.2438		mg/L		122	75 - 125
Arsenic	0.237		0.200	0.4452		mg/L		104	75 - 125
Barium	0.104		0.100	0.1932		mg/L		89	75 - 125
Beryllium	<0.000330		0.100	0.09672		mg/L		97	75 - 125
Boron	0.590		0.200	0.8050		mg/L		107	75 - 125
Cadmium	<0.000100		0.100	0.09810		mg/L		98	75 - 125
Calcium	193		2.00	199.9	4	mg/L		348	75 - 125
Chromium	<0.00110		0.100	0.09757		mg/L		98	75 - 125
Cobalt	0.000350	J	0.100	0.1023		mg/L		102	75 - 125
Iron	24.8		0.200	25.23	4	mg/L		222	75 - 125
Lithium	0.0440		0.200	0.2524		mg/L		104	75 - 125
Selenium	<0.00140		0.400	0.3968		mg/L		99	75 - 125
Thallium	0.00278	F1	0.200	0.1474	F1	mg/L		72	75 - 125

Lab Sample ID: 310-266569-1 MSD
Matrix: Ground Water
Analysis Batch: 402757

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 401805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00100		0.200	0.2440		mg/L		122	75 - 125	0	20
Arsenic	0.237		0.200	0.4447		mg/L		104	75 - 125	0	20
Barium	0.104		0.100	0.1955		mg/L		91	75 - 125	1	20
Beryllium	<0.000330		0.100	0.09495		mg/L		95	75 - 125	2	20
Boron	0.590		0.200	0.8192		mg/L		114	75 - 125	2	20
Cadmium	<0.000100		0.100	0.09705		mg/L		97	75 - 125	1	20
Calcium	193		2.00	201.4	4	mg/L		425	75 - 125	1	20

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

Lab Sample ID: 310-266569-1 MSD — **Client Sample ID: MW2**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 402757 — **Prep Batch: 401805**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	<0.00110		0.100	0.09109		mg/L		91	75 - 125	7	20
Cobalt	0.000350	J	0.100	0.1002		mg/L		100	75 - 125	2	20
Iron	24.8		0.200	25.54	4	mg/L		375	75 - 125	1	20
Lithium	0.0440		0.200	0.2493		mg/L		103	75 - 125	1	20
Selenium	<0.00140		0.400	0.3914		mg/L		98	75 - 125	1	20
Thallium	0.00278	F1	0.200	0.1511	F1	mg/L		74	75 - 125	3	20

Lab Sample ID: 310-266569-11 DU — **Client Sample ID: DUP-1**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 402757 — **Prep Batch: 401805**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00100		<0.00100		mg/L		NC	20
Arsenic	0.0234		0.02314		mg/L		1	20
Barium	0.0381		0.03749		mg/L		2	20
Beryllium	<0.000330		<0.000330		mg/L		NC	20
Boron	0.707		0.6919		mg/L		2	20
Cadmium	<0.000100		<0.000100		mg/L		NC	20
Calcium	352		354.0		mg/L		0.6	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.0117		0.01161		mg/L		1	20
Lead	<0.000240	^+	<0.000240	^+	mg/L		NC	20
Lithium	0.116		0.1170		mg/L		0.7	20
Selenium	<0.00140		<0.00140		mg/L		NC	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

Lab Sample ID: 310-266569-11 DU — **Client Sample ID: DUP-1**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 402882 — **Prep Batch: 401805**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Molybdenum	0.00191	J	0.001751	J	mg/L		9	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-404813/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 405028 — **Prep Batch: 404813**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000140		0.000200	0.000140	mg/L		11/03/23 11:32	11/06/23 10:26	1

Lab Sample ID: LCS 310-404813/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 405028 — **Prep Batch: 404813**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001730		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 310-266569-2 MS — **Client Sample ID: MW5**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 405028 — **Prep Batch: 404813**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000140	H	0.00167	0.001703		mg/L		102	80 - 120

Lab Sample ID: 310-266569-2 MSD — **Client Sample ID: MW5**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 405028 — **Prep Batch: 404813**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000140	H	0.00167	0.001685		mg/L		101	80 - 120	1	20

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

Lab Sample ID: MB 310-401780/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 401780

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34.0		50.0	34.0	mg/L			10/06/23 13:53	1

Lab Sample ID: LCS 310-401780/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 401780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	990.0		mg/L		99	90 - 110

Lab Sample ID: 310-266569-2 DU — **Client Sample ID: MW5**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 401780

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1870		1990		mg/L		6	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-631363/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 634604 — **Prep Batch: 631363**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04256	U	0.0370	0.0372	1.00	0.112	pCi/L	10/10/23 12:16	11/01/23 13:22	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110	10/10/23 12:16	11/01/23 13:22	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-631363/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 635024 — **Prep Batch: 631363**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.92		1.13	1.00	0.0921	pCi/L	96	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.5		30 - 110

Lab Sample ID: 310-266569-8 DU — **Client Sample ID: MW17**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 634604 — **Prep Batch: 631363**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.140		0.05756	U	0.0646	1.00	0.102	pCi/L	0.51	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.6		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-631364/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 633752 — **Prep Batch: 631364**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8914		0.362	0.371	1.00	0.461	pCi/L	10/10/23 12:19	10/27/23 10:25	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110	10/10/23 12:19	10/27/23 10:25	1
Y Carrier	82.2		30 - 110	10/10/23 12:19	10/27/23 10:25	1

Lab Sample ID: LCS 160-631364/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 633752 — **Prep Batch: 631364**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.77	8.552		1.17	1.00	0.477	pCi/L	110	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.5		30 - 110
Y Carrier	83.7		30 - 110

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

Lab Sample ID: 310-266569-8 DU — **Client Sample ID: MW17**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 633905 — **Prep Batch: 631364**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	1.14		1.442		0.465	1.00	0.487	pCi/L	0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.6		30 - 110
Y Carrier	73.3		30 - 110

HPLC/IC

Analysis Batch: 402633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	9056A	
310-266569-2	MW5	Total/NA	Ground Water	9056A	
310-266569-2	MW5	Total/NA	Ground Water	9056A	
310-266569-3	MW6	Total/NA	Ground Water	9056A	
310-266569-4	MW8	Total/NA	Ground Water	9056A	
310-266569-4	MW8	Total/NA	Ground Water	9056A	
310-266569-5	MW9	Total/NA	Ground Water	9056A	
310-266569-6	MW13	Total/NA	Ground Water	9056A	
310-266569-6	MW13	Total/NA	Ground Water	9056A	
310-266569-7	MW15	Total/NA	Ground Water	9056A	
310-266569-7	MW15	Total/NA	Ground Water	9056A	
310-266569-8	MW17	Total/NA	Ground Water	9056A	
310-266569-8	MW17	Total/NA	Ground Water	9056A	
310-266569-9	MW18	Total/NA	Ground Water	9056A	
310-266569-10	MW19	Total/NA	Ground Water	9056A	
310-266569-11	DUP-1	Total/NA	Ground Water	9056A	
310-266569-11	DUP-1	Total/NA	Ground Water	9056A	
MB 310-402633/3	Method Blank	Total/NA	Water	9056A	
LCS 310-402633/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 401805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	3005A	
310-266569-2	MW5	Total/NA	Ground Water	3005A	
310-266569-3	MW6	Total/NA	Ground Water	3005A	
310-266569-4	MW8	Total/NA	Ground Water	3005A	
310-266569-5	MW9	Total/NA	Ground Water	3005A	
310-266569-6	MW13	Total/NA	Ground Water	3005A	
310-266569-7	MW15	Total/NA	Ground Water	3005A	
310-266569-8	MW17	Total/NA	Ground Water	3005A	
310-266569-9	MW18	Total/NA	Ground Water	3005A	
310-266569-10	MW19	Total/NA	Ground Water	3005A	
310-266569-11	DUP-1	Total/NA	Ground Water	3005A	
MB 310-401805/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-401805/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-266569-1 MS	MW2	Total/NA	Ground Water	3005A	
310-266569-1 MSD	MW2	Total/NA	Ground Water	3005A	
310-266569-11 DU	DUP-1	Total/NA	Ground Water	3005A	

Analysis Batch: 402757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	6020B	401805
310-266569-2	MW5	Total/NA	Ground Water	6020B	401805
310-266569-3	MW6	Total/NA	Ground Water	6020B	401805
310-266569-4	MW8	Total/NA	Ground Water	6020B	401805
310-266569-5	MW9	Total/NA	Ground Water	6020B	401805
310-266569-6	MW13	Total/NA	Ground Water	6020B	401805
310-266569-7	MW15	Total/NA	Ground Water	6020B	401805
310-266569-8	MW17	Total/NA	Ground Water	6020B	401805

Metals (Continued)

Analysis Batch: 402757 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-9	MW18	Total/NA	Ground Water	6020B	401805
310-266569-10	MW19	Total/NA	Ground Water	6020B	401805
310-266569-11	DUP-1	Total/NA	Ground Water	6020B	401805
MB 310-401805/1-A	Method Blank	Total/NA	Water	6020B	401805
LCS 310-401805/2-A	Lab Control Sample	Total/NA	Water	6020B	401805
310-266569-1 MS	MW2	Total/NA	Ground Water	6020B	401805
310-266569-1 MSD	MW2	Total/NA	Ground Water	6020B	401805
310-266569-11 DU	DUP-1	Total/NA	Ground Water	6020B	401805

Analysis Batch: 402882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	6020B	401805
310-266569-2	MW5	Total/NA	Ground Water	6020B	401805
310-266569-3	MW6	Total/NA	Ground Water	6020B	401805
310-266569-4	MW8	Total/NA	Ground Water	6020B	401805
310-266569-5	MW9	Total/NA	Ground Water	6020B	401805
310-266569-6	MW13	Total/NA	Ground Water	6020B	401805
310-266569-7	MW15	Total/NA	Ground Water	6020B	401805
310-266569-8	MW17	Total/NA	Ground Water	6020B	401805
310-266569-9	MW18	Total/NA	Ground Water	6020B	401805
310-266569-10	MW19	Total/NA	Ground Water	6020B	401805
310-266569-11	DUP-1	Total/NA	Ground Water	6020B	401805
MB 310-401805/1-A	Method Blank	Total/NA	Water	6020B	401805
LCS 310-401805/2-A	Lab Control Sample	Total/NA	Water	6020B	401805
310-266569-11 DU	DUP-1	Total/NA	Ground Water	6020B	401805

Prep Batch: 404813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	7470A	
310-266569-2	MW5	Total/NA	Ground Water	7470A	
310-266569-3	MW6	Total/NA	Ground Water	7470A	
310-266569-4	MW8	Total/NA	Ground Water	7470A	
310-266569-5	MW9	Total/NA	Ground Water	7470A	
310-266569-6	MW13	Total/NA	Ground Water	7470A	
310-266569-7	MW15	Total/NA	Ground Water	7470A	
310-266569-8	MW17	Total/NA	Ground Water	7470A	
310-266569-9	MW18	Total/NA	Ground Water	7470A	
310-266569-10	MW19	Total/NA	Ground Water	7470A	
310-266569-11	DUP-1	Total/NA	Ground Water	7470A	
MB 310-404813/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-404813/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-266569-2 MS	MW5	Total/NA	Ground Water	7470A	
310-266569-2 MSD	MW5	Total/NA	Ground Water	7470A	

Analysis Batch: 405028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	7470A	404813
310-266569-2	MW5	Total/NA	Ground Water	7470A	404813
310-266569-3	MW6	Total/NA	Ground Water	7470A	404813
310-266569-4	MW8	Total/NA	Ground Water	7470A	404813
310-266569-5	MW9	Total/NA	Ground Water	7470A	404813

Metals (Continued)

Analysis Batch: 405028 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-6	MW13	Total/NA	Ground Water	7470A	404813
310-266569-7	MW15	Total/NA	Ground Water	7470A	404813
310-266569-8	MW17	Total/NA	Ground Water	7470A	404813
310-266569-9	MW18	Total/NA	Ground Water	7470A	404813
310-266569-10	MW19	Total/NA	Ground Water	7470A	404813
310-266569-11	DUP-1	Total/NA	Ground Water	7470A	404813
MB 310-404813/1-A	Method Blank	Total/NA	Water	7470A	404813
LCS 310-404813/2-A	Lab Control Sample	Total/NA	Water	7470A	404813
310-266569-2 MS	MW5	Total/NA	Ground Water	7470A	404813
310-266569-2 MSD	MW5	Total/NA	Ground Water	7470A	404813

General Chemistry

Analysis Batch: 401780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	SM 2540C	
310-266569-2	MW5	Total/NA	Ground Water	SM 2540C	
310-266569-3	MW6	Total/NA	Ground Water	SM 2540C	
310-266569-4	MW8	Total/NA	Ground Water	SM 2540C	
310-266569-5	MW9	Total/NA	Ground Water	SM 2540C	
310-266569-6	MW13	Total/NA	Ground Water	SM 2540C	
310-266569-7	MW15	Total/NA	Ground Water	SM 2540C	
310-266569-8	MW17	Total/NA	Ground Water	SM 2540C	
310-266569-9	MW18	Total/NA	Ground Water	SM 2540C	
310-266569-10	MW19	Total/NA	Ground Water	SM 2540C	
310-266569-11	DUP-1	Total/NA	Ground Water	SM 2540C	
MB 310-401780/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-401780/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-266569-2 DU	MW5	Total/NA	Ground Water	SM 2540C	

Rad

Prep Batch: 631363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	PrecSep-21	
310-266569-2	MW5	Total/NA	Ground Water	PrecSep-21	
310-266569-3	MW6	Total/NA	Ground Water	PrecSep-21	
310-266569-4	MW8	Total/NA	Ground Water	PrecSep-21	
310-266569-5	MW9	Total/NA	Ground Water	PrecSep-21	
310-266569-6	MW13	Total/NA	Ground Water	PrecSep-21	
310-266569-7	MW15	Total/NA	Ground Water	PrecSep-21	
310-266569-8	MW17	Total/NA	Ground Water	PrecSep-21	
310-266569-9	MW18	Total/NA	Ground Water	PrecSep-21	
310-266569-10	MW19	Total/NA	Ground Water	PrecSep-21	
310-266569-11	DUP-1	Total/NA	Ground Water	PrecSep-21	
MB 160-631363/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-631363/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-266569-8 DU	MW17	Total/NA	Ground Water	PrecSep-21	

Prep Batch: 631364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-1	MW2	Total/NA	Ground Water	PrecSep_0	

Rad (Continued)

Prep Batch: 631364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266569-2	MW5	Total/NA	Ground Water	PrecSep_0	
310-266569-3	MW6	Total/NA	Ground Water	PrecSep_0	
310-266569-4	MW8	Total/NA	Ground Water	PrecSep_0	
310-266569-5	MW9	Total/NA	Ground Water	PrecSep_0	
310-266569-6	MW13	Total/NA	Ground Water	PrecSep_0	
310-266569-7	MW15	Total/NA	Ground Water	PrecSep_0	
310-266569-8	MW17	Total/NA	Ground Water	PrecSep_0	
310-266569-9	MW18	Total/NA	Ground Water	PrecSep_0	
310-266569-10	MW19	Total/NA	Ground Water	PrecSep_0	
310-266569-11	DUP-1	Total/NA	Ground Water	PrecSep_0	
MB 160-631364/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-631364/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-266569-8 DU	MW17	Total/NA	Ground Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW2
Date Collected: 10/04/23 09:38
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/13/23 22:24
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 16:23
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 17:46
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:30
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:24
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW5
Date Collected: 10/04/23 14:54
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/13/23 23:01
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/13/23 23:13
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:29
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 17:53
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:32
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:24
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW6
Date Collected: 10/04/23 11:36
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/13/23 23:25
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:32
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 17:55

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW6
Date Collected: 10/04/23 11:36
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:38
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:24
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW8
Date Collected: 10/04/23 12:34
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/13/23 23:37
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/13/23 23:49
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:35
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 17:58
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:40
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:24
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW9
Date Collected: 10/03/23 19:31
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 00:01
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:39
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:00
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:47
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:25

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW9
Date Collected: 10/03/23 19:31
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW13
Date Collected: 10/04/23 08:23
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 00:13
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/14/23 00:25
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:42
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:02
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:49
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW15
Date Collected: 10/04/23 10:40
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 00:37
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/14/23 00:49
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:48
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:18
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:51
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633752	FLC	EET SL	10/27/23 10:26
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW17
Date Collected: 10/04/23 13:41
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 01:26
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/14/23 01:38
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:51
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:21
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:53
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633905	FLC	EET SL	10/27/23 10:27
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW18
Date Collected: 10/03/23 17:58
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 01:50
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:55
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:23
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:56
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634604	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633905	FLC	EET SL	10/27/23 10:27
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: MW19
Date Collected: 10/03/23 18:43
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 02:02
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 17:58
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:25

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

Client Sample ID: MW19

Date Collected: 10/03/23 18:43
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 10:58
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634754	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633885	FLC	EET SL	10/27/23 10:29
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Client Sample ID: DUP-1

Date Collected: 10/03/23 00:00
Date Received: 10/05/23 16:50

Lab Sample ID: 310-266569-11
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	402633	QTZ5	EET CF	10/14/23 02:14
Total/NA	Analysis	9056A		100	402633	QTZ5	EET CF	10/14/23 02:26
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 16:55
Total/NA	Prep	3005A			401805	KCK5	EET CF	10/09/23 11:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 18:27
Total/NA	Prep	7470A			404813	NFT2	EET CF	11/03/23 11:33
Total/NA	Analysis	7470A		1	405028	NFT2	EET CF	11/06/23 11:00
Total/NA	Analysis	SM 2540C		1	401780	ENB7	EET CF	10/06/23 13:53
Total/NA	Prep	PrecSep-21			631363	KAC	EET SL	10/10/23 12:16
Total/NA	Analysis	9315		1	634754	FLC	EET SL	11/01/23 13:25
Total/NA	Prep	PrecSep_0			631364	KAC	EET SL	10/10/23 12:19
Total/NA	Analysis	9320		1	633885	FLC	EET SL	10/27/23 10:29
Total/NA	Analysis	Ra226_Ra228		1	635616	CAH	EET SL	11/06/23 15:47

Laboratory References:
EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
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
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

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

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
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	11-30-23
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
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	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
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	02-28-24
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	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	12-31-23

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

Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-266569-1

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
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
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:
None = None
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.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:
EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-266569 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 10/5/23 TIME 1650
Received By:

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: T
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): 1.4
Corrected Temp (°C): 1.4
•Sample Container Temperature

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

Exceptions Noted
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No
Note: If yes, contact PM before proceeding. If no, proceed with login.
Additional Comments

Document: CED-P-SAM-FRM45521
Revision: 26
Date: 27 Jan 2022
Eurofins Cedar Falls
General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

eurofins | Environment Testing America

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 10/5/23 TIME 1650
Received By:	LR

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 3
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: T	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): 2.8	Corrected Temp (°C): 2.8

Sample Container Temperature

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

Exceptions Noted

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

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

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

Additional Comments

Document: CED-P-SAM-FRM45521
Revision: 26
Date: 27 Jan 2022

Eurofins Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

eurofins | Environment Testing America

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 10/5/23 TIME 1650
Received By:	LR

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 3
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: T	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): 1.2	Corrected Temp (°C): 1.2

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

Document: CED-P-SAM-FRM45521
Revision: 26
Date: 27 Jan 2022

Eurofins Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

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:			
City: Omaha	TAT Requested (days):			
State, Zip: NE 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: North Omaha Station Landfill	TestAmerica Project #: 31007560			
Site: North Omaha Station	SSOW#:			

Analysis Requested: Field Filtered Sample (Yes or No); Perform MS/MSD (Yes or No); 9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228 (D); Total 6020A CCR Appendix III and IV, Iron, 7470A Mercury (D); 2540C TDS, 9056A Chloride, Fluoride, Sulfate (N)

Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify). Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix	Field Filtered	MS/MSD	9315/9320 Ra226/Ra228	6020A/7470A	2540C/9056A	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N		
MW2	10/4/23	9:38	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW5	10/4/23	14:54	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW6	10/4/23	11:36	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW8	10/4/23	12:34	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW9	10/3/23	19:31	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW13	10/4/23	8:23	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW15	10/4/23	10:40	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW17	10/4/23	13:41	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents, Iron
MW18	10/3/23	17:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
MW19	10/3/23	18:43	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron
DUP1	10/4/23	--	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents Iron

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: Kyle K. Uhing	Date/Time: 10/4/2023 16:36	Company: OPPD	Received by: [signature]	Date/Time: 10-4-23 1635	Company: ET
Relinquished by: [signature]	Date/Time: 10-5-23 0800	Company: ETA	Received by: LR	Date/Time: 10/5/23 1650	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

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: Sanderson, Tayler E	Carrier Tracking No(s):	COC No: 310-66054.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Tayler.Sanderson@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-266569-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/18/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: North Omaha Station CCR	Project #: 31007560			
Site:	SSOW#:			

Analysis Requested: Field Filtered Sample (Yes or No); Perform MS/MSD (Yes or No); Ra226Ra228_GFPC; 9315_Ra226/PrecSep_21 Standard Target List; 9320_Ra228/PrecSep_0 Standard Target List

Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify). Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered	MS/MSD	Ra226Ra228_GFPC	9315_Ra226	9320_Ra228	Total Number of containers	Special Instructions/Note
MW2 (310-266569-1)	10/4/23	09:38 Central		Water			X	X	X	2	
MW5 (310-266569-2)	10/4/23	14:54 Central		Water			X	X	X	2	
MW6 (310-266569-3)	10/4/23	11:36 Central		Water			X	X	X	2	
MW8 (310-266569-4)	10/4/23	12:34 Central		Water			X	X	X	2	
MW9 (310-266569-5)	10/3/23	19:31 Central		Water			X	X	X	2	
MW13 (310-266569-6)	10/4/23	08:23 Central		Water			X	X	X	2	
MW15 (310-266569-7)	10/4/23	10:40 Central		Water			X	X	X	2	
MW17 (310-266569-8)	10/4/23	13:41 Central		Water			X	X	X	2	
MW18 (310-266569-9)	10/3/23	17:58 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: [signature]	Date/Time: 100623 1515	Company:	Received by: Fedex	Date/Time:	Company:
Relinquished by: Fedex	Date/Time:	Company:	Received by: M. Pinette	Date/Time: OCT 09 2023 0945	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

Chain of Custody Record

eurofins Environment Testing

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Client Information (Sub Contract Lab)			
Client Contact: Shipping/Receiving	Sampler:	Lab PM: Sanderson, Tayler E	Carrier Tracking No(s):
Company: TestAmerica Laboratories, Inc.	Phone:	E-Mail: Tayler.Sanderson@et.eurofinsus.com	State of Origin: Nebraska
Address: 13715 Rider Trail North,	Due Date Requested: 10/18/2023	Accreditations Required (See note): NELAP - Oregon	COC No: 310-66054.2
City: Earth City	TAT Requested (days):		Page: Page 2 of 2
State, Zip: MO, 63045	PO #:		Job #: 310-266569-1
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:		
Email:	Project #: 31007560		
Project Name: North Omaha Station CCR	SSOW#:		
Site:			

Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

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)	Ra226Ra228_GFPC	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW19 (310-266569-10)	10/3/23	18:43 Central		Water			X	X	X	2	
DUP-1 (310-266569-11)	10/3/23	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
[signature]	10/6/23 1513		FedEx		
FedEx			M. Pinetto	OCT 0 9 2023 0945	

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: 310-266569-1

Login Number: 266569 — **List Source: Eurofins Cedar Falls**
List Number: 1
Creator: Richardson, Lydia E

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.	N/A	
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 Cedar Falls

Login Sample Receipt Checklist

Client: Omaha Public Power District — Job Number: 310-266569-1

Login Number: 266569 — **List Source: Eurofins St. Louis**
List Number: 2 — **List Creation: 10/09/23 02:06 PM**
Creator: Pinette, Meadow L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins Cedar Falls

Tracer/Carrier Summary

Client: Omaha Public Power District — Job ID: 310-266569-1
Project/Site: North Omaha Station CCR

Method: 9315 - Radium-226 (GFPC)

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

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
310-266569-1	MW2	91.4
310-266569-2	MW5	90.2
310-266569-3	MW6	100
310-266569-4	MW8	93.6
310-266569-5	MW9	95.8
310-266569-6	MW13	85.1
310-266569-7	MW15	93.9
310-266569-8	MW17	95.6
310-266569-8 DU	MW17	96.6
310-266569-9	MW18	96.8
310-266569-10	MW19	91.0
310-266569-11	DUP-1	95.6

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9315 - Radium-226 (GFPC)

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

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
LCS 160-631363/2-A	Lab Control Sample	98.5
MB 160-631363/1-A	Method Blank	100

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

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

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-266569-1	MW2	91.4	83.7
310-266569-2	MW5	90.2	82.6
310-266569-3	MW6	100	84.1
310-266569-4	MW8	93.6	86.4
310-266569-5	MW9	95.8	81.9
310-266569-6	MW13	85.1	84.5
310-266569-7	MW15	93.9	83.0
310-266569-8	MW17	95.6	84.5
310-266569-8 DU	MW17	96.6	73.3
310-266569-9	MW18	96.8	78.9
310-266569-10	MW19	91.0	74.4
310-266569-11	DUP-1	95.6	81.1

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

Eurofins Cedar Falls

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-266569-1
Project/Site: North Omaha Station CCR

Method: 9320 - Radium-228 (GFPC)

Matrix: Water
Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	**Client Sample ID**	**Ba (30-110)**	**Y (30-110)**
LCS 160-631364/2-A	Lab Control Sample	98.5	83.7
MB 160-631364/1-A	Method Blank	100	82.2

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

Appendix C

Semi-Annual Statistical Analysis Memos

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Technical Memorandum

Date:	Friday, July 21, 2023
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs North Omaha Station Ash Landfill Spring 2023 Statistical Analysis

Omaha Public Power District owns and operates a five-unit fuel-fired generating plant at the North Omaha Station (NOS), herein referenced as “Station” or “Site”, in Omaha, Nebraska. Units 1, 2, and 3 were retired from coal operation (converted to natural gas), while Units 4 and 5 are operating as coal-burning units. This Station has one active coal combustion residual (CCR) landfill, known as the NOS Ash Landfill, which is 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) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the statistical analysis conducted for the NOS Ash Landfill which consists of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion.

Groundwater sampling was completed as part of an assessment monitoring program for the NOS Ash Landfill in April 2023, as specified in 40 CFR §257.95(d) and NDEE 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* for the North Omaha Station – NOS Ash Landfill, amended December 13, 2021, and the facility’s Groundwater Sampling and Analysis Plan (dated September 2019; revised December 2019) as permitted under Title 132. Sampling results used to calculate the background threshold values (BTVs) were updated during the fall 2021 statistical evaluation. 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 current BTVs were updated in October 2021 with monitoring results obtained during monitoring events conducted between March 2016 and October 2021.

Downgradient sampling results from the April 2023 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 C-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 C-2**.

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Table C-1. Summary of Evaluation for SSIs over Background (April 2023)

	Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17
	BTV (UPL):	*Unit*	*Assessment Monitoring Results - April 2023*						
Detection Monitoring Constituents									
Boron	*0.200*	*mg/L*	**1.09**	**0.541**	**0.623**	**2.21**	**1.71**	**2.57**	**0.562**
Calcium	*201*	*mg/L*	**249**	**329**	**322**	138	**230**	189	**325**
Chloride	*275*	*mg/L*	35.0	42.0	**375**	12.4	9.17	12.2	40.4
Fluoride**	*1.31*	*mg/L*	0.539	0.428J	0.524	0.349J	<0.375	<0.220	0.545
pH	*5.94-7.90**	*SU*	6.55	7.13	6.52	7.69	6.29	7.60	6.59
Sulfate	*57.5*	*mg/L*	**476**	**865**	**288**	**609**	**1,100**	**576**	**829**
TDS	*1,190*	*mg/L*	1,080	**1,420**	1,140	860	**1,730**	942	**1,580**
Assessment Monitoring Constituents									
Antimony	*0.002*	*mg/L*	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00152J	<0.00100
Arsenic	*0.0118*	*mg/L*	**0.215**	**0.0648**	0.00712	0.0101	**0.0209**	0.00187J	**0.0806**
Barium	*0.625*	*mg/L*	0.111	0.0427	0.176	0.0776	0.0666	0.0493	0.0420
Beryllium	*0.001*	*mg/L*	0.000356J	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	*0.000654*	*mg/L*	0.000132J	0.000125J	0.000288	<0.000100	0.000173J	<0.000100	<0.000100
Chromium	*0.00555*	*mg/L*	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	0.00213J	<0.00110
Cobalt	*0.00293*	*mg/L*	0.000626	0.000493J	**0.00741**	0.000463J	0.000523	<0.000170	**0.0104**
Fluoride**	*1.31*	*mg/L*	0.539	0.428J	0.524	0.349J	0.620	<0.220	0.545
Lead	*0.0114*	*mg/L*	0.000358J	0.000702	0.00110	<0.000240	<0.000240	<0.000240	<0.000240
Lithium	*0.0628*	*mg/L*	0.0426	**0.0701**	0.0478	0.0115	0.0408	0.00837J	**0.0972**
Mercury	*0.00022*	*mg/L*	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Molybdenum	*0.002*	*mg/L*	0.00194J	**0.00294**	**0.0690**	**0.0833**	**0.695**	**0.247**	**0.00260**
Radium 226+228	*4.95*	*pCi/L*	0.405U	1.30	0.197U	0.247U	-0.0737U	-0.0933U	0.178
Selenium	*0.005*	*mg/L*	0.00225J	0.00261J	<0.00140	<0.00140	0.00344J	**0.0815**	<0.00140
Thallium	*0.001*	*mg/L*	**0.00101**	**0.00116**	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260

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).

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

"U" data qualifier (radium) indicates parameter was analyzed for but not detected above limiting criteria (such as, but not limited to minimum detectable concentration, total uncertainty, reporting limit) as defined in the analytical laboratory data package.

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

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Table C-2. Summary of Evaluation for SSLs over GWPS (April 2023)

		Well ID:	MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17
	GWPS[1]	*Unit*	*Lower Confidence Levels (LCLs) - Assessment Monitoring Constituents*						
Antimony	*0.006*	*mg/L*	0.00069	0.001	0.00069	0.00069	0.00069	0.001166	0.00069
Arsenic	*0.0118[2]*	*mg/L*	**0.2058**	**0.05759**	0.008545	0.01009	**0.04203**	0.00187	0.009327
Barium	*2*	*mg/L*	0.09075	0.0427	0.1519	0.7737	0.07416	0.05105	0.0331
Beryllium	*0.004*	*mg/L*	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027
Cadmium	*0.005*	*mg/L*	0.000051	0.000054	0.0001517	0.00005545	0.0001986	0.00005335	0.000051
Chromium	*0.1*	*mg/L*	0.0011	0.0011	0.0011	0.0011	0.0011	0.001636	0.0011
Cobalt	*0.006*	*mg/L*	0.0003695	0.0003471	0.00584	0.0004728	0.0004928	0.000091	**0.009049**
Radium 226+228	*5*	*pCi/L*	0.2039	0.119	0.4536	0.247	-0.0737	-0.01017	0.3495
Fluoride	*4*	*mg/L*	0.1923	0.428	0.2718	0.1841	0.2522	0.22	0.1709
Lead	*0.015*	*mg/L*	0.0002354	0.0001487	0.0005396	0.000132	0.00021	0.00021	0.00021
Lithium	*0.0628[2]*	*mg/L*	0.0392	**0.06993**	0.04335	0.01176	0.0225	0.007916	**0.091**
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.100*	*mg/L*	0.00112	0.001105	0.0567	0.09046	**0.9035**	**0.2044**	0.00181
Selenium	*0.05*	*mg/L*	0.00096	0.00096	0.00096	0.00096	0.01156	**0.0524**	0.00096
Thallium	*0.002*	*mg/L*	0.00026	0.001	0.00026	0.00026	0.00026	0.00026	0.00026

Bold and underlined concentration indicates an SSL over the GWPS.

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2).

[2] GWPS is established as the UPL when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2), or as the LPL when the background level is lower than the U.S. EPA MCL (i.e. pH).

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Technical Memorandum

Date:	Friday, January 12, 2024
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs North Omaha Station Ash Landfill Fall 2023 Statistical Analysis

Omaha Public Power District owns and operates a five-unit generating plant at the North Omaha Station (NOS), herein referenced as "Station" or "Site", in Omaha, Nebraska. Units 1, 2, and 3 were retired from coal operation (converted to natural gas), while Units 4 and 5 are operating as coal-burning units. This Station has one active coal combustion residual (CCR) landfill, known as the NOS Ash Landfill, which is 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) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the statistical analysis conducted for the NOS Ash Landfill which consists of an ash disposal area of approximately 18.503 acres, currently undergoing closure activities to be completed by mid-2024.

Groundwater sampling was completed as part of an assessment monitoring program for the NOS Ash Landfill in October 2023, as specified in 40 CFR §257.95(d) and NDEE 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* for the North Omaha Station – NOS Ash Landfill, amended December 13, 2021, and the facility's Groundwater Sampling and Analysis Plan (dated September 2019; revised December 2019) as permitted under Title 132. Sampling results used to calculate the background threshold values (BTVs) were updated during the fall 2023 statistical evaluation. 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 current BTVs were updated in October 2023 with monitoring results obtained during monitoring events conducted between March 2016 and October 2023.

Downgradient sampling results from the October 2023 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 C-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 C-2**.

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Table C-1. Summary of Evaluation for SSIs over Background (October 2023)

	Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17
	BTV (UPL):	*Unit*	*Assessment Monitoring Results - October 2023*						
Detection Monitoring Constituents									
Boron	*0.200*	*mg/L*	**0.590**	**0.504**	**0.663**	**2.71**	**1.73**	**3.41**	**0.720**
Calcium	*190*	*mg/L*	**193**	**335**	**304**	155	182	**222**	**356**
Chloride	*275*	*mg/L*	40.2	37.6	**345**	12.8	8.16	13.4	41.5
Fluoride	*0.944*	*mg/L*	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
pH	*6.03-7.68**	*sU*	6.75	6.86	6.77	**8.25**	6.57	7.50	6.51
Sulfate	*57.5*	*mg/L*	**302**	**943**	**278**	**588**	**880**	**564**	**865**
TDS	*1,190*	*mg/L*	1,090	**1,870**	**1,380**	1,050	**1,610**	1,030	**2,200**
Assessment Monitoring Constituents									
Antimony	*0.002*	*mg/L*	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00159J	<0.00100
Arsenic	*0.01*	*mg/L*	**0.237**	**0.0573**	0.0115	0.0116	**0.0224**	0.00229	**0.0257**
Barium	*0.726*	*mg/L*	0.104	0.0546	0.136	0.0791	0.0541	0.0454	0.0385
Beryllium	*0.001*	*mg/L*	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	*0.000662*	*mg/L*	<0.000100	0.000161J	0.000144J	<0.000100	0.000604	0.000155J	<0.000100
Chromium	*0.00590*	*mg/L*	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	0.00167J	<0.00110
Cobalt	*0.00346*	*mg/L*	0.000350J	0.000446J	**0.00552**	0.000717	0.000456J	<0.000170	**0.0119**
Fluoride	*0.944*	*mg/L*	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
Lead	*0.00885*	*mg/L*	<0.000240	<0.000240	<0.000240	<0.000240	<0.000240	<0.000240	<0.000240
Lithium	*0.0624*	*mg/L*	0.0440	**0.0694**	0.0507	0.0147	0.0390	0.0142	**0.119**
Mercury	*0.000214*	*mg/L*	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140	<0.000140
Molybdenum	*0.00234*	*mg/L*	0.00188J	0.00221	**0.0603**	**0.0903**	**1.08**	**0.267**	**0.00472**
Radium 226+228	*4.13*	*pCi/L*	1.47	1.59	1.20	0.933	0.331U	0.983	1.28
Selenium	*0.005*	*mg/L*	<0.00140	0.00171J	<0.00140	<0.00140	**0.00807**	**0.0623**	<0.00140
Thallium	*0.001*	*mg/L*	**0.00278**	**0.00417**	0.000524J	<0.000260	<0.000260	<0.000260	<0.000260

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).

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

"U" data qualifier (radium) indicates parameter was analyzed for but not detected above limiting criteria (such as, but not limited to minimum detectable concentration, total uncertainty, reporting limit) as defined in the analytical laboratory data package.

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

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Table C-2. Summary of Evaluation for SSLs over GWPS (October 2023)

		Well ID:	MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17
	GWPS[1]	*Unit*	*Lower Confidence Levels (LCLs) - Assessment Monitoring Constituents*						
Antimony	*0.006*	*mg/L*	0.00069	0.001	0.00069	0.00069	0.00069	0.001215	0.00069
Arsenic	*0.0143[2]*	*mg/L*	**0.206**	**0.05812**	0.007625	0.01017	**0.02517**	0.00187	0.008767
Barium	*2*	*mg/L*	0.09408	0.0427	0.1425	0.0776	0.06387	0.04763	0.03305
Beryllium	*0.004*	*mg/L*	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027
Cadmium	*0.005*	*mg/L*	0.000051	0.00003561	0.0001409	0.00005545	0.0001571	0.00004808	0.000051
Chromium	*0.1*	*mg/L*	0.0011	0.0011	0.0011	0.0011	0.0011	0.001595	0.0011
Cobalt	*0.006*	*mg/L*	0.0003406	0.0003557	0.005585	0.0004584	0.0004798	0.000091	**0.009119**
Fluoride	*4*	*mg/L*	0.1893	0.3744	0.2438	0.1841	0.2087	0.22	0.1709
Lead	*0.015*	*mg/L*	0.0002156	0.0001192	0.0004215	0.0001198	0.00021	0.00021	0.00021
Lithium	*0.0624[2]*	*mg/L*	0.03912	**0.06752**	0.04337	0.01178	0.02247	0.008022	**0.09119**
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.1*	*mg/L*	0.00112	0.001183	0.05361	0.08947	**0.9435**	**0.2041**	0.001858
Radium 226+228	*5*	*pCi/L*	0.2314	0.1242	0.4828	0.247	0.007091	-0.001612	0.3256
Selenium	*0.05*	*mg/L*	0.00096	0.0007691	0.00096	0.00096	0.008607	**0.05229**	0.00096
Thallium	*0.002*	*mg/L*	0.00026	0.0001517	0.00026	0.00026	0.00026	0.00026	0.00026

Bold and underlined concentration indicates an SSL over the GWPS.

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2).

[2] GWPS is established as the UPL when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2), or as the LPL when the background level is lower than the NDEE Title 118 Chapter 4 Numerical Standard (i.e. pH).

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Appendix D

Monitoring Well Decommissioning Forms

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Submit ORIGINAL to:
Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521-6729
Phone (402) 471 2363

MW-22

June 2011 DNR DECO
This form **MUST** be printed/copied as a **SINGLE** sided form

This form is required to be filed within **60 days** of decommissioning of the water well.

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 10062023 Owner Code No. 49927 Registration No. G-187675B

10062023 - 257763 -DEC 1 ( ) PMR NRD
Well ID

1. Well Owner's First Name _____ Last Name _____
OR Company Name Omaha Public Power District
Attention Name Megan Seymour
Address 444 South 16th Street Mall
City Omaha State NE Zip 68102 Telephone 531.226.2308

2. Contractor (if applicable). John C. Jones Telephone Number (402) 467-2355
Address 7701 Cornhusker Hwy Contractor License No. 19315
City Lincoln State NE Zip Code 68507 +
Drilling Firm: K2 Geothermal Email: jjones@k2construction.biz

3a. Well Registration No. G-187675B
3b. Purpose of Well: Monitoring Ground Water Quality
3c. Date Well Last Operated. 9/25/23 3d. Date of Decommissioning. 9/25/23
3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.
Is this location different than the DNR database location? ☐ **Corrected Location**

1. Well location: NE ¼ of the NE ¼ of Section 28, Township 16 North, Range 13 E ☑ W ☐ Douglas County.
2. Latitude Degree: 41 Minute: 19 Second: 56 . 610 Longitude Degree: -95 Minute: 57 Second: 1 . 470 (NAD 83)
3. The well is 1155 feet from the (N ☑ S ☐) section line and 1040 feet from the (E ☑ W ☐) section line.

3f. Location of Water Use: _____

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
0	18	Grouted the well with Granusil 5020 Geothermal Sand and Geo Pro TC Lite Grout. We topped it off with Pure Gold Medium Bentonite Chip.

RECEIVED
OCT 06 2023
DEPARTMENT OF NATURAL RESOURCES

5a. Well Casing Size: 2.34" 5b. Bore Hole Diameter: 8"

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

John C Jones
Contractor (**owner)

9/28/23
Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.

Submit ORIGINAL to:
Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521-6729
Phone (402) 471 2363

MW-27

June 2011 DNR DECO
This form **MUST** be printed/copied as a **SINGLE** sided form

This form is required to be filed within **60 days** of decommissioning of the water well.

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 10062023 Owner Code No. 49927 Registration No. G-188545E

10062023 - 261374 -DEC 1 ( ) PMR NRD
Well ID

1. Well Owner's First Name _____ Last Name _____

OR Company Name Omaha Public Power District

Attention Name Megan Seymour

Address 444 South 16th Street Mall

City Omaha State NE Zip 68102 Telephone 531.226.2308

2. Contractor (if applicable). John C. Jones Telephone Number (402) 467-2355

Address 7701 Cornhusker Hwy Contractor License No. 19315

City Lincoln State NE Zip Code 68507 +

Drilling Firm: K2 Geothermal Email: jjones@k2construction.biz

3a. Well Registration No. G-188545E

3b. Purpose of Well: Monitoring Ground Water Quality

3c. Date Well Last Operated. 9/25/23 3d. Date of Decommissioning. 9/25/23

3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.
Is this location different than the DNR database location? ☐ **Corrected Location**

1. Well location: SE ¼ of the NE ¼ of Section 28, Township 16 North, Range 13 E ☑ W ☐ Douglas County.
2. Latitude Degree: 41 Minute: 19 Second: 47 . 040 Longitude Degree: -95 Minute: 57 Second: 2 . 150 (NAD 83)
3. The well is _____ feet from the (N ☐ S ☐) section line and _____ feet from the (E ☐ W ☐) section line.

3f. Location of Water Use: _____

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
0	32	Grouted the well with Granusil 5020 Geothermal Sand and Geo Pro TC Lite Grout. We topped it off with Pure Gold Medium Bentonite Chip.

5a. Well Casing Size: 2.38" 5b. Bore Hole Diameter: 8.25"

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

John C Jones — 9/28/23

Contractor (**owner) Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.

Submit ORIGINAL to:
Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521-6729
Phone (402) 471 2363

MW-28

June 2011 DNR DECO
This form **MUST** be printed/copied as a **SINGLE** sided form

This form is required to be filed within **60 days** of decommissioning of the water well.

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 10062023 Owner Code No. 49927 Registration No. G-188545D

10062023 - 261373 -DEC 1 ( ) PMR NRD
Well ID

1. Well Owner's First Name _____ Last Name _____
OR Company Name Omaha Public Power District
Attention Name Megan Seymour
Address 444 South 16th Street Mall
City Omaha State NE Zip 68102 Telephone 531.226.2308

2. Contractor (if applicable). John C. Jones Telephone Number (402) 467-2355
Address 7701 Cornhusker Hwy Contractor License No. 19315
City Lincoln State NE Zip Code 68507 +
Drilling Firm: K2 Geothermal Email: jjones@k2construction.biz

3a. Well Registration No. G-188545D
3b. Purpose of Well: Monitoring Ground Water Quality
3c. Date Well Last Operated. 9/25/23 3d. Date of Decommissioning. 9/25/23
3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.
Is this location different than the DNR database location? ☐ **Corrected Location**

1. Well location: SE ¼ of the NE ¼ of Section 28, Township 16 North, Range 13 E ☑ W ☐ Douglas County.
2. Latitude Degree: 41 Minute: 19 Second: 54 . 100 Longitude Degree: -95 Minute: 57 Second: 5 . 230 (NAD 83)
3. The well is _____ feet from the (N ☐ S ☐) section line and _____ feet from the (E ☐ W ☐) section line.

3f. Location of Water Use: _____

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
0	50	Grouted the well with Granusil 5020 Geothermal Sand and Geo Pro TC Lite Grout. We topped it off with Pure Gold Medium Bentonite Chip.

5a. Well Casing Size: 2.38" 5b. Bore Hole Diameter: 8.25"

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

John C Jones
Contractor (**owner)

9/28/23
Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.

Submit ORIGINAL to:
Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521-6729
Phone (402) 471 2363

MW-29

June 2011 DNR DECO
This form **MUST** be printed/copied as a **SINGLE** sided form

This form is required to be filed within **60 days** of decommissioning of the water well.

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 10062023 Owner Code No. 49927 Registration No. G-188545F

10062023 - 261375 -DEC 1 ( ) PMR NRD
Well ID

1. Well Owner's First Name _____ Last Name _____
OR Company Name Omaha Public Power District
Attention Name Megan Seymour
Address 444 South 16th Street Mall
City Omaha State NE Zip 68102 Telephone 531.226.2308

2. Contractor (if applicable). John C. Jones Telephone Number (402) 467-2355
Address 7701 Cornhusker Hwy Contractor License No. 19315
City Lincoln State NE Zip Code 68507 +
Drilling Firm: K2 Geothermal Email: jjones@k2construction.biz

3a. Well Registration No. G-188545F
3b. Purpose of Well: Monitoring Ground Water Quality
3c. Date Well Last Operated. 9/25/23 3d. Date of Decommissioning. 9/25/23
3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.
Is this location different than the DNR database location? ☐ **Corrected Location**

1. Well location: NE ¼ of the NE ¼ of Section 28, Township 16 North, Range 13 E ☑ W ☐ Douglas County.
2. Latitude Degree: 41 Minute: 20 Second: 2 . 850 Longitude Degree: -95 Minute: 57 Second: 3 . 960 (NAD 83)
3. The well is _____ feet from the (N ☐ S ☐) section line and _____ feet from the (E ☐ W ☐) section line.

3f. Location of Water Use: _____

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
0	42	Grouted the well with Granusil 5020 Geothermal Sand and Geo Pro TC Lite Grout. We topped it off with Pure Gold Medium Bentonite Chip.

5a. Well Casing Size: 2.38" 5b. Bore Hole Diameter: 8.25"

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

John C Jones
Contractor (**owner)

9/28/23
Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.

Submit ORIGINAL to:
Department of Natural Resources
245 Fallbrook Blvd., Suite 201
Lincoln, NE 68521-6729
Phone (402) 471 2363

MW-30

June 2011 DNR DECO
This form **MUST** be printed/copied as a **SINGLE** sided form

This form is required to be filed within **60 days** of decommissioning of the water well.

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 10062023 Owner Code No. 49927 Registration No. G-188545G

10062023 - 261376 -DEC 1 ( ) PMR NRD
Well ID

1. Well Owner's First Name _____ Last Name _____
OR Company Name Omaha Public Power District
Attention Name Megan Seymour
Address 444 South 16th Street Mall
City Omaha State NE Zip 68102 Telephone 531.226.2308

2. Contractor (if applicable). John C. Jones Telephone Number (402) 467-2355
Address 7701 Cornhusker Hwy Contractor License No. 19315
City Lincoln State NE Zip Code 68507 +
Drilling Firm: K2 Geothermal Email: jjones@k2construction.biz

3a. Well Registration No. G-188545G
3b. Purpose of Well: Monitoring Ground Water Quality
3c. Date Well Last Operated. 9/25/23 3d. Date of Decommissioning. 9/25/23
3e. List complete well location: Legal **and** GPS Coordinates **MUST** be provided.
Is this location different than the DNR database location? ☐ **Corrected Location**

1. Well location: NE ¼ of the NE ¼ of Section 28, Township 16 North, Range 13 E ☑ W ☐ Douglas County.
2. Latitude Degree: 41 Minute: 20 Second: 0 . 450 Longitude Degree: -95 Minute: 57 Second: 0 . 320 (NAD 83)
3. The well is _____ feet from the (N ☐ S ☐) section line and _____ feet from the (E ☐ W ☐) section line.

3f. Location of Water Use: _____

4. Actual Method for Decommissioning of Well

Placement Depth in Feet From	To	Detailed Description of Material
0	40	Grouted the well with Granusil 5020 Geothermal Sand and Geo Pro TC Lite Grout. We topped it off with Pure Gold Medium Bentonite Chip.

5a. Well Casing Size: 2.38" 5b. Bore Hole Diameter: 8.25"

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

John C Jones
Contractor (**owner)

9/28/23
Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.
ORIGINAL form must be provided to the Department of Natural Resources.

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