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2021 NOS Landfill Annual Groundwater Report

North Omaha Station NOS
Ash Landfill

*Omaha, Nebraska
January 31, 2021*



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Professional Engineer Certification

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

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

Print Name: Megan B. Seymour

Signature: *Megan B. Seymour*

Date: 1-31-2022

License #: E-15931



My license renewal date is December 31, 2022.



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Executive Summary

Omaha Public Power District (OPPD) owns and operates a five-unit fuel-fired 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 2021 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:

- 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)

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 Selection of Remedy Report (HDR, 2021d) was completed on December 13, 2021.

Two semi-annual sampling events were conducted in 2021: one sampling event in April 2021 and one sampling event in October 2021. Results of the April 2021 analysis indicated 41 SSIs for Appendix III and Appendix IV constituents, as follows:

- Arsenic in MW-2, MW-5, MW-6, and MW-13
- 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
- Chromium in MW-15
- 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
- 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-2, MW-5, MW-6, MW-13, and MW-17

No new SSLs were identified during the April 2021 sampling event. Analysis of the Appendix IV constituents indicated 12 SSLs detected above the GWPS during the April 2021 sampling event:

- Arsenic in MW-2, MW-5, MW-6, MW-13, and MW-17
- Cobalt in MW-6, MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

Results of the October 2021 analysis indicated 38 SSIs for Appendix III and Appendix IV constituents, as follows:

- Arsenic in MW-2, MW-5, MW-6, 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, and MW-17
- Chloride in MW-6
- Chromium in MW-15
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, and MW-15
- 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 and MW-17
- Thallium in MW-5

No new SSLs were identified during the October 2021 sampling event. Analysis of the Appendix IV constituents indicated 12 SSLs detected above the GWPS during the October 2021 sampling event:

- Arsenic in MW-2, MW-5, MW-6, MW-13, and MW-17
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15



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 2022.

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 2021.

1.2 Facility Information

OPPD owns and operates a five-unit fuel-fired 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). The NOS Ash Landfill consists of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion. **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 sample 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 Selection of Remedy Report (HDR, 2021d) was completed on December 13, 2021.

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 2021 and October 2021. During this 2021 reporting period, no repairs were required. The wells were noted in good working condition, concrete pads were intact, and no damage was observed to the protective well casings. No monitoring wells were added to or abandoned from the certified groundwater monitoring system in 2021.

3 Data Evaluation and Summary

3.1 Summary of Sampling Activities

Groundwater sampling events were conducted by OPPD personnel in April 2021 and October 2021 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 sample event, whether the sample was collected during detection or assessment monitoring programs, and the date of each event is summarized in **Table 2**.

Groundwater sampling was conducted by OPPD personnel in 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 TestAmerica, 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 2021. Monitoring well static groundwater elevations are provided in **Table 3**. Groundwater measurements collected during the April 2021 sampling event indicated a flow direction to the east/northeast, with an average flow velocity of 0.00363 ft/day to 0.251 ft/day (**Figure 3**). Groundwater measurements collected during the October 2021 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 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 2021 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 2021 and October 2021 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 2021 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 2021 and October 2021 sampling events are provided in **Appendix C**.

Two semi-annual sampling events were conducted in 2021: one sampling event in April 2021 and one sampling event in October 2021. Results of the April 2021 analysis indicated 41 SSIs for Appendix III and Appendix IV constituents, as follows:

- Arsenic in MW-2, MW-5, MW-6, and MW-13
- 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
- Chromium in MW-15
- 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
- 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-2, MW-5, MW-6, MW-13, and MW-17

No new SSLs were identified during the April 2021 sampling event. Analysis of the Appendix IV constituents indicated 12 SSLs detected above the GWPS during the April 2021 sampling event:

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- Chloride in MW-6
- Chromium in MW-15
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, and MW-15

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- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
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- Cobalt in MW-6 and 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. During the 2021 reporting period, a groundwater flow transient model was developed that simulated the fate and transport of COIs at the Site (HDR, 2021b). 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 Selection of Remedy Report (HDR, 2021d) was completed on December 13, 2021 and provides the schedule of remedial actions to be conducted at the Site.

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 in accordance with the schedule outlined in the Selection of Remedy Report (HDR, 2021d). 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 2022.

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.

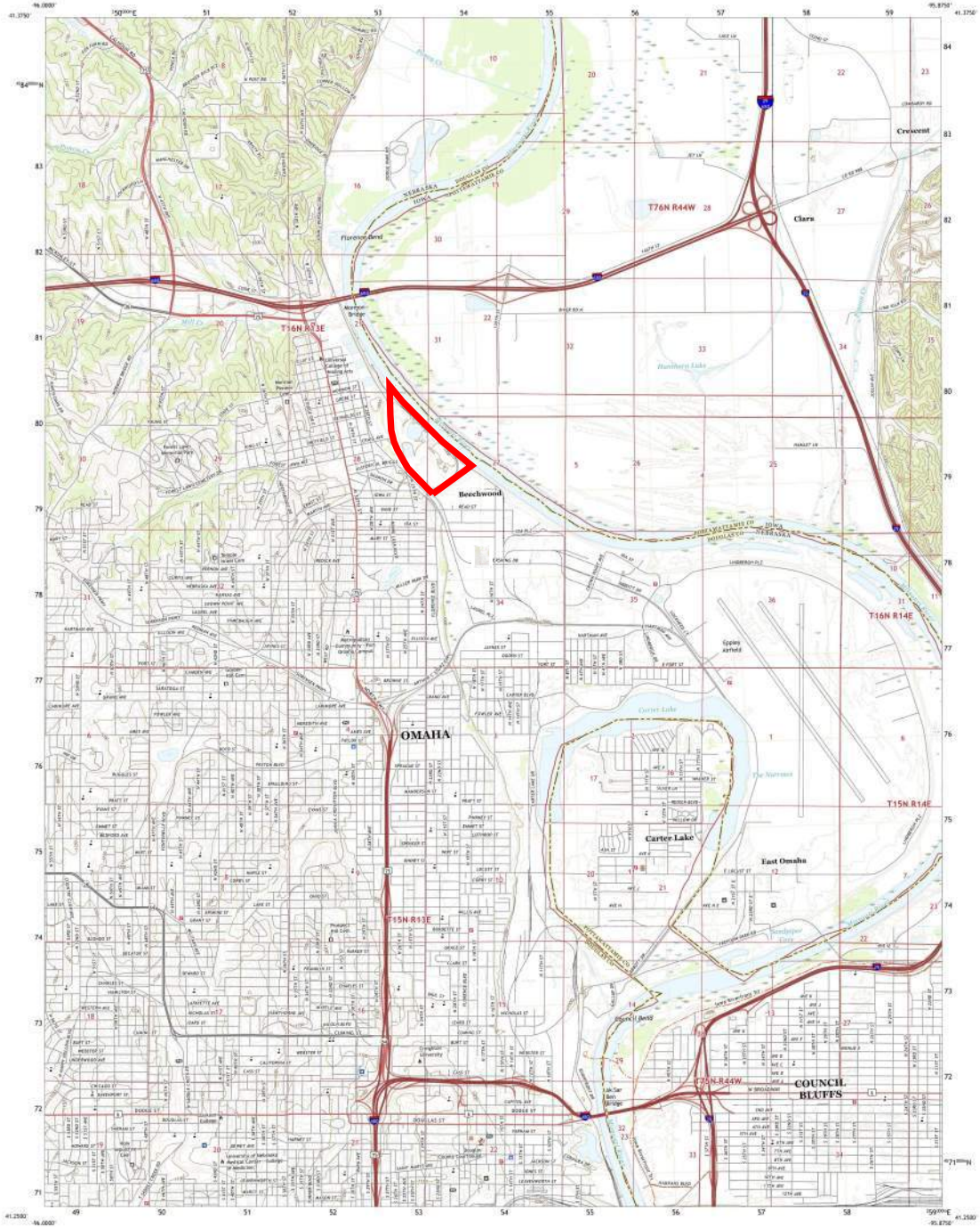
- HDR, 2019b. *Title 132 Nature & Extent Report*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. December 18, 2019.
- HDR, 2019c. *Groundwater Sampling and Analysis Plan*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. September 2019. Revised December 2019
- HDR, 2020a. *CCR Groundwater 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.
- OPPD, 2019. Memorandum. *Notification of Appendix IV SSLs exceeding the GWPS*. NOS Ash Disposal Area. Omaha, Nebraska. February 14, 2019.

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A decorative graphic consisting of several overlapping rectangles. A large orange rectangle is on the left. A dark grey rectangle is at the top right. A light grey rectangle is at the bottom left. A black rectangle is at the bottom right. The word "Figures" is written in black text on the white background to the right of the orange rectangle.

Figures

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Produced by the United States Geological Survey
Data provided by the U.S. Geological Survey
1:50,000 scale map of Omaha, Nebraska, 1914 (1:50,000)
This map is a digital reproduction of the original map.
The original map was published in 1914.
The original map was published in 1914.
The original map was published in 1914.



SCALE 1:24,000
1 0.5 1 1.5 2
0 500 1000 1500 2000
0 500 1000 1500 2000
FEET METERS



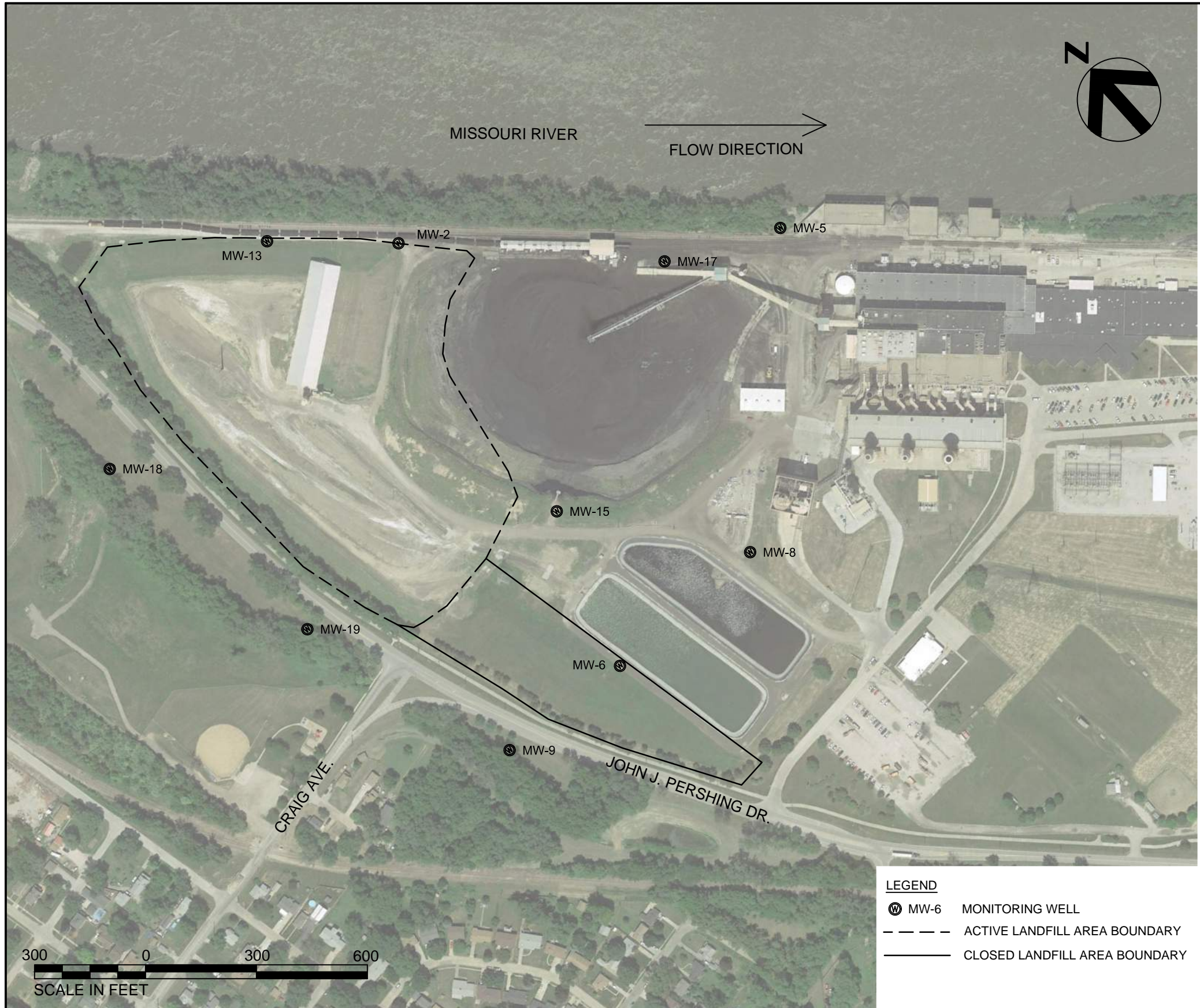
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

OMAHA NORTH, NE, IA
2021

Site Boundary



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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	DOWNGRAIENT
MW-5	571959.9	2754084	998.10	1000.96	3/2/1995	DOWNGRAIENT
MW-6	571316.1	2753000	999.60	1002.65	3/8/1995	DOWNGRAIENT
MW-8	571331.8	2753467	1000.30	1003.59	3/7/1995	DOWNGRAIENT
MW-9	571328	2752624	1027.10	1026.47	5/4/1996	BACKGROUND
MW-13	572808.9	2752986	999.02	1001.91	4/12/2001	DOWNGRAIENT
MW-15	571747.9	2753132	1002.80	1005.39	4/12/2001	DOWNGRAIENT
MW-17	572087.4	2753785	999.60	1002.54	5/10/2007	DOWNGRAIENT
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

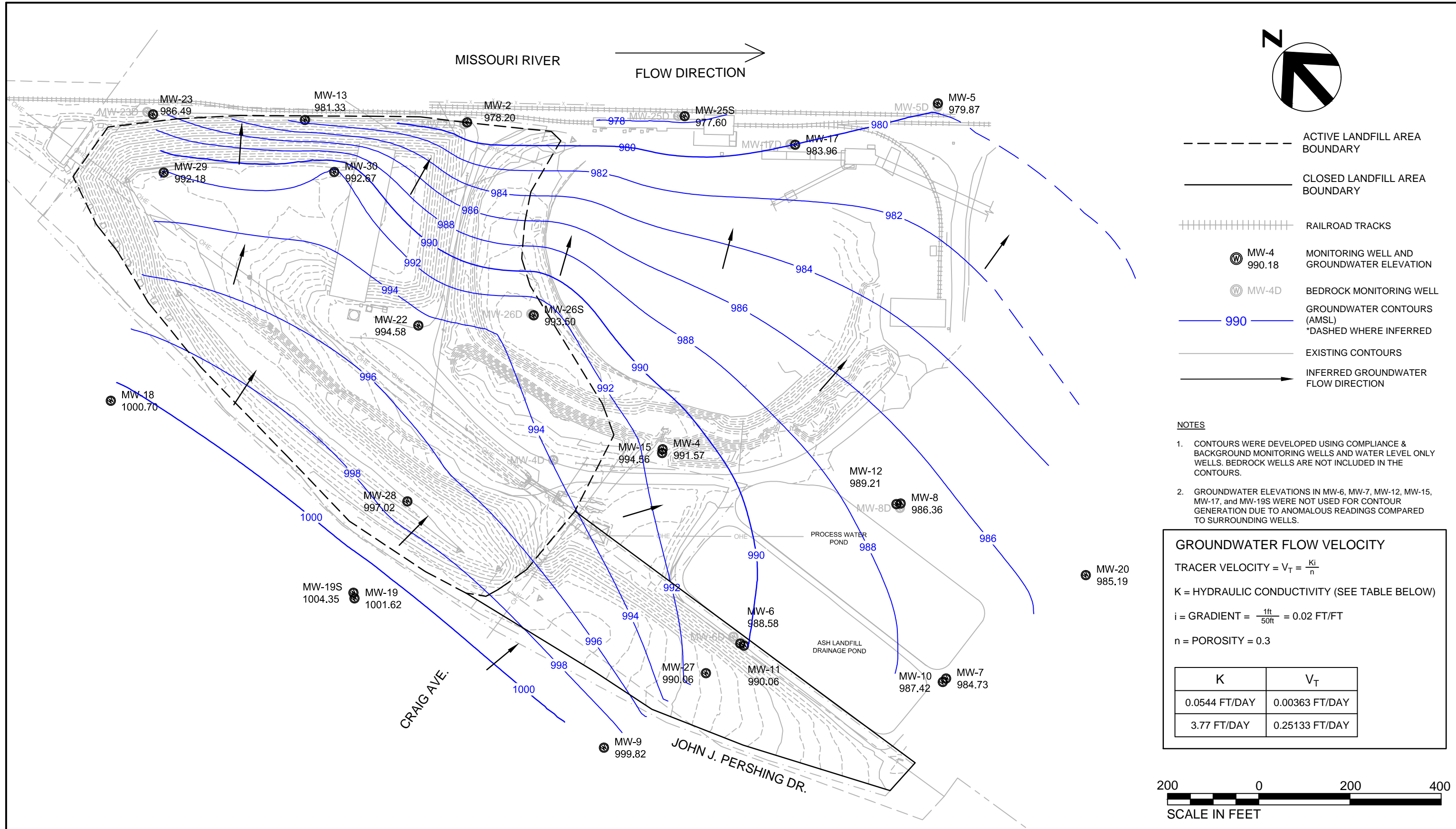
- NOTES:**
- * FLUSH MOUNT WELL.
 - AMSL - ABOVE MEAN SEA LEVEL.

- LEGEND**
- Ⓜ MW-6 MONITORING WELL
 - - - - - ACTIVE LANDFILL AREA BOUNDARY
 - CLOSED LANDFILL AREA BOUNDARY



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

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- ACTIVE LANDFILL AREA BOUNDARY
- CLOSED LANDFILL AREA BOUNDARY
- ++++ RAILROAD TRACKS
- ⊙ MW-4 990.18 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. GROUNDWATER ELEVATIONS IN MW-6, MW-7, MW-12, MW-15, MW-17, and MW-19S WERE NOT USED FOR CONTOUR GENERATION DUE TO ANOMALOUS READINGS COMPARED TO SURROUNDING WELLS.

GROUNDWATER FLOW VELOCITY

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

K = HYDRAULIC CONDUCTIVITY (SEE TABLE BELOW)

i = GRADIENT = $\frac{1ft}{50ft} = 0.02 FT/FT$

n = POROSITY = 0.3

K	V _T
0.0544 FT/DAY	0.00363 FT/DAY
3.77 FT/DAY	0.25133 FT/DAY



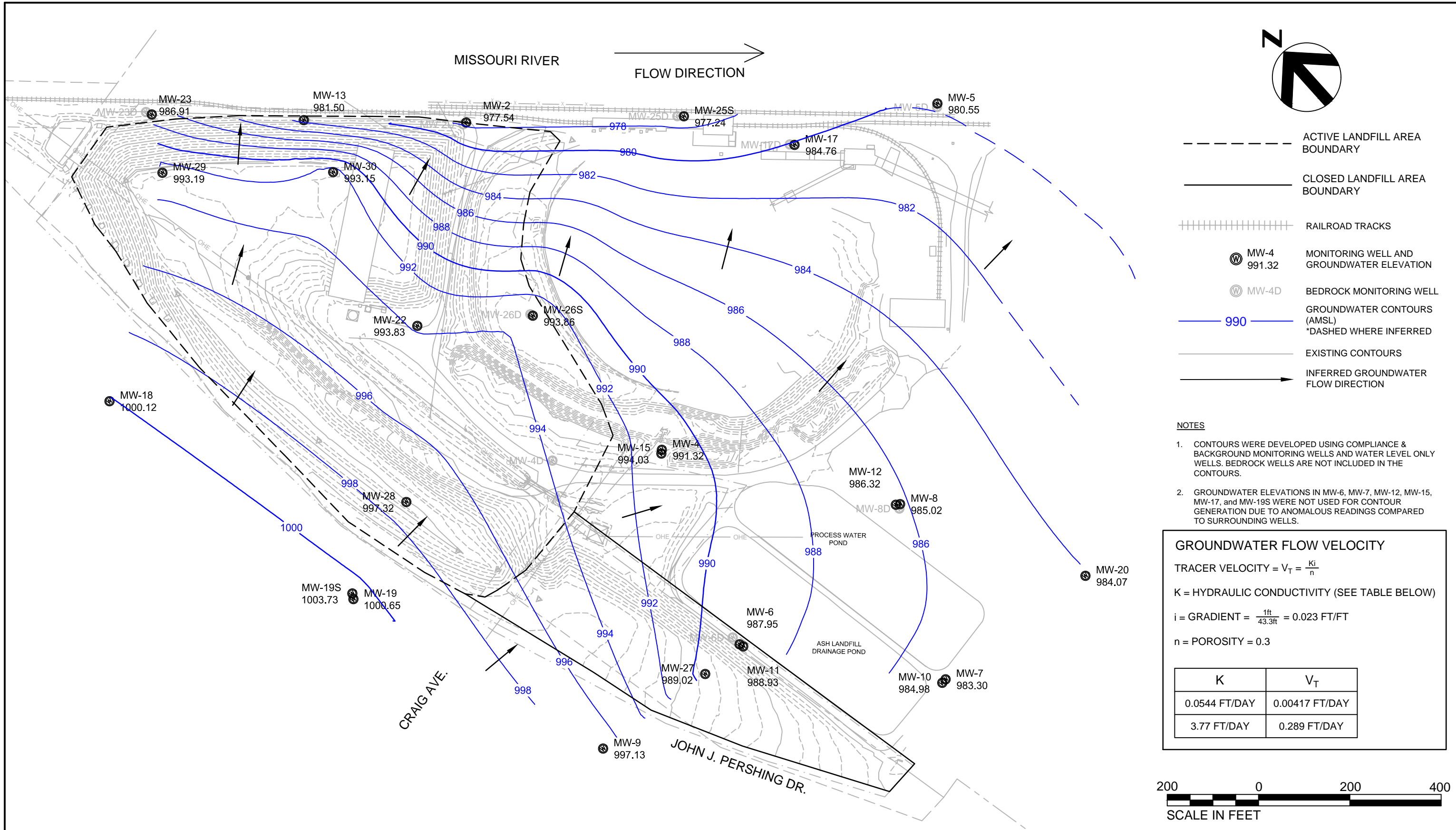
**OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
GROUNDWATER CONTOUR MAP - APRIL 2021**

Annual Groundwater Report

DATE
DECEMBER 2021

FIGURE
3

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**OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
GROUNDWATER CONTOUR MAP - OCTOBER 2021**

Annual Groundwater Report

DATE
DECEMBER 2021

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					
MW-4	3/6/1995	33	Water Level Only Well	1001.30	1004.59
MW-7	3/8/1995	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-22	2/25/2019	22	Water Level Only Well	1005.80	1009.31
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
MW-27	2/6/2020	32	Water Level Only Well	1017.69	1021.09
MW-28	2/6/2020	50	Water Level Only Well	1040.42	1043.74
MW-29	2/4/2020	42	Water Level Only Well	1028.41	1031.59
MW-30	2/5/2020	40	Water Level Only Well	1026.12	1029.75

Notes:

^[1] bgs - below ground surface

^[2] AMSL - above mean sea level

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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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020, 4/5/2021, 10/11/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021
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]	5	10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021
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]	5	10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021
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]	5	10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/11/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020, 4/5/2021, 10/12/2021
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	8	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/8/2020, 4/5/2021, 10/12/2021

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

Notes:

TOC: Top of PVC well casing

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		MW-26S					
TOC Elevation		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		1011.54					
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)	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	Installed 10/21/2019		8.17	985.30	N.M.	N.M.	N.M.	N.M.	Installed 10/18/2019	Installed 10/18/2019					
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				8.70	984.77	N.M.	N.M.	N.M.			N.M.				
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.	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	18.35	993.19			
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	19.26	992.28			
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	18.04	993.50			
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	17.68	993.86			

Notes:

TOC: Top of PVC well casing

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-27		MW-28		MW-29		MW-30		
TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		
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)
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 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	28.72	992.37	43.95	999.79	35.58	996.01	33.65	996.10
10/1/2020	31.37	989.72	47.18	996.56	38.15	993.44	36.24	993.51
4/1/2021	31.03	990.06	46.72	997.02	39.42	992.17	37.08	992.67
10/11/2021	32.07	989.02	46.42	997.32	38.41	993.18	36.60	993.15

Notes:

TOC: Top of PVC well casing

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.

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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	
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	
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	
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

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	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
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	646.00	30.6	724	
10/11/2021	<0.0580	137	135	<0.275	6.38	17.9	664	
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
	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	
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

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-15	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	
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
<i>Abandoned on August 4, 2017</i>								
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
	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	
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	

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-18	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
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	

Notes:

mg/L = milligrams 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).

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-19	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	

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	201
Chloride	mg/l	275
Fluoride ^[1]	mg/l	1.31
pH (LPL) ^[2]	SU	5.94
pH (UPL) ^[3]	SU	7.90
Sulfate	mg/l	57.5
TDS	mg/l	1,190
Appendix IV		
Antimony	mg/l	0.002
Arsenic	mg/l	0.0118
Barium	mg/l	0.625
Beryllium	mg/l	0.001
Cadmium	mg/l	0.000654
Chromium	mg/l	0.00555
Cobalt	mg/l	0.00293
Fluoride ^[1]	mg/l	1.31
Lead	mg/l	0.0114
Lithium	mg/l	0.0628
Mercury	mg/l	0.00022
Molybdenum	mg/l	0.002
Radium 226 + 228	pCi/l	4.95
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	0.0118 ^[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	0.0628 ^[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	4/1/2021	Time of Sampling	14:08	Static Water Level	23.21
MW4	Date of Sampling	4/1/2021	Time of Sampling	14:42	Static Water Level	13.02
MW5	Date of Sampling	4/1/2021	Time of Sampling	15:17	Static Water Level	21.09
MW6	Date of Sampling	4/1/2021	Time of Sampling	14:47	Static Water Level	14.07
MW7	Date of Sampling	4/1/2021	Time of Sampling	14:55	Static Water Level	17.12
MW8	Date of Sampling	4/1/2021	Time of Sampling	14:58	Static Water Level	17.23
MW9	Date of Sampling	4/1/2021	Time of Sampling	12:27	Static Water Level	26.65
MW10	Date of Sampling	4/1/2021	Time of Sampling	14:54	Static Water Level	15.06
MW11	Date of Sampling	4/1/2021	Time of Sampling	14:48	Static Water Level	12.93
MW12	Date of Sampling	4/1/2021	Time of Sampling	14:59	Static Water Level	14.57
MW13	Date of Sampling	4/1/2021	Time of Sampling	14:05	Static Water Level	20.58
MW15	Date of Sampling	4/1/2021	Time of Sampling	14:41	Static Water Level	10.83
MW17	Date of Sampling	4/1/2021	Time of Sampling	15:05	Static Water Level	18.58
MW18	Date of Sampling	4/1/2021	Time of Sampling	12:13	Static Water Level	36.00
MW19	Date of Sampling	4/1/2021	Time of Sampling	12:16	Static Water Level	35.29
MW20	Date of Sampling	4/1/2021	Time of Sampling	15:28	Static Water Level	8.28
MW22	Date of Sampling	4/1/2021	Time of Sampling	14:25	Static Water Level	14.73
MW23	Date of Sampling	4/1/2021	Time of Sampling	14:00	Static Water Level	14.32

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Windy 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:01	Pump Start Time	12:04
Static Water Level (+/- 0.01 feet)*	23.01	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	28.35	Time to Purge Well (hours:minutes)	0:38
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	
2" Well Casing Volume (L)	3.30	Water Level Indicator	
Actual Volume of Water Purged (mL)	7,600		

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

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:09	1,000	15.36	4.51	157	6.77	2.03	23.49
12:12	1,600	15.39	2.70	80.5	6.70	2.01	23.51
12:15	2,200	15.23	1.92	51.6	6.70	2.01	23.53
12:18	2,800	15.22	1.12	35.5	6.69	2.01	23.54
12:21	3,400	15.18	0.84	30.7	6.69	2.00	23.55
12:24	4,000	15.17	0.71	33.3	6.69	2.00	23.56
12:27	4,600	15.30	0.65	36.3	6.70	2.01	23.57
12:30	5,200	15.28	0.60	34.2	6.70	2.00	23.57
12:33	5,800	15.24	0.55	33.4	6.71	2.01	23.57
12:36	6,400	15.29	0.53	30.1	6.72	2.02	23.57
12:39	7,000	15.39	0.51	28.2	6.73	2.02	23.57
12:42	7,600	15.35	0.55	24.8	6.73	2.03	23.57

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)
12:42	7,600	15.35	0.55	24.8	6.73	2.03	23.57
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, ~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	4/5/2021, 6:40
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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy, 84°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	17:51	Pump Start Time	17:54
Static Water Level (+/- 0.01 feet)*	20.85	Purge Rate (mL/minute)	300
Bottom of Well Casing (+/- 0.01 feet)*	33.20	Time to Purge Well (hours:minutes)	0:20
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	7.63		
Actual Volume of Water Purged (mL)	6,000		

*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)
17:59	1,500	18.70	2.44	28.7	7.14	2.53	21.07
18:02	2,400	18.54	2.28	20.2	7.15	2.55	21.08
18:05	3,300	17.82	2.26	6.2	7.18	2.58	21.08
18:08	4,200	17.82	2.32	5.6	7.20	2.61	21.10
18:11	5,100	17.58	2.27	5.4	7.21	2.64	21.12
18:14	6,000	17.47	2.22	4.5	7.22	2.66	21.13

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)
18:14	6,000	17.47	2.22	4.5	7.22	2.66	21.13
Duplicate?	Yes, DUP1	Preservation?	Cool on Ice, HNO ₃ for Metals		Pump Rate (mL/minute)		300

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/5/2021, 6:40
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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Windy, 79°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:27	Pump Start Time	14:30
Static Water Level (+/- 0.01 feet)*	13.86	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	33.18	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)	11.93		
Actual Volume of Water Purged (mL)	2,300		

*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)
14:35	500	20.97	6.32	5.6	7.10	1.78	14.14
14:38	800	20.47	6.78	13.6	6.76	2.06	14.26
14:41	1,100	20.21	7.22	12.2	6.69	2.11	14.34
14:44	1,400	20.00	7.27	11.0	6.67	2.10	14.36
14:47	1,700	19.82	7.20	11.3	6.65	2.12	14.36
14:50	2,000	19.67	7.18	13.4	6.65	2.11	14.36
14:53	2,300	19.54	7.14	14.6	6.65	2.12	14.36

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)
14:53	2,300	19.54	7.14	14.6	6.65	2.12	14.36
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	4/5/2021, 6:40

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Windy, 82°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:44	Pump Start Time	15:46
Static Water Level (+/- 0.01 feet)*	17.04	Purge Rate (mL/minute)	150-300
Bottom of Well Casing (+/- 0.01 feet)*	25.45	Time to Purge Well (hours:minutes)	0:20
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	5.19		
Actual Volume of Water Purged (mL)	3,750		

*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)
15:51	1,500	16.03	0.47	7.6	7.67	1.08	19.48
15:54	1,950	16.04	0.32	5.4	7.77	1.04	19.66
15:57	2,400	16.08	0.36	4.7	7.76	1.06	19.54
16:00	2,850	16.16	0.36	5.1	7.75	1.09	19.23
16:03	3,300	16.24	0.40	4.2	7.76	1.12	19.22
16:06	3,750	16.25	0.38	3.9	7.77	1.15	19.22

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)
16:06	3,750	16.25	0.38	3.9	7.77	1.15	19.22
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	4/5/2021, 6:40

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Cloudy, Sunny, 64°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:13	Pump Start Time	10:16
Static Water Level (+/- 0.01 feet)*	26.28	Purge Rate (mL/minute)	100-300
Bottom of Well Casing (+/- 0.01 feet)*	56.65	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)	18.75		
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)
10:21	1,500	12.60	1.44	458	6.43	1.62	30.88
10:24	2,250	12.59	1.49	623	6.44	1.57	31.31
10:27	2,550	12.70	1.50	588	6.45	1.53	31.42
10:30	2,850	13.25	6.53	527	6.44	1.46	31.52
10:33	3,150	13.27	6.62	450	6.46	1.34	31.43
10:36	3,450	13.20	6.75	437	6.46	1.40	31.33
10:39	3,750	13.25	6.52	372	6.46	1.42	31.27
10:42	4,050	13.24	6.62	367	6.46	1.43	31.27
10:45	4,350	13.31	6.73	361	6.46	1.45	31.27

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)
10:45	4,350	13.31	6.73	361	6.46	1.45	31.27
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, 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	4/5/2021, 6:40

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: MW13 - 4	Date: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Clear, 70°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:17	Pump Start Time	11:19
Static Water Level (+/- 0.01 feet)*	20.10	Purge Rate (mL/minute)	100-250
Bottom of Well Casing (+/- 0.01 feet)*	23.98	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)	2.40		
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)
11:24	1,250	14.25	2.35	199	6.56	2.06	23.30
11:27	1,550	14.25	2.71	447	6.59	2.04	23.68
11:30	1,850	14.72	2.61	238	6.65	2.03	23.69
11:33	2,150	14.74	2.50	242	6.67	2.01	23.69
11:36	2,450	14.75	2.64	244	6.69	2.00	23.69

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:36	2,450	14.75	2.64	244	6.69	2.00	23.69
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	Light Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/5/2021, 6:40

Notes / Unusual Occurrences: None, Rust-Like Slime On Water Level Indicator

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy, 79°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:48	Pump Start Time	13:51
Static Water Level (+/- 0.01 feet)*	10.98	Purge Rate (mL/minute)	250-300
Bottom of Well Casing (+/- 0.01 feet)*	15.60	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.85		
Actual Volume of Water Purged (mL)	3,750		

*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)
13:56	1,500	14.27	5.88	5.3	7.13	1.25	11.77
13:59	2,250	14.57	5.32	4.8	7.01	1.25	1211.18
14:02	3,000	14.60	5.23	3.6	7.05	1.26	11.97
14:05	3,750	14.66	5.19	5.4	7.09	1.29	12.04

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)
14:05	3,750	14.66	5.19	5.4	7.09	1.29	12.04
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals	Pump Rate (mL/minute)		250	

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 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	4/5/2021, 6:40

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Breezy 84°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:34	Pump Start Time	16:35
Static Water Level (+/- 0.01 feet)*	17.77	Purge Rate (mL/minute)	100-250
Bottom of Well Casing (+/- 0.01 feet)*	25.45	Time to Purge Well (hours:minutes)	0:32
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)	4.74		
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)
16:40	1,250	17.75	1.00	110	6.84	2.13	19.33
16:43	2,000	17.19	1.04	90.7	6.75	2.15	19.70
16:46	2,300	17.27	1.03	79.1	6.75	2.13	19.91
16:49	2,600	17.40	1.03	65.3	6.72	2.11	20.06
16:52	2,900	17.27	1.04	61.1	6.71	2.14	20.24
16:55	3,200	17.32	1.04	53.9	6.70	2.10	20.39
16:58	3,500	17.37	1.11	41.0	6.70	2.14	20.78
17:01	3,800	17.36	1.15	38.7	6.70	2.15	20.96
17:04	4,100	17.40	1.18	38.0	6.70	2.14	21.04
17:07	4,400	17.37	1.19	23.3	6.70	2.16	21.12

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)
17:07	4,400	17.37	1.19	23.3	6.70	2.16	21.12
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	4/5/2021, 6:40
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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Cloudy, 63°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	8:29	Pump Start Time	8:33
Static Water Level (+/- 0.01 feet)*	35.65	Purge Rate (mL/minute)	100-250
Bottom of Well Casing (+/- 0.01 feet)*	70.90	Time to Purge Well (hours:minutes)	0:32
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)	21.77		
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)
8:38	1,250	14.17	10.33	19.2	6.58	0.685	37.40
8:41	2,000	13.56	8.80	21.7	6.35	0.767	37.87
8:44	2,300	13.80	7.33	13.3	6.26	0.777	38.12
8:47	2,600	13.55	5.88	10.6	6.24	0.782	38.20
8:50	2,900	13.60	5.40	7.6	6.24	0.779	38.44
8:53	3,200	13.61	3.49	14.4	6.24	0.780	38.63
8:56	3,500	13.56	3.40	9.4	6.24	0.781	38.67
8:59	3,800	13.47	0.54	14.6	6.24	0.777	38.79
9:02	4,100	13.50	0.50	13.7	6.24	0.777	38.91
9:05	4,400	13.50	0.48	18.1	6.24	0.775	38.97

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)
9:05	4,400	13.50	0.48	18.1	6.24	0.775	38.97
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, 28/2, ~65 psi
Sample Color	Light Yellow	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	4/5/2021, 6:40

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: 4/5/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Cloudy, 64°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:28	Pump Start Time	9:30
Static Water Level (+/- 0.01 feet)*	34.97	Purge Rate (mL/minute)	200
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)	25.77		
Actual Volume of Water Purged (mL)	4,000		

*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)
9:35	1,000	12.86	1.32	15.4	6.38	0.806	35.03
9:38	1,600	12.70	0.83	11.1	6.32	0.773	35.06
9:41	2,200	12.78	0.60	9.0	6.31	0.770	35.08
9:44	2,800	12.75	0.45	9.0	6.30	0.772	35.10
9:47	3,400	12.67	0.41	4.7	6.30	0.770	35.11
9:50	4,000	12.63	0.41	4.3	6.30	0.771	35.12

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)
9:50	4,000	12.63	0.41	4.3	6.30	0.771	35.12
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals	Pump Rate (mL/minute)		200	

Sample Physical Characteristics

Equipment Information

Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 27/3, ~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	4/5/2021, 6:40
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 4/5/2021

Time: 6:40

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	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	9.71	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

NORTH OMAHA STATION

Water Levels Prior to Purging (Feet Below TOC)

MW2	Date of Sampling	10/11/2021	Time of Sampling	11:26	Static Water Level	23.87
MW4	Date of Sampling	10/11/2021	Time of Sampling	12:11	Static Water Level	13.27
MW5	Date of Sampling	10/11/2021	Time of Sampling	12:59	Static Water Level	20.41
MW6	Date of Sampling	10/11/2021	Time of Sampling	12:23	Static Water Level	14.70
MW7	Date of Sampling	10/11/2021	Time of Sampling	11:37	Static Water Level	18.55
MW8	Date of Sampling	10/11/2021	Time of Sampling	12:42	Static Water Level	18.57
MW9	Date of Sampling	10/11/2021	Time of Sampling	10:52	Static Water Level	29.34
MW10	Date of Sampling	10/11/2021	Time of Sampling	11:36	Static Water Level	17.50
MW11	Date of Sampling	10/11/2021	Time of Sampling	12:25	Static Water Level	14.06
MW12	Date of Sampling	10/11/2021	Time of Sampling	12:44	Static Water Level	17.46
MW13	Date of Sampling	10/11/2021	Time of Sampling	11:23	Static Water Level	20.41
MW15	Date of Sampling	10/11/2021	Time of Sampling	12:09	Static Water Level	11.36
MW17	Date of Sampling	10/11/2021	Time of Sampling	12:54	Static Water Level	17.78
MW18	Date of Sampling	10/11/2021	Time of Sampling	10:17	Static Water Level	36.88
MW19	Date of Sampling	10/11/2021	Time of Sampling	10:22	Static Water Level	36.45
MW20	Date of Sampling	10/11/2021	Time of Sampling	13:10	Static Water Level	9.40
MW22	Date of Sampling	10/11/2021	Time of Sampling	11:52	Static Water Level	15.48
MW23	Date of Sampling	10/11/2021	Time of Sampling	11:18	Static Water Level	13.90

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: 10/12/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 54°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:17	Pump Start Time	10:18
Static Water Level (+/- 0.01 feet)*	24.13	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	28.35	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)	2.61		
Actual Volume of Water Purged (mL)	4,000		

*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)
10:23	1,000	16.70	4.11	22.4	6.43	1.78	24.44
10:26	1,600	16.33	1.92	2.8	6.42	1.95	24.46
10:29	2,200	15.17	1.27	0.0	6.42	1.96	24.48
10:32	2,800	15.18	0.99	0.0	6.44	1.99	24.52
10:35	3,400	15.15	0.97	0.4	6.44	2.01	24.54
10:38	4,000	15.02	0.93	1.5	6.44	2.02	24.55

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)
10:38	4,000	15.02	0.93	1.5	6.44	2.02	24.55
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	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	10/12/2021, 9:30
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: 10/12/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 70°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	12:22	Pump Start Time	12:25
Static Water Level (+/- 0.01 feet)*	14.78	Purge Rate (mL/minute)	150
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)	11.36		
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)
12:30	750	18.19	2.07	1.7	6.37	2.16	15.36
12:33	1,200	16.85	1.01	1.7	6.34	2.27	1415.26
12:36	1,650	16.87	0.68	14.2	6.33	2.35	15.46
12:39	2,100	16.56	0.61	13.1	6.33	2.36	15.48
12:42	2,550	16.42	0.58	12.6	6.32	2.38	15.49

Well Evacuated to Dryness? No Yes

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:42	2,550	16.42	0.58	12.6	6.32	2.38	15.49
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/12/2021, 9:30
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: 10/12/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 73°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:09	Pump Start Time	13:11
Static Water Level (+/- 0.01 feet)*	18.64	Purge Rate (mL/minute)	200-300
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)	4.20		
Actual Volume of Water Purged (mL)	5,100		

*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)
13:16	1,500	15.38	0.92	2.8	7.16	1.22	21.03
13:19	2,100	15.45	0.51	0.0	7.43	1.15	20.82
13:22	2,700	15.96	0.52	0.0	7.51	1.17	20.70
13:25	3,300	16.12	0.55	0.0	7.56	1.18	20.39
13:28	3,900	16.36	0.56	0.0	7.54	1.27	20.34
13:31	4,500	16.60	0.52	0.0	7.51	1.29	20.33
13:34	5,100	16.49	0.51	0.0	7.51	1.29	20.31

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:34	5,100	16.49	0.51	0.0	7.51	1.29	20.31
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals	Pump Rate (mL/minute)			200

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/12/2021, 9:30

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: 10/11/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Clear, Sunny, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:01	Pump Start Time	15:04
Static Water Level (+/- 0.01 feet)*	29.36	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	56.65	Time to Purge Well (hours:minutes)	0:47
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)	16.85		
Actual Volume of Water Purged (mL)	9,400		

*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)
15:09	1,000	14.07	1.77	248	6.56	1.46	31.77
15:12	1,600	14.06	1.17	301	6.49	1.41	See Notes
15:15	2,200	13.87	1.20	419	6.48	1.40	Not Measured
15:18	2,800	13.84	0.43	537	6.47	1.40	Not Measured
15:21	3,400	13.78	0.43	635	6.46	1.39	Not Measured
15:24	4,000	13.75	0.41	641	6.45	1.38	Not Measured
15:27	4,600	13.72	0.41	557	6.44	1.35	Not Measured
15:30	5,200	13.70	0.40	489	6.43	1.32	Not Measured
15:33	5,800	13.65	0.39	374	6.42	1.31	Not Measured
15:36	6,400	13.64	0.40	318	6.41	1.30	Not Measured
15:39	7,000	13.61	0.39	272	6.40	1.31	Not Measured
15:42	7,600	13.58	0.38	233	6.40	1.31	Not Measured
15:45	8,200	13.61	0.36	191	6.39	1.32	Not Measured
15:48	8,800	13.57	0.37	196	6.39	1.32	Not Measured
15:51	9,400	13.55	0.36	188	6.38	1.32	36.22

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)
15:51	9,400	13.55	0.36	188	6.38	1.32	36.22
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, 28/2, ~35 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/11/2021, 12:22

Notes / Unusual Occurrences: Water Level Not Measured Each Interval Due to Yellow Jackets Flying Around Well

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: 10/11/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Clear, Sunny, 73°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:16	Pump Start Time	16:20
Static Water Level (+/- 0.01 feet)*	20.37	Purge Rate (mL/minute)	100-300
Bottom of Well Casing (+/- 0.01 feet)*	23.98	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)	2.23		
Actual Volume of Water Purged (mL)	2,700		

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

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:25	1,500	15.81	1.76	303	6.24	2.07	22.99
16:28	1,800	16.02	0.79	262	6.25	2.08	23.32
16:31	2,100	16.27	0.61	257	6.25	2.08	23.56
16:34	2,400	16.34	0.59	253	6.25	2.07	23.68
16:37	2,700	16.44	0.56	250	6.26	2.07	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)
16:37	2,700	16.44	0.56	250	6.26	2.07	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	See Notes	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Orange	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	10/11/2021, 12:22

Notes / Unusual Occurrences: Orange, Suspended Particles in Sample

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: 10/12/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 62°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:48	Pump Start Time	11:49
Static Water Level (+/- 0.01 feet)*	11.44	Purge Rate (mL/minute)	200
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)	2.57		
Actual Volume of Water Purged (mL)	2,200		

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

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:54	1,000	16.40	8.80	6.3	6.57	1.33	11.79
11:57	1,600	16.52	8.85	0.0	6.56	1.31	11.86
12:00	2,200	16.64	8.83	0.0	6.54	1.30	11.92

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)
12:00	2,200	16.64	8.83	0.0	6.54	1.30	11.92
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, 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	10/12/2021, 9:30
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: 10/12/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 76°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:00	Pump Start Time	14:00
Static Water Level (+/- 0.01 feet)*	17.89	Purge Rate (mL/minute)	150-200
Bottom of Well Casing (+/- 0.01 feet)*	25.45	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)	4.67		
Actual Volume of Water Purged (mL)	7,000		

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

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:05	1,000	18.38	3.38	370	6.48	2.26	19.34
14:08	1,600	17.37	1.47	457	6.36	2.37	19.75
14:11	2,050	17.52	1.03	297	6.30	2.37	19.94
14:14	2,500	17.58	0.91	199	6.27	2.36	20.04
14:17	2,950	17.68	0.91	137	6.26	2.37	20.17
14:20	3,400	17.69	0.78	105	6.25	2.37	20.27
14:23	3,850	17.62	0.74	83.2	6.24	2.37	20.37
14:26	4,300	17.59	0.70	64.3	6.23	2.38	20.42
14:29	4,750	17.57	0.68	52.0	6.23	2.38	20.47
14:32	5,200	17.52	0.66	43.2	6.22	2.38	20.51
14:35	5,650	17.50	0.63	35.2	6.22	2.39	20.58
14:38	6,100	17.47	0.60	30.7	6.22	2.39	20.61
14:41	6,550	17.39	0.58	27.0	6.22	2.39	20.66
14:44	7,000	17.38	0.56	24.1	6.21	2.38	20.70

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)
14:44	7,000	17.38	0.56	24.1	6.21	2.38	20.70
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/12/2021, 9:30

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: 10/11/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Cloudy, Sunny, 64°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:29	Pump Start Time	13:30
Static Water Level (+/- 0.01 feet)*	36.88	Purge Rate (mL/minute)	150-250
Bottom of Well Casing (+/- 0.01 feet)*	70.90	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)	21.01		
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)
13:35	1,250	14.72	3.60	22.1	6.44	0.716	39.38
13:38	1,700	14.00	0.64	7.9	6.47	0.754	39.62
13:41	2,150	13.99	0.64	9.0	6.49	0.759	39.92
13:44	2,600	14.12	0.63	11.7	6.48	0.761	40.20
13:47	3,050	14.30	0.61	17.2	6.52	0.765	40.57
13:50	3,500	14.27	0.58	20.3	6.53	0.765	40.72
13:53	3,950	14.19	0.59	21.4	6.52	0.768	40.85

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)
13:53	3,950	14.19	0.59	21.4	6.52	0.768	40.85
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals		Pump Rate (mL/minute)		150-200

Sample Physical Characteristics

Sample Clarity	Clear
Sample Color	Light Yellow
Sample Odor	Light Sulfur
Immiscible Layer Observed? If so, thickness?	No

Equipment Information

QED Pump Control Information	CPM-2, 28/2, ~65 psi
Decontamination Procedure	Alconox and DI Water Rinse
Instrument Calibration By	Kyle K. Uhing
Date and Time of Calibration	10/11/2021, 12:22

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: 10/11/2021
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 68°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:18	Pump Start Time	14:19
Static Water Level (+/- 0.01 feet)*	36.45	Purge Rate (mL/minute)	150
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)	24.85		
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)
14:24	750	15.30	2.72	10.1	6.56	0.740	36.54
14:27	1,200	14.77	1.77	9.1	6.53	0.736	36.59
14:30	1,650	14.44	1.02	7.6	6.49	0.739	36.59
14:33	2,100	14.16	0.69	7.4	6.49	0.742	36.59
14:36	2,550	14.02	0.64	5.9	6.47	0.744	36.59
14:39	3,000	14.11	0.60	4.5	6.46	0.746	36.59

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)
14:39	3,000	14.11	0.60	4.5	6.46	0.746	36.59
Duplicate?	No	Preservation?	Cool on Ice, HNO ₃ for Metals		Pump Rate (mL/minute)		150-200

Sample Physical Characteristics

Equipment Information

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~65 psi
Sample Color	Light Yellow	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	10/11/2021, 12:22

Notes / Unusual Occurrences: None

Equipment Calibration Sheet

Date: 10/11/2021

Time: 12:22

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	4.55	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	10.01	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

Equipment Calibration Sheet

Date: 10/12/2021

Time: 9:30

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	4.32	$\mu\text{S}/\text{cm}$
Turbidity	0.1	NTU
DO	13.83	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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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 310-203702-1
Client Project/Site: North Omaha Station Landfill

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

Attn: Kyle Uhing

Authorized for release by:
4/16/2021 6:22:45 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

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

Laboratory Job ID: 310-203702-1

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

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

Job ID: 310-203702-1

Job ID: 310-203702-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

**Job Narrative
310-203702-1**

Comments

No additional comments.

Receipt

The samples were received on 4/7/2021 9:00 AM. 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, 1.3° C and 2.3° 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.

Sample Summary

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

Job ID: 310-203702-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-203702-1	MW2	Water	04/05/21 12:42	04/07/21 09:00	
310-203702-2	MW5	Water	04/05/21 18:14	04/07/21 09:00	
310-203702-3	MW6	Water	04/05/21 14:53	04/07/21 09:00	
310-203702-4	MW8	Water	04/05/21 16:06	04/07/21 09:00	
310-203702-5	MW9	Water	04/05/21 10:45	04/07/21 09:00	
310-203702-6	MW13	Water	04/05/21 11:36	04/07/21 09:00	
310-203702-7	MW15	Water	04/05/21 14:05	04/07/21 09:00	
310-203702-8	MW17	Water	04/05/21 17:07	04/07/21 09:00	
310-203702-9	MW18	Water	04/05/21 09:05	04/07/21 09:00	
310-203702-10	MW19	Water	04/05/21 09:50	04/07/21 09:00	
310-203702-11	DUP1	Water	04/05/21 00:00	04/07/21 09:00	

Detection Summary

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

Job ID: 310-203702-1

Client Sample ID: MW2

Lab Sample ID: 310-203702-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	36.9		5.00	2.15	mg/L			5	9056A	Total/NA
Sulfate	553		20.0	9.80	mg/L			20	9056A	Total/NA
Arsenic	0.213		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.100		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	1.30		0.100	0.0580	mg/L			1	6020A	Total/NA
Calcium	243		0.500	0.190	mg/L			1	6020A	Total/NA
Cobalt	0.000472	J	0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lead	0.000515		0.000500	0.000210	mg/L			1	6020A	Total/NA
Lithium	0.0435		0.0100	0.00250	mg/L			1	6020A	Total/NA
Total Dissolved Solids	1340		150	130	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW5

Lab Sample ID: 310-203702-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	40.5		5.00	2.15	mg/L			5	9056A	Total/NA
Fluoride	0.642		0.500	0.275	mg/L			5	9056A	Total/NA
Sulfate	1100		20.0	9.80	mg/L			20	9056A	Total/NA
Arsenic	0.0614		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.0458		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	0.592		0.100	0.0580	mg/L			1	6020A	Total/NA
Cadmium	0.0000540	J	0.000100	0.0000510	mg/L			1	6020A	Total/NA
Calcium	380		0.500	0.190	mg/L			1	6020A	Total/NA
Cobalt	0.000350	J	0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lithium	0.0818		0.0100	0.00250	mg/L			1	6020A	Total/NA
Molybdenum	0.00157	J	0.00200	0.00130	mg/L			1	6020A	Total/NA
Total Dissolved Solids	2020		150	130	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW6

Lab Sample ID: 310-203702-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	313		5.00	2.15	mg/L			5	9056A	Total/NA
Fluoride	0.310	J	0.500	0.275	mg/L			5	9056A	Total/NA
Sulfate	275		5.00	2.45	mg/L			5	9056A	Total/NA
Arsenic	0.0119		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.192		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	0.502		0.100	0.0580	mg/L			1	6020A	Total/NA
Cadmium	0.000198		0.000100	0.0000510	mg/L			1	6020A	Total/NA
Calcium	283		0.500	0.190	mg/L			1	6020A	Total/NA
Cobalt	0.00613		0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lead	0.000707		0.000500	0.000210	mg/L			1	6020A	Total/NA
Lithium	0.0454		0.0100	0.00250	mg/L			1	6020A	Total/NA
Molybdenum	0.0550		0.00200	0.00130	mg/L			1	6020A	Total/NA
Total Dissolved Solids	1280		30.0	26.0	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW8

Lab Sample ID: 310-203702-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	10.6		5.00	2.15	mg/L			5	9056A	Total/NA
Sulfate	528		20.0	9.80	mg/L			20	9056A	Total/NA
Arsenic	0.0110		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.0846		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	2.04		0.100	0.0580	mg/L			1	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-203702-1

Client Sample ID: MW8 (Continued)

Lab Sample ID: 310-203702-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cadmium	0.0000780	J	0.000100	0.0000510	mg/L			1	6020A	Total/NA
Calcium	127		0.500	0.190	mg/L			1	6020A	Total/NA
Cobalt	0.000487	J	0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lead	0.000488	J	0.000500	0.000210	mg/L			1	6020A	Total/NA
Lithium	0.0118		0.0100	0.00250	mg/L			1	6020A	Total/NA
Molybdenum	0.100		0.00200	0.00130	mg/L			1	6020A	Total/NA
Total Dissolved Solids	814		30.0	26.0	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW9

Lab Sample ID: 310-203702-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	164		5.00	2.15	mg/L			5	9056A	Total/NA
Fluoride	0.422	J	0.500	0.275	mg/L			5	9056A	Total/NA
Sulfate	30.6		5.00	2.45	mg/L			5	9056A	Total/NA
Arsenic	0.00420		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.562		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	0.125		0.100	0.0580	mg/L			1	6020A	Total/NA
Cadmium	0.000168		0.000100	0.0000510	mg/L			1	6020A	Total/NA
Calcium	158		0.500	0.190	mg/L			1	6020A	Total/NA
Chromium	0.00137	J	0.000500	0.000110	mg/L			1	6020A	Total/NA
Cobalt	0.00119		0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lead	0.00289		0.000500	0.000210	mg/L			1	6020A	Total/NA
Lithium	0.0504		0.0100	0.00250	mg/L			1	6020A	Total/NA
Total Dissolved Solids	724		30.0	26.0	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW13

Lab Sample ID: 310-203702-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	7.98		5.00	2.15	mg/L			5	9056A	Total/NA
Fluoride	0.496	J	0.500	0.275	mg/L			5	9056A	Total/NA
Sulfate	790		20.0	9.80	mg/L			20	9056A	Total/NA
Arsenic	0.0892		0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.0848		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	1.70		0.100	0.0580	mg/L			1	6020A	Total/NA
Cadmium	0.000409		0.000100	0.0000510	mg/L			1	6020A	Total/NA
Calcium	144		0.500	0.190	mg/L			1	6020A	Total/NA
Cobalt	0.000567		0.000500	0.0000910	mg/L			1	6020A	Total/NA
Lead	0.00137		0.000500	0.000210	mg/L			1	6020A	Total/NA
Lithium	0.0240		0.0100	0.00250	mg/L			1	6020A	Total/NA
Molybdenum	1.52		0.00200	0.00130	mg/L			1	6020A	Total/NA
Selenium	0.0377		0.000500	0.000960	mg/L			1	6020A	Total/NA
Total Dissolved Solids	1330		150	130	mg/L			1	SM 2540C	Total/NA

Client Sample ID: MW15

Lab Sample ID: 310-203702-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	6.19		5.00	2.15	mg/L			5	9056A	Total/NA
Sulfate	586		20.0	9.80	mg/L			20	9056A	Total/NA
Antimony	0.00126	J	0.00200	0.00110	mg/L			1	6020A	Total/NA
Arsenic	0.00149	J	0.00200	0.000750	mg/L			1	6020A	Total/NA
Barium	0.0644		0.00200	0.000300	mg/L			1	6020A	Total/NA
Boron	3.36		0.100	0.0580	mg/L			1	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-203702-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-203702-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cadmium	0.0000860	J	0.000100	0.0000510	mg/L	1			6020A	Total/NA
Calcium	224		0.500	0.190	mg/L	1			6020A	Total/NA
Chromium	0.0363		0.00500	0.00110	mg/L	1			6020A	Total/NA
Lithium	0.0145		0.0100	0.00250	mg/L	1			6020A	Total/NA
Molybdenum	0.219		0.00200	0.00130	mg/L	1			6020A	Total/NA
Selenium	0.0568		0.00500	0.000960	mg/L	1			6020A	Total/NA
Total Dissolved Solids	974		30.0	26.0	mg/L	1			SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-203702-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	30.1		5.00	2.15	mg/L	5			9056A	Total/NA
Sulfate	677		20.0	9.80	mg/L	20			9056A	Total/NA
Arsenic	0.00927		0.00200	0.000750	mg/L	1			6020A	Total/NA
Barium	0.0341		0.00200	0.000300	mg/L	1			6020A	Total/NA
Boron	0.695		0.100	0.0580	mg/L	1			6020A	Total/NA
Calcium	274		0.500	0.190	mg/L	1			6020A	Total/NA
Cobalt	0.00915		0.000500	0.0000910	mg/L	1			6020A	Total/NA
Lithium	0.0974		0.0100	0.00250	mg/L	1			6020A	Total/NA
Molybdenum	0.00398		0.00200	0.00130	mg/L	1			6020A	Total/NA
Total Dissolved Solids	1500		150	130	mg/L	1			SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-203702-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	3.63	J	5.00	2.15	mg/L	5			9056A	Total/NA
Fluoride	0.540		0.500	0.275	mg/L	5			9056A	Total/NA
Arsenic	0.00126	J	0.00200	0.000750	mg/L	1			6020A	Total/NA
Barium	0.329		0.00200	0.000300	mg/L	1			6020A	Total/NA
Boron	0.123		0.100	0.0580	mg/L	1			6020A	Total/NA
Cadmium	0.000241		0.000100	0.0000510	mg/L	1			6020A	Total/NA
Calcium	98.3		0.500	0.190	mg/L	1			6020A	Total/NA
Cobalt	0.0000990	J	0.000500	0.0000910	mg/L	1			6020A	Total/NA
Lead	0.000349	J	0.000500	0.000210	mg/L	1			6020A	Total/NA
Lithium	0.0268		0.0100	0.00250	mg/L	1			6020A	Total/NA
Total Dissolved Solids	384		30.0	26.0	mg/L	1			SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-203702-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	3.44	J	5.00	2.15	mg/L	5			9056A	Total/NA
Fluoride	0.517		0.500	0.275	mg/L	5			9056A	Total/NA
Barium	0.297		0.00200	0.000300	mg/L	1			6020A	Total/NA
Boron	0.119		0.100	0.0580	mg/L	1			6020A	Total/NA
Calcium	101		0.500	0.190	mg/L	1			6020A	Total/NA
Lithium	0.0343		0.0100	0.00250	mg/L	1			6020A	Total/NA
Total Dissolved Solids	402		30.0	26.0	mg/L	1			SM 2540C	Total/NA

Client Sample ID: DUP1

Lab Sample ID: 310-203702-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	40.1		5.00	2.15	mg/L	5			9056A	Total/NA
Fluoride	0.579		0.500	0.275	mg/L	5			9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-203702-1

Client Sample ID: DUP1 (Continued)

Lab Sample ID: 310-203702-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Sulfate	1080		20.0	9.80	mg/L	20			9056A	Total/NA
Arsenic	0.0589		0.00200	0.000750	mg/L	1			6020A	Total/NA
Barium	0.0451		0.00200	0.000300	mg/L	1			6020A	Total/NA
Boron	0.601		0.100	0.0580	mg/L	1			6020A	Total/NA
Calcium	366		0.500	0.190	mg/L	1			6020A	Total/NA
Cobalt	0.000355	J	0.000500	0.0000910	mg/L	1			6020A	Total/NA
Lithium	0.0832		0.0100	0.00250	mg/L	1			6020A	Total/NA
Molybdenum	0.00161	J	0.00200	0.00130	mg/L	1			6020A	Total/NA
Total Dissolved Solids	2010		150	130	mg/L	1			SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW2

Lab Sample ID: 310-203702-1

Date Collected: 04/05/21 12:42

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.9		5.00	2.15	mg/L			04/12/21 09:03	5
Fluoride	<0.275		0.500	0.275	mg/L			04/12/21 09:03	5
Sulfate	553		20.0	9.80	mg/L			04/12/21 09:59	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 20:38	1
Arsenic	0.213		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 20:38	1
Barium	0.100		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 20:38	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 20:38	1
Boron	1.30		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 20:38	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 20:38	1
Calcium	243		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 20:38	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 20:38	1
Cobalt	0.000472 J		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 20:38	1
Lead	0.000515		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 20:38	1
Lithium	0.0435		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 20:38	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 20:38	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 20:38	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 20:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1340		150	130	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW5

Lab Sample ID: 310-203702-2

Date Collected: 04/05/21 18:14

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.5		5.00	2.15	mg/L			04/12/21 10:18	5
Fluoride	0.642		0.500	0.275	mg/L			04/12/21 10:18	5
Sulfate	1100		20.0	9.80	mg/L			04/12/21 10:37	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 20:41	1
Arsenic	0.0614		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 20:41	1
Barium	0.0458		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 20:41	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 20:41	1
Boron	0.592		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 20:41	1
Cadmium	0.0000540 J		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 20:41	1
Calcium	380		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 20:41	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 20:41	1
Cobalt	0.000350 J		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 20:41	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 20:41	1
Lithium	0.0818		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 20:41	1
Molybdenum	0.00157 J		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 20:41	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 20:41	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 20:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2020		150	130	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW6

Date Collected: 04/05/21 14:53

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-3

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	313		5.00	2.15	mg/L			04/12/21 10:56	5
Fluoride	0.310	J	0.500	0.275	mg/L			04/12/21 10:56	5
Sulfate	275		5.00	2.45	mg/L			04/12/21 10:56	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 20:43	1
Arsenic	0.0119		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 20:43	1
Barium	0.192		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 20:43	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 20:43	1
Boron	0.502		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 20:43	1
Cadmium	0.000198		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 20:43	1
Calcium	283		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 20:43	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 20:43	1
Cobalt	0.00613		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 20:43	1
Lead	0.000707		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 20:43	1
Lithium	0.0454		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 20:43	1
Molybdenum	0.0550		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 20:43	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 20:43	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 20:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1280		30.0	26.0	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW8

Date Collected: 04/05/21 16:06

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-4

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.6		5.00	2.15	mg/L			04/12/21 11:14	5
Fluoride	<0.275		0.500	0.275	mg/L			04/12/21 11:14	5
Sulfate	528		20.0	9.80	mg/L			04/12/21 11:33	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 20:57	1
Arsenic	0.0110		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 20:57	1
Barium	0.0846		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 20:57	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 20:57	1
Boron	2.04		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 20:57	1
Cadmium	0.0000780	J	0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 20:57	1
Calcium	127		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 20:57	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 20:57	1
Cobalt	0.000487	J	0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 20:57	1
Lead	0.000488	J	0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 20:57	1
Lithium	0.0118		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 20:57	1
Molybdenum	0.100		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 20:57	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 20:57	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 20:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	814		30.0	26.0	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW9

Lab Sample ID: 310-203702-5

Date Collected: 04/05/21 10:45

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	164		5.00	2.15	mg/L			04/12/21 11:52	5
Fluoride	0.422	J	0.500	0.275	mg/L			04/12/21 11:52	5
Sulfate	30.6		5.00	2.45	mg/L			04/12/21 11:52	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:02	1
Arsenic	0.00420		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:02	1
Barium	0.562		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:02	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:02	1
Boron	0.125		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:02	1
Cadmium	0.000168		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:02	1
Calcium	158		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:02	1
Chromium	0.00137	J	0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:02	1
Cobalt	0.00119		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:02	1
Lead	0.00289		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:02	1
Lithium	0.0504		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:02	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:02	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:02	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	724		30.0	26.0	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW13

Lab Sample ID: 310-203702-6

Date Collected: 04/05/21 11:36

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.98		5.00	2.15	mg/L			04/12/21 12:48	5
Fluoride	0.496	J	0.500	0.275	mg/L			04/12/21 12:48	5
Sulfate	790		20.0	9.80	mg/L			04/12/21 13:44	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:05	1
Arsenic	0.0892		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:05	1
Barium	0.0848		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:05	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:05	1
Boron	1.70		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:05	1
Cadmium	0.000409		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:05	1
Calcium	144		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:05	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:05	1
Cobalt	0.000567		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:05	1
Lead	0.00137		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:05	1
Lithium	0.0240		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:05	1
Molybdenum	1.52		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:05	1
Selenium	0.0377		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:05	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1330		150	130	mg/L			04/08/21 12:09	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW15

Date Collected: 04/05/21 14:05

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-7

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.19		5.00	2.15	mg/L			04/12/21 14:03	5
Fluoride	<0.275		0.500	0.275	mg/L			04/12/21 14:03	5
Sulfate	586		20.0	9.80	mg/L			04/12/21 14:22	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00126	J	0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:07	1
Arsenic	0.00149	J	0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:07	1
Barium	0.0644		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:07	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:07	1
Boron	3.36		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:07	1
Cadmium	0.0000860	J	0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:07	1
Calcium	224		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:07	1
Chromium	0.0363		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:07	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:07	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:07	1
Lithium	0.0145		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:07	1
Molybdenum	0.219		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:07	1
Selenium	0.0568		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:07	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	974		30.0	26.0	mg/L			04/08/21 12:09	1

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW17

Date Collected: 04/05/21 17:07

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-8

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.1		5.00	2.15	mg/L			04/12/21 14:40	5
Fluoride	<0.275		0.500	0.275	mg/L			04/12/21 14:40	5
Sulfate	677		20.0	9.80	mg/L			04/12/21 14:59	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:10	1
Arsenic	0.00927		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:10	1
Barium	0.0341		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:10	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:10	1
Boron	0.695		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:10	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:10	1
Calcium	274		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:10	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:10	1
Cobalt	0.00915		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:10	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:10	1
Lithium	0.0974		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:10	1
Molybdenum	0.00398		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:10	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:10	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1500		150	130	mg/L			04/08/21 12:09	1

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW18

Date Collected: 04/05/21 09:05

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-9

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.63	J	5.00	2.15	mg/L			04/12/21 15:18	5
Fluoride	0.540		0.500	0.275	mg/L			04/12/21 15:18	5
Sulfate	<2.45		5.00	2.45	mg/L			04/12/21 15:18	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:12	1
Arsenic	0.00126	J	0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:12	1
Barium	0.329		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:12	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:12	1
Boron	0.123		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:12	1
Cadmium	0.000241		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:12	1
Calcium	98.3		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:12	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:12	1
Cobalt	0.0000990	J	0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:12	1
Lead	0.000349	J	0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:12	1
Lithium	0.0268		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:12	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:12	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:12	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:12	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	384		30.0	26.0	mg/L			04/09/21 11:45	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: MW19

Date Collected: 04/05/21 09:50

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-10

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.44	J	5.00	2.15	mg/L			04/12/21 15:37	5
Fluoride	0.517		0.500	0.275	mg/L			04/12/21 15:37	5
Sulfate	<2.45		5.00	2.45	mg/L			04/12/21 15:37	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:15	1
Arsenic	<0.000750		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:15	1
Barium	0.297		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:15	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:15	1
Boron	0.119		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:15	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:15	1
Calcium	101		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:15	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:15	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:15	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:15	1
Lithium	0.0343		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:15	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:15	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:15	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	402		30.0	26.0	mg/L			04/09/21 11:45	1

Client Sample Results

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

Job ID: 310-203702-1

Client Sample ID: DUP1

Lab Sample ID: 310-203702-11

Date Collected: 04/05/21 00:00

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.1		5.00	2.15	mg/L			04/12/21 15:55	5
Fluoride	0.579		0.500	0.275	mg/L			04/12/21 15:55	5
Sulfate	1080		20.0	9.80	mg/L			04/12/21 16:14	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 21:18	1
Arsenic	0.0589		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 21:18	1
Barium	0.0451		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 21:18	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 21:18	1
Boron	0.601		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 21:18	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 21:18	1
Calcium	366		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 21:18	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 21:18	1
Cobalt	0.000355	J	0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 21:18	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 21:18	1
Lithium	0.0832		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 21:18	1
Molybdenum	0.00161	J	0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 21:18	1
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 21:18	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 21:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2010		150	130	mg/L			04/09/21 11:45	1

Definitions/Glossary

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

Job ID: 310-203702-1

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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 Landfill

Job ID: 310-203702-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-312749/3
Matrix: Water
Analysis Batch: 312749

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.430		1.00	0.430	mg/L			04/12/21 08:07	1
Fluoride	<0.0550		0.100	0.0550	mg/L			04/12/21 08:07	1
Sulfate	<0.490		1.00	0.490	mg/L			04/12/21 08:07	1

Lab Sample ID: LCS 310-312749/4
Matrix: Water
Analysis Batch: 312749

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	9.413		mg/L		94	90 - 110
Fluoride	2.00	1.976		mg/L		99	90 - 110
Sulfate	10.0	9.921		mg/L		99	90 - 110

Lab Sample ID: 310-203702-5 MS
Matrix: Water
Analysis Batch: 312749

Client Sample ID: MW9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	164		25.0	182.2	4	mg/L		73	80 - 120
Fluoride	0.422	J	5.00	5.350		mg/L		99	80 - 120
Sulfate	30.6		25.0	53.59		mg/L		92	80 - 120

Lab Sample ID: 310-203702-5 MSD
Matrix: Water
Analysis Batch: 312749

Client Sample ID: MW9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	164		25.0	183.1	4	mg/L		76	80 - 120	0	15
Fluoride	0.422	J	5.00	5.517		mg/L		102	80 - 120	3	15
Sulfate	30.6		25.0	54.46		mg/L		96	80 - 120	2	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-311940/1-A
Matrix: Water
Analysis Batch: 312483

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		04/08/21 08:00	04/12/21 19:53	1
Arsenic	<0.000750		0.00200	0.000750	mg/L		04/08/21 08:00	04/12/21 19:53	1
Barium	<0.000300		0.00200	0.000300	mg/L		04/08/21 08:00	04/12/21 19:53	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/08/21 08:00	04/12/21 19:53	1
Boron	<0.0580		0.100	0.0580	mg/L		04/08/21 08:00	04/12/21 19:53	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		04/08/21 08:00	04/12/21 19:53	1
Calcium	<0.190		0.500	0.190	mg/L		04/08/21 08:00	04/12/21 19:53	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/08/21 08:00	04/12/21 19:53	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/08/21 08:00	04/12/21 19:53	1
Lead	<0.000210		0.000500	0.000210	mg/L		04/08/21 08:00	04/12/21 19:53	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/08/21 08:00	04/12/21 19:53	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/08/21 08:00	04/12/21 19:53	1

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QC Sample Results

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

Job ID: 310-203702-1

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

Lab Sample ID: MB 310-311940/1-A
Matrix: Water
Analysis Batch: 312483

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.000960		0.00500	0.000960	mg/L		04/08/21 08:00	04/12/21 19:53	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/08/21 08:00	04/12/21 19:53	1

Lab Sample ID: LCS 310-311940/2-A
Matrix: Water
Analysis Batch: 312483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.2017		mg/L		101	80 - 120
Arsenic	0.200	0.2004		mg/L		100	80 - 120
Barium	0.100	0.1076		mg/L		108	80 - 120
Beryllium	0.100	0.1075		mg/L		108	80 - 120
Boron	0.200	0.2144		mg/L		107	80 - 120
Cadmium	0.100	0.1033		mg/L		103	80 - 120
Calcium	2.00	1.818		mg/L		91	80 - 120
Chromium	0.100	0.1047		mg/L		105	80 - 120
Cobalt	0.100	0.1071		mg/L		107	80 - 120
Lead	0.200	0.2141		mg/L		107	80 - 120
Lithium	0.200	0.1987		mg/L		99	80 - 120
Molybdenum	0.200	0.2080		mg/L		104	80 - 120
Selenium	0.400	0.4003		mg/L		100	80 - 120
Thallium	0.200	0.1981		mg/L		99	80 - 120

Lab Sample ID: 310-203702-4 DU
Matrix: Water
Analysis Batch: 312483

Client Sample ID: MW8
Prep Type: Total/NA
Prep Batch: 311940

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00110		<0.00110		mg/L		NC	20
Arsenic	0.0110		0.01107		mg/L		0.2	20
Barium	0.0846		0.08573		mg/L		1	20
Beryllium	<0.000270		<0.000270		mg/L		NC	20
Boron	2.04		2.115		mg/L		4	20
Cadmium	0.0000780	J	0.00005400	J F5	mg/L		36	20
Calcium	127		129.1		mg/L		1	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.000487	J	0.0004880	J	mg/L		0.2	20
Lead	0.0004610	J	0.0004610	J	mg/L		6	20
Lithium	0.0118		0.01131		mg/L		4	20
Molybdenum	0.100		0.09999		mg/L		0.3	20
Selenium	<0.000960		<0.000960		mg/L		NC	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

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QC Sample Results

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

Job ID: 310-203702-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-312722/1-A
Matrix: Water
Analysis Batch: 312918

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		04/14/21 15:10	04/15/21 14:56	1

Lab Sample ID: LCS 310-312722/2-A
Matrix: Water
Analysis Batch: 312918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00167	0.001591		mg/L		95	80 - 120

Lab Sample ID: 310-203702-1 MS
Matrix: Water
Analysis Batch: 312918

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 312722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000150		0.00167	0.001589		mg/L		95	80 - 120

Lab Sample ID: 310-203702-1 MSD
Matrix: Water
Analysis Batch: 312918

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 312722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000150		0.00167	0.001610		mg/L		97	80 - 120	1	20

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

Lab Sample ID: MB 310-312048/1
Matrix: Water
Analysis Batch: 312048

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26.0		30.0	26.0	mg/L			04/08/21 12:09	1

Lab Sample ID: LCS 310-312048/2
Matrix: Water
Analysis Batch: 312048

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	986.0		mg/L		99	90 - 110

Lab Sample ID: MB 310-312192/1
Matrix: Water
Analysis Batch: 312192

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26.0		30.0	26.0	mg/L			04/09/21 11:45	1

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QC Sample Results

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

Job ID: 310-203702-1

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

Lab Sample ID: LCS 310-312192/2
Matrix: Water
Analysis Batch: 312192

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	962.0		mg/L		96	90 - 110

Lab Sample ID: 310-203702-9 DU
Matrix: Water
Analysis Batch: 312192

Client Sample ID: MW18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	384		386.0		mg/L		0.5	20

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QC Association Summary

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

Job ID: 310-203702-1

HPLC/IC

Analysis Batch: 312749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	9056A	
310-203702-1	MW2	Total/NA	Water	9056A	
310-203702-2	MW5	Total/NA	Water	9056A	
310-203702-2	MW5	Total/NA	Water	9056A	
310-203702-3	MW6	Total/NA	Water	9056A	
310-203702-4	MW8	Total/NA	Water	9056A	
310-203702-4	MW8	Total/NA	Water	9056A	
310-203702-5	MW9	Total/NA	Water	9056A	
310-203702-6	MW13	Total/NA	Water	9056A	
310-203702-6	MW13	Total/NA	Water	9056A	
310-203702-7	MW15	Total/NA	Water	9056A	
310-203702-7	MW15	Total/NA	Water	9056A	
310-203702-8	MW17	Total/NA	Water	9056A	
310-203702-8	MW17	Total/NA	Water	9056A	
310-203702-9	MW18	Total/NA	Water	9056A	
310-203702-10	MW19	Total/NA	Water	9056A	
310-203702-11	DUP1	Total/NA	Water	9056A	
310-203702-11	DUP1	Total/NA	Water	9056A	
MB 310-312749/3	Method Blank	Total/NA	Water	9056A	
LCS 310-312749/4	Lab Control Sample	Total/NA	Water	9056A	
310-203702-5 MS	MW9	Total/NA	Water	9056A	
310-203702-5 MSD	MW9	Total/NA	Water	9056A	

Metals

Prep Batch: 311940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	3010A	
310-203702-2	MW5	Total/NA	Water	3010A	
310-203702-3	MW6	Total/NA	Water	3010A	
310-203702-4	MW8	Total/NA	Water	3010A	
310-203702-5	MW9	Total/NA	Water	3010A	
310-203702-6	MW13	Total/NA	Water	3010A	
310-203702-7	MW15	Total/NA	Water	3010A	
310-203702-8	MW17	Total/NA	Water	3010A	
310-203702-9	MW18	Total/NA	Water	3010A	
310-203702-10	MW19	Total/NA	Water	3010A	
310-203702-11	DUP1	Total/NA	Water	3010A	
MB 310-311940/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-311940/2-A	Lab Control Sample	Total/NA	Water	3010A	
310-203702-4 DU	MW8	Total/NA	Water	3010A	

Analysis Batch: 312483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	6020A	311940
310-203702-2	MW5	Total/NA	Water	6020A	311940
310-203702-3	MW6	Total/NA	Water	6020A	311940
310-203702-4	MW8	Total/NA	Water	6020A	311940
310-203702-5	MW9	Total/NA	Water	6020A	311940
310-203702-6	MW13	Total/NA	Water	6020A	311940
310-203702-7	MW15	Total/NA	Water	6020A	311940

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QC Association Summary

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

Job ID: 310-203702-1

Metals (Continued)

Analysis Batch: 312483 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-8	MW17	Total/NA	Water	6020A	311940
310-203702-9	MW18	Total/NA	Water	6020A	311940
310-203702-10	MW19	Total/NA	Water	6020A	311940
310-203702-11	DUP1	Total/NA	Water	6020A	311940
MB 310-311940/1-A	Method Blank	Total/NA	Water	6020A	311940
LCS 310-311940/2-A	Lab Control Sample	Total/NA	Water	6020A	311940
310-203702-4 DU	MW8	Total/NA	Water	6020A	311940

Prep Batch: 312722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	7470A	
310-203702-2	MW5	Total/NA	Water	7470A	
310-203702-3	MW6	Total/NA	Water	7470A	
310-203702-4	MW8	Total/NA	Water	7470A	
310-203702-5	MW9	Total/NA	Water	7470A	
310-203702-6	MW13	Total/NA	Water	7470A	
310-203702-7	MW15	Total/NA	Water	7470A	
310-203702-8	MW17	Total/NA	Water	7470A	
310-203702-9	MW18	Total/NA	Water	7470A	
310-203702-10	MW19	Total/NA	Water	7470A	
310-203702-11	DUP1	Total/NA	Water	7470A	
MB 310-312722/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-312722/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-203702-1 MS	MW2	Total/NA	Water	7470A	
310-203702-1 MSD	MW2	Total/NA	Water	7470A	

Analysis Batch: 312918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	7470A	312722
310-203702-2	MW5	Total/NA	Water	7470A	312722
310-203702-3	MW6	Total/NA	Water	7470A	312722
310-203702-4	MW8	Total/NA	Water	7470A	312722
310-203702-5	MW9	Total/NA	Water	7470A	312722
310-203702-6	MW13	Total/NA	Water	7470A	312722
310-203702-7	MW15	Total/NA	Water	7470A	312722
310-203702-8	MW17	Total/NA	Water	7470A	312722
310-203702-9	MW18	Total/NA	Water	7470A	312722
310-203702-10	MW19	Total/NA	Water	7470A	312722
310-203702-11	DUP1	Total/NA	Water	7470A	312722
MB 310-312722/1-A	Method Blank	Total/NA	Water	7470A	312722
LCS 310-312722/2-A	Lab Control Sample	Total/NA	Water	7470A	312722
310-203702-1 MS	MW2	Total/NA	Water	7470A	312722
310-203702-1 MSD	MW2	Total/NA	Water	7470A	312722

General Chemistry

Analysis Batch: 312048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	SM 2540C	
310-203702-2	MW5	Total/NA	Water	SM 2540C	
310-203702-3	MW6	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Cedar Falls

QC Association Summary

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

Job ID: 310-203702-1

General Chemistry (Continued)

Analysis Batch: 312048 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-4	MW8	Total/NA	Water	SM 2540C	
310-203702-5	MW9	Total/NA	Water	SM 2540C	
310-203702-6	MW13	Total/NA	Water	SM 2540C	
310-203702-7	MW15	Total/NA	Water	SM 2540C	
310-203702-8	MW17	Total/NA	Water	SM 2540C	
MB 310-312048/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-312048/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 312192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-9	MW18	Total/NA	Water	SM 2540C	
310-203702-10	MW19	Total/NA	Water	SM 2540C	
310-203702-11	DUP1	Total/NA	Water	SM 2540C	
MB 310-312192/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-312192/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-203702-9 DU	MW18	Total/NA	Water	SM 2540C	

Lab Chronicle

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

Job ID: 310-203702-1

Client Sample ID: MW2

Date Collected: 04/05/21 12:42

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 09:03	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 09:59	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 20:38	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:05	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW5

Date Collected: 04/05/21 18:14

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 10:18	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 10:37	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 20:41	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:11	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW6

Date Collected: 04/05/21 14:53

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 10:56	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 20:43	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:13	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW8

Date Collected: 04/05/21 16:06

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 11:14	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 11:33	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 20:57	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:15	HED	TAL CF

Lab Chronicle

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

Job ID: 310-203702-1

Client Sample ID: MW8

Date Collected: 04/05/21 16:06

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW9

Date Collected: 04/05/21 10:45

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 11:52	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:02	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:17	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW13

Date Collected: 04/05/21 11:36

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 12:48	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 13:44	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:05	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:20	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW15

Date Collected: 04/05/21 14:05

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 14:03	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 14:22	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:07	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:22	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-203702-1

Client Sample ID: MW17

Date Collected: 04/05/21 17:07

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 14:40	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 14:59	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:10	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:32	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312048	04/08/21 12:09	ARG	TAL CF

Client Sample ID: MW18

Date Collected: 04/05/21 09:05

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 15:18	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:12	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:34	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312192	04/09/21 11:45	SAS	TAL CF

Client Sample ID: MW19

Date Collected: 04/05/21 09:50

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 15:37	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:15	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:36	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312192	04/09/21 11:45	SAS	TAL CF

Client Sample ID: DUP1

Date Collected: 04/05/21 00:00

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	312749	04/12/21 15:55	SAD	TAL CF
Total/NA	Analysis	9056A		20	312749	04/12/21 16:14	SAD	TAL CF
Total/NA	Prep	3010A			311940	04/08/21 08:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	312483	04/12/21 21:18	SAD	TAL CF
Total/NA	Prep	7470A			312722	04/14/21 15:10	HED	TAL CF
Total/NA	Analysis	7470A		1	312918	04/15/21 15:38	HED	TAL CF
Total/NA	Analysis	SM 2540C		1	312192	04/09/21 11:45	SAS	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-203702-1

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 310-203702-1

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-21
Georgia	State	IA100001 (OR)	09-29-21
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-29-21
Oregon	NELAP	IA100001	09-29-21
USDA	US Federal Programs	P330-19-00003	01-02-22

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

Method Summary

Job ID: 310-203702-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"
 SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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



Environment Testing
 TestAmerica



310-203702 Chain of Custody

Cooler/Sample Receipt and Temperature

Client Information	
Client:	OPPD
City/State:	CITY Omaha STATE NE Project: N. Omaha Station LF
Receipt Information	
Date/Time Received:	DATE 4/7/21 TIME 0900 Received By: MEH
Delivery Type:	<input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other:
Condition of Cooler/Containers	
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: 1
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # 1 of 3
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓
Temperature Record	
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: NONE
Thermometer ID:	N Correction Factor (°C): 0.0
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature	
Uncorrected Temp (°C):	2.3 Corrected Temp (°C): 2.3
• Sample Container Temperature	
Container(s) used:	CONTAINER 1 CONTAINER 2
Uncorrected Temp (°C):	
Corrected Temp (°C):	
Exceptions Noted	
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
NOTE: If yes, contact PM before proceeding. If no, proceed with login	
Additional Comments	

Document: CF-LG-WI-002
 Revision: 25
 Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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

Eurofins TestAmerica, Cedar Falls



Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>OPPD</u>			
City/State:	CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>N. Omaha Station LF</u>	
Receipt Information			
Date/Time Received:	DATE <u>4/7/21</u> TIME <u>0900</u>	Received By: <u>MRH</u>	
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: <u>2</u>	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes NO	If yes: Cooler # <u>2</u> of <u>3</u>	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>N</u>		Correction Factor (°C): <u>0.0</u>	
Temp. Blank Temperature - If no temp. blank, or temp. blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.3</u>		Corrected Temp (°C): <u>1.3</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions/Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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



Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>OPPD</u>			
City/State:	CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>N. Omaha Station LF</u>	
Receipt Information			
Date/Time Received:	DATE <u>4/7/21</u> TIME <u>0900</u>	Received By: <u>MRH</u>	
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: <u>3</u>	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes NO	If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>N</u>		Correction Factor (°C): <u>0.0</u>	
Temp. Blank Temperature - If no temp. blank, or temp. blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.2</u>		Corrected Temp (°C): <u>1.2</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions/Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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

Chain of Custody Record

<p>Client Information Client: Omaha Public Power District Contact: Kyle Ulling Phone: (531) 226-2515</p>		<p>Lab Info Lab Name: Hayes, Shawn M E-Mail: shawn.hayes@testamericasc.com</p>																																																																																																													
<p>Sample Information Site: North Omaha Station Address: 444 South 16th Street Mail 9E/EP1 City: Omaha State, Zip: NE, 68102-2247 Phone: (531) 226-2515 Email: kulling@ppod.com</p>		<p>Analysis Requested Preservation Codes: A-HCL, W-Hexane B-NaOH, U-Nitro C-Cyanide, V-Cyanide D-Nitric Acid, P-Na2SO4 E-NaHSO4, Q-Na2S2O3 F-MeOH, R-Na2S2O8 G-HNO3, S-TSP doest/dstphile H-Arsenic Acid, T-Arsenic I-Ion, U-Arsenic J-DiWaste, V-MOXA K-EDA, Z-Other (specify)</p>																																																																																																													
<p>Sample Identification</p>		<p>Special Instructions/Notes:</p>																																																																																																													
<table border="1"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix (W=Water, B=Blood, O=Other, S=Soil)</th> <th>Preservation Code</th> <th>D</th> <th>I</th> <th>N</th> </tr> </thead> <tbody> <tr><td>MW2</td><td>4/5/21</td><td>13:43</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW5</td><td>4/5/21</td><td>18:14</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW6</td><td>4/5/21</td><td>14:53</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW8</td><td>4/5/21</td><td>16:04</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW9</td><td>4/5/21</td><td>10:45</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW13</td><td>4/5/21</td><td>11:36</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW15</td><td>4/5/21</td><td>14:05</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW17</td><td>4/5/21</td><td>17:07</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW18</td><td>4/5/21</td><td>9:05</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>MW19</td><td>4/5/21</td><td>9:50</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>DJP1</td><td>4/5/21</td><td>...</td><td>G</td><td>W</td><td></td><td>X</td><td>X</td><td>X</td></tr> </tbody> </table>	Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, B=Blood, O=Other, S=Soil)	Preservation Code	D	I	N	MW2	4/5/21	13:43	G	W		X	X	X	MW5	4/5/21	18:14	G	W		X	X	X	MW6	4/5/21	14:53	G	W		X	X	X	MW8	4/5/21	16:04	G	W		X	X	X	MW9	4/5/21	10:45	G	W		X	X	X	MW13	4/5/21	11:36	G	W		X	X	X	MW15	4/5/21	14:05	G	W		X	X	X	MW17	4/5/21	17:07	G	W		X	X	X	MW18	4/5/21	9:05	G	W		X	X	X	MW19	4/5/21	9:50	G	W		X	X	X	DJP1	4/5/21	...	G	W		X	X	X	<p>Field Filtered Sample (Yes or No) Form: MS/MSD (Yes or No)</p>		
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<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p>		<p>Special Instructions/OC Requirements: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>																																																																																																													
<p>Deliverable Requested: I, II, III, IV, Other (specify)</p>		<p>Sample Disposal (A fee may be assessed if samples are retained longer than 7 months) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>																																																																																																													
<p>Empty Kit Requisitioned by: _____ Retrieved by: _____ Relinquished to: _____ Relinquished to: _____</p>		<p>Signature/Date: Retrieved by: _____ Date: 4/6/2021 Relinquished to: _____ Date: 4-6-2021 Relinquished to: _____ Date: 4-6-2021</p>																																																																																																													
<p>Custom Seal No.: 1. Yes 2. No</p>		<p>Company: Eurofins TestAmerica, Cedar Falls Company ID: 900</p>																																																																																																													

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-203702-1

Login Number: 203702
List Number: 1
Creator: Ramos, Eric F

List Source: Eurofins TestAmerica, Cedar Falls

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 310-203702-2
Client Project/Site: North Omaha Station Landfill CCR

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

Attn: Kyle Uhing

Authorized for release by:
5/6/2021 10:59:46 AM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

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

Laboratory Job ID: 310-203702-2

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

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

Job ID: 310-203702-2

Job ID: 310-203702-2

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative
310-203702-2

Comments

No additional comments.

Receipt

The samples were received on 4/7/2021 9:00 AM. 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, 1.3° C and 2.3° C.

RAD

Method PrecSep_0: Radium 228 Prep Batch 160-505189:

The following samples were prepared at a reduced aliquot due to discoloration and cloudy appearance: MW2 (310-203702-1), MW5 (310-203702-2), MW6 (310-203702-3), MW9 (310-203702-5), MW13 (310-203702-6), MW18 (310-203702-9), MW19 (310-203702-10) and DUP1 (310-203702-11). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision. Samples 310-203702-1, 310-203702-2, 310-203702-3, 310-203702-6, 310-203702-9, 310-203702-10 and 310-2037102-11) all have a yellow discoloration. Sample 310-203702-5 has a brown/yellow discoloration and sediment.

Method PrecSep_0: Radium 228 Prep Batch 160-505189:

During the in-growth process, the following samples needed to be filtered due to sediment present in the sample: MW5 (310-203702-2), MW6 (310-203702-3), MW8 (310-203702-4), MW9 (310-203702-5), MW15 (310-203702-7) and MW18 (310-203702-9). This is an indicator of matrix interference.

Method PrecSep-21: Radium 226 Prep Batch 160-505091:

The following samples were prepared at a reduced aliquot due to discoloration and cloudy appearance: MW2 (310-203702-1), MW5 (310-203702-2), MW6 (310-203702-3), MW9 (310-203702-5), MW13 (310-203702-6), MW18 (310-203702-9), MW19 (310-203702-10) and DUP1 (310-203702-11). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision. Samples 310-203702-1, 310-203702-2, 310-203702-3, 310-203702-6, 310-203702-9, 310-203702-10 and 310-2037102-11) all have a yellow discoloration. Sample 310-203702-5 has a brown/yellow discoloration and sediment.

Method PrecSep-21: Radium 226 Prep Batch 160-505091:

During the in-growth process, the following samples needed to be filtered due to sediment present in the sample: MW5 (310-203702-2), MW6 (310-203702-3), MW8 (310-203702-4), MW9 (310-203702-5), MW15 (310-203702-7) and MW18 (310-203702-9). This is an indicator of matrix interference.

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 Landfill CCR

Job ID: 310-203702-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-203702-1	MW2	Water	04/05/21 12:42	04/07/21 09:00	
310-203702-2	MW5	Water	04/05/21 18:14	04/07/21 09:00	
310-203702-3	MW6	Water	04/05/21 14:53	04/07/21 09:00	
310-203702-4	MW8	Water	04/05/21 16:06	04/07/21 09:00	
310-203702-5	MW9	Water	04/05/21 10:45	04/07/21 09:00	
310-203702-6	MW13	Water	04/05/21 11:36	04/07/21 09:00	
310-203702-7	MW15	Water	04/05/21 14:05	04/07/21 09:00	
310-203702-8	MW17	Water	04/05/21 17:07	04/07/21 09:00	
310-203702-9	MW18	Water	04/05/21 09:05	04/07/21 09:00	
310-203702-10	MW19	Water	04/05/21 09:50	04/07/21 09:00	
310-203702-11	DUP1	Water	04/05/21 00:00	04/07/21 09:00	

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW2

Lab Sample ID: 310-203702-1

Date Collected: 04/05/21 12:42

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141	U	0.112	0.112	1.00	0.164	pCi/L	04/09/21 10:54	05/05/21 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					04/09/21 10:54	05/05/21 10:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.352	U	0.278	0.280	1.00	0.433	pCi/L	04/09/21 11:17	04/26/21 12:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.2		40 - 110					04/09/21 11:17	04/26/21 12:24	1
Y Carrier	87.1		40 - 110					04/09/21 11:17	04/26/21 12:24	1

Method: 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	0.493		0.300	0.302	5.00	0.433	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW5

Lab Sample ID: 310-203702-2

Date Collected: 04/05/21 18:14

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0771	U	0.0841	0.0844	1.00	0.134	pCi/L	04/09/21 10:54	05/05/21 08:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					04/09/21 10:54	05/05/21 08:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.310	U	0.314	0.315	1.00	0.511	pCi/L	04/09/21 11:17	04/26/21 12:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					04/09/21 11:17	04/26/21 12:24	1
Y Carrier	89.0		40 - 110					04/09/21 11:17	04/26/21 12:24	1

Method: 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	0.387	U	0.325	0.326	5.00	0.511	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW6

Lab Sample ID: 310-203702-3

Date Collected: 04/05/21 14:53

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.386		0.148	0.152	1.00	0.151	pCi/L	04/09/21 10:54	05/05/21 08:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		40 - 110					04/09/21 10:54	05/05/21 08:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0702	U	0.282	0.282	1.00	0.499	pCi/L	04/09/21 11:17	04/26/21 12:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		40 - 110					04/09/21 11:17	04/26/21 12:24	1
Y Carrier	88.2		40 - 110					04/09/21 11:17	04/26/21 12:24	1

Method: 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	0.456	U	0.318	0.320	5.00	0.499	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW8

Lab Sample ID: 310-203702-4

Date Collected: 04/05/21 16:06

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112	U	0.0832	0.0838	1.00	0.119	pCi/L	04/09/21 10:54	05/05/21 08:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		40 - 110					04/09/21 10:54	05/05/21 08:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.376	U	0.247	0.250	1.00	0.378	pCi/L	04/09/21 11:17	04/26/21 12:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		40 - 110					04/09/21 11:17	04/26/21 12:25	1
Y Carrier	87.9		40 - 110					04/09/21 11:17	04/26/21 12:25	1

Method: 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	0.488		0.261	0.264	5.00	0.378	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW9

Lab Sample ID: 310-203702-5

Date Collected: 04/05/21 10:45

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.890		0.266	0.278	1.00	0.224	pCi/L	04/09/21 10:54	05/05/21 08:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.3		40 - 110					04/09/21 10:54	05/05/21 08:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.942		0.542	0.549	1.00	0.811	pCi/L	04/09/21 11:17	04/26/21 12:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.3		40 - 110					04/09/21 11:17	04/26/21 12:25	1
Y Carrier	88.2		40 - 110					04/09/21 11:17	04/26/21 12:25	1

Method: 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	1.83		0.604	0.615	5.00	0.811	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW13

Lab Sample ID: 310-203702-6

Date Collected: 04/05/21 11:36

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.222		0.113	0.115	1.00	0.140	pCi/L	04/09/21 10:54	05/05/21 08:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					04/09/21 10:54	05/05/21 08:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.284	U	0.299	0.300	1.00	0.488	pCi/L	04/09/21 11:17	04/26/21 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					04/09/21 11:17	04/26/21 12:27	1
Y Carrier	87.1		40 - 110					04/09/21 11:17	04/26/21 12:27	1

Method: 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	0.506		0.320	0.321	5.00	0.488	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW15

Lab Sample ID: 310-203702-7

Date Collected: 04/05/21 14:05

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0587	U	0.0642	0.0644	1.00	0.103	pCi/L	04/09/21 10:54	05/05/21 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/09/21 10:54	05/05/21 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.131	U	0.193	0.193	1.00	0.369	pCi/L	04/09/21 11:17	04/26/21 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/09/21 11:17	04/26/21 12:27	1
Y Carrier	89.0		40 - 110					04/09/21 11:17	04/26/21 12:27	1

Method: 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	-0.0719	U	0.203	0.203	5.00	0.369	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW17

Lab Sample ID: 310-203702-8

Date Collected: 04/05/21 17:07

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0687	U	0.0678	0.0681	1.00	0.106	pCi/L	04/09/21 10:54	05/05/21 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					04/09/21 10:54	05/05/21 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.585		0.263	0.268	1.00	0.376	pCi/L	04/09/21 11:17	04/26/21 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					04/09/21 11:17	04/26/21 12:28	1
Y Carrier	88.6		40 - 110					04/09/21 11:17	04/26/21 12:28	1

Method: 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	0.654		0.272	0.277	5.00	0.376	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW18

Lab Sample ID: 310-203702-9

Date Collected: 04/05/21 09:00

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.450		0.153	0.158	1.00	0.152	pCi/L	04/09/21 10:54	05/05/21 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					04/09/21 10:54	05/05/21 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.326	U	0.364	0.366	1.00	0.599	pCi/L	04/09/21 11:17	04/26/21 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					04/09/21 11:17	04/26/21 12:28	1
Y Carrier	87.1		40 - 110					04/09/21 11:17	04/26/21 12:28	1

Method: 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	0.776		0.395	0.399	5.00	0.599	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: MW19

Lab Sample ID: 310-203702-10

Date Collected: 04/05/21 09:50

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.555		0.163	0.171	1.00	0.142	pCi/L	04/09/21 10:54	05/05/21 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					04/09/21 10:54	05/05/21 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422	U	0.336	0.338	1.00	0.532	pCi/L	04/09/21 11:17	04/26/21 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					04/09/21 11:17	04/26/21 12:28	1
Y Carrier	86.4		40 - 110					04/09/21 11:17	04/26/21 12:28	1

Method: 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	0.977		0.373	0.379	5.00	0.532	pCi/L		05/05/21 21:56	1

Client Sample Results

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

Job ID: 310-203702-2

Client Sample ID: DUP1

Lab Sample ID: 310-203702-11

Date Collected: 04/05/21 00:00

Matrix: Water

Date Received: 04/07/21 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108	U	0.107	0.107	1.00	0.168	pCi/L	04/09/21 10:54	05/05/21 08:10	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110	04/09/21 10:54	05/05/21 08:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.542	U	0.352	0.355	1.00	0.544	pCi/L	04/09/21 11:17	04/26/21 12:28	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110	04/09/21 11:17	04/26/21 12:28	1
Y Carrier	87.1		40 - 110	04/09/21 11:17	04/26/21 12:28	1

Method: 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	0.650		0.368	0.371	5.00	0.544	pCi/L		05/05/21 21:56	1

Definitions/Glossary

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

Job ID: 310-203702-2

Qualifiers

Rad Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
"	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MLQ	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 Landfill CCR

Job ID: 310-203702-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-505091/23-A
Matrix: Water
Analysis Batch: 508446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 505091

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.007956	U	0.0477	0.0477	1.00	0.0961	pCi/L	04/09/21 10:54	05/05/21 08:13	1
Carrier		MB MB	Limits				Prepared		Analyzed	Dil Fac
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 10:54	05/05/21 08:13	1
		93.5		40 - 110						

Lab Sample ID: LCS 160-505091/1-A
Matrix: Water
Analysis Batch: 508473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 505091

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec.
		Result	Qual	Uncert. (2σ+/-)					Limits
Radium-226	11.3	11.90		1.23	1.00	0.135	pCi/L	105	75 - 125
Carrier		LCS LCS	Limits				Prepared		Analyzed
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 10:54	05/05/21 08:13
		83.8		40 - 110					

Lab Sample ID: LCSD 160-505091/2-A
Matrix: Water
Analysis Batch: 508473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 505091

Analyte	Spike Added	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec.	RER	Limit
		Result	Qual	Uncert. (2σ+/-)					Limits	RER	Limit
Radium-226	11.3	12.04		1.25	1.00	0.106	pCi/L	106	75 - 125	0.06	1
Carrier		LCSD LCSD	Limits				Prepared		Analyzed	Dil Fac	
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 11:17	04/26/21 12:31	1	
		80.6		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-505189/23-A
Matrix: Water
Analysis Batch: 507052

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 505189

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3638		0.221	0.223	1.00	0.333	pCi/L	04/09/21 11:17	04/26/21 12:31	1
Carrier		MB MB	Limits				Prepared		Analyzed	Dil Fac
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 11:17	04/26/21 12:31	1
		93.5		40 - 110						
Y Carrier		88.2		40 - 110				04/09/21 11:17	04/26/21 12:31	1

Eurofins TestAmerica, Cedar Falls

QC Sample Results

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

Job ID: 310-203702-2

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

Lab Sample ID: LCS 160-505189/1-A
Matrix: Water
Analysis Batch: 507119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 505189

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec.
		Result	Qual	Uncert. (2σ+/-)					Limits
Radium-228	7.26	7.127		0.891	1.00	0.388	pCi/L	98	75 - 125
Carrier		LCS LCS	Limits				Prepared		Analyzed
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 11:17	04/26/21 12:31
		83.8		40 - 110					
Y Carrier		87.1		40 - 110					

Lab Sample ID: LCSD 160-505189/2-A
Matrix: Water
Analysis Batch: 507119

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 505189

Analyte	Spike Added	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec.	RER	Limit
		Result	Qual	Uncert. (2σ+/-)					Limits	RER	Limit
Radium-228	7.26	7.229		0.905	1.00	0.338	pCi/L	100	75 - 125	0.06	1
Carrier		LCSD LCSD	Limits				Prepared		Analyzed	Dil Fac	
Ba Carrier		%Yield	Qualifier	Limits				04/09/21 11:17	04/26/21 12:31	1	
		80.6		40 - 110							
Y Carrier		87.1		40 - 110							

Eurofins TestAmerica, Cedar Falls

QC Association Summary

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

Job ID: 310-203702-2

Rad

Prep Batch: 505091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	PrecSep-21	
310-203702-2	MW5	Total/NA	Water	PrecSep-21	
310-203702-3	MW6	Total/NA	Water	PrecSep-21	
310-203702-4	MW8	Total/NA	Water	PrecSep-21	
310-203702-5	MW9	Total/NA	Water	PrecSep-21	
310-203702-6	MW13	Total/NA	Water	PrecSep-21	
310-203702-7	MW15	Total/NA	Water	PrecSep-21	
310-203702-8	MW17	Total/NA	Water	PrecSep-21	
310-203702-9	MW18	Total/NA	Water	PrecSep-21	
310-203702-10	MW19	Total/NA	Water	PrecSep-21	
310-203702-11	DUP1	Total/NA	Water	PrecSep-21	
MB 160-505091/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-505091/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-505091/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 505189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-203702-1	MW2	Total/NA	Water	PrecSep_0	
310-203702-2	MW5	Total/NA	Water	PrecSep_0	
310-203702-3	MW6	Total/NA	Water	PrecSep_0	
310-203702-4	MW8	Total/NA	Water	PrecSep_0	
310-203702-5	MW9	Total/NA	Water	PrecSep_0	
310-203702-6	MW13	Total/NA	Water	PrecSep_0	
310-203702-7	MW15	Total/NA	Water	PrecSep_0	
310-203702-8	MW17	Total/NA	Water	PrecSep_0	
310-203702-9	MW18	Total/NA	Water	PrecSep_0	
310-203702-10	MW19	Total/NA	Water	PrecSep_0	
310-203702-11	DUP1	Total/NA	Water	PrecSep_0	
MB 160-505189/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-505189/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-505189/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

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

Job ID: 310-203702-2

Client Sample ID: MW2

Date Collected: 04/05/21 12:42

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 10:22	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:24	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW5

Date Collected: 04/05/21 18:14

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:09	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:24	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW6

Date Collected: 04/05/21 14:53

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:09	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:24	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW8

Date Collected: 04/05/21 16:06

Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:09	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:25	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Lab Chronicle

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

Job ID: 310-203702-2

Client Sample ID: MW9
 Date Collected: 04/05/21 10:45
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-5
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:09	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:25	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW13
 Date Collected: 04/05/21 11:36
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-6
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:09	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:27	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW15
 Date Collected: 04/05/21 14:05
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-7
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:10	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:27	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW17
 Date Collected: 04/05/21 17:07
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-8
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:10	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:28	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-203702-2

Client Sample ID: MW18
 Date Collected: 04/05/21 09:05
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-9
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:10	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:28	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: MW19
 Date Collected: 04/05/21 09:50
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-10
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:10	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:28	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Client Sample ID: DUP1
 Date Collected: 04/05/21 00:00
 Date Received: 04/07/21 09:00

Lab Sample ID: 310-203702-11
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			505091	04/09/21 10:54	RBR	TAL SL
Total/NA	Analysis	9315		1	508473	05/05/21 08:10	ANW	TAL SL
Total/NA	Prep	PrecSep_0			505189	04/09/21 11:17	RBR	TAL SL
Total/NA	Analysis	9320		1	507119	04/26/21 12:28	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	508514	05/05/21 21:56	SCB	TAL SL

Laboratory References:

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

Eurofins TestAmerica, Cedar Falls

Accreditation/Certification Summary

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

Job ID: 310-203702-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21 *
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

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

Method Summary

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

Job ID: 310-203702-2

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

Protocol References:

None = None
 SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
 TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Environment Testing
TestAmerica



310-203702 Chain of Custody

Cooler/Sample Receipt and Temperature

Client Information			
Client: <u>OPPD</u>			
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>N. Omaha Station LF</u>		
Receipt Information			
Date/Time Received: DATE <u>4/7/21</u> TIME <u>0900</u>	Received By: <u>MRH</u>		
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: <u>1</u>			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>MRH</u> If yes: Cooler # <u>1</u> of <u>3</u>			
Cooler Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? <u>↓</u>			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>N</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.3</u>		Corrected Temp (°C): <u>2.3</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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



Environment Testing
TestAmerica

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>OPPD</u>			
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>N. Omaha Station LF</u>		
Receipt Information			
Date/Time Received: DATE <u>4/7/21</u> TIME <u>0900</u>	Received By: <u>MRH</u>		
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: <u>2</u>			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>MRH</u> If yes: Cooler # <u>2</u> of <u>3</u>			
Cooler Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? <u>↓</u>			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>N</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.3</u>		Corrected Temp (°C): <u>1.3</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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



Environment Testing
TestAmerica

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information	
Client: <u>OPPD</u>	
City/State: <u>Omaha</u> STATE: <u>NE</u>	Project: <u>N. Omaha Station LF</u>
Date/Time Received: DATE <u>4/7/21</u> TIME <u>0900</u>	Received By: <u>MRH</u>
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____	
Condition of Cooler/Containers	
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: <u>3</u>	
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? <u>1</u>	
Temperature Record	
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE	
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0.0</u>
Uncorrected Temp (°C): <u>1.2</u>	Corrected Temp (°C): <u>1.2</u>
Sample Container Temperature	
Container(s) used: <u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):	
Corrected Temp (°C):	
Exceptions/Notes	
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
NOTE: If yes, contact PM before proceeding. If no, proceed with login	
Additional Comments	

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, 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

TestAmerica Omaha SC

TestAmerica Omaha SC
268

Chain of Custody Record

Client Information		Lab Info	
Client Contact: <u>Kyle Uhing</u>	Phone: <u>(531) 226-2515</u>	Lab Name: <u>Hayes, Shawn M</u>	E-Mail: <u>shawn.hayes@testamericasc.com</u>
Company Information		Center Testing Info	
Company: <u>Omaha Public Power District</u>	Address: <u>444 South 16th Street Mail 9E/EP1</u>	City: <u>Omaha</u>	State, Zip: <u>NE, 68102-2247</u>
Phone: <u>(531) 226-2515</u>	PO #: _____	WFO #: _____	TestAmerica Project #: <u>31007560</u>
Email: <u>Mkultins@oppd.com</u>	Site: <u>North Omaha Station Landfill</u>	Site: <u>North Omaha Station</u>	SSOW#: _____
Row Date Requested:		Analysis Requested	
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, B=Blood, O=Other, S=Soil, etc.)
<u>4/5/21</u>	<u>13:43</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>18:14</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>14:53</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>16:04</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>10:45</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>11:36</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>14:05</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>17:07</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>9:05</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>9:50</u>	<u>G</u>	<u>W</u>
<u>4/5/21</u>	<u>...</u>	<u>G</u>	<u>W</u>
Sample Identification		Preservation Code:	
MW2			
MW5			
MW6			
MW8			
MW9			
MW13			
MW15			
MW17			
MW18			
MW19			
DUP1			
Possible Hazard Identification		Special Instructions/Notes:	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	<input type="checkbox"/> Poison B <input type="checkbox"/> Poison A <input type="checkbox"/> Other (specify)	Total Number of Containers: _____	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/OC Requirements: _____	
Empty Kit Returned by: _____		Sample Disposal (A fee may be assessed if samples are retained longer than 7 months)	
Retrieved by: <u>Shawn Hayes</u> Date/Time: <u>4/6/2021 9:13 AM</u>		Return to Client: <input type="checkbox"/> Disposal By Lab: <input type="checkbox"/> Archive For: _____ Months	
Retrieved by: <u>Shawn Hayes</u> Date/Time: <u>4-6-2021 1700</u>		Retrieved by: <u>Shawn Hayes</u> Date/Time: <u>4-7-21 900</u>	
Retrieved by: <u>Shawn Hayes</u> Date/Time: _____		Retrieved by: <u>Shawn Hayes</u> Date/Time: _____	
Custody Seal No.: <u>1</u> Yes <u>1</u> No		Custody Seal No.: <u>1</u> Yes <u>1</u> No	

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-203702-2

Login Number: 203702
List Number: 1
Creator: Ramos, Eric F

List Source: Eurofins TestAmerica, Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (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: 310-203702-2

Login Number: 203702
List Number: 2
Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis
 List Creation: 04/08/21 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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 Landfill CCR

Job ID: 310-203702-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (40-110)	Y
310-203702-1	MW2	81.2	87.1
310-203702-2	MW5	87.9	89.0
310-203702-3	MW6	78.2	88.2
310-203702-4	MW8	79.4	87.9
310-203702-5	MW9	75.3	88.2
310-203702-6	MW13	87.6	87.1
310-203702-7	MW15	90.9	89.0
310-203702-8	MW17	85.6	88.6
310-203702-9	MW18	88.2	87.1
310-203702-10	MW19	87.9	86.4
310-203702-11	DUP1	87.1	87.1
LCS 160-505091/1-A	Lab Control Sample	83.8	87.1
LCSD 160-505091/2-A	Lab Control Sample Dup	80.6	87.1
MB 160-505091/23-A	Method Blank	93.5	88.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (40-110)	Y (40-110)
310-203702-1	MW2	81.2	87.1
310-203702-2	MW5	87.9	89.0
310-203702-3	MW6	78.2	88.2
310-203702-4	MW8	79.4	87.9
310-203702-5	MW9	75.3	88.2
310-203702-6	MW13	87.6	87.1
310-203702-7	MW15	90.9	89.0
310-203702-8	MW17	85.6	88.6
310-203702-9	MW18	88.2	87.1
310-203702-10	MW19	87.9	86.4
310-203702-11	DUP1	87.1	87.1
LCS 160-505189/1-A	Lab Control Sample	83.8	87.1
LCSD 160-505189/2-A	Lab Control Sample Dup	80.6	87.1
MB 160-505189/23-A	Method Blank	93.5	88.2

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 310-217194-1
 Client Project/Site: North Omaha Station CCR
 Sampling Event: CCR and Landfill Parameters (Q2 and Q4)

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

Attn: Kyle Uhing

Authorized for release by:
 10/26/2021 6:36:42 PM

Shawn Hayes, Senior Project Manager
 (319)229-8211
 Shawn.Hayes@Eurofinset.com



LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature. Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Job ID: 310-217194-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

**Job Narrative
310-217194-1**

Comments

No additional comments.

Receipt

The samples were received on 10/13/2021 9:20 AM. 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 1.8° C, 2.3° C and 3.4° C.

HPLC/IC

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

Metals

Method 6020A: The continuing calibration blank (CCB) for analytical batch 310-332936 contained Calcium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

General Chemistry

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



Sample Summary

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

Job ID: 310-217194-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-217194-1	MW2	Ground Water	10/12/21 10:38	10/13/21 09:20
310-217194-2	MW5	Ground Water	10/12/21 15:36	10/13/21 09:20
310-217194-3	MW6	Ground Water	10/12/21 12:42	10/13/21 09:20
310-217194-4	MW8	Ground Water	10/12/21 13:34	10/13/21 09:20
310-217194-5	MW9	Ground Water	10/11/21 15:51	10/13/21 09:20
310-217194-6	MW13	Ground Water	10/11/21 16:37	10/13/21 09:20
310-217194-7	MW15	Ground Water	10/12/21 12:00	10/13/21 09:20
310-217194-8	MW17	Ground Water	10/12/21 14:44	10/13/21 09:20
310-217194-9	MW18	Ground Water	10/11/21 13:53	10/13/21 09:20
310-217194-10	MW19	Ground Water	10/11/21 14:39	10/13/21 09:20
310-217194-11	DUP-1	Ground Water	10/12/21 00:00	10/13/21 09:20

Detection Summary

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

Job ID: 310-217194-1

Client Sample ID: MW2

Lab Sample ID: 310-217194-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.6		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	467		5.00	2.45	mg/L	5		9056A	Total/NA
Arsenic	0.191		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.0880		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	1.03		0.100	0.0580	mg/L	1		6020A	Total/NA
Calcium	222		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000437	J	0.000500	0.000190	mg/L	1		6020A	Total/NA
Lithium	0.0404		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	940		250	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW5

Lab Sample ID: 310-217194-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	45.7		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	993		20.0	9.80	mg/L	20		9056A	Total/NA
Antimony	0.00174	J	0.00200	0.00110	mg/L	1		6020A	Total/NA
Arsenic	0.0625		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.0430		0.00200	0.000370	mg/L	1		6020A	Total/NA
Beryllium	0.000737	J	0.00100	0.000270	mg/L	1		6020A	Total/NA
Boron	0.530		0.100	0.0580	mg/L	1		6020A	Total/NA
Cadmium	0.000861		0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	330	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00125		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lead	0.00187		0.000500	0.000210	mg/L	1		6020A	Total/NA
Lithium	0.0690		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.00367		0.00200	0.00130	mg/L	1		6020A	Total/NA
Selenium	0.00419	J	0.00500	0.000960	mg/L	1		6020A	Total/NA
Thallium	0.00313		0.00100	0.000260	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1530		250	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW6

Lab Sample ID: 310-217194-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	324		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	277		5.00	2.45	mg/L	5		9056A	Total/NA
Arsenic	0.0324		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.174		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	0.502		0.100	0.0580	mg/L	1		6020A	Total/NA
Cadmium	0.000181		0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	289	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00610		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lead	0.000739		0.000500	0.000210	mg/L	1		6020A	Total/NA
Lithium	0.0424		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.0563		0.00200	0.00130	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1100		250	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW8

Lab Sample ID: 310-217194-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.8		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	526		20.0	9.80	mg/L	20		9056A	Total/NA
Arsenic	0.0104		0.00200	0.000750	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-217194-1

Client Sample ID: MW8 (Continued)

Lab Sample ID: 310-217194-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0806		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	2.20		0.100	0.0580	mg/L	1		6020A	Total/NA
Cadmium	0.0000790	J	0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	137	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000611		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lead	0.000263	J	0.000500	0.000210	mg/L	1		6020A	Total/NA
Lithium	0.0124		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.0944		0.00200	0.00130	mg/L	1		6020A	Total/NA
Total Dissolved Solids	826		50.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW9

Lab Sample ID: 310-217194-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	135		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	17.9		5.00	2.45	mg/L	5		9056A	Total/NA
Arsenic	0.00188	J	0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.477		0.00200	0.000370	mg/L	1		6020A	Total/NA
Cadmium	0.0000740	J	0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	137		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000556		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lead	0.00122		0.000500	0.000210	mg/L	1		6020A	Total/NA
Lithium	0.0446		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	664		50.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13

Lab Sample ID: 310-217194-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.47		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	888		20.0	9.80	mg/L	20		9056A	Total/NA
Arsenic	0.183		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.116		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	1.62		0.100	0.0580	mg/L	1		6020A	Total/NA
Cadmium	0.000542		0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	169	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000790		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lithium	0.0234		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	1.29		0.00200	0.00130	mg/L	1		6020A	Total/NA
Selenium	0.0288		0.00500	0.000960	mg/L	1		6020A	Total/NA
Total Dissolved Solids	980		250	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15

Lab Sample ID: 310-217194-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.32		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	500		20.0	9.80	mg/L	20		9056A	Total/NA
Antimony	0.00115	J	0.00200	0.00110	mg/L	1		6020A	Total/NA
Arsenic	0.00468		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.0553		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	1.94		0.100	0.0580	mg/L	1		6020A	Total/NA
Cadmium	0.000118		0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	190	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Chromium	0.00686		0.00500	0.00110	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-217194-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-217194-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0130		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.235		0.00200	0.00130	mg/L	1		6020A	Total/NA
Selenium	0.0532		0.00500	0.000960	mg/L	1		6020A	Total/NA
Total Dissolved Solids	876		50.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-217194-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.0		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	708		20.0	9.80	mg/L	20		9056A	Total/NA
Arsenic	0.0166		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.0364		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	0.580		0.100	0.0580	mg/L	1		6020A	Total/NA
Calcium	287		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00983		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lithium	0.0902		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.00184	J	0.00200	0.00130	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1210		250	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-217194-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.76	J	5.00	2.15	mg/L	5		9056A	Total/NA
Arsenic	0.00175	J	0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.311		0.00200	0.000370	mg/L	1		6020A	Total/NA
Beryllium	0.000603	J	0.00100	0.000270	mg/L	1		6020A	Total/NA
Cadmium	0.000550		0.000100	0.0000510	mg/L	1		6020A	Total/NA
Calcium	96.2	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Chromium	0.00117	J	0.00500	0.00110	mg/L	1		6020A	Total/NA
Cobalt	0.000654		0.000500	0.000190	mg/L	1		6020A	Total/NA
Lead	0.00106		0.000500	0.000210	mg/L	1		6020A	Total/NA
Lithium	0.0269		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	348		50.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-217194-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.68	J	5.00	2.15	mg/L	5		9056A	Total/NA
Barium	0.292		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	0.0629	J	0.100	0.0580	mg/L	1		6020A	Total/NA
Calcium	104	^2	0.500	0.190	mg/L	1		6020A	Total/NA
Lithium	0.0355		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	356		50.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 310-217194-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.7		5.00	2.15	mg/L	5		9056A	Total/NA
Sulfate	473		5.00	2.45	mg/L	5		9056A	Total/NA
Arsenic	0.194		0.00200	0.000750	mg/L	1		6020A	Total/NA
Barium	0.0953		0.00200	0.000370	mg/L	1		6020A	Total/NA
Boron	1.09		0.100	0.0580	mg/L	1		6020A	Total/NA
Calcium	231	^2	0.500	0.190	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

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

Job ID: 310-217194-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 310-217194-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cobalt	0.000440	J	0.000500	0.000190	mg/L	1			6020A	Total/NA
Lithium	0.0398		0.0100	0.00250	mg/L	1			6020A	Total/NA
Total Dissolved Solids	910		250	130	mg/L	1			SM 2540C	Total/NA

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW2

Lab Sample ID: 310-217194-1

Date Collected: 10/12/21 10:38

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	33.6		5.00	2.15	mg/L			10/19/21 19:22		5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 19:22		5
Sulfate	467		5.00	2.45	mg/L			10/19/21 19:22		5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:19		1
Arsenic	0.191		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:19		1
Barium	0.0880		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:19		1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:19		1
Boron	1.03		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:19		1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:19		1
Calcium	222		0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:19		1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:19		1
Cobalt	0.000437	J	0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:19		1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:19		1
Lithium	0.0404		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:19		1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:19		1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:19		1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:19		1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 12:45		1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Total Dissolved Solids	940		250	130	mg/L			10/13/21 14:04		1

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW5

Lab Sample ID: 310-217194-2

Date Collected: 10/12/21 15:36

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.7		5.00	2.15	mg/L			10/19/21 19:54	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 19:54	5
Sulfate	993		20.0	9.80	mg/L			10/19/21 20:40	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00174	J	0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:39	1
Arsenic	0.0625		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:39	1
Barium	0.0430		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:39	1
Beryllium	0.000737	J	0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:39	1
Boron	0.530		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:39	1
Cadmium	0.000861		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:39	1
Calcium	330	^2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:39	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:39	1
Cobalt	0.00125		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:39	1
Lead	0.00187		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:39	1
Lithium	0.0690		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:39	1
Molybdenum	0.00367		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:39	1
Selenium	0.00419	J	0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:39	1
Thallium	0.00313		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1530		250	130	mg/L			10/15/21 11:32	1

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW6

Lab Sample ID: 310-217194-3

Date Collected: 10/12/21 12:42

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	324		5.00	2.15	mg/L			10/19/21 20:56	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 20:56	5
Sulfate	277		5.00	2.45	mg/L			10/19/21 20:56	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:42	1
Arsenic	0.0324		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:42	1
Barium	0.174		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:42	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:42	1
Boron	0.502		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:42	1
Cadmium	0.000181		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:42	1
Calcium	289	^2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:42	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:42	1
Cobalt	0.00610		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:42	1
Lead	0.000739		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:42	1
Lithium	0.0424		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:42	1
Molybdenum	0.0563		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:42	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:42	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		250	130	mg/L			10/15/21 11:32	1

Eurofins TestAmerica, Cedar Falls

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW8

Lab Sample ID: 310-217194-4

Date Collected: 10/12/21 13:34

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.8		5.00	2.15	mg/L			10/19/21 21:11	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 21:11	5
Sulfate	526		20.0	9.80	mg/L			10/19/21 21:27	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:45	1
Arsenic	0.0104		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:45	1
Barium	0.0806		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:45	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:45	1
Boron	2.20		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:45	1
Cadmium	0.0000790	J	0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:45	1
Calcium	137	*2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:45	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:45	1
Cobalt	0.000611		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:45	1
Lead	0.000263	J	0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:45	1
Lithium	0.0124		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:45	1
Molybdenum	0.0944		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:45	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:45	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	826		50.0	26.0	mg/L			10/15/21 12:41	1

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW9

Lab Sample ID: 310-217194-5

Date Collected: 10/11/21 15:51

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		5.00	2.15	mg/L			10/19/21 21:43	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 21:43	5
Sulfate	17.9		5.00	2.45	mg/L			10/19/21 21:43	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/26/21 13:04	1
Arsenic	0.00188	J	0.00200	0.000750	mg/L		10/14/21 09:00	10/26/21 13:04	1
Barium	0.477		0.00200	0.000370	mg/L		10/14/21 09:00	10/26/21 13:04	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/26/21 13:04	1
Boron	<0.0580		0.100	0.0580	mg/L		10/14/21 09:00	10/26/21 13:04	1
Cadmium	0.0000740	J	0.000100	0.0000510	mg/L		10/14/21 09:00	10/26/21 13:04	1
Calcium	137		0.500	0.190	mg/L		10/14/21 09:00	10/26/21 13:04	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/26/21 13:04	1
Cobalt	0.000556		0.000500	0.000190	mg/L		10/14/21 09:00	10/26/21 13:04	1
Lead	0.00122		0.000500	0.000210	mg/L		10/14/21 09:00	10/26/21 13:04	1
Lithium	0.0446		0.0100	0.00250	mg/L		10/14/21 09:00	10/26/21 13:04	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/26/21 13:04	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/26/21 13:04	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/26/21 13:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	664		50.0	26.0	mg/L			10/15/21 12:41	1

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW13

Date Collected: 10/11/21 16:37

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-6

Matrix: Ground Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.47		5.00	2.15	mg/L			10/19/21 21:58	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 21:58	5
Sulfate	888		20.0	9.80	mg/L			10/19/21 22:14	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:50	1
Arsenic	0.183		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:50	1
Barium	0.116		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:50	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:50	1
Boron	1.62		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:50	1
Cadmium	0.000542		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:50	1
Calcium	169	*2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:50	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:50	1
Cobalt	0.000790		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:50	1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:50	1
Lithium	0.0234		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:50	1
Molybdenum	1.29		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:50	1
Selenium	0.0288		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:50	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	980		250	130	mg/L			10/15/21 12:41	1

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW15

Date Collected: 10/12/21 12:00

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-7

Matrix: Ground Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.32		5.00	2.15	mg/L			10/19/21 22:29	5
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 22:29	5
Sulfate	500		20.0	9.80	mg/L			10/19/21 22:45	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00115	J	0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:53	1
Arsenic	0.00468		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:53	1
Barium	0.0553		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:53	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:53	1
Boron	1.94		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:53	1
Cadmium	0.000118		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:53	1
Calcium	190	*2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:53	1
Chromium	0.00686		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:53	1
Cobalt	<0.000190		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:53	1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:53	1
Lithium	0.0130		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:53	1
Molybdenum	0.235		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:53	1
Selenium	0.0532		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:53	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	876		50.0	26.0	mg/L			10/15/21 12:41	1

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW17

Date Collected: 10/12/21 14:44

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-8

Matrix: Ground Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	33.0		5.00	2.15	mg/L			10/19/21 23:01	5	
Fluoride	<0.275		0.500	0.275	mg/L			10/19/21 23:01	5	
Sulfate	708		20.0	9.80	mg/L			10/19/21 23:47	20	

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Arsenic	0.0166		0.00200	0.000750	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Barium	0.0364		0.00200	0.000370	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Boron	0.580		0.100	0.0580	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Calcium	287		0.500	0.190	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Cobalt	0.00983		0.000500	0.000190	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Lithium	0.0902		0.0100	0.00250	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Molybdenum	0.00184	J	0.00200	0.00130	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/26/21 13:06	1	
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/26/21 13:06	1	

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:05	1	

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Total Dissolved Solids	1210		250	130	mg/L			10/15/21 12:41	1	

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW18

Date Collected: 10/11/21 13:53

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-9

Matrix: Ground Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	3.76	J	5.00	2.15	mg/L			10/20/21 00:03	5	
Fluoride	<0.275		0.500	0.275	mg/L			10/20/21 00:03	5	
Sulfate	<2.45		5.00	2.45	mg/L			10/20/21 00:03	5	

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Arsenic	0.00175	J	0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Barium	0.311		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Beryllium	0.000603	J	0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Boron	<0.0580		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Cadmium	0.000550		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Calcium	96.2	^2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Chromium	0.00117	J	0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Cobalt	0.000654		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Lead	0.00106		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Lithium	0.0269		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 23:08	1	
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 23:08	1	

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:07	1	

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Total Dissolved Solids	348		50.0	26.0	mg/L			10/15/21 11:32	1	

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: MW19

Lab Sample ID: 310-217194-10

Date Collected: 10/11/21 14:39

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.68	J	5.00	2.15	mg/L			10/20/21 00:19	5
Fluoride	<0.275		0.500	0.275	mg/L			10/20/21 00:19	5
Sulfate	<2.45		5.00	2.45	mg/L			10/20/21 00:19	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 23:11	1
Arsenic	<0.000750		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 23:11	1
Barium	0.292		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 23:11	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 23:11	1
Boron	0.0629	J	0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 23:11	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 23:11	1
Calcium	104	^2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 23:11	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 23:11	1
Cobalt	<0.000190		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 23:11	1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 23:11	1
Lithium	0.0355		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 23:11	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 23:11	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 23:11	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 23:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	356		50.0	26.0	mg/L			10/15/21 11:32	1

Client Sample Results

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

Job ID: 310-217194-1

Client Sample ID: DUP-1

Lab Sample ID: 310-217194-11

Date Collected: 10/12/21 00:00

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.7		5.00	2.15	mg/L			10/20/21 00:35	5
Fluoride	<0.275		0.500	0.275	mg/L			10/20/21 00:35	5
Sulfate	473		5.00	2.45	mg/L			10/20/21 00:35	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 23:13	1
Arsenic	0.194		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 23:13	1
Barium	0.0953		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 23:13	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 23:13	1
Boron	1.09		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 23:13	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 23:13	1
Calcium	231	^2	0.500	0.190	mg/L		10/14/21 09:00	10/25/21 23:13	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 23:13	1
Cobalt	0.000440	J	0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 23:13	1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 23:13	1
Lithium	0.0398		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 23:13	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 23:13	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 23:13	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 23:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000150		0.000200	0.000150	mg/L		10/21/21 12:39	10/22/21 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	910		250	130	mg/L			10/15/21 12:41	1

Definitions/Glossary

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

Job ID: 310-217194-1

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
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Eurofins TestAmerica, Cedar Falls

QC Sample Results

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

Job ID: 310-217194-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-332322/3
Matrix: Water
Analysis Batch: 332322

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

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.430		1.00	0.430	mg/L			10/19/21 18:04	1
Fluoride	<0.0550		0.100	0.0550	mg/L			10/19/21 18:04	1
Sulfate	<0.490		1.00	0.490	mg/L			10/19/21 18:04	1

Lab Sample ID: LCS 310-332322/4
Matrix: Water
Analysis Batch: 332322

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	10.00		mg/L		100	90 - 110
Fluoride	2.00	2.074		mg/L		104	90 - 110
Sulfate	10.0	10.34		mg/L		103	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-331484/1-A
Matrix: Water
Analysis Batch: 332936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331484

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00110		0.00200	0.00110	mg/L		10/14/21 09:00	10/25/21 22:14	1
Arsenic	<0.000750		0.00200	0.000750	mg/L		10/14/21 09:00	10/25/21 22:14	1
Barium	<0.000370		0.00200	0.000370	mg/L		10/14/21 09:00	10/25/21 22:14	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/14/21 09:00	10/25/21 22:14	1
Boron	<0.0580		0.100	0.0580	mg/L		10/14/21 09:00	10/25/21 22:14	1
Cadmium	<0.0000510		0.000100	0.0000510	mg/L		10/14/21 09:00	10/25/21 22:14	1
Calcium	<0.190		0.500	0.190	mg/L		10/14/21 09:00	10/25/21 22:14	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/14/21 09:00	10/25/21 22:14	1
Cobalt	<0.000190		0.000500	0.000190	mg/L		10/14/21 09:00	10/25/21 22:14	1
Lead	<0.000210		0.000500	0.000210	mg/L		10/14/21 09:00	10/25/21 22:14	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/14/21 09:00	10/25/21 22:14	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/21 09:00	10/25/21 22:14	1
Selenium	<0.000960		0.00500	0.000960	mg/L		10/14/21 09:00	10/25/21 22:14	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/14/21 09:00	10/25/21 22:14	1

Lab Sample ID: LCS 310-331484/2-A
Matrix: Water
Analysis Batch: 332936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331484

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.1876		mg/L		94	80 - 120
Arsenic	0.200	0.1940		mg/L		97	80 - 120
Barium	0.100	0.1023		mg/L		102	80 - 120
Beryllium	0.100	0.09896		mg/L		99	80 - 120
Boron	0.200	0.1644		mg/L		82	80 - 120
Cadmium	0.100	0.09671		mg/L		97	80 - 120
Calcium	2.00	1.942		mg/L		97	80 - 120
Chromium	0.100	0.09686		mg/L		97	80 - 120
Cobalt	0.100	0.1090		mg/L		109	80 - 120

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QC Sample Results

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

Job ID: 310-217194-1

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Result	Limits
Lead	0.200	0.2087		mg/L		104	80 - 120	
Lithium	0.200	0.2038		mg/L		102	80 - 120	
Molybdenum	0.200	0.1972		mg/L		99	80 - 120	
Selenium	0.400	0.3531		mg/L		88	80 - 120	
Thallium	0.200	0.1911		mg/L		96	80 - 120	

Lab Sample ID: LCS 310-331484/2-A
Matrix: Water
Analysis Batch: 332936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Result	Limits
Antimony	<0.00110		0.200	0.1875		mg/L		94	75 - 125	
Arsenic	0.191		0.200	0.3911		mg/L		100	75 - 125	
Barium	0.0880		0.100	0.1904		mg/L		102	75 - 125	
Beryllium	<0.000270		0.100	0.09266		mg/L		93	75 - 125	
Boron	1.03		0.200	1.277	4	mg/L		121	75 - 125	
Cadmium	<0.0000510		0.100	0.09696		mg/L		97	75 - 125	
Calcium	222		2.00	226.5	4	mg/L		217	75 - 125	
Chromium	<0.00110		0.100	0.09496		mg/L		95	75 - 125	
Cobalt	0.000437	J	0.100	0.09899		mg/L		99	75 - 125	
Lead	<0.000210		0.200	0.1960		mg/L		98	75 - 125	
Lithium	0.0404		0.200	0.2215		mg/L		91	75 - 125	
Molybdenum	<0.00130		0.200	0.2059		mg/L		103	75 - 125	
Selenium	<0.000960		0.400	0.3873		mg/L		97	75 - 125	
Thallium	<0.000260		0.200	0.1872		mg/L		94	75 - 125	

Lab Sample ID: 310-217194-1 MSD
Matrix: Ground Water
Analysis Batch: 332936

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 331484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
									Result	Limits		
Antimony	<0.00110		0.200	0.1852		mg/L		93	75 - 125	1	20	
Arsenic	0.191		0.200	0.3888		mg/L		99	75 - 125	1	20	
Barium	0.0880		0.100	0.1858		mg/L		98	75 - 125	2	20	
Beryllium	<0.000270		0.100	0.09169		mg/L		92	75 - 125	1	20	
Boron	1.03		0.200	1.273	4	mg/L		119	75 - 125	0	20	
Cadmium	<0.0000510		0.100	0.09622		mg/L		96	75 - 125	1	20	
Calcium	222		2.00	225.1	4	mg/L		146	75 - 125	1	20	
Chromium	<0.00110		0.100	0.09335		mg/L		93	75 - 125	2	20	
Cobalt	0.000437	J	0.100	0.09828		mg/L		98	75 - 125	1	20	
Lead	<0.000210		0.200	0.1938		mg/L		97	75 - 125	1	20	
Lithium	0.0404		0.200	0.2210		mg/L		90	75 - 125	0	20	
Molybdenum	<0.00130		0.200	0.2078		mg/L		104	75 - 125	1	20	
Selenium	<0.000960		0.400	0.3813		mg/L		95	75 - 125	2	20	
Thallium	<0.000260		0.200	0.1863		mg/L		93	75 - 125	0	20	

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QC Sample Results

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

Job ID: 310-217194-1

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	
							Result	Limit
Antimony	<0.00110		<0.00110		mg/L		NC	20
Arsenic	0.194		0.1954		mg/L		0.6	20
Barium	0.0953		0.09060		mg/L		5	20
Beryllium	<0.000270		<0.000270		mg/L		NC	20
Boron	1.09		1.104		mg/L		1	20
Cadmium	<0.0000510		<0.0000510		mg/L		NC	20
Calcium	231	^2	231.1		mg/L		0.2	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.000440	J	0.0004270	J	mg/L		3	20
Lead	<0.000210		<0.000210		mg/L		NC	20
Lithium	0.0398		0.03977		mg/L		0.07	20
Molybdenum	<0.00130		<0.00130		mg/L		NC	20
Selenium	<0.000960		<0.000960		mg/L		NC	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-332477/1-A
Matrix: Water
Analysis Batch: 332662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: LCS 310-332477/2-A
Matrix: Water
Analysis Batch: 332662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Result	Limits
Mercury	0.00167	0.001776		mg/L		107	80 - 120	

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

Lab Sample ID: MB 310-331512/1
Matrix: Water
Analysis Batch: 331512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: LCS 310-331512/2
Matrix: Water
Analysis Batch: 331512

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Result	Limits
Total Dissolved Solids	1000	914.0		mg/L		91	90 - 110	

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QC Sample Results

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

Job ID: 310-217194-1

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

Lab Sample ID: MB 310-331789/1
Matrix: Water
Analysis Batch: 331789

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26.0		50.0	26.0	mg/L			10/15/21 11:32	1

Lab Sample ID: LCS 310-331789/2
Matrix: Water
Analysis Batch: 331789

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	902.0		mg/L		90	90 - 110

Lab Sample ID: 310-217194-2 DU
Matrix: Ground Water
Analysis Batch: 331789

Client Sample ID: MW5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1530		1590		mg/L		4	20

Lab Sample ID: MB 310-331802/1
Matrix: Water
Analysis Batch: 331802

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26.0		50.0	26.0	mg/L			10/15/21 12:41	1

Lab Sample ID: LCS 310-331802/2
Matrix: Water
Analysis Batch: 331802

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	916.0		mg/L		92	90 - 110

Lab Sample ID: 310-217194-4 DU
Matrix: Ground Water
Analysis Batch: 331802

Client Sample ID: MW8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	826		828.0		mg/L		0.2	20

QC Association Summary

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

Job ID: 310-217194-1

HPLC/IC

Analysis Batch: 332322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	9056A	
310-217194-2	MW5	Total/NA	Ground Water	9056A	
310-217194-2	MW5	Total/NA	Ground Water	9056A	
310-217194-3	MW6	Total/NA	Ground Water	9056A	
310-217194-4	MW8	Total/NA	Ground Water	9056A	
310-217194-4	MW8	Total/NA	Ground Water	9056A	
310-217194-5	MW9	Total/NA	Ground Water	9056A	
310-217194-6	MW13	Total/NA	Ground Water	9056A	
310-217194-6	MW13	Total/NA	Ground Water	9056A	
310-217194-7	MW15	Total/NA	Ground Water	9056A	
310-217194-7	MW15	Total/NA	Ground Water	9056A	
310-217194-8	MW17	Total/NA	Ground Water	9056A	
310-217194-8	MW17	Total/NA	Ground Water	9056A	
310-217194-9	MW18	Total/NA	Ground Water	9056A	
310-217194-10	MW19	Total/NA	Ground Water	9056A	
310-217194-11	DUP-1	Total/NA	Ground Water	9056A	
MB 310-332322/3	Method Blank	Total/NA	Water	9056A	
LCS 310-332322/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 331484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	3010A	
310-217194-2	MW5	Total/NA	Ground Water	3010A	
310-217194-3	MW6	Total/NA	Ground Water	3010A	
310-217194-4	MW8	Total/NA	Ground Water	3010A	
310-217194-5	MW9	Total/NA	Ground Water	3010A	
310-217194-6	MW13	Total/NA	Ground Water	3010A	
310-217194-7	MW15	Total/NA	Ground Water	3010A	
310-217194-8	MW17	Total/NA	Ground Water	3010A	
310-217194-9	MW18	Total/NA	Ground Water	3010A	
310-217194-10	MW19	Total/NA	Ground Water	3010A	
310-217194-11	DUP-1	Total/NA	Ground Water	3010A	
MB 310-331484/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-331484/2-A	Lab Control Sample	Total/NA	Water	3010A	
310-217194-1 MS	MW2	Total/NA	Ground Water	3010A	
310-217194-1 MSD	MW2	Total/NA	Ground Water	3010A	
310-217194-11 DU	DUP-1	Total/NA	Ground Water	3010A	

Prep Batch: 332477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	7470A	
310-217194-2	MW5	Total/NA	Ground Water	7470A	
310-217194-3	MW6	Total/NA	Ground Water	7470A	
310-217194-4	MW8	Total/NA	Ground Water	7470A	
310-217194-5	MW9	Total/NA	Ground Water	7470A	
310-217194-6	MW13	Total/NA	Ground Water	7470A	
310-217194-7	MW15	Total/NA	Ground Water	7470A	
310-217194-8	MW17	Total/NA	Ground Water	7470A	
310-217194-9	MW18	Total/NA	Ground Water	7470A	

QC Association Summary

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

Job ID: 310-217194-1

Metals (Continued)

Prep Batch: 332477 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-10	MW19	Total/NA	Ground Water	7470A	
310-217194-11	DUP-1	Total/NA	Ground Water	7470A	
MB 310-332477/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-332477/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 332662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	7470A	332477
310-217194-2	MW5	Total/NA	Ground Water	7470A	332477
310-217194-3	MW6	Total/NA	Ground Water	7470A	332477
310-217194-4	MW8	Total/NA	Ground Water	7470A	332477
310-217194-5	MW9	Total/NA	Ground Water	7470A	332477
310-217194-6	MW13	Total/NA	Ground Water	7470A	332477
310-217194-7	MW15	Total/NA	Ground Water	7470A	332477
310-217194-8	MW17	Total/NA	Ground Water	7470A	332477
310-217194-9	MW18	Total/NA	Ground Water	7470A	332477
310-217194-10	MW19	Total/NA	Ground Water	7470A	332477
310-217194-11	DUP-1	Total/NA	Ground Water	7470A	332477
MB 310-332477/1-A	Method Blank	Total/NA	Water	7470A	332477
LCS 310-332477/2-A	Lab Control Sample	Total/NA	Water	7470A	332477

Analysis Batch: 332936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	6020A	331484
310-217194-2	MW5	Total/NA	Ground Water	6020A	331484
310-217194-3	MW6	Total/NA	Ground Water	6020A	331484
310-217194-4	MW8	Total/NA	Ground Water	6020A	331484
310-217194-6	MW13	Total/NA	Ground Water	6020A	331484
310-217194-7	MW15	Total/NA	Ground Water	6020A	331484
310-217194-9	MW18	Total/NA	Ground Water	6020A	331484
310-217194-10	MW19	Total/NA	Ground Water	6020A	331484
310-217194-11	DUP-1	Total/NA	Ground Water	6020A	331484
MB 310-331484/1-A	Method Blank	Total/NA	Water	6020A	331484
LCS 310-331484/2-A	Lab Control Sample	Total/NA	Water	6020A	331484
310-217194-1 MS	MW2	Total/NA	Ground Water	6020A	331484
310-217194-1 MSD	MW2	Total/NA	Ground Water	6020A	331484
310-217194-11 DU	DUP-1	Total/NA	Ground Water	6020A	331484

Analysis Batch: 333015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-5	MW9	Total/NA	Ground Water	6020A	331484
310-217194-8	MW17	Total/NA	Ground Water	6020A	331484

General Chemistry

Analysis Batch: 331512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	SM 2540C	
MB 310-331512/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-331512/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

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

Job ID: 310-217194-1

General Chemistry

Analysis Batch: 331789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-2	MW5	Total/NA	Ground Water	SM 2540C	
310-217194-3	MW6	Total/NA	Ground Water	SM 2540C	
310-217194-9	MW18	Total/NA	Ground Water	SM 2540C	
310-217194-10	MW19	Total/NA	Ground Water	SM 2540C	
MB 310-331789/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-331789/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-217194-2 DU	MW5	Total/NA	Ground Water	SM 2540C	

Analysis Batch: 331802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-4	MW8	Total/NA	Ground Water	SM 2540C	
310-217194-5	MW9	Total/NA	Ground Water	SM 2540C	
310-217194-6	MW13	Total/NA	Ground Water	SM 2540C	
310-217194-7	MW15	Total/NA	Ground Water	SM 2540C	
310-217194-8	MW17	Total/NA	Ground Water	SM 2540C	
310-217194-11	DUP-1	Total/NA	Ground Water	SM 2540C	
MB 310-331802/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-331802/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-217194-4 DU	MW8	Total/NA	Ground Water	SM 2540C	

Lab Chronicle

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

Job ID: 310-217194-1

Client Sample ID: MW2

Date Collected: 10/12/21 10:38

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 19:22	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:19	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 12:45	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331512	10/13/21 14:04	ARG	TAL CF

Client Sample ID: MW5

Date Collected: 10/12/21 15:36

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 19:54	JNR	TAL CF
Total/NA	Analysis	9056A		20	332322	10/19/21 20:40	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:39	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 12:47	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331789	10/15/21 11:32	ARG	TAL CF

Client Sample ID: MW6

Date Collected: 10/12/21 12:42

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 20:56	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:42	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 12:50	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331789	10/15/21 11:32	ARG	TAL CF

Client Sample ID: MW8

Date Collected: 10/12/21 13:34

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 21:11	JNR	TAL CF
Total/NA	Analysis	9056A		20	332322	10/19/21 21:27	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:45	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 12:56	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-217194-1

Client Sample ID: MW9

Date Collected: 10/11/21 15:51

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 21:43	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	333015	10/26/21 13:04	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 12:58	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Client Sample ID: MW13

Date Collected: 10/11/21 16:37

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 21:58	JNR	TAL CF
Total/NA	Analysis	9056A		20	332322	10/19/21 22:14	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:50	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:00	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Client Sample ID: MW15

Date Collected: 10/12/21 12:00

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 22:29	JNR	TAL CF
Total/NA	Analysis	9056A		20	332322	10/19/21 22:45	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 22:53	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:02	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Client Sample ID: MW17

Date Collected: 10/12/21 14:44

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/19/21 23:01	JNR	TAL CF
Total/NA	Analysis	9056A		20	332322	10/19/21 23:47	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	333015	10/26/21 13:06	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:05	EAM	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-217194-1

Client Sample ID: MW17

Date Collected: 10/12/21 14:44

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Client Sample ID: MW18

Date Collected: 10/11/21 13:53

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/20/21 00:03	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 23:08	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:07	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331789	10/15/21 11:32	ARG	TAL CF

Client Sample ID: MW19

Date Collected: 10/11/21 14:39

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/20/21 00:19	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 23:11	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:09	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331789	10/15/21 11:32	ARG	TAL CF

Client Sample ID: DUP-1

Date Collected: 10/12/21 00:00

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	332322	10/20/21 00:35	JNR	TAL CF
Total/NA	Prep	3010A			331484	10/14/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	332936	10/25/21 23:13	SAP	TAL CF
Total/NA	Prep	7470A			332477	10/21/21 12:39	EAM	TAL CF
Total/NA	Analysis	7470A		1	332662	10/22/21 13:11	EAM	TAL CF
Total/NA	Analysis	SM 2540C		1	331802	10/15/21 12:41	ARG	TAL CF

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 310-217194-1

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-22
Georgia	State	IA100001 (OR)	09-29-22
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	04-06-23
North Dakota	State	R-186	09-29-21 *
Oregon	NELAP	IA100001	09-29-22
USDA	US Federal Programs	P330-19-00003	01-02-22

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

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

Method Summary

Job ID: 310-217194-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"
 SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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



Environment Testing
 TestAmerica



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>Omaha Public Power District</u>			
City/State:	<u>Omaha NE</u>	Project:	<u>N. Omaha CER</u>
Receipt Information			
Date/Time Received:	<u>10/13/21</u>	TIME:	<u>0920</u>
Received By:		<u>AM</u>	
Delivery Type:	<input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>3</u>	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? <u>1</u>	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____	<input type="checkbox"/> NONE	
Thermometer ID:	<u>0</u>	Correction Factor (°C):	<u>0</u>
* Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>3.4</u>	Corrected Temp (°C):	<u>3.4</u>
* Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			
<u>MW-9, 13, 2, 18, 19</u>			

Document: CF-LG-WI-002
 Revision: 25
 Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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



Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>Omaha Public Power District</u>		
City/State: <u>Omaha NE</u>	Project: <u>N. Omaha CER</u>	
Receipt Information		
Date/Time Received: <u>10/13/21 0920</u>	Received By: <u>Am</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2 of 3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>0</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.3</u>	Corrected Temp (°C): <u>2.3</u>	
• Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW-17</u>		

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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



Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>Omaha Public Power District</u>		
City/State: <u>Omaha NE</u>	Project: <u>N. Omaha CER</u>	
Receipt Information		
Date/Time Received: <u>10/13/21 0920</u>	Received By: <u>Am</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3 of 3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>0</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>1.8</u>	Corrected Temp (°C): <u>1.8</u>	
• Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW-5, 8, 6, 15 + Dup-1</u>		

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

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

Client Information Client Name: Kyle K. Uhing Phone: (531) 226-2515 Company: Omaha Public Power District Address: 444 South 16th Street Mail 9E/EP1 City: Omaha State: NE Zip: 68102-2247 Email: (531) 226-2515 Email: kkuhing@oppd.com Project Name: North Omaha Station CCR Site: North Omaha Station		Lab Fax: Hayes, Shawn M. E-Mail: shawn.hayes@testamericainc.com	
Due Date Requested: FAT Requested (days):		Analysis Requested Total # of Containers:	
Sample ID: MW2 MW5 MW6 MW8 MW9 MW13 MW15 MW17 MW18 MW19 DUP1	Sample Date: 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21 10/17/21	Sample Time: 10:36 15:26 18:48 13:34 15:51 16:57 12:00 14:44 13:53 14:34 ---	Matrix Type (Pres., G/Grab): G G G G G G G G G G
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Requisitioned by: [Signature] Date: 10/17/2021 17:45 Requisitioned by: [Signature] Date: 10/17/21 14:34		Received by: [Signature] Date/Time: 10-13-21 420 Company:	

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-217194-1

Login Number: 217194
 List Number: 1
 Creator: Kizer, Preston V

List Source: Euofins TestAmerica, Cedar Falls

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 310-217194-2
Client Project/Site: North Omaha Station CCR
Sampling Event: CCR and Landfill Parameters (Q2 and Q4)

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

Attn: Kyle Uhing

Authorized for release by:
11/17/2021 10:37:26 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

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

Laboratory Job ID: 310-217194-2

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

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

Job ID: 310-217194-2

Job ID: 310-217194-2

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative
310-217194-2

Comments

No additional comments.

Receipt

The samples were received on 10/13/2021 9:20 AM. 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 1.8° C, 2.3° C and 3.4° C.

RAD

Method PrecSep_0: Radium-228 Prep Batch 160-532482

The following samples were prepared at a reduced aliquot due to Matrix: MW9 (310-217194-5), MW13 (310-217194-6), MW18 (310-217194-9) and MW19 (310-217194-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-532041

The following samples were prepared at a reduced aliquot due to Matrix: MW9 (310-217194-5), MW13 (310-217194-6), MW18 (310-217194-9) and MW19 (310-217194-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

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

Sample Summary

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

Job ID: 310-217194-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-217194-1	MW2	Ground Water	10/12/21 10:38	10/13/21 09:20
310-217194-2	MW5	Ground Water	10/12/21 15:36	10/13/21 09:20
310-217194-3	MW6	Ground Water	10/12/21 12:42	10/13/21 09:20
310-217194-4	MW8	Ground Water	10/12/21 13:34	10/13/21 09:20
310-217194-5	MW9	Ground Water	10/11/21 15:51	10/13/21 09:20
310-217194-6	MW13	Ground Water	10/11/21 16:37	10/13/21 09:20
310-217194-7	MW15	Ground Water	10/12/21 12:00	10/13/21 09:20
310-217194-8	MW17	Ground Water	10/12/21 14:44	10/13/21 09:20
310-217194-9	MW18	Ground Water	10/11/21 13:53	10/13/21 09:20
310-217194-10	MW19	Ground Water	10/11/21 14:39	10/13/21 09:20
310-217194-11	DUP-1	Ground Water	10/12/21 00:00	10/13/21 09:20

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW2

Lab Sample ID: 310-217194-1

Date Collected: 10/12/21 10:38

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.210	0.212	1.00	0.290	pCi/L	10/16/21 15:18	11/10/21 09:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		40 - 110					10/16/21 15:18	11/10/21 09:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.539		0.274	0.279	1.00	0.405	pCi/L	10/18/21 10:06	11/09/21 16:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		40 - 110					10/18/21 10:06	11/09/21 16:54	1
Y Carrier	84.9		40 - 110					10/18/21 10:06	11/09/21 16:54	1

Method: 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	0.856		0.345	0.350	5.00	0.405	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW5

Lab Sample ID: 310-217194-2

Date Collected: 10/12/21 15:36

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0961	U	0.180	0.181	1.00	0.318	pCi/L	10/16/21 15:18	11/10/21 09:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/16/21 15:18	11/10/21 09:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0908	U	0.258	0.258	1.00	0.446	pCi/L	10/18/21 10:06	11/09/21 16:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/18/21 10:06	11/09/21 16:54	1
Y Carrier	82.2		40 - 110					10/18/21 10:06	11/09/21 16:54	1

Method: 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	0.187	U	0.315	0.315	5.00	0.446	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW6

Lab Sample ID: 310-217194-3

Date Collected: 10/12/21 12:42

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.194	U	0.226	0.227	1.00	0.370	pCi/L	10/16/21 15:18	11/10/21 09:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/16/21 15:18	11/10/21 09:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.716		0.306	0.313	1.00	0.435	pCi/L	10/18/21 10:06	11/09/21 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/18/21 10:06	11/09/21 16:55	1
Y Carrier	85.6		40 - 110					10/18/21 10:06	11/09/21 16:55	1

Method: 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	0.910		0.380	0.387	5.00	0.435	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW8

Lab Sample ID: 310-217194-4

Date Collected: 10/12/21 13:34

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0781	U	0.153	0.154	1.00	0.273	pCi/L	10/16/21 15:18	11/10/21 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/16/21 15:18	11/10/21 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.277	U	0.210	0.212	1.00	0.331	pCi/L	10/18/21 10:06	11/09/21 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/18/21 10:06	11/09/21 16:55	1
Y Carrier	89.3		40 - 110					10/18/21 10:06	11/09/21 16:55	1

Method: 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	0.355		0.260	0.262	5.00	0.331	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW9

Lab Sample ID: 310-217194-5

Date Collected: 10/11/21 15:51

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.651		0.324	0.330	1.00	0.410	pCi/L	10/16/21 15:18	11/10/21 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/16/21 15:18	11/10/21 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.718		0.333	0.340	1.00	0.481	pCi/L	10/18/21 10:06	11/09/21 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/18/21 10:06	11/09/21 16:56	1
Y Carrier	90.5		40 - 110					10/18/21 10:06	11/09/21 16:56	1

Method: 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	1.37		0.465	0.474	5.00	0.481	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW13

Lab Sample ID: 310-217194-6

Date Collected: 10/11/21 16:37

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.449	U	0.466	0.467	1.00	0.748	pCi/L	10/16/21 15:18	11/10/21 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					10/16/21 15:18	11/10/21 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.23		0.530	0.541	1.00	0.751	pCi/L	10/18/21 10:06	11/09/21 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					10/18/21 10:06	11/09/21 16:56	1
Y Carrier	84.1		40 - 110					10/18/21 10:06	11/09/21 16:56	1

Method: 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	1.67		0.706	0.715	5.00	0.751	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW15

Lab Sample ID: 310-217194-7

Date Collected: 10/12/21 12:00

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.135	U	0.217	0.217	1.00	0.372	pCi/L	10/16/21 15:18	11/10/21 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					10/16/21 15:18	11/10/21 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.248	U	0.194	0.195	1.00	0.303	pCi/L	10/18/21 10:06	11/09/21 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					10/18/21 10:06	11/09/21 16:56	1
Y Carrier	85.2		40 - 110					10/18/21 10:06	11/09/21 16:56	1

Method: 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	0.383		0.291	0.292	5.00	0.372	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW17

Lab Sample ID: 310-217194-8

Date Collected: 10/12/21 14:44

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.398		0.219	0.222	1.00	0.284	pCi/L	10/16/21 15:18	11/10/21 10:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110					10/16/21 15:18	11/10/21 10:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.213	0.214	1.00	0.346	pCi/L	10/18/21 10:06	11/09/21 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110					10/18/21 10:06	11/09/21 16:56	1
Y Carrier	83.0		40 - 110					10/18/21 10:06	11/09/21 16:56	1

Method: 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	0.605		0.305	0.308	5.00	0.346	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW18

Lab Sample ID: 310-217194-9

Date Collected: 10/11/21 13:53

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.923		0.389	0.398	1.00	0.477	pCi/L	10/16/21 15:18	11/10/21 10:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					10/16/21 15:18	11/10/21 10:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.397	0.401	1.00	0.607	pCi/L	10/18/21 10:06	11/09/21 17:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					10/18/21 10:06	11/09/21 17:16	1
Y Carrier	86.7		40 - 110					10/18/21 10:06	11/09/21 17:16	1

Method: 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	1.58		0.556	0.565	5.00	0.607	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: MW19

Lab Sample ID: 310-217194-10

Date Collected: 10/11/21 14:39

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.651		0.314	0.319	1.00	0.394	pCi/L	10/16/21 15:18	11/10/21 10:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					10/16/21 15:18	11/10/21 10:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.933		0.357	0.367	1.00	0.489	pCi/L	10/18/21 10:06	11/09/21 17:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					10/18/21 10:06	11/09/21 17:16	1
Y Carrier	87.9		40 - 110					10/18/21 10:06	11/09/21 17:16	1

Method: 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	1.58		0.475	0.486	5.00	0.489	pCi/L		11/17/21 21:41	1

Client Sample Results

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

Job ID: 310-217194-2

Client Sample ID: DUP-1

Lab Sample ID: 310-217194-11

Date Collected: 10/12/21 00:00

Matrix: Ground Water

Date Received: 10/13/21 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.149	U	0.179	0.179	1.00	0.294	pCi/L	10/16/21 15:18	11/10/21 10:04	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.1		40 - 110	10/16/21 15:18	11/10/21 10:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.740		0.272	0.280	1.00	0.365	pCi/L	10/18/21 10:06	11/09/21 17:16	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.1		40 - 110	10/18/21 10:06	11/09/21 17:16	1
Y Carrier	86.4		40 - 110	10/18/21 10:06	11/09/21 17:16	1

Method: 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	0.889		0.326	0.332	5.00	0.365	pCi/L		11/17/21 21:41	1

Definitions/Glossary

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

Job ID: 310-217194-2

Qualifiers

Rad Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
"	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MLQ	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: 310-217194-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-532041/1-A
Matrix: Water
Analysis Batch: 535808

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 532041

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03545	U	0.187	0.187	1.00	0.352	pCi/L	10/16/21 15:18	11/10/21 08:04	1
Carrier			%Yield	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Ba Carrier			91.5		40 - 110			10/16/21 15:18	11/10/21 08:04	1

Lab Sample ID: LCS 160-532041/2-A
Matrix: Water
Analysis Batch: 535808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532041

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec.
		Result	Qual	Uncert. (2σ+/-)					Limits
Radium-226	11.3	10.59		1.33	1.00	0.376	pCi/L	93	75 - 125
Carrier			%Yield	Qualifier	Limits				
Ba Carrier			87.8		40 - 110				

Lab Sample ID: LCSD 160-532041/3-A
Matrix: Water
Analysis Batch: 535807

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 532041

Analyte	Spike Added	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec.	RER
		Result	Qual	Uncert. (2σ+/-)					Limits	RER
Radium-226	11.3	9.361		1.19	1.00	0.290	pCi/L	83	75 - 125	0.49
Carrier			%Yield	Qualifier	Limits					
Ba Carrier			95.6		40 - 110					

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-532482/1-A
Matrix: Water
Analysis Batch: 535779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 532482

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1175	U	0.265	0.265	1.00	0.455	pCi/L	10/18/21 10:06	11/09/21 16:46	1
Carrier			%Yield	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Ba Carrier			91.5		40 - 110			10/18/21 10:06	11/09/21 16:46	1
Y Carrier			74.4		40 - 110			10/18/21 10:06	11/09/21 16:46	1

Eurofins TestAmerica, Cedar Falls

QC Sample Results

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

Job ID: 310-217194-2

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

Lab Sample ID: LCS 160-532482/2-A
Matrix: Water
Analysis Batch: 535779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532482

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec.
		Result	Qual	Uncert. (2σ+/-)					Limits
Radium-228	9.16	10.89		1.28	1.00	0.427	pCi/L	119	75 - 125
Carrier			%Yield	Qualifier	Limits				
Ba Carrier			87.8		40 - 110				
Y Carrier			72.9		40 - 110				

Lab Sample ID: LCSD 160-532482/3-A
Matrix: Water
Analysis Batch: 535779

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 532482

Analyte	Spike Added	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec.	RER
		Result	Qual	Uncert. (2σ+/-)					Limits	RER
Radium-228	9.16	9.838		1.16	1.00	0.442	pCi/L	107	75 - 125	0.43
Carrier			%Yield	Qualifier	Limits					
Ba Carrier			95.6		40 - 110					
Y Carrier			77.8		40 - 110					

Eurofins TestAmerica, Cedar Falls

QC Association Summary

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

Job ID: 310-217194-2

Rad

Prep Batch: 532041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	PrecSep-21	
310-217194-2	MW5	Total/NA	Ground Water	PrecSep-21	
310-217194-3	MW6	Total/NA	Ground Water	PrecSep-21	
310-217194-4	MW8	Total/NA	Ground Water	PrecSep-21	
310-217194-5	MW9	Total/NA	Ground Water	PrecSep-21	
310-217194-6	MW13	Total/NA	Ground Water	PrecSep-21	
310-217194-7	MW15	Total/NA	Ground Water	PrecSep-21	
310-217194-8	MW17	Total/NA	Ground Water	PrecSep-21	
310-217194-9	MW18	Total/NA	Ground Water	PrecSep-21	
310-217194-10	MW19	Total/NA	Ground Water	PrecSep-21	
310-217194-11	DUP-1	Total/NA	Ground Water	PrecSep-21	
MB 160-532041/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-532041/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-532041/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 532482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-217194-1	MW2	Total/NA	Ground Water	PrecSep_0	
310-217194-2	MW5	Total/NA	Ground Water	PrecSep_0	
310-217194-3	MW6	Total/NA	Ground Water	PrecSep_0	
310-217194-4	MW8	Total/NA	Ground Water	PrecSep_0	
310-217194-5	MW9	Total/NA	Ground Water	PrecSep_0	
310-217194-6	MW13	Total/NA	Ground Water	PrecSep_0	
310-217194-7	MW15	Total/NA	Ground Water	PrecSep_0	
310-217194-8	MW17	Total/NA	Ground Water	PrecSep_0	
310-217194-9	MW18	Total/NA	Ground Water	PrecSep_0	
310-217194-10	MW19	Total/NA	Ground Water	PrecSep_0	
310-217194-11	DUP-1	Total/NA	Ground Water	PrecSep_0	
MB 160-532482/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-532482/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-532482/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

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

Job ID: 310-217194-2

Client Sample ID: MW2

Lab Sample ID: 310-217194-1

Date Collected: 10/12/21 10:38

Matrix: Ground Water

Date Received: 10/13/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:58	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:54	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW5

Lab Sample ID: 310-217194-2

Date Collected: 10/12/21 15:36

Matrix: Ground Water

Date Received: 10/13/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:58	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:54	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW6

Lab Sample ID: 310-217194-3

Date Collected: 10/12/21 12:42

Matrix: Ground Water

Date Received: 10/13/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:58	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:55	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW8

Lab Sample ID: 310-217194-4

Date Collected: 10/12/21 13:34

Matrix: Ground Water

Date Received: 10/13/21 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:55	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Lab Chronicle

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

Job ID: 310-217194-2

Client Sample ID: MW9

Date Collected: 10/11/21 15:51

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:56	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW13

Date Collected: 10/11/21 16:37

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:56	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW15

Date Collected: 10/12/21 12:00

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535806	11/10/21 09:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:56	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW17

Date Collected: 10/12/21 14:44

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535807	11/10/21 10:03	RER	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535780	11/09/21 16:56	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

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

Job ID: 310-217194-2

Client Sample ID: MW18

Date Collected: 10/11/21 13:53

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535807	11/10/21 10:03	RER	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535781	11/09/21 17:16	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: MW19

Date Collected: 10/11/21 14:39

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535807	11/10/21 10:03	RER	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535781	11/09/21 17:16	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Client Sample ID: DUP-1

Date Collected: 10/12/21 00:00

Date Received: 10/13/21 09:20

Lab Sample ID: 310-217194-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			532041	10/16/21 15:18	HA	TAL SL
Total/NA	Analysis	9315		1	535807	11/10/21 10:04	RER	TAL SL
Total/NA	Prep	PrecSep_0			532482	10/18/21 10:06	BMP	TAL SL
Total/NA	Analysis	9320		1	535781	11/09/21 17:16	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	537262	11/17/21 21:41	MLK	TAL SL

Laboratory References:

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

Eurofins TestAmerica, Cedar Falls

Accreditation/Certification Summary

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

Job ID: 310-217194-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	06-30-21 *
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	07-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

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

Eurofins TestAmerica, Cedar Falls

Method Summary

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

Job ID: 310-217194-2

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

Protocol References:

None = None
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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

Eurofins TestAmerica, Cedar Falls



Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>Omaha Public Power District</u>		
City/State: <u>Omaha NE</u>	Project: <u>N. Omaha CER</u>	
Receipt Information		
Date/Time Received: <u>10/13/21 0920</u>	Received By: <u>AM</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? <u>1</u>
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>0</u>	Correction Factor (°C): <u>0</u>	
* Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>3.4</u>	Corrected Temp (°C): <u>3.4</u>	
* Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW-9, 13, 2, 18, 19</u>		

Place GOC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>Omaha Public Power District</u>		
City/State: <u>Omaha NE</u>	Project: <u>N. Omaha CER</u>	
Receipt Information		
Date/Time Received: <u>10/13/21 0920</u>	Received By: <u>AM</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? <u>1</u>
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>0</u>	Correction Factor (°C): <u>0</u>	
* Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.3</u>	Corrected Temp (°C): <u>2.3</u>	
* Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW-17</u>		



Environment Testing
TestAmerica

Place COC spotting label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information
 Client: Omaha Public Power District
 City/State: Omaha NE Project: N Omaha CCR

Receipt Information
 Date/Time Received: DATE 10/13/21 TIME 0920 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 # 3 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? 1

Temperature Record
 Coolant: Wet ice Blue ice Dry ice Other: _____ NONE
 Thermometer ID: 0 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): 1.8 Corrected Temp (°C): 1.8
 • Sample Container Temperature
 Container(s) used: CONTAINER 1 CONTAINER 2
 Uncorrected Temp (°C):
 Corrected Temp (°C):

Exceptions Noted
 1) If temperature exceeds criteria, was sample(s) received same day of sampling? Yes No
 a) If yes: Is there evidence that the chilling process began? Yes No
 2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised?
 (e.g., bulging septa, broken/cracked bottles, frozen solid?) Yes No
 NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments
MW-5, 8, 6, 15 + Dup-1

Document: CF-LG-WI-002
 Revision: 25
 Date: 06/17/2019

Eurofins TestAmerica, 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

Client Information
 Sample: Kyle K. Uning Lab PIN: _____
 Client Contact: Kyle Uning (531) 226-2515 E-Mail: shawn.haynes@testamericainc.com
 Company: Omaha Public Power District

Analysis Requested
 Due Date Requested: _____
 TAT Requested (days): _____
 PO #: _____
 WQ #: _____
 TestAmerica Project #: _____
 Site: North Omaha Station CCR
 SSOVA: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Preservation Code:	Matrix Type (Water, Urine, etc.)
MW2	10/12/21	10:30	G	W	W
MW5	10/12/21	15:26	G	W	W
MW6	10/12/21	18:48	G	W	W
MW8	10/12/21	13:34	G	W	W
MW9	10/11/21	15:51	G	W	W
MW13	10/11/21	16:57	G	W	W
MW15	10/12/21	12:00	G	W	W
MW17	10/12/21	14:44	G	W	W
MW18	10/11/21	13:53	G	W	W
MW19	10/11/21	14:34	G	W	W
DUP1	10/12/21	---	G	W	W

Special Instructions/Note:
 Total Number of Containers: _____
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4
 CCR Appendix III and IV Constituents: 4

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/OC Requirements: _____

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Radiochemical
 Deliverable Requested: I, II, III, IV, Other (specify) _____

Empty Kit Relinquished By: _____ Date: _____
 Relinquished By: [Signature] Date/Time: 10/12/2021 17:45 Company: [Signature]
 Relinquished By: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No
 Custody Seal No: _____
 Cooler Temperature (°C) and Other Remarks: PK 10-13-21 920

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-217194-2

Login Number: 217194

List Number: 1

Creator: Kizer, Preston V

List Source: Eurofins TestAmerica, Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (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: 310-217194-2

Login Number: 217194

List Number: 2

Creator: Johnson, Autumn R

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/14/21 12:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: 310-217194-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
310-217194-1	MW2	92.2	
310-217194-2	MW5	90.9	
310-217194-3	MW6	84.2	
310-217194-4	MW8	102	
310-217194-5	MW9	93.8	
310-217194-6	MW13	96.9	
310-217194-7	MW15	98.2	
310-217194-8	MW17	94.8	
310-217194-9	MW18	88.1	
310-217194-10	MW19	97.2	
310-217194-11	DUP-1	95.1	

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 (40-110)	
LCS 160-532041/2-A	Lab Control Sample	87.8	
LCSD 160-532041/3-A	Lab Control Sample Dup	95.6	
MB 160-532041/1-A	Method Blank	91.5	

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 (40-110)	Y (40-110)
310-217194-1	MW2	92.2	84.9
310-217194-2	MW5	90.9	82.2
310-217194-3	MW6	84.2	85.6
310-217194-4	MW8	102	89.3
310-217194-5	MW9	93.8	90.5
310-217194-6	MW13	96.9	84.1
310-217194-7	MW15	98.2	85.2
310-217194-8	MW17	94.8	83.0
310-217194-9	MW18	88.1	86.7
310-217194-10	MW19	97.2	87.9
310-217194-11	DUP-1	95.1	86.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Tracer/Carrier Summary

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

Job ID: 310-217194-2

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
LCS 160-532482/2-A	Lab Control Sample	87.8	72.9
LCSD 160-532482/3-A	Lab Control Sample Dup	95.6	77.8
MB 160-532482/1-A	Method Blank	91.5	74.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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Appendix C

Semi-Annual Statistical
Analysis Memos

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Technical Memorandum

Date: Friday, July 16, 2021

To: Omaha Public Power District (OPPD)

From: HDR Engineering, Inc. (HDR)

Subject: Summary of Statistical Analysis and Evaluation for SSLs
North Omaha Station Ash Landfill
Spring 2021 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 through the year 2023. 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 2021, 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 January 24, 2020, and the facility’s Groundwater Sampling and Analysis Plan (dated September 2019; revised January 2020) as permitted under Title 132. Sampling results used to calculate the background threshold values (BTVs) were obtained during monitoring events performed between March 2016 and October 2019. 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).

Downgradient sampling results from the April 2021 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**.



Table C-1. Summary of Evaluation for SSIs over Background (April 2021)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
BTV (UPL):	Unit	Assessment Monitoring Results – April 2021							
Detection Monitoring Constituents***									
Boron	0.2	mg/L	<u>1.30</u>	<u>0.592</u>	<u>0.502</u>	<u>2.04</u>	<u>1.70</u>	<u>3.36</u>	<u>0.695</u>
Calcium	195	mg/L	<u>243</u>	<u>380</u>	<u>283</u>	127	144	<u>224</u>	<u>274</u>
Chloride	275	mg/L	36.9	40.5	<u>313</u>	10.6	7.98	6.19	30.1
Fluoride**	1.84	mg/L	<0.275	0.642	0.310J	<0.275	0.496J	<0.275	<0.275
pH	6.24-7.83*	SU	6.73	7.22	6.65	7.77	6.69	7.09	6.70
Sulfate	57.5	mg/L	<u>553</u>	<u>1,100</u>	<u>275</u>	<u>528</u>	<u>790</u>	<u>586</u>	<u>677</u>
TDS	1,190	mg/L	<u>1,340</u>	<u>2,020</u>	<u>1,280</u>	814	<u>1,330</u>	974	<u>1,500</u>
Assessment Monitoring Constituents									
Antimony	0.002	mg/L	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	0.00126J	<0.00110
Arsenic	0.0118	mg/L	<u>0.213</u>	<u>0.0614</u>	<u>0.0119</u>	0.0110	<u>0.0892</u>	0.00149J	0.00927
Barium	0.625	mg/L	0.100	0.0458	0.192	0.0846	0.0848	0.0644	0.0341
Beryllium	0.001	mg/L	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270
Cadmium	0.000537	mg/L	<0.0000510	0.0000540J	0.000198	0.0000780J	0.000409	0.0000860J	<0.0000510
Chromium	0.005	mg/L	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<u>0.0363</u>	<0.00110
Cobalt	0.00293	mg/L	0.000472J	0.000350J	<u>0.00613</u>	0.000487J	0.000567	<0.0000910	<u>0.00915</u>
Fluoride**	1.84	mg/L	<0.275	0.642	0.310J	<0.275	0.496J	<0.275	<0.275
Lead	0.0114	mg/L	0.000515	<0.000210	0.000707	0.000488J	0.00137	<0.000210	<0.000210
Lithium	0.0541	mg/L	0.0435	<u>0.0818</u>	0.0454	0.0118	0.0240	0.0145	<u>0.0974</u>
Mercury	0.00022	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Molybdenum	0.002	mg/L	<0.00130	0.00157J	<u>0.0550</u>	<u>0.100</u>	<u>1.52</u>	<u>0.219</u>	<u>0.00398</u>
Radium 226+228	3.77	pCi/L	0.493	0.387U	0.456U	0.488	0.506	-0.0719U	0.654
Selenium	0.005	mg/L	<0.000960	<0.000960	<0.000960	<0.000960	<u>0.0377</u>	<u>0.0568</u>	<0.000960
Thallium	0.001	mg/L	<0.000260	<0.000260	<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.



Table C-2. Summary of Evaluation for SSLs over GWPS (April 2021)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
GWPS ^[1]	Unit	<i>Lower Confidence Levels (LCLs) – Assessment Monitoring Constituents</i>							
Antimony	0.006	mg/L	0.001	0.001	0.001	0.001	0.001	0.0014	0.001
Arsenic	0.0118 ^[2]	mg/L	<u>0.2130</u>	<u>0.0529</u>	<u>0.0138</u>	0.0010	<u>0.0788</u>	0.0015	<u>0.0118</u>
Barium	2.00	mg/L	0.0991	0.0443	0.1697	0.0865	0.0819	0.0478	0.0323
Beryllium	0.004	mg/L	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Cadmium	0.005	mg/L	0.0001	0.0001	0.0002	0.0001	0.0005	0.0001	0.0001
Chromium	0.1	mg/L	0.001	0.005	0.005	0.005	0.001	0.008	0.001
Cobalt	0.006	mg/L	0.0007	0.0004	<u>0.0063</u>	0.0005	0.0005	0.0001	<u>0.0098</u>
Fluoride	4.00	mg/L	0.275	0.460	0.310	0.275	0.450	0.275	0.274
Lead	0.015	mg/L	0.0004	0.0002	0.0014	0.0004	0.0005	0.0002	0.0002
Lithium	0.0541 ^[2]	mg/L	0.038	<u>0.0762</u>	0.042	0.011	0.022	0.009	<u>0.0948</u>
Mercury	0.002	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.10	mg/L	0.001	0.001	0.058	0.093	<u>1.03</u>	<u>0.208</u>	0.002
Radium 226+228	5.0	pCi/L	0.553	0.305	0.671	0.164	0.374	0.282	0.485
Selenium	0.05	mg/L	0.0001	0.0001	0.0001	0.0001	0.026	<u>0.054</u>	0.0001
Thallium	0.002	mg/L	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003

Bold and underlined concentration indicates an SSL over the GWPS.

* Indicates the lower bound is the lower GWPS limit.

**Indicates the upper bound is the upper GWPS limit.

[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: Monday, January 31, 2022

To: Omaha Public Power District (OPPD)

From: HDR Engineering, Inc. (HDR)

Subject: Summary of Statistical Analysis and Evaluation for SSLs
North Omaha Station Ash Landfill
Fall 2021 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 through the year 2023. 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 which is permitted for ash disposal.

Groundwater sampling was completed as part of an assessment monitoring program for the NOS Ash Landfill in October 2021, 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 Methods 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 January 2020) as permitted under Title 132. Sampling results used to calculate the background threshold values (BTVs) were updated during this 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 previous BTVs were updated in October 2019. BTVs were updated with monitoring results obtained during monitoring events performed between March 2016 and October 2021.

Downgradient sampling results from the October 2021 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 constituents and Appendix IV constituents are provided in **Table C-1**. The calculated lower confidence levels and the evaluation for SSLs above the GWPS for the Appendix IV constituents are provided in **Table C-2**.

Table C-1. Summary of Evaluation for SSIs over Background (October 2021)

Well ID:	MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17		
<i>BTV (UPL):</i>	<i>Unit</i>	<i>Assessment Monitoring Results -October 2021</i>							
Detection Monitoring Constituents***									
Boron	0.200	mg/L	<u>1.03</u>	<u>0.530</u>	<u>0.502</u>	<u>2.20</u>	<u>1.62</u>	<u>1.94</u>	<u>0.580</u>
Calcium	201	mg/L	<u>222</u>	<u>330</u>	<u>289</u>	137	169	190	<u>287</u>
Chloride	275	mg/L	33.6	45.7	<u>324</u>	10.8	8.47	7.32	33.0
Fluoride**	1.31	mg/L	<0.275	<0.275	<0.275	<0.275	<0.275	<0.275	<0.275
pH	5.94-7.90*	SU	6.44	6.61	6.32	7.51	6.26	6.54	6.21
Sulfate	57.5	mg/L	<u>467</u>	<u>993</u>	<u>277</u>	<u>526</u>	<u>888</u>	<u>500</u>	<u>708</u>
TDS	1,190	mg/L	940	<u>1,530</u>	1,100	826	980	876	<u>1,210</u>
Assessment Monitoring Constituents									
Antimony	0.002	mg/L	<0.00110	0.00174J	<0.00110	<0.00110	<0.00110	0.00115J	<0.00110
Arsenic	0.0118	mg/L	<u>0.191</u>	<u>0.0625</u>	<u>0.0324</u>	0.0104	<u>0.183</u>	0.00468	<u>0.0166</u>
Barium	0.625	mg/L	0.0880	0.0430	0.174	0.0806	0.116	0.0553	0.0364
Beryllium	0.001	mg/L	<0.00027	0.000737J	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027
Cadmium	0.000654	mg/L	<0.000051	0.000861	0.000181	0.0000790J	0.000542	0.000118	<0.000051
Chromium	0.00555	mg/L	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<u>0.00686</u>	<0.00110
Cobalt	0.00293	mg/L	0.000437J	0.00125	<u>0.00610</u>	0.000611	0.000790	<0.0000910	<u>0.00983</u>
Fluoride**	1.31	mg/L	<0.275	<0.275	<0.275	<0.275	<0.275	<0.275	<0.275
Lead	0.0114	mg/L	<0.000210	0.00187	0.000739	0.000263J	0.000210	<0.000210	<0.000210
Lithium	0.0628	mg/L	0.0404	<u>0.0690</u>	0.0424	0.0124	0.0234	0.0130	<u>0.0902</u>
Mercury	0.00022	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150
Molybdenum	0.002	mg/L	<0.00130	0.00367	<u>0.0563</u>	<u>0.0944</u>	<u>1.29</u>	<u>0.235</u>	0.00184J
Radium 226+228	4.95	pCi/L	0.856	0.187U	0.910	0.355	1.67	0.383	0.605
Selenium	0.005	mg/L	<0.00096	0.00419J	<0.00096	<0.00096	<u>0.0288</u>	<u>0.0532</u>	<0.00096
Thallium	0.001	mg/L	<0.00026	<u>0.00313</u>	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026

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.

Table C-2. Summary of Evaluation for SSLs over GWPS (October 2021)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
	GWPS ^[1]	Unit	<i>Lower Confidence Levels (LCLs) – Assessment Monitoring Constituents</i>						
Antimony	0.006	mg/L	0.001	0.001	0.001	0.001	0.001	0.00137	0.001
Arsenic	0.0118 ^[2]	mg/L	<u>0.2120</u>	<u>0.0483</u>	<u>0.0153</u>	0.0109	<u>0.1034</u>	0.001	<u>0.0119</u>
Barium	2.00	mg/L	0.0997	0.0430	0.1684	0.0855	0.0828	0.0445	0.0338
Beryllium	0.004	mg/L	0.0003	0.0007	0.0003	0.0003	0.0003	0.0003	0.0003
Cadmium	0.005	mg/L	0.0001	0.0001	0.0002	0.0001	0.0005	0.0001	0.0001
Chromium	0.1	mg/L	0.001	0.001	0.001	0.001	0.001	0.006	0.001
Cobalt	0.006	mg/L	0.0006	0.0004	<u>0.006</u>	0.0005	0.0005	0.0002	<u>0.0099</u>
Fluoride	4.00	mg/L	0.352	0.460	0.310	0.275	0.410	0.278	0.275
Lead	0.015	mg/L	0.0005	0.0002	0.0013	0.0004	0.0002	0.0002	0.0002
Lithium	0.0628 ^[2]	mg/L	0.038	<u>0.074</u>	0.041	0.011	0.021	0.008	<u>0.101</u>
Mercury	0.002	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.1	mg/L	0.001	0.002	0.053	0.092	<u>0.857</u>	<u>0.246</u>	0.002
Radium 226+228	5.0	pCi/L	0.493	0.446	0.664	0.146	0.455	0.369	0.479
Selenium	0.05	mg/L	0.001	0.004	0.001	0.001	0.023	<u>0.064</u>	0.001
Thallium	0.002	mg/L	0.0003	0.001	0.0003	0.0003	0.0003	0.0003	0.0003

Bold and underlined concentration indicates an SSL over the GWPS.

* Indicates the lower bound is the lower GWPS limit.

**Indicates the upper bound is the upper GWPS limit.

[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).