



REPORT

**Annual Coal Combustion Residuals Groundwater
Monitoring and Corrective Action Report - 2025**
Nebraska Public Power District, Gerald Gentleman Station

Submitted to:

Nebraska Public Power District

Gerald Gentleman Station, 6089 South Highway 25, Sutherland, Nebraska 69165

Submitted by:

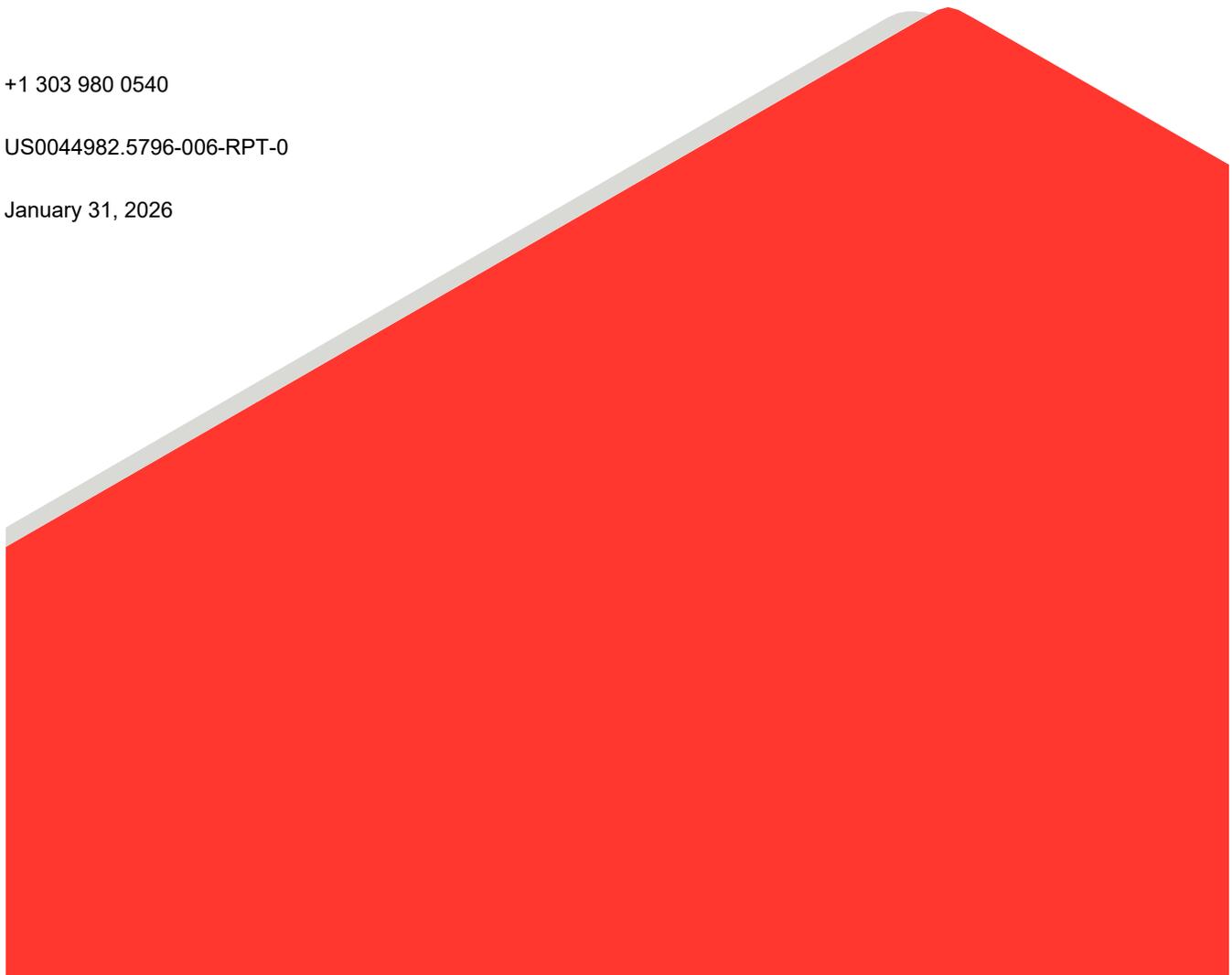
WSP USA Inc.

7245 W. Alaska Drive Ste. 200 Lakewood, CO 80226

+1 303 980 0540

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Executive Summary

This report presents the results from groundwater monitoring that occurred at Nebraska Public Power District's Gerald Gentleman Station in 2025 to meet the requirements of the United States Environmental Protection Agency's Coal Combustion Residuals Rule (40 Code of Federal Regulations 257.90 through 257.98). The facility entered 2025 under a detection monitoring program and remains in detection monitoring based on the results of sampling and analysis events conducted in the second quarter (Q2) and fourth quarter (Q4) of 2025.

No potential exceedances were identified during the Q2 2025 detection monitoring sampling event. A potential exceedance was identified for chloride at APMW-18 during the Q4 2025 detection monitoring sampling event. Confirmatory re-sampling for the parameter will occur prior to or during the next semi-annual sampling event in Q2 2026.

A verified statistically significant increase was identified for chloride at APMW-6 during the Q2 2025 and Q4 2025 sampling events. The verified statistically significant increase was originally identified following the Q4 2021 sampling event. A previously prepared successful alternative source demonstration was reviewed for ongoing applicability for the verified statistically significant increase after the Q2 2025 and Q4 2025 sampling events. The conclusions of the previous ASD remain valid, therefore Gerald Gentleman Station will remain in detection monitoring for the first semi-annual detection monitoring event of 2026, to be conducted in Q2 2026.

In Q2 2025 an exceedance for sulfate was verified at APMW-11. Sulfate was identified as an ongoing exceedance in the Q4 2025 sampling event at APMW-11. A previously prepared successful alternative source demonstration for sulfate at the site was reviewed for applicability to APMW-11 for the verified statistically significant increase after the Q2 2025 and Q4 2025 sampling events. The conclusions of the ASD remain valid, and Gerald Gentleman Station will remain in detection monitoring for the first semi-annual detection monitoring event of 2026, to be conducted in Q2 2026.

As described in the Groundwater Monitoring System Certification (Golder Associates Inc. [GAI] 2017a) and the Groundwater Monitoring Statistical Methods Certification (GAI 2017b), the groundwater monitoring and analytical procedures meet the general requirements of the Coal Combustion Residuals Rule, and modifications to the monitoring network and sampling program are not recommended at this time.

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1.0 INTRODUCTION

WSP USA Inc. (WSP) has prepared this report describing the 2025 groundwater sampling and comparative statistical analysis for Nebraska Public Power District's (NPPD) Gerald Gentleman Station (GGS) in Sutherland, Nebraska. This report was written to meet the requirements for groundwater monitoring and corrective action within the United States Environmental Protection Agency's Coal Combustion Residuals (CCR) Rule, 40 Code of Federal Regulations (CFR) 257.90 to 257.98.

1.1 Facility Information

GGS is located approximately 5 miles south of Sutherland, Nebraska, and 1.2 miles south of Sutherland Reservoir. The ash disposal facility at GGS is situated in the NW 1/4, NE 1/2, Section 30 of Township 13N, Range 33 W, in Lincoln County, Nebraska. NPPD began operating GGS in 1979 as a coal-fired electrical generation facility. GGS is both owned and operated by NPPD. The plant, with a generation capacity of 1,365 megawatts of power, uses a low-sulfur coal from Wyoming's Powder River Basin. The active CCR landfill at the site contains fly ash and bottom ash.

1.2 Purpose

The federal CCR Rule established specific requirements for the reporting of groundwater monitoring and corrective actions in 40 CFR 257.90. Per part (e) of 40 CFR 257.90, no later than January 31, 2018, and annually thereafter, owners or operators of CCR units must prepare an annual groundwater monitoring and corrective action report.

2.0 GROUNDWATER MONITORING NETWORK PROGRAM STATUS

The groundwater monitoring network for the active CCR landfill at GGS consists of 14 monitoring wells, as shown in Figure 1 and Figure 2. The four upgradient wells are APMW-5, APMW-15, APMW-16A, and APMW-17 and are indicated by the inclusion of "(U)" throughout the text. The ten downgradient monitoring wells are APMW-4, APMW-6, APMW-8A, APMW-10, APMW-11, APMW-12, APMW-13, APMW-14, APMW-18, and APMW-19.

2.1 Completed Key Actions 2025

The following key actions were completed in 2025:

- Detection monitoring samples were collected in April and May (second quarter, Q2) and December (fourth quarter, Q4) 2025 and analyzed for the Appendix III constituent list associated with the federal CCR Rule.
- An additional sample was collected from APMW-4 in April for separate state reporting requirements, and analyzed for the Appendix IV parameters.
- Additional samples were collected from APMW-11 in both May and December for separate state reporting requirements, and analyzed for the Appendix IV parameters.
- Comparative statistical analysis was completed for the second quarter (Q2) 2025 and fourth quarter (Q4) 2025 detection monitoring events, collected in April and May and December 2025, respectively.

2.2 Installation and Decommissioning of Monitoring Wells

No monitoring wells associated with the ash disposal facility groundwater quality monitoring network were installed or decommissioned at GGS in 2025.

2.3 Problems and Resolutions

Sampling Problems and Resolutions

During the Q2 2025 sampling event, the groundwater level at APMW-4 was below the level of the dedicated low-flow pump, resulting in a groundwater level not being recorded. However, enough water was present for a sample to be collected for laboratory analysis. Additionally, well APMW-5 (U) was dry during the Q2 2025 sampling event and a groundwater level was not recorded.

During the Q4 2025 sampling event, wells APMW-5 (U) and APMW-4 were dry during the sampling event, preventing collection of groundwater levels and analytical sampling at both wells. NPPD will continue to monitor APMW-5 (U) and APMW-4 during future sampling events.

Analytical Problems and Resolutions

No problems were identified with the analysis of samples in 2025.

2.4 Proposed Key Activities for 2026

The following key activities are expected to be completed in 2026:

- The 2025 annual monitoring report will be finalized and placed on the publicly accessible CCR website and in the site operating record.
- Detection monitoring sampling events and associated comparative statistical analysis are planned to occur in Q2 and Q4 2026.

3.0 GROUNDWATER MONITORING ANALYTICAL PROGRAM STATUS

Analytical activities associated with the groundwater monitoring program are described below.

3.1 Samples Collected

GS staff collected monitoring samples for the CCR detection monitoring program in May and December 2025. Specific dates for each sample are provided on the tables included as Appendix A.

Additional samples were collected at APMW-4 and APMW-11 in support of separate, Nebraska-specific reporting requirements. The analyses are not required as part of the CCR detection monitoring program. The collected results have been included on the tables in Appendix A.

3.1.1 Groundwater Elevation and Flow Rate

Groundwater elevations were measured in 12 of the 14 wells during the Q2 2025 sampling event and 12 of the 14 wells during the Q4 2025 event prior to purging. During the Q2 2025 sampling event, the groundwater level at APMW-4 was below the level of the dedicated low-flow pump, resulting in a groundwater level not being recorded. However, enough water was present at APMW-4 for proper purging to occur and for a sample to be collected for laboratory analysis. Additionally, well APMW-5 (U) was dry during the Q2 2025 sampling event and a groundwater level was not recorded. APMW-5 (U) and APMW-4 were dry during the Q4 2025 monitoring event, with both groundwater levels and samples for laboratory analyses unable to be collected. Groundwater elevation measurements can be found in the tables included as Appendix A for each location. Groundwater elevations and interpolated groundwater contours are shown in Figure 1 for the May 2025 (Q2 2025) detection monitoring sampling event. Groundwater elevations and interpolated groundwater contours are shown in Figure 2 for the December 2025 (Q4 2025) detection monitoring sampling event.

The groundwater flow rate across the facility was estimated with the equation $V_s = k \times i/n_e$, where:

- V_s is the groundwater flow rate, in feet per day (ft/day)
- k is the hydraulic conductivity, estimated from slug testing results from system wells, in ft/day
- i is the hydraulic gradient, calculated based on groundwater elevations for each monitoring event, in feet per feet (ft/ft)
- n_e is the effective porosity, a unitless parameter, estimated to be 0.25 for site soils

Hydraulic conductivity values at the site range from 0.14 to 19 ft/day, based on slug test data reported in *Design and Construction of a Groundwater Monitoring Network, Final Report*, issued in September 1991 by Woodward-Clyde Consultants. According to the 1991 report, a hydraulic conductivity value of 0.14 ft/day represents the Ogallala Formation silts. Values of 16 and 19 ft/day were reported for Ogallala Formation sands. Both 0.14 and 19 ft/day have been used to estimate the range of hydraulic conductivities present at GGS. The effective porosity estimate listed above is based on typical values for sands and silts, as presented in *Applied Hydrogeology* (Fetter 1994).

Based on the range of site values for hydraulic conductivity, the estimated effective porosity, and calculated hydraulic gradient based on water level readings, the average groundwater flow rate for May 2025 was estimated between 4.5×10^{-4} to 6.1×10^{-2} ft/day, based on average gradient values from APMW-15, APMW-16A, and APMW-17 as the upgradient reference points. The average groundwater flow rate from wells with recorded groundwater elevations in December 2025 was estimated between 4.8×10^{-4} to 6.6×10^{-2} ft/day. Gradients for the December 2025 monitoring event were calculated from APMW-15, APMW-16A and APMW-17 as upgradient reference points.

3.2 Monitoring Data (Analytical Results)

Analytical results for the CCR Rule Appendix III detection monitoring events in May 2025 and December 2025 are shown in the tables included as Appendix A.

3.3 Comparative Statistical Analysis

A description of the steps taken for comparative statistical analysis is summarized below with the results presented in the tables included as Appendix B.

Comparative statistical analysis is conducted following each detection monitoring event, consisting of the Appendix III parameters (USEPA 2015). For both Shewhart-CUSUM limits and non-parametric prediction limits (NP-PL), the comparative statistical analysis consists of a comparison of detection monitoring results collected during the period of interest to the statistical limit calculated from the baseline data collection period. For well-constituent pairs with increasing trends identified during the baseline period, an alternative trend test, as described by the Electric Power Research Institute (EPRI 2015) has been used to determine compliance. For well-constituent pairs with decreasing trends identified for the baseline period, a Sen's Slope test was used to assess the compliance results. At present, no well-constituent pairs have either increasing or decreasing trends within the baseline period and no alternative methods for trend analysis have been used within this report. Additional information on the methods used for the comparative statistical analysis can be found in the Groundwater Monitoring Statistical Methods Certification (GAI 2017a).

The following definitions will be used in discussion of the comparative statistical analysis:

- **Elevated CUSUM** – Defined as when the calculated CUSUM value is greater than the Shewhart-CUSUM limit established by the baseline statistical analysis, but the analytical result does not exceed the Shewhart-CUSUM limit. An elevated CUSUM is an indication that concentrations are gradually increasing and that the analytical results may exceed the Shewhart-CUSUM limit in the future. For elevated CUSUMs in the case of two-tailed analysis for field-measured pH, the CUSUM value may also be below the lower Shewhart-CUSUM limit established by the baseline statistical analysis.
- **Potential Exceedance** – Defined as an initial elevated CUSUM or an initial analytical result that exceeds the Shewhart-CUSUM limit or non-parametric statistical limit established by the baseline statistical analysis. Confirmatory re-sampling will determine if the potential exceedance is a false-positive or a verified statistically significant increase (SSI). Non-detect results that exceed either the Shewhart-CUSUM limit or the non-parametric statistical limit are not considered potential exceedances.
- **False-positive** – Defined as an analytical result that exceeds the statistical limit that can clearly be attributed to laboratory error, changes in analytical precision, or is invalidated through confirmatory re-sampling. False-positives are not used in calculations of any subsequent CUSUM values.
- **Confirmatory re-sampling** – Designated as the next scheduled sampling event.
- **Verified SSI** – Interpreted as two consecutive exceedances (the original sample and the confirmatory re-sample for analytical results, or two consecutive elevated CUSUMs) for the same constituent at the same well.

Results of the statistical analysis for the Q2 2025 and Q4 2025 detection monitoring events are shown on the tables included as Appendix B. For reporting purposes, compliance samples with non-detect results are shown at the practical quantitation limit (PQL) on the tables included as Appendix B. For fluoride at APMW-11 and APMW4, two sets of results were collected as part of the CCR detection monitoring and state-specific sampling lists. Duplicate samples collected as two bottles during the same sampling event are not considered statistically independent from one another. Within the comparative statistical analysis for detection monitoring, the average of both results has been used, based on recommendations within the Unified Guidance (USEPA 2009) regarding handling of replicate values within detection monitoring statistics.

3.3.1 Potential Exceedances

No potential exceedances were identified during the Q2 2025 detection monitoring event.

For Q4 2025 detection monitoring sampling event, a potential exceedance was identified for chloride at APMW-18. A confirmatory re-sample will be collected prior to or during the next semi-annual sampling event in Q2 2026.

3.3.2 False-Positives

No false positives were identified during either the Q2 2025 or Q4 2025 detection monitoring sampling events.

3.3.3 Verified SSIs

Sulfate was verified as an SSI at APMW-11 in Q2 2025 and was identified as an ongoing exceedance in Q4 2025.

During both monitoring events, chloride was identified as a verified SSI at APMW-6, which was initially verified during the Q4 2021 sampling event.

3.4 Program Transitions

Beginning in Q4 2017, the groundwater monitoring program at GGS transitioned from the baseline period to detection monitoring. During the baseline period, eight independent samples from each well within the program were collected and analyzed for the constituents listed in Appendix III and Appendix IV of the CCR rule prior to October 17, 2017, as specified in 40 CFR 257.94(b), with the previously reported exceptions of APMW-5 (U) and APMW-4 due to lack of precipitation (GAI 2018).

3.4.1 Detection Monitoring

Samples for the detection monitoring program are collected on a semi-annual basis, beginning with the sample collected in November 2017. NPPD collected semi-annual samples for the detection monitoring program in Q2 and Q4 2025.

3.4.2 Alternative Source Demonstrations

Resulting from the verified SSI for chloride at APMW-6 during the Q2 2025 detection monitoring event, the previously prepared ASD was reviewed for ongoing applicability, a copy of which is included in Appendix C. As specified in 40 CFR 257.94, the conclusions were found to remain applicable within 90 days of identification of each of the SSIs, and the CCR unit remained in detection monitoring for the Q4 2025 detection monitoring event.

Resulting from the verified SSI for sulfate at APMW-11 during the Q2 2025 detection monitoring event, a previously prepared ASD for sulfate at APMW-19 was reviewed for applicability to APMW-11. A copy of the previously prepared ASD is included in Appendix C. While the ASD was prepared for APMW-19, the demonstration included analysis for APMW-11. The conclusions of the previous ASD were found to remain valid and the CCR unit remained in detection monitoring for the Q4 2025 detection monitoring event.

Based on the Q4 2025 verified SSIs for chloride at APMW-6 and sulfate at APMW-11, the previously completed ASDs were again reviewed for continued applicability. The conclusions of the previous ASDs were found to remain valid. Therefore, NPPD will remain in detection monitoring for the Q2 2026 detection monitoring sampling event (See Appendix C). Assessment Monitoring

The current groundwater monitoring program at GGS is not in assessment monitoring. Assessment monitoring has not been triggered as described in 40 CFR 257.95.

3.4.3 Corrective Measures and Assessment

The current groundwater monitoring program at GGS does not indicate the need for corrective measures. An assessment of corrective measures, as described in 40 CFR 257.96, has not been required. No ASDs for Appendix IV parameters have been made. No corrective actions are required at this time.

4.0 RECOMMENDATIONS AND CLOSING

This report presents the results from the Q2 2025 and Q4 2025 detection monitoring events of the CCR program and the associated comparative statistical analysis. The groundwater monitoring and analytical procedures implemented at GGS meet the requirements of the CCR Rule and are consistent with the approach described in Groundwater Monitoring System Certification (GAI 2017b) and the Groundwater Monitoring Statistical Methods Certification (GAI 2017a). Modifications to the monitoring network and sampling program are not recommended at this time, and the program will remain in detection monitoring for the Q2 2026 detection monitoring event.

Signature Page

WSP USA Inc.



Erin L. Hunter, PhD, PE
Assistant Vice President



Jacob J. Sauer, PE
Vice President

ELH/JJS/ad

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Figures



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NOTE
 GROUNDWATER CONTOURS DEVELOPED FROM LEVELS MEASURED IN ACTIVE MONITORING WELLS SHOWN.

NEBRASKA PUBLIC POWER DISTRICT
 GERALD GENTLEMAN STATION
 GROUNDWATER MONITORING WELL NETWORK
 DECEMBER 2025 GROUNDWATER CONTOURS
 FIGURE 2

APPENDIX A

Monitoring Data

Table 1. Data Summary Table - APMW-5 (Upgradient)

Analytes		5/5/2025	12/8/2025	5/5/2025	12/8/2025
	Units	Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	*	*	*	*
Appendix III					
Boron, Total	mg/L	---	---	---	---
Calcium, Total	mg/L	---	---	---	---
Chloride	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
pH, Field	pH units	---	---	---	---
Sulfate	mg/L	---	---	---	---
Total Dissolved Solids	mg/L	---	---	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	---	---
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	---	---
Thallium, Total	mg/L	---	---	---	---

Legend:

---. Not analyzed

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.

2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

* APMW-5 was dry during the Q2 2025 and Q4 2025 sampling events, preventing collection of a sample. See text for details.

Table 2. Data Summary Table - APMW-15 (Upgradient)

Analytes		5/5/2025	12/8/2025	5/5/2025	12/8/2025
	Units	Detection Monitoring ¹		Additional State Program Required	
Water Elevation	ft amsl	3032.58	3032.06	3032.58	3032.06
Appendix III					
Boron, Total	mg/L	0.121	0.129	---	---
Calcium, Total	mg/L	97.2	97.0	---	---
Chloride	mg/L	22.8	27.3	---	---
Fluoride	mg/L	0.319	0.295	---	---
pH, Field	pH units	7.16	7.36	---	---
Sulfate	mg/L	137	125	---	---
Total Dissolved Solids	mg/L	528	496	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00296	0.00281
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	< 0.00500	< 0.00500
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
 2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.
- * During the Q4 2024 monitoring event, the groundwater level at APMW-15 was below the top of the dedicated pump. However, enough volume was present to allow appropriate purging and collection of an analytical sample.

Table 3. Data Summary Table - APMW-16A (Upgradient)

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3034.3	3033.94	3034.3	3033.94
Appendix III					
Boron, Total	mg/L	0.124	0.151	---	---
Calcium, Total	mg/L	101	104	---	---
Chloride	mg/L	30.7	33.2	---	---
Fluoride	mg/L	0.352	0.346	---	---
pH, Field	pH units	7.01	7.16	---	---
Sulfate	mg/L	160	147	---	---
Total Dissolved Solids	mg/L	584	548	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00361	0.00293
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00866	< 0.00500
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.



Table 4. Data Summary Table - APMW-17 (Upgradient)

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3034.15	3033.84	3034.15	3033.84
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.100	---	---
Calcium, Total	mg/L	114	107	---	---
Chloride	mg/L	31.6	35.0	---	---
Fluoride	mg/L	0.229	0.197	---	---
pH, Field	pH units	7.05	7.2	---	---
Sulfate	mg/L	127	103	---	---
Total Dissolved Solids	mg/L	504	476	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00240	0.00241
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00816	0.00783
Thallium, Total	mg/L	---	---	---	---

Legend:

---. Not analyzed

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.

2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 5. Data Summary Table - APMW-4

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	**	***	**	***
Appendix III					
Boron, Total	mg/L	< 0.100	---	---	---
Calcium, Total	mg/L	44.4	---	---	---
Chloride	mg/L	45.1	---	---	---
Fluoride	mg/L	0.346	---	---	---
pH, Field	pH units	7.82	---	---	---
Sulfate	mg/L	29.3	---	---	---
Total Dissolved Solids	mg/L	276	---	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	<0.002	---
Arsenic, Total	mg/L	---	---	0.00430*	---
Barium, Total	mg/L	---	---	0.073	---
Beryllium, Total	mg/L	---	---	<0.001	---
Cadmium, Total	mg/L	---	---	<0.0002	---
Chromium, Total	mg/L	---	---	<0.005	---
Cobalt, Total	mg/L	---	---	<0.0005	---
Fluoride	mg/L	---	---	0.34	---
Lead, Total	mg/L	---	---	<0.0005	---
Lithium, Total	mg/L	---	---	0.0127	---
Mercury, Total	mg/L	---	---	<0.0002	---
Molybdenum, Total	mg/L	---	---	0.00697	---
Radium-226	pCi/L	---	---	0.104	---
Radium-228	pCi/L	---	---	1.45	---
Radium-226 + Radium-228	pCi/L	---	---	1.56	---
Selenium, Total	mg/L	---	---	0.0140*	---
Thallium, Total	mg/L	---	---	<0.001	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter
- U, Result is less than the sample detection limit (varies by sample for radiological results).

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
 2. Beginning with the Q2 2023 sampling event, additional samples have been collected at APMW-4 for separate, Nebraska-specific permit reporting requirements.
- * Two samples collected and the average of the two values is shown
 ** APMW-4 water level was below the pump during the Q2 2025 sampling event, preventing water level measurement. See text for details
 *** APMW-4 was dry during the Q4 2025 sampling event, preventing collection of a sample. See text for details.

Table 6. Data Summary Table - APMW-6

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.18	3029.26	3030.18	3029.26
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.100	---	---
Calcium, Total	mg/L	45.6	52.7	---	---
Chloride	mg/L	31.4	39.3	---	---
Fluoride	mg/L	0.364	0.312	---	---
pH, Field	pH units	7.53	7.57	---	---
Sulfate	mg/L	27.7	25.4	---	---
Total Dissolved Solids	mg/L	272	266	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00425	0.00415
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00536	0.00528
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 7. Data Summary Table - APMW-8A

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.20	3029.30	3030.20	3029.30
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.1	---	---
Calcium, Total	mg/L	94.4	91.8	---	---
Chloride	mg/L	85.6	92.8	---	---
Fluoride	mg/L	0.213	0.155	---	---
pH, Field	pH units	7.15	7.3	---	---
Sulfate	mg/L	104	52.2	---	---
Total Dissolved Solids	mg/L	476	422	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00285	0.00322
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.0234	0.0226
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 8. Data Summary Table - APMW-10

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.21	3029.42	3030.21	3029.42
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.100	---	---
Calcium, Total	mg/L	52.8	52.7	---	---
Chloride	mg/L	24.0	25.7	---	---
Fluoride	mg/L	0.256	0.210	---	---
pH, Field	pH units	7.46	7.6	---	---
Sulfate	mg/L	36.1	43.0	---	---
Total Dissolved Solids	mg/L	296	256	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00316	0.00338
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00668	0.00677
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 9. Data Summary Table - APMW-11

Analytes	Units	5/5/2025	12/8/2025
		Detection Monitoring ¹	
Water Elevation	ft amsl	3030.54	3029.78
Appendix III			
Boron, Total	mg/L	< 0.100	< 0.100
Calcium, Total	mg/L	71.4	74.5
Chloride	mg/L	20.1	25.3
Fluoride	mg/L	0.300	0.284
pH, Field	pH units	7.34	7.44
Sulfate	mg/L	59.6	62.1
Total Dissolved Solids	mg/L	370	324
Appendix IV			
Antimony, Total	mg/L	---	---
Arsenic, Total	mg/L	---	---
Barium, Total	mg/L	---	---
Beryllium, Total	mg/L	---	---
Cadmium, Total	mg/L	---	---
Chromium, Total	mg/L	---	---
Cobalt, Total	mg/L	---	---
Fluoride	mg/L	---	---
Lead, Total	mg/L	---	---
Lithium, Total	mg/L	---	---
Mercury, Total	mg/L	---	---
Molybdenum, Total	mg/L	---	---
Radium-226	pCi/L	---	---
Radium-228	pCi/L	---	---
Radium-226 + Radium-228	pCi/L	---	---
Selenium, Total	mg/L	---	---
Thallium, Total	mg/L	---	---

Legend:

---. Not analyzed

ft amsl, feet above mean sea level

mg/L, milligrams per liter

pCi/L, picocuries per liter

U, Result is less than the sample detection limit (varies by sample for

* Two samples collected and the average of the two values is shown

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monit Appendix III.

2. Beginning with the Q2 2023 sampling event, additional samples have Nebraska-specific permit reporting requirements.

Table 10. Data Summary Table - APMW-12

Analytes	Units	5/5/2025	12/9/2025	5/5/2025	12/9/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.96	3030.49	3030.96	3030.49
Appendix III					
Boron, Total	mg/L	0.259	0.265	---	---
Calcium, Total	mg/L	133	137	---	---
Chloride	mg/L	117	155	---	---
Fluoride	mg/L	0.131	0.101	---	---
pH, Field	pH units	6.88	6.95	---	---
Sulfate	mg/L	246	252	---	---
Total Dissolved Solids	mg/L	956	924	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00228	0.00234
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	< 0.005	0.00569
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 11. Data Summary Table - APMW-13

Analytes	Units	5/5/2025	12/9/2025	5/5/2025	12/9/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.93	3030.66	3030.93	3030.66
Appendix III					
Boron, Total	mg/L	0.282	0.309	---	---
Calcium, Total	mg/L	138	125	---	---
Chloride	mg/L	122	126	---	---
Fluoride	mg/L	0.174	0.146	---	---
pH, Field	pH units	6.96	6.98	---	---
Sulfate	mg/L	234	227	---	---
Total Dissolved Solids	mg/L	970	824	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00271	0.00293
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	< 0.005	< 0.005
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 12. Data Summary Table - APMW-14

Analytes	Units	5/5/2025	12/9/2025	5/5/2025	12/9/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3031.13	3030.82	3031.13	3030.82
Appendix III					
Boron, Total	mg/L	0.227	0.299	---	---
Calcium, Total	mg/L	143	150	---	---
Chloride	mg/L	113	148	---	---
Fluoride	mg/L	0.163	0.172	---	---
pH, Field	pH units	6.96	6.98	---	---
Sulfate	mg/L	164	196	---	---
Total Dissolved Solids	mg/L	832	870	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00234	0.00263
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	< 0.005	< 0.005
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 13. Data Summary Table - APMW-18

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3030.59	3029.61	3030.59	3029.61
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.100	---	---
Calcium, Total	mg/L	78.7	82.6	---	---
Chloride	mg/L	81.2	116	---	---
Fluoride	mg/L	0.228	0.216	---	---
pH, Field	pH units	7.27	7.43	---	---
Sulfate	mg/L	33.5	25.1	---	---
Total Dissolved Solids	mg/L	388	346	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00249	0.00249
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00759	0.00658
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Table 14. Data Summary Table - APMW-19

Analytes	Units	5/5/2025	12/8/2025	5/5/2025	12/8/2025
		Detection Monitoring ¹		Additional State Program Required Samples ²	
Water Elevation	ft amsl	3029.79	3028.74	3029.79	3028.74
Appendix III					
Boron, Total	mg/L	< 0.100	< 0.1	---	---
Calcium, Total	mg/L	84.0	72.1	---	---
Chloride	mg/L	35.7	33.9	---	---
Fluoride	mg/L	< 1.00	0.193	---	---
pH, Field	pH units	7.27	7.38	---	---
Sulfate	mg/L	65.6	77.2	---	---
Total Dissolved Solids	mg/L	394	380	---	---
Appendix IV					
Antimony, Total	mg/L	---	---	---	---
Arsenic, Total	mg/L	---	---	0.00361	0.00396
Barium, Total	mg/L	---	---	---	---
Beryllium, Total	mg/L	---	---	---	---
Cadmium, Total	mg/L	---	---	---	---
Chromium, Total	mg/L	---	---	---	---
Cobalt, Total	mg/L	---	---	---	---
Fluoride	mg/L	---	---	---	---
Lead, Total	mg/L	---	---	---	---
Lithium, Total	mg/L	---	---	---	---
Mercury, Total	mg/L	---	---	---	---
Molybdenum, Total	mg/L	---	---	---	---
Radium-226	pCi/L	---	---	---	---
Radium-228	pCi/L	---	---	---	---
Radium-226 + Radium-228	pCi/L	---	---	---	---
Selenium, Total	mg/L	---	---	0.00866	0.00883
Thallium, Total	mg/L	---	---	---	---

Legend:

- . Not analyzed
- ft amsl, feet above mean sea level
- mg/L, milligrams per liter
- pCi/L, picocuries per liter

NOTES:

1. As indicated by the CCR rule (40 CFR 257.94), the Detection Monitoring Program monitors all constituents found in Appendix III.
2. Additional parameters collected for separate, Nebraska-specific permit reporting requirements.

Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

eurofins | Environment Testing

Client Information		Sampler: Doug Harris		Lab PM: Calhoun, Conner M		Carrier Tracking No(s):		COC No: 310-98036-26680.1					
Client Contact: Doug Harris		Phone: 308-530-1124		E-Mail: Conner.Calhoun@et.eurofinsus.com		State of Origin:		Page: Page 1 of 2					
Company: Nebraska Public Power District		PWSID:		Analysis Requested						Job #:			
Address: 6089 S Hwy 25 Gerald Gentleman Station South		Due Date Requested:								Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
City: Sutherland		TAT Requested (days):											
State, Zip: NE, 69165		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 308-530-1124(Tel)		PO #: 4500277132											
Email: ddharri@nppd.com		WO #:											
Project Name: GGs Ash Pit Detection Monitoring		Project #: 31007155											
Site: GGs		SSOW#:		6020B - Arsenic, Boron, Calcium, Selenium		2540C - Calcd- TDS		9056A - ORGFM_28D - Chloride, Fluoride, Sulfate		SM4500_H+ - PH			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Arsenic, Boron, Calcium, Selenium	2540C - Calcd- TDS	9056A - ORGFM_28D - Chloride, Fluoride, Sulfate	SM4500_H+ - PH	Special Instructions/Note:	
				Preservation Code:		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
APMW 16A					Water								
APMW 17					Water								
APMW 15					Water								
APMW 5					Water								
APMW 18					Water								
APMW 19					Water								
APMW 4		4-21-25	1410	G	Water			X	X	X	X		
APMW 6					Water								
APMW 8A					Water								
APMW 10					Water								
APMW 11					Water								
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input checked="" 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						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:							
Empty Kit Relinquished by:			Date:			Time:			Method of Shipment:				
Relinquished by: Doug Harris			Date/Time: 4-23-25 0800			Company: NPPD			Received by:				
Relinquished by:			Date/Time:			Company:			Received by:				
Relinquished by:			Date/Time:			Company:			Received by:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:							

Nebraska Public Power District - Gerald Gentleman Station
Monitoring Well Equipment Calibration Log

DATE: 4-21-25

TIME: 1244

SAMPLING PERSONNEL: DH

SAMPLING LOCATION(S): GGG

EQUIPMENT CALIBRATIONS:

Temperature (Deg C)		
MP-25T	Ref C	MP-25T
	<u>20.5</u>	<u>20.5</u>
	Temp Ok?	<u>Yes</u> /No

pH		
MP-25T	Ref	MP-25T
	7.0	<u>7.02</u>
	10.0	<u>10.00</u>
SRF 69		

Conductivity		
MP-25T	Ref	MP-25T
	<u>1413</u>	<u>1395</u>
SRF 104		

ORP (mV)		
MP-25T	Zobell	MP-25T
	Ref (mV)	(mV)
	_____	_____
YSI 15A	Zobell	YSI 15A
	Ref (mV)	Rel (mV)
	_____	_____

not doing unless needed

Turbidity (NTU)		
MP-25T	Ref	MP-25T
	10 NTU	_____
	DI (0 NTU)	_____
Hach 2100Q	10 NTU Verification	_____
	Reading	_____
	Acceptable?	Yes/No
	Calibration (NTU)	_____
	Current Or Last	_____
	Ref	Reading
	20	_____
	100	_____
	800	_____
	Acceptable?	Yes/No

DO		
MP-25T	Saturation Calibration	_____
	BP Entered	_____
	% Sat	_____
	Mg/l	_____
	OK?	Yes/No
YSI 55	Saturation Calibration	_____
	OK?	Yes/No

not using unless needed

not doing with the step 7 resolution DDH 12-15-21

Calibration Log Sheets

WEATHER CONDITIONS: clear

OBSERVATIONS/FIELD NOTES DURING SAMPLING EVENT:

Temperature checked OK w/ YSI Ecosense ORP 15A
ORP - used YSI Ecosense ORP 15A - OK to 235
- see manual page for calibration

Nebraska Public Power District - Gerald Gentleman Station
Monitoring Well Equipment Calibration Log

DATE: 5/5/25

TIME: 0800

SAMPLING PERSONNEL: DH JK AW

SAMPLING LOCATION(S): GGS

EQUIPMENT CALIBRATIONS:

Temperature (Deg C)		
MP-25T	Ref C	MP-25T
	<u>20.3</u>	<u>20.5</u>
	Temp OK?	Yes/No

pH		
MP-25T	Ref	MP-25T
	7.0	<u>6.95</u>
	10.0	<u>9.97</u>
<u>SRF-63</u>		

Conductivity		
MP-25T	Ref	MP-25T
	<u>1413</u>	<u>1391</u>
<u>SRF-105</u>		

ORP (mV)		
MP-25T	Zobell	MP-25T
	Ref (mV)	(mV)
	_____	_____
YSI 15A	Zobell	YSI 15A
	Ref (mV)	Rel (mV)
	_____	_____

not doing unless needed

Turbidity (NTU)		
MP-25T	Ref	MP-25T
	10 NTU	_____
	DI (0 NTU)	_____
Hach 2100Q	10 NTU Verification	Reading: _____
	Acceptable?	Yes/No
	Calibration (NTU)	Current Or Last
	Ref	Reading
	20	_____
	100	_____
	800	_____
	Acceptable?	Yes/No

not doing with the step 7 resolution
DDH
12-15-21

DO		
MP-25T	Saturation Calibration	BP Entered _____
	% Sat	_____
	Mg/l	_____
	OK?	Yes/No
YSI 55	Saturation Calibration	OK? Yes/No

not using unless needed

WEATHER CONDITIONS:

OBSERVATIONS/FIELD NOTES DURING SAMPLING EVENT:

Temperature - used EcoSense ORP 15A

ORP - use EcoSense ORP 15A --- OK to 235
(see manual page for calibration)

Calibration Log Sheets

Nebraska Public Power District - Gerald Gentleman Station
Monitoring Well Equipment Calibration Log

DATE: 5-6-25

TIME: 0752

SAMPLING PERSONNEL: DH JK

SAMPLING LOCATION(S): GGS

EQUIPMENT CALIBRATIONS:

Temperature (Deg C)		
MP-25T	Ref C	MP-25T
	<u>18.8</u>	<u>18.90</u>
	Temp Ok?	Yes/No
<u>ORP 15A</u>		

pH		
MP-25T	Ref	MP-25T
	7.0	<u>7.00</u>
	10.0	<u>9.98</u>
<u>SRF 64</u>		

Conductivity		
MP-25T	Ref	MP-25T
	<u>1413</u>	<u>1400</u>
<u>SRF 103</u>		

447
454

ORP (mV)		
MP-25T	Zobell Ref (mV)	MP-25T (mV)
<u>YSI 15A</u>	Zobell Ref (mV)	<u>YSI 15A</u> Rel (mV)

not doing unless needed

Turbidity (NTU)		
MP-25T	Ref	MP-25T
	10 NTU	
	DI (0 NTU)	
Hach 2100Q	10 NTU Verification Reading	
	Acceptable? Yes/No	
	Calibration (NTU)	
	Current Or Last	
	Ref	Reading
	20	
	100	
	800	
	Acceptable? Yes/No	

not doing with the step 7 resolution
DOH
12-15-21

DO		
MP-25T	Saturation Calibration BP Entered	
	% Sat	
	Mg/l	
	OK? Yes/No	
YSI 55	Saturation Calibration	
	OK? Yes/No	

not using unless needed

WEATHER CONDITIONS:

OBSERVATIONS/FIELD NOTES DURING SAMPLING EVENT:

Temperature check - OK w/ ORP 15A

ORP - (EcoSense ORP15A) - OK to 235

Calibration Log Sheets

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits Depth to 104.8 / 124.8 of Screen
 Well Number A PMW- 18 Date 5-5-25
 Field Personnel Doug Harris JWK AHW
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK
 Pump Intake at (ft. below MP) 122.04
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1155	115.04	220'	200	/	14.68	620.4	7.26	/	/	/	Sum Wind Started pumping @ 1145
1200					14.49	612.7	7.26	/	/		
1205					14.45	611.7	7.26	/	/		
1210					14.53	610.0	7.27	/	/		
1215					14.53	609.5	7.27	/	/	156	EcoSense ORP15A
1217	115.33										500 Unpreserved
1220											250 Preserved
1223											250 Unpreserved
Bottle Regulator 100 psi											
CPM 2 @ 24-6											

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 4 Date 4-21-25
 Field Personnel Doug Harris
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: all OK

Depth to 111.01 / 131.0 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) ?
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments	
1400	^{no} water level	220'			20.65	398.3	7.83					
1405					20.15	395.2	7.82			175	Ecosense ORP ISA	
1410											Detection Monitoring Samples	
1425										500 Unpreserved Det		
1430										250 Unpreserved Det		
											250 Preserved Det	
1440											Assessment Monitoring Samples	
1450												1000 Preserved Assess
1500												1000 Preserved Assess
1510												250 Preserved Assess
											250 Unpreserved Assess	
Bottle Regulator 100 psi												
CPM 2	23-7 to get water											

water very low - difficult to get enough for samples
 only purged minimally
 no water level - level tape hit the top of the pump
 before water - but there was water at the intake
 enough to get a sample

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 8A Date 5-5-25
 Field Personnel Doug Harris JWK AHW
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All's OK

Depth to 104.7 / 124.7 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 122.8
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1435	114.40	220'	200	/	15.29	751.2	7.11	/	/	/	sun & WINDY Started pumping @ 1425
1440					15.33	746.7	7.13	/	/	/	
1445					15.44	745.4	7.14	/	/	/	
1450					15.07	745.5	7.14	/	/	/	
1455					15.21	745.0	7.14	/	/	144	EcoSense ORP/SA
1457	114.60										500 ml Unpreserved
1500											250 ml Preserved
1503											250 ml Unpreserved
1504											500 ml Unpreserved Duplicate
1507											250 ml Preserved Duplicate
1509											250 ml Unpreserved Duplicate
Bottle Regulator 100 psi											
CPM 2 @ 25-5											

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 12 Date 5-5-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 88.0 / 109.82 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 108.92
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1745	100.78	220'	2.00	/	14.89	1441	6.92	/	/	/	Windy started pumping at 1739
1750					14.53	1454	6.86	/	/	/	
1755					14.42	1450	6.86	/	/	/	
1800					14.69	1442	6.86	/	/	/	
1805					14.47	1425	6.87	/	/	155	
1807	100.80										500 ml Unpreserved
1810											250 ml Preserved
1812											250 ml Unpreserved
Bottle Regulator 100 psi											
CPM 2 @ 25-5											

ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

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JOB DESCRIPTION

GGs Ash Pit Detection Monitoring
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-304905-1

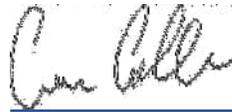
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Job Notes

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

Authorization



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Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Job ID: 310-304905-1

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Job Narrative 310-304905-1

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

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

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

Receipt

The sample was received on 4/24/2025 10:39 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

Metals

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

General Chemistry

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

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Sample Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-304905-1	APMW 4	Ground Water	04/21/25 14:10	04/24/25 10:39

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

Detection Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304905-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00430		0.00200		mg/L	1		6020B	Total/NA
Calcium	44.4		0.500		mg/L	1		6020B	Total/NA
Selenium	0.0140		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.352		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	29.3		5.00		mg/L	1		D516-16	Total/NA
Total Dissolved Solids	276		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	45.1		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	8.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304905-1

Date Collected: 04/21/25 14:10

Matrix: Ground Water

Date Received: 04/24/25 10:39

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00430		0.00200		mg/L		04/25/25 09:00	04/25/25 18:38	1
Boron	<0.100		0.100		mg/L		04/25/25 09:00	04/25/25 18:38	1
Calcium	44.4		0.500		mg/L		04/25/25 09:00	04/25/25 18:38	1
Selenium	0.0140		0.00500		mg/L		04/25/25 09:00	04/25/25 18:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.352		0.100		mg/L			05/02/25 09:10	1
Sulfate (ASTM D516-16)	29.3		5.00		mg/L			05/02/25 14:15	1
Total Dissolved Solids (SM 2540C)	276		50.0		mg/L			04/24/25 15:14	1
Chloride (SM 4500 Cl- E)	45.1		2.00		mg/L			05/01/25 14:10	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	8.1	HF	1.0		SU			04/24/25 11:21	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Qualifiers

General Chemistry

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.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-452637/1-A
 Matrix: Water
 Analysis Batch: 452834

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 452637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Boron	<0.100		0.100		mg/L		04/25/25 09:00	04/25/25 17:40	1
Calcium	<0.500		0.500		mg/L		04/25/25 09:00	04/25/25 17:40	1
Selenium	<0.00500		0.00500		mg/L		04/25/25 09:00	04/25/25 17:40	1

Lab Sample ID: LCS 310-452637/2-A
 Matrix: Water
 Analysis Batch: 452834

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 452637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1975		mg/L		99	80 - 120
Boron	0.200	0.2216		mg/L		111	80 - 120
Calcium	2.00	1.681		mg/L		84	80 - 120
Selenium	0.400	0.3708		mg/L		93	80 - 120

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-453564/5
 Matrix: Water
 Analysis Batch: 453564

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			05/02/25 08:27	1

Lab Sample ID: LCS 310-453564/6
 Matrix: Water
 Analysis Batch: 453564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.034		mg/L		102	90 - 110

Method: D516-16 - Sulfate

Lab Sample ID: MB 310-453526/106
 Matrix: Water
 Analysis Batch: 453526

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/02/25 14:11	1

Lab Sample ID: MB 310-453526/136
 Matrix: Water
 Analysis Batch: 453526

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/02/25 14:24	1

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QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Method: D516-16 - Sulfate (Continued)

Lab Sample ID: LCS 310-453526/107
 Matrix: Water
 Analysis Batch: 453526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	8.451		mg/L		85	85 - 115

Lab Sample ID: LCS 310-453526/182
 Matrix: Water
 Analysis Batch: 453526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	8.673		mg/L		87	85 - 115

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

Lab Sample ID: MB 310-452639/1
 Matrix: Water
 Analysis Batch: 452639

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	<50.0		50.0		mg/L			04/24/25 15:14	1

Lab Sample ID: LCS 310-452639/2
 Matrix: Water
 Analysis Batch: 452639

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	984.0		mg/L		98	88 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 310-453432/14
 Matrix: Water
 Analysis Batch: 453432

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			05/01/25 14:09	1

Lab Sample ID: MB 310-453432/44
 Matrix: Water
 Analysis Batch: 453432

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			05/01/25 14:21	1

Lab Sample ID: LCS 310-453432/92
 Matrix: Water
 Analysis Batch: 453432

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	10.88		mg/L		109	90 - 110

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QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 310-304905-1 MS
 Matrix: Ground Water
 Analysis Batch: 453432

Client Sample ID: APMW 4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	45.1		10.0	50.47	4	mg/L		54	73 - 110

Lab Sample ID: 310-304905-1 MSD
 Matrix: Ground Water
 Analysis Batch: 453432

Client Sample ID: APMW 4
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	45.1		10.0	51.15	4	mg/L		60	73 - 110	1	14

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-452595/1
 Matrix: Water
 Analysis Batch: 452595

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Metals

Prep Batch: 452637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	3005A	
MB 310-452637/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-452637/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 452834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	6020B	452637
MB 310-452637/1-A	Method Blank	Total/NA	Water	6020B	452637
LCS 310-452637/2-A	Lab Control Sample	Total/NA	Water	6020B	452637

General Chemistry

Analysis Batch: 452595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	SM 4500 H+ B	
LCS 310-452595/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 452639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	SM 2540C	
MB 310-452639/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-452639/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 453432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	SM 4500 Cl- E	
MB 310-453432/14	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 310-453432/44	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 310-453432/92	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
310-304905-1 MS	APMW 4	Total/NA	Ground Water	SM 4500 Cl- E	
310-304905-1 MSD	APMW 4	Total/NA	Ground Water	SM 4500 Cl- E	

Analysis Batch: 453526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	D516-16	
MB 310-453526/106	Method Blank	Total/NA	Water	D516-16	
MB 310-453526/136	Method Blank	Total/NA	Water	D516-16	
LCS 310-453526/107	Lab Control Sample	Total/NA	Water	D516-16	
LCS 310-453526/182	Lab Control Sample	Total/NA	Water	D516-16	

Analysis Batch: 453564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304905-1	APMW 4	Total/NA	Ground Water	4500 F C-2011	
MB 310-453564/5	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-453564/6	Lab Control Sample	Total/NA	Water	4500 F C-2011	

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304905-1

Date Collected: 04/21/25 14:10

Matrix: Ground Water

Date Received: 04/24/25 10:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			452637	F5MW	EET CF	04/25/25 09:00
Total/NA	Analysis	6020B		1	452834	NFT2	EET CF	04/25/25 18:38
Total/NA	Analysis	4500 F C-2011		1	453564	WZC8	EET CF	05/02/25 09:10
Total/NA	Analysis	D516-16		1	453526	WZC8	EET CF	05/02/25 14:15
Total/NA	Analysis	SM 2540C		1	452639	XJ7V	EET CF	04/24/25 15:14
Total/NA	Analysis	SM 4500 Cl- E		1	453432	WZC8	EET CF	05/01/25 14:10
Total/NA	Analysis	SM 4500 H+ B		1	452595	W9YR	EET CF	04/24/25 11:21

Laboratory References:

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



Accreditation/Certification Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-304905-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
D516-16	Sulfate	ASTM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 Cl- E	Chloride, Total	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

ASTM = ASTM International

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

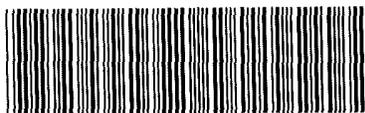
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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



Environment Testing
America



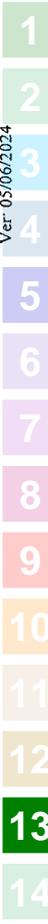
310-304905 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <i>Nebraska Public Power</i>			
City/State:	CITY <i>Sutherland</i>	STATE <i>NE</i>	Project:
Receipt Information			
Date/Time Received:	DATE <i>4/24/25</i>	TIME <i>8:15</i>	Received By: <i>PH</i>
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: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input 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: <i>AA</i>		Correction Factor (°C): <i>0</i>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <i>0.1</i>		Corrected Temp (°C): <i>0.1</i>	
• 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			

Chain of Custody Record

Client Information		Sampler: <u>Doug Harris</u>		Lab PM: <u>Calhoun</u>		Carrier Tracking No(s): <u>310-98036-26880 1</u>	
Client Contact: <u>Doug Harris</u>		Phone: <u>308-536-1124</u>		E-Mail: <u>Conner.Calhoun@et.eurofins.com</u>		State of Origin:	
Company: <u>Nebraska Public Power District</u>		PWSID:		Conner.Calhoun@et.eurofins.com		Page: <u>Page 1 of 2</u>	
Address: <u>6089 S Hwy 25 Gerald Gentleman Station South</u>		Due Date Requested:		Analysis Requested:		Job #: _____	
City: <u>Sutherland</u>		TAT Requested (days):		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Preservation Codes: D HNO3 N None	
State/Zip: <u>NE 69165</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Other: _____	
Phone: <u>308-530-1124(Tel)</u>		PO #: <u>4500277132</u>		602B Arsenic, Boron, Calcium, Selenium		Total Number of Containers: <u>X</u>	
Email: <u>ddharr@nppd.com</u>		WO #: _____		2640C Calcd TDS		Special Instructions/Note	
Project Name: <u>GGG Ash Pft Detection Monitoring</u>		Project #: <u>31007155</u>		9066A_ORGFM_28D Chloride, Fluoride, Sulfate			
Site: <u>GGG</u>		SSOW#: _____		SM4500_H+PH			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
APMW 16A		_____		_____		Matrix (W=water, S=solid, O=wastewater, BT=Trace, AS=Air)	
APMW 17		_____		_____		Preservation Code	
APMW 15		_____		_____		Water	
APMW 3		_____		_____		Water	
APMW 18		_____		_____		Water	
APMW 19		_____		_____		Water	
APMW 4		<u>4-21-25</u>		<u>1410</u>		Water	
APMW 6		_____		_____		Water	
APMW 8A		_____		_____		Water	
APMW 10		_____		_____		Water	
APMW 11		_____		_____		Water	
Possible Hazard Identification		Sample Date Requested		Sample Time Requested		Sample Type Requested	
<input checked="" 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		_____		_____		_____	
Deliverable Requested I II III IV Other (specify)		_____		_____		_____	
Empty Kit Relinquished by		Date		Time		Method of Shipment	
Relinquished by: <u>Doug Harris</u>		_____		_____		_____	
Relinquished by: <u>Doug Harris</u>		Date/Time: <u>4-23-25 0800</u>		Company: <u>NPPD</u>		Received by: <u>PH</u>	
Relinquished by: _____		Date/Time: _____		Company: _____		Received by: _____	
Relinquished by: _____		Date/Time: _____		Company: _____		Received by: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Archive For _____ Months	
_____		_____		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab		_____	



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-304905-1

Login Number: 304905

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 5/19/2025 3:53:49 PM

JOB DESCRIPTION

GGs Ash Pit Detection Monitoring
GGs
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-305790-1

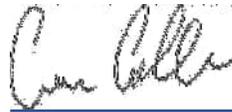
Eurofins Cedar Falls

Job Notes

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

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

Authorization



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5/19/2025 3:53:49 PM

Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1

Job ID: 310-305790-1

Eurofins Cedar Falls

Job Narrative 310-305790-1

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

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

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

Receipt

The samples were received on 5/7/2025 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2°C and 0.4°C.

Metals

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

General Chemistry

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

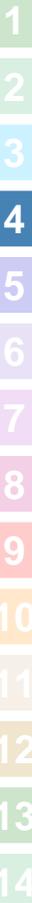
Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
SDG: GGS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-305790-1	APMW 16A	Ground Water	05/05/25 09:47	05/07/25 08:45
310-305790-2	APMW 17	Ground Water	05/05/25 10:37	05/07/25 08:45
310-305790-3	APMW 15	Ground Water	05/05/25 11:22	05/07/25 08:45
310-305790-4	APMW 18	Ground Water	05/05/25 12:17	05/07/25 08:45
310-305790-5	APMW 19	Ground Water	05/05/25 13:07	05/07/25 08:45
310-305790-6	APMW 6	Ground Water	05/05/25 14:07	05/07/25 08:45
310-305790-7	APMW 8A	Ground Water	05/05/25 14:57	05/07/25 08:45
310-305790-8	APMW 10	Ground Water	05/05/25 16:02	05/07/25 08:45
310-305790-9	APMW 11	Ground Water	05/05/25 16:47	05/07/25 08:45
310-305790-10	APMW 12	Ground Water	05/05/25 18:07	05/07/25 08:45
310-305790-11	APMW 13	Ground Water	05/06/25 09:17	05/07/25 08:45
310-305790-12	APMW 14	Ground Water	05/06/25 10:02	05/07/25 08:45
310-305790-13	Duplicate	Ground Water	05/05/25 15:04	05/07/25 08:45



Detection Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 16A

Lab Sample ID: 310-305790-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00266		0.00200		mg/L	1		6020B	Total/NA
Boron	0.124		0.100		mg/L	1		6020B	Total/NA
Calcium	101		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.352		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	160		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	584		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	30.7		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 17

Lab Sample ID: 310-305790-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00240		0.00200		mg/L	1		6020B	Total/NA
Calcium	114		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00816		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.229		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	127		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	504		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	31.6		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 15

Lab Sample ID: 310-305790-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00296		0.00200		mg/L	1		6020B	Total/NA
Boron	0.121		0.100		mg/L	1		6020B	Total/NA
Calcium	97.2		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.319		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	137		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	528		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	22.8		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 18

Lab Sample ID: 310-305790-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00249		0.00200		mg/L	1		6020B	Total/NA
Calcium	78.7		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00759		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.228		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	33.5		10.0		mg/L	2		D516-16	Total/NA
Total Dissolved Solids	388		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	81.2		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 19

Lab Sample ID: 310-305790-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00361		0.00200		mg/L	1		6020B	Total/NA
Calcium	67.7		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00866		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.257		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	65.6		25.0		mg/L	5		D516-16	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 19 (Continued)

Lab Sample ID: 310-305790-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	394		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	30.8		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 6

Lab Sample ID: 310-305790-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00425		0.00200		mg/L	1		6020B	Total/NA
Calcium	45.6		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00536		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.364		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	27.7		5.00		mg/L	1		D516-16	Total/NA
Total Dissolved Solids	272		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	31.4		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 8A

Lab Sample ID: 310-305790-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00285		0.00200		mg/L	1		6020B	Total/NA
Calcium	94.4		0.500		mg/L	1		6020B	Total/NA
Selenium	0.0234		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.213		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	104	F1	25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	476		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	85.6		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 10

Lab Sample ID: 310-305790-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00316		0.00200		mg/L	1		6020B	Total/NA
Calcium	52.8		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00668		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.256		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	36.1		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	296		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	24.0		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.8	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 11

Lab Sample ID: 310-305790-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	71.4		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00853		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.300		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	59.6		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	370		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	20.1		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 12

Lab Sample ID: 310-305790-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00228		0.00200		mg/L	1		6020B	Total/NA
Boron	0.259		0.100		mg/L	1		6020B	Total/NA
Calcium	133		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.131		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	246		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	956		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	117		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.3	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 13

Lab Sample ID: 310-305790-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00271		0.00200		mg/L	1		6020B	Total/NA
Boron	0.282		0.100		mg/L	1		6020B	Total/NA
Calcium	138		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.174		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	234		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	970		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	122		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.3	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 14

Lab Sample ID: 310-305790-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00234		0.00200		mg/L	1		6020B	Total/NA
Boron	0.227		0.100		mg/L	1		6020B	Total/NA
Calcium	143		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.163		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	164		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	832		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	113		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-305790-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00306		0.00200		mg/L	1		6020B	Total/NA
Calcium	98.0		0.500		mg/L	1		6020B	Total/NA
Selenium	0.0245		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.213		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	87.2		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	476		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	85.3		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 16A

Lab Sample ID: 310-305790-1

Date Collected: 05/05/25 09:47

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00266		0.00200		mg/L		05/12/25 08:00	05/14/25 12:03	1
Boron	0.124		0.100		mg/L		05/12/25 08:00	05/14/25 12:03	1
Calcium	101		0.500		mg/L		05/12/25 08:00	05/14/25 12:03	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.352		0.100		mg/L			05/08/25 18:54	1
Sulfate (ASTM D516-16)	160		25.0		mg/L			05/08/25 11:42	5
Total Dissolved Solids (SM 2540C)	584		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	30.7		2.00		mg/L			05/09/25 10:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.4	HF	1.0		SU			05/07/25 10:55	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 17

Lab Sample ID: 310-305790-2

Date Collected: 05/05/25 10:37

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00240		0.00200		mg/L		05/12/25 08:00	05/14/25 12:17	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:17	1
Calcium	114		0.500		mg/L		05/12/25 08:00	05/14/25 12:17	1
Selenium	0.00816		0.00500		mg/L		05/12/25 08:00	05/14/25 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.229		0.100		mg/L			05/08/25 18:57	1
Sulfate (ASTM D516-16)	127		25.0		mg/L			05/08/25 11:43	5
Total Dissolved Solids (SM 2540C)	504		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	31.6		2.00		mg/L			05/09/25 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			05/07/25 10:56	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 15

Lab Sample ID: 310-305790-3

Date Collected: 05/05/25 11:22

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00296		0.00200		mg/L		05/12/25 08:00	05/14/25 12:20	1
Boron	0.121		0.100		mg/L		05/12/25 08:00	05/14/25 12:20	1
Calcium	97.2		0.500		mg/L		05/12/25 08:00	05/14/25 12:20	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 12:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.319		0.100		mg/L			05/08/25 19:01	1
Sulfate (ASTM D516-16)	137		25.0		mg/L			05/08/25 11:43	5
Total Dissolved Solids (SM 2540C)	528		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	22.8		2.00		mg/L			05/09/25 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			05/07/25 10:57	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 18

Lab Sample ID: 310-305790-4

Date Collected: 05/05/25 12:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00249		0.00200		mg/L		05/12/25 08:00	05/14/25 12:23	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:23	1
Calcium	78.7		0.500		mg/L		05/12/25 08:00	05/14/25 12:23	1
Selenium	0.00759		0.00500		mg/L		05/12/25 08:00	05/14/25 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.228		0.100		mg/L			05/08/25 19:10	1
Sulfate (ASTM D516-16)	33.5		10.0		mg/L			05/08/25 11:44	2
Total Dissolved Solids (SM 2540C)	388		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	81.2		2.00		mg/L			05/09/25 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			05/07/25 10:58	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 19

Lab Sample ID: 310-305790-5

Date Collected: 05/05/25 13:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00361		0.00200		mg/L		05/12/25 08:00	05/14/25 12:32	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:32	1
Calcium	67.7		0.500		mg/L		05/12/25 08:00	05/14/25 12:32	1
Selenium	0.00866		0.00500		mg/L		05/12/25 08:00	05/14/25 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.257		0.100		mg/L			05/08/25 19:14	1
Sulfate (ASTM D516-16)	65.6		25.0		mg/L			05/08/25 11:44	5
Total Dissolved Solids (SM 2540C)	394		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	30.8		2.00		mg/L			05/09/25 10:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			05/07/25 11:00	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 6

Lab Sample ID: 310-305790-6

Date Collected: 05/05/25 14:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00425		0.00200		mg/L		05/12/25 08:00	05/14/25 12:35	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:35	1
Calcium	45.6		0.500		mg/L		05/12/25 08:00	05/14/25 12:35	1
Selenium	0.00536		0.00500		mg/L		05/12/25 08:00	05/14/25 12:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.364		0.100		mg/L			05/08/25 19:17	1
Sulfate (ASTM D516-16)	27.7		5.00		mg/L			05/08/25 11:45	1
Total Dissolved Solids (SM 2540C)	272		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	31.4		2.00		mg/L			05/09/25 10:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.9	HF	1.0		SU			05/07/25 11:02	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 8A

Lab Sample ID: 310-305790-7

Date Collected: 05/05/25 14:57

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00285		0.00200		mg/L		05/12/25 08:00	05/14/25 12:38	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:38	1
Calcium	94.4		0.500		mg/L		05/12/25 08:00	05/14/25 12:38	1
Selenium	0.0234		0.00500		mg/L		05/12/25 08:00	05/14/25 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.213		0.100		mg/L			05/08/25 19:20	1
Sulfate (ASTM D516-16)	104	F1	25.0		mg/L			05/14/25 12:07	5
Total Dissolved Solids (SM 2540C)	476		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	85.6		2.00		mg/L			05/09/25 10:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			05/07/25 11:03	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 10

Lab Sample ID: 310-305790-8

Date Collected: 05/05/25 16:02

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00316		0.00200		mg/L		05/12/25 08:00	05/14/25 12:41	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:41	1
Calcium	52.8		0.500		mg/L		05/12/25 08:00	05/14/25 12:41	1
Selenium	0.00668		0.00500		mg/L		05/12/25 08:00	05/14/25 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.256		0.100		mg/L			05/08/25 19:23	1
Sulfate (ASTM D516-16)	36.1		25.0		mg/L			05/14/25 12:08	5
Total Dissolved Solids (SM 2540C)	296		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	24.0		2.00		mg/L			05/09/25 10:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.8	HF	1.0		SU			05/07/25 11:04	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 11

Lab Sample ID: 310-305790-9

Date Collected: 05/05/25 16:47

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 12:44	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:44	1
Calcium	71.4		0.500		mg/L		05/12/25 08:00	05/14/25 12:44	1
Selenium	0.00853		0.00500		mg/L		05/12/25 08:00	05/14/25 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.300		0.100		mg/L			05/08/25 19:27	1
Sulfate (ASTM D516-16)	59.6		25.0		mg/L			05/14/25 12:09	5
Total Dissolved Solids (SM 2540C)	370		50.0		mg/L			05/08/25 20:25	1
Chloride (SM 4500 Cl- E)	20.1		2.00		mg/L			05/09/25 10:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			05/07/25 11:05	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 12

Lab Sample ID: 310-305790-10

Date Collected: 05/05/25 18:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00228		0.00200		mg/L		05/12/25 08:00	05/14/25 12:47	1
Boron	0.259		0.100		mg/L		05/12/25 08:00	05/14/25 12:47	1
Calcium	133		0.500		mg/L		05/12/25 08:00	05/14/25 12:47	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.131		0.100		mg/L			05/08/25 19:30	1
Sulfate (ASTM D516-16)	246		50.0		mg/L			05/14/25 12:09	10
Total Dissolved Solids (SM 2540C)	956		50.0		mg/L			05/08/25 20:32	1
Chloride (SM 4500 Cl- E)	117		20.0		mg/L			05/09/25 10:53	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.3	HF	1.0		SU			05/07/25 11:06	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 13

Lab Sample ID: 310-305790-11

Date Collected: 05/06/25 09:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00271		0.00200		mg/L		05/12/25 08:00	05/14/25 12:50	1
Boron	0.282		0.100		mg/L		05/12/25 08:00	05/14/25 12:50	1
Calcium	138		0.500		mg/L		05/12/25 08:00	05/14/25 12:50	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.174		0.100		mg/L			05/08/25 19:33	1
Sulfate (ASTM D516-16)	234		50.0		mg/L			05/14/25 12:11	10
Total Dissolved Solids (SM 2540C)	970		50.0		mg/L			05/08/25 20:32	1
Chloride (SM 4500 Cl- E)	122		20.0		mg/L			05/09/25 10:54	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.3	HF	1.0		SU			05/07/25 11:07	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 14

Lab Sample ID: 310-305790-12

Date Collected: 05/06/25 10:02

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00234		0.00200		mg/L		05/12/25 08:00	05/14/25 12:55	1
Boron	0.227		0.100		mg/L		05/12/25 08:00	05/14/25 12:55	1
Calcium	143		0.500		mg/L		05/12/25 08:00	05/14/25 12:55	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.163		0.100		mg/L			05/08/25 20:38	1
Sulfate (ASTM D516-16)	164		50.0		mg/L			05/14/25 12:11	10
Total Dissolved Solids (SM 2540C)	832		50.0		mg/L			05/08/25 20:32	1
Chloride (SM 4500 Cl- E)	113		20.0		mg/L			05/09/25 10:54	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.4	HF	1.0		SU			05/07/25 11:08	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: Duplicate

Lab Sample ID: 310-305790-13

Date Collected: 05/05/25 15:04

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00306		0.00200		mg/L		05/12/25 08:00	05/14/25 12:58	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 12:58	1
Calcium	98.0		0.500		mg/L		05/12/25 08:00	05/14/25 12:58	1
Selenium	0.0245		0.00500		mg/L		05/12/25 08:00	05/14/25 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.213		0.100		mg/L			05/08/25 20:42	1
Sulfate (ASTM D516-16)	87.2		25.0		mg/L			05/14/25 12:11	5
Total Dissolved Solids (SM 2540C)	476		50.0		mg/L			05/08/25 20:32	1
Chloride (SM 4500 Cl- E)	85.3		2.00		mg/L			05/09/25 10:54	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			05/07/25 11:09	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
SDG: GGS

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-454303/1-A
Matrix: Water
Analysis Batch: 454713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454303

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 11:57	1
Boron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 11:57	1
Calcium	<0.500		0.500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1

Lab Sample ID: LCS 310-454303/2-A
Matrix: Water
Analysis Batch: 454713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1940		mg/L		97	80 - 120
Boron	0.200	0.1920		mg/L		96	80 - 120
Calcium	2.00	1.858		mg/L		93	80 - 120
Selenium	0.400	0.3783		mg/L		95	80 - 120

Lab Sample ID: 310-305790-1 MS
Matrix: Ground Water
Analysis Batch: 454713

Client Sample ID: APMW 16A
Prep Type: Total/NA
Prep Batch: 454303

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.00266		0.200	0.2129		mg/L		105	75 - 125
Boron	0.124		0.200	0.3253		mg/L		101	75 - 125
Calcium	101		2.00	105.2	4	mg/L		206	75 - 125
Selenium	<0.00500		0.400	0.4009		mg/L		100	75 - 125

Lab Sample ID: 310-305790-1 MSD
Matrix: Ground Water
Analysis Batch: 454713

Client Sample ID: APMW 16A
Prep Type: Total/NA
Prep Batch: 454303

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.00266		0.200	0.2144		mg/L		106	75 - 125	1	20
Boron	0.124		0.200	0.3275		mg/L		102	75 - 125	1	20
Calcium	101		2.00	105.8	4	mg/L		237	75 - 125	1	20
Selenium	<0.00500		0.400	0.4091		mg/L		102	75 - 125	2	20

Lab Sample ID: 310-305790-11 DU
Matrix: Ground Water
Analysis Batch: 454713

Client Sample ID: APMW 13
Prep Type: Total/NA
Prep Batch: 454303

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.00271		0.002777		mg/L		2	20
Boron	0.282		0.2844		mg/L		0.8	20
Calcium	138		137.4		mg/L		0.05	20
Selenium	<0.00500		<0.00500		mg/L		NC	20

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-454205/33
 Matrix: Water
 Analysis Batch: 454205

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			05/08/25 18:12	1

Lab Sample ID: MB 310-454205/63
 Matrix: Water
 Analysis Batch: 454205

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			05/08/25 19:50	1

Lab Sample ID: LCS 310-454205/34
 Matrix: Water
 Analysis Batch: 454205

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.035		mg/L		102	90 - 110

Lab Sample ID: LCS 310-454205/64
 Matrix: Water
 Analysis Batch: 454205

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.064		mg/L		103	90 - 110

Method: D516-16 - Sulfate

Lab Sample ID: MB 310-454135/16
 Matrix: Water
 Analysis Batch: 454135

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/08/25 11:20	1

Lab Sample ID: MB 310-454135/46
 Matrix: Water
 Analysis Batch: 454135

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/08/25 11:32	1

Lab Sample ID: LCS 310-454135/17
 Matrix: Water
 Analysis Batch: 454135

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.802		mg/L		98	85 - 115

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Method: D516-16 - Sulfate (Continued)

Lab Sample ID: LCS 310-454135/47
 Matrix: Water
 Analysis Batch: 454135

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.030		mg/L		90	85 - 115

Lab Sample ID: MB 310-454696/103
 Matrix: Water
 Analysis Batch: 454696

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/14/25 13:00	1

Lab Sample ID: MB 310-454696/16
 Matrix: Water
 Analysis Batch: 454696

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			05/14/25 12:06	1

Lab Sample ID: LCS 310-454696/135
 Matrix: Water
 Analysis Batch: 454696

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	8.987		mg/L		90	85 - 115

Lab Sample ID: 310-305790-7 MS
 Matrix: Ground Water
 Analysis Batch: 454696

Client Sample ID: APMW 8A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	104	F1	50.0	113.5	F1	mg/L		19	70 - 130

Lab Sample ID: 310-305790-7 MSD
 Matrix: Ground Water
 Analysis Batch: 454696

Client Sample ID: APMW 8A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	104	F1	50.0	116.5	F1	mg/L		25	70 - 130	3	20

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

Lab Sample ID: MB 310-454199/1
 Matrix: Water
 Analysis Batch: 454199

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	<50.0		50.0		mg/L			05/08/25 20:25	1

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

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

Lab Sample ID: LCS 310-454199/2
 Matrix: Water
 Analysis Batch: 454199

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	984.0		mg/L		98	88 - 110

Lab Sample ID: MB 310-454200/1
 Matrix: Water
 Analysis Batch: 454200

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	<50.0		50.0		mg/L			05/08/25 20:32	1

Lab Sample ID: LCS 310-454200/2
 Matrix: Water
 Analysis Batch: 454200

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	88 - 110

Lab Sample ID: 310-305790-11 DU
 Matrix: Ground Water
 Analysis Batch: 454200

Client Sample ID: APMW 13
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	970		936.0		mg/L		4	16

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 310-454289/16
 Matrix: Water
 Analysis Batch: 454289

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			05/09/25 10:32	1

Lab Sample ID: MB 310-454289/46
 Matrix: Water
 Analysis Batch: 454289

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			05/09/25 10:45	1

Lab Sample ID: LCS 310-454289/17
 Matrix: Water
 Analysis Batch: 454289

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	10.41		mg/L		104	90 - 110

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 310-454289/47
 Matrix: Water
 Analysis Batch: 454289

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	10.60		mg/L		106	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-453928/1
 Matrix: Water
 Analysis Batch: 453928

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: 310-305790-5 DU
 Matrix: Ground Water
 Analysis Batch: 453928

Client Sample ID: APMW 19
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.7	HF	7.7		SU		0.1	20

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Metals

Prep Batch: 454303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	3005A	
310-305790-2	APMW 17	Total/NA	Ground Water	3005A	
310-305790-3	APMW 15	Total/NA	Ground Water	3005A	
310-305790-4	APMW 18	Total/NA	Ground Water	3005A	
310-305790-5	APMW 19	Total/NA	Ground Water	3005A	
310-305790-6	APMW 6	Total/NA	Ground Water	3005A	
310-305790-7	APMW 8A	Total/NA	Ground Water	3005A	
310-305790-8	APMW 10	Total/NA	Ground Water	3005A	
310-305790-9	APMW 11	Total/NA	Ground Water	3005A	
310-305790-10	APMW 12	Total/NA	Ground Water	3005A	
310-305790-11	APMW 13	Total/NA	Ground Water	3005A	
310-305790-12	APMW 14	Total/NA	Ground Water	3005A	
310-305790-13	Duplicate	Total/NA	Ground Water	3005A	
MB 310-454303/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-454303/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-305790-1 MS	APMW 16A	Total/NA	Ground Water	3005A	
310-305790-1 MSD	APMW 16A	Total/NA	Ground Water	3005A	
310-305790-11 DU	APMW 13	Total/NA	Ground Water	3005A	

Analysis Batch: 454713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	6020B	454303
310-305790-2	APMW 17	Total/NA	Ground Water	6020B	454303
310-305790-3	APMW 15	Total/NA	Ground Water	6020B	454303
310-305790-4	APMW 18	Total/NA	Ground Water	6020B	454303
310-305790-5	APMW 19	Total/NA	Ground Water	6020B	454303
310-305790-6	APMW 6	Total/NA	Ground Water	6020B	454303
310-305790-7	APMW 8A	Total/NA	Ground Water	6020B	454303
310-305790-8	APMW 10	Total/NA	Ground Water	6020B	454303
310-305790-9	APMW 11	Total/NA	Ground Water	6020B	454303
310-305790-10	APMW 12	Total/NA	Ground Water	6020B	454303
310-305790-11	APMW 13	Total/NA	Ground Water	6020B	454303
310-305790-12	APMW 14	Total/NA	Ground Water	6020B	454303
310-305790-13	Duplicate	Total/NA	Ground Water	6020B	454303
MB 310-454303/1-A	Method Blank	Total/NA	Water	6020B	454303
LCS 310-454303/2-A	Lab Control Sample	Total/NA	Water	6020B	454303
310-305790-1 MS	APMW 16A	Total/NA	Ground Water	6020B	454303
310-305790-1 MSD	APMW 16A	Total/NA	Ground Water	6020B	454303
310-305790-11 DU	APMW 13	Total/NA	Ground Water	6020B	454303

General Chemistry

Analysis Batch: 453928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-2	APMW 17	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-3	APMW 15	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-4	APMW 18	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-5	APMW 19	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-6	APMW 6	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-7	APMW 8A	Total/NA	Ground Water	SM 4500 H+ B	

Eurofins Cedar Falls

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

General Chemistry (Continued)

Analysis Batch: 453928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-8	APMW 10	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-9	APMW 11	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-10	APMW 12	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-11	APMW 13	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-12	APMW 14	Total/NA	Ground Water	SM 4500 H+ B	
310-305790-13	Duplicate	Total/NA	Ground Water	SM 4500 H+ B	
LCS 310-453928/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-305790-5 DU	APMW 19	Total/NA	Ground Water	SM 4500 H+ B	

Analysis Batch: 454135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	D516-16	
310-305790-2	APMW 17	Total/NA	Ground Water	D516-16	
310-305790-3	APMW 15	Total/NA	Ground Water	D516-16	
310-305790-4	APMW 18	Total/NA	Ground Water	D516-16	
310-305790-5	APMW 19	Total/NA	Ground Water	D516-16	
310-305790-6	APMW 6	Total/NA	Ground Water	D516-16	
MB 310-454135/16	Method Blank	Total/NA	Water	D516-16	
MB 310-454135/46	Method Blank	Total/NA	Water	D516-16	
LCS 310-454135/17	Lab Control Sample	Total/NA	Water	D516-16	
LCS 310-454135/47	Lab Control Sample	Total/NA	Water	D516-16	

Analysis Batch: 454199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	SM 2540C	
310-305790-2	APMW 17	Total/NA	Ground Water	SM 2540C	
310-305790-3	APMW 15	Total/NA	Ground Water	SM 2540C	
310-305790-4	APMW 18	Total/NA	Ground Water	SM 2540C	
310-305790-5	APMW 19	Total/NA	Ground Water	SM 2540C	
310-305790-6	APMW 6	Total/NA	Ground Water	SM 2540C	
310-305790-7	APMW 8A	Total/NA	Ground Water	SM 2540C	
310-305790-8	APMW 10	Total/NA	Ground Water	SM 2540C	
310-305790-9	APMW 11	Total/NA	Ground Water	SM 2540C	
MB 310-454199/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-454199/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 454200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-10	APMW 12	Total/NA	Ground Water	SM 2540C	
310-305790-11	APMW 13	Total/NA	Ground Water	SM 2540C	
310-305790-12	APMW 14	Total/NA	Ground Water	SM 2540C	
310-305790-13	Duplicate	Total/NA	Ground Water	SM 2540C	
MB 310-454200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-454200/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-305790-11 DU	APMW 13	Total/NA	Ground Water	SM 2540C	

Analysis Batch: 454205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	4500 F C-2011	
310-305790-2	APMW 17	Total/NA	Ground Water	4500 F C-2011	
310-305790-3	APMW 15	Total/NA	Ground Water	4500 F C-2011	

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QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

General Chemistry (Continued)

Analysis Batch: 454205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-4	APMW 18	Total/NA	Ground Water	4500 F C-2011	
310-305790-5	APMW 19	Total/NA	Ground Water	4500 F C-2011	
310-305790-6	APMW 6	Total/NA	Ground Water	4500 F C-2011	
310-305790-7	APMW 8A	Total/NA	Ground Water	4500 F C-2011	
310-305790-8	APMW 10	Total/NA	Ground Water	4500 F C-2011	
310-305790-9	APMW 11	Total/NA	Ground Water	4500 F C-2011	
310-305790-10	APMW 12	Total/NA	Ground Water	4500 F C-2011	
310-305790-11	APMW 13	Total/NA	Ground Water	4500 F C-2011	
310-305790-12	APMW 14	Total/NA	Ground Water	4500 F C-2011	
310-305790-13	Duplicate	Total/NA	Ground Water	4500 F C-2011	
MB 310-454205/33	Method Blank	Total/NA	Water	4500 F C-2011	
MB 310-454205/63	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-454205/34	Lab Control Sample	Total/NA	Water	4500 F C-2011	
LCS 310-454205/64	Lab Control Sample	Total/NA	Water	4500 F C-2011	

Analysis Batch: 454289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-1	APMW 16A	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-2	APMW 17	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-3	APMW 15	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-4	APMW 18	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-5	APMW 19	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-6	APMW 6	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-7	APMW 8A	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-8	APMW 10	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-9	APMW 11	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-10	APMW 12	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-11	APMW 13	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-12	APMW 14	Total/NA	Ground Water	SM 4500 CI- E	
310-305790-13	Duplicate	Total/NA	Ground Water	SM 4500 CI- E	
MB 310-454289/16	Method Blank	Total/NA	Water	SM 4500 CI- E	
MB 310-454289/46	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 310-454289/17	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
LCS 310-454289/47	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 454696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305790-7	APMW 8A	Total/NA	Ground Water	D516-16	
310-305790-8	APMW 10	Total/NA	Ground Water	D516-16	
310-305790-9	APMW 11	Total/NA	Ground Water	D516-16	
310-305790-10	APMW 12	Total/NA	Ground Water	D516-16	
310-305790-11	APMW 13	Total/NA	Ground Water	D516-16	
310-305790-12	APMW 14	Total/NA	Ground Water	D516-16	
310-305790-13	Duplicate	Total/NA	Ground Water	D516-16	
MB 310-454696/103	Method Blank	Total/NA	Water	D516-16	
MB 310-454696/16	Method Blank	Total/NA	Water	D516-16	
LCS 310-454696/135	Lab Control Sample	Total/NA	Water	D516-16	
310-305790-7 MS	APMW 8A	Total/NA	Ground Water	D516-16	
310-305790-7 MSD	APMW 8A	Total/NA	Ground Water	D516-16	

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 16A

Lab Sample ID: 310-305790-1

Date Collected: 05/05/25 09:47

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:03
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 18:54
Total/NA	Analysis	D516-16		5	454135	WZC8	EET CF	05/08/25 11:42
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 Cl- E		1	454289	WZC8	EET CF	05/09/25 10:48
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 10:55

Client Sample ID: APMW 17

Lab Sample ID: 310-305790-2

Date Collected: 05/05/25 10:37

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:17
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 18:57
Total/NA	Analysis	D516-16		5	454135	WZC8	EET CF	05/08/25 11:43
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 Cl- E		1	454289	WZC8	EET CF	05/09/25 10:49
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 10:56

Client Sample ID: APMW 15

Lab Sample ID: 310-305790-3

Date Collected: 05/05/25 11:22

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:20
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:01
Total/NA	Analysis	D516-16		5	454135	WZC8	EET CF	05/08/25 11:43
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 Cl- E		1	454289	WZC8	EET CF	05/09/25 10:49
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 10:57

Client Sample ID: APMW 18

Lab Sample ID: 310-305790-4

Date Collected: 05/05/25 12:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:23
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:10
Total/NA	Analysis	D516-16		2	454135	WZC8	EET CF	05/08/25 11:44

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 18

Lab Sample ID: 310-305790-4

Date Collected: 05/05/25 12:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 CI- E		1	454289	WZC8	EET CF	05/09/25 10:49
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 10:58

Client Sample ID: APMW 19

Lab Sample ID: 310-305790-5

Date Collected: 05/05/25 13:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:32
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:14
Total/NA	Analysis	D516-16		5	454135	WZC8	EET CF	05/08/25 11:44
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 CI- E		1	454289	WZC8	EET CF	05/09/25 10:50
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:00

Client Sample ID: APMW 6

Lab Sample ID: 310-305790-6

Date Collected: 05/05/25 14:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:35
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:17
Total/NA	Analysis	D516-16		1	454135	WZC8	EET CF	05/08/25 11:45
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 CI- E		1	454289	WZC8	EET CF	05/09/25 10:50
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:02

Client Sample ID: APMW 8A

Lab Sample ID: 310-305790-7

Date Collected: 05/05/25 14:57

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:38
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:20
Total/NA	Analysis	D516-16		5	454696	WZC8	EET CF	05/14/25 12:07
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 CI- E		1	454289	WZC8	EET CF	05/09/25 10:51
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:03

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 10

Lab Sample ID: 310-305790-8

Date Collected: 05/05/25 16:02

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:41
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:23
Total/NA	Analysis	D516-16		5	454696	WZC8	EET CF	05/14/25 12:08
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 Cl- E		1	454289	WZC8	EET CF	05/09/25 10:51
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:04

Client Sample ID: APMW 11

Lab Sample ID: 310-305790-9

Date Collected: 05/05/25 16:47

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:44
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:27
Total/NA	Analysis	D516-16		5	454696	WZC8	EET CF	05/14/25 12:09
Total/NA	Analysis	SM 2540C		1	454199	MDU9	EET CF	05/08/25 20:25
Total/NA	Analysis	SM 4500 Cl- E		1	454289	WZC8	EET CF	05/09/25 10:51
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:05

Client Sample ID: APMW 12

Lab Sample ID: 310-305790-10

Date Collected: 05/05/25 18:07

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:47
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:30
Total/NA	Analysis	D516-16		10	454696	WZC8	EET CF	05/14/25 12:09
Total/NA	Analysis	SM 2540C		1	454200	MDU9	EET CF	05/08/25 20:32
Total/NA	Analysis	SM 4500 Cl- E		10	454289	WZC8	EET CF	05/09/25 10:53
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:06

Client Sample ID: APMW 13

Lab Sample ID: 310-305790-11

Date Collected: 05/06/25 09:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:50
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:33
Total/NA	Analysis	D516-16		10	454696	WZC8	EET CF	05/14/25 12:11

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
 SDG: GGS

Client Sample ID: APMW 13

Lab Sample ID: 310-305790-11

Date Collected: 05/06/25 09:17

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	454200	MDU9	EET CF	05/08/25 20:32
Total/NA	Analysis	SM 4500 CI- E		10	454289	WZC8	EET CF	05/09/25 10:54
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:07

Client Sample ID: APMW 14

Lab Sample ID: 310-305790-12

Date Collected: 05/06/25 10:02

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:55
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 20:38
Total/NA	Analysis	D516-16		10	454696	WZC8	EET CF	05/14/25 12:11
Total/NA	Analysis	SM 2540C		1	454200	MDU9	EET CF	05/08/25 20:32
Total/NA	Analysis	SM 4500 CI- E		10	454289	WZC8	EET CF	05/09/25 10:54
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:08

Client Sample ID: Duplicate

Lab Sample ID: 310-305790-13

Date Collected: 05/05/25 15:04

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 12:58
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 20:42
Total/NA	Analysis	D516-16		5	454696	WZC8	EET CF	05/14/25 12:11
Total/NA	Analysis	SM 2540C		1	454200	MDU9	EET CF	05/08/25 20:32
Total/NA	Analysis	SM 4500 CI- E		1	454289	WZC8	EET CF	05/09/25 10:54
Total/NA	Analysis	SM 4500 H+ B		1	453928	W9YR	EET CF	05/07/25 11:09

Laboratory References:

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
SDG: GGS

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-305790-1
SDG: GGS

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
D516-16	Sulfate	ASTM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 Cl- E	Chloride, Total	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

ASTM = ASTM International

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

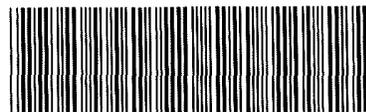
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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



Environment Testing
America



310-305790 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <i>Norcross Public Power</i>			
City/State:	CITY <i>Southernland</i>	STATE <i>NE</i>	Project.
Receipt Information			
Date/Time Received:	DATE <i>5-7-25</i>	TIME <i>8:45</i>	Received By: <i>PT</i>
Delivery Type.	<input checked="" type="checkbox"/> UPS	<input type="checkbox"/> FedEx	<input type="checkbox"/> FedEx Ground
	<input type="checkbox"/> Lab Courier	<input type="checkbox"/> Lab Field Services	<input type="checkbox"/> Client Drop-off
	<input type="checkbox"/> US Mail	<input type="checkbox"/> Spee-Dee	<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 checked="" type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>2</u>
Cooler Custody Seals Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input 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: <i>AA</i>	Correction Factor (°C): <i>0</i>		
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <i>0.4</i>	Corrected Temp (°C). <i>0.4</i>		
• 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			





Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>Nebraska Public Power</u>			
City/State:	CITY <u>Sutherland</u>	STATE <u>NE</u>	Project.
Receipt Information			
Date/Time Received	DATE <u>5-7-25</u>	TIME <u>8:45</u>	Received By: <u>PT</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			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>2</u> of <u>2</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input 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>AA</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>0.2</u>		Corrected Temp (°C): <u>0.2</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
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			



Eurofins Cedar Falls

3019 Venture Way
Cedar Falls IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

estAmerica Omaha SC
268

eurofins | Environment Testing

Client Information		Sampler <i>Doug Harris</i>		Lab PM Calhoun Conner M		Carrier Tracking No(s):		COC No: 310-98036-26680 2			
Client Contact Doug Harris		Phone <i>308-530-1124</i>		E-Mail: Conner.Calhoun@et.eurofinsus.com		State of Origin:		Page: Page 2 of 2			
Company Nebraska Public Power District				PWSID		Analysis Requested					
Address: 6089 S Hwy 25 Gerald Gentleman Station South		Due Date Requested		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers		Preservation Codes: D - HNO3 N - None Other	
City: Sutherland		TAT Requested (days):									
State, Zip: NE, 69165		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 308-530-1124(Tel)		PO #: 4500277132									
Email: ddham@nppd.com		WO #:									
Project Name: GGS Ash Pit Detection Monitoring		Project #: 31007155		6020B - Arsenic, Boron, Calcium, Selenium		2540C - Calcd- TDS		9056A - ORGFM, 28D - Chloride, Fluoride, Sulfate		SM4500_HH- PH	
Site: <i>GGS</i>		SSOW#:		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note		
				Preservation Code:		X	X	X	X	X	X
APMW 12		<i>5-5-25</i>	<i>1807</i>	<i>G</i>	Water		X	X	X	X	X
APMW 13		<i>5-6-25</i>	<i>0917</i>	<i>G</i>	Water		X	X	X	X	X
APMW 14		<i>5-6-25</i>	<i>1002</i>	<i>G</i>	Water		X	X	X	X	X
Duplicate		<i>5-5-25</i>	<i>1504</i>	<i>G</i>	Water		X	X	X	X	X
					Water						
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" 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						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <i>Doug Harris</i>		Date/Time: <i>5-6-25 1200</i>		Company: <i>NPPD</i>		Received by: <i>BH</i>		Date/Time: <i>5-7-25 945</i>		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.				Cooler Temperature(s) °C and Other Remarks:					

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5/19/2025



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-305790-1

SDG Number: GGS

Login Number: 305790

List Number: 1

Creator: Hirsch, Preston

List Source: Eurofins 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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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	



ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 5/28/2025 9:14:42 AM

JOB DESCRIPTION

GGs Ash Pit Assessment Monitoring
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-304907-1

Eurofins Cedar Falls

Job Notes

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

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

Authorization



Generated
5/28/2025 9:14:42 AM

Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Job ID: 310-304907-1

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Job Narrative 310-304907-1

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

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

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

Receipt

The sample was received on 4/24/2025 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

Metals

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

General Chemistry

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

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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Job ID: 310-304907-2

Eurofins Cedar Falls

Job Narrative 310-304907-2

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

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

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

Receipt

The sample was received on 4/24/2025 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-304907-1	APMW 4	Ground Water	04/21/25 14:40	04/24/25 08:15

1

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Detection Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304907-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00430		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0730		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.0127		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00697		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0139		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.340		0.100		mg/L	1		4500 F C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304907-1

Date Collected: 04/21/25 14:40

Matrix: Ground Water

Date Received: 04/24/25 08:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 18:40	1
Arsenic	0.00430		0.00200		mg/L		04/25/25 09:00	04/25/25 18:40	1
Barium	0.0730		0.00200		mg/L		04/25/25 09:00	04/25/25 18:40	1
Beryllium	<0.00100		0.00100		mg/L		04/25/25 09:00	04/25/25 18:40	1
Cadmium	<0.000200		0.000200		mg/L		04/25/25 09:00	04/25/25 18:40	1
Chromium	<0.00500		0.00500		mg/L		04/25/25 09:00	04/25/25 18:40	1
Cobalt	<0.000500		0.000500		mg/L		04/25/25 09:00	04/25/25 18:40	1
Lead	<0.000500		0.000500		mg/L		04/25/25 09:00	04/25/25 18:40	1
Lithium	0.0127		0.0100		mg/L		04/25/25 09:00	04/25/25 18:40	1
Molybdenum	0.00697		0.00200		mg/L		04/25/25 09:00	04/25/25 18:40	1
Selenium	0.0139		0.00500		mg/L		04/25/25 09:00	04/25/25 18:40	1
Thallium	<0.00100		0.00100		mg/L		04/25/25 09:00	04/25/25 18:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/30/25 13:14	05/01/25 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.340		0.100		mg/L			05/02/25 09:14	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104	U	0.0963	0.0967	1.00	0.148	pCi/L	04/30/25 12:53	05/27/25 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		30 - 110					04/30/25 12:53	05/27/25 12:13	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.45		0.520	0.537	1.00	0.651	pCi/L	04/30/25 12:57	05/23/25 14:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		30 - 110					04/30/25 12:57	05/23/25 14:36	1
Y Carrier	76.6		30 - 110					04/30/25 12:57	05/23/25 14:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.56		0.529	0.546	5.00	0.651	pCi/L		05/27/25 16:07	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Qualifiers

Rad

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-452637/1-A
Matrix: Water
Analysis Batch: 452834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Arsenic	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Barium	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Beryllium	<0.00100		0.00100		mg/L		04/25/25 09:00	04/25/25 17:40	1
Cadmium	<0.000200		0.000200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Chromium	<0.00500		0.00500		mg/L		04/25/25 09:00	04/25/25 17:40	1
Cobalt	<0.000500		0.000500		mg/L		04/25/25 09:00	04/25/25 17:40	1
Lead	<0.000500		0.000500		mg/L		04/25/25 09:00	04/25/25 17:40	1
Lithium	<0.0100		0.0100		mg/L		04/25/25 09:00	04/25/25 17:40	1
Molybdenum	<0.00200		0.00200		mg/L		04/25/25 09:00	04/25/25 17:40	1
Selenium	<0.00500		0.00500		mg/L		04/25/25 09:00	04/25/25 17:40	1
Thallium	<0.00100		0.00100		mg/L		04/25/25 09:00	04/25/25 17:40	1

Lab Sample ID: LCS 310-452637/2-A
Matrix: Water
Analysis Batch: 452834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2171		mg/L		109	80 - 120
Arsenic	0.200	0.1975		mg/L		99	80 - 120
Barium	0.100	0.1002		mg/L		100	80 - 120
Beryllium	0.100	0.09323		mg/L		93	80 - 120
Cadmium	0.100	0.09737		mg/L		97	80 - 120
Chromium	0.100	0.09717		mg/L		97	80 - 120
Cobalt	0.100	0.1003		mg/L		100	80 - 120
Lead	0.200	0.2036		mg/L		102	80 - 120
Lithium	0.200	0.1945		mg/L		97	80 - 120
Molybdenum	0.200	0.1922		mg/L		96	80 - 120
Selenium	0.400	0.3708		mg/L		93	80 - 120
Thallium	0.100	0.08960		mg/L		90	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-453102/1-A
Matrix: Water
Analysis Batch: 453403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 453102

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/30/25 13:14	05/01/25 10:37	1

Lab Sample ID: LCS 310-453102/2-A
Matrix: Water
Analysis Batch: 453403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 453102

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001741		mg/L		104	80 - 120

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-453564/5
 Matrix: Water
 Analysis Batch: 453564

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			05/02/25 08:27	1

Lab Sample ID: LCS 310-453564/6
 Matrix: Water
 Analysis Batch: 453564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.034		mg/L		102	90 - 110

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-715328/1-A
 Matrix: Water
 Analysis Batch: 719413

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 715328

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1802		0.119	0.120	1.00	0.161	pCi/L	04/30/25 12:53	05/27/25 08:19	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					04/30/25 12:53	05/27/25 08:19	1

Lab Sample ID: LCS 160-715328/2-A
 Matrix: Water
 Analysis Batch: 719413

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 715328

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	9.232		1.04	1.00	0.204	pCi/L	96	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	89.0		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-715329/1-A
 Matrix: Water
 Analysis Batch: 719017

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 715329

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1528	U	0.388	0.389	1.00	0.777	pCi/L	04/30/25 12:57	05/23/25 14:26	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					04/30/25 12:57	05/23/25 14:26	1
Y Carrier	74.8		30 - 110					04/30/25 12:57	05/23/25 14:26	1

Eurofins Cedar Falls

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

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

Lab Sample ID: LCS 160-715329/2-A
Matrix: Water
Analysis Batch: 719017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715329

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.42	11.79		1.64	1.00	0.816	pCi/L	125	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.0		30 - 110
Y Carrier	77.8		30 - 110

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QC Association Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Metals

Prep Batch: 452637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	3005A	
MB 310-452637/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-452637/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 452834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	6020B	452637
MB 310-452637/1-A	Method Blank	Total/NA	Water	6020B	452637
LCS 310-452637/2-A	Lab Control Sample	Total/NA	Water	6020B	452637

Prep Batch: 453102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	7470A	
MB 310-453102/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-453102/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 453403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	7470A	453102
MB 310-453102/1-A	Method Blank	Total/NA	Water	7470A	453102
LCS 310-453102/2-A	Lab Control Sample	Total/NA	Water	7470A	453102

General Chemistry

Analysis Batch: 453564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	4500 F C-2011	
MB 310-453564/5	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-453564/6	Lab Control Sample	Total/NA	Water	4500 F C-2011	

Rad

Prep Batch: 715328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	PrecSep-21	
MB 160-715328/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-715328/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 715329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-304907-1	APMW 4	Total/NA	Ground Water	PrecSep_0	
MB 160-715329/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-715329/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Client Sample ID: APMW 4

Lab Sample ID: 310-304907-1

Date Collected: 04/21/25 14:40

Matrix: Ground Water

Date Received: 04/24/25 08:15

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	3005A			452637	F5MW	EET CF	04/25/25 09:00
Total/NA	Analysis	6020B		1	452834	NFT2	EET CF	04/25/25 18:40
Total/NA	Prep	7470A			453102	F5MW	EET CF	04/30/25 13:14
Total/NA	Analysis	7470A		1	453403	F5MW	EET CF	05/01/25 11:54
Total/NA	Analysis	4500 F C-2011		1	453564	WZC8	EET CF	05/02/25 09:14
Total/NA	Prep	PrecSep-21			715328	MLT	EET SL	04/30/25 12:53
Total/NA	Analysis	9315		1	719413	SWS	EET SL	05/27/25 12:13
Total/NA	Prep	PrecSep_0			715329	MLT	EET SL	04/30/25 12:57
Total/NA	Analysis	9320		1	719010	SWS	EET SL	05/23/25 14:36
Total/NA	Analysis	Ra226_Ra228		1	719438	SCB	EET SL	05/27/25 16:07

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

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

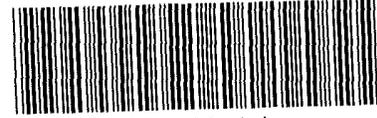
Laboratory References:

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

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



Environment Testing
America



310-304907 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <i>Nebraska Public Power</i>			
City/State:	CITY <i>Sutherland</i>	STATE <i>NE</i>	Project.
Receipt Information			
Date/Time Received:	DATE <i>4.24.25</i>	TIME <i>8:15</i>	Received By <i>PH</i>
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.	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input 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:	<i>AA</i>	Correction Factor (°C): <i>0</i>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<i>0.1</i>	Corrected Temp (°C): <i>0.1</i>	
• 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			

Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-304907-1

Login Number: 304907

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-304907-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
310-304907-1	APMW 4	91.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
LCS 160-715328/2-A	Lab Control Sample	89.0
MB 160-715328/1-A	Method Blank	81.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-304907-1	APMW 4	91.8	76.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
LCS 160-715329/2-A	Lab Control Sample	89.0	77.8
MB 160-715329/1-A	Method Blank	81.3	74.8

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 5/16/2025 11:29:11 AM

JOB DESCRIPTION

GCS Ash Pit Assessment Monitoring
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-305825-1

Eurofins Cedar Falls

Job Notes

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

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

Authorization



Generated
5/16/2025 11:29:11 AM

Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Job ID: 310-305825-1

Eurofins Cedar Falls

Job Narrative 310-305825-1

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

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

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

Receipt

The samples were received on 5/7/2025 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C.

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-305825-1	APMW 11	Ground Water	05/05/25 16:55	05/07/25 08:45
310-305825-2	Duplicate	Ground Water	05/05/25 17:12	05/07/25 08:45

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

Detection Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.192		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.0144		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00233		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00818		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.301		0.100		mg/L	1		4500 F C-2011	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.193		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.0144		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00228		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00821		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.307		0.100		mg/L	1		4500 F C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

Date Collected: 05/05/25 16:55

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:36	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:36	1
Barium	0.192		0.00200		mg/L		05/12/25 08:00	05/14/25 17:36	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:36	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:36	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:36	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:36	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:36	1
Lithium	0.0144		0.0100		mg/L		05/12/25 08:00	05/14/25 17:36	1
Molybdenum	0.00233		0.00200		mg/L		05/12/25 08:00	05/15/25 13:44	1
Selenium	0.00818		0.00500		mg/L		05/12/25 08:00	05/14/25 17:36	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		05/14/25 08:46	05/14/25 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.301		0.100		mg/L			05/08/25 19:36	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

Date Collected: 05/05/25 17:12

Matrix: Ground Water

Date Received: 05/07/25 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:39	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:39	1
Barium	0.193		0.00200		mg/L		05/12/25 08:00	05/14/25 17:39	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:39	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:39	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:39	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:39	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:39	1
Lithium	0.0144		0.0100		mg/L		05/12/25 08:00	05/14/25 17:39	1
Molybdenum	0.00228		0.00200		mg/L		05/12/25 08:00	05/15/25 13:47	1
Selenium	0.00821		0.00500		mg/L		05/12/25 08:00	05/14/25 17:39	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		05/14/25 08:46	05/14/25 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.307		0.100		mg/L			05/08/25 19:40	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-454302/1-A
Matrix: Water
Analysis Batch: 454752

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454302

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Barium	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:36	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Lithium	<0.0100		0.0100		mg/L		05/12/25 08:00	05/14/25 16:36	1
Molybdenum	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:36	1

Lab Sample ID: LCS 310-454302/2-A
Matrix: Water
Analysis Batch: 454752

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454302

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	0.200	0.2230		mg/L		111	80 - 120
Arsenic	0.200	0.2014		mg/L		101	80 - 120
Barium	0.100	0.09962		mg/L		100	80 - 120
Beryllium	0.100	0.09123		mg/L		91	80 - 120
Cadmium	0.100	0.09749		mg/L		97	80 - 120
Chromium	0.100	0.09644		mg/L		96	80 - 120
Cobalt	0.100	0.1054		mg/L		105	80 - 120
Lead	0.200	0.2018		mg/L		101	80 - 120
Lithium	0.200	0.1912		mg/L		96	80 - 120
Molybdenum	0.200	0.1941		mg/L		97	80 - 120
Selenium	0.400	0.3736		mg/L		93	80 - 120
Thallium	0.100	0.09590		mg/L		96	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-454513/1-A
Matrix: Water
Analysis Batch: 454718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454513

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000200		0.000200		mg/L		05/14/25 08:46	05/14/25 14:19	1

Lab Sample ID: LCS 310-454513/2-A
Matrix: Water
Analysis Batch: 454718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454513

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Mercury	0.00167	0.001682		mg/L		101	80 - 120

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

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

Lab Sample ID: 310-305825-1 MS
Matrix: Ground Water
Analysis Batch: 454718

Client Sample ID: APMW 11
Prep Type: Total/NA
Prep Batch: 454513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001690		mg/L		101	80 - 120

Lab Sample ID: 310-305825-1 MSD
Matrix: Ground Water
Analysis Batch: 454718

Client Sample ID: APMW 11
Prep Type: Total/NA
Prep Batch: 454513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001664		mg/L		100	80 - 120	2	20

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-454205/33
Matrix: Water
Analysis Batch: 454205

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			05/08/25 18:12	1

Lab Sample ID: LCS 310-454205/34
Matrix: Water
Analysis Batch: 454205

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.035		mg/L		102	90 - 110

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Metals

Prep Batch: 454302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	3005A	
310-305825-2	Duplicate	Total/NA	Ground Water	3005A	
MB 310-454302/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-454302/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 454513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	7470A	
310-305825-2	Duplicate	Total/NA	Ground Water	7470A	
MB 310-454513/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-454513/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-305825-1 MS	APMW 11	Total/NA	Ground Water	7470A	
310-305825-1 MSD	APMW 11	Total/NA	Ground Water	7470A	

Analysis Batch: 454718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	7470A	454513
310-305825-2	Duplicate	Total/NA	Ground Water	7470A	454513
MB 310-454513/1-A	Method Blank	Total/NA	Water	7470A	454513
LCS 310-454513/2-A	Lab Control Sample	Total/NA	Water	7470A	454513
310-305825-1 MS	APMW 11	Total/NA	Ground Water	7470A	454513
310-305825-1 MSD	APMW 11	Total/NA	Ground Water	7470A	454513

Analysis Batch: 454752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	6020B	454302
310-305825-2	Duplicate	Total/NA	Ground Water	6020B	454302
MB 310-454302/1-A	Method Blank	Total/NA	Water	6020B	454302
LCS 310-454302/2-A	Lab Control Sample	Total/NA	Water	6020B	454302

Analysis Batch: 454894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	6020B	454302
310-305825-2	Duplicate	Total/NA	Ground Water	6020B	454302

General Chemistry

Analysis Batch: 454205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	4500 F C-2011	
310-305825-2	Duplicate	Total/NA	Ground Water	4500 F C-2011	
MB 310-454205/33	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-454205/34	Lab Control Sample	Total/NA	Water	4500 F C-2011	

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

Date Collected: 05/05/25 16:55

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:36
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454894	NFT2	EET CF	05/15/25 13:44
Total/NA	Prep	7470A			454513	F5MW	EET CF	05/14/25 08:46
Total/NA	Analysis	7470A		1	454718	F5MW	EET CF	05/14/25 14:24
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:36

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

Date Collected: 05/05/25 17:12

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:39
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454894	NFT2	EET CF	05/15/25 13:47
Total/NA	Prep	7470A			454513	F5MW	EET CF	05/14/25 08:46
Total/NA	Analysis	7470A		1	454718	F5MW	EET CF	05/14/25 14:30
Total/NA	Analysis	4500 F C-2011		1	454205	WZC8	EET CF	05/08/25 19:40

Laboratory References:

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

- 1
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Method Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

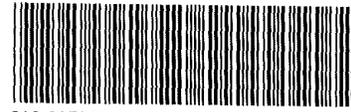
Laboratory References:

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





Environment Testing
America



310-305825 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client <u>NRPD</u>		
City/State: <u>Sutherland</u> <small>CITY</small>	<u>NE</u> <small>STATE</small>	Project.
Receipt Information		
Date/Time Received: <u>5/7/25</u> <small>DATE</small> <u>845</u> <small>TIME</small>	Received By: <u>XB</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: _____
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input 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>Z</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>0.8</u>	Corrected Temp (°C): <u>0.8</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
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		



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-305825-1

Login Number: 305825

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.



ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 6/6/2025 8:19:57 AM

JOB DESCRIPTION

GCS Ash Pit Assessment Monitoring
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-305825-2

Eurofins Cedar Falls

Job Notes

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

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

Authorization



Generated
6/6/2025 8:19:57 AM

Authorized for release by
Brian Graettinger, Business Unit Manager
Brian.Graettinger@et.eurofinsus.com
Designee for
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Job ID: 310-305825-2

Eurofins Cedar Falls

Job Narrative 310-305825-2

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

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

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

Receipt

The samples were received on 5/7/2025 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C.

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-305825-1	APMW 11	Ground Water	05/05/25 16:55	05/07/25 08:45
310-305825-2	Duplicate	Ground Water	05/05/25 17:12	05/07/25 08:45

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Detection Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

No Detections.

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

Date Collected: 05/05/25 16:55

Matrix: Ground Water

Date Received: 05/07/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.256	U	0.209	0.210	1.00	0.305	pCi/L	05/09/25 07:45	06/04/25 19:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		30 - 110					05/09/25 07:45	06/04/25 19:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.526		0.305	0.309	1.00	0.426	pCi/L	05/09/25 07:51	06/04/25 11:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		30 - 110					05/09/25 07:51	06/04/25 11:45	1
Y Carrier	87.9		30 - 110					05/09/25 07:51	06/04/25 11:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.783		0.370	0.374	5.00	0.426	pCi/L		06/05/25 12:02	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

Date Collected: 05/05/25 17:12

Matrix: Ground Water

Date Received: 05/07/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.322		0.225	0.227	1.00	0.316	pCi/L	05/09/25 07:45	06/04/25 19:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					05/09/25 07:45	06/04/25 19:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.681		0.375	0.380	1.00	0.536	pCi/L	05/09/25 07:51	06/04/25 11:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					05/09/25 07:51	06/04/25 11:45	1
Y Carrier	83.4		30 - 110					05/09/25 07:51	06/04/25 11:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.00		0.437	0.443	5.00	0.536	pCi/L		06/05/25 12:02	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

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
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: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-716780/1-A
Matrix: Water
Analysis Batch: 720786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 716780

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01374	U	0.145	0.145	1.00	0.314	pCi/L	05/09/25 07:45	06/04/25 18:09	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	85.3		30 - 110		05/09/25 07:45	06/04/25 18:09	1			

Lab Sample ID: LCS 160-716780/2-A
Matrix: Water
Analysis Batch: 720786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 716780

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	9.58	7.708		1.09	1.00	0.314	pCi/L	80	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	87.6		30 - 110						

Lab Sample ID: 310-305825-1 DU
Matrix: Ground Water
Analysis Batch: 720786

Client Sample ID: APMW 11
Prep Type: Total/NA
Prep Batch: 716780

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.256	U	-0.01690	U	0.194	1.00	0.388	pCi/L	0.68	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	91.0		30 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-716781/1-A
Matrix: Water
Analysis Batch: 720794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 716781

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1005	U	0.312	0.312	1.00	0.559	pCi/L	05/09/25 07:51	06/04/25 11:44	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	85.3		30 - 110		05/09/25 07:51	06/04/25 11:44	1			
Y Carrier	78.9		30 - 110		05/09/25 07:51	06/04/25 11:44	1			

Eurofins Cedar Falls

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

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

Lab Sample ID: LCS 160-716781/2-A
Matrix: Water
Analysis Batch: 720794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 716781

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	87.6		30 - 110
Y Carrier	78.1		30 - 110

Lab Sample ID: 310-305825-1 DU
Matrix: Ground Water
Analysis Batch: 720794

Client Sample ID: APMW 11
Prep Type: Total/NA
Prep Batch: 716781

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit

Carrier	DU		Limits
	%Yield	Qualifier	
Ba Carrier	91.0		30 - 110
Y Carrier	86.7		30 - 110

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Rad

Prep Batch: 716780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	PrecSep-21	
310-305825-2	Duplicate	Total/NA	Ground Water	PrecSep-21	
MB 160-716780/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-716780/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-305825-1 DU	APMW 11	Total/NA	Ground Water	PrecSep-21	

Prep Batch: 716781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305825-1	APMW 11	Total/NA	Ground Water	PrecSep_0	
310-305825-2	Duplicate	Total/NA	Ground Water	PrecSep_0	
MB 160-716781/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-716781/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-305825-1 DU	APMW 11	Total/NA	Ground Water	PrecSep_0	



Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Client Sample ID: APMW 11

Lab Sample ID: 310-305825-1

Date Collected: 05/05/25 16:55

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			716780	OGC	EET SL	05/09/25 07:45
Total/NA	Analysis	9315		1	720786	FLC	EET SL	06/04/25 19:55
Total/NA	Prep	PrecSep_0			716781	OGC	EET SL	05/09/25 07:51
Total/NA	Analysis	9320		1	720794	SCB	EET SL	06/04/25 11:45
Total/NA	Analysis	Ra226_Ra228		1	720409	FLC	EET SL	06/05/25 12:02

Client Sample ID: Duplicate

Lab Sample ID: 310-305825-2

Date Collected: 05/05/25 17:12

Matrix: Ground Water

Date Received: 05/07/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			716780	OGC	EET SL	05/09/25 07:45
Total/NA	Analysis	9315		1	720786	FLC	EET SL	06/04/25 19:55
Total/NA	Prep	PrecSep_0			716781	OGC	EET SL	05/09/25 07:51
Total/NA	Analysis	9320		1	720794	SCB	EET SL	06/04/25 11:45
Total/NA	Analysis	Ra226_Ra228		1	720409	FLC	EET SL	06/05/25 12:02

Laboratory References:

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

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

Protocol References:

None = None

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

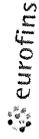
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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

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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)

Client Contact: **Shipping/Receiving**
 Company: **TestAmerica Laboratories, Inc.**
 Address: **13715 Rider Trail North, Earth City, MO, 63045**
 Phone: **314-298-8566(Tel) 314-298-8757(Fax)**
 Email: **N/A**
 Project Name: **GCS Ash Pit Assessment Monitoring**
 Site: **N/A**

Lab PM: **Callhoun, Conner M**
 E-Mail: **Conner.Callhoun@et.eurofinsus.com**
 Accreditations Required (See note): **NELAP - Oregon**
 State of Origin: **Nebraska**
 Carrier Tracking No(e): **N/A**
 COC No: **310-82803.1**
 Page: **Page 1 of 1**
 Job #: **310-305825-2**
 Preservation Codes:

Due Date Requested: **5/17/2025**
 TAT Requested (days): **N/A**
 PO #: **N/A**
 WO #: **N/A**
 Project #: **31007155**
 SSOW#: **N/A**

Analysis Requested

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Radium-226 (GFC) - 21 day decay	9320 Radium-228 (GFC)	Radium-228	Total Number of Containers	Special Instructions/Note:
X	X	X	X	X	2	
X	X	X	X	X	2	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sediment, Other)	Preservation Code: (ET=Etan, AS=As)
APMW 11 (310-305825-1)	5/5/25	16:55 Central	G	Water	
Duplicate (310-305825-2)	5/5/25	17:12 Central	G	Water	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: **I, II, III, IV, Other (specify)**
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: **5/22/25 1415**
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Custody Seals Intact: **Δ Yes Δ No**
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks:

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

Primary Deliverable Rank: **2**

Received by: **Cheyenne Forrest**
 Date/Time: **0540 MAY 08 2025**
 Company: _____
 Received by: _____
 Date/Time: _____
 Company: _____
 Received by: _____
 Date/Time: _____
 Company: _____



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-305825-2

Login Number: 305825

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-305825-2

Login Number: 305825

List Number: 2

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 05/08/25 10:49 AM

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.



Tracer/Carrier Summary

Client: Nebraska Public Power District
 Project/Site: GCS Ash Pit Assessment Monitoring

Job ID: 310-305825-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
310-305825-1	APMW 11	87.1	
310-305825-1 DU	APMW 11	91.0	
310-305825-2	Duplicate	91.3	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
LCS 160-716780/2-A	Lab Control Sample	87.6	
MB 160-716780/1-A	Method Blank	85.3	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-305825-1	APMW 11	87.1	87.9
310-305825-1 DU	APMW 11	91.0	86.7
310-305825-2	Duplicate	91.3	83.4
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
LCS 160-716781/2-A	Lab Control Sample	87.6	78.1
MB 160-716781/1-A	Method Blank	85.3	78.9
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268



Client Information		Sampler: Doug Harris	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-98036-26680.1		
Client Contact: Doug Harris		Phone: 308-530-1124	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2		
Company: Nebraska Public Power District		PWSID:	Analysis Requested				
Address: 6089 S Hwy 25 Gerald Gentleman Station South		Due Date Requested:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers		
City: Sutherland		TAT Requested (days):					
State, Zip: NE, 69165		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 308-530-1124(Tel)		PO #: 4500277132					
Email: ddharri@nppd.com		WO #:					
Project Name: GGS Ash Pit Detection Monitoring		Project #: 31007155					
Site:		SSOW#:	Preservation Codes: D - HNO3 N - None Other:				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:	
		Preservation Code: <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N <input type="checkbox"/> N <input type="checkbox"/> N					
APMW 16A		12-8-25	1002	G	Water		X X X X
APMW 17		12-8-25	1052	G	Water		X X X X
APMW 15		12-8-25	1134	G	Water		X X X X
APMW 5 <i>No samples</i>					Water		
APMW 18		12-8-25	1222	G	Water		X X X X
APMW 19		12-8-25	1327	G	Water		X X X X
APMW 4 <i>No samples</i>					Water		
APMW 6		12-8-25	1432	G	Water		X X X X
APMW 8A		12-8-25	1527	G	Water		X X X X
APMW 10		12-8-25	1612	G	Water		X X X X
APMW 11		12-8-25	1707	G	Water		X X X X
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input checked="" 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				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: <i>Doug Harris</i>		Date/Time: 12-9-25 1300	Company: NPPD	Received by:		Company:	
Relinquished by:		Date/Time:	Company:	Received by:		Company:	
Relinquished by:		Date/Time:	Company:	Received by:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Nebraska Public Power District - Gerald Gentleman Station
Monitoring Well Equipment Calibration Log

DATE: 12-8-25

TIME: 0730

SAMPLING PERSONNEL: DH JK

SAMPLING LOCATION(S): GG5

EQUIPMENT CALIBRATIONS:

Temperature (Deg C)		
MP-25T	Ref C	MP-25T
	<u>22.4</u>	<u>22.58</u>
	Temp Ok?	<u>Yes/No</u>
<u>ORP 15A</u>		

pH		
MP-25T	Ref	MP-25T
	7.0	<u>7.03</u>
	10.0	<u>10.00</u>
<u>SRF 72</u>		

Conductivity		
MP-25T	Ref	MP-25T
	<u>1413</u>	<u>1417</u>
<u>SRF 103</u>		

ORP (mV)		
MP-25T	Zobell Ref (mV)	MP-25T (mV)
	<u>235</u>	<u>234.9</u>
YSI 15A	Zobell Ref (mV)	YSI 15A Rel (mV)

cal worked OK on MP-25T →

not doing unless needed

Turbidity (NTU)		
MP-25T	Ref	MP-25T
	10 NTU	_____
	DI (0 NTU)	_____
Hach 2100Q	10 NTU Verification Reading	_____
	Acceptable?	Yes/No
	Calibration (NTU)	Current Or Last
	Ref	Reading
	20	_____
	100	_____
	800	_____
	Acceptable?	Yes/No

not doing with the step 7 resolution
DDH
12-15-21

Calibration Log Sheets

DO		
MP-25T	Saturation Calibration BP Entered	_____
	% Sat	_____
	Mgl/l	_____
	OK?	Yes/No
YSI 55	Saturation Calibration	OK? Yes/No

not using unless needed

WEATHER CONDITIONS:

OBSERVATIONS/FIELD NOTES DURING SAMPLING EVENT:

Temperature check OK w/ ORP 15A

Nebraska Public Power District - Gerald Gentleman Station
Monitoring Well Equipment Calibration Log

DATE: 12-9-25

TIME: 0748

SAMPLING PERSONNEL: DH JK

SAMPLING LOCATION(S): GGS

EQUIPMENT CALIBRATIONS:

Temperature (Deg C)		
MP-25T	Ref C	MP-25T
	<u>22.6</u>	<u>22.75</u>
	Temp OK?	<u>Yes</u> /No

pH		
MP-25T	Ref	MP-25T
	7.0	<u>7.02</u>
	10.0	<u>10.00</u>
SRF 67		

Conductivity		
MP-25T	Ref	MP-25T
	<u>1413</u>	<u>1398</u>
SRF 106		

ORP (mV)		
MP-25T	Zobell	MP-25T
	Ref (mV)	(mV)
	<u>235</u>	<u>237.0</u>
YSI 15A	Zobell	YSI 15A
	Ref (mV)	Rel (mV)

cal worked OK → on MP 25-T

not doing unless needed

Turbidity (NTU)		
MP-25T	Ref	MP-25T
	10 NTU	
	DI (0 NTU)	
Hach 2100Q	10 NTU Verification	
	Reading	
	Acceptable?	Yes/No
Calibration (NTU)		
Current Or Last		
	Ref	Reading
	20	
	100	
	800	
	Acceptable?	Yes/No

not doing with the step 7 resolution
DDH
12-15-21

Calibration Log sheets

DO	
MP-25T	Saturation Calibration
	BP Entered
	% Sat
	Mg/l
	OK? Yes/No
YSI 55	Saturation Calibration
	OK? Yes/No

not using unless needed

WEATHER CONDITIONS:

OBSERVATIONS/FIELD NOTES DURING SAMPLING EVENT:

Temperature check OK w/ ORP 15A

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 16A Date 12-8-25
 Field Personnel Doug Harris JJK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is Good

Depth to 78.0 / 98.0 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 96.72
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
0940	89.14	220'	200	/	11.80	844.8	7.14	✓	/	/	COLD Sunny Sample hose was frozen Started pumping @ 0930
0945					11.86	850.6	7.17	/	/		
0950					11.90	856.4	7.17	/	/		
0955					11.88	861.8	7.17	/	/		
1000					11.93	867.8	7.16	/	215.6		
1002	89.14										500 ml Unpreserved 250 ml Preserved 250 ml unpreserved
1005											
1007											
Bottle Regulator 100 psi											
CPM 2 @ 25-5											

* Need heating devices

Buy More Torches ✓ *
 & generator-hair dryer

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 18 Date 12-8-25
 Field Personnel Doug Harris TWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 104.8 / 124.8 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 122.04
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1200	116.02	220'	200	/	12.73	683.4	7.43	/	/	/	Started pumping @ 1152
1205					12.81	674.7	7.42	/	/	/	
1210					12.80	671.6	7.42	/	/	/	
1215					12.76	670.6	7.42	/	/	/	
1220					12.86	671.2	7.43	/	/	243.2	
1222	116.34										500ml Unpreserved
1225											250 ml Preserved
1227											250 ml unpreserved
Bottle Regulator 100 psi											
CPM2 @ 24-6											

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGG Ash Pits
 Well Number A PMW- 6 Date 12-8-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 110.0/129.9 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 128.9
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1410	124.19	220'	200	/	13.75	441.4	7.54	/	/	/	Sunny 50-55° Breezy Started pumping @ 1400
1415					13.45	446.2	7.51	/	/	/	
1420					13.53	444.7	7.59	/	/	/	
1425					13.46	441.7	7.57	/	/	/	
1430					13.20	443.0	7.57	/	/	251.4	
1432	124.69										500ml Unpreserved 250 ml Preserved 250 ml unpreserved
1435											
1437											
Bottle Regulator 100 psi											
CPM 2	23-7										

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 8A Date 12-8-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: _____

Depth to 104.7 124.7 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 122.8
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1505	115.30	220'	200		13.39	731.6	7.27	/	/	/	Sun 50° breezy Started pumping @ 1458
1510					13.31	726.5	7.29	/	/		
1515					13.52	726.3	7.29	/	/		
1520					13.62	726.4	7.29	/	/		
1525					13.63	727.1	7.30	/	260.6		
1527	115.42										500 ml Unpreserved
1530											250 ml Preserved
1532											250 ml unpreserved
Bottle Regulator 100 psi											
CPM 2	@	25-5									

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 10 Date 12-8-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 91.0 / 130.27 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 129.27
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1550	122.32	220'	200		13.09	426.1	7.74	/	/	/	Sunny Started pumping @ 1545
1555					12.99	430.6	7.62	/	/	/	
1600					12.76	430.5	7.65	/	/	/	
1605					12.74	430.5	7.65	/	/	/	
1610					12.66	431.0	7.60	/	/	261.0	
1612	124.16										500ml Unpreserved
1615											250 ml Preserved
1618											250 ml unpreserved
1620											Dupl 500 ml Unpreserved
1623											Dupl 250 ml Preserved
1625											Dupl 250 ml unpreserved
Bottle Regulator 100 psi											
CPM 2 @ 24-6											

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 11 Date 12-8-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 96.01 115.74 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 114.74
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1645	107.58	220'	200		12.19	539.2	7.40	/	/	/	Partly Sun, no wind Started pumping @ 1637
1650					12.16	541.7	7.40	/	/		
1655					12.12	540.4	7.44	/	/		
1700					12.14	541.9	7.41	/	/		
1705					12.03	541.7	7.44	/	270.5		
1707	107.75										500 ml Unpreserved
1710											250 ml Preserved
1712											250 ml unpreserved
1715											1000 ml Assessment Preserved
1720											1000 ml Assessment Preserved
1725											250 ml Assessment Preserved
1728											250 ml Assessment Unpreserved
1731		1731									Dupl 1000 ml Assessment Preserved
		1736									Dupl 1000 ml Assessment Preserved
		1741									Dupl 250 ml Assessment Preserved
		1744									Dupl 250 ml Assessment Unpreserved

Bottle Regulator 100 psi
 CPM 2 @ 25-5
 24-6

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 12 Date 12-9-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 88.0 / 109.82 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 108.92
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
0915	101.25	220'	200	/	11.53	1485	6.95	/	/	/	Started pumping @ 0905 Partly Sunny 30°
0920					11.68	1470	6.94	/	/	/	
0925					11.74	1454	6.94	/	/	/	
0930					11.86	1452	6.93	/	/	/	
0935					11.79	1440	6.95	/	/	227.2	
0937	101.25										500ml Unpreserved 250ml Preserved 250ml unpreserved
0940											
0942											
Bottle Regulator 100 psi											
CPM 2 @ 25-5											

* Park closer to posts.

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 13 Date 12-9-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 95.0 / 115.95 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 114.95
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1005	105.64	220'	200		11.91	1354	6.99	/	/	/	Partly Sunny 39° Started pumping @ 0956
1010					12.06	1352	6.98	/	/		
1015					12.08	1359	6.98	/	/		
1020					12.06	1355	6.99	/	/		
1025					12.06	1359	6.98	/	237.2		
1027	105.69										500 ml Unpreserved 250 ml Preserved 250 ml Unpreserved
1030											
1032											
Bottle Regulator 100 psi											
CPM 2	25-5	24-6									

WELL PURGING-FIELD QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) GGs Ash Pits
 Well Number A PMW- 14 Date 12-9-25
 Field Personnel Doug Harris JWK
 Sampling Organization NPPD
 Identify MP TOC
 Well Conditions/Field Observations: All is OK

Depth to 90.11 109.95 of Screen
 Top Bottom
 Pump Intake at (ft. below MP) 108.95
 Purging Device (pump type) Micropurge Bladder Pump

Clock Time (24hr)	Water Depth below MP (ft)	Pump Dial Setting	Purge Rate (ml/min)	Cum. Volume Purged (ml)	Temp. (C)	Spec. Conduct. (us/cm)	pH	Turbidity (ntu)	DO (mg/l)	ORP (mV)	Comments
1100	100.65	220'	200		12.21	1393	6.98	/	/	/	Mostly Cloudy WINDY Started pumping @ 1050
1105					12.24	1385	6.98	/	/	/	
1110					12.29	1380	7.00	/	/	/	
1115					12.33	1376	7.00	/	/	/	
1120					12.36	1373	6.98	/	/	253.7	
1123	100.68										500 ml Unpreserved
1126											250 ml Preserved
1128											250 ml Unpreserved
Bottle Regulator 100 psi											
CPM 2 @ 25-5											

ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 12/19/2025 3:53:45 PM

JOB DESCRIPTION

GGs Ash Pit Detection Monitoring
NPPD Gerald Gentleman Station CCR

JOB NUMBER

310-322108-1

Eurofins Cedar Falls

Job Notes

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

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

Authorization



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Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Job ID: 310-322108-1

Eurofins Cedar Falls

Job Narrative 310-322108-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 12/10/2025 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.6°C and 0.8°C.

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-322108-1	APMW 16A	Ground Water	12/08/25 10:02	12/10/25 08:20	Nebraska
310-322108-2	APMW 17	Ground Water	12/08/25 10:52	12/10/25 08:20	Nebraska
310-322108-3	APMW 15	Ground Water	12/08/25 11:34	12/10/25 08:20	Nebraska
310-322108-4	APMW 18	Ground Water	12/08/25 12:22	12/10/25 08:20	Nebraska
310-322108-5	APMW 19	Ground Water	12/08/25 13:27	12/10/25 08:20	Nebraska
310-322108-6	APMW 6	Ground Water	12/08/25 14:32	12/10/25 08:20	Nebraska
310-322108-7	APMW 8A	Ground Water	12/08/25 15:27	12/10/25 08:20	Nebraska
310-322108-8	APMW 10	Ground Water	12/08/25 16:12	12/10/25 08:20	Nebraska
310-322108-9	APMW 11	Ground Water	12/08/25 17:07	12/10/25 08:20	Nebraska
310-322108-10	APMW 12	Ground Water	12/09/25 09:37	12/10/25 08:20	Nebraska
310-322108-11	APMW 13	Ground Water	12/09/25 10:27	12/10/25 08:20	Nebraska
310-322108-12	APMW 14	Ground Water	12/09/25 11:23	12/10/25 08:20	Nebraska
310-322108-13	Duplicate	Ground Water	12/08/25 16:20	12/10/25 08:20	Nebraska



Detection Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 16A

Lab Sample ID: 310-322108-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00293		0.00200		mg/L	1		6020B	Total/NA
Boron	0.151		0.100		mg/L	1		6020B	Total/NA
Calcium	104		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.346		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	147		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	548		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	33.2		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 17

Lab Sample ID: 310-322108-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00241		0.00200		mg/L	1		6020B	Total/NA
Calcium	107		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00783		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.197		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	103		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	476		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	35.0		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 15

Lab Sample ID: 310-322108-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00281		0.00200		mg/L	1		6020B	Total/NA
Boron	0.129		0.100		mg/L	1		6020B	Total/NA
Calcium	97.0		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.295		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	125		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	496		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	27.3		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 18

Lab Sample ID: 310-322108-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00249		0.00200		mg/L	1		6020B	Total/NA
Calcium	82.6		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00658		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.216		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	25.1		5.00		mg/L	1		D516-16	Total/NA
Total Dissolved Solids	346		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	116		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 19

Lab Sample ID: 310-322108-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00396		0.00200		mg/L	1		6020B	Total/NA
Calcium	72.1		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00883		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.193		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	77.2		10.0		mg/L	2		D516-16	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 19 (Continued)

Lab Sample ID: 310-322108-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	380		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	33.9		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 6

Lab Sample ID: 310-322108-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00415		0.00200		mg/L	1		6020B	Total/NA
Calcium	52.7		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00528		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.312		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	25.4		5.00		mg/L	1		D516-16	Total/NA
Total Dissolved Solids	266		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	39.3		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.8	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 8A

Lab Sample ID: 310-322108-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00322		0.00200		mg/L	1		6020B	Total/NA
Calcium	91.8		0.500		mg/L	1		6020B	Total/NA
Selenium	0.0226		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.155		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	52.2		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	422		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	92.8		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 10

Lab Sample ID: 310-322108-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00338		0.00200		mg/L	1		6020B	Total/NA
Calcium	52.7		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00677		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.210		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	43.0		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	256		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.7		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	8.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 11

Lab Sample ID: 310-322108-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00208		0.00200		mg/L	1		6020B	Total/NA
Calcium	74.5		0.500		mg/L	1		6020B	Total/NA
Selenium	0.0100		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.284		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	62.1		10.0		mg/L	2		D516-16	Total/NA
Total Dissolved Solids	324		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.3		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 12

Lab Sample ID: 310-322108-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00234		0.00200		mg/L	1		6020B	Total/NA
Boron	0.265		0.100		mg/L	1		6020B	Total/NA
Calcium	137		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00569		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.101		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	252		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	924		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	155		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 13

Lab Sample ID: 310-322108-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00293		0.00200		mg/L	1		6020B	Total/NA
Boron	0.309		0.100		mg/L	1		6020B	Total/NA
Calcium	125		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.146		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	227		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	824		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	126		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: APMW 14

Lab Sample ID: 310-322108-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00263		0.00200		mg/L	1		6020B	Total/NA
Boron	0.299		0.100		mg/L	1		6020B	Total/NA
Calcium	150		0.500		mg/L	1		6020B	Total/NA
Fluoride	0.172		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	196		50.0		mg/L	10		D516-16	Total/NA
Total Dissolved Solids	870		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	148		20.0		mg/L	10		SM 4500 Cl- E	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-322108-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00332		0.00200		mg/L	1		6020B	Total/NA
Calcium	54.0		0.500		mg/L	1		6020B	Total/NA
Selenium	0.00746		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.239		0.100		mg/L	1		4500 F C-2011	Total/NA
Sulfate	41.5		25.0		mg/L	5		D516-16	Total/NA
Total Dissolved Solids	260		50.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.8		2.00		mg/L	1		SM 4500 Cl- E	Total/NA
pH	7.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 16A

Lab Sample ID: 310-322108-1

Date Collected: 12/08/25 10:02

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00293		0.00200		mg/L		12/11/25 08:03	12/18/25 18:01	1
Boron	0.151		0.100		mg/L		12/11/25 08:03	12/18/25 18:01	1
Calcium	104		0.500		mg/L		12/11/25 08:03	12/18/25 18:01	1
Selenium	<0.00500		0.00500		mg/L		12/11/25 08:03	12/18/25 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.346		0.100		mg/L			12/12/25 13:08	1
Sulfate (ASTM D516-16)	147		50.0		mg/L			12/12/25 12:11	10
Total Dissolved Solids (SM 2540C)	548		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	33.2		2.00		mg/L			12/11/25 21:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			12/10/25 11:36	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 17

Lab Sample ID: 310-322108-2

Date Collected: 12/08/25 10:52

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00241		0.00200		mg/L		12/11/25 08:03	12/18/25 18:03	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:03	1
Calcium	107		0.500		mg/L		12/11/25 08:03	12/18/25 18:03	1
Selenium	0.00783		0.00500		mg/L		12/11/25 08:03	12/18/25 18:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.197		0.100		mg/L			12/12/25 13:11	1
Sulfate (ASTM D516-16)	103		50.0		mg/L			12/12/25 12:12	10
Total Dissolved Solids (SM 2540C)	476		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	35.0		2.00		mg/L			12/11/25 21:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			12/10/25 11:37	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 15

Lab Sample ID: 310-322108-3

Date Collected: 12/08/25 11:34

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00281		0.00200		mg/L		12/11/25 08:03	12/18/25 18:06	1
Boron	0.129		0.100		mg/L		12/11/25 08:03	12/18/25 18:06	1
Calcium	97.0		0.500		mg/L		12/11/25 08:03	12/18/25 18:06	1
Selenium	<0.00500		0.00500		mg/L		12/11/25 08:03	12/18/25 18:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.295		0.100		mg/L			12/13/25 09:37	1
Sulfate (ASTM D516-16)	125		50.0		mg/L			12/12/25 12:12	10
Total Dissolved Solids (SM 2540C)	496		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	27.3		2.00		mg/L			12/11/25 21:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			12/10/25 11:31	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 18

Lab Sample ID: 310-322108-4

Date Collected: 12/08/25 12:22

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00249		0.00200		mg/L		12/11/25 08:03	12/18/25 18:08	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:08	1
Calcium	82.6		0.500		mg/L		12/11/25 08:03	12/18/25 18:08	1
Selenium	0.00658		0.00500		mg/L		12/11/25 08:03	12/18/25 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.216		0.100		mg/L			12/12/25 13:24	1
Sulfate (ASTM D516-16)	25.1		5.00		mg/L			12/12/25 12:12	1
Total Dissolved Solids (SM 2540C)	346		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	116		20.0		mg/L			12/11/25 21:22	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			12/10/25 11:28	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 19

Lab Sample ID: 310-322108-5

Date Collected: 12/08/25 13:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00396		0.00200		mg/L		12/11/25 08:03	12/18/25 18:14	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:14	1
Calcium	72.1		0.500		mg/L		12/11/25 08:03	12/18/25 18:14	1
Selenium	0.00883		0.00500		mg/L		12/11/25 08:03	12/18/25 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.193		0.100		mg/L			12/12/25 13:28	1
Sulfate (ASTM D516-16)	77.2		10.0		mg/L			12/12/25 12:18	2
Total Dissolved Solids (SM 2540C)	380		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	33.9		2.00		mg/L			12/11/25 21:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			12/10/25 11:32	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 6

Lab Sample ID: 310-322108-6

Date Collected: 12/08/25 14:32

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00415		0.00200		mg/L		12/11/25 08:03	12/18/25 18:16	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:16	1
Calcium	52.7		0.500		mg/L		12/11/25 08:03	12/18/25 18:16	1
Selenium	0.00528		0.00500		mg/L		12/11/25 08:03	12/18/25 18:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.312		0.100		mg/L			12/12/25 13:31	1
Sulfate (ASTM D516-16)	25.4		5.00		mg/L			12/12/25 12:20	1
Total Dissolved Solids (SM 2540C)	266		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	39.3		2.00		mg/L			12/11/25 21:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.8	HF	1.0		SU			12/10/25 11:30	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 8A

Lab Sample ID: 310-322108-7

Date Collected: 12/08/25 15:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00322		0.00200		mg/L		12/11/25 08:03	12/18/25 18:19	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:19	1
Calcium	91.8		0.500		mg/L		12/11/25 08:03	12/18/25 18:19	1
Selenium	0.0226		0.00500		mg/L		12/11/25 08:03	12/18/25 18:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.155		0.100		mg/L			12/12/25 13:34	1
Sulfate (ASTM D516-16)	52.2		50.0		mg/L			12/12/25 12:21	10
Total Dissolved Solids (SM 2540C)	422		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	92.8		2.00		mg/L			12/11/25 21:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			12/10/25 11:27	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 10

Lab Sample ID: 310-322108-8

Date Collected: 12/08/25 16:12

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00338		0.00200		mg/L		12/11/25 08:03	12/18/25 18:21	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:21	1
Calcium	52.7		0.500		mg/L		12/11/25 08:03	12/18/25 18:21	1
Selenium	0.00677		0.00500		mg/L		12/11/25 08:03	12/18/25 18:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.210		0.100		mg/L			12/12/25 13:37	1
Sulfate (ASTM D516-16)	43.0		25.0		mg/L			12/12/25 12:37	5
Total Dissolved Solids (SM 2540C)	256		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	25.7		2.00		mg/L			12/11/25 21:07	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	8.1	HF	1.0		SU			12/10/25 11:34	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 11

Lab Sample ID: 310-322108-9

Date Collected: 12/08/25 17:07

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00208		0.00200		mg/L		12/11/25 08:03	12/18/25 18:24	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 18:24	1
Calcium	74.5		0.500		mg/L		12/11/25 08:03	12/18/25 18:24	1
Selenium	0.0100		0.00500		mg/L		12/11/25 08:03	12/18/25 18:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.284		0.100		mg/L			12/12/25 13:41	1
Sulfate (ASTM D516-16)	62.1		10.0		mg/L			12/12/25 12:21	2
Total Dissolved Solids (SM 2540C)	324		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	25.3		2.00		mg/L			12/11/25 21:07	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			12/10/25 11:26	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 12

Lab Sample ID: 310-322108-10

Date Collected: 12/09/25 09:37

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00234		0.00200		mg/L		12/11/25 08:03	12/18/25 18:32	1
Boron	0.265		0.100		mg/L		12/11/25 08:03	12/19/25 14:50	1
Calcium	137		0.500		mg/L		12/11/25 08:03	12/18/25 18:32	1
Selenium	0.00569		0.00500		mg/L		12/11/25 08:03	12/18/25 18:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.101		0.100		mg/L			12/12/25 13:44	1
Sulfate (ASTM D516-16)	252		50.0		mg/L			12/12/25 12:22	10
Total Dissolved Solids (SM 2540C)	924		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	155		20.0		mg/L			12/11/25 21:23	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.4	HF	1.0		SU			12/10/25 11:24	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 13

Lab Sample ID: 310-322108-11

Date Collected: 12/09/25 10:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00293		0.00200		mg/L		12/11/25 08:03	12/18/25 18:34	1
Boron	0.309		0.100		mg/L		12/11/25 08:03	12/19/25 14:52	1
Calcium	125		0.500		mg/L		12/11/25 08:03	12/18/25 18:34	1
Selenium	<0.00500		0.00500		mg/L		12/11/25 08:03	12/18/25 18:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.146		0.100		mg/L			12/12/25 13:47	1
Sulfate (ASTM D516-16)	227		50.0		mg/L			12/12/25 12:22	10
Total Dissolved Solids (SM 2540C)	824		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	126		20.0		mg/L			12/11/25 21:23	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			12/10/25 11:22	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 14

Lab Sample ID: 310-322108-12

Date Collected: 12/09/25 11:23

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00263		0.00200		mg/L		12/11/25 08:03	12/18/25 18:37	1
Boron	0.299		0.100		mg/L		12/11/25 08:03	12/19/25 15:02	1
Calcium	150		0.500		mg/L		12/11/25 08:03	12/18/25 18:37	1
Selenium	<0.00500		0.00500		mg/L		12/11/25 08:03	12/18/25 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.172		0.100		mg/L			12/12/25 13:50	1
Sulfate (ASTM D516-16)	196		50.0		mg/L			12/12/25 12:23	10
Total Dissolved Solids (SM 2540C)	870		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	148		20.0		mg/L			12/11/25 21:23	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.4	HF	1.0		SU			12/10/25 11:25	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: Duplicate

Lab Sample ID: 310-322108-13

Date Collected: 12/08/25 16:20

Matrix: Ground Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00332		0.00200		mg/L		12/12/25 08:00	12/15/25 14:04	1
Boron	<0.100	F1	0.100		mg/L		12/12/25 08:00	12/15/25 14:04	1
Calcium	54.0		0.500		mg/L		12/12/25 08:00	12/15/25 14:04	1
Selenium	0.00746		0.00500		mg/L		12/12/25 08:00	12/15/25 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.239		0.100		mg/L			12/12/25 14:00	1
Sulfate (ASTM D516-16)	41.5		25.0		mg/L			12/12/25 13:26	5
Total Dissolved Solids (SM 2540C)	260		50.0		mg/L			12/10/25 13:45	1
Chloride (SM 4500 Cl- E)	25.8		2.00		mg/L			12/11/25 22:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.9	HF	1.0		SU			12/10/25 11:29	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-476072/1-A
Matrix: Water
Analysis Batch: 476902

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 476072

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00200		0.00200		mg/L		12/11/25 08:03	12/18/25 17:20	1
Boron	<0.100		0.100		mg/L		12/11/25 08:03	12/18/25 17:20	1
Calcium	<0.500		0.500		mg/L		12/11/25 08:03	12/18/25 17:20	1
Selenium	<0.00500		0.00500		mg/L		12/11/25 08:03	12/18/25 17:20	1

Lab Sample ID: LCS 310-476072/2-A
Matrix: Water
Analysis Batch: 476902

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 476072

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	0.200	0.1963		mg/L		98	80 - 120
Boron	0.200	0.2113		mg/L		106	80 - 120
Calcium	2.00	1.783		mg/L		89	80 - 120
Selenium	0.400	0.3699		mg/L		92	80 - 120

Lab Sample ID: 310-322108-4 DU
Matrix: Ground Water
Analysis Batch: 476902

Client Sample ID: APMW 18
Prep Type: Total/NA
Prep Batch: 476072

Analyte	Sample Sample		DU DU		Unit	D	RPD	RPD Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	0.00249		0.002573		mg/L		3	20
Boron	<0.100		<0.100		mg/L		NC	20
Calcium	82.6		84.95		mg/L		3	20
Selenium	0.00658		0.006760		mg/L		3	20

Lab Sample ID: MB 310-476212/1-A
Matrix: Water
Analysis Batch: 476535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 476212

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00200		0.00200		mg/L		12/12/25 08:00	12/15/25 13:58	1
Boron	<0.100		0.100		mg/L		12/12/25 08:00	12/15/25 13:58	1
Calcium	<0.500		0.500		mg/L		12/12/25 08:00	12/15/25 13:58	1
Selenium	<0.00500		0.00500		mg/L		12/12/25 08:00	12/15/25 13:58	1

Lab Sample ID: LCS 310-476212/2-A
Matrix: Water
Analysis Batch: 476535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 476212

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	0.200	0.2039		mg/L		102	80 - 120
Boron	0.200	0.2333		mg/L		117	80 - 120
Calcium	2.00	2.145		mg/L		107	80 - 120
Selenium	0.400	0.4265		mg/L		107	80 - 120

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

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

Lab Sample ID: 310-322108-13 MS
Matrix: Ground Water
Analysis Batch: 476535

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 476212

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Arsenic	0.00332		0.200	0.2125		mg/L		105	75 - 125	
Boron	<0.100	F1	0.200	0.2850	F1	mg/L		143	75 - 125	
Calcium	54.0		2.00	57.70	4	mg/L		185	75 - 125	
Selenium	0.00746		0.400	0.4407		mg/L		108	75 - 125	

Lab Sample ID: 310-322108-13 MSD
Matrix: Ground Water
Analysis Batch: 476535

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 476212

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit	
Arsenic	0.00332		0.200	0.2092		mg/L		103	75 - 125		2	20
Boron	<0.100	F1	0.200	0.2757	F1	mg/L		138	75 - 125		3	20
Calcium	54.0		2.00	55.14	4	mg/L		57	75 - 125		5	20
Selenium	0.00746		0.400	0.4311		mg/L		106	75 - 125		2	20

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-476365/41
Matrix: Water
Analysis Batch: 476365

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.100		0.100		mg/L			12/12/25 14:53	1

Lab Sample ID: MB 310-476365/5
Matrix: Water
Analysis Batch: 476365

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.100		0.100		mg/L			12/12/25 12:51	1

Lab Sample ID: LCS 310-476365/46
Matrix: Water
Analysis Batch: 476365

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	
							Result	Qualifier
Fluoride	2.00	2.093		mg/L		105	90 - 110	

Lab Sample ID: LCS 310-476365/6
Matrix: Water
Analysis Batch: 476365

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	
							Result	Qualifier
Fluoride	2.00	1.968		mg/L		98	90 - 110	

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode) (Continued)

Lab Sample ID: 310-322108-3 MS
 Matrix: Ground Water
 Analysis Batch: 476365

Client Sample ID: APMW 15
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.295		1.00	1.234		mg/L		94	75 - 125

Lab Sample ID: 310-322108-3 MSD
 Matrix: Ground Water
 Analysis Batch: 476365

Client Sample ID: APMW 15
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.295		1.00	1.238		mg/L		94	75 - 125	0	16

Method: D516-16 - Sulfate

Lab Sample ID: MB 310-476333/16
 Matrix: Water
 Analysis Batch: 476333

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			12/12/25 12:05	1

Lab Sample ID: MB 310-476333/46
 Matrix: Water
 Analysis Batch: 476333

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			12/12/25 12:17	1

Lab Sample ID: LCS 310-476333/17
 Matrix: Water
 Analysis Batch: 476333

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.536		mg/L		95	85 - 115

Lab Sample ID: LCS 310-476333/47
 Matrix: Water
 Analysis Batch: 476333

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.075		mg/L		91	85 - 115

Lab Sample ID: 310-322108-5 MS
 Matrix: Ground Water
 Analysis Batch: 476333

Client Sample ID: APMW 19
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	77.2		20.0	87.66	E	mg/L		53	29 - 150

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Method: D516-16 - Sulfate (Continued)

Lab Sample ID: 310-322108-5 MSD
 Matrix: Ground Water
 Analysis Batch: 476333

Client Sample ID: APMW 19
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	77.2		20.0	88.35	E	mg/L		56	29 - 150	1	25

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

Lab Sample ID: MB 310-476075/1
 Matrix: Water
 Analysis Batch: 476075

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	<50.0		50.0		mg/L			12/10/25 13:45	1

Lab Sample ID: LCS 310-476075/2
 Matrix: Water
 Analysis Batch: 476075

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	994.0		mg/L		99	89 - 110

Lab Sample ID: 310-322108-6 DU
 Matrix: Ground Water
 Analysis Batch: 476075

Client Sample ID: APMW 6
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	266		250.0		mg/L		6	13

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 310-476241/16
 Matrix: Water
 Analysis Batch: 476241

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			12/11/25 20:59	1

Lab Sample ID: MB 310-476241/62
 Matrix: Water
 Analysis Batch: 476241

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00		mg/L			12/11/25 22:21	1

Lab Sample ID: LCS 310-476241/14
 Matrix: Water
 Analysis Batch: 476241

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	10.65		mg/L		107	90 - 110

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QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 310-476241/87
Matrix: Water
Analysis Batch: 476241

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	10.45		mg/L		105	90 - 110

Lab Sample ID: 310-322108-13 MS
Matrix: Ground Water
Analysis Batch: 476241

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.8		10.0	33.21		mg/L		74	26 - 120

Lab Sample ID: 310-322108-13 MSD
Matrix: Ground Water
Analysis Batch: 476241

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25.8		10.0	32.46		mg/L		67	26 - 120	2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-476056/1
Matrix: Water
Analysis Batch: 476056

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

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

Lab Sample ID: 310-322108-8 DU
Matrix: Ground Water
Analysis Batch: 476056

Client Sample ID: APMW 10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.1	HF	8.1		SU		0.1	20

Lab Sample ID: 310-322108-11 DU
Matrix: Ground Water
Analysis Batch: 476056

Client Sample ID: APMW 13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.6	HF	7.6		SU		0	20

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Metals

Prep Batch: 476072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	3005A	
310-322108-2	APMW 17	Total/NA	Ground Water	3005A	
310-322108-3	APMW 15	Total/NA	Ground Water	3005A	
310-322108-4	APMW 18	Total/NA	Ground Water	3005A	
310-322108-5	APMW 19	Total/NA	Ground Water	3005A	
310-322108-6	APMW 6	Total/NA	Ground Water	3005A	
310-322108-7	APMW 8A	Total/NA	Ground Water	3005A	
310-322108-8	APMW 10	Total/NA	Ground Water	3005A	
310-322108-9	APMW 11	Total/NA	Ground Water	3005A	
310-322108-10	APMW 12	Total/NA	Ground Water	3005A	
310-322108-11	APMW 13	Total/NA	Ground Water	3005A	
310-322108-12	APMW 14	Total/NA	Ground Water	3005A	
MB 310-476072/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-476072/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-322108-4 DU	APMW 18	Total/NA	Ground Water	3005A	

Prep Batch: 476212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-13	Duplicate	Total/NA	Ground Water	3005A	
MB 310-476212/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-476212/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-322108-13 MS	Duplicate	Total/NA	Ground Water	3005A	
310-322108-13 MSD	Duplicate	Total/NA	Ground Water	3005A	

Analysis Batch: 476535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-13	Duplicate	Total/NA	Ground Water	6020B	476212
MB 310-476212/1-A	Method Blank	Total/NA	Water	6020B	476212
LCS 310-476212/2-A	Lab Control Sample	Total/NA	Water	6020B	476212
310-322108-13 MS	Duplicate	Total/NA	Ground Water	6020B	476212
310-322108-13 MSD	Duplicate	Total/NA	Ground Water	6020B	476212

Analysis Batch: 476902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	6020B	476072
310-322108-2	APMW 17	Total/NA	Ground Water	6020B	476072
310-322108-3	APMW 15	Total/NA	Ground Water	6020B	476072
310-322108-4	APMW 18	Total/NA	Ground Water	6020B	476072
310-322108-5	APMW 19	Total/NA	Ground Water	6020B	476072
310-322108-6	APMW 6	Total/NA	Ground Water	6020B	476072
310-322108-7	APMW 8A	Total/NA	Ground Water	6020B	476072
310-322108-8	APMW 10	Total/NA	Ground Water	6020B	476072
310-322108-9	APMW 11	Total/NA	Ground Water	6020B	476072
310-322108-10	APMW 12	Total/NA	Ground Water	6020B	476072
310-322108-11	APMW 13	Total/NA	Ground Water	6020B	476072
310-322108-12	APMW 14	Total/NA	Ground Water	6020B	476072
MB 310-476072/1-A	Method Blank	Total/NA	Water	6020B	476072
LCS 310-476072/2-A	Lab Control Sample	Total/NA	Water	6020B	476072
310-322108-4 DU	APMW 18	Total/NA	Ground Water	6020B	476072

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Metals

Analysis Batch: 476996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-10	APMW 12	Total/NA	Ground Water	6020B	476072
310-322108-11	APMW 13	Total/NA	Ground Water	6020B	476072
310-322108-12	APMW 14	Total/NA	Ground Water	6020B	476072

General Chemistry

Analysis Batch: 476056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-2	APMW 17	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-3	APMW 15	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-4	APMW 18	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-5	APMW 19	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-6	APMW 6	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-7	APMW 8A	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-8	APMW 10	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-9	APMW 11	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-10	APMW 12	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-11	APMW 13	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-12	APMW 14	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-13	Duplicate	Total/NA	Ground Water	SM 4500 H+ B	
LCS 310-476056/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-322108-8 DU	APMW 10	Total/NA	Ground Water	SM 4500 H+ B	
310-322108-11 DU	APMW 13	Total/NA	Ground Water	SM 4500 H+ B	

Analysis Batch: 476075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	SM 2540C	
310-322108-2	APMW 17	Total/NA	Ground Water	SM 2540C	
310-322108-3	APMW 15	Total/NA	Ground Water	SM 2540C	
310-322108-4	APMW 18	Total/NA	Ground Water	SM 2540C	
310-322108-5	APMW 19	Total/NA	Ground Water	SM 2540C	
310-322108-6	APMW 6	Total/NA	Ground Water	SM 2540C	
310-322108-7	APMW 8A	Total/NA	Ground Water	SM 2540C	
310-322108-8	APMW 10	Total/NA	Ground Water	SM 2540C	
310-322108-9	APMW 11	Total/NA	Ground Water	SM 2540C	
310-322108-10	APMW 12	Total/NA	Ground Water	SM 2540C	
310-322108-11	APMW 13	Total/NA	Ground Water	SM 2540C	
310-322108-12	APMW 14	Total/NA	Ground Water	SM 2540C	
310-322108-13	Duplicate	Total/NA	Ground Water	SM 2540C	
MB 310-476075/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-476075/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-322108-6 DU	APMW 6	Total/NA	Ground Water	SM 2540C	

Analysis Batch: 476241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-2	APMW 17	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-3	APMW 15	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-4	APMW 18	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-5	APMW 19	Total/NA	Ground Water	SM 4500 Cl- E	

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

General Chemistry (Continued)

Analysis Batch: 476241 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-6	APMW 6	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-7	APMW 8A	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-8	APMW 10	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-9	APMW 11	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-10	APMW 12	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-11	APMW 13	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-12	APMW 14	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-13	Duplicate	Total/NA	Ground Water	SM 4500 Cl- E	
MB 310-476241/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 310-476241/62	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 310-476241/14	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 310-476241/87	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
310-322108-13 MS	Duplicate	Total/NA	Ground Water	SM 4500 Cl- E	
310-322108-13 MSD	Duplicate	Total/NA	Ground Water	SM 4500 Cl- E	

Analysis Batch: 476333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	D516-16	
310-322108-2	APMW 17	Total/NA	Ground Water	D516-16	
310-322108-3	APMW 15	Total/NA	Ground Water	D516-16	
310-322108-4	APMW 18	Total/NA	Ground Water	D516-16	
310-322108-5	APMW 19	Total/NA	Ground Water	D516-16	
310-322108-6	APMW 6	Total/NA	Ground Water	D516-16	
310-322108-7	APMW 8A	Total/NA	Ground Water	D516-16	
310-322108-8	APMW 10	Total/NA	Ground Water	D516-16	
310-322108-9	APMW 11	Total/NA	Ground Water	D516-16	
310-322108-10	APMW 12	Total/NA	Ground Water	D516-16	
310-322108-11	APMW 13	Total/NA	Ground Water	D516-16	
310-322108-12	APMW 14	Total/NA	Ground Water	D516-16	
310-322108-13	Duplicate	Total/NA	Ground Water	D516-16	
MB 310-476333/16	Method Blank	Total/NA	Water	D516-16	
MB 310-476333/46	Method Blank	Total/NA	Water	D516-16	
LCS 310-476333/17	Lab Control Sample	Total/NA	Water	D516-16	
LCS 310-476333/47	Lab Control Sample	Total/NA	Water	D516-16	
310-322108-5 MS	APMW 19	Total/NA	Ground Water	D516-16	
310-322108-5 MSD	APMW 19	Total/NA	Ground Water	D516-16	

Analysis Batch: 476365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-1	APMW 16A	Total/NA	Ground Water	4500 F C-2011	
310-322108-2	APMW 17	Total/NA	Ground Water	4500 F C-2011	
310-322108-3	APMW 15	Total/NA	Ground Water	4500 F C-2011	
310-322108-4	APMW 18	Total/NA	Ground Water	4500 F C-2011	
310-322108-5	APMW 19	Total/NA	Ground Water	4500 F C-2011	
310-322108-6	APMW 6	Total/NA	Ground Water	4500 F C-2011	
310-322108-7	APMW 8A	Total/NA	Ground Water	4500 F C-2011	
310-322108-8	APMW 10	Total/NA	Ground Water	4500 F C-2011	
310-322108-9	APMW 11	Total/NA	Ground Water	4500 F C-2011	
310-322108-10	APMW 12	Total/NA	Ground Water	4500 F C-2011	
310-322108-11	APMW 13	Total/NA	Ground Water	4500 F C-2011	
310-322108-12	APMW 14	Total/NA	Ground Water	4500 F C-2011	

Eurofins Cedar Falls

QC Association Summary

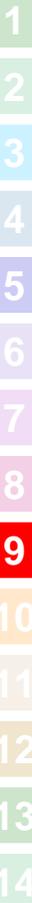
Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

General Chemistry (Continued)

Analysis Batch: 476365 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322108-13	Duplicate	Total/NA	Ground Water	4500 F C-2011	
MB 310-476365/41	Method Blank	Total/NA	Water	4500 F C-2011	
MB 310-476365/5	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-476365/46	Lab Control Sample	Total/NA	Water	4500 F C-2011	
LCS 310-476365/6	Lab Control Sample	Total/NA	Water	4500 F C-2011	
310-322108-3 MS	APMW 15	Total/NA	Ground Water	4500 F C-2011	
310-322108-3 MSD	APMW 15	Total/NA	Ground Water	4500 F C-2011	



Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 16A

Lab Sample ID: 310-322108-1

Date Collected: 12/08/25 10:02

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:01
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:08
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:11
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 21:04
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:36

Client Sample ID: APMW 17

Lab Sample ID: 310-322108-2

Date Collected: 12/08/25 10:52

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:03
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:11
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:12
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 21:04
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:37

Client Sample ID: APMW 15

Lab Sample ID: 310-322108-3

Date Collected: 12/08/25 11:34

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:06
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/13/25 09:37
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:12
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 21:05
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:31

Client Sample ID: APMW 18

Lab Sample ID: 310-322108-4

Date Collected: 12/08/25 12:22

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:08
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:24
Total/NA	Analysis	D516-16		1	476333	WZC8	EET CF	12/12/25 12:12

Eurofins Cedar Falls

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 18

Lab Sample ID: 310-322108-4

Date Collected: 12/08/25 12:22

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 CI- E		10	476241	ZJX4	EET CF	12/11/25 21:22
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:28

Client Sample ID: APMW 19

Lab Sample ID: 310-322108-5

Date Collected: 12/08/25 13:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:14
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:28
Total/NA	Analysis	D516-16		2	476333	WZC8	EET CF	12/12/25 12:18
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 CI- E		1	476241	ZJX4	EET CF	12/11/25 21:06
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:32

Client Sample ID: APMW 6

Lab Sample ID: 310-322108-6

Date Collected: 12/08/25 14:32

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:16
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:31
Total/NA	Analysis	D516-16		1	476333	WZC8	EET CF	12/12/25 12:20
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 CI- E		1	476241	ZJX4	EET CF	12/11/25 21:06
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:30

Client Sample ID: APMW 8A

Lab Sample ID: 310-322108-7

Date Collected: 12/08/25 15:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:19
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:34
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:21
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 CI- E		1	476241	ZJX4	EET CF	12/11/25 21:06
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:27

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 10

Lab Sample ID: 310-322108-8

Date Collected: 12/08/25 16:12

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:21
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:37
Total/NA	Analysis	D516-16		5	476333	WZC8	EET CF	12/12/25 12:37
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 21:07
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:34

Client Sample ID: APMW 11

Lab Sample ID: 310-322108-9

Date Collected: 12/08/25 17:07

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:24
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:41
Total/NA	Analysis	D516-16		2	476333	WZC8	EET CF	12/12/25 12:21
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 21:07
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:26

Client Sample ID: APMW 12

Lab Sample ID: 310-322108-10

Date Collected: 12/09/25 09:37

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:32
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476996	NFT2	EET CF	12/19/25 14:50
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:44
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:22
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		10	476241	ZJX4	EET CF	12/11/25 21:23
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:24

Client Sample ID: APMW 13

Lab Sample ID: 310-322108-11

Date Collected: 12/09/25 10:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:34

Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Client Sample ID: APMW 13

Lab Sample ID: 310-322108-11

Date Collected: 12/09/25 10:27

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476996	NFT2	EET CF	12/19/25 14:52
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:47
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:22
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		10	476241	ZJX4	EET CF	12/11/25 21:23
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:22

Client Sample ID: APMW 14

Lab Sample ID: 310-322108-12

Date Collected: 12/09/25 11:23

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476902	NFT2	EET CF	12/18/25 18:37
Total/NA	Prep	3005A			476072	RLT9	EET CF	12/11/25 08:03
Total/NA	Analysis	6020B		1	476996	NFT2	EET CF	12/19/25 15:02
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 13:50
Total/NA	Analysis	D516-16		10	476333	WZC8	EET CF	12/12/25 12:23
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		10	476241	ZJX4	EET CF	12/11/25 21:23
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:25

Client Sample ID: Duplicate

Lab Sample ID: 310-322108-13

Date Collected: 12/08/25 16:20

Matrix: Ground Water

Date Received: 12/10/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476212	RLT9	EET CF	12/12/25 08:00
Total/NA	Analysis	6020B		1	476535	NFT2	EET CF	12/15/25 14:04
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 14:00
Total/NA	Analysis	D516-16		5	476333	WZC8	EET CF	12/12/25 13:26
Total/NA	Analysis	SM 2540C		1	476075	TGN5	EET CF	12/10/25 13:45
Total/NA	Analysis	SM 4500 Cl- E		1	476241	ZJX4	EET CF	12/11/25 22:21
Total/NA	Analysis	SM 4500 H+ B		1	476056	W9YR	EET CF	12/10/25 11:29

Laboratory References:

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-26

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Detection Monitoring

Job ID: 310-322108-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
D516-16	Sulfate	ASTM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 Cl- E	Chloride, Total	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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



Environment Testing
America



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>Nebraska Public Power District</u>			
City/State:	CITY <u>Sutherland</u>	STATE <u>NE</u>	Project
Receipt Information			
Date/Time Received:	DATE <u>12-10-25</u>	TIME <u>0820</u>	Received By. <u>BP</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:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>2</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes. Cooler custody seals intact? <input 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>BB</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>0.8</u>		Corrected Temp (°C): <u>0.8</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
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			





Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>Nebraska Public Power District</u>			
City/State.	CITY <u>Sutherland</u>	STATE <u>NE</u>	Project.
Receipt Information			
Date/Time Received:	DATE <u>12-10-25</u>	TIME <u>0820</u>	Received By: <u>BP</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 <i>If yes. Cooler ID:</i>			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler # <u>2</u> of <u>2</u></i>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes Sample custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Which VOA samples are in cooler?</i> ↓			
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>BB</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>0.6</u>		Corrected Temp (°C): <u>0.6</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) <i>If yes: Is there evidence that the chilling process began?</i> <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			



Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

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Client Information		Sampler: Doug Harris		Lab PM: Calhoun, Conner M		Carrier Tracking No(s):		COC No: 310-98036-26680 1			
Client Contact: Doug Harris		Phone: 308-530-1124		E-Mail: Conner Calhoun@et.eurofinsus.com		State of Origin:		Page: Page 1 of 2			
Company: Nebraska Public Power District		PWSID:		Analysis Requested						Job #:	
Address: 6089 S Hwy 25 Gerald Gentleman Station South		Due Date Requested:								Preservation Codes: D - HNO3 N - None	
City: Sutherland		TAT Requested (days):		Field Filtered Sample (Yes or No) Parent: MS/MSD (Yes or No) 6020B - Arsenic, Boron, Calcium, Selenium 2540C_Calcd - TDS 9066A_ORGFM_28D - Chloride, Fluoride, Sulfate SM4500_H+ - PH		Total Number of Containers		Other:			
State, Zip: NE, 69165		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 308-530-1124(Tel)		PO #: 4500277132									
Email: ddharm@nppd.com		WO #:									
Project Name: GGS Ash Pit Detection Monitoring		Project #: 31007155		Project Name: GGS Ash Pit Detection Monitoring		Project #: 31007155		Project Name: GGS Ash Pit Detection Monitoring			
Site:		SSOW#:		Site:		SSOW#:		Site:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)			
								Preservation Code:			
								<input checked="" type="checkbox"/> D <input type="checkbox"/> N <input type="checkbox"/> N <input type="checkbox"/> N			
APMW 16A		12-8-25		1002		G		Water			
APMW 17		12-8-25		1052		G		Water			
APMW15		12-8-25		1134		G		Water			
APMW 5		No samples						Water			
APMW 18		12-8-25		1222		G		Water			
APMW 19		12-8-25		1327		G		Water			
APMW 4		No samples						Water			
APMW 6		12-8-25		1432		G		Water			
APMW 8A		12-8-25		1527		G		Water			
APMW 10		12-8-25		1612		G		Water			
APMW 11		12-8-25		1707		G		Water			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input checked="" 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					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I, II, III IV Other (specify)					Special Instructions/QC Requirements.						
Empty Kit Relinquished by		Date:		Time:		Method of Shipment:					
Relinquished by: Doug Harris		Date/Time: 12-9-25 1300		Company: NPPD		Received by: [Signature]		Date/Time: 12-9-25 8:00			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks.							

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12/19/2025



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-322108-1

Login Number: 322108

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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





ANALYTICAL REPORT

PREPARED FOR

Attn: Doug Harris
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Generated 1/8/2026 7:49:39 PM

JOB DESCRIPTION

GGs Ash Pit Assessment Monitoring

JOB NUMBER

310-322111-1

Eurofins Cedar Falls

Job Notes

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

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

Authorization



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1/8/2026 7:49:39 PM

Authorized for release by
Conner Calhoun, Client Service Manager
Conner.Calhoun@et.eurofinsus.com
(319)277-2401



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Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Job ID: 310-322111-1

Eurofins Cedar Falls

Job Narrative 310-322111-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 12/10/2025 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Case Narrative

Client: Nebraska Public Power District
Project: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Job ID: 310-322111-2

Eurofins Cedar Falls

Job Narrative 310-322111-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 12/10/2025 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cedar Falls

Sample Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-322111-1	APMW-11	Water	12/08/25 17:15	12/10/25 08:20	Nebraska
310-322111-2	Duplicate	Water	12/08/25 17:31	12/10/25 08:20	Nebraska

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Detection Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Client Sample ID: APMW-11

Lab Sample ID: 310-322111-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.196		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.0166		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00376		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0103		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.288		0.100		mg/L	1		4500 F C-2011	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-322111-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00200		0.00200		mg/L	1		6020B	Total/NA
Barium	0.190		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.0162		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00266		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0108		0.00500		mg/L	1		6020B	Total/NA
Fluoride	0.285		0.100		mg/L	1		4500 F C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Client Sample ID: APMW-11

Lab Sample ID: 310-322111-1

Date Collected: 12/08/25 17:15

Matrix: Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:34	1
Arsenic	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:34	1
Barium	0.196		0.00200		mg/L		12/12/25 14:46	12/18/25 14:34	1
Beryllium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:34	1
Cadmium	<0.000200		0.000200		mg/L		12/12/25 14:46	12/18/25 14:34	1
Chromium	<0.00500		0.00500		mg/L		12/12/25 14:46	12/18/25 14:34	1
Cobalt	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:34	1
Lead	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:34	1
Lithium	0.0166		0.0100		mg/L		12/12/25 14:46	12/18/25 14:34	1
Molybdenum	0.00376		0.00200		mg/L		12/12/25 14:46	12/18/25 14:34	1
Selenium	0.0103		0.00500		mg/L		12/12/25 14:46	12/18/25 14:34	1
Thallium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		12/12/25 12:55	12/15/25 10:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.288		0.100		mg/L			12/12/25 14:03	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.81		0.488	0.550	1.00	0.269	pCi/L	12/12/25 07:50	01/05/26 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					12/12/25 07:50	01/05/26 22:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.928		0.432	0.440	1.00	0.577	pCi/L	12/12/25 07:53	01/05/26 12:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					12/12/25 07:53	01/05/26 12:35	1
Y Carrier	80.0		30 - 110					12/12/25 07:53	01/05/26 12:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.73		0.652	0.704	5.00	0.577	pCi/L		01/07/26 17:20	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Client Sample ID: Duplicate

Lab Sample ID: 310-322111-2

Date Collected: 12/08/25 17:31

Matrix: Water

Date Received: 12/10/25 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:37	1
Arsenic	0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:37	1
Barium	0.190		0.00200		mg/L		12/12/25 14:46	12/18/25 14:37	1
Beryllium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:37	1
Cadmium	<0.000200		0.000200		mg/L		12/12/25 14:46	12/18/25 14:37	1
Chromium	<0.00500		0.00500		mg/L		12/12/25 14:46	12/18/25 14:37	1
Cobalt	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:37	1
Lead	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:37	1
Lithium	0.0162		0.0100		mg/L		12/12/25 14:46	12/18/25 14:37	1
Molybdenum	0.00266		0.00200		mg/L		12/12/25 14:46	12/18/25 14:37	1
Selenium	0.0108		0.00500		mg/L		12/12/25 14:46	12/18/25 14:37	1
Thallium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		12/12/25 12:55	12/15/25 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	0.285		0.100		mg/L			12/12/25 14:06	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.49		0.365	0.388	1.00	0.280	pCi/L	12/12/25 07:50	01/05/26 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		30 - 110					12/12/25 07:50	01/05/26 22:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.298	U	0.375	0.376	1.00	0.622	pCi/L	12/12/25 07:53	01/05/26 12:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		30 - 110					12/12/25 07:53	01/05/26 12:35	1
Y Carrier	84.5		30 - 110					12/12/25 07:53	01/05/26 12:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.78		0.523	0.540	5.00	0.622	pCi/L		01/07/26 17:20	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Qualifiers

Rad

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-476213/1-A
Matrix: Water
Analysis Batch: 476903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 476213

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:28	1
Arsenic	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:28	1
Barium	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:28	1
Beryllium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:28	1
Cadmium	<0.000200		0.000200		mg/L		12/12/25 14:46	12/18/25 14:28	1
Chromium	<0.00500		0.00500		mg/L		12/12/25 14:46	12/18/25 14:28	1
Cobalt	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:28	1
Lead	<0.000500		0.000500		mg/L		12/12/25 14:46	12/18/25 14:28	1
Lithium	<0.0100		0.0100		mg/L		12/12/25 14:46	12/18/25 14:28	1
Molybdenum	<0.00200		0.00200		mg/L		12/12/25 14:46	12/18/25 14:28	1
Selenium	<0.00500		0.00500		mg/L		12/12/25 14:46	12/18/25 14:28	1
Thallium	<0.00100		0.00100		mg/L		12/12/25 14:46	12/18/25 14:28	1

Lab Sample ID: LCS 310-476213/2-A
Matrix: Water
Analysis Batch: 476903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 476213

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2199		mg/L		110	80 - 120
Arsenic	0.200	0.2039		mg/L		102	80 - 120
Barium	0.100	0.09977		mg/L		100	80 - 120
Beryllium	0.100	0.1100		mg/L		110	80 - 120
Cadmium	0.100	0.1052		mg/L		105	80 - 120
Chromium	0.100	0.1059		mg/L		106	80 - 120
Cobalt	0.100	0.1027		mg/L		103	80 - 120
Lead	0.200	0.2114		mg/L		106	80 - 120
Lithium	0.200	0.2226		mg/L		111	80 - 120
Molybdenum	0.200	0.2236		mg/L		112	80 - 120
Selenium	0.400	0.3809		mg/L		95	80 - 120
Thallium	0.100	0.1094		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-476313/1-A
Matrix: Water
Analysis Batch: 476495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 476313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		12/12/25 12:55	12/15/25 09:13	1

Lab Sample ID: LCS 310-476313/2-A
Matrix: Water
Analysis Batch: 476495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 476313

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001627		mg/L		98	80 - 120

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-476365/41
 Matrix: Water
 Analysis Batch: 476365

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			12/12/25 14:53	1

Lab Sample ID: MB 310-476365/5
 Matrix: Water
 Analysis Batch: 476365

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.100		0.100		mg/L			12/12/25 12:51	1

Lab Sample ID: LCS 310-476365/46
 Matrix: Water
 Analysis Batch: 476365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.093		mg/L		105	90 - 110

Lab Sample ID: LCS 310-476365/6
 Matrix: Water
 Analysis Batch: 476365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	1.968		mg/L		98	90 - 110

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-749158/1-A
 Matrix: Water
 Analysis Batch: 752497

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 749158

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01482	U	0.141	0.141	1.00	0.302	pCi/L	12/12/25 07:50	01/05/26 21:10	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		30 - 110	12/12/25 07:50	01/05/26 21:10	1

Lab Sample ID: LCS 160-749158/2-A
 Matrix: Water
 Analysis Batch: 752497

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 749158

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57	8.662		1.18	1.00	0.342	pCi/L	90	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.2		30 - 110

Eurofins Cedar Falls

QC Sample Results

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-749159/1-A
Matrix: Water
Analysis Batch: 752497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 749159

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3887	U	0.369	0.371	1.00	0.588	pCi/L	12/12/25 07:53	01/05/26 12:19	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	86.0		30 - 110		12/12/25 07:53	01/05/26 12:19	1			
Y Carrier	80.4		30 - 110		12/12/25 07:53	01/05/26 12:19	1			

Lab Sample ID: LCS 160-749159/2-A
Matrix: Water
Analysis Batch: 752497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 749159

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec
				Uncert. (2σ+/-)					Limits
Radium-228	7.80	9.235		1.34	1.00	0.647	pCi/L	118	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	83.2		30 - 110						
Y Carrier	81.9		30 - 110						

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Metals

Prep Batch: 476213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	3005A	
310-322111-2	Duplicate	Total/NA	Water	3005A	
MB 310-476213/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-476213/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 476313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	7470A	
310-322111-2	Duplicate	Total/NA	Water	7470A	
MB 310-476313/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-476313/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 476495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	7470A	476313
310-322111-2	Duplicate	Total/NA	Water	7470A	476313
MB 310-476313/1-A	Method Blank	Total/NA	Water	7470A	476313
LCS 310-476313/2-A	Lab Control Sample	Total/NA	Water	7470A	476313

Analysis Batch: 476903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	6020B	476213
310-322111-2	Duplicate	Total/NA	Water	6020B	476213
MB 310-476213/1-A	Method Blank	Total/NA	Water	6020B	476213
LCS 310-476213/2-A	Lab Control Sample	Total/NA	Water	6020B	476213

General Chemistry

Analysis Batch: 476365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	4500 F C-2011	
310-322111-2	Duplicate	Total/NA	Water	4500 F C-2011	
MB 310-476365/41	Method Blank	Total/NA	Water	4500 F C-2011	
MB 310-476365/5	Method Blank	Total/NA	Water	4500 F C-2011	
LCS 310-476365/46	Lab Control Sample	Total/NA	Water	4500 F C-2011	
LCS 310-476365/6	Lab Control Sample	Total/NA	Water	4500 F C-2011	

Rad

Prep Batch: 749158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	PrecSep-21	
310-322111-2	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-749158/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-749158/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 749159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322111-1	APMW-11	Total/NA	Water	PrecSep_0	
310-322111-2	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-749159/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-749159/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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Lab Chronicle

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Client Sample ID: APMW-11
Date Collected: 12/08/25 17:15
Date Received: 12/10/25 08:20

Lab Sample ID: 310-322111-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476213	F8JX	EET CF	12/12/25 14:46
Total/NA	Analysis	6020B		1	476903	NFT2	EET CF	12/18/25 14:34
Total/NA	Prep	7470A			476313	RLT9	EET CF	12/12/25 12:55
Total/NA	Analysis	7470A		1	476495	RLT9	EET CF	12/15/25 10:07
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 14:03
Total/NA	Prep	PrecSep-21			749158	VLQ	EET SL	12/12/25 07:50
Total/NA	Analysis	9315		1	752497	SWS	EET SL	01/05/26 22:56
Total/NA	Prep	PrecSep_0			749159	VLQ	EET SL	12/12/25 07:53
Total/NA	Analysis	9320		1	752499	SWS	EET SL	01/05/26 12:35
Total/NA	Analysis	Ra226_Ra228		1	752849	SCB	EET SL	01/07/26 17:20

Client Sample ID: Duplicate
Date Collected: 12/08/25 17:31
Date Received: 12/10/25 08:20

Lab Sample ID: 310-322111-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476213	F8JX	EET CF	12/12/25 14:46
Total/NA	Analysis	6020B		1	476903	NFT2	EET CF	12/18/25 14:37
Total/NA	Prep	7470A			476313	RLT9	EET CF	12/12/25 12:55
Total/NA	Analysis	7470A		1	476495	RLT9	EET CF	12/15/25 10:09
Total/NA	Analysis	4500 F C-2011		1	476365	WZC8	EET CF	12/12/25 14:06
Total/NA	Prep	PrecSep-21			749158	VLQ	EET SL	12/12/25 07:50
Total/NA	Analysis	9315		1	752497	SWS	EET SL	01/05/26 22:56
Total/NA	Prep	PrecSep_0			749159	VLQ	EET SL	12/12/25 07:53
Total/NA	Analysis	9320		1	752499	SWS	EET SL	01/05/26 12:35
Total/NA	Analysis	Ra226_Ra228		1	752849	SCB	EET SL	01/07/26 17:20

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Nebraska Public Power District
 Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-26

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-26
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-26
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-26
Kentucky (DW)	State	KY90125	12-31-25 *
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-26
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-26
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-26
Oklahoma	NELAP	9997	12-31-25 *
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-26
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-26

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

Method Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

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

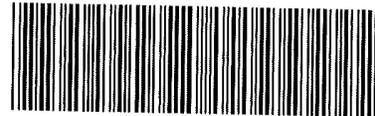
Laboratory References:

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

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



Environment Testing
America



310-322111 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>Nebraska Public Power District</u>			
City/State:	CITY <u>Sutherland</u>	STATE <u>NE</u>	Project
Receipt Information			
Date/Time Received:	DATE <u>12-10-25</u>	TIME <u>0820</u>	Received By: <u>BP</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. _____			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler # _____ of _____			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input 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>BB</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>1.1</u>		Corrected Temp (°C): <u>1.1</u>	
• Sample Container Temperature			
Container(s) used.	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
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			



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-322111-2

Login Number: 322111

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-322111-2

Login Number: 322111

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 12/11/25 01:46 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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: Nebraska Public Power District
Project/Site: GGS Ash Pit Assessment Monitoring

Job ID: 310-322111-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)							
310-322111-1	APMW-11	88.8							
310-322111-2	Duplicate	89.4							
LCS 160-749158/2-A	Lab Control Sample	83.2							
MB 160-749158/1-A	Method Blank	86.0							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
310-322111-1	APMW-11	88.8	80.0						
310-322111-2	Duplicate	89.4	84.5						
LCS 160-749159/2-A	Lab Control Sample	83.2	81.9						
MB 160-749159/1-A	Method Blank	86.0	80.4						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

APPENDIX B

Comparative Statistical Results

Table 1: Comparative Statistics - APMW-5 (Upgradient)

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	***	--	--	***	--	--
Calcium, Total	mg/L	CUSUM	120.2	***	--	--	***	--	--
Chloride	mg/L	CUSUM	108.1	***	--	--	***	--	--
Fluoride	mg/L	CUSUM	1.785	***	--	--	***	--	--
pH, Field	pH units	NP-PL	7.23, 9.71	***	--	--	***	--	--
Sulfate	mg/L	CUSUM	76.9	***	--	--	***	--	--
Total Dissolved Solids	mg/L	CUSUM	653	***	--	--	***	--	--

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

*** APMW-5 was dry during the Q2 and Q4 2025 sampling event. See text for details.

Table 2: Comparative Statistics - APMW-15 (Upgradient)

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	0.121	--	Yes	0.129	--	Yes
Calcium, Total	mg/L	CUSUM	145.0	97.2	106	Yes	97.0	106	Yes
Chloride	mg/L	CUSUM	40.4	22.8	34.0	Yes	27.3	34.0	Yes
Fluoride	mg/L	NP-PL	0.716	0.319	--	Yes	0.295	--	Yes
pH, Field	pH units	CUSUM	6.24, 8.15	7.16	7.20, 7.20	Yes	7.36	7.20, 7.20	Yes
Sulfate ¹	mg/L	CUSUM	209	137	138	Yes	125	138	Yes
Total Dissolved Solids	mg/L	CUSUM	853	528	585	Yes	496	585	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

* See text for discussion of non-detects greater than the statistical

Table 3: Comparative Statistics - APMW-16A (Upgradient)

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	0.124	--	Yes	0.151	--	Yes
Calcium, Total ¹	mg/L	CUSUM	199.3	101	133.3	Yes	104.0	133.3	Yes
Chloride ¹	mg/L	CUSUM	126.2	30.7	56.0	Yes	33.2	56.0	Yes
Fluoride	mg/L	NP-PL	1.490	0.352	--	Yes	0.346	--	Yes
pH, Field	pH units	CUSUM	6.08, 8.00	7.01	7.04, 7.04	Yes	7.16	7.04, 7.04	Yes
Sulfate ¹	mg/L	CUSUM	278	160	193	Yes	147	193	Yes
Total Dissolved Solids ¹	mg/L	CUSUM	1046	584	714	Yes	548	714	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

1. Seasonality was detected in the baseline period. Statistical limits may vary slightly between monitoring events due to deseasonalization of the data or if seasonality is not identified in the full data set (i.e. the baseline period and any comparative points).

Table 4: Comparative Statistics - APMW-17 (Upgradient)

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	184	114	140	Yes	107	140	Yes
Chloride	mg/L	CUSUM	59.0	31.6	42.5	Yes	35.0	42.5	Yes
Fluoride	mg/L	NP-PL	1.070	0.229	--	Yes	0.197	--	Yes
pH, Field	pH units	CUSUM	5.99, 7.88	7.05	7.12, 7.12	Yes	7.20	7.12, 7.12	Yes
Sulfate	mg/L	CUSUM	225	127	142	Yes	103	142	Yes
Total Dissolved Solids	mg/L	CUSUM	927	504	589	Yes	476	589	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 5: Comparative Statistics - APMW-4

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			4/21/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	***	--	--
Calcium, Total	mg/L	CUSUM	64.3	44.4	55.1	Yes	***	--	--
Chloride	mg/L	CUSUM	51.4	45.1	45.0	Yes	***	--	--
Fluoride	mg/L	NP-PL	0.569	0.346	--	Yes	***	--	--
pH, Field	pH units	CUSUM	6.21, 9.02	7.82	7.62, 7.62	Yes	***	--	--
Sulfate	mg/L	CUSUM	40.5	29.3	28.0	Yes	***	--	--
Total Dissolved Solids	mg/L	CUSUM	428	276	306.3	Yes	***	--	--

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

*** APMW-4 was dry during the Q4 2025 sampling event. See text for details.

Table 6: Comparative Statistics - APMW-6

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	65.7	45.6	52.4	Yes	52.7	52.4	Yes
Chloride	mg/L	CUSUM	20.4	31.4	119.0	No - Ongoing Verified Exceedance	39.3	145.5	No - Ongoing Verified Exceedance
Fluoride	mg/L	NP-PL	0.713	0.364	--	Yes	0.312	--	Yes
pH, Field	pH units	CUSUM	6.24, 8.62	7.53	7.43, 7.43	Yes	7.57	7.43, 7.43	Yes
Sulfate	mg/L	CUSUM	38.4	27.7	28.1	Yes	25.4	28.1	Yes
Total Dissolved Solids	mg/L	CUSUM	414	272	291	Yes	266	291	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

* See text for discussion of non-detects greater than the statistical limit and changes to the reporting limit for Fluoride.

Table 7: Comparative Statistics - APMW-8A

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	175.6	94.4	105.7	Yes	91.8	105.7	Yes
Chloride	mg/L	CUSUM	104.9	85.6	81.7	Yes	92.8	86.5	Yes
Fluoride	mg/L	NP-PL	13.700	0.213	--	Yes	0.155	--	Yes
pH, Field	pH units	CUSUM	5.86, 8.61	7.15	7.23, 7.23	Yes	7.3	7.23, 7.23	Yes
Sulfate	mg/L	CUSUM	244.9	104.0	90.5	Yes	52.2	90.5	Yes
Total Dissolved Solids	mg/L	CUSUM	850	476	536	Yes	422	536	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 8: Comparative Statistics - APMW-10

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	78.3	52.8	62.5	Yes	52.7	62.5	Yes
Chloride	mg/L	CUSUM	63.8	24	38.1	Yes	25.7	38.1	Yes
Fluoride	mg/L	NP-PL	3.780	0.256	--	Yes	0.21	--	Yes
pH, Field	pH units	CUSUM	5.95, 8.89	7.46	7.42, 7.42	Yes	7.60	7.42, 7.42	Yes
Sulfate	mg/L	CUSUM	72.4	36.1	46.1	Yes	43.0	46.1	Yes
Total Dissolved Solids	mg/L	CUSUM	489	296	358	Yes	256	358	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 9: Comparative Statistics - APMW-11

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	101.7	71.4	81.6	Yes	74.5	81.6	Yes
Chloride	mg/L	CUSUM	137.0	20.1	74.2	Yes	25.3	74.16	Yes
Fluoride	mg/L	NP-PL	6.96	0.3005*	--	Yes	0.286*	--	Yes
pH, Field	pH units	CUSUM	6.89, 7.83	7.34	7.36, 7.38	Yes	7.44	7.36, 7.36	Yes
Sulfate	mg/L	CUSUM	75.0	59.6	97.8	No - Verified Exceedance	62.1	115.4	No - Ongoing Verified Exceedance
Total Dissolved Solids	mg/L	CUSUM	622	370	438	Yes	324	438	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

* Two sets of results were collected for fluoride for the CCR and Nebraska-specific sampling programs. Statistical analysis has been conducted on the average of both results, based on recommendations from the Unified Guidance (USEPA 2009).

Table 10: Comparative Statistics - APMW-12

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/9/2025		
Boron, Total	mg/L	CUSUM	0.389	0.259	0.283	Yes	0.265	0.283	Yes
Calcium, Total	mg/L	CUSUM	203	133	166	Yes	137	166	Yes
Chloride	mg/L	CUSUM	272	117	163	Yes	155	163	Yes
Fluoride	mg/L	NP-PL	21.300	0.131	--	Yes	0.101	--	Yes
pH, Field	pH units	CUSUM	6.28, 7.66	6.88	6.97, 6.97	Yes	6.95	6.97, 6.97	Yes
Sulfate	mg/L	CUSUM	383	246	302	Yes	252	302	Yes
Total Dissolved Solids	mg/L	CUSUM	1602	956	1108	Yes	924	1108	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 11: Comparative Statistics - APMW-13

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/6/2025			12/9/2025		
Boron, Total	mg/L	CUSUM	0.449	0.282	0.314	Yes	0.309	0.314	Yes
Calcium, Total	mg/L	CUSUM	196	138	148	Yes	125	148	Yes
Chloride	mg/L	CUSUM	190	122	141	Yes	126	141	Yes
Fluoride	mg/L	NP-PL	8.250	0.174	--	Yes	0.146	--	Yes
pH, Field	pH units	CUSUM	6.05, 8.11	6.96	7.08, 7.08	Yes	6.98	7.08, 7.08	Yes
Sulfate	mg/L	CUSUM	362	234	264	Yes	227	264	Yes
Total Dissolved Solids	mg/L	CUSUM	1215	970	1026	Yes	824	1026	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 12: Comparative Statistics - APMW-14

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/6/2025			12/9/2025		
Boron, Total	mg/L	CUSUM	0.382	0.227	0.261	Yes	0.299	0.269	Yes
Calcium, Total	mg/L	CUSUM	195	143	158	Yes	150	158	Yes
Chloride	mg/L	CUSUM	207	113	135	Yes	148	135	Yes
Fluoride	mg/L	NP-PL	19.200	0.163	--	Yes	0.172	--	Yes
pH, Field	pH units	CUSUM	6.03, 8.44	6.96	7.17, 7.17	Yes	6.98	7.17, 7.17	Yes
Sulfate	mg/L	CUSUM	272	164	217	Yes	196	217	Yes
Total Dissolved Solids	mg/L	CUSUM	1240	832	949	Yes	870	949	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 13: Comparative Statistics - APMW-18

		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units			5/5/2025			12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	103.7	78.7	89.4	Yes	82.6	85.4	Yes
Chloride	mg/L	CUSUM	160.4	81.2	159.3	Yes	116.0	193.4	No - Potential Exceedance
Fluoride	mg/L	NP-PL	1.740	0.228	--	Yes	0.216	--	Yes
pH, Field	pH units	CUSUM	5.99, 8.01	7.27	7.33, 7.33	Yes	7.43	7.33, 7.33	Yes
Sulfate	mg/L	CUSUM	147.7	33.5	38.3	Yes	25.1	38.3	Yes
Total Dissolved Solids	mg/L	CUSUM	638	388	401	Yes	346	401	Yes

Notes:

NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart

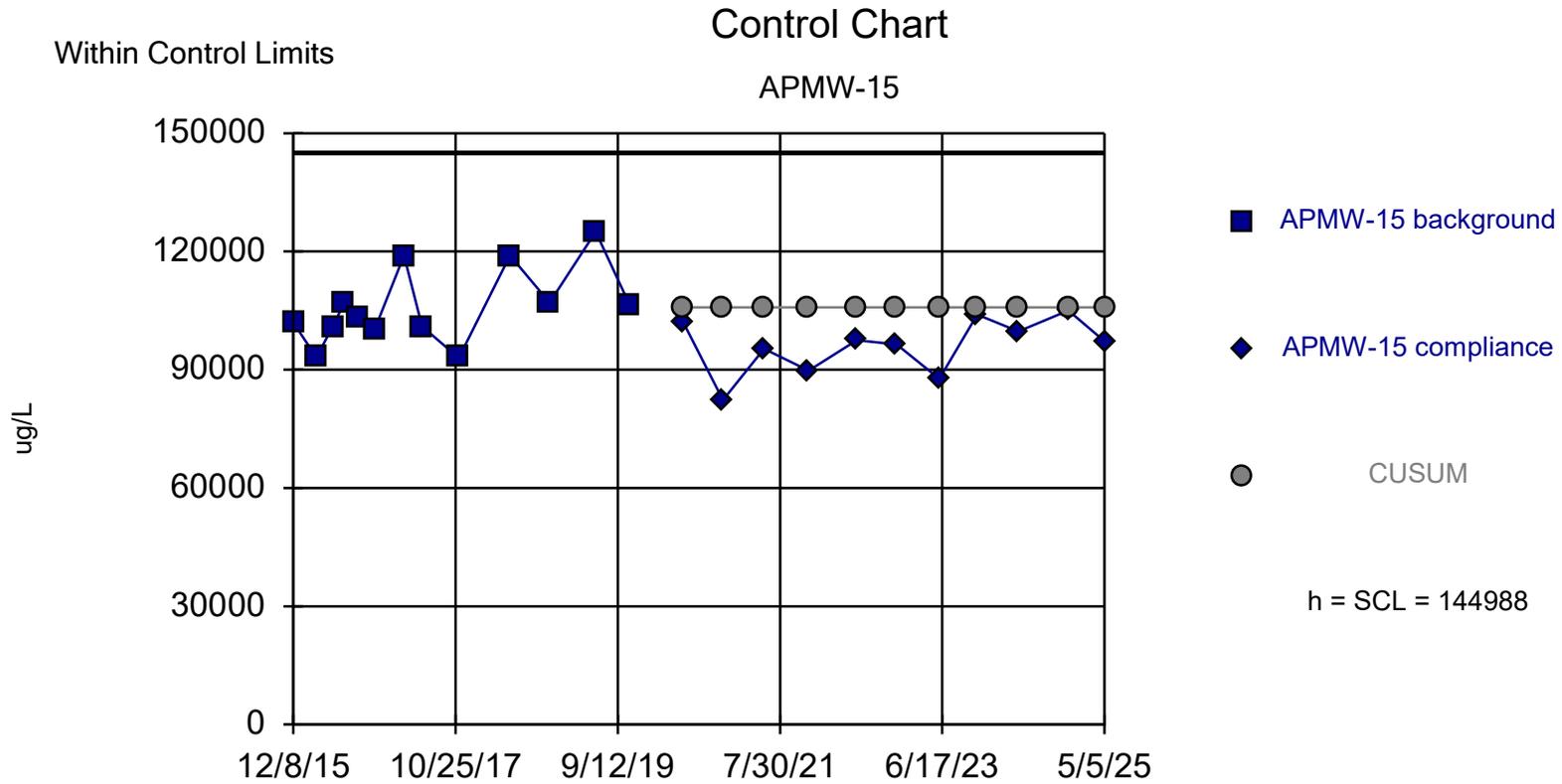
Table 14: Comparative Statistics - APMW-19

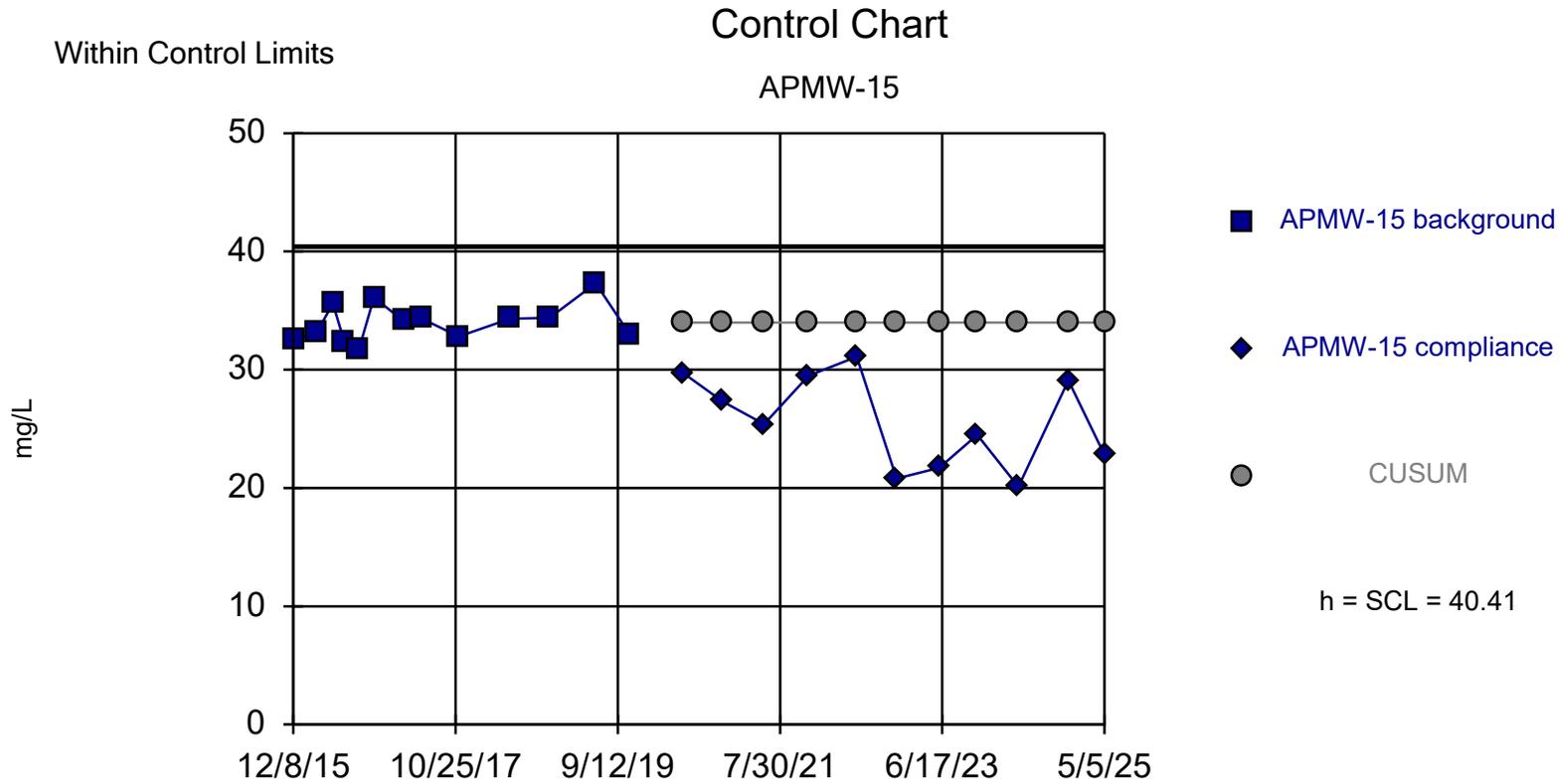
		Statistical Method	Statistical Limit	Detection Monitoring Result	CUSUM Value	Within Limit?	Detection Monitoring Result	CUSUM Value	Within Limit?
Detection Monitoring Analytes	Units						12/8/2025		
Boron, Total	mg/L	NP-PL	0.200	< 0.100	--	Yes	< 0.100	--	Yes
Calcium, Total	mg/L	CUSUM	142.9	67.7	85.3	Yes	72.1	85.3	Yes
Chloride	mg/L	CUSUM	71.7	30.8	40.0	Yes	33.9	40.0	Yes
Fluoride	mg/L	NP-PL	0.665	0.257	--	Yes	0.193	--	Yes
pH, Field	pH units	CUSUM	6.25, 8.29	7.24	7.27, 7.27	Yes	7.38	7.27, 7.27	Yes
Sulfate	mg/L	CUSUM	191.2	65.6	84.3	Yes	77.2	84.3	Yes
Total Dissolved Solids	mg/L	CUSUM	645	394	468	Yes	380	468	Yes

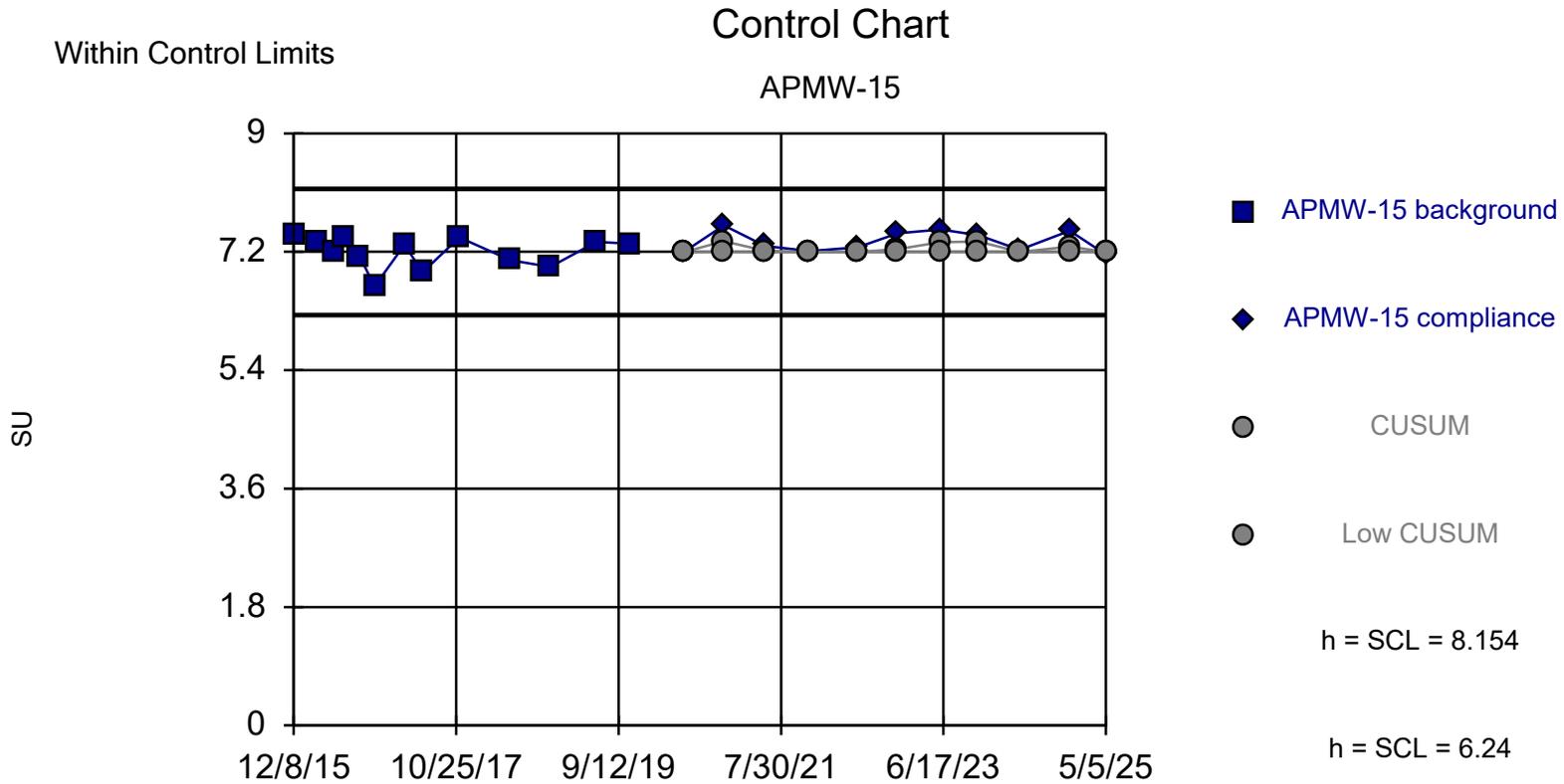
Notes:

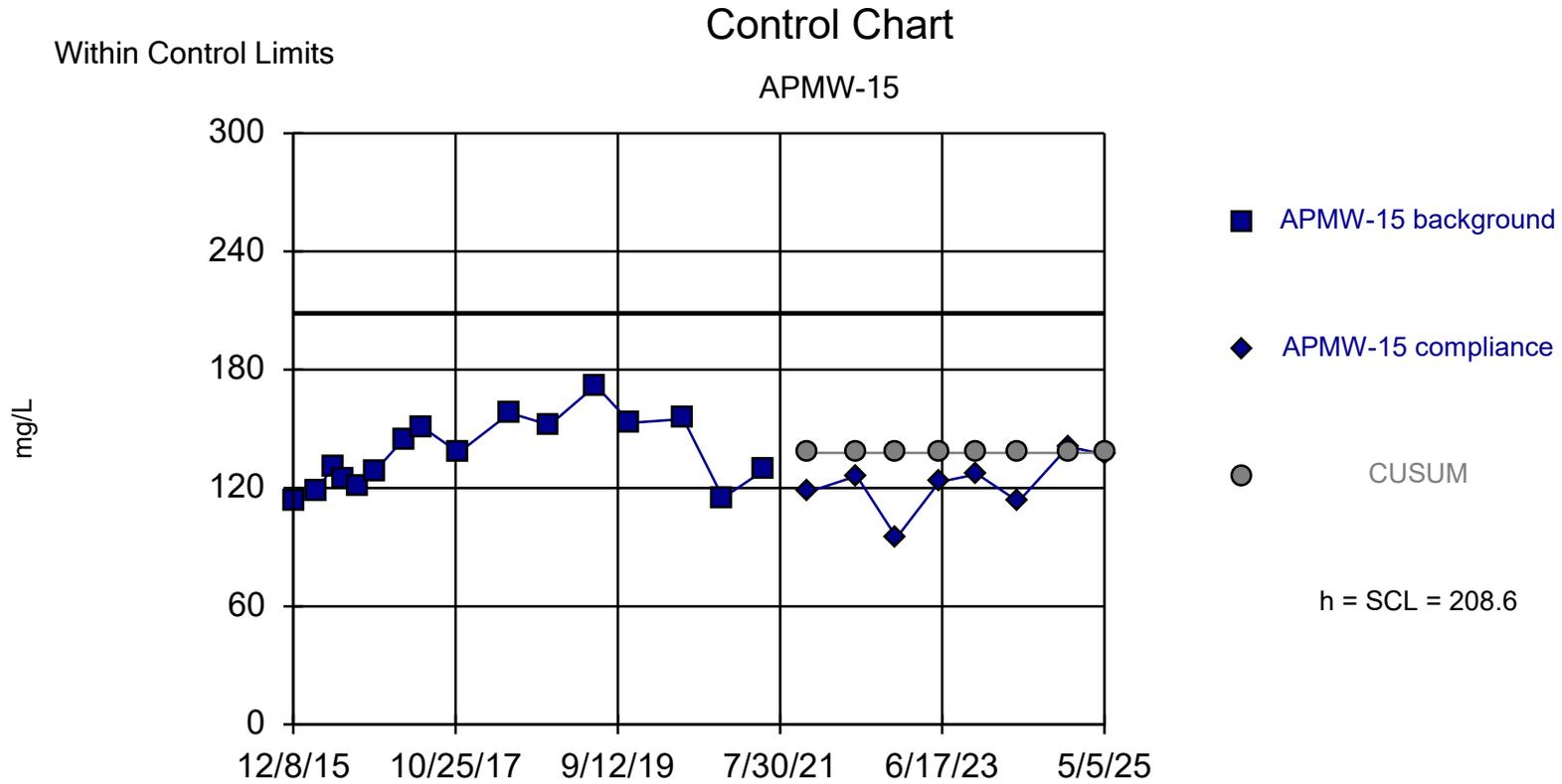
NP-PL: Non-Parametric Prediction Limit

CUSUM: Parametric Shewhart-CUSUM Control Chart





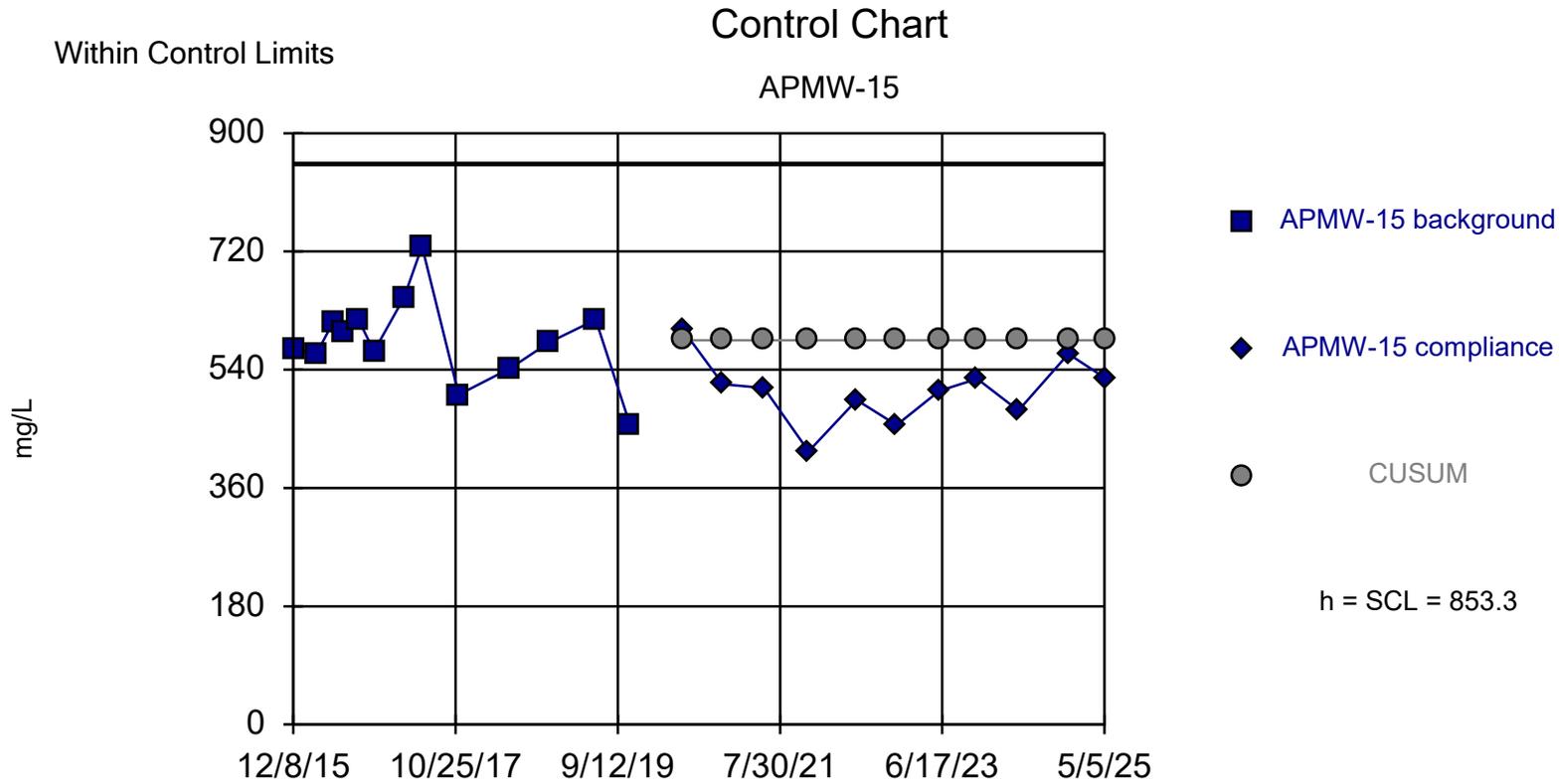




Background Data Summary: Mean=137.8, Std. Dev.=17.71, n=16. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.939, critical = 0.887. Report alpha = 0.01206. Dates ending 5/24/2021 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/13/2026 10:19 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



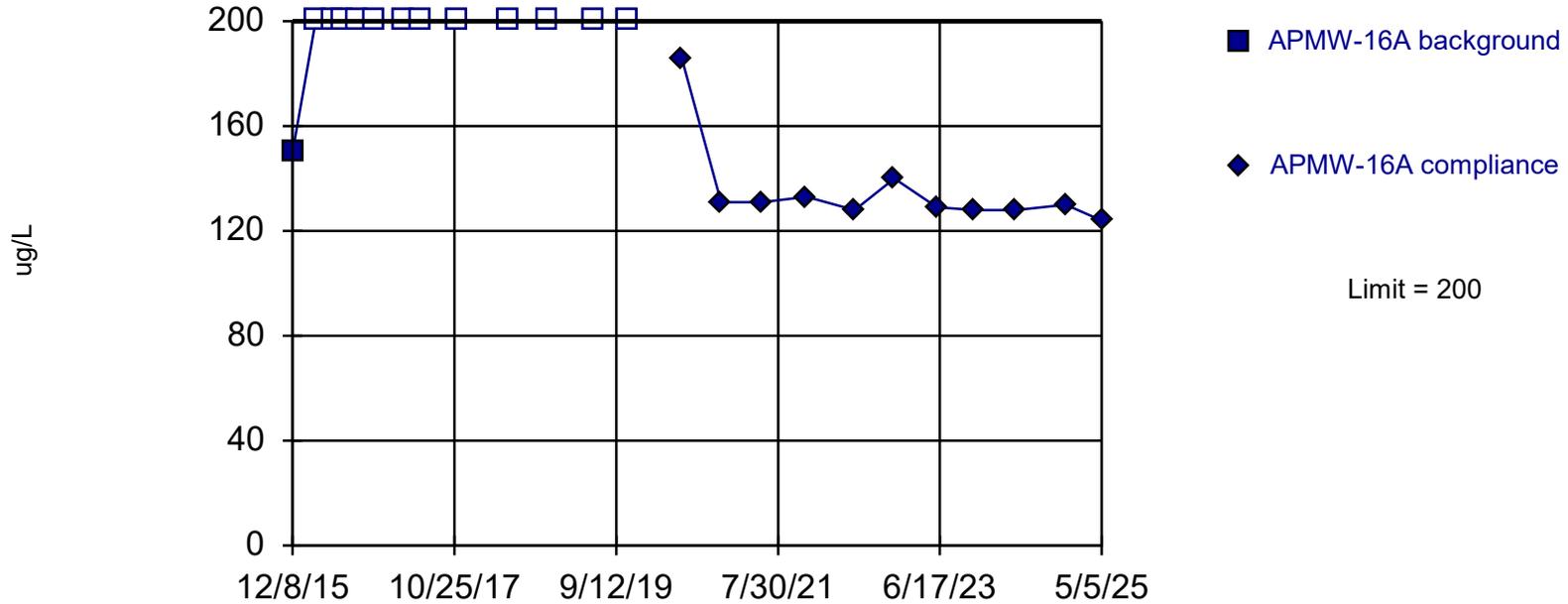
Background Data Summary: Mean=584.6, Std. Dev.=67.16, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9651, critical = 0.866. Report alpha = 0.02413. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

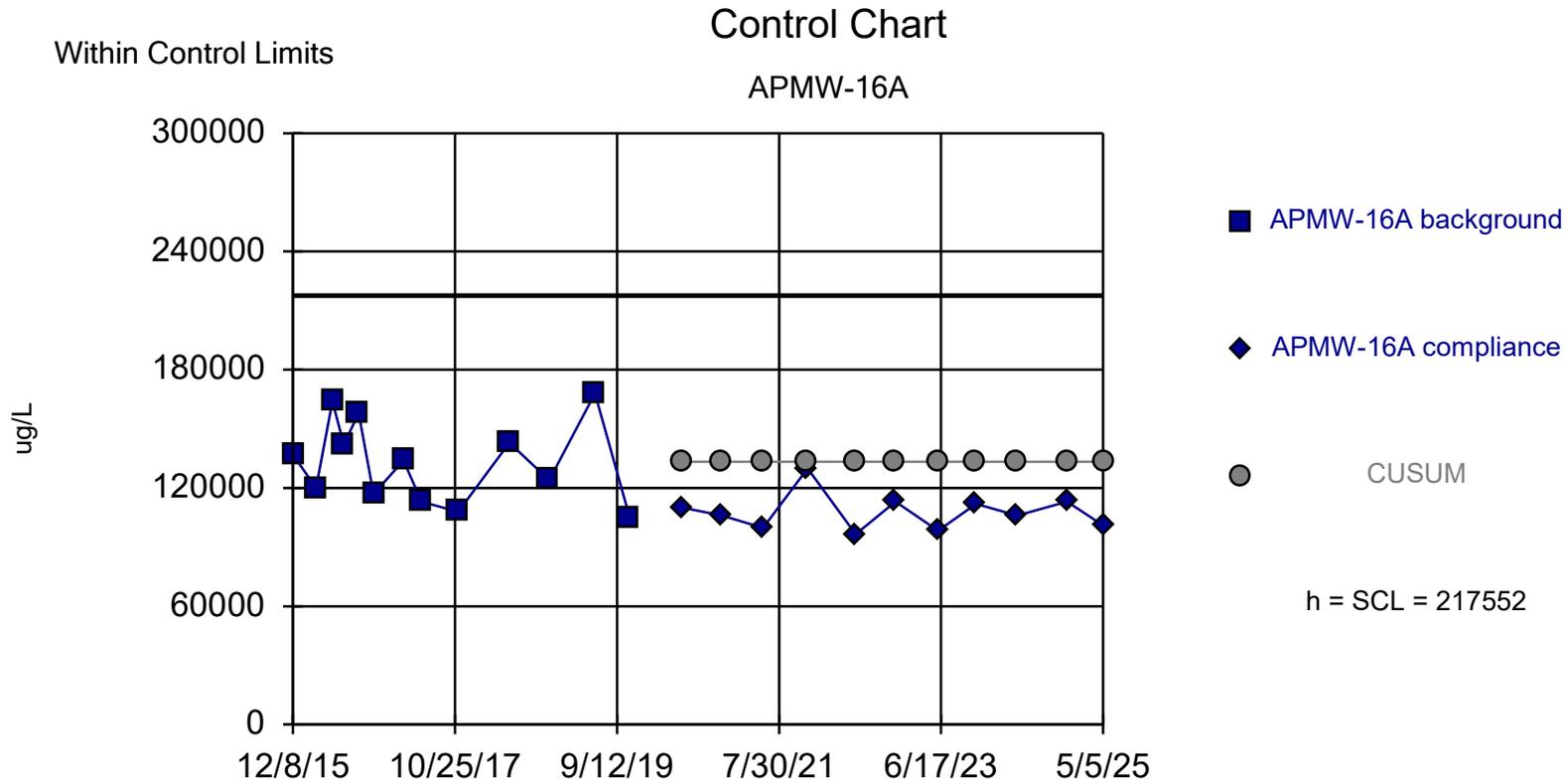
Constituent: Total Dissolved Solids Analysis Run 1/14/2026 11:40 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

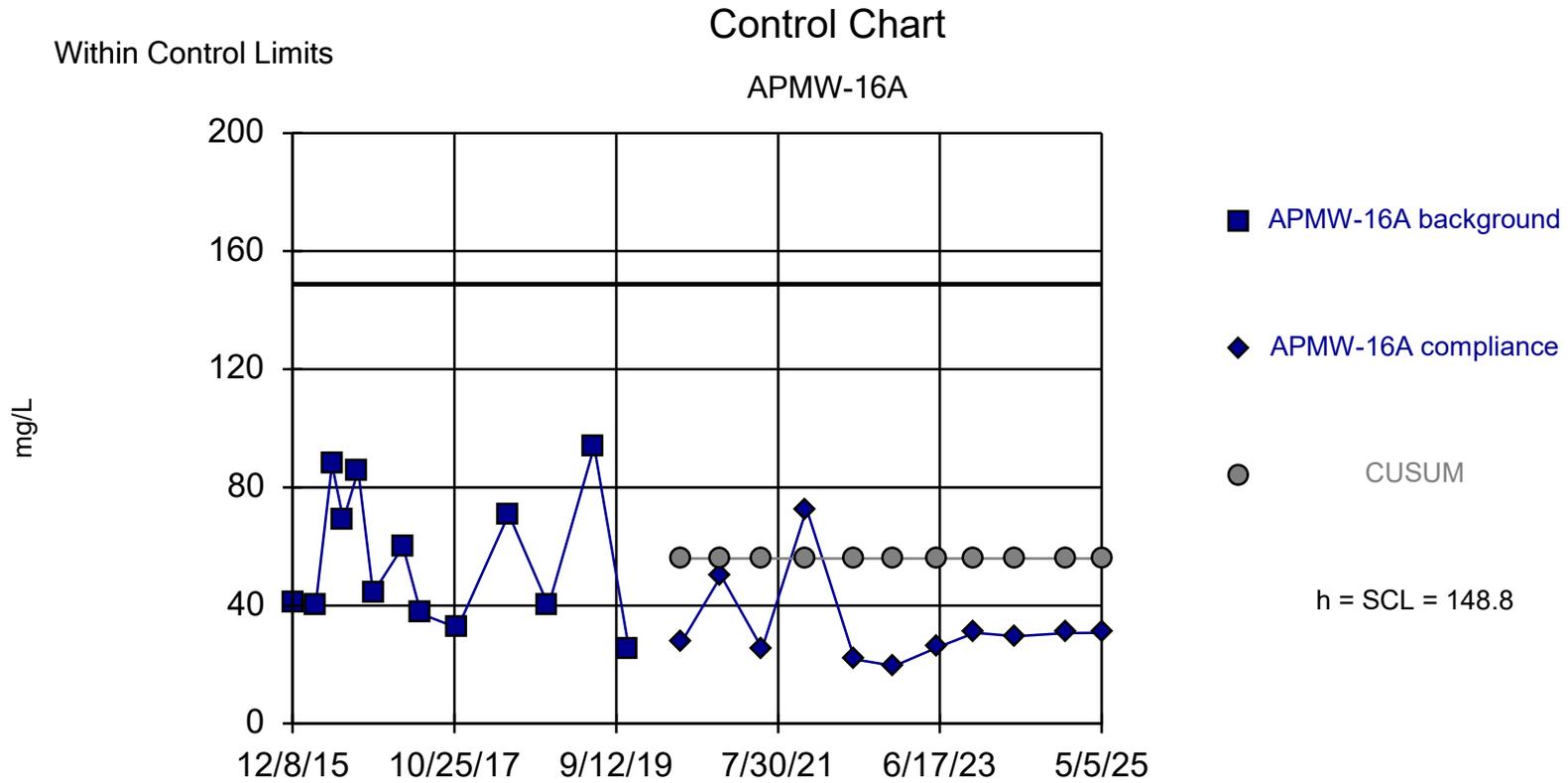
Within Limit

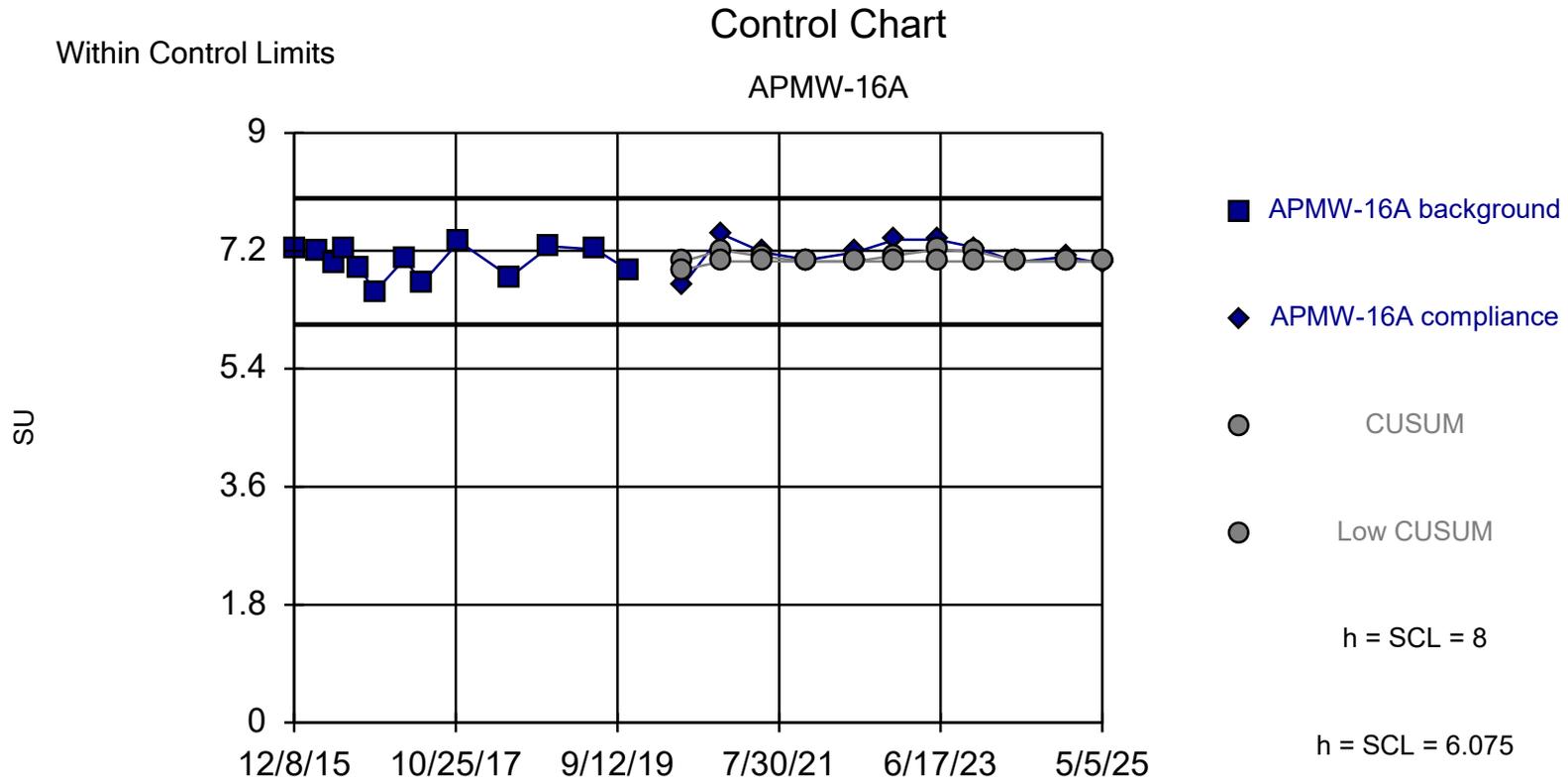
Prediction Limit

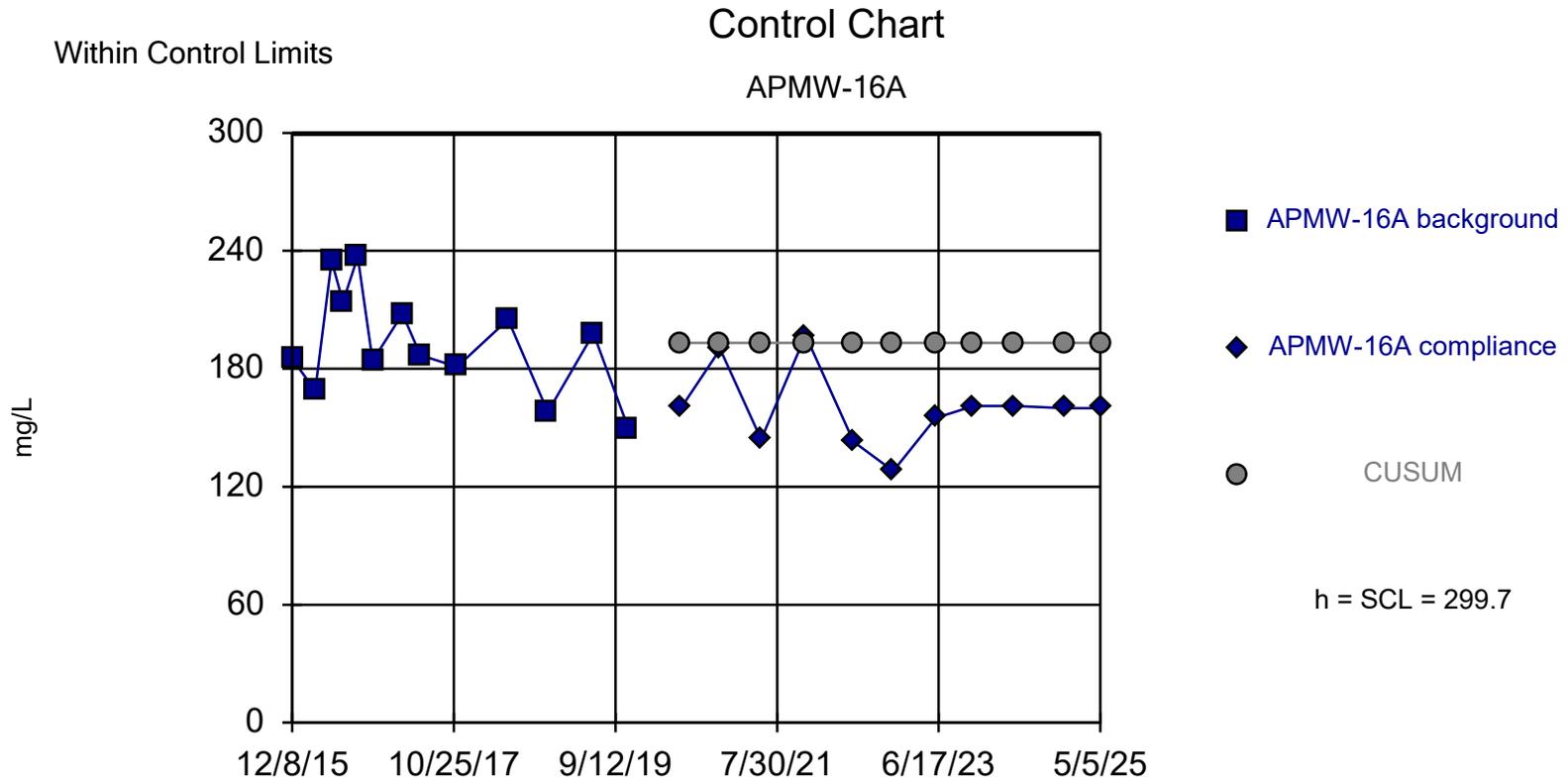
Intrawell Non-parametric







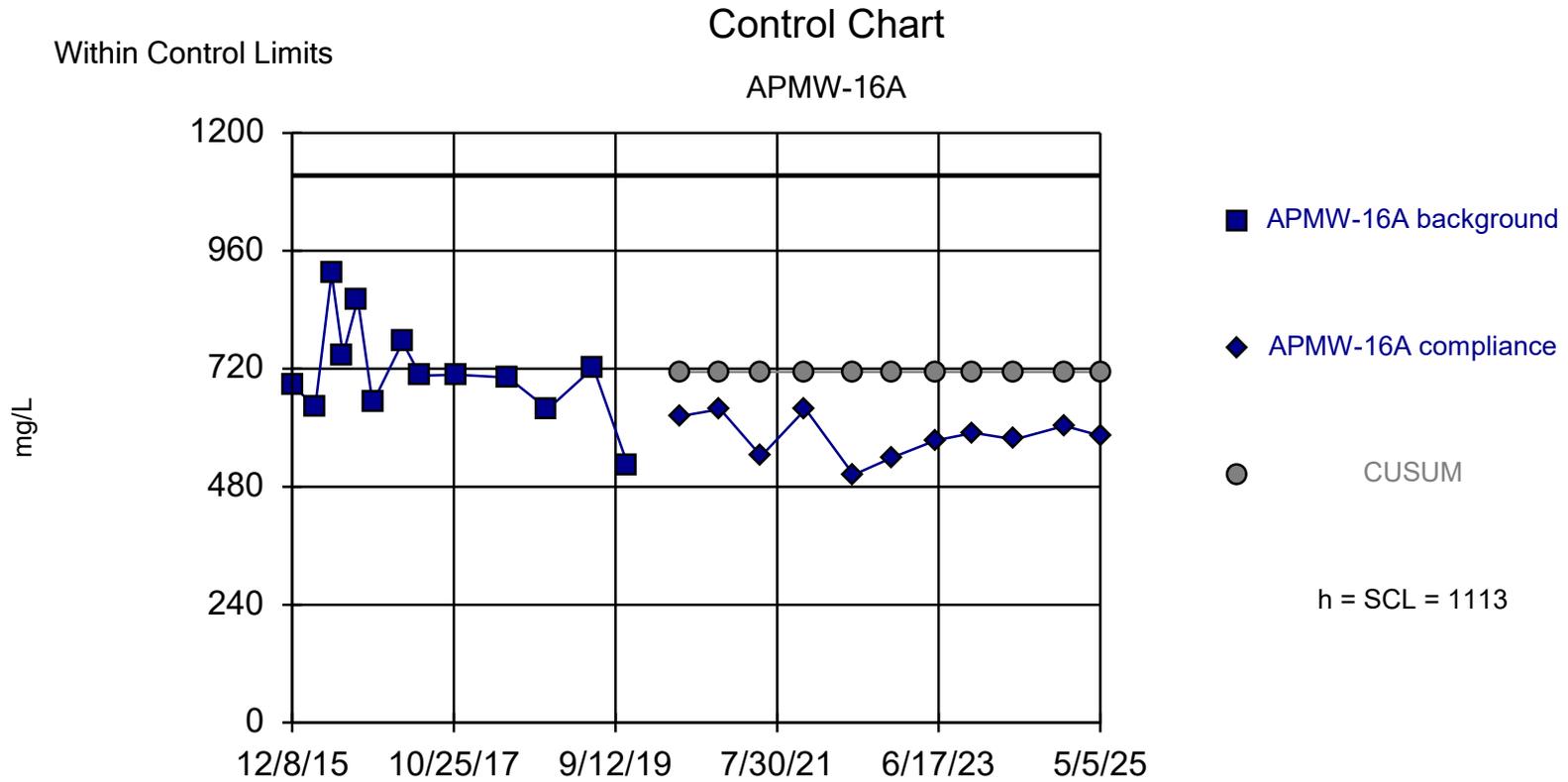


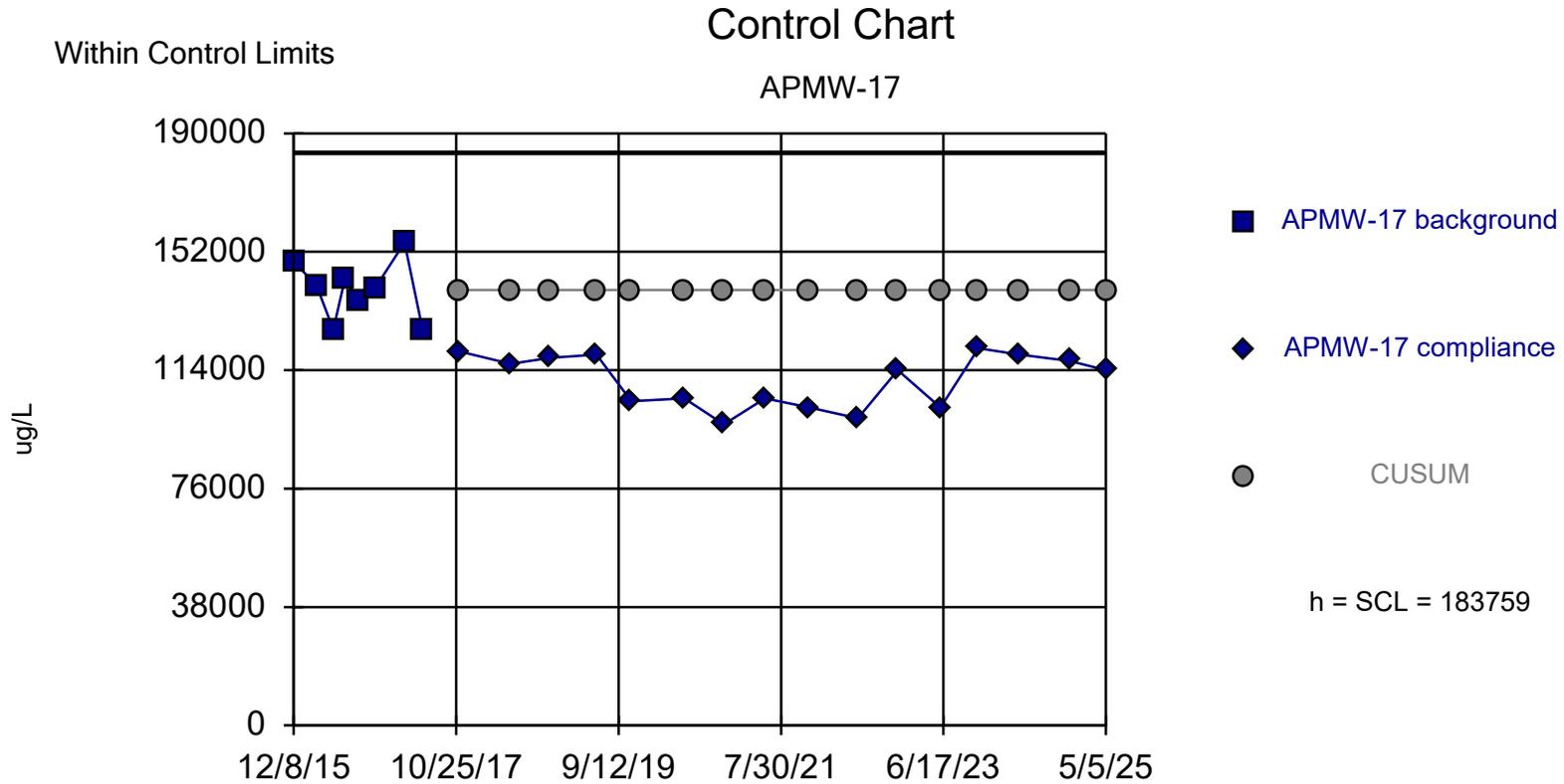


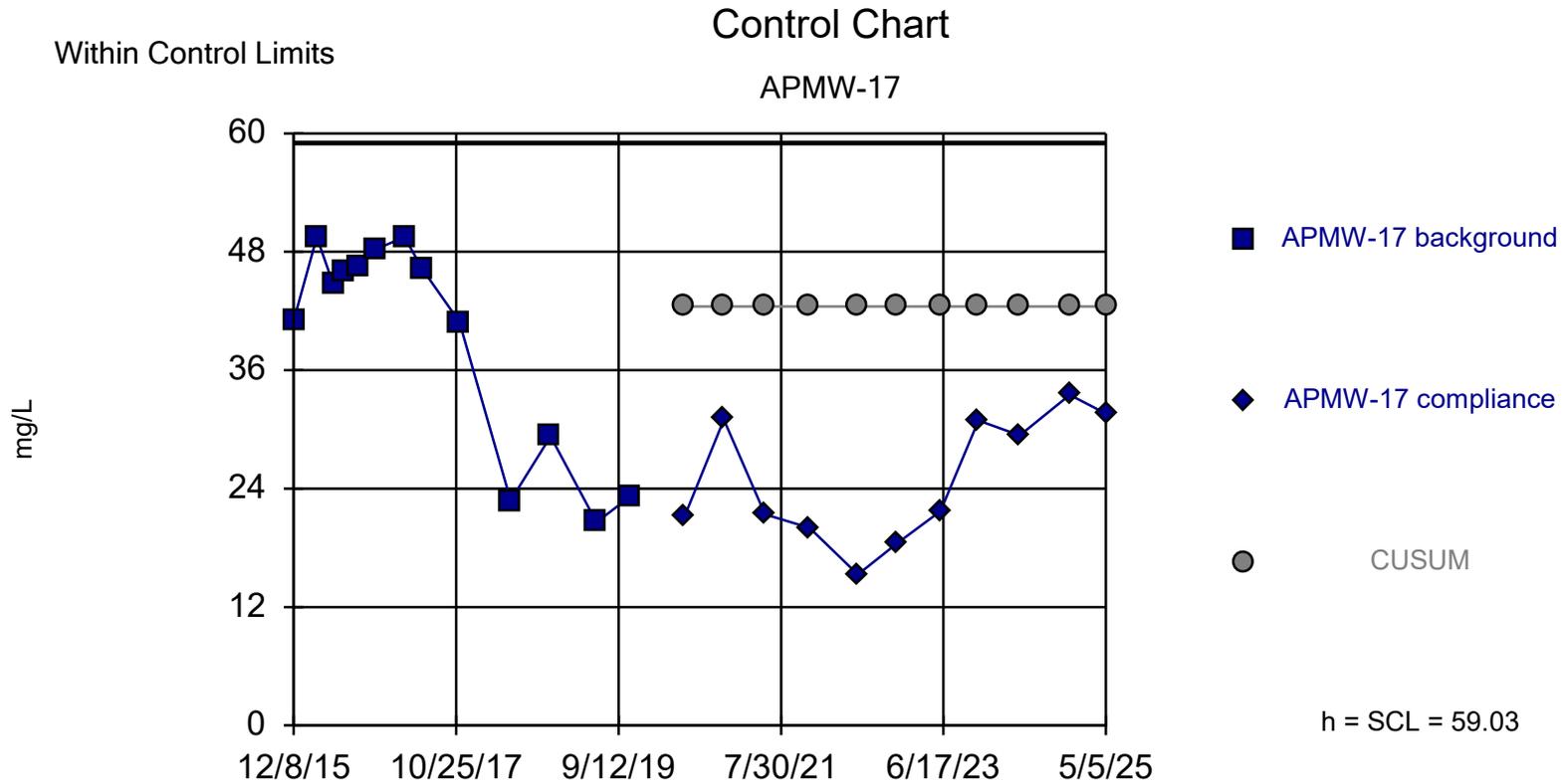
Background Data Summary: Mean=193.2, Std. Dev.=26.63, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9667, critical = 0.866. Report alpha = 0.02509. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

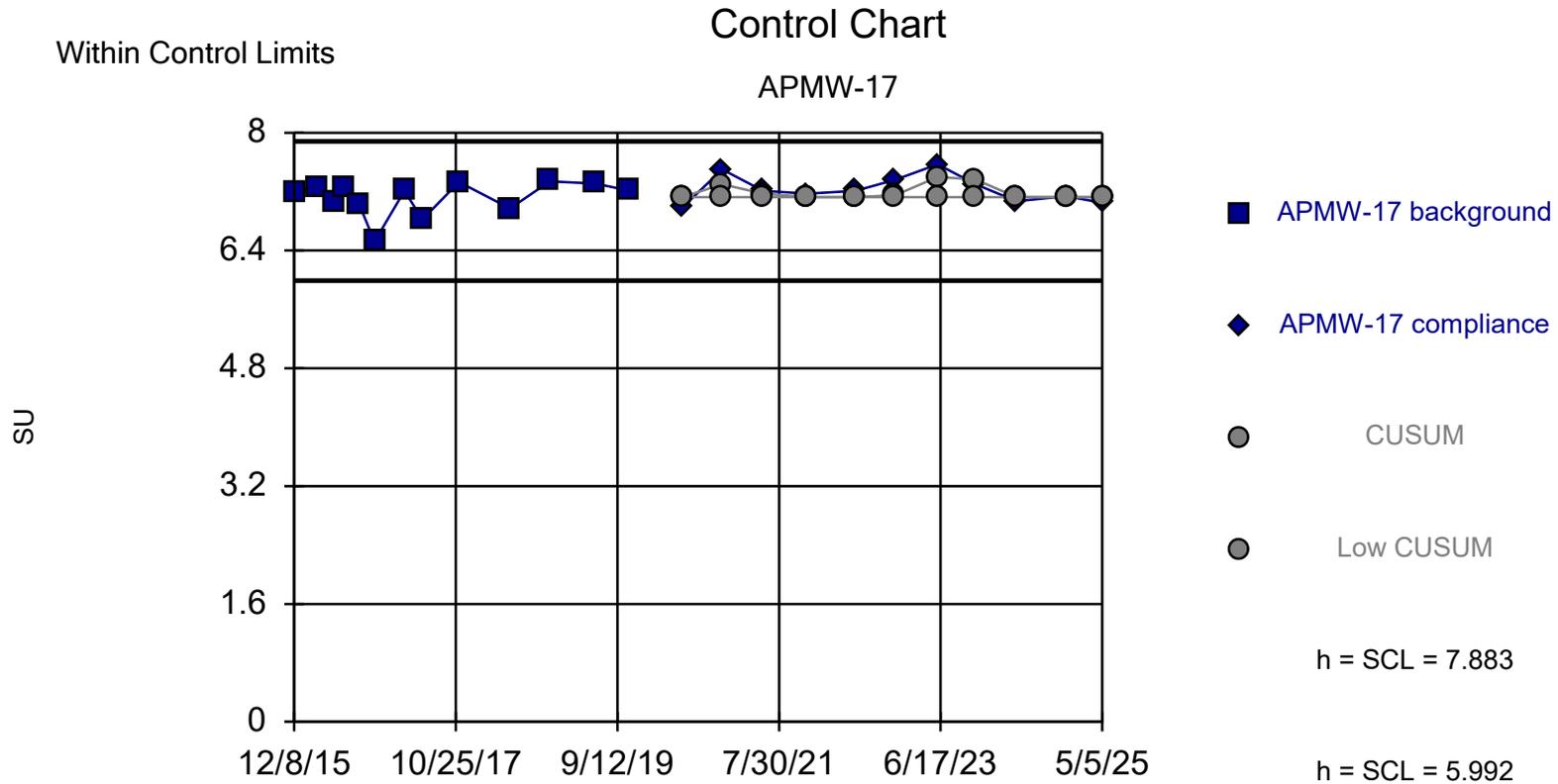
Constituent: Sulfate Analysis Run 1/14/2026 11:33 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



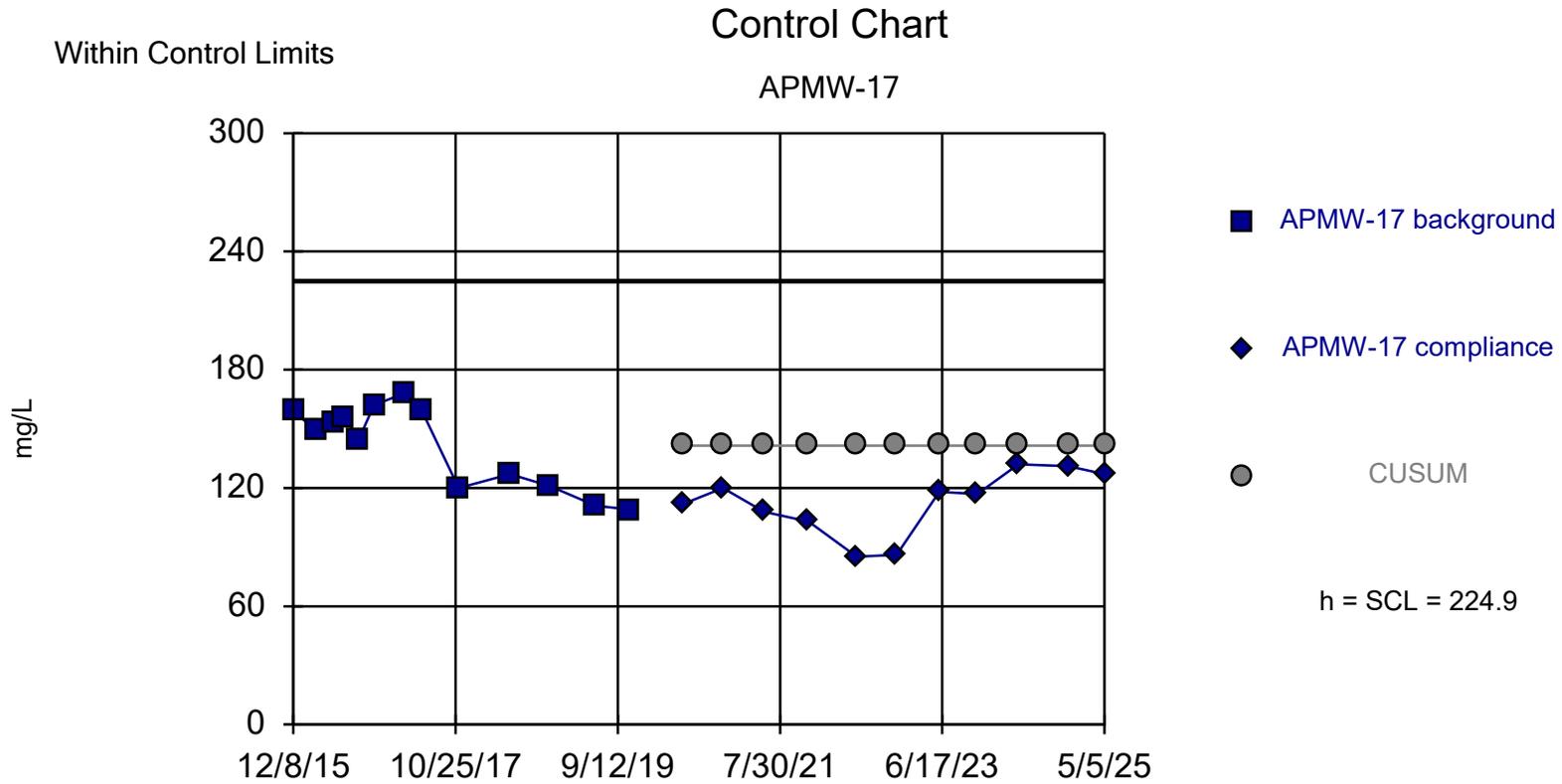


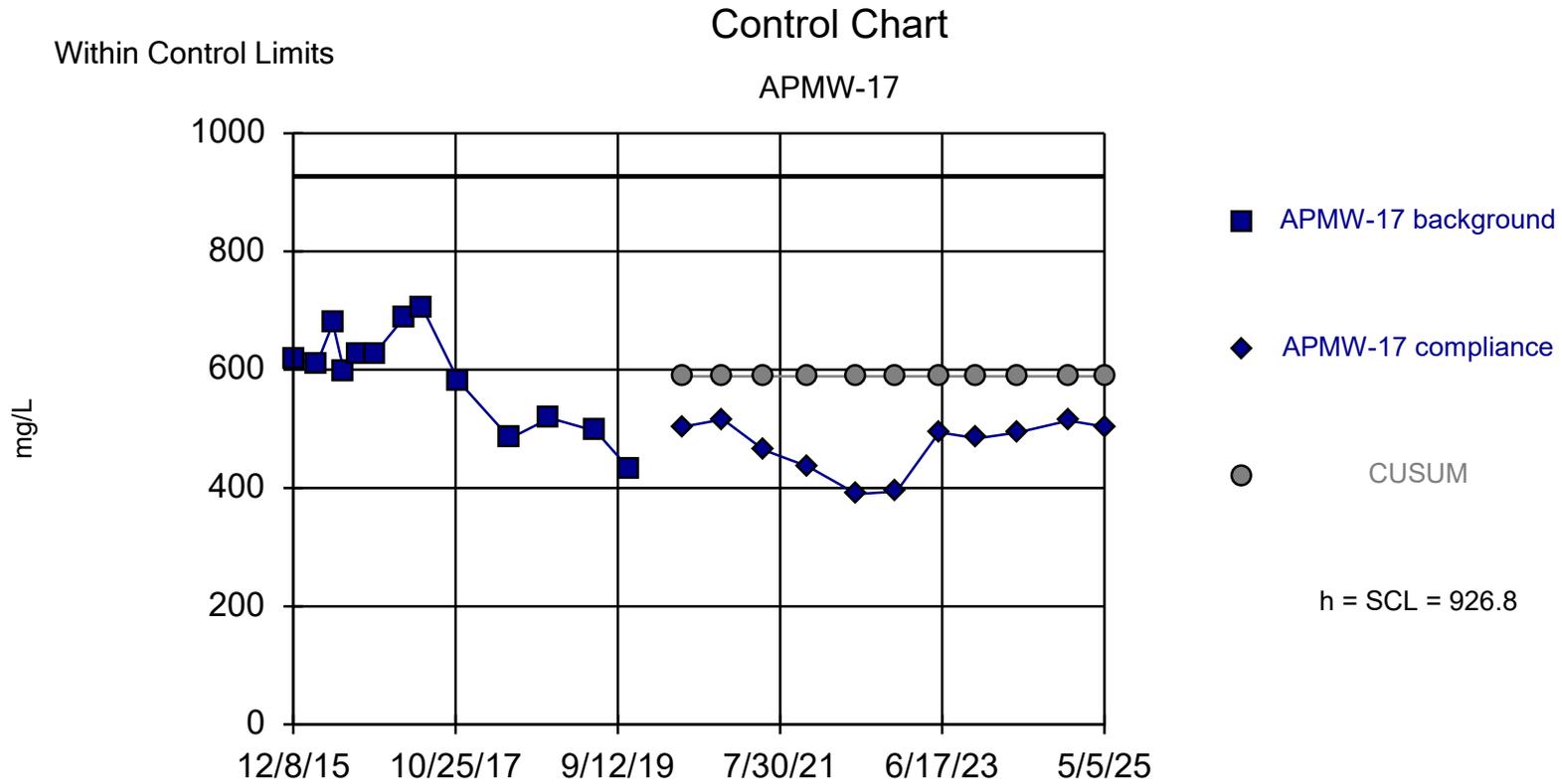




Background Data Summary (based on x^4 transformation): Mean=2575, Std. Dev.=321.6, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8721, critical = 0.866. Report alpha = 0.02444. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: pH, Field-Measured Analysis Run 1/14/2026 11:21 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

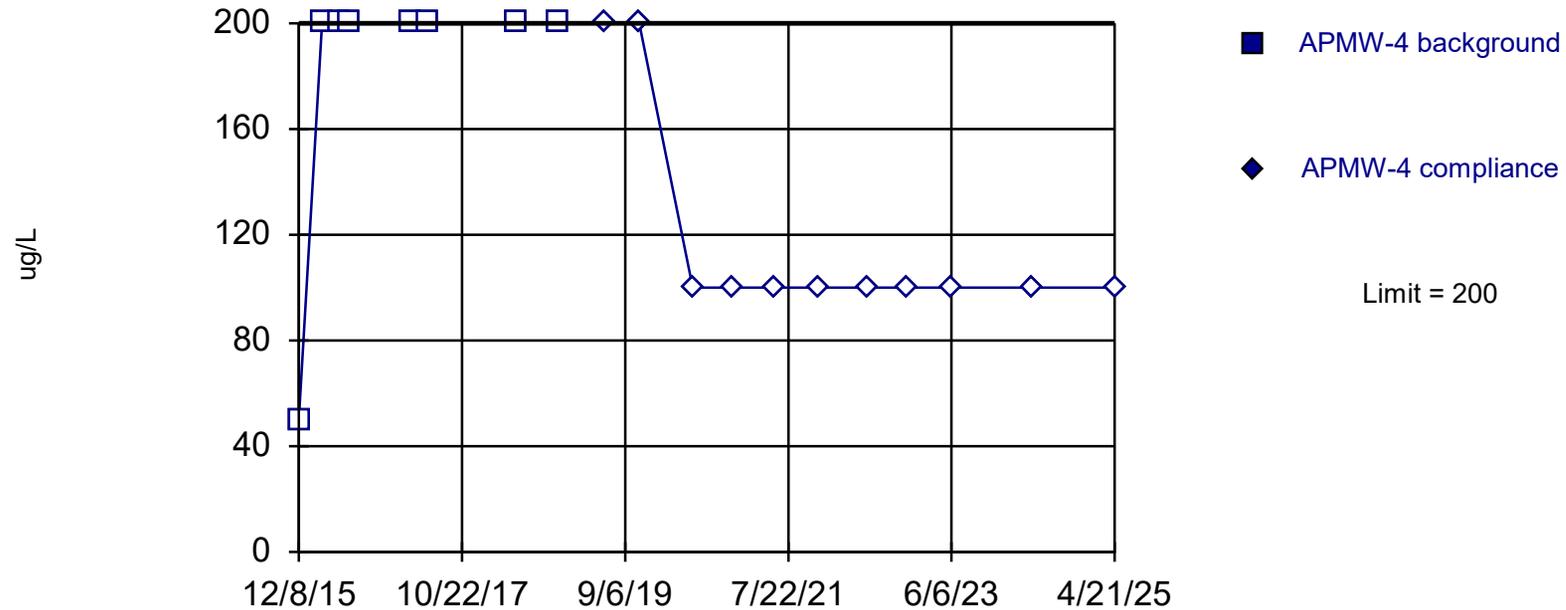




Within Limit

Prediction Limit

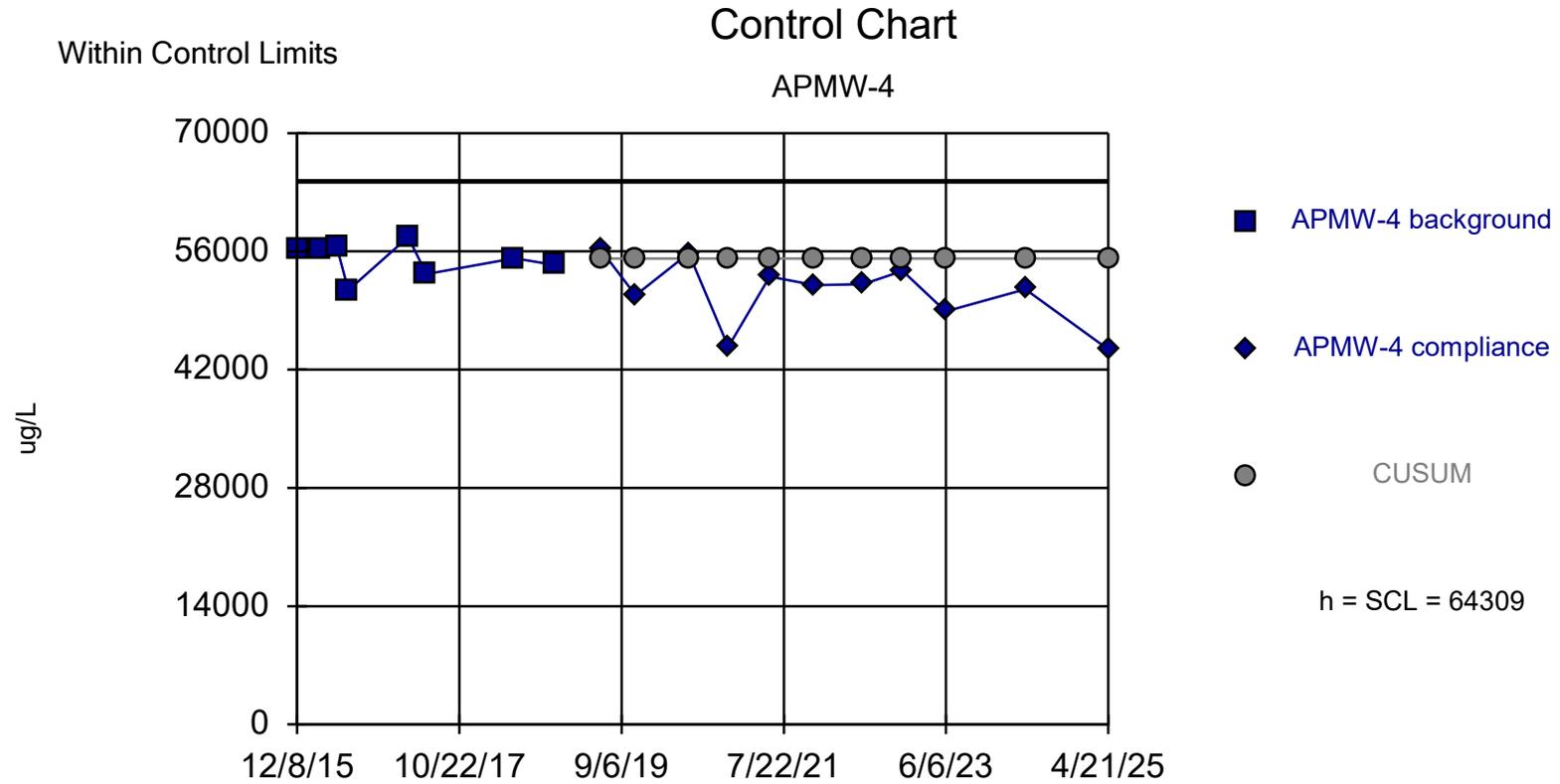
Intrawell Non-parametric

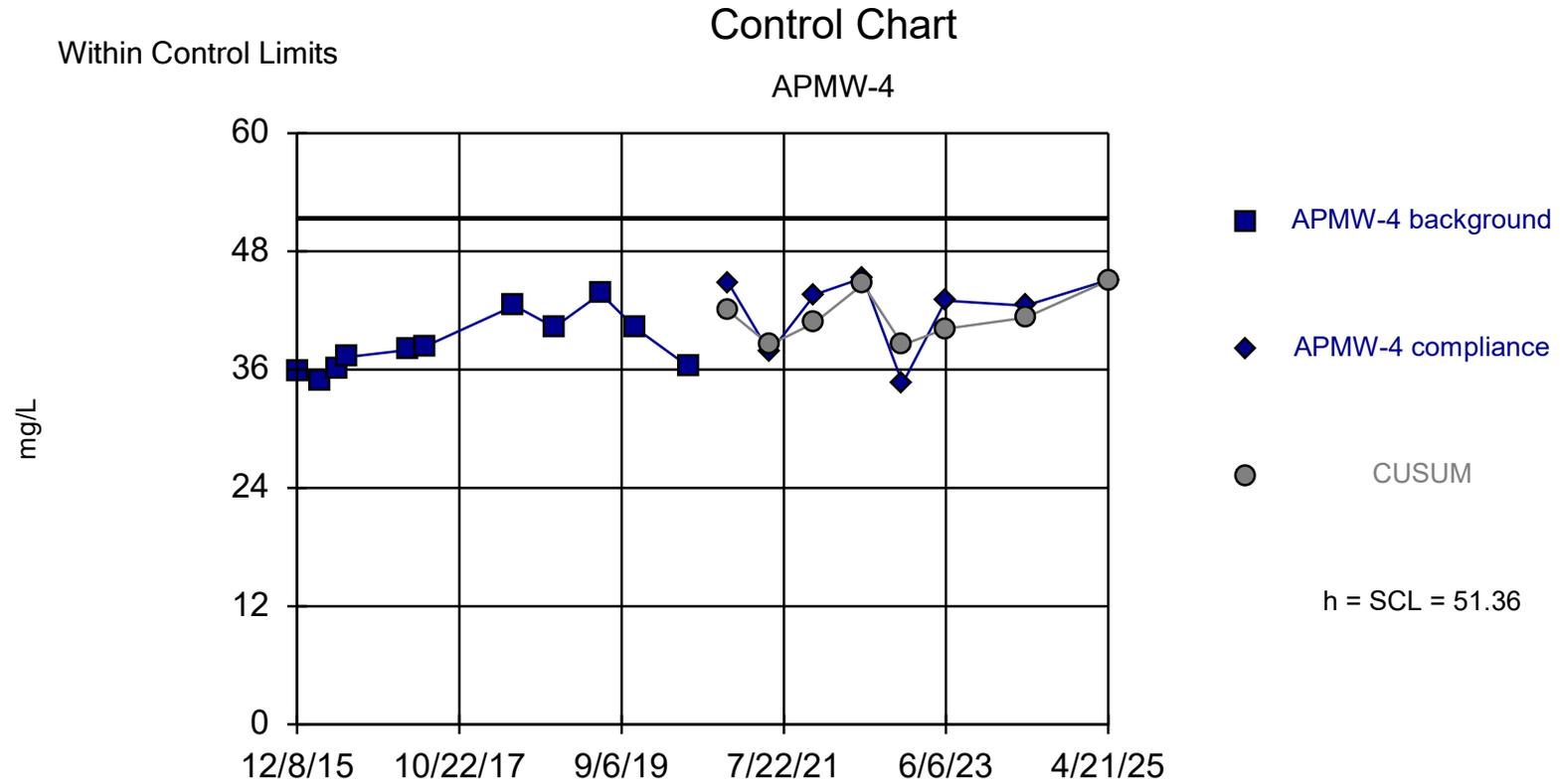


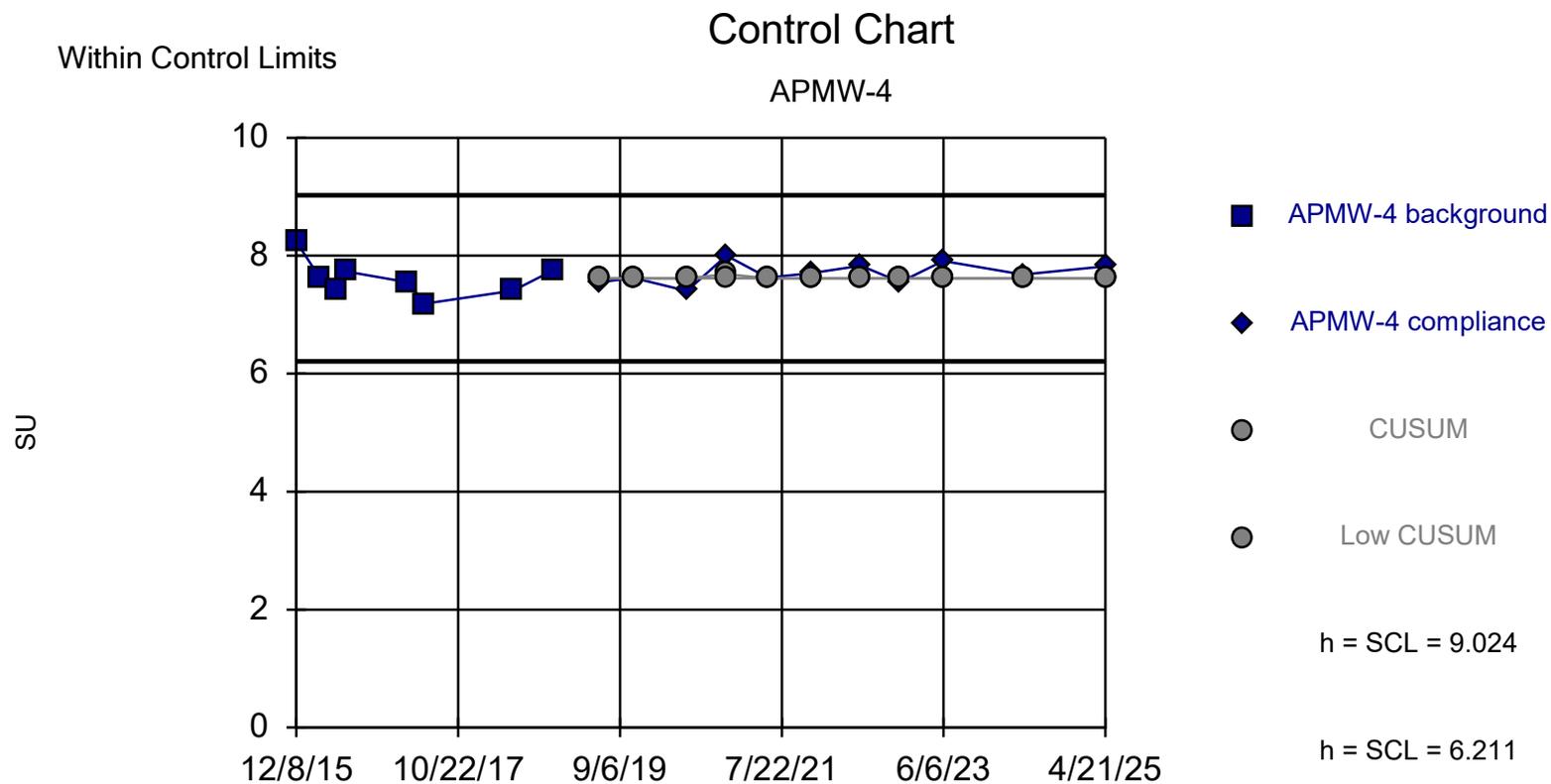
Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

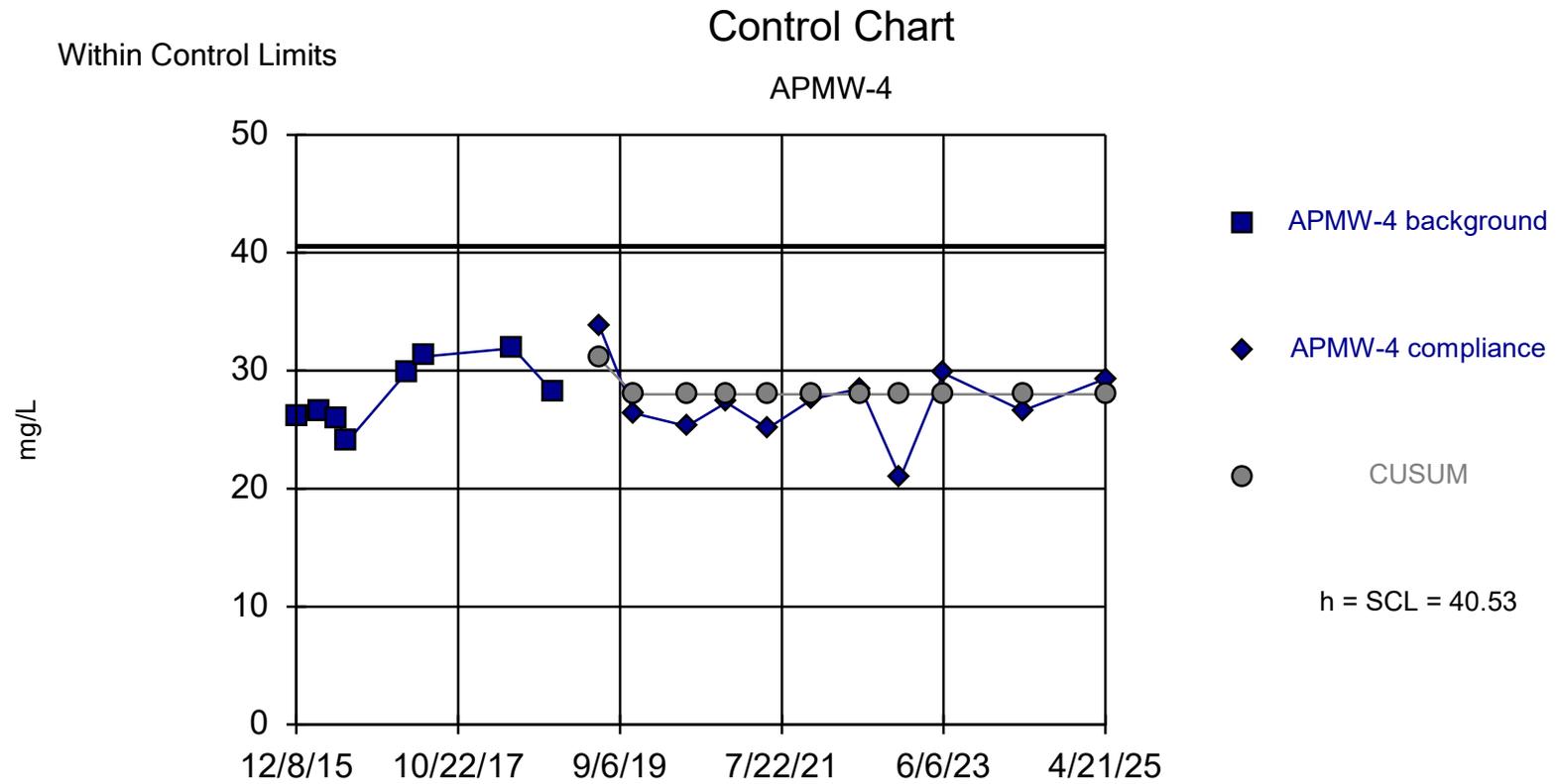
Constituent: Boron Analysis Run 1/19/2026 5:35 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters (2)





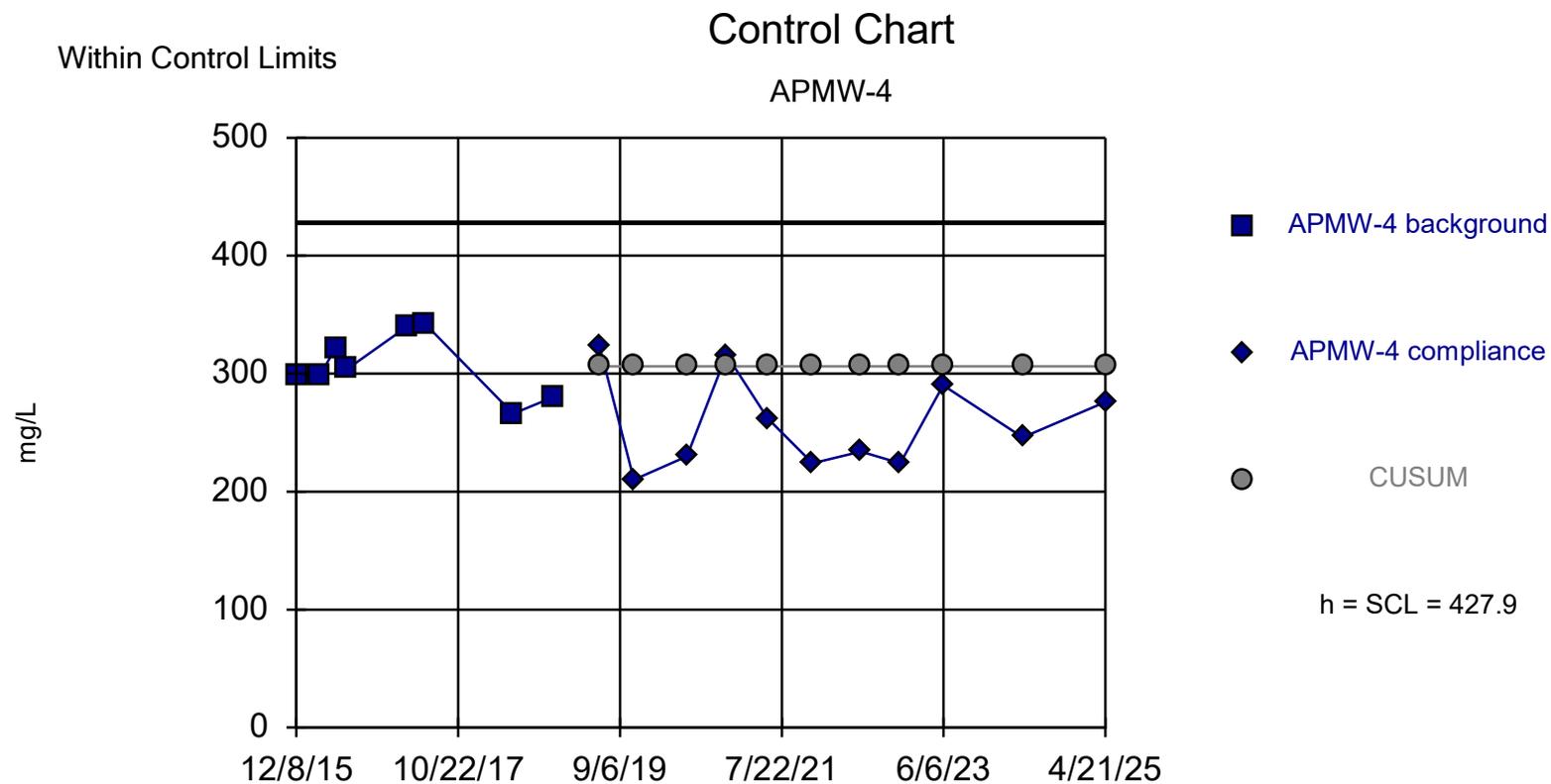




Background Data Summary: Mean=28, Std. Dev.=2.785, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9444, critical = 0.818. Report alpha = 0.01272. Dates ending 11/27/2018 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: Sulfate Analysis Run 1/19/2026 5:39 PM

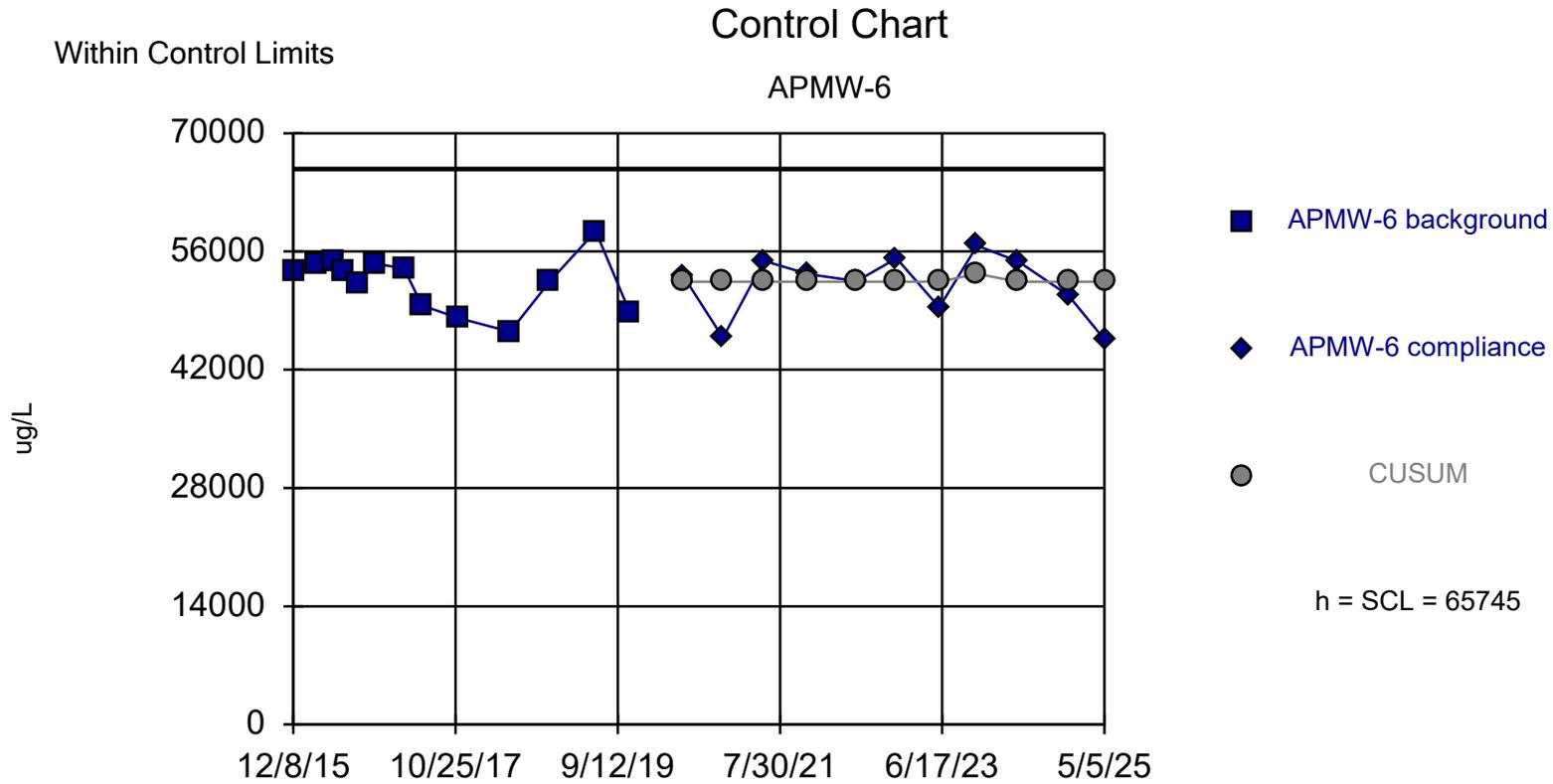
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters (2)

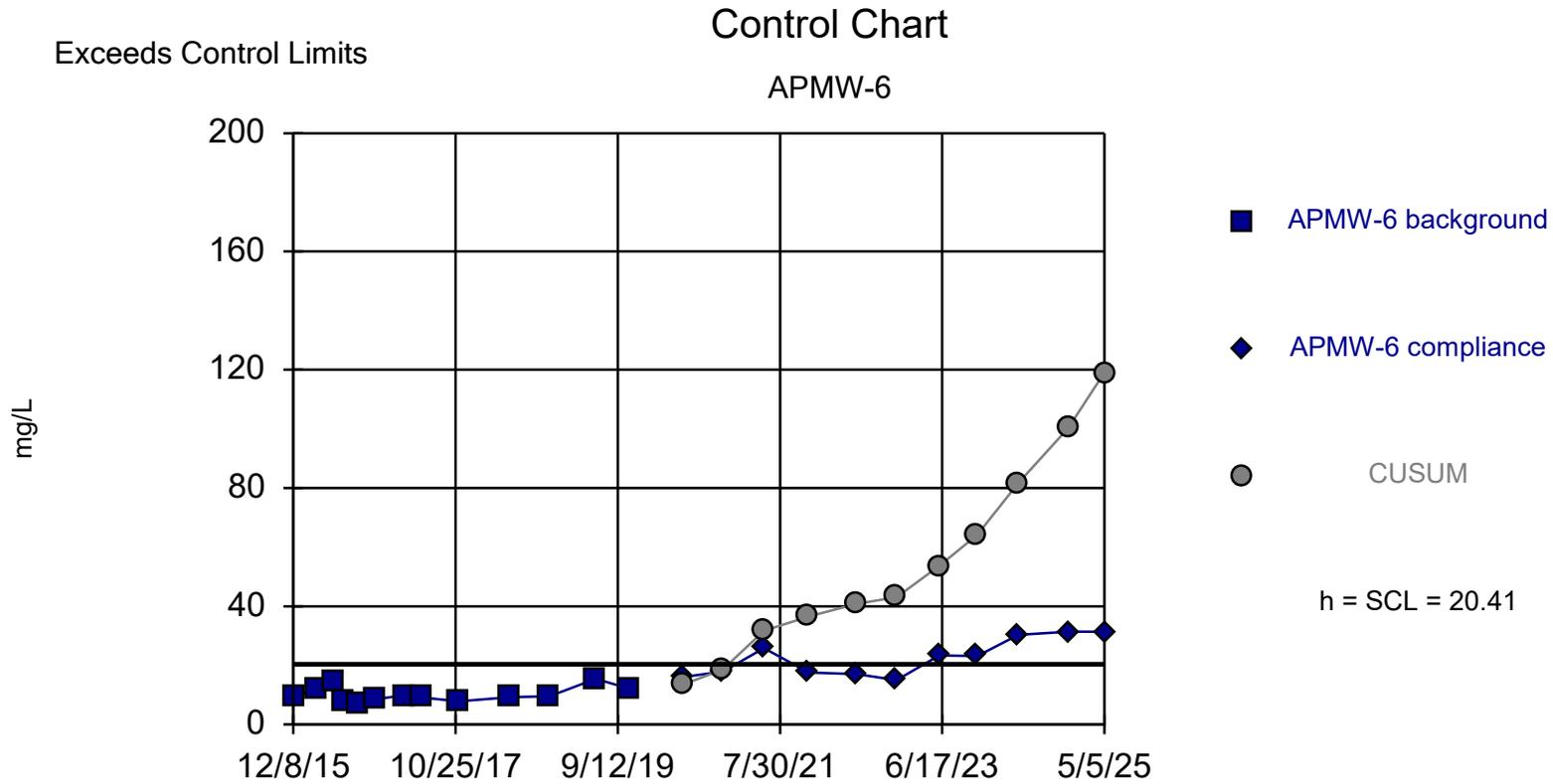


Background Data Summary: Mean=306.3, Std. Dev.=27.03, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9442, critical = 0.818. Report alpha = 0.01272. Dates ending 11/27/2018 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: Total Dissolved Solids Analysis Run 1/19/2026 5:39 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters (2)

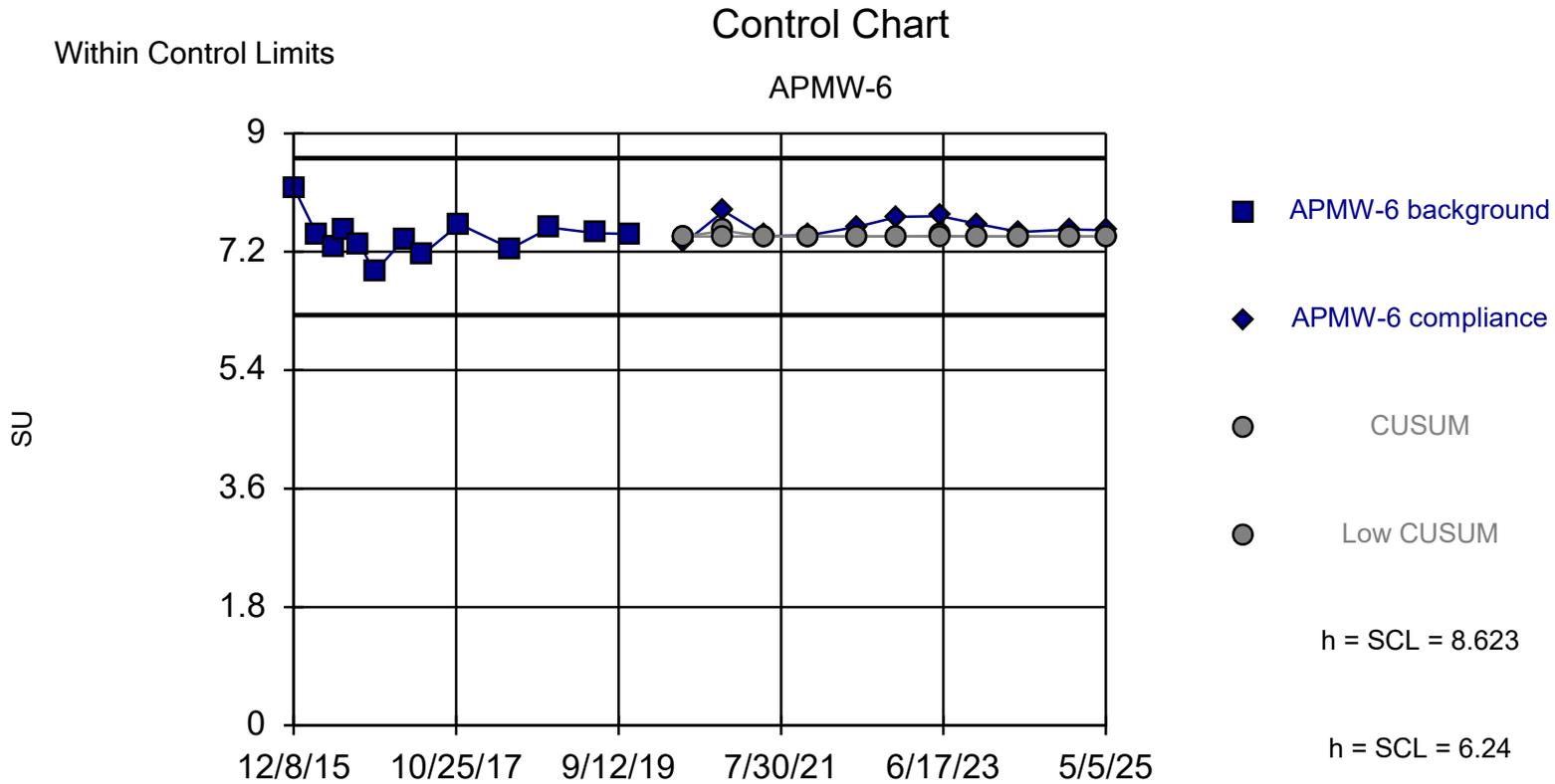


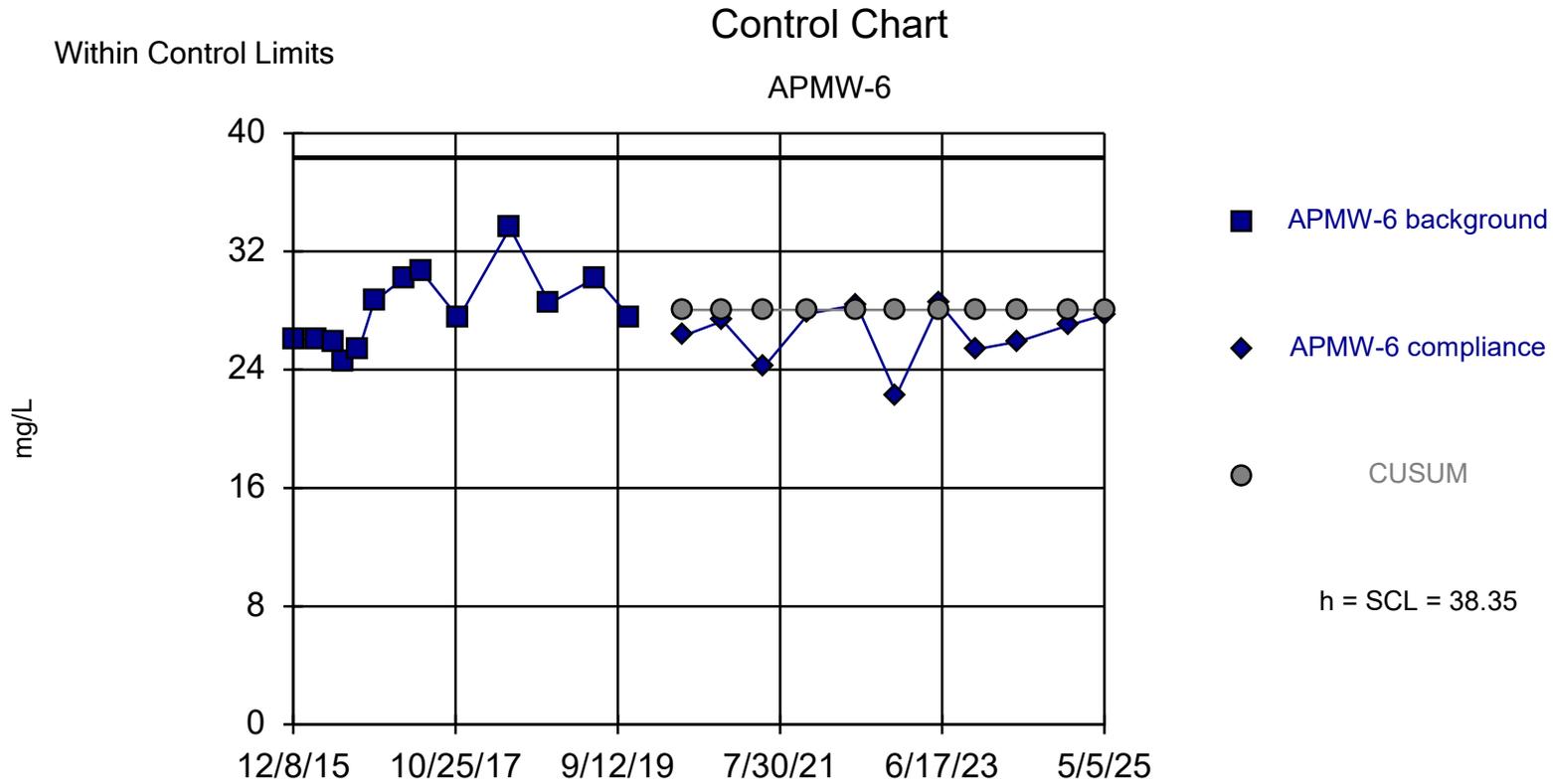


Background Data Summary: Mean=10.21, Std. Dev.=2.551, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8941, critical = 0.866. Report alpha = 0.02476. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Chloride Analysis Run 1/13/2026 12:38 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

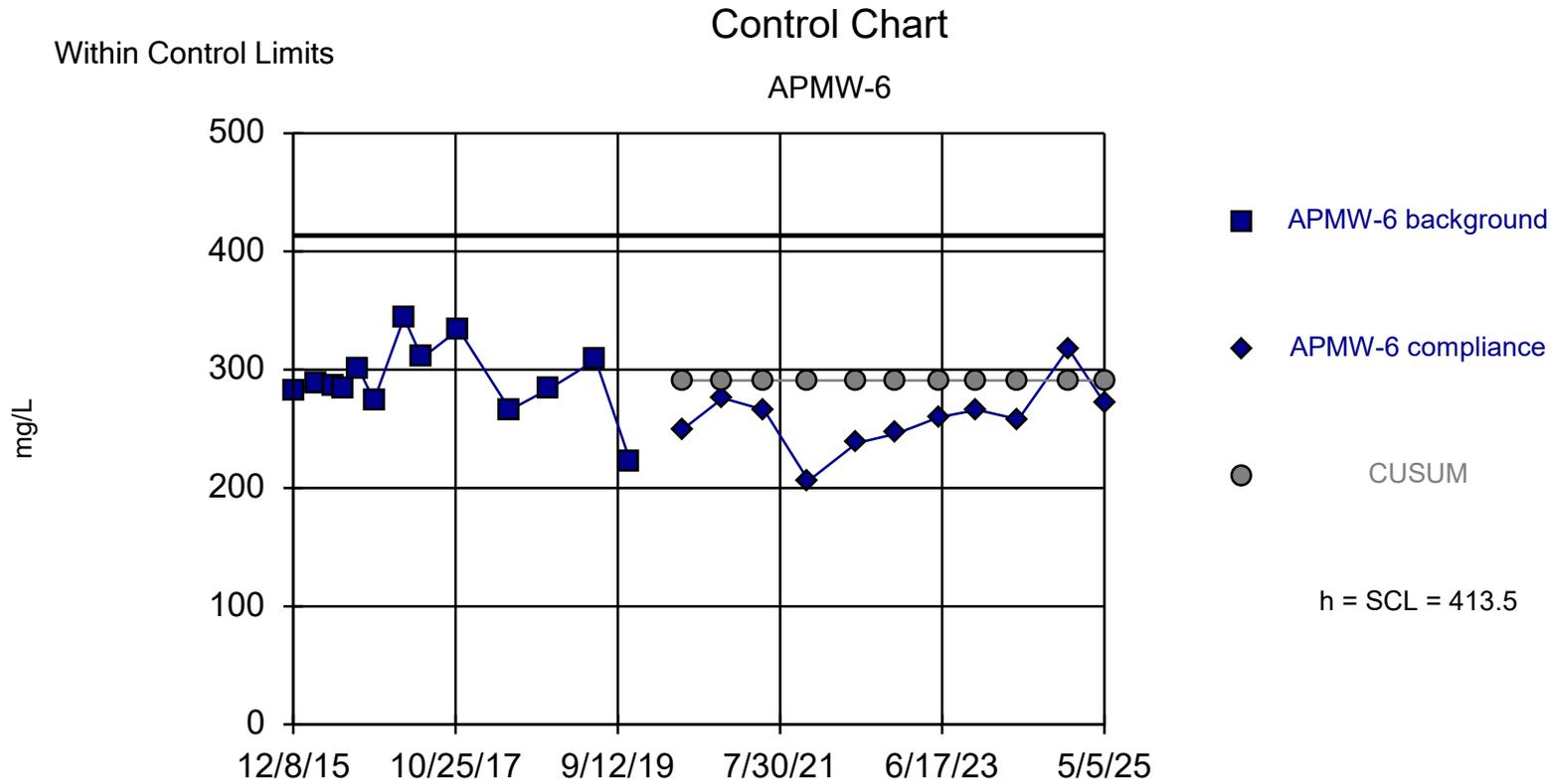


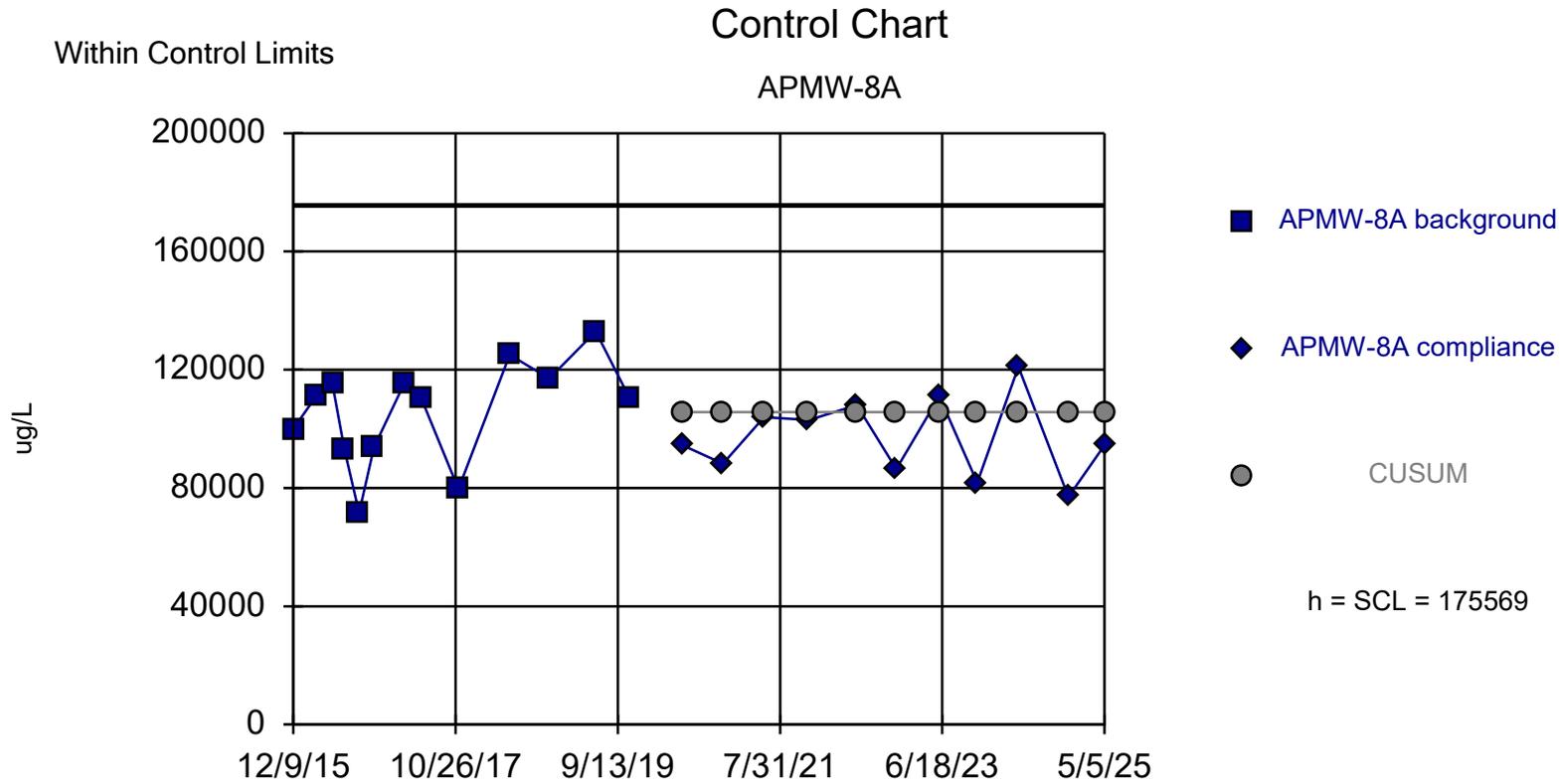


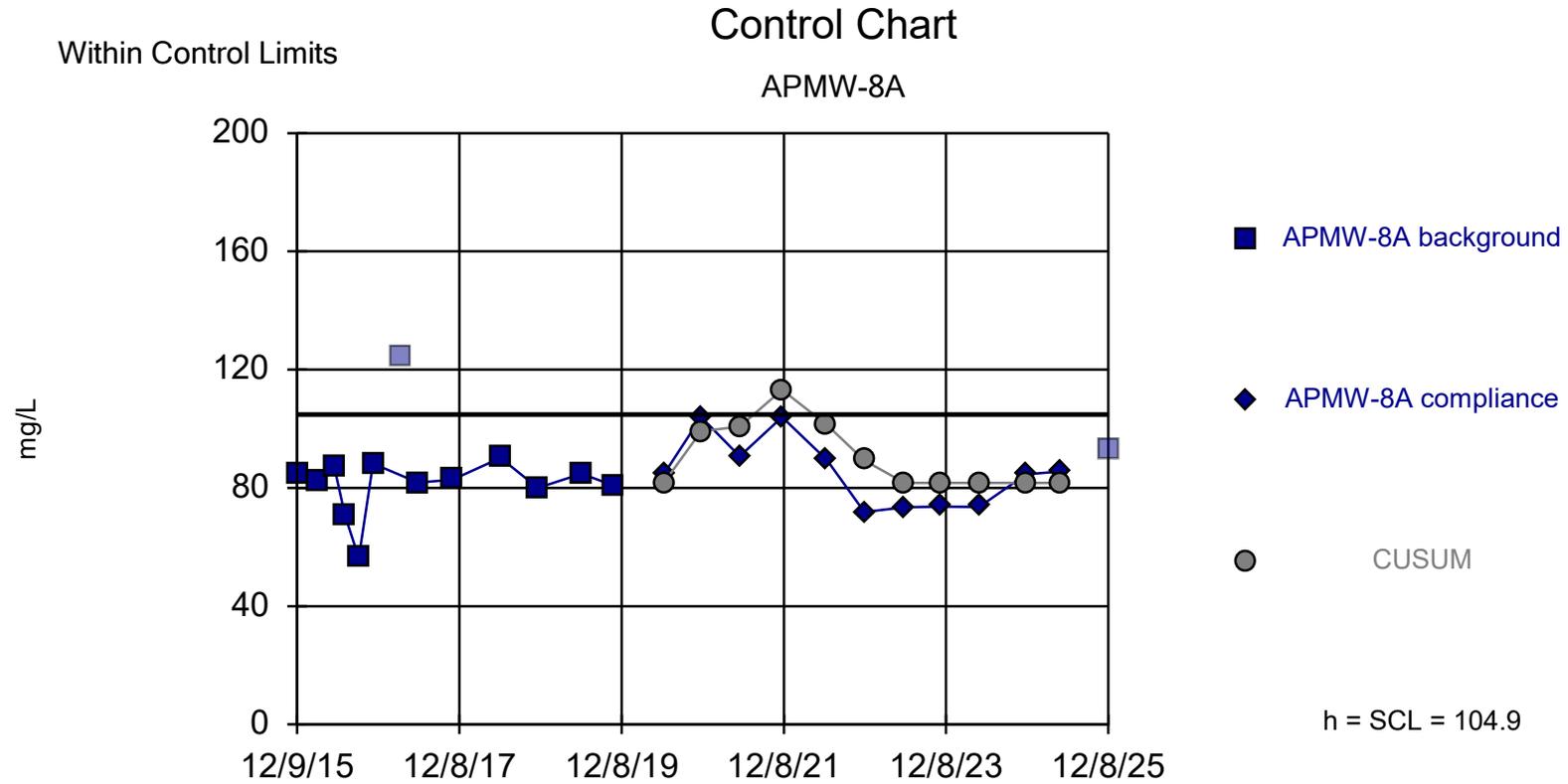
Background Data Summary: Mean=28.05, Std. Dev.=2.576, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9413, critical = 0.866. Report alpha = 0.02476. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/13/2026 12:38 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



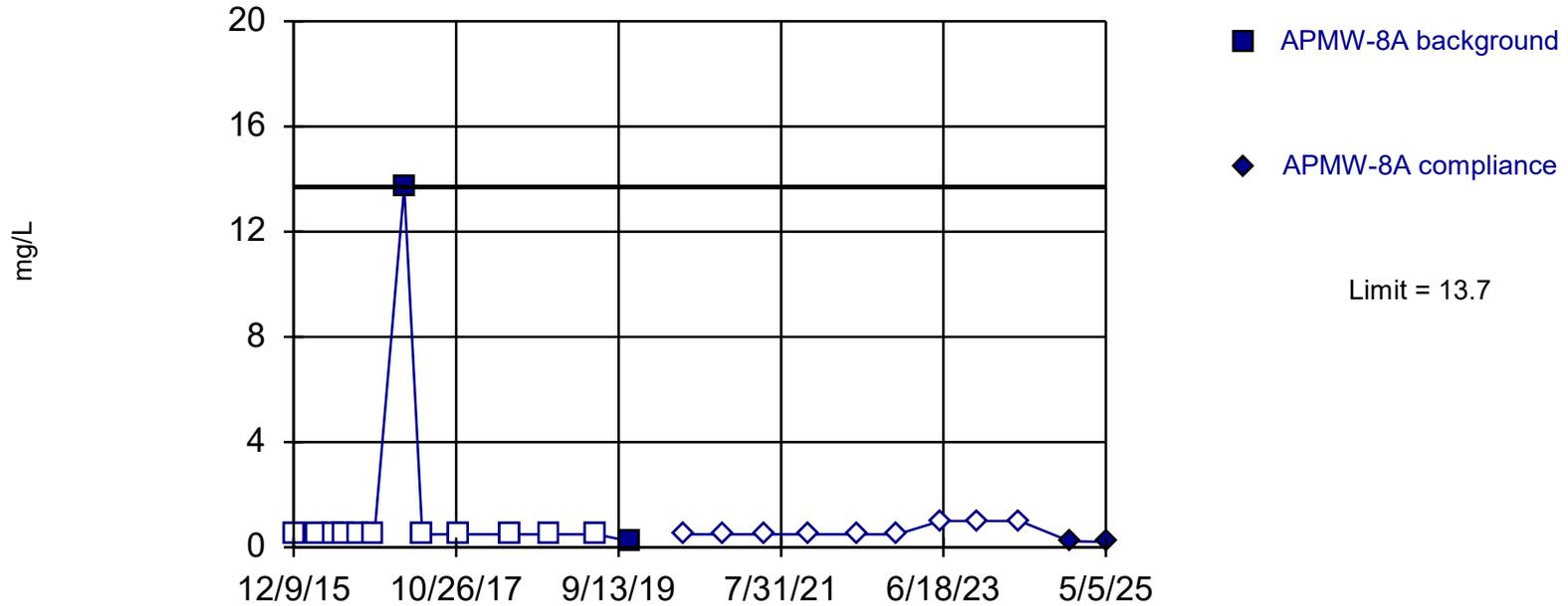


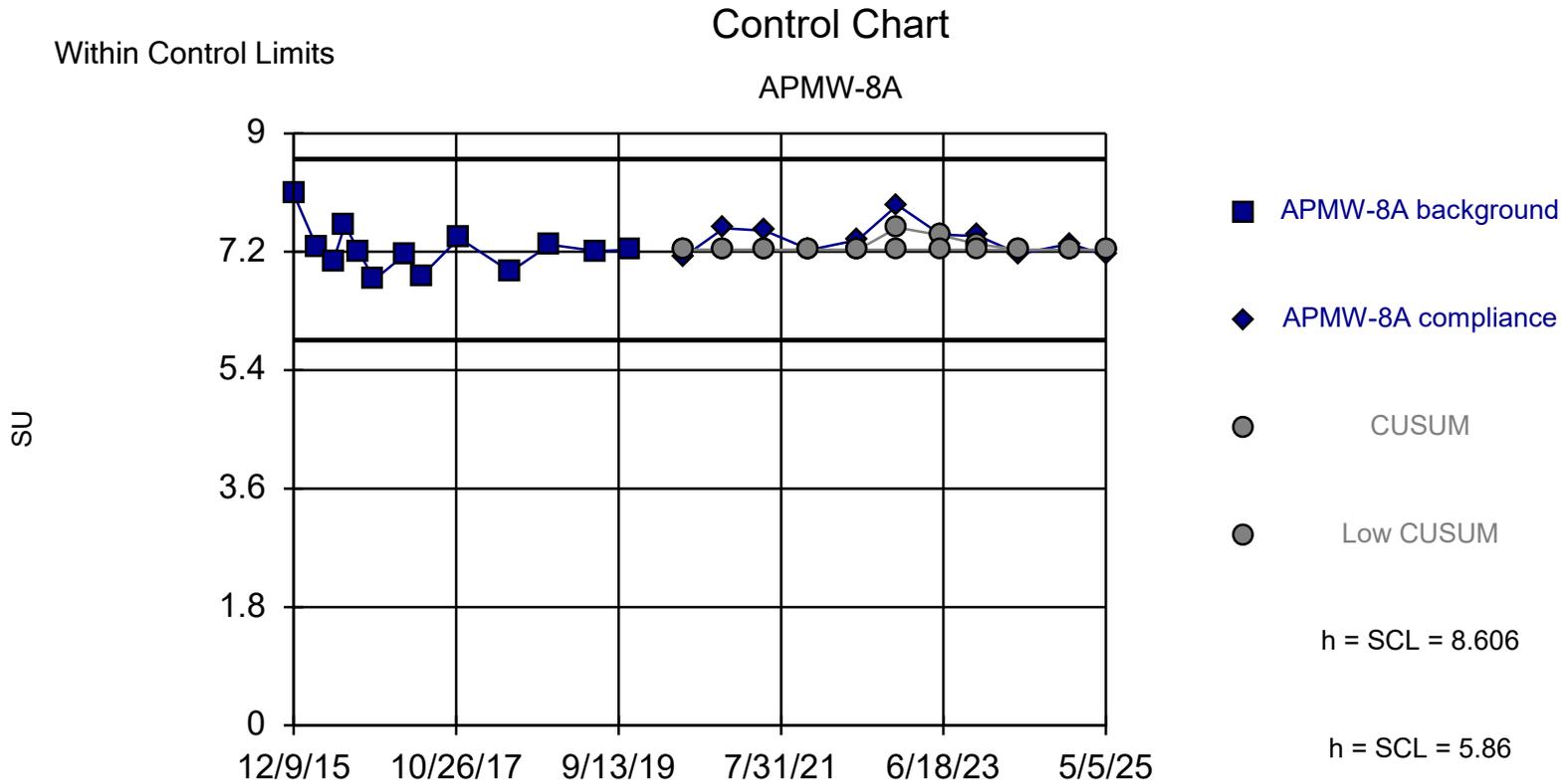


Within Limit

Prediction Limit

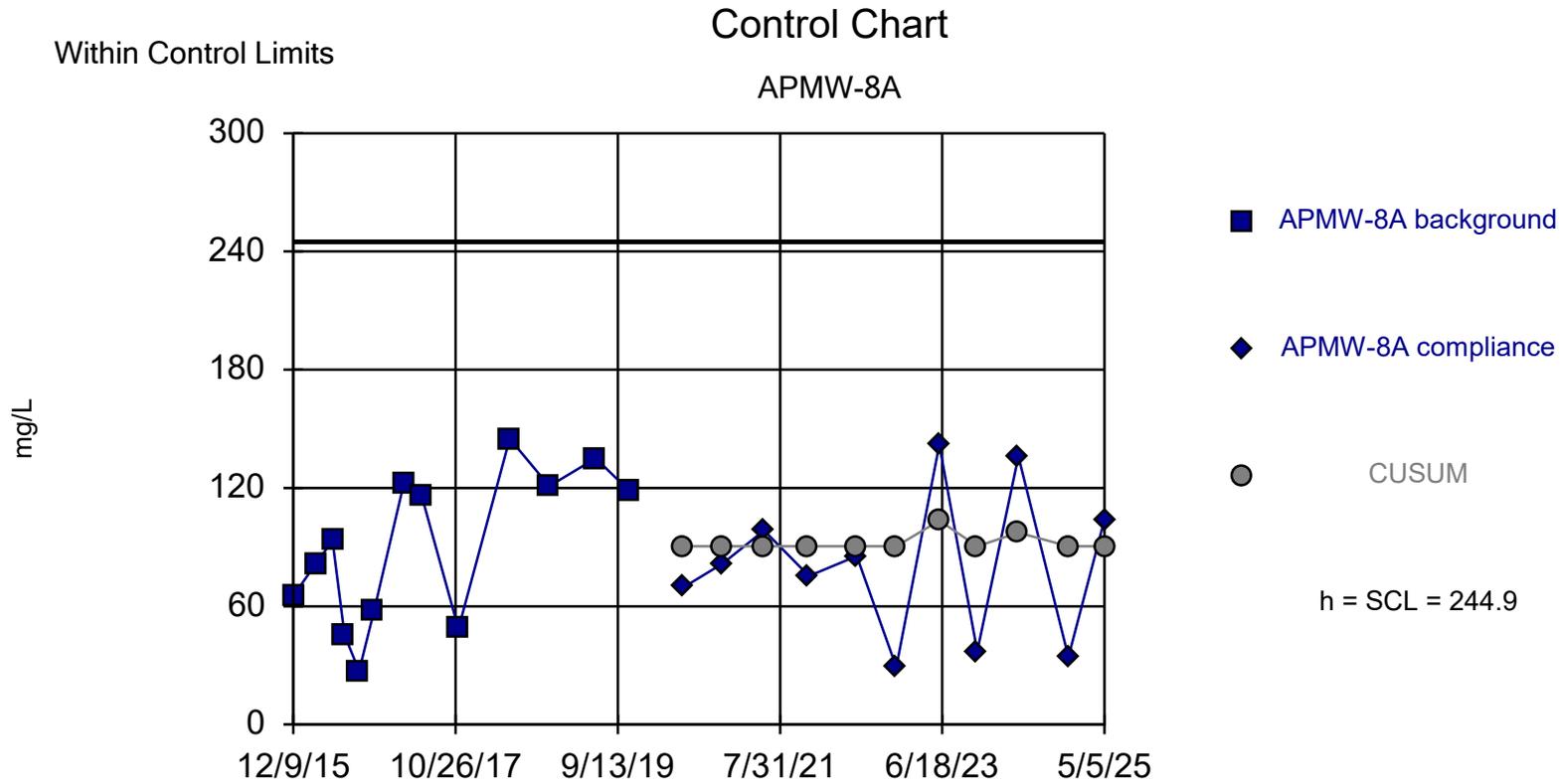
Intrawell Non-parametric

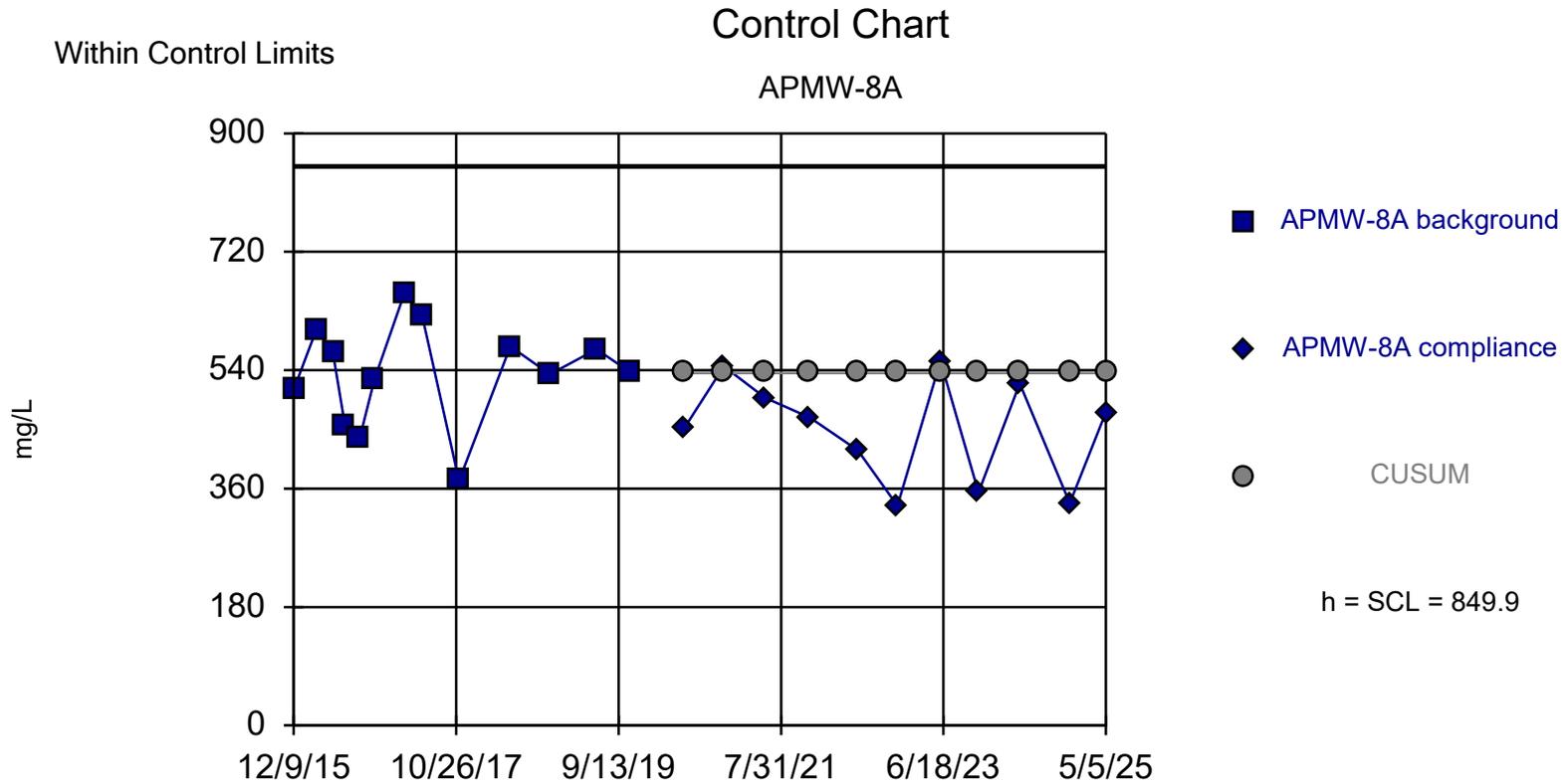


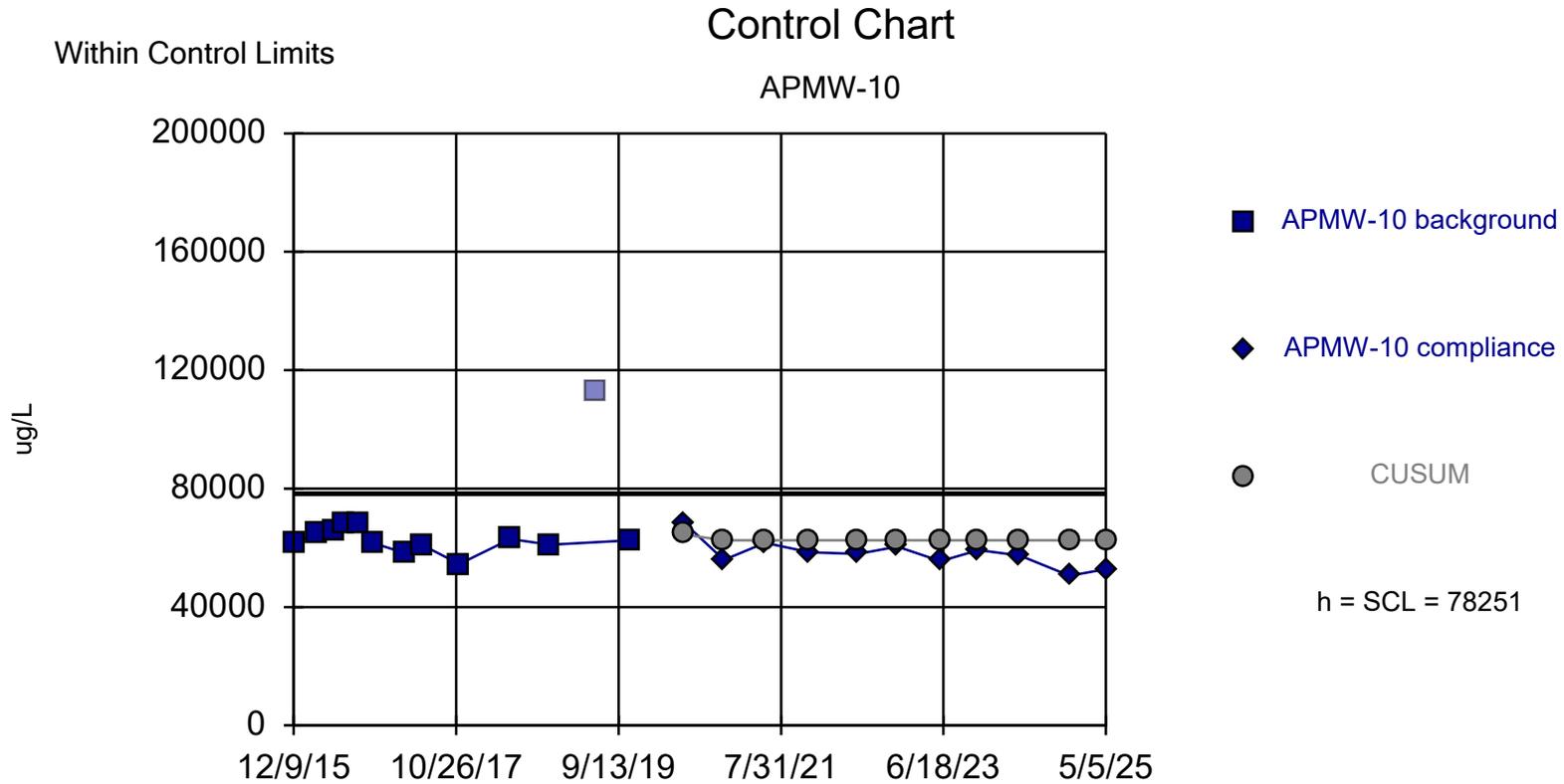


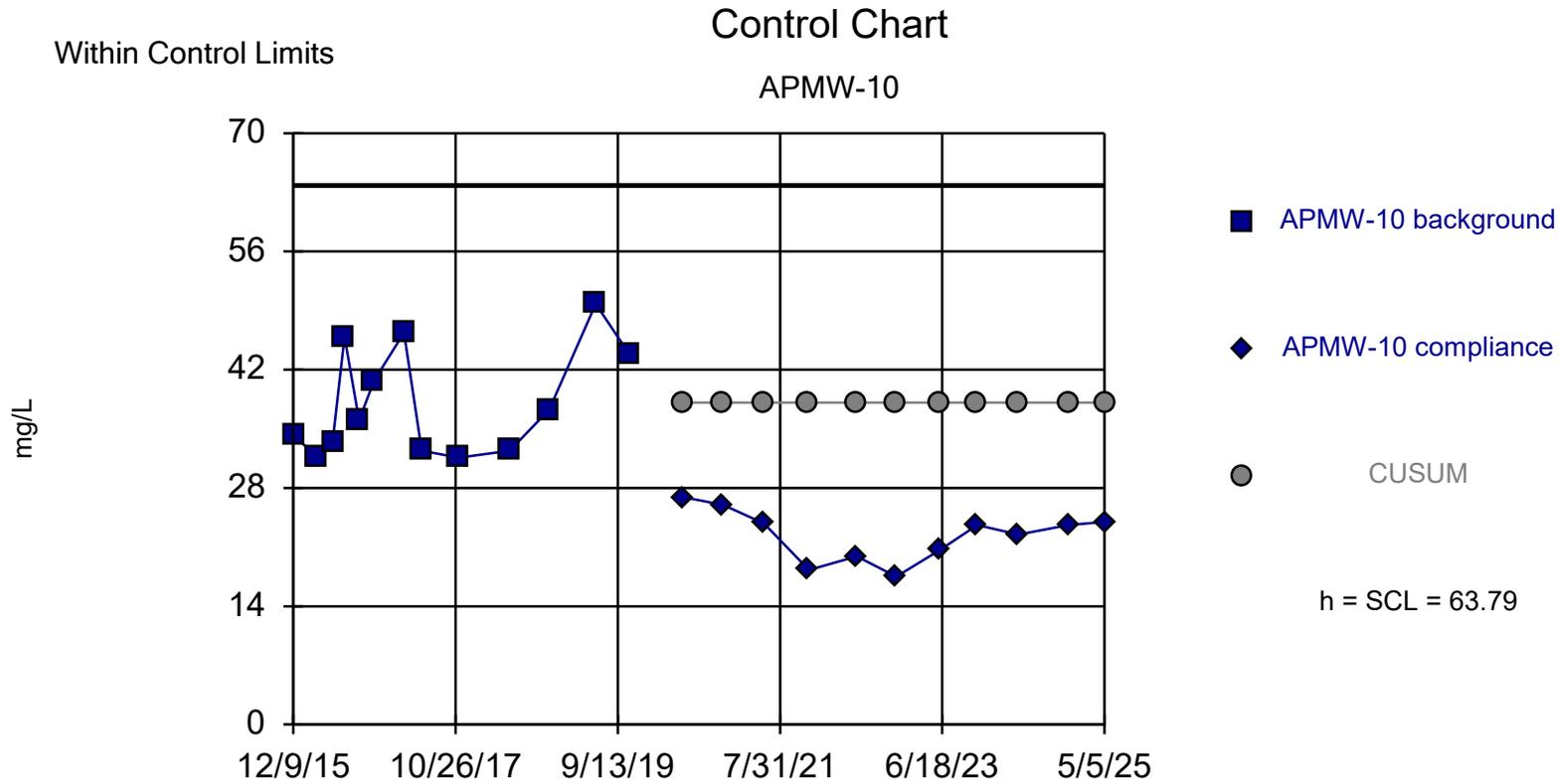
Background Data Summary: Mean=7.233, Std. Dev.=0.3432, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9148, critical = 0.866. Report alpha = 0.0245. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

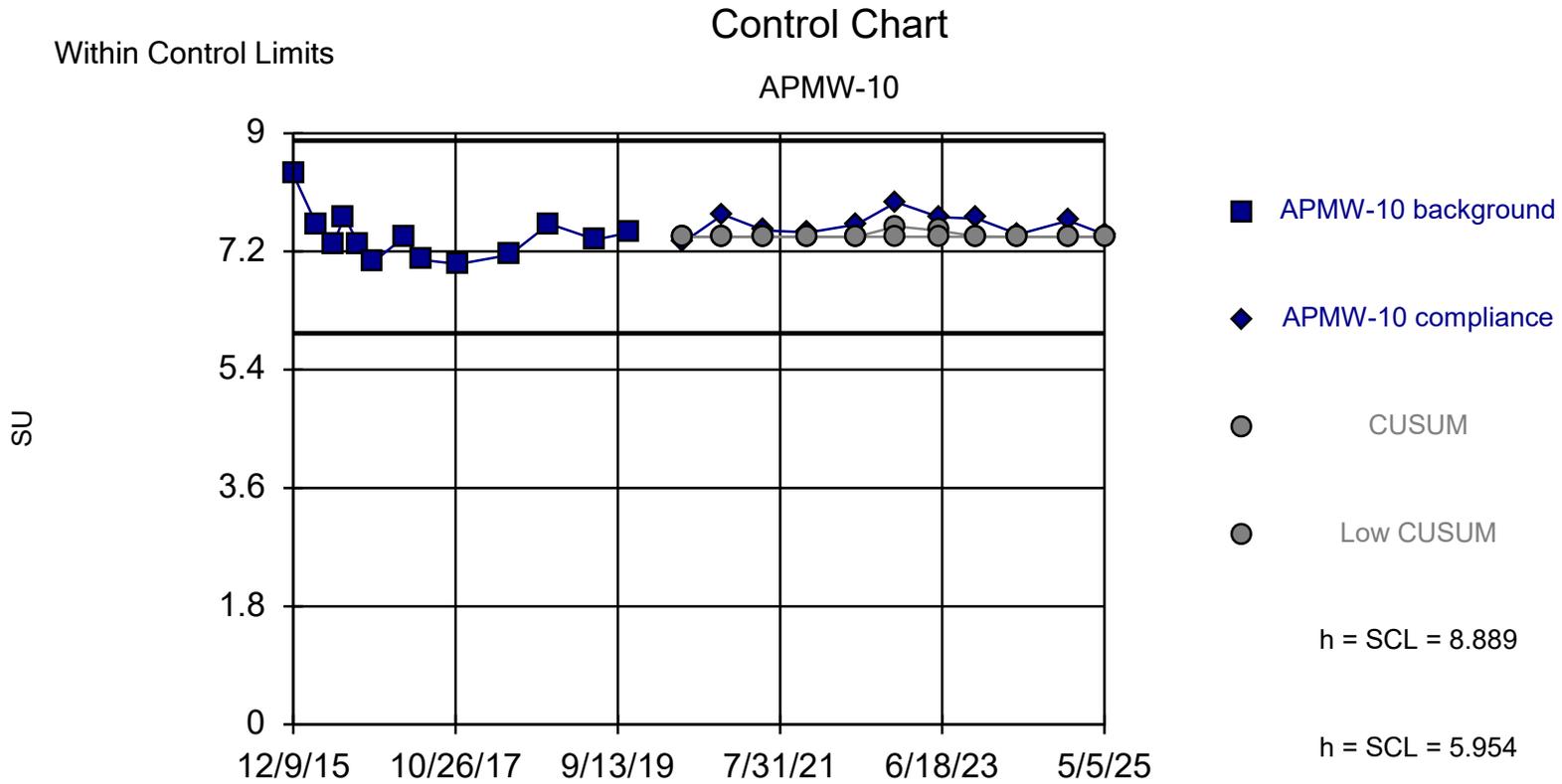
Constituent: pH, Field-Measured Analysis Run 1/13/2026 12:59 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters





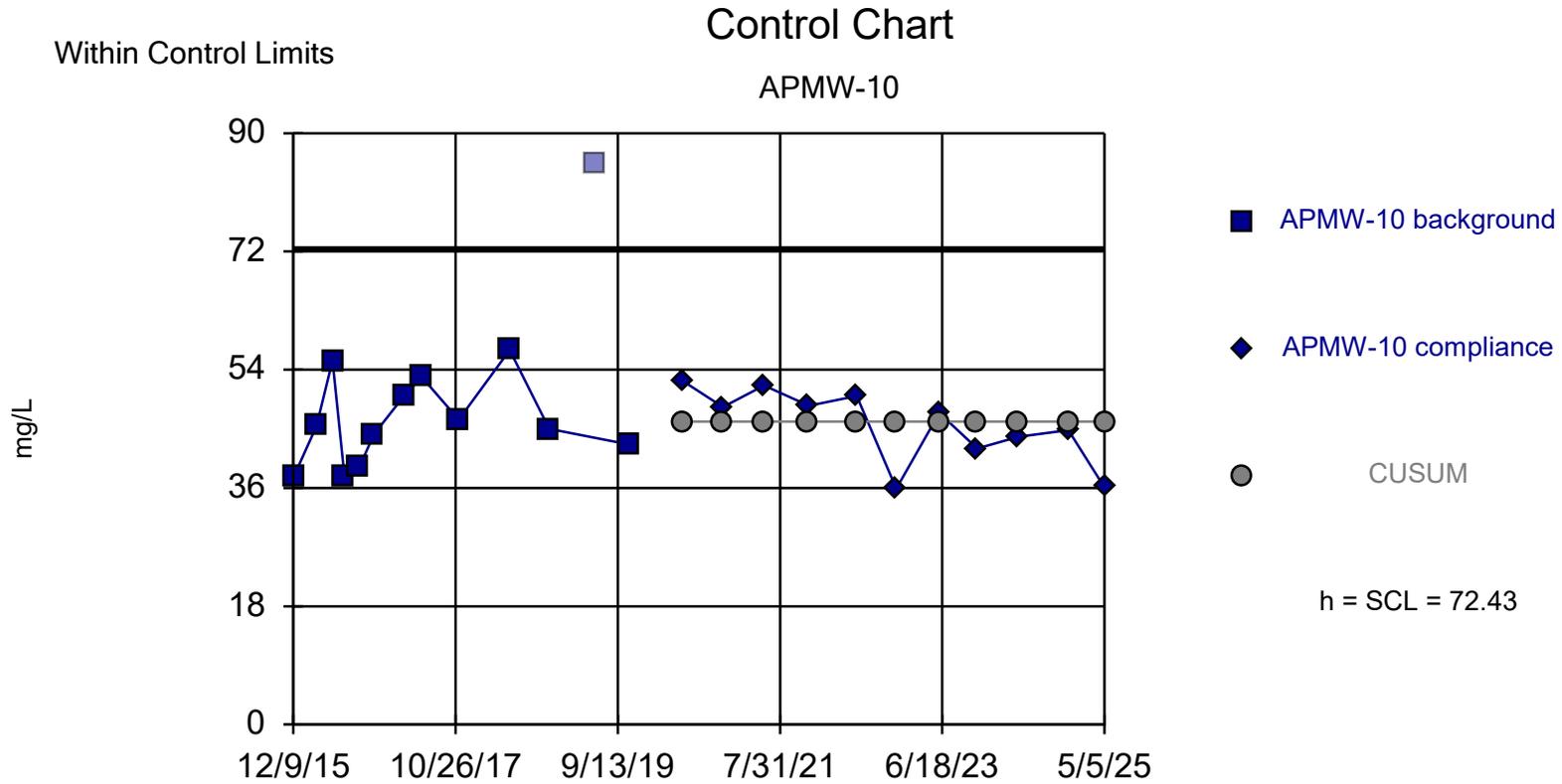


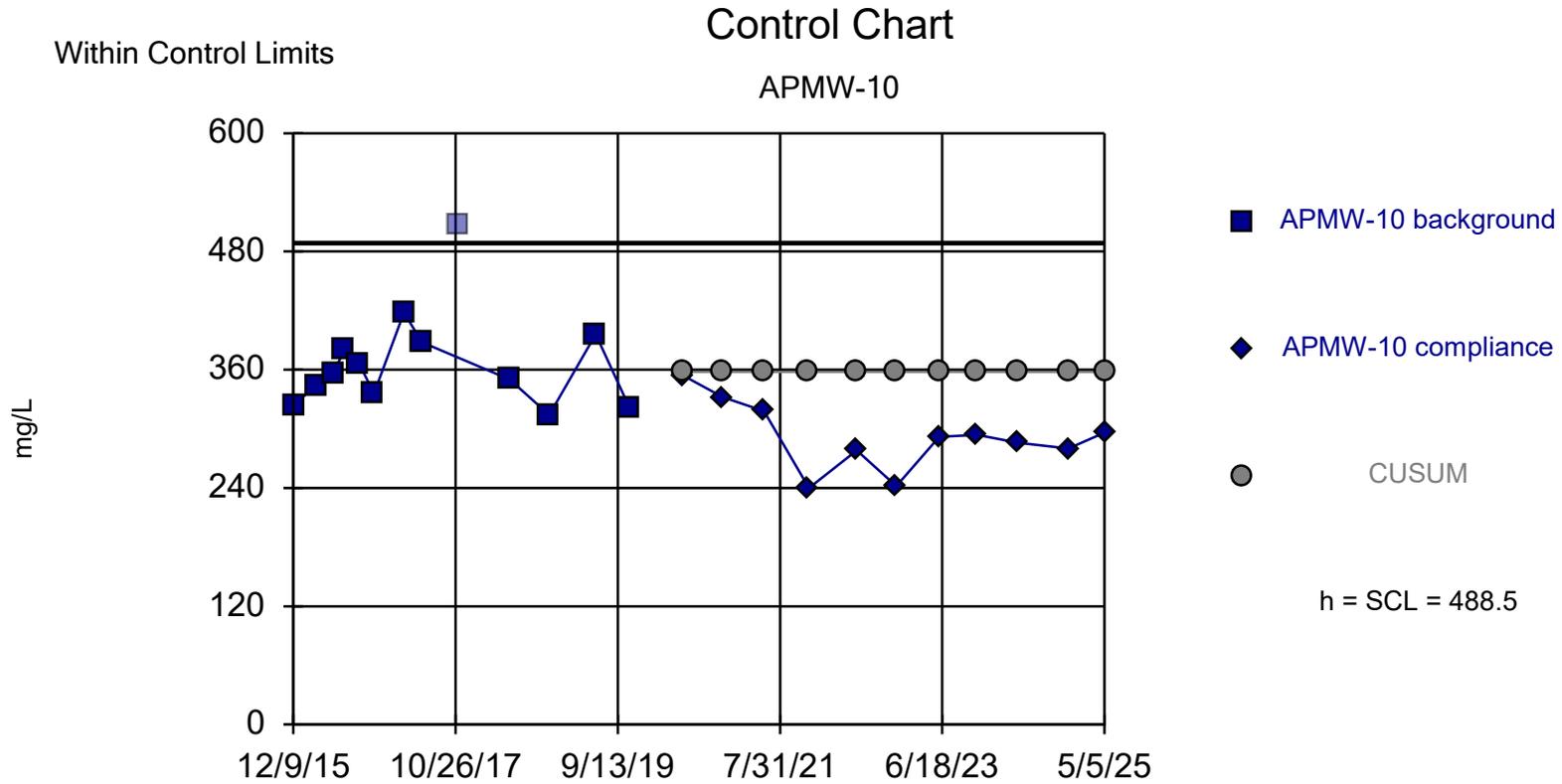


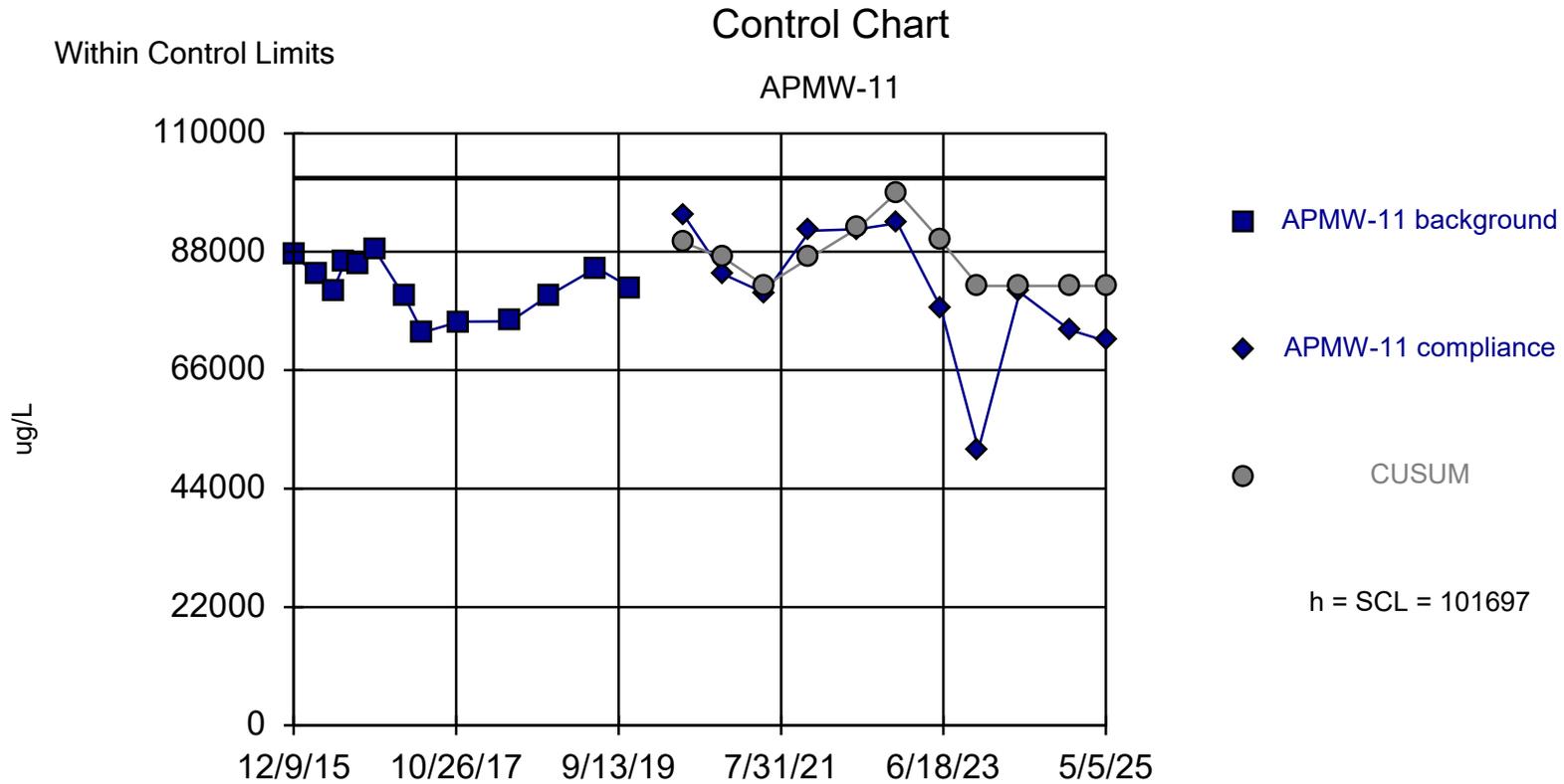


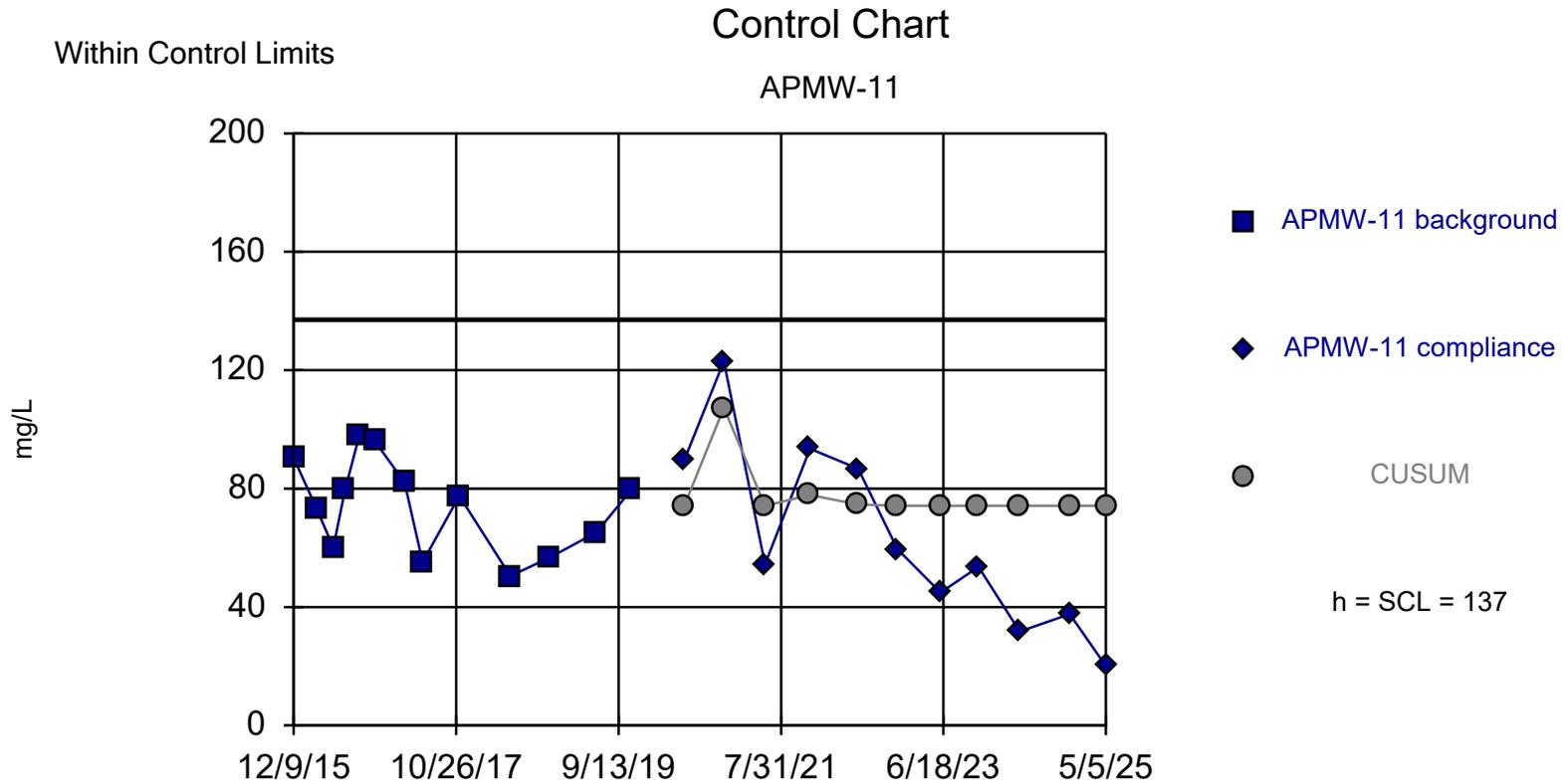
Background Data Summary: Mean=7.422, Std. Dev.=0.3669, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8842, critical = 0.866. Report alpha = 0.02476. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: pH, Field-Measured Analysis Run 1/13/2026 1:11 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters





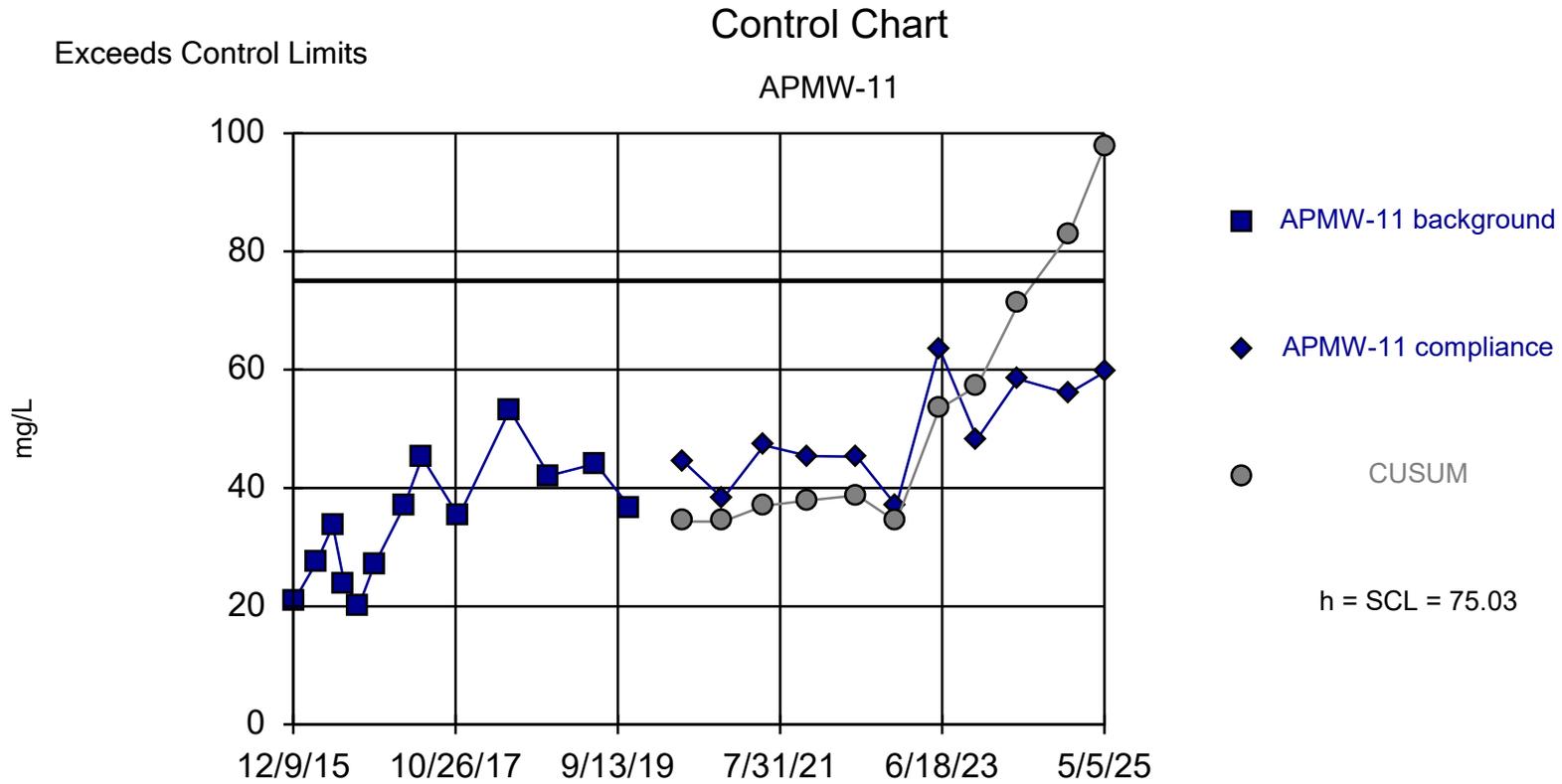




Background Data Summary: Mean=74.16, Std. Dev.=15.7, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9499, critical = 0.866. Report alpha = 0.02453. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Chloride Analysis Run 1/13/2026 2:34 PM

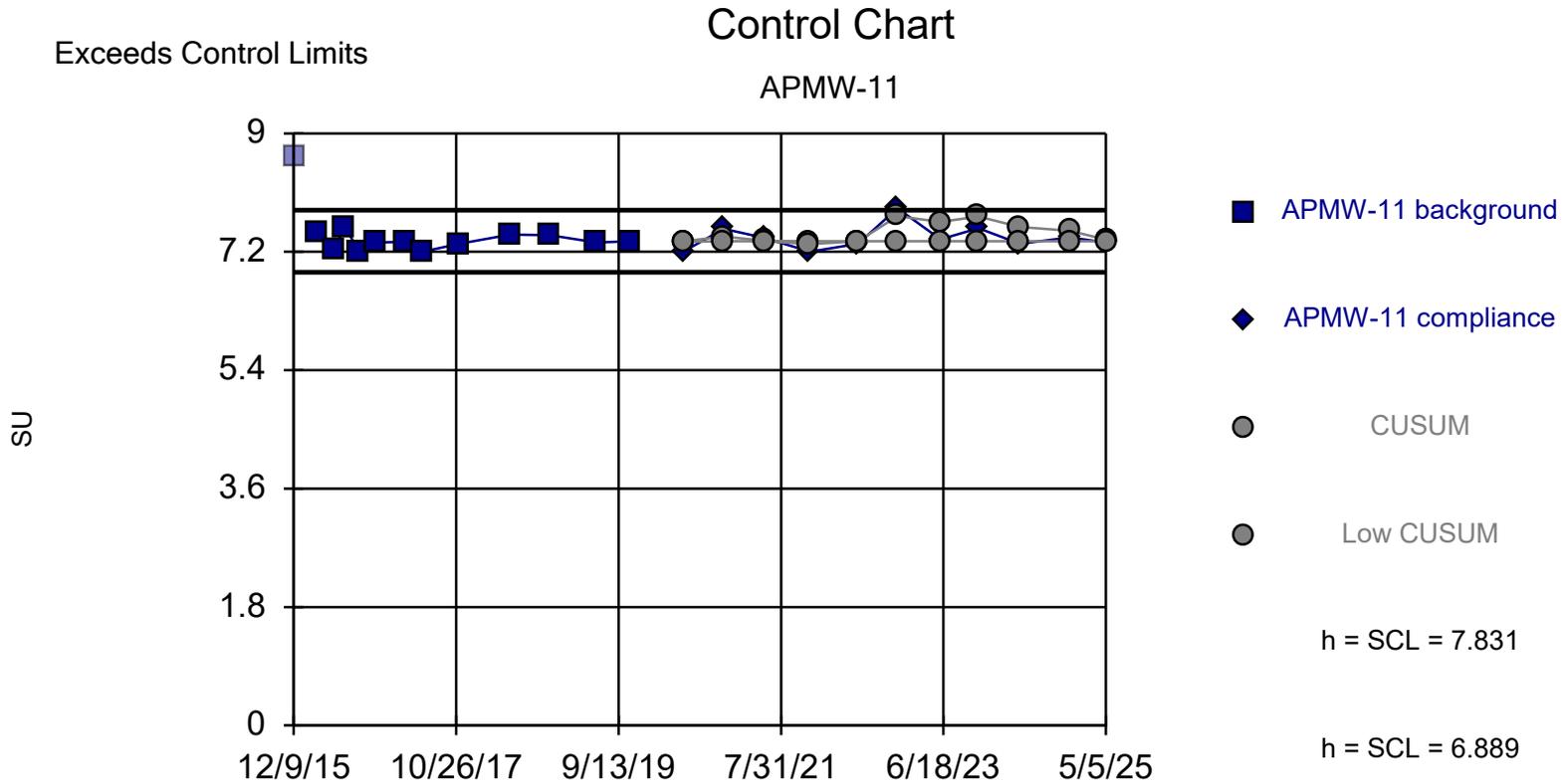
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

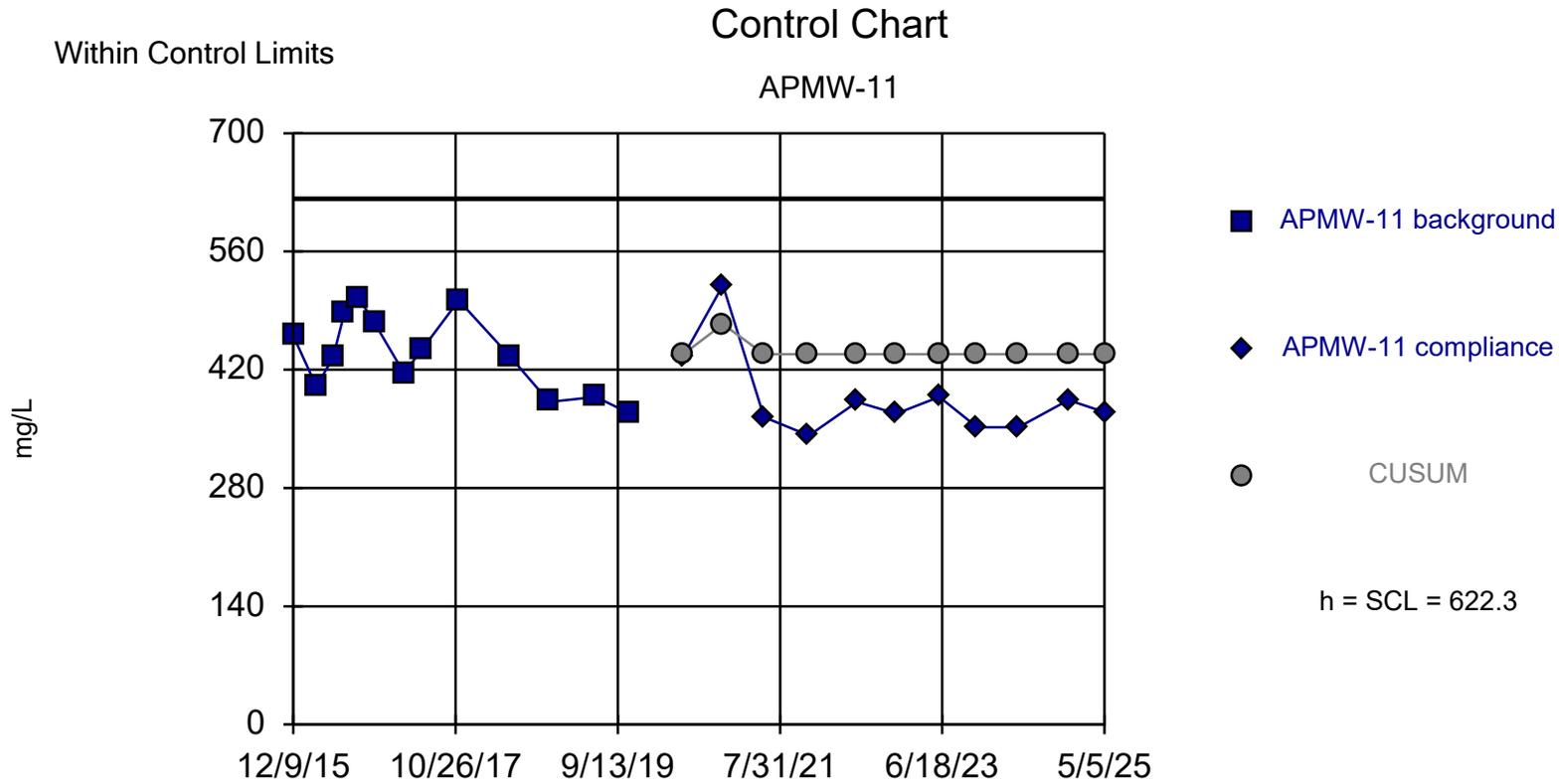


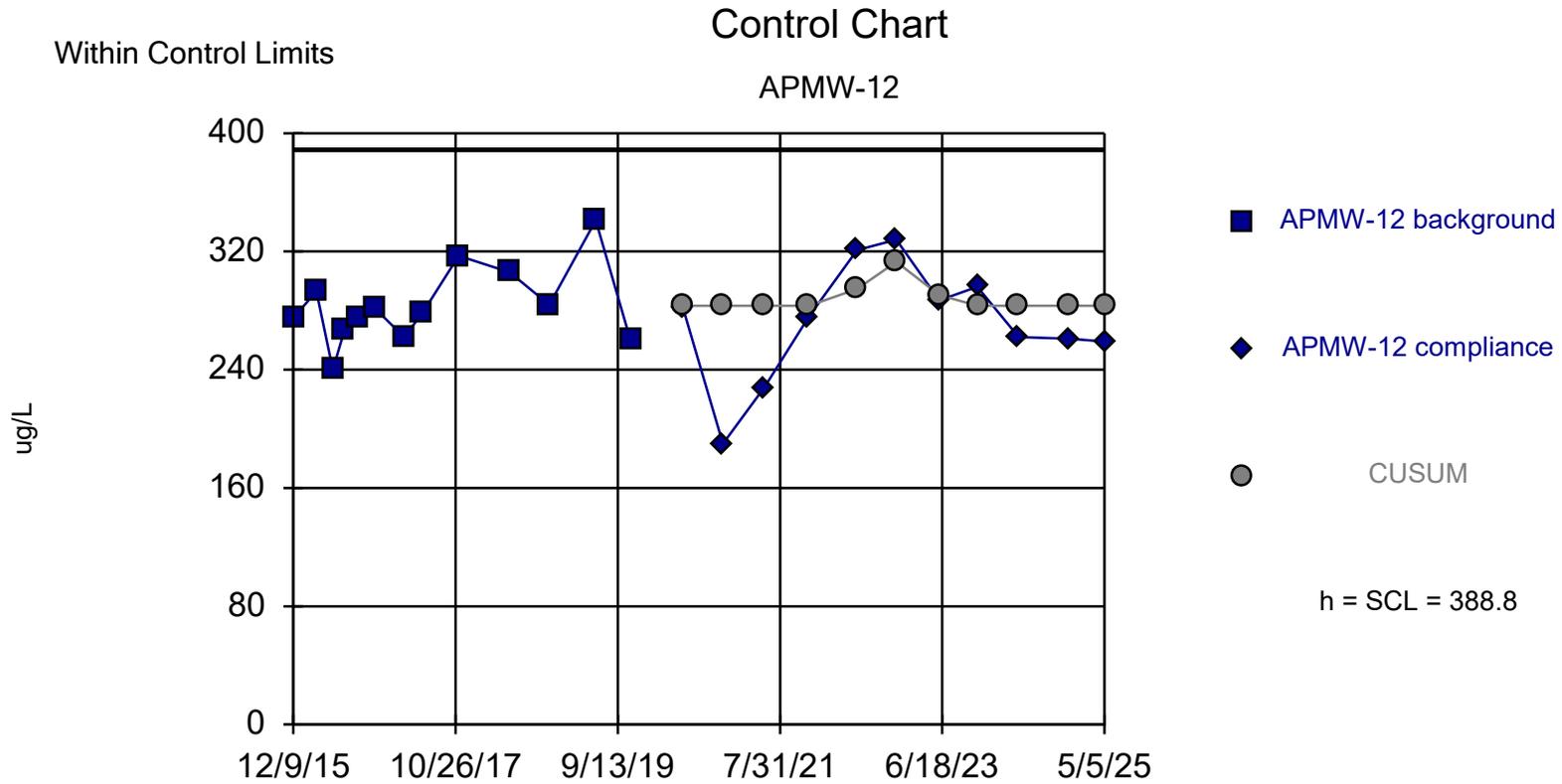
Background Data Summary: Mean=34.31, Std. Dev.=10.18, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9592, critical = 0.866. Report alpha = 0.02453. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

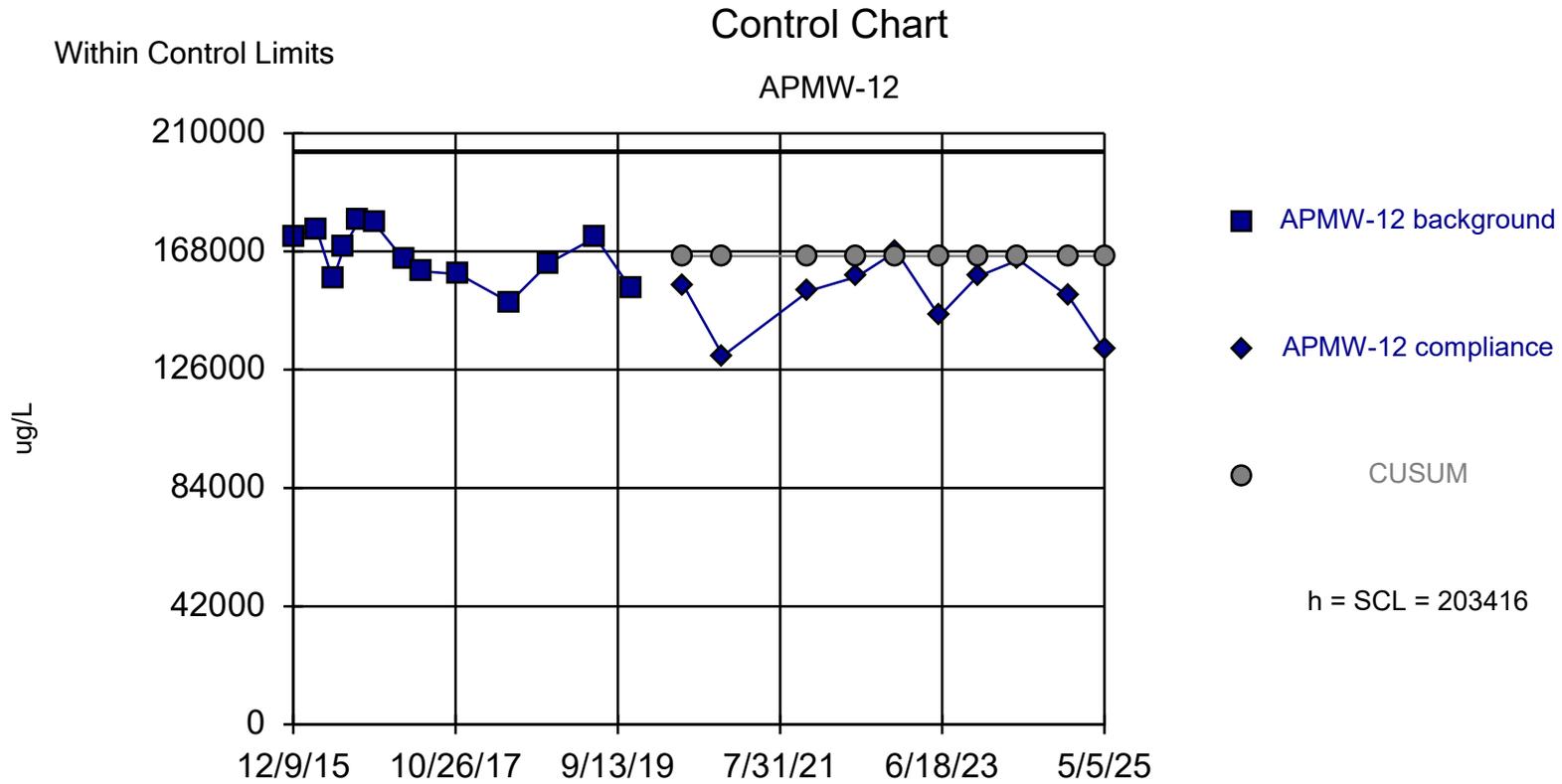
Constituent: Sulfate Analysis Run 1/13/2026 2:34 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters





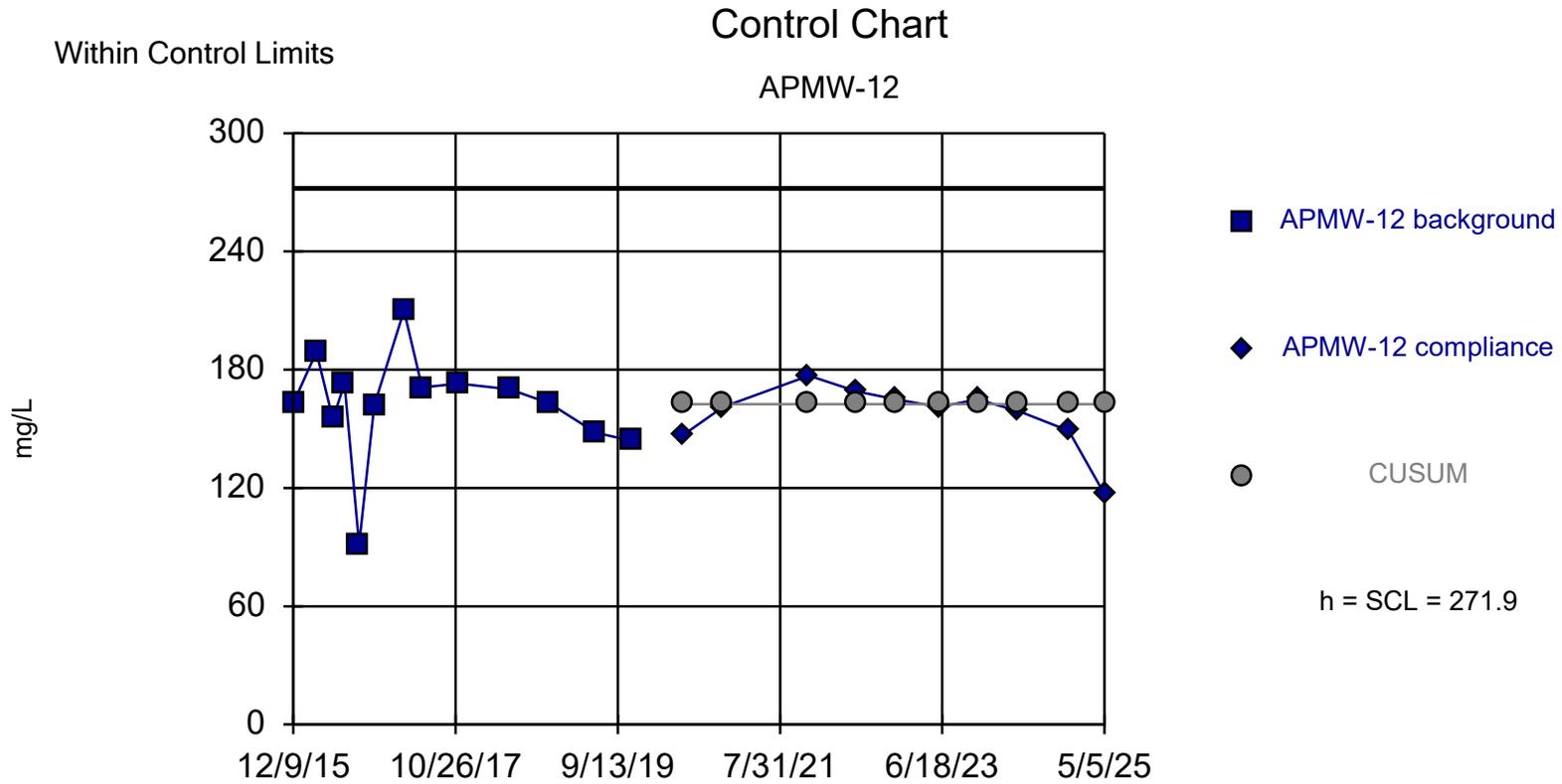




Background Data Summary: Mean=166308, Std. Dev.=9277, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9542, critical = 0.866. Report alpha = 0.02259. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 3:00 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=162.5, Std. Dev.=27.37, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8823, critical = 0.866. Report alpha = 0.02259. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

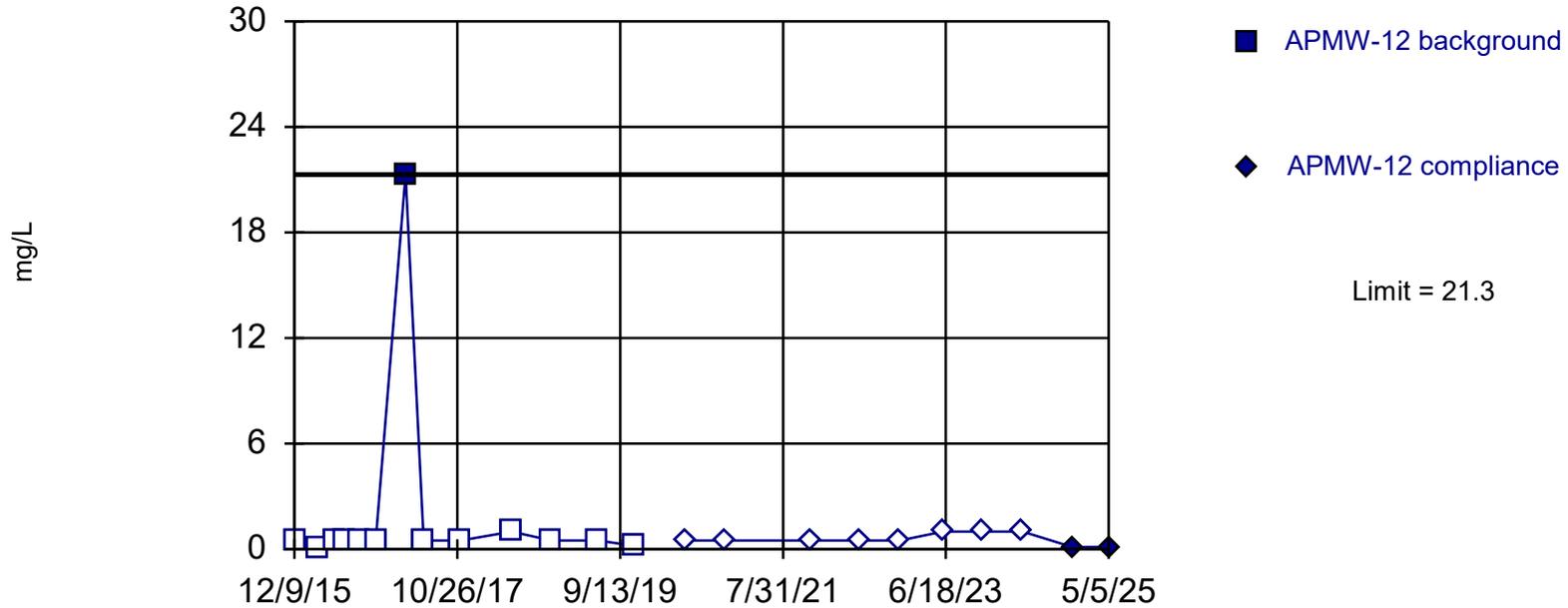
Constituent: Chloride Analysis Run 1/13/2026 3:00 PM

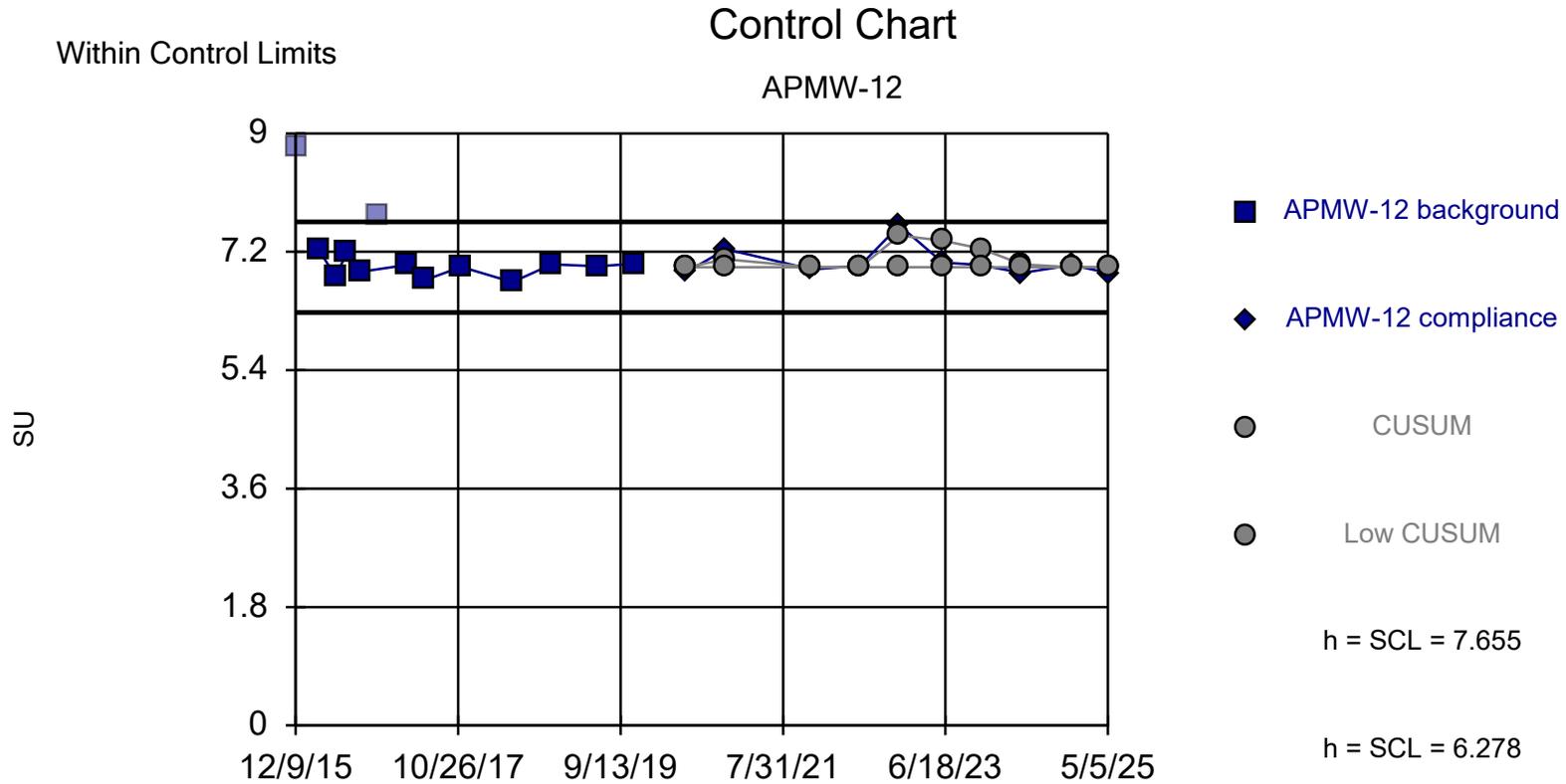
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

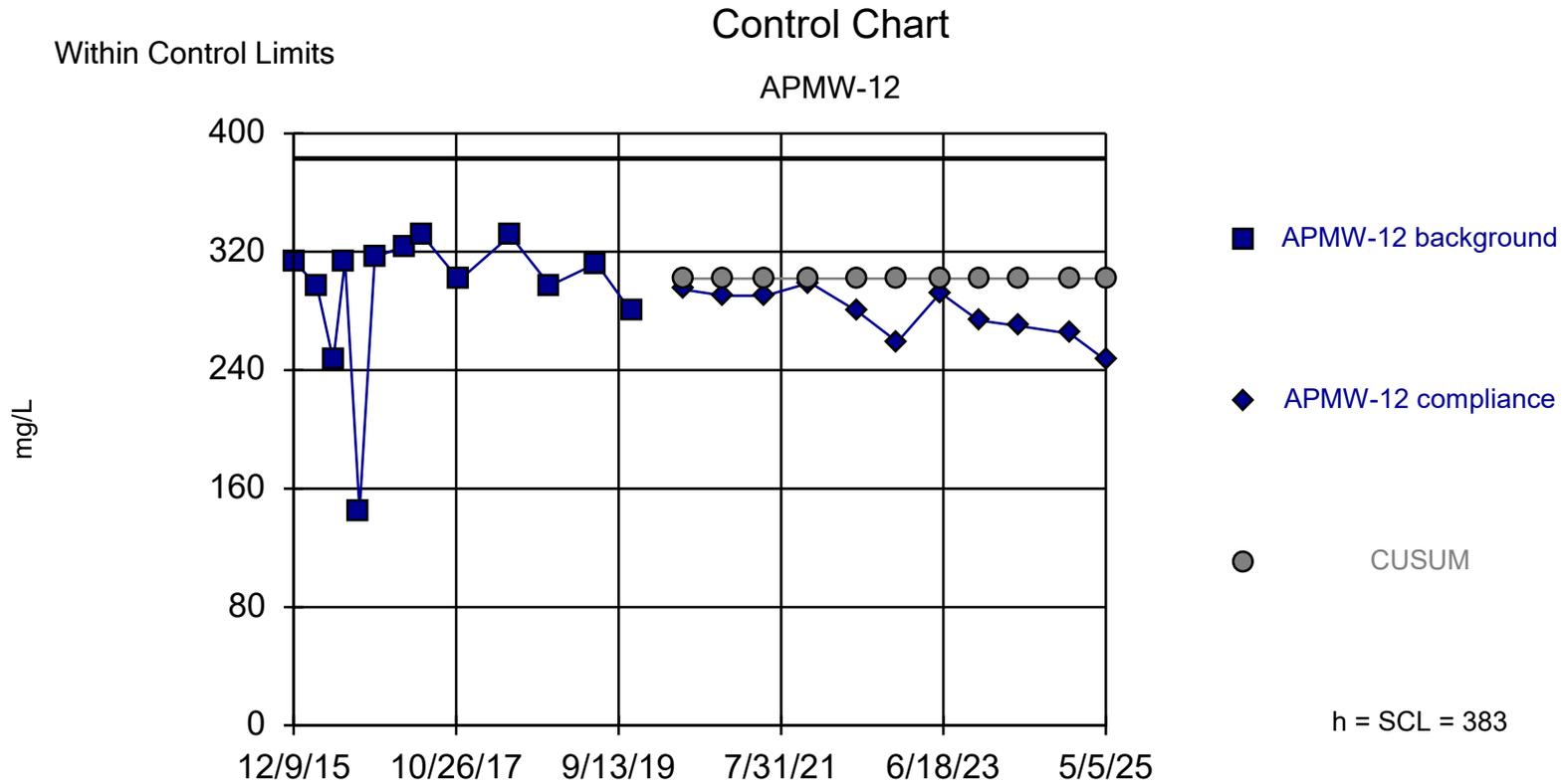
Within Limit

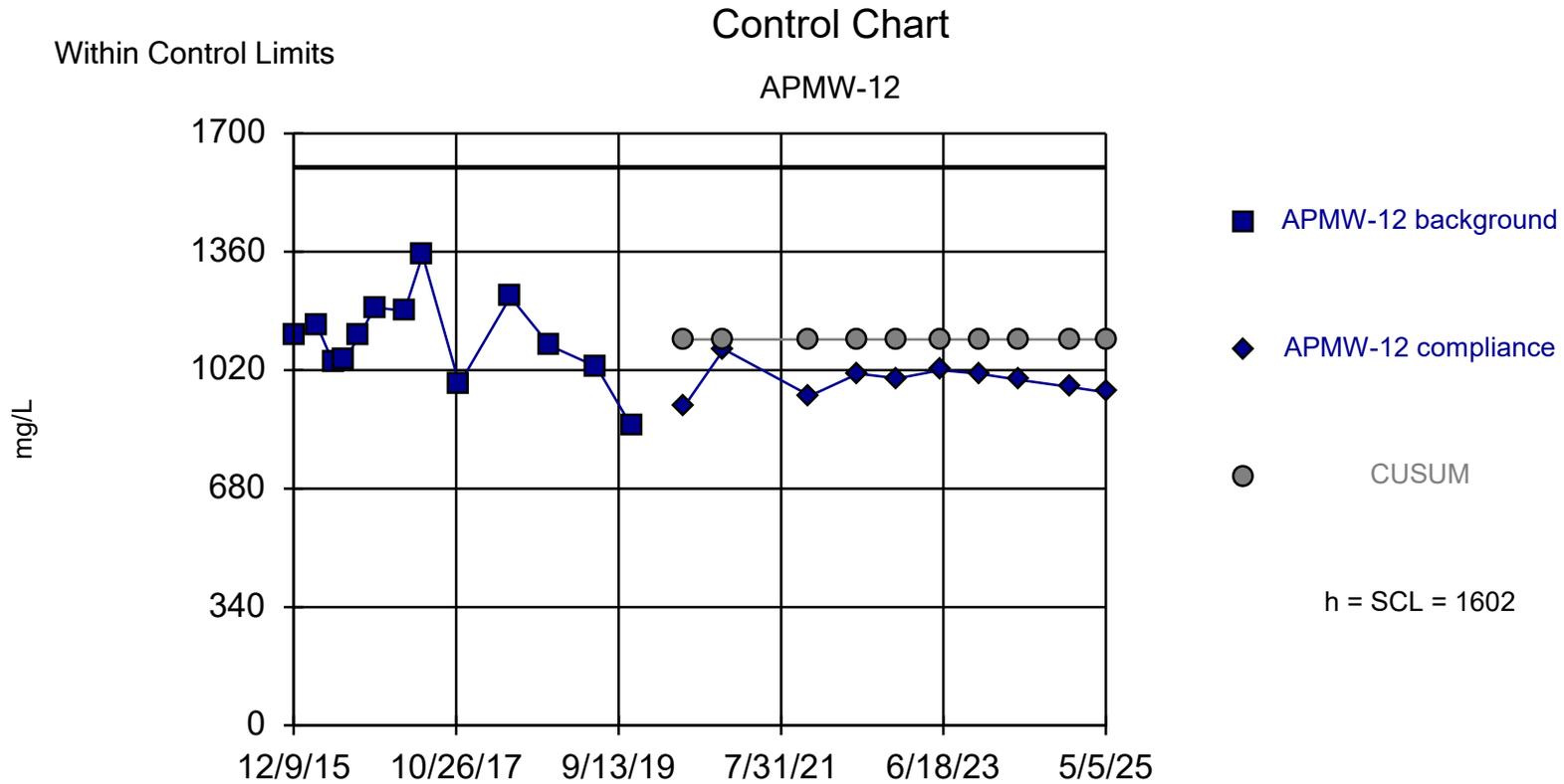
Prediction Limit

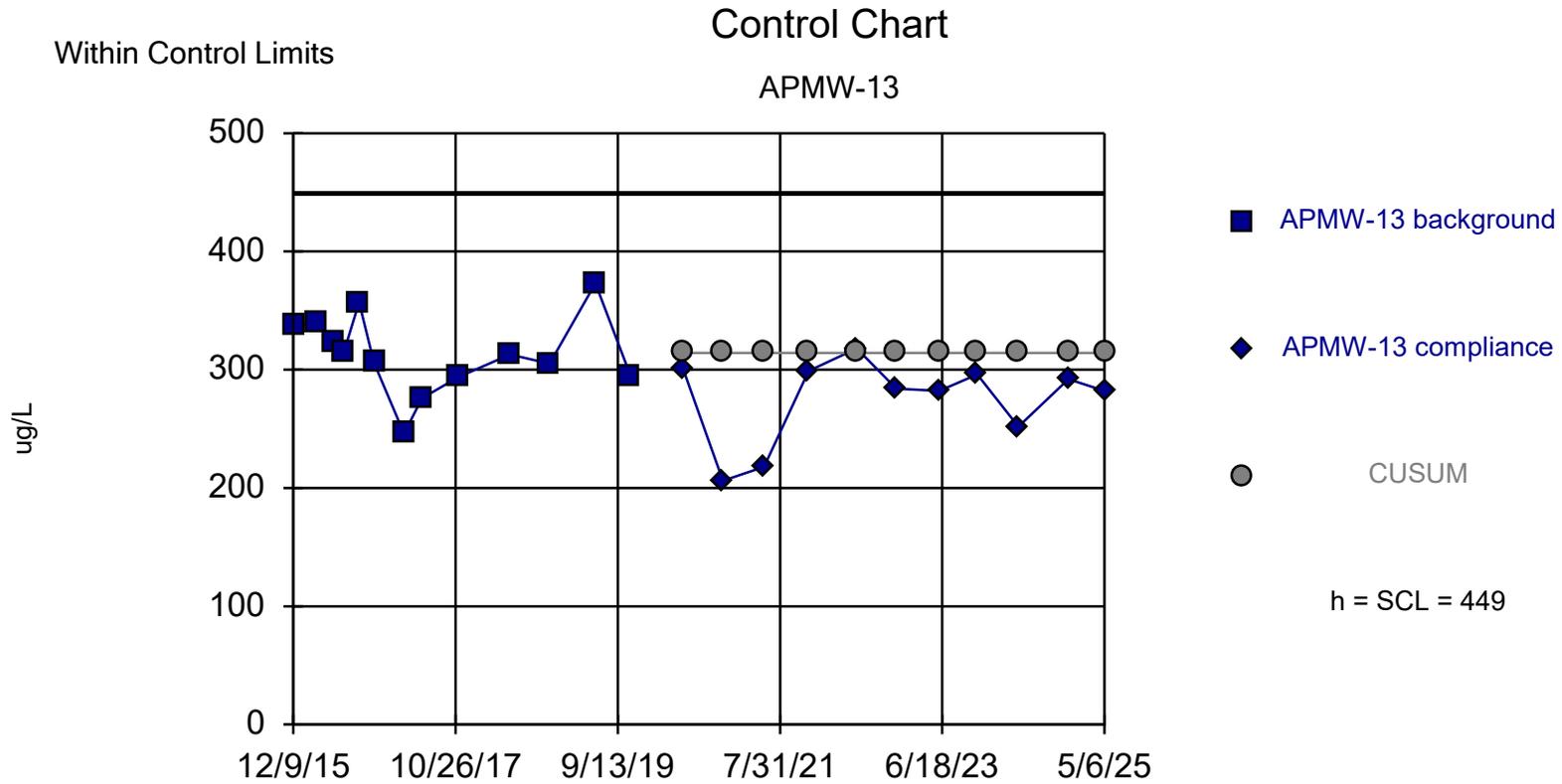
Intrawell Non-parametric

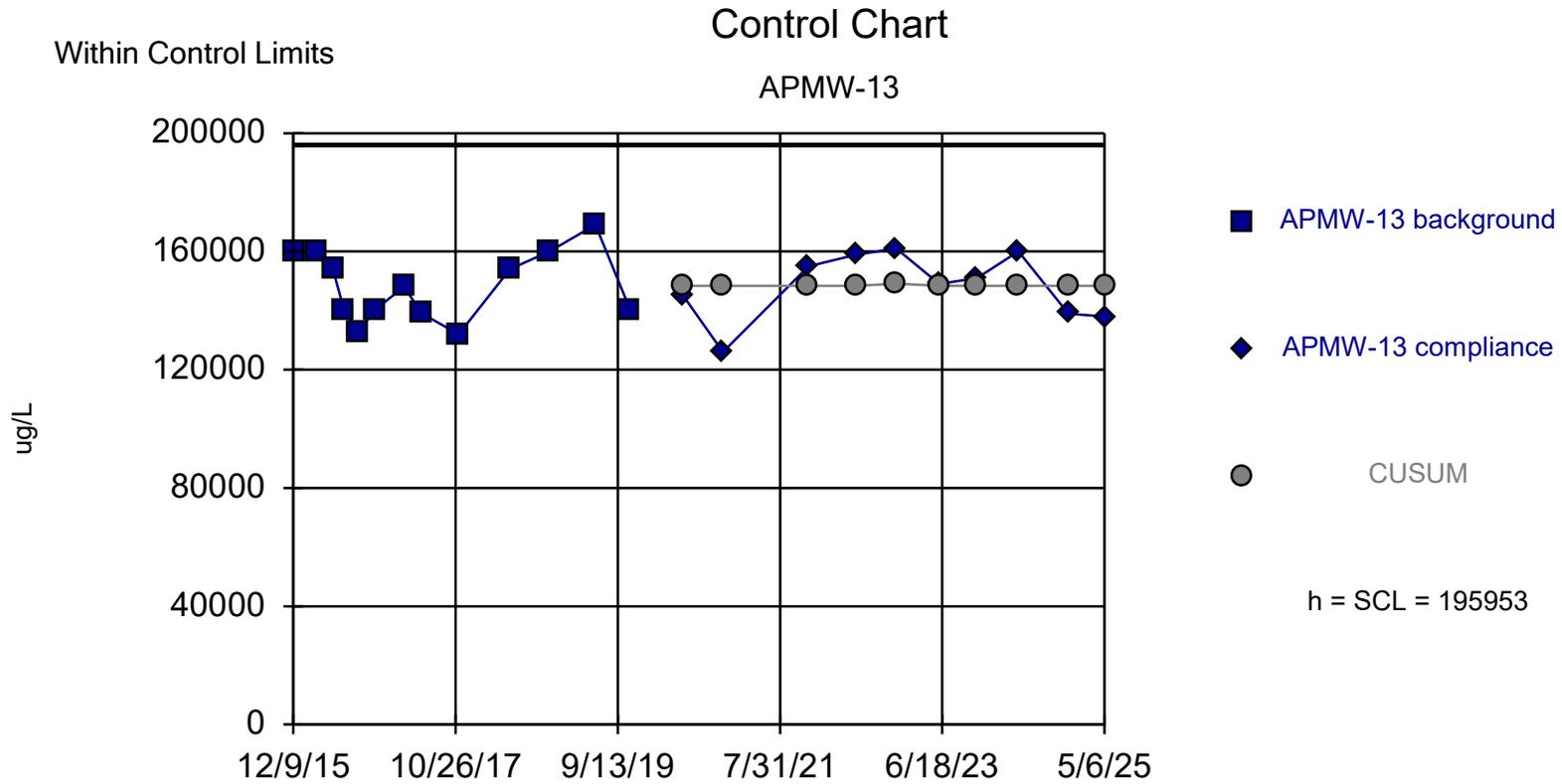








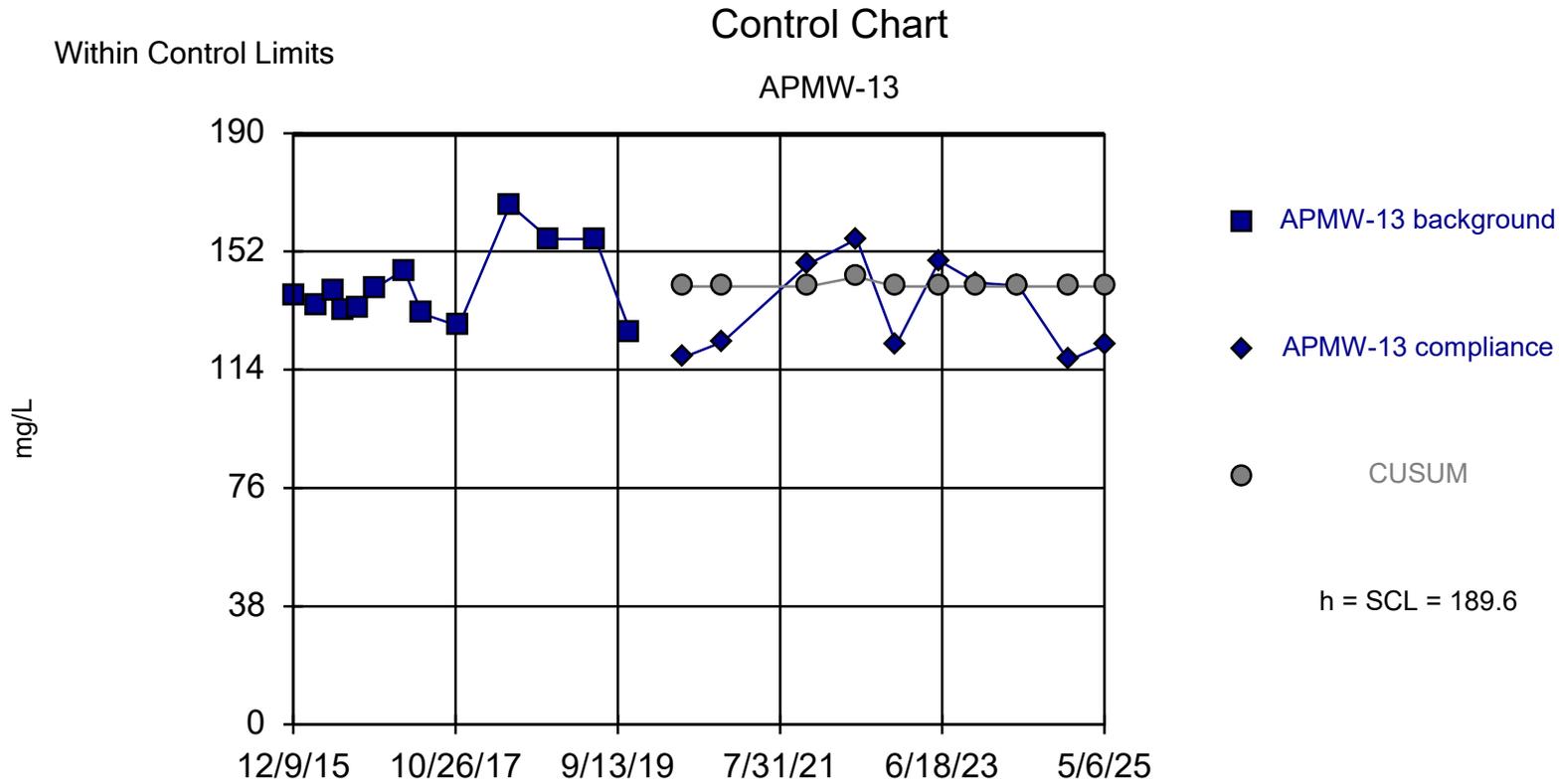




Background Data Summary: Mean=148385, Std. Dev.=11892, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.923, critical = 0.866. Report alpha = 0.02267. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 3:20 PM

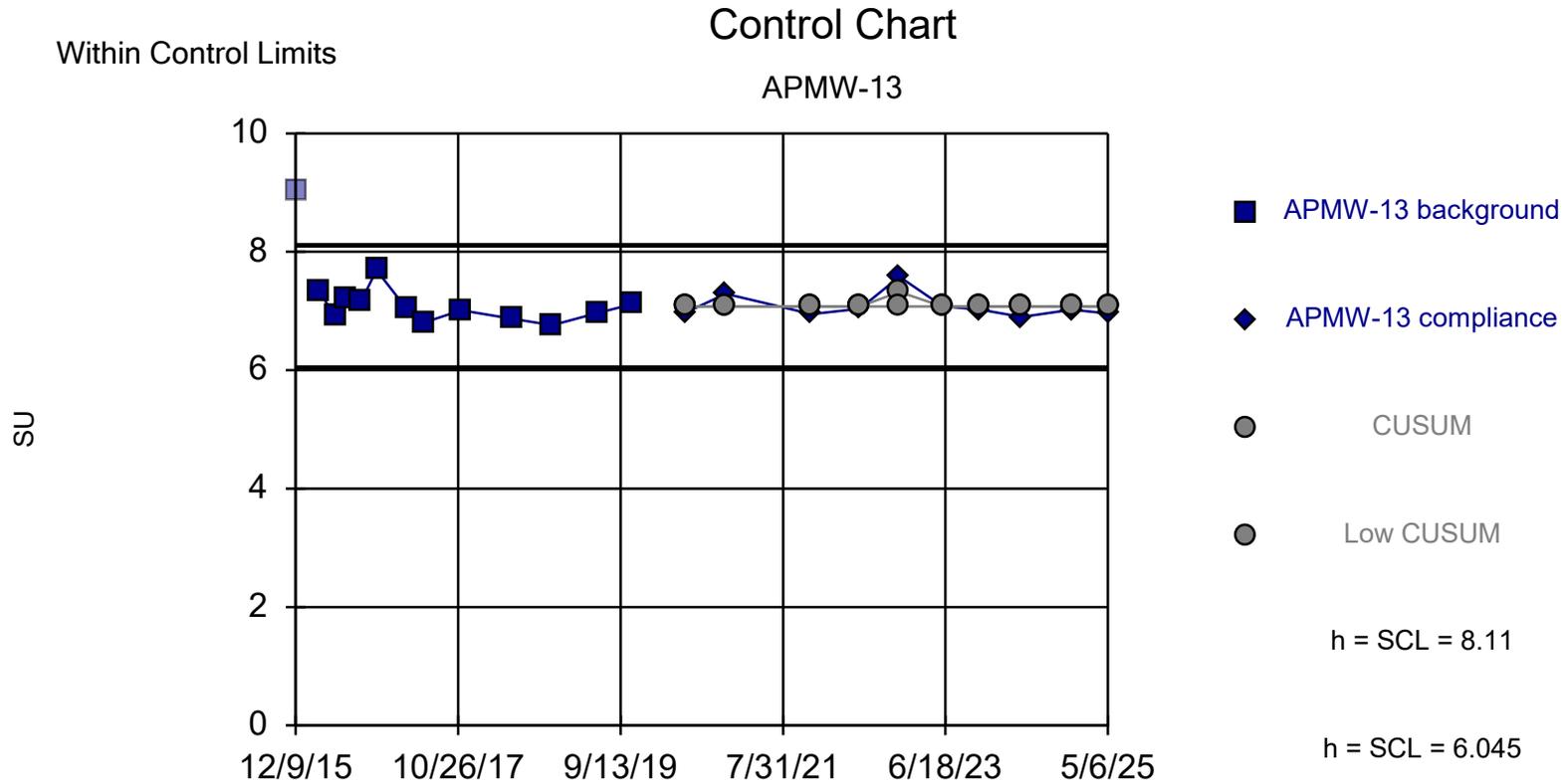
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=140.8, Std. Dev.=12.21, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9021, critical = 0.866. Report alpha = 0.02267. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

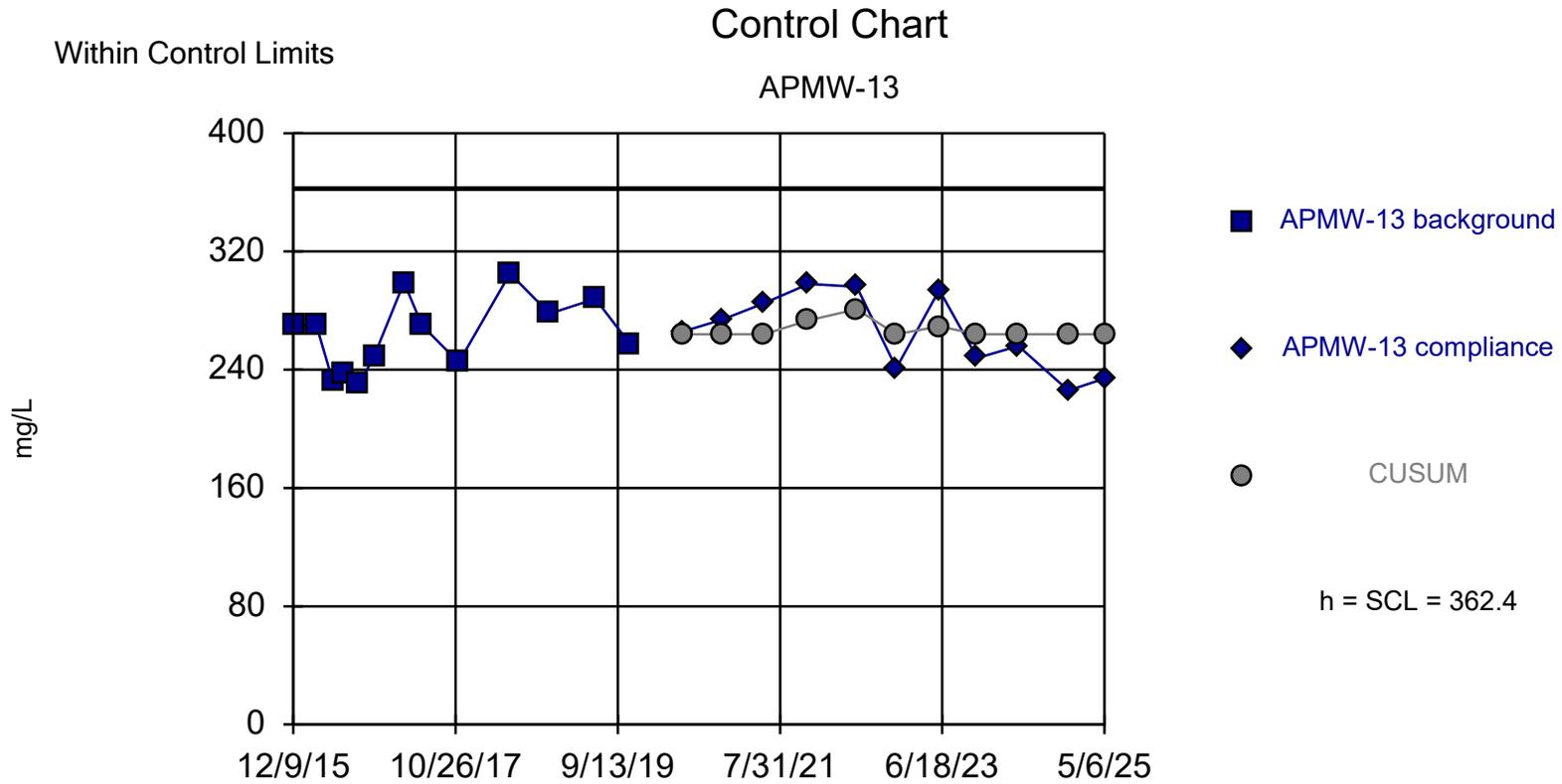
Constituent: Chloride Analysis Run 1/13/2026 3:20 PM

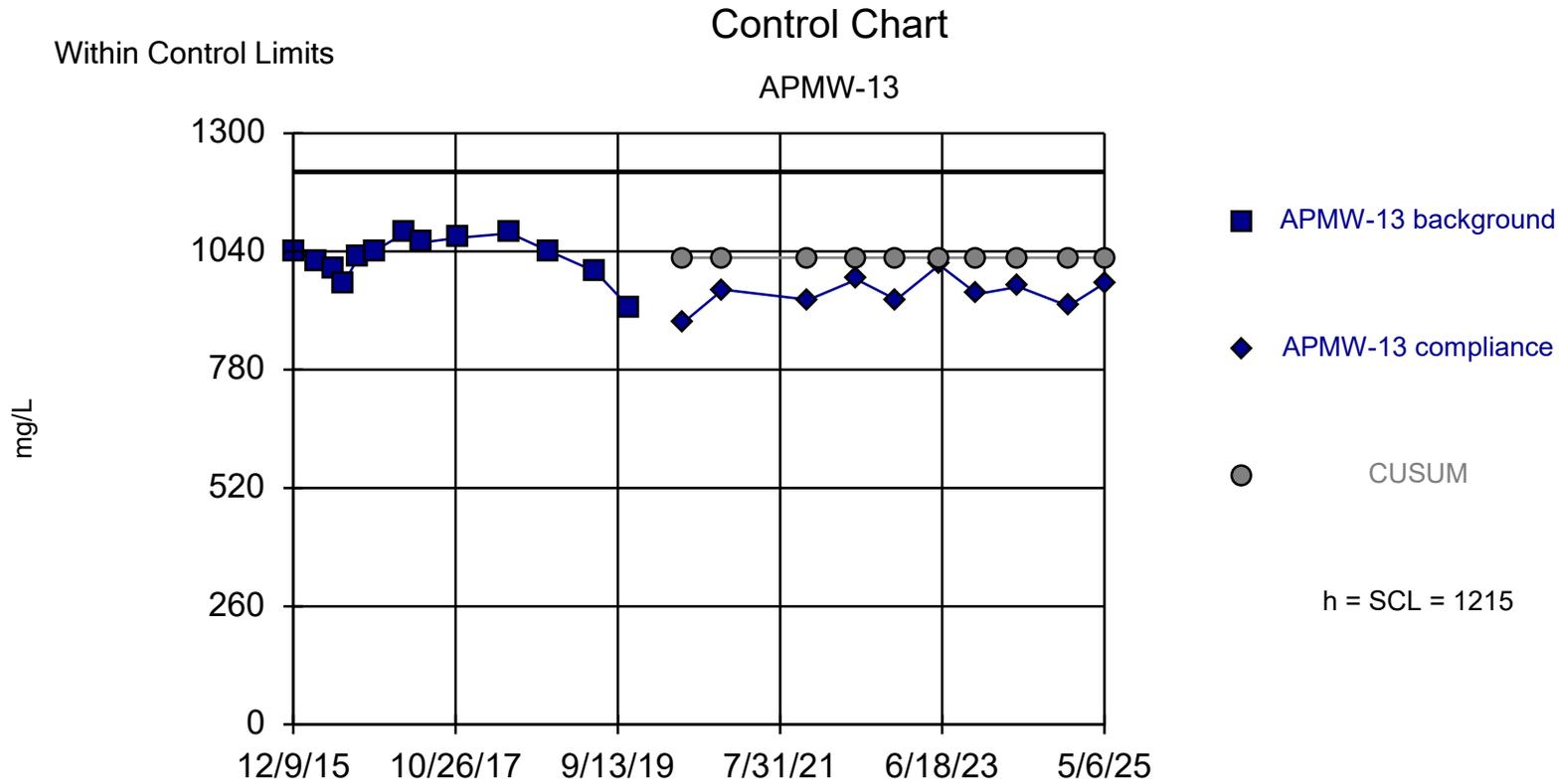
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

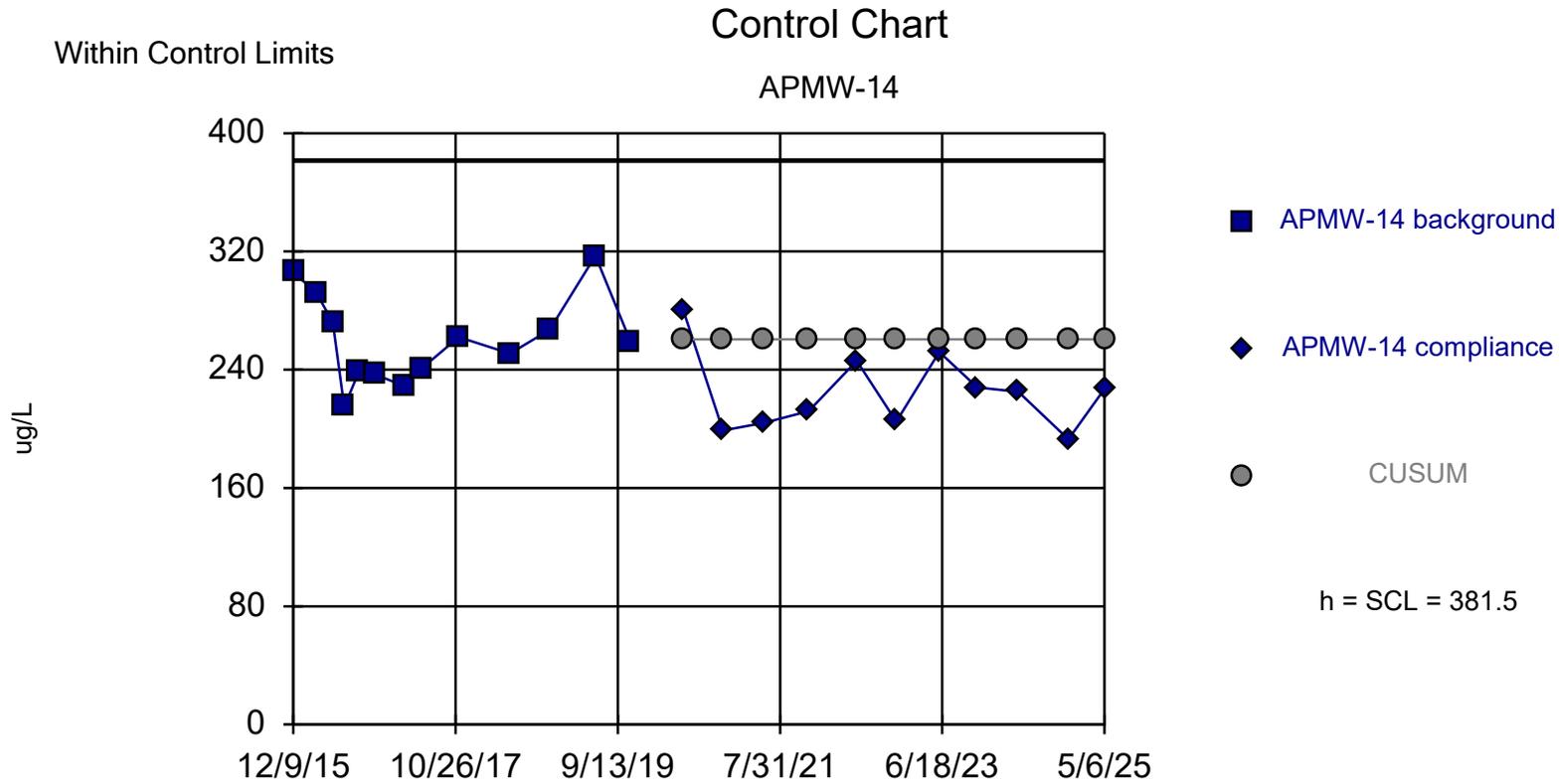


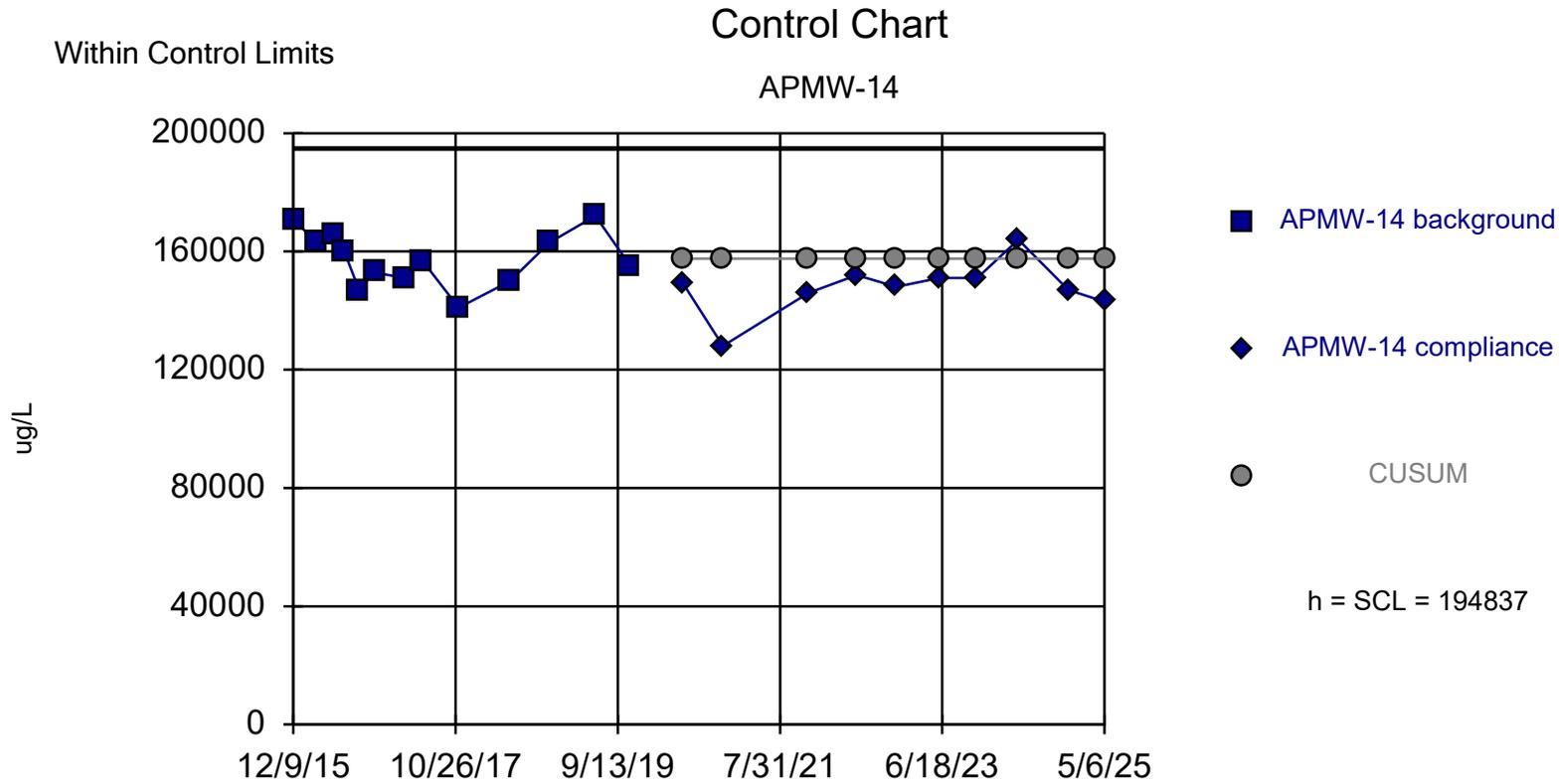
Background Data Summary: Mean=7.078, Std. Dev.=0.258, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.924, critical = 0.859. Report alpha = 0.02594. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

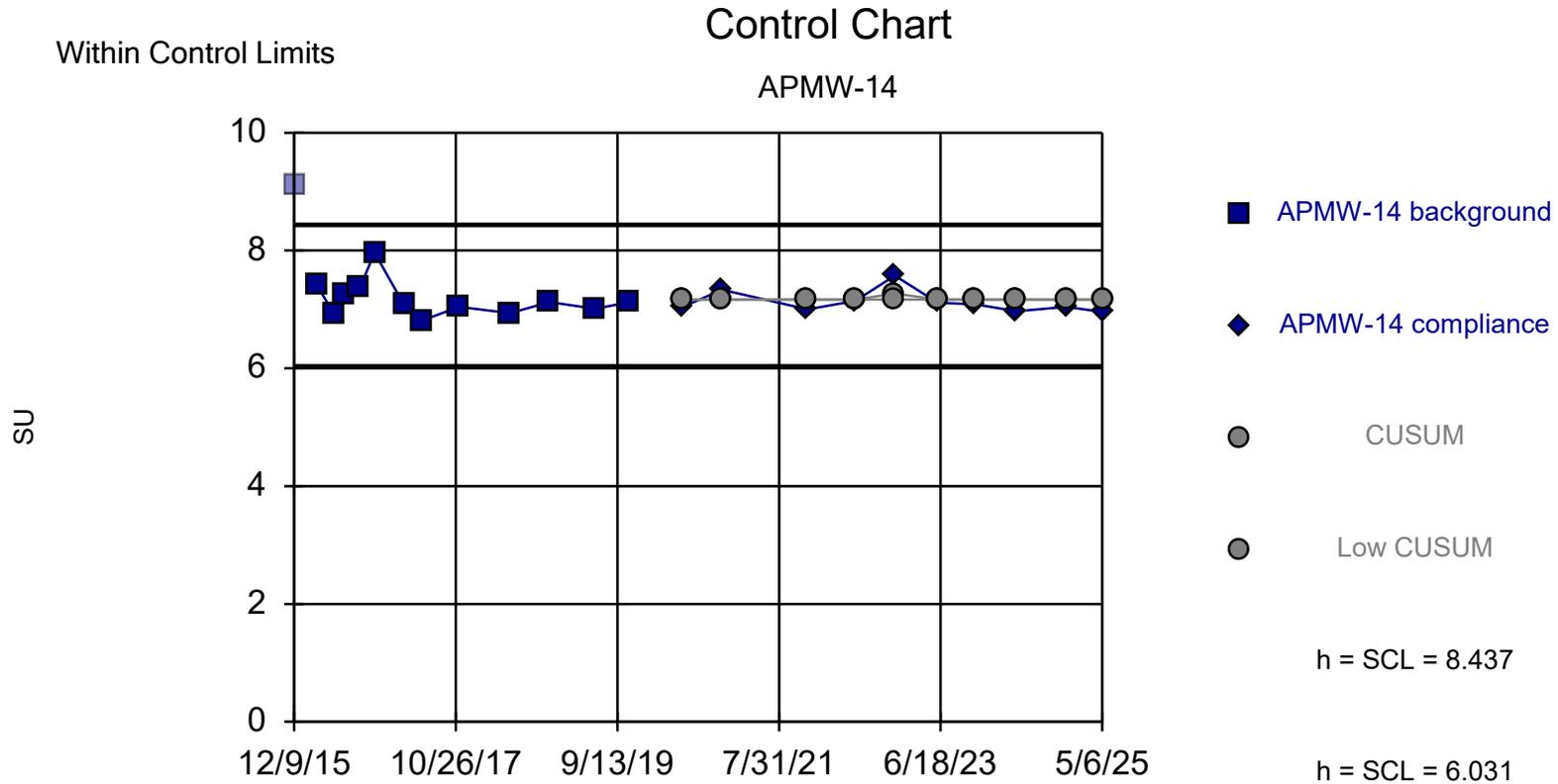
Constituent: pH, Field-Measured Analysis Run 1/13/2026 3:26 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

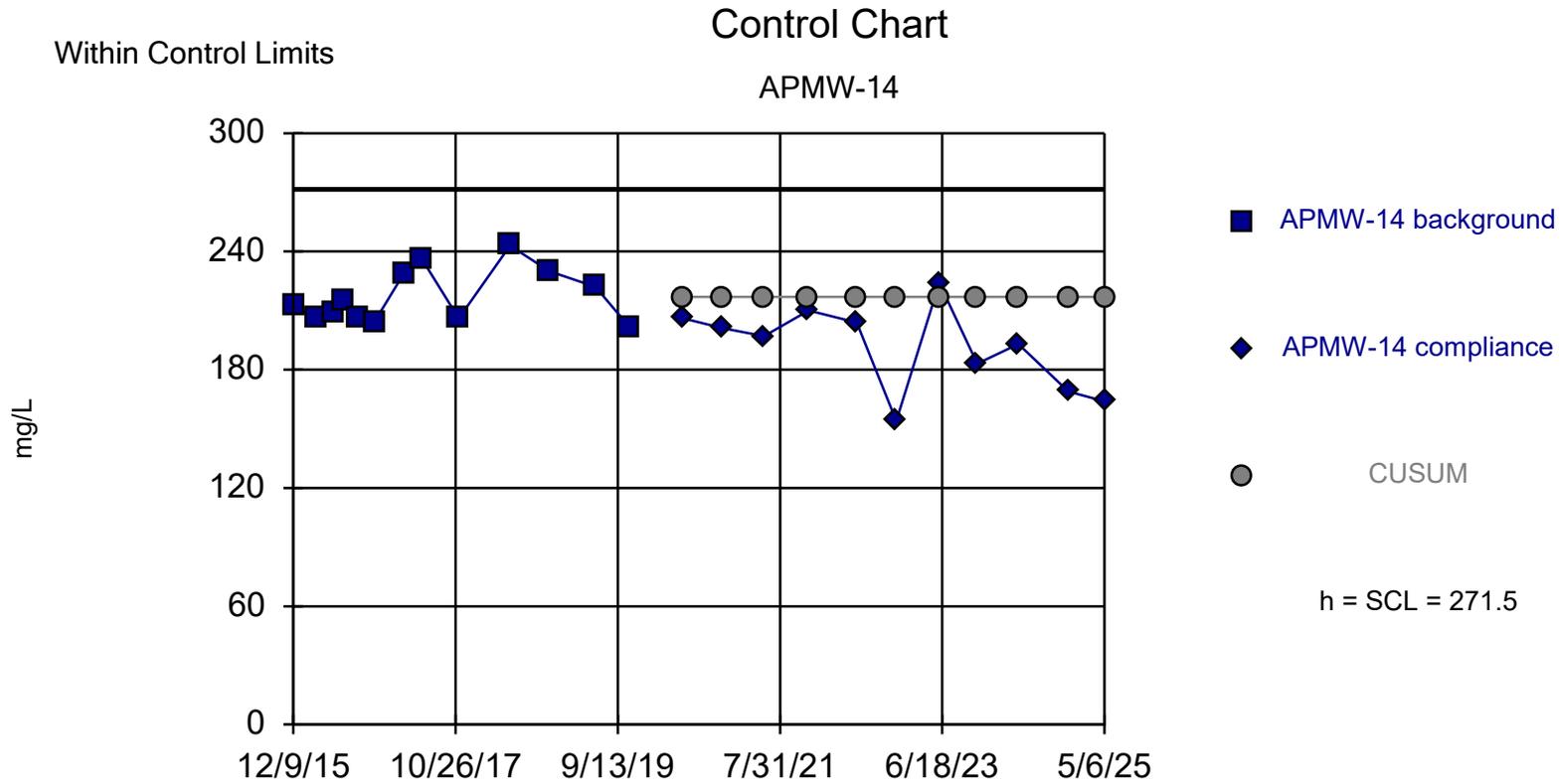


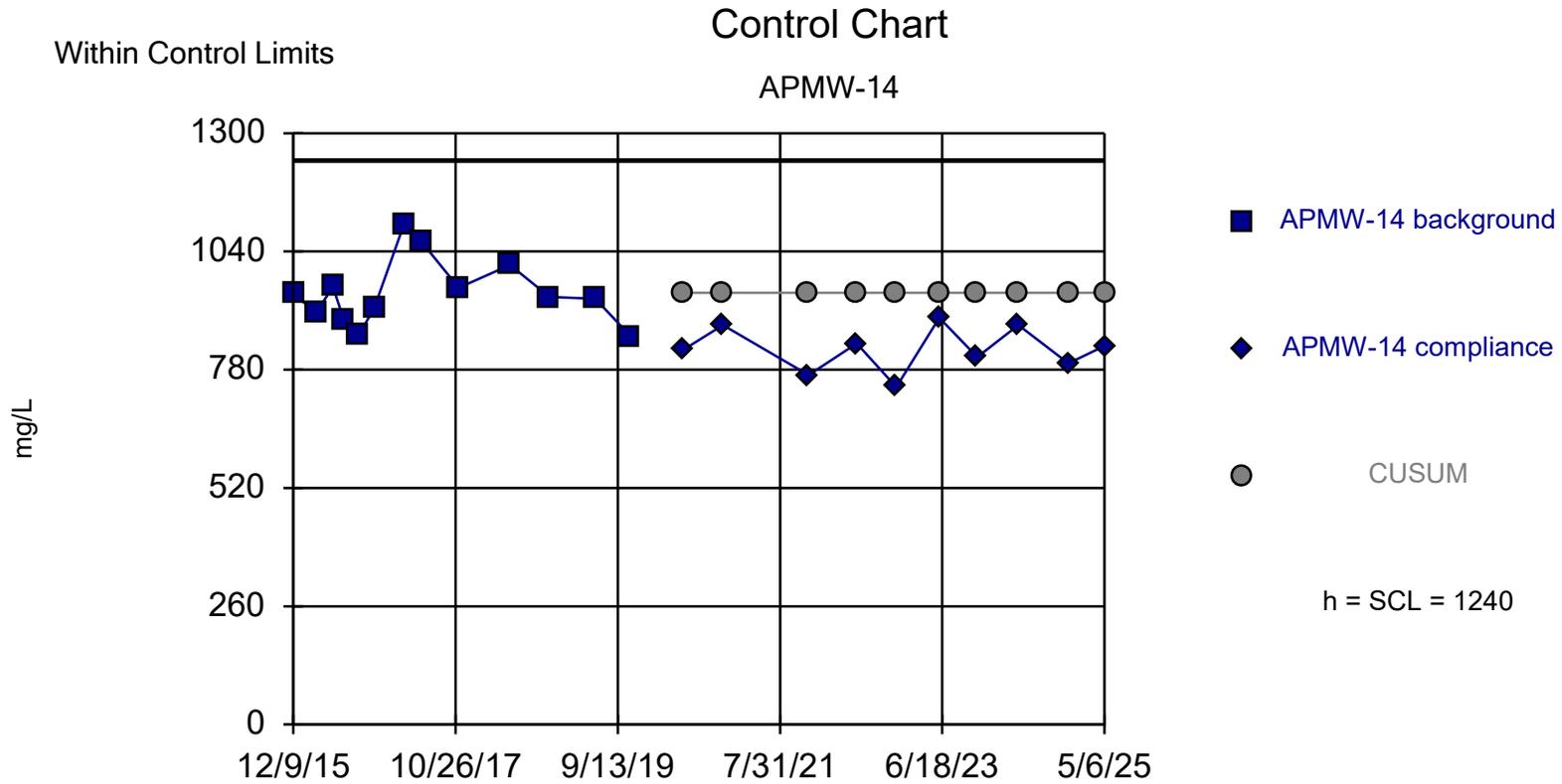








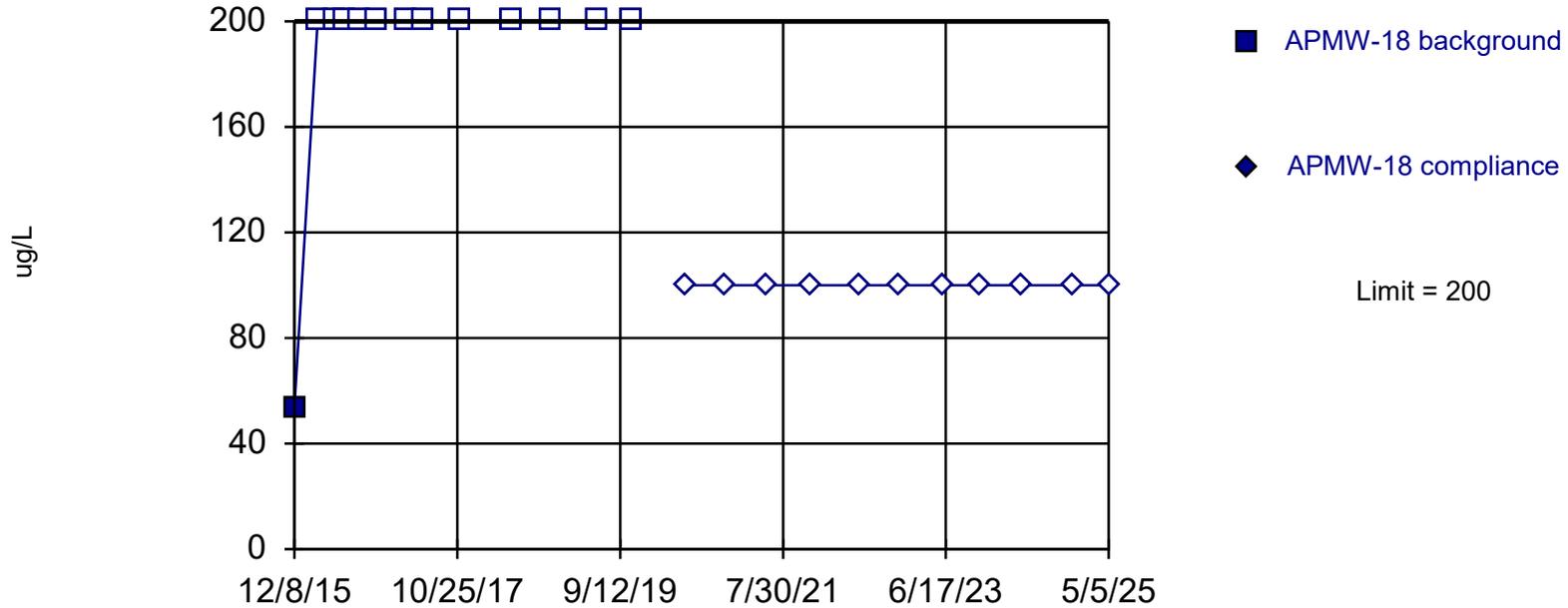




Within Limit

Prediction Limit

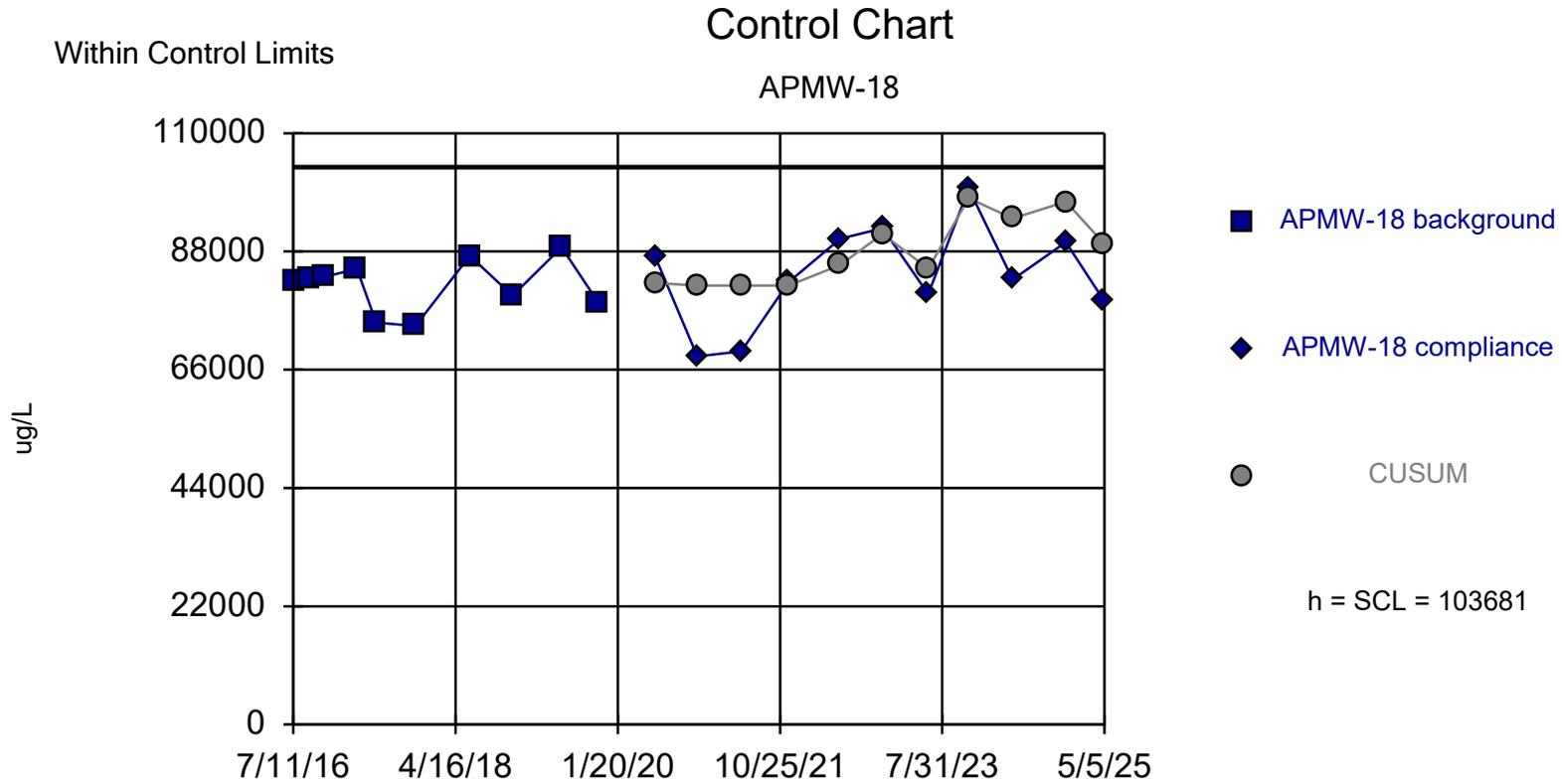
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/14/2026 9:28 AM

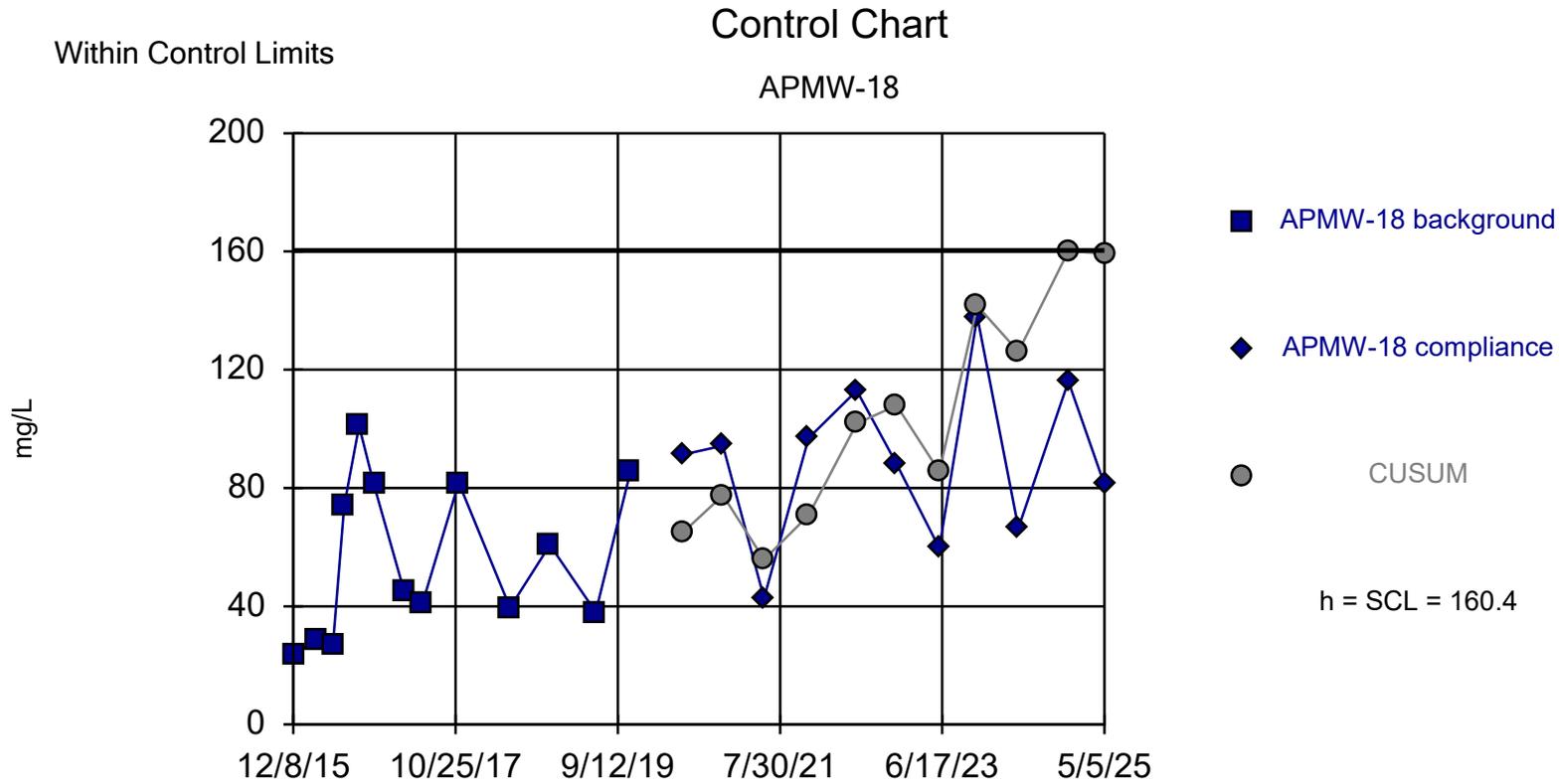
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=81680, Std. Dev.=4889, n=10. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9537, critical = 0.842. Report alpha = 0.02624. Dates ending 11/5/2019 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: Calcium Analysis Run 1/14/2026 9:40 AM

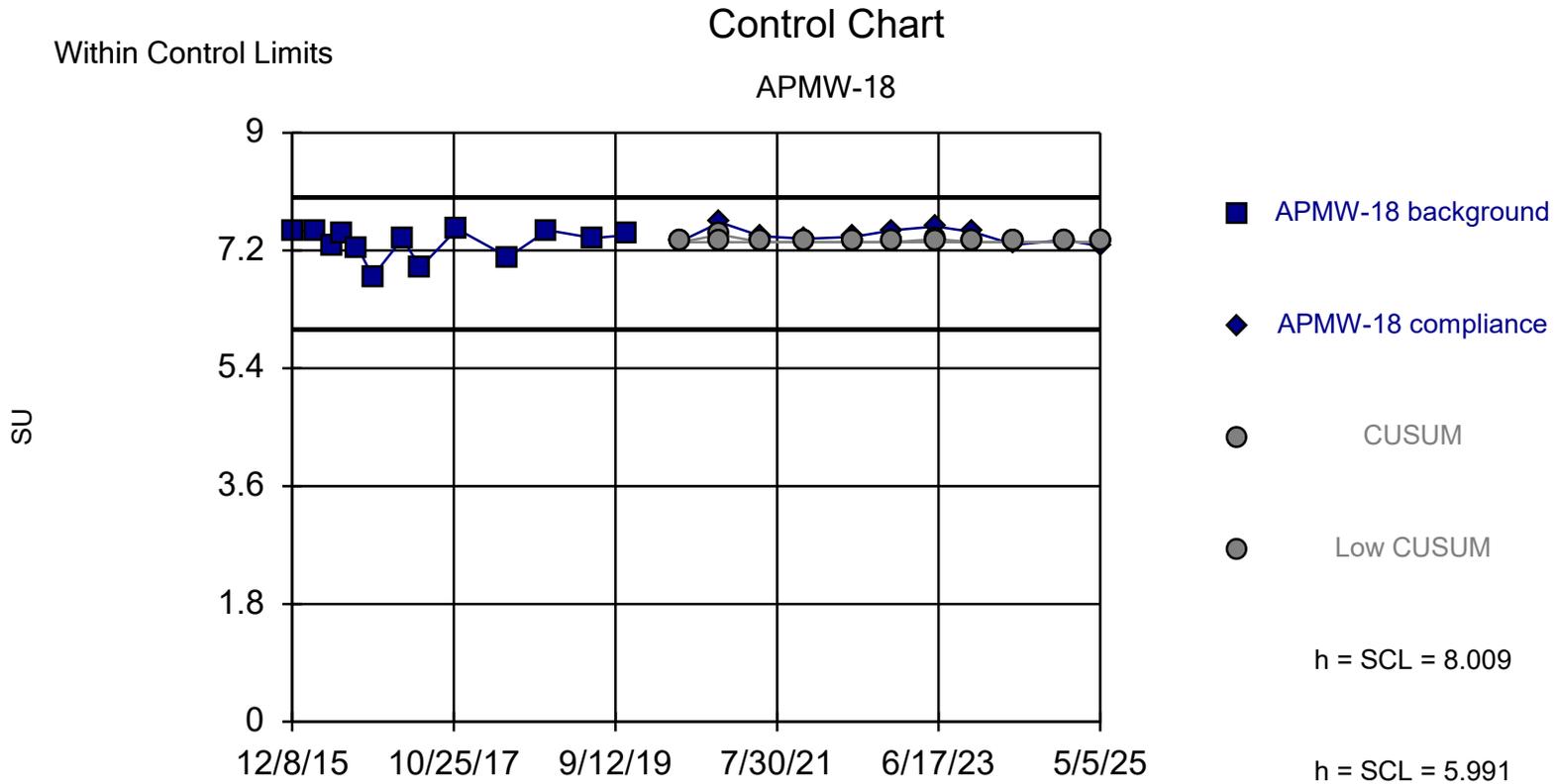
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=55.84, Std. Dev.=26.14, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9088, critical = 0.866. Report alpha = 0.02472. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

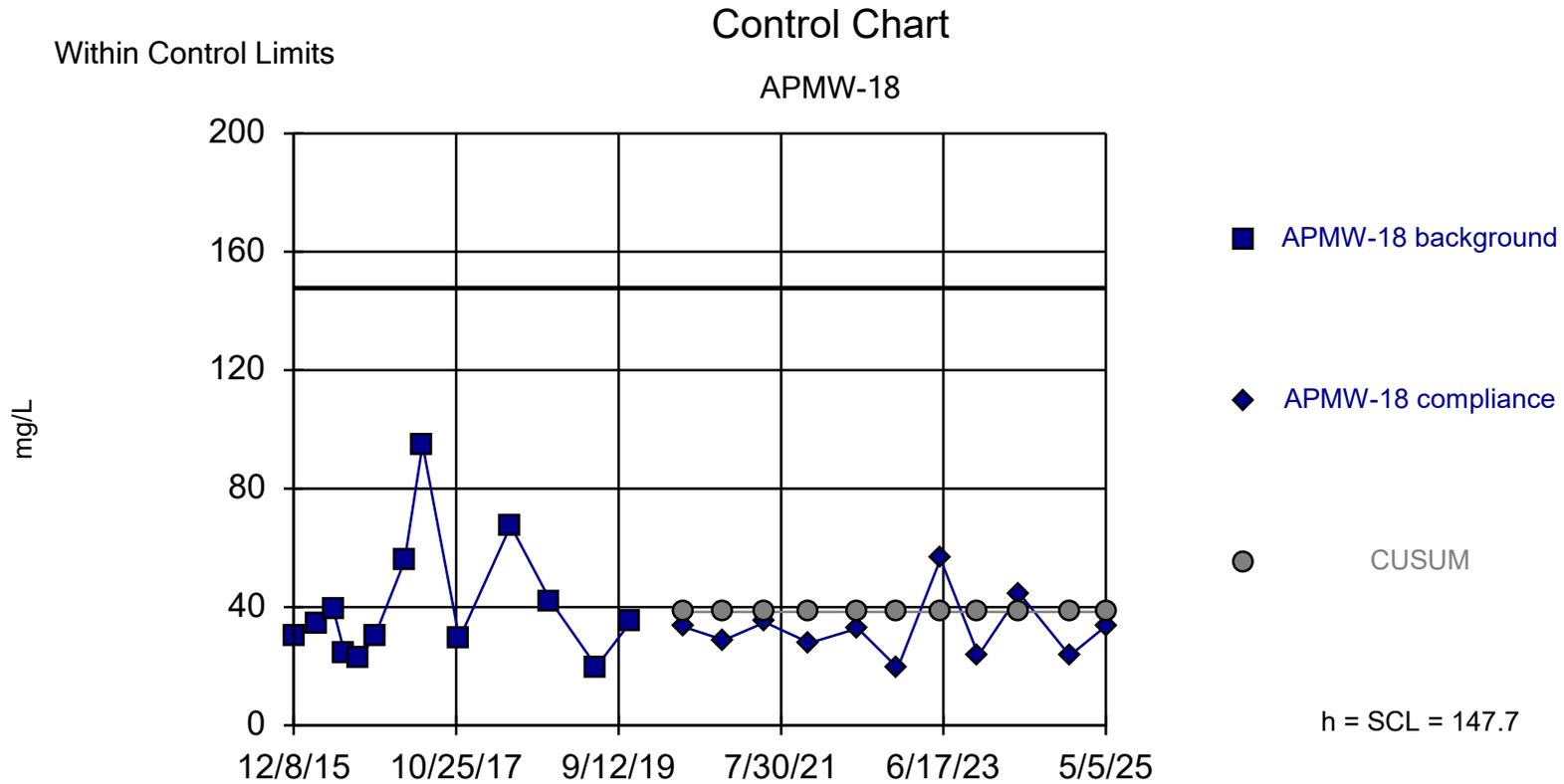
Constituent: Chloride Analysis Run 1/14/2026 9:28 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on x^6 transformation): Mean=155040, Std. Dev.=27197, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8703, critical = 0.866. Report alpha = 0.02472. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

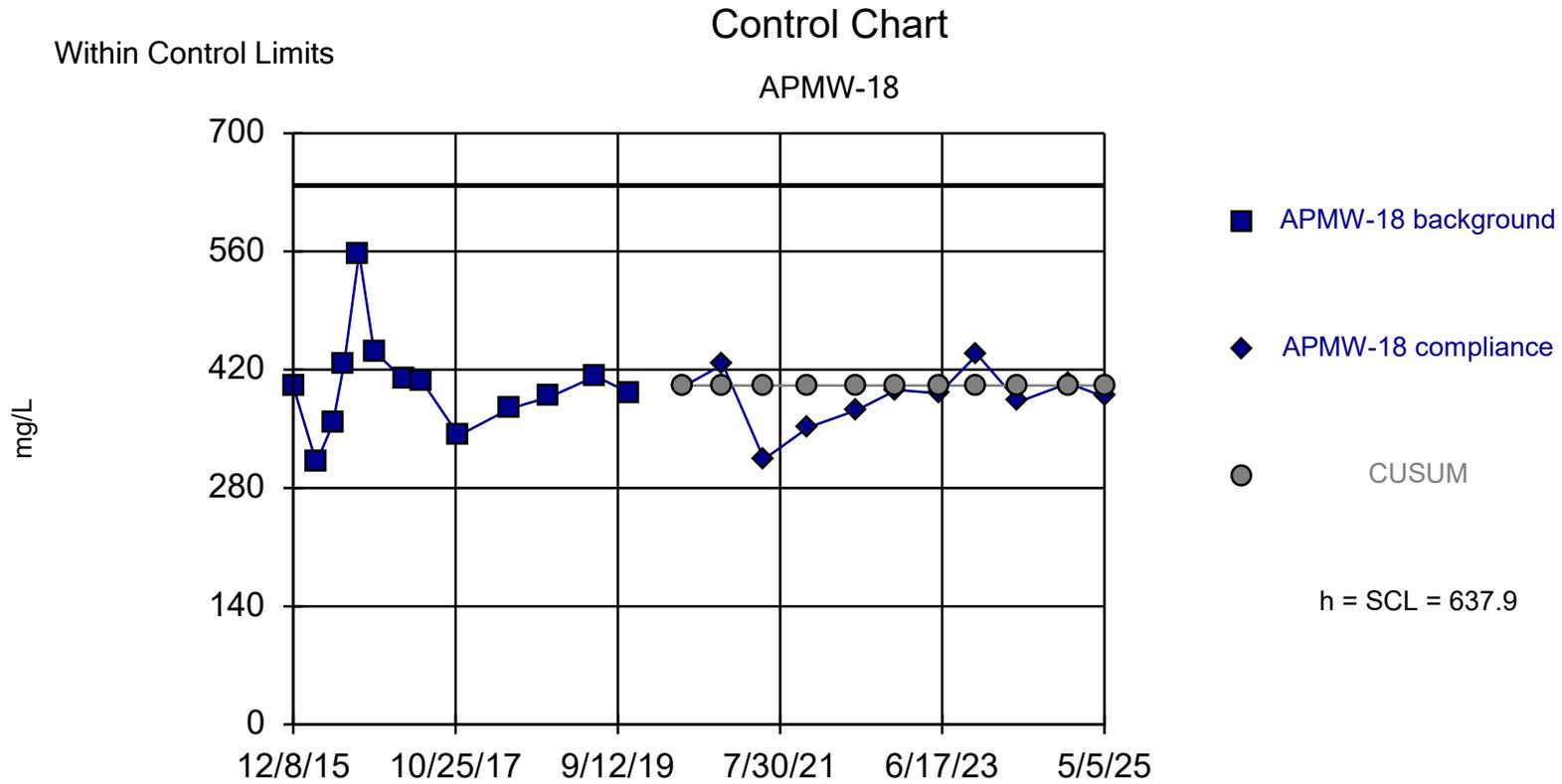
Constituent: pH, Field-Measured Analysis Run 1/14/2026 9:28 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on square root transformation): Mean=6.19, Std. Dev.=1.491, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8874, critical = 0.866. Report alpha = 0.02472. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 9:28 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



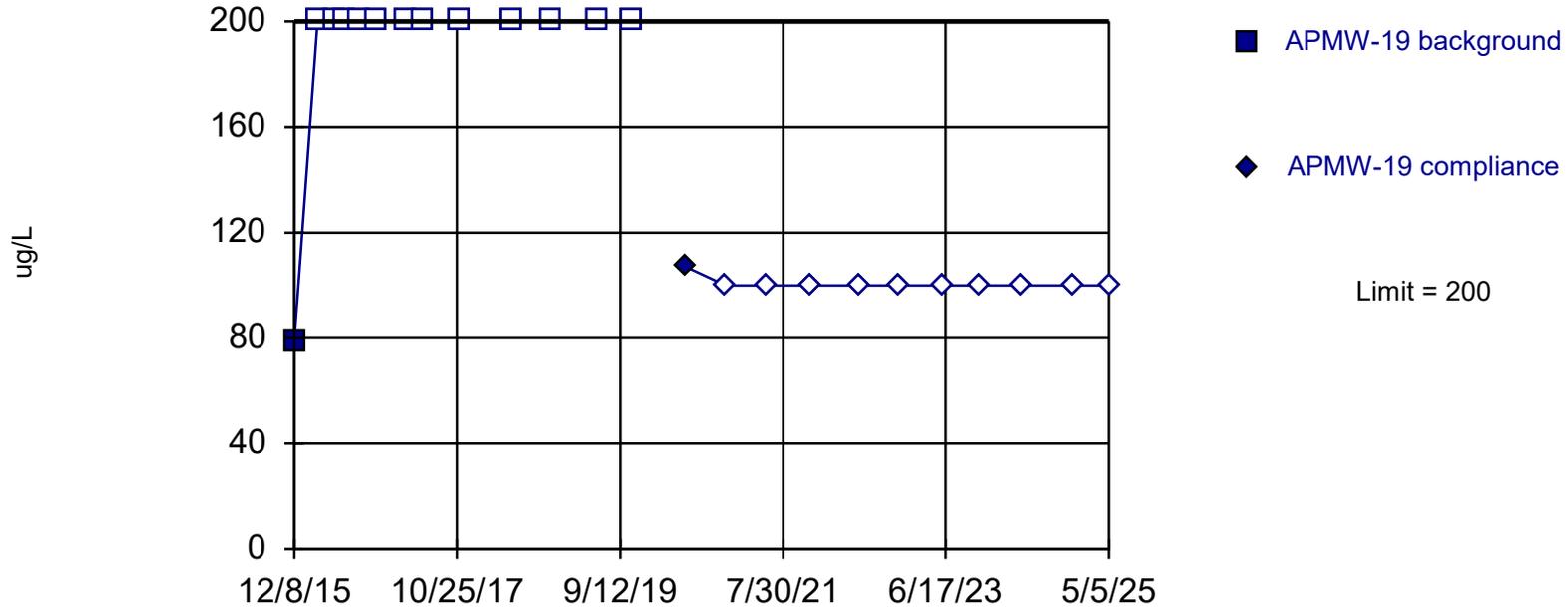
Background Data Summary: Mean=401.2, Std. Dev.=59.18, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8861, critical = 0.866. Report alpha = 0.02472. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

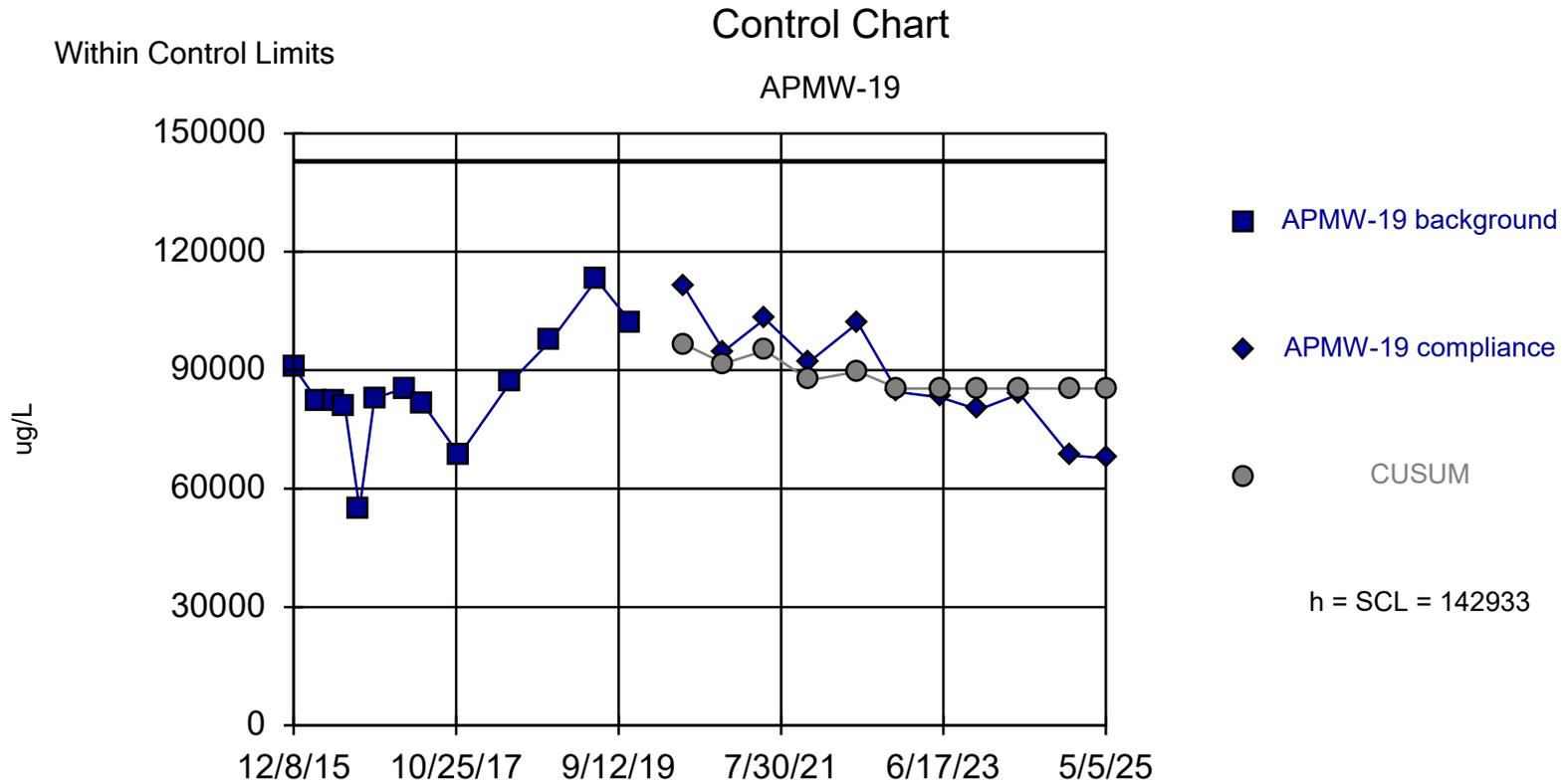
Constituent: Total Dissolved Solids Analysis Run 1/14/2026 9:28 AM
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

Intrawell Non-parametric

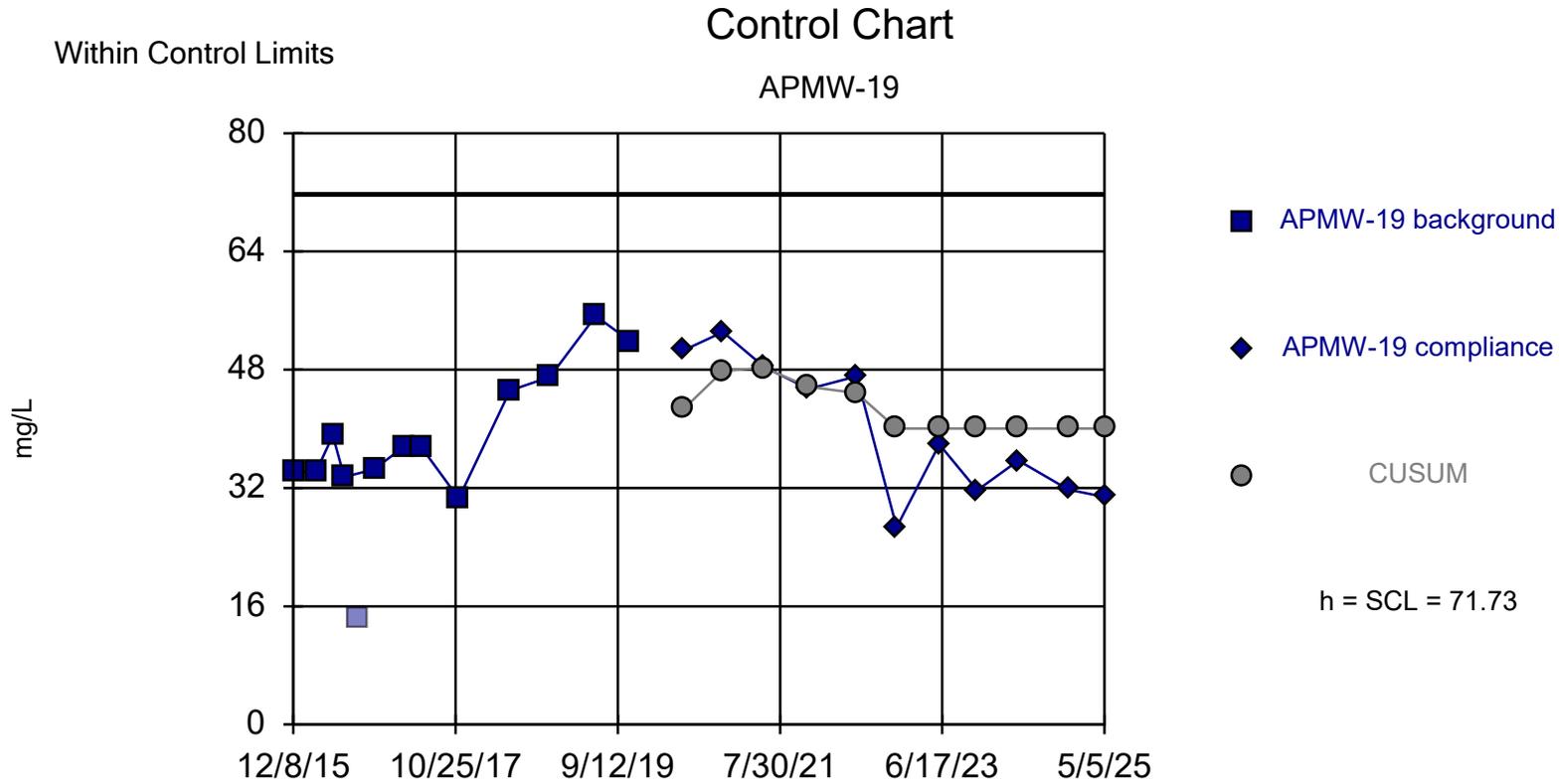




Background Data Summary: Mean=85323, Std. Dev.=14403, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9453, critical = 0.866. Report alpha = 0.02426. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/14/2026 10:05 AM

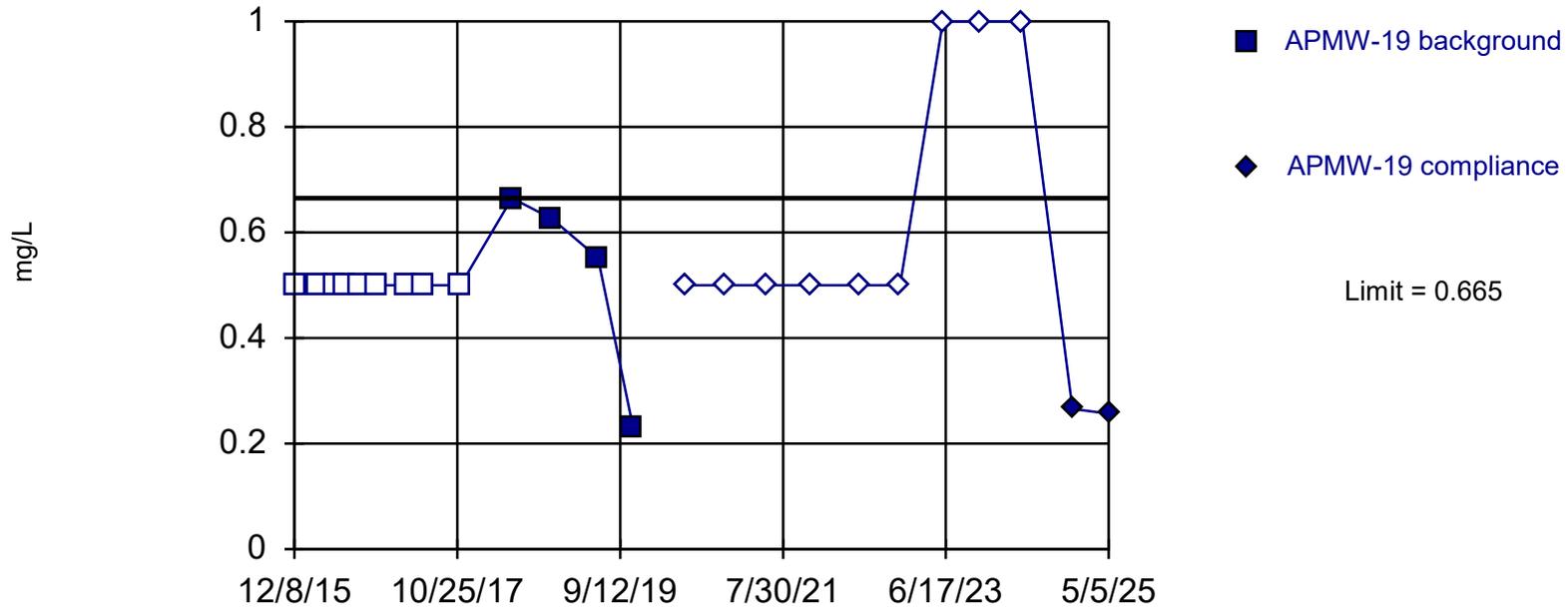
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

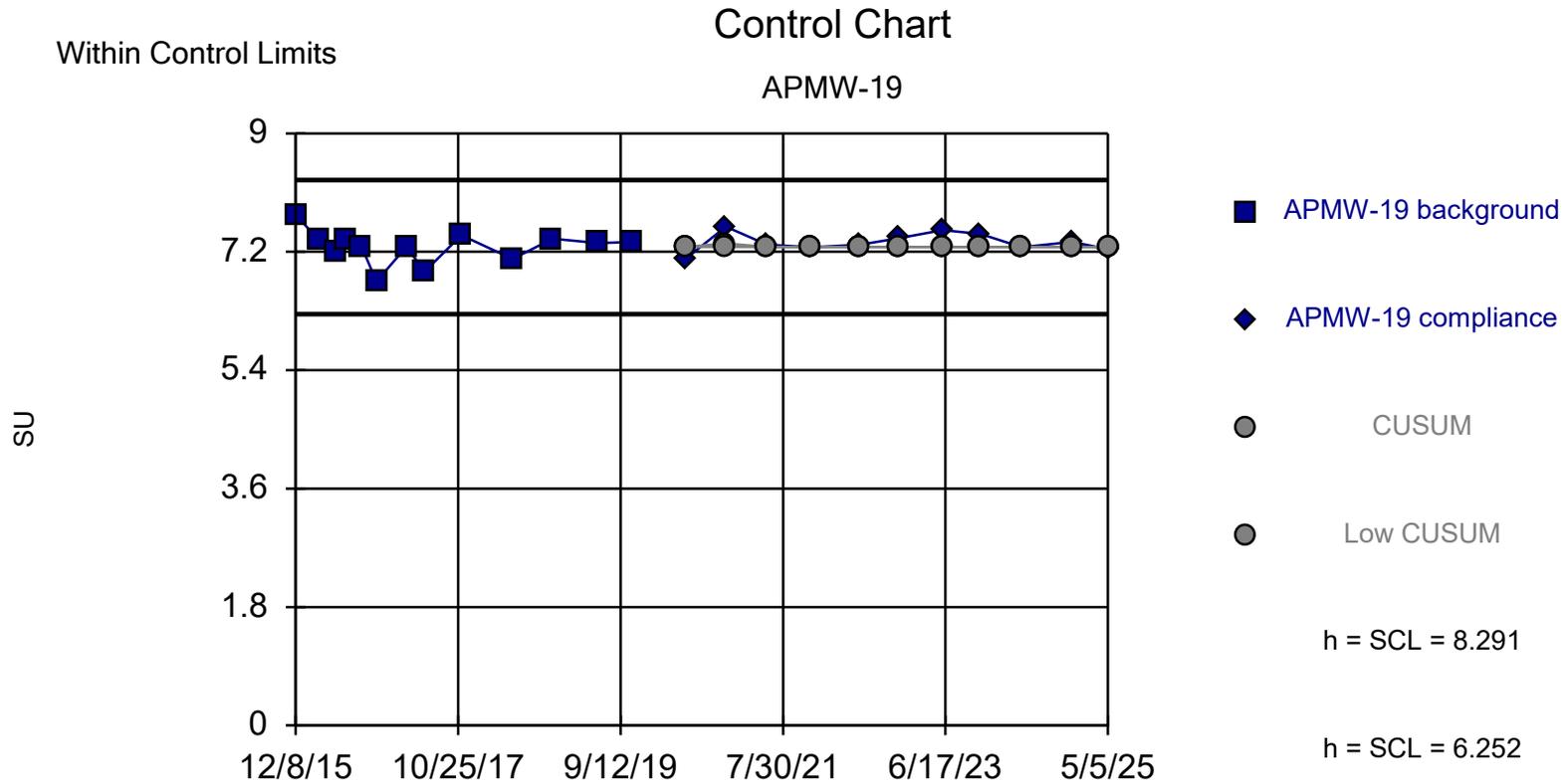


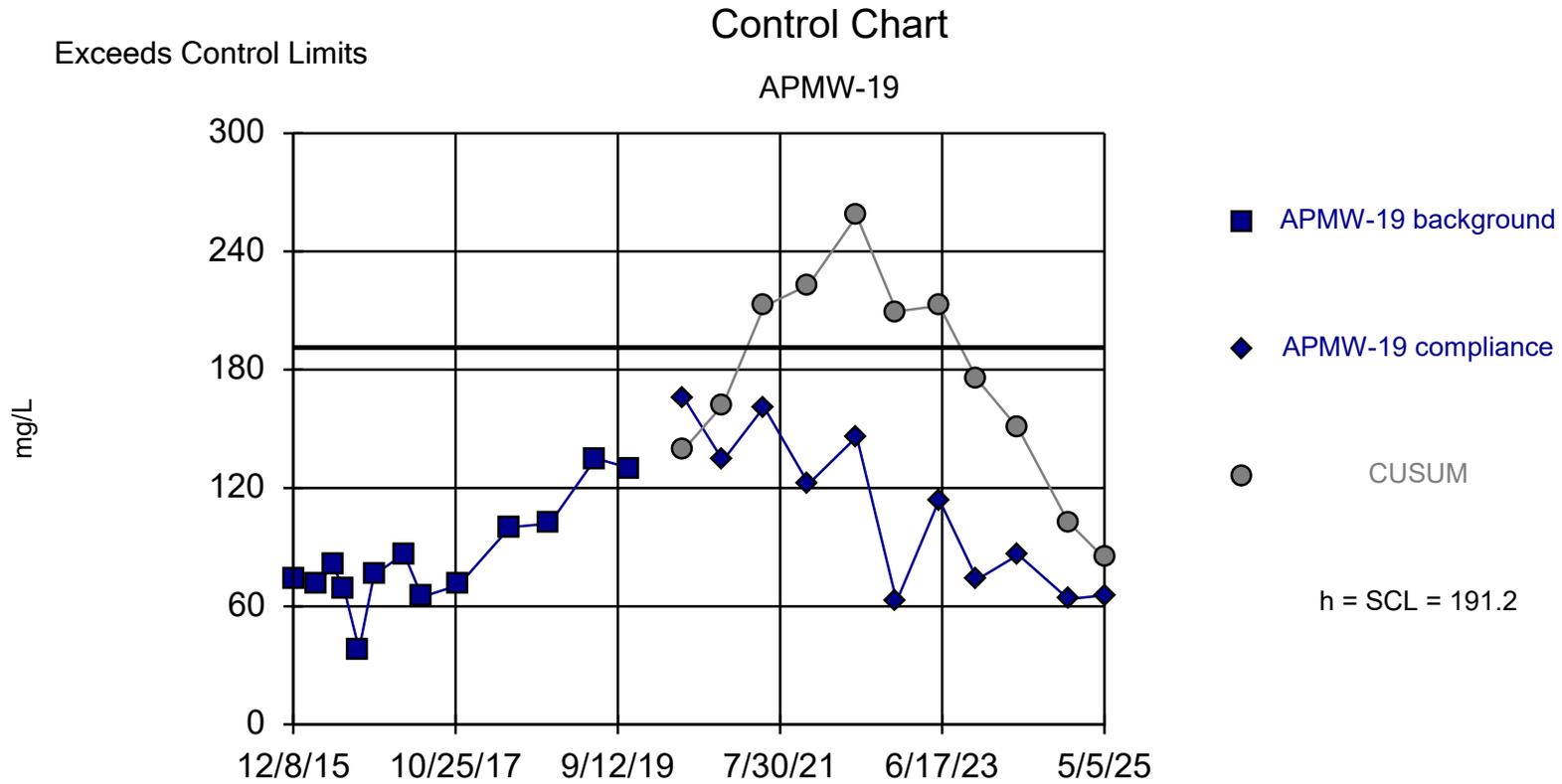
Within Limit

Prediction Limit

Intrawell Non-parametric



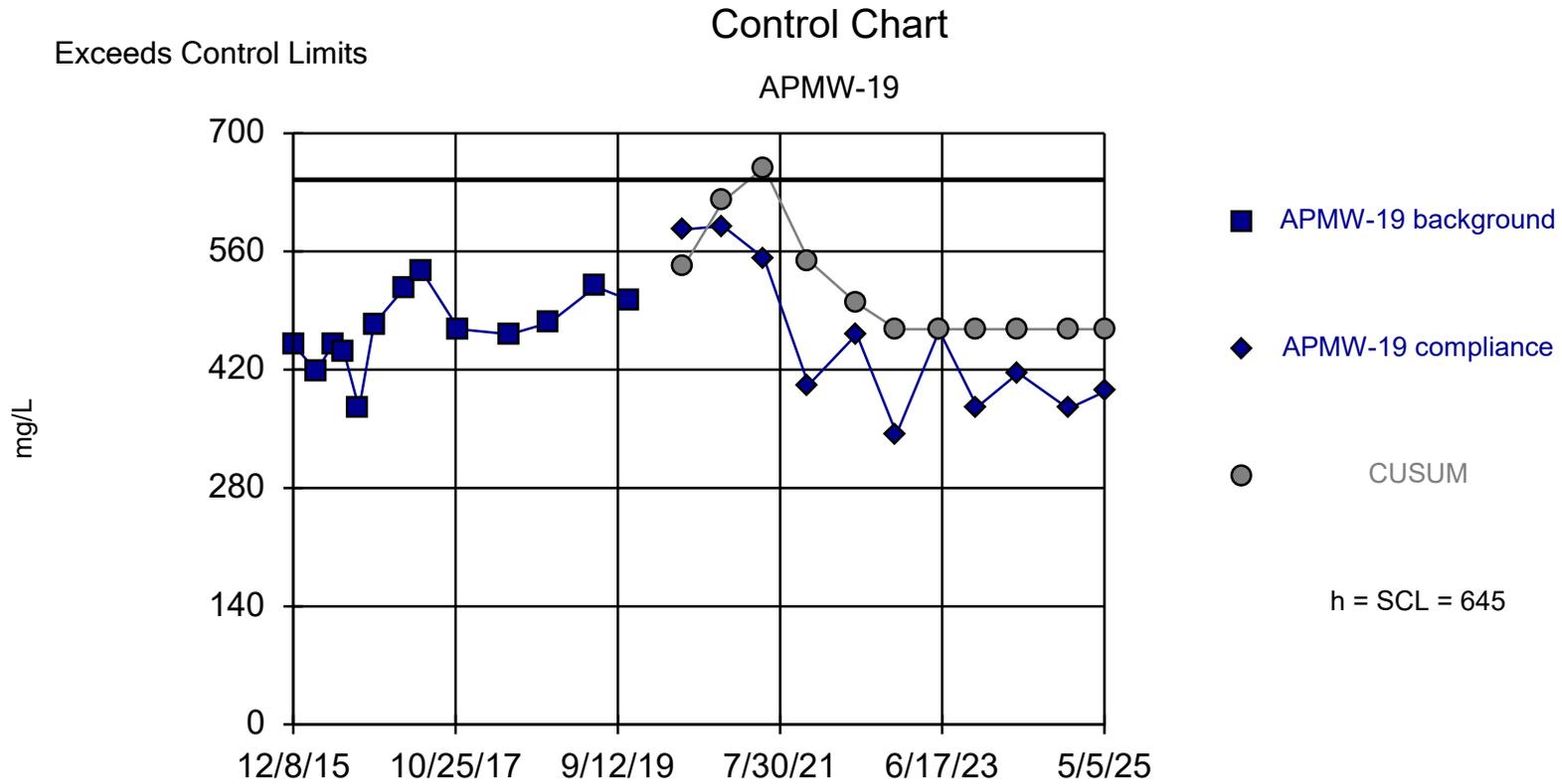




Background Data Summary: Mean=84.34, Std. Dev.=26.71, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9224, critical = 0.866. Report alpha = 0.02426. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

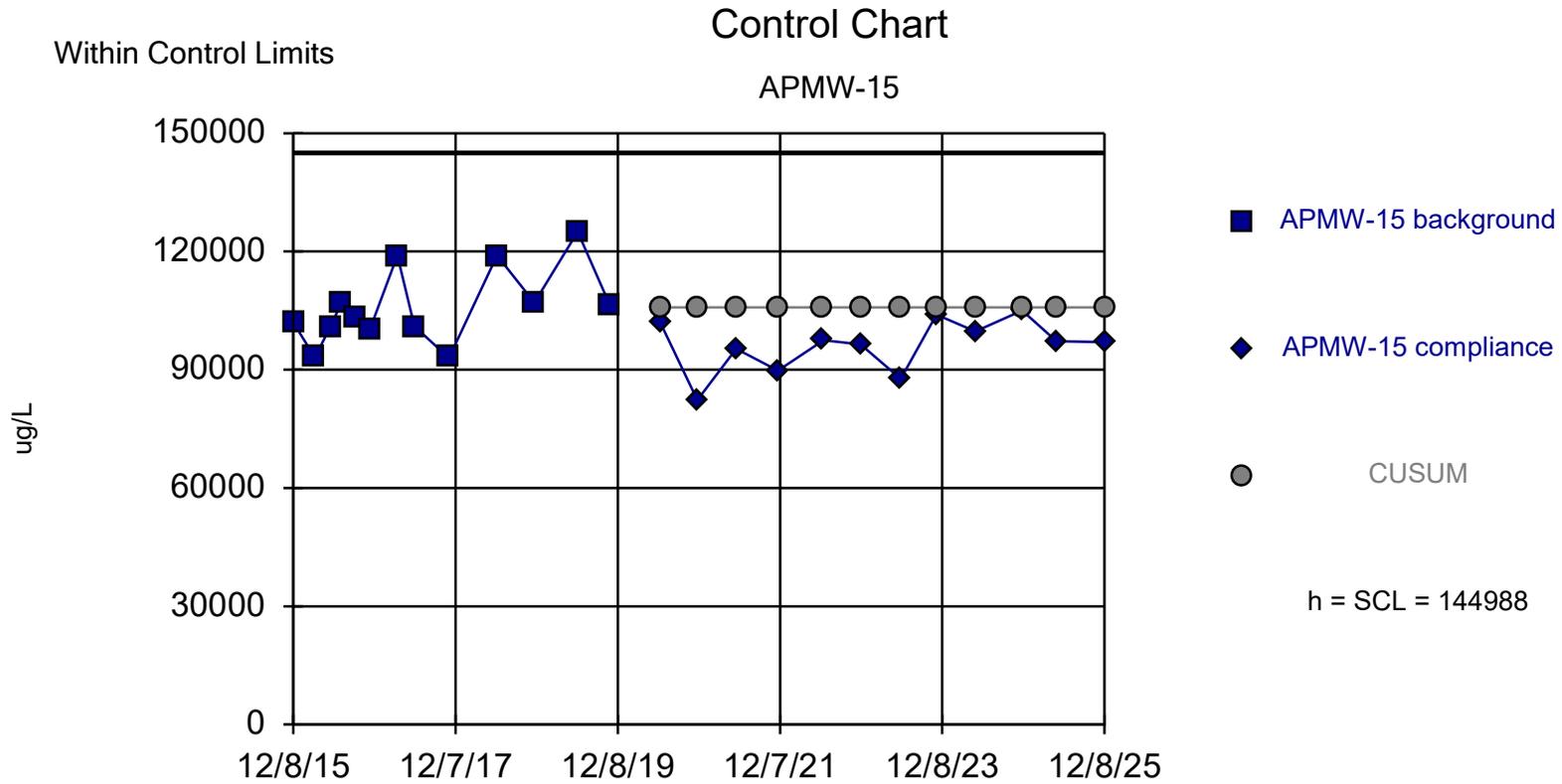
Constituent: Sulfate Analysis Run 1/14/2026 10:05 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=468, Std. Dev.=44.24, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9679, critical = 0.866. Report alpha = 0.02426. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

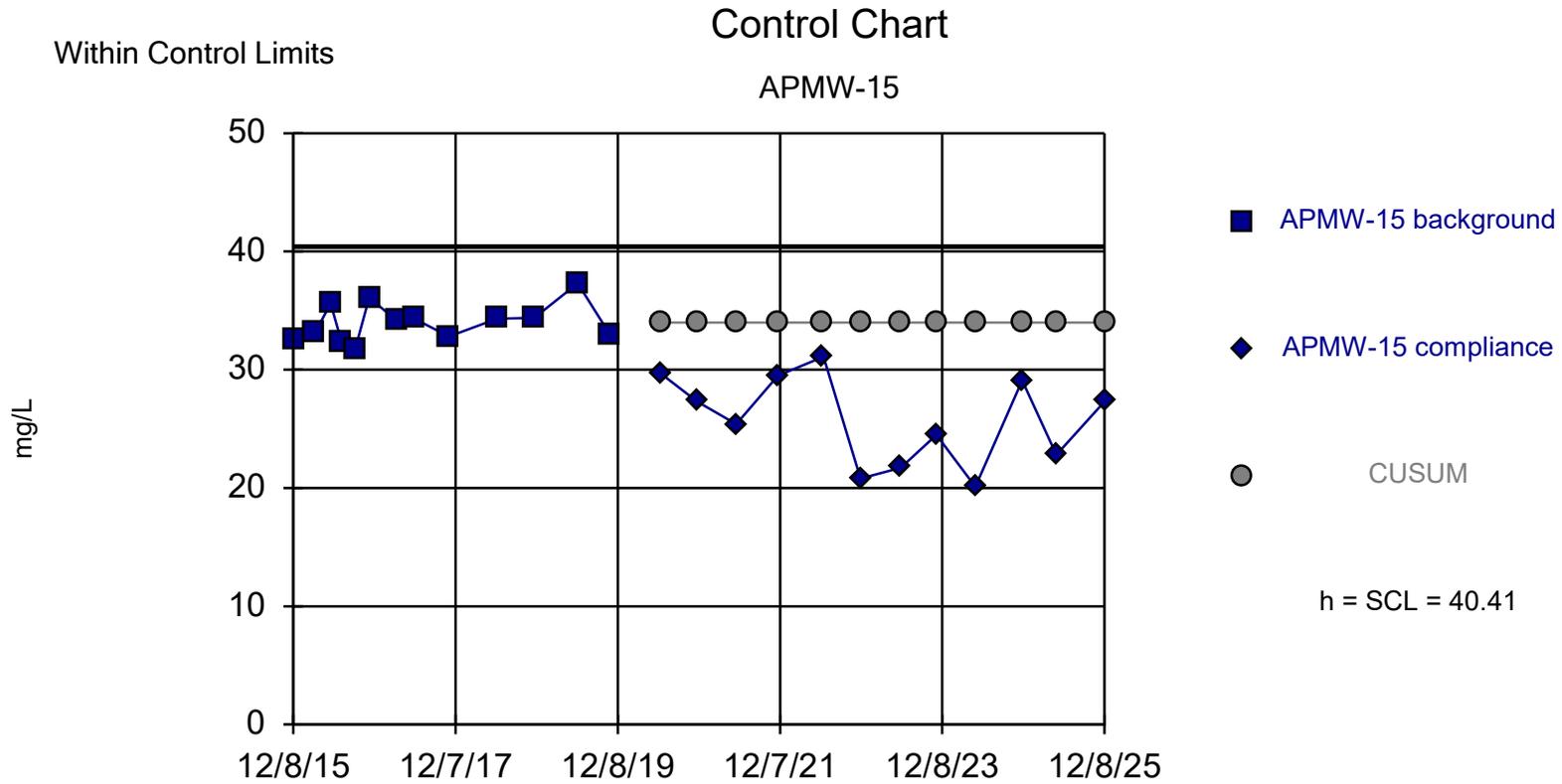
Constituent: Total Dissolved Solids Analysis Run 1/14/2026 10:05 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=105838, Std. Dev.=9787, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9071, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/14/2026 11:38 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=33.98, Std. Dev.=1.608, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9375, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

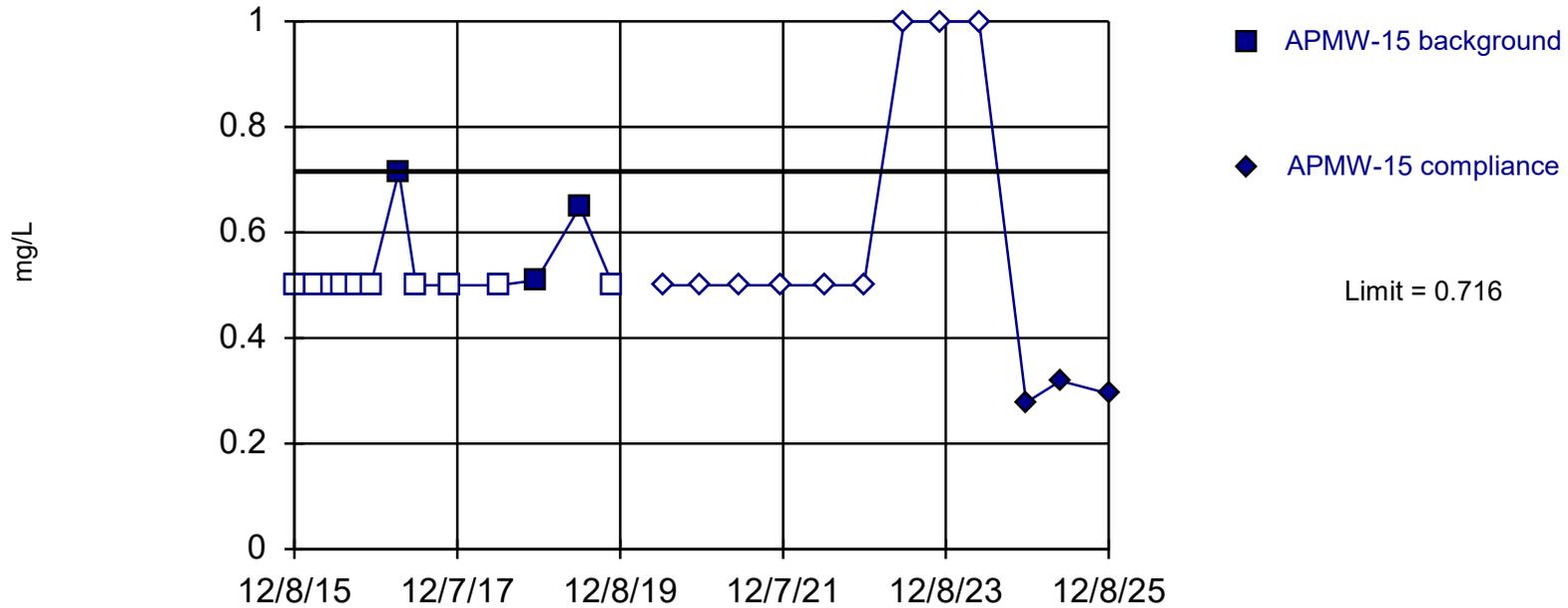
Constituent: Chloride Analysis Run 1/14/2026 11:38 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

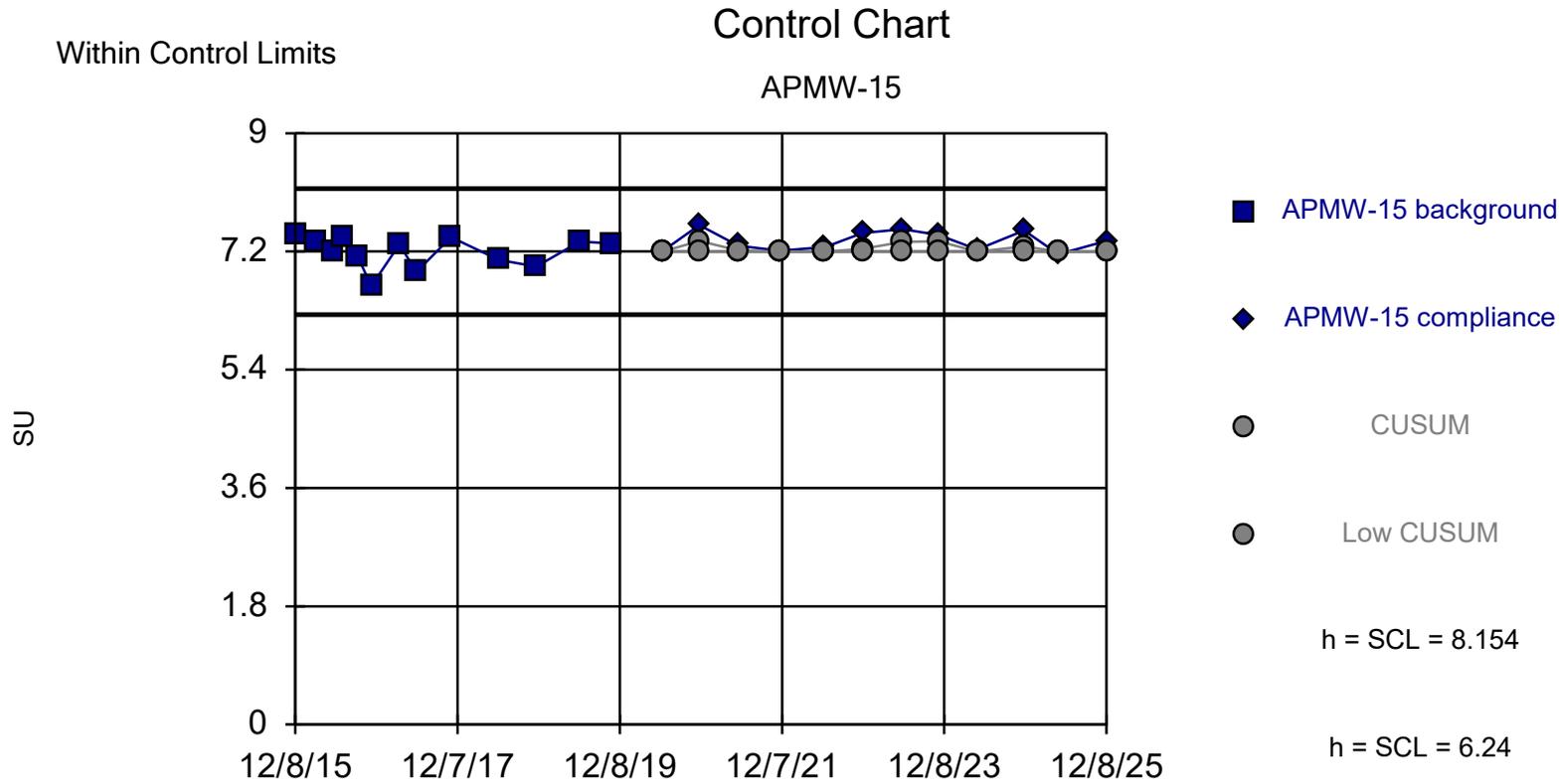
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

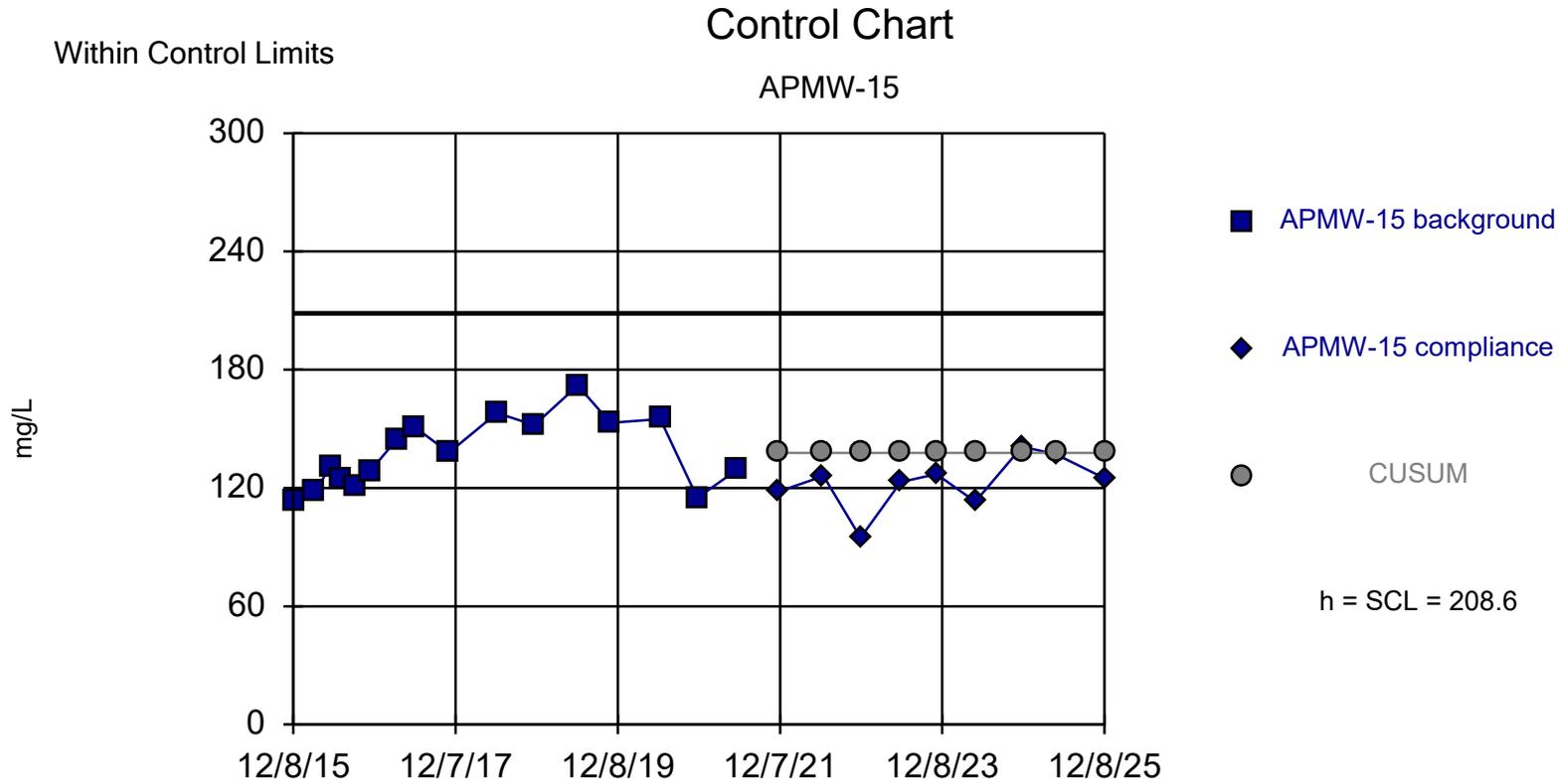
Constituent: Fluoride Analysis Run 1/14/2026 11:38 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=7.197, Std. Dev.=0.2393, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9057, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

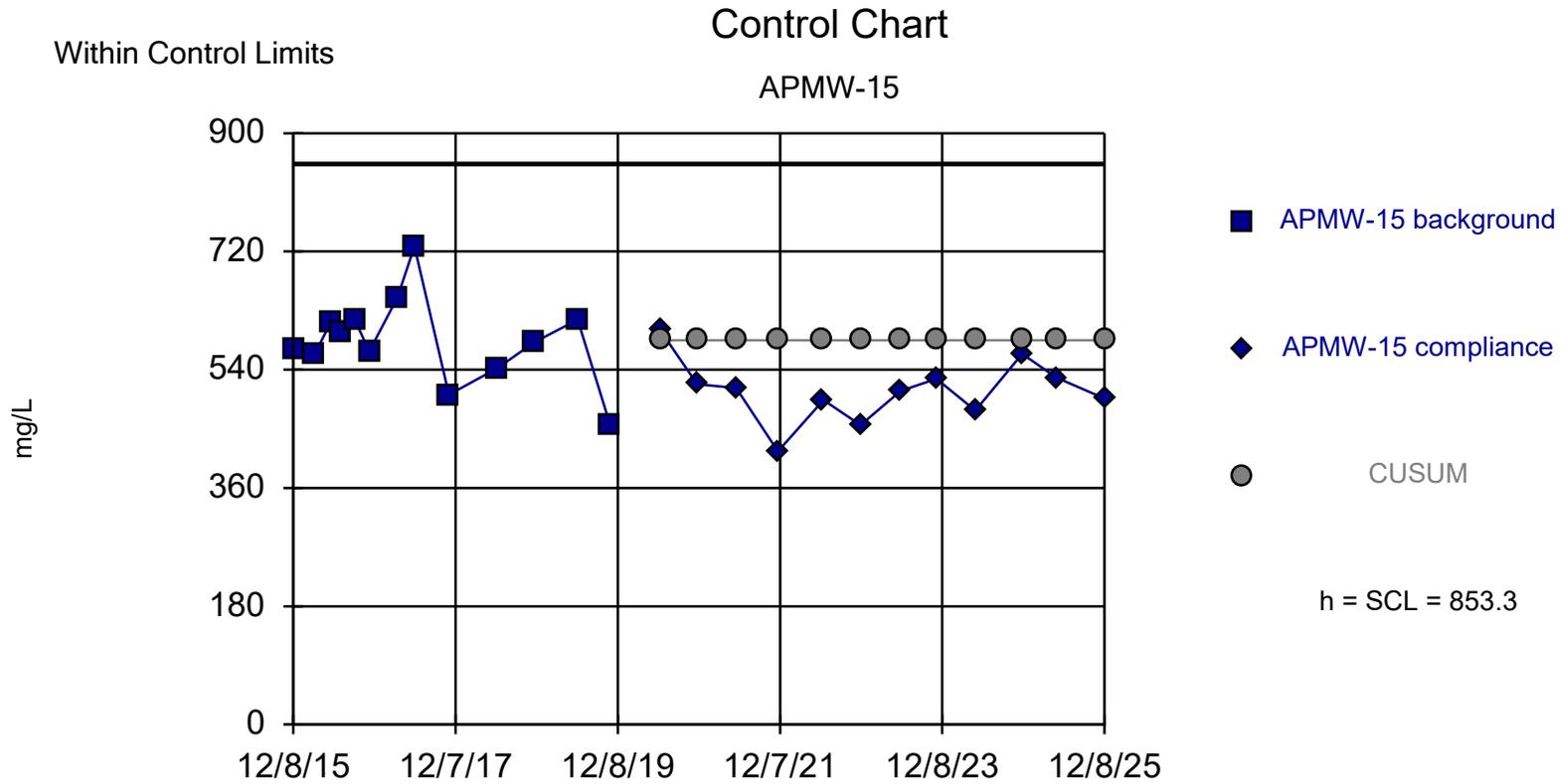
Constituent: pH, Field-Measured Analysis Run 1/14/2026 11:38 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=137.8, Std. Dev.=17.71, n=16. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.939, critical = 0.887. Report alpha = 0.01403. Dates ending 5/24/2021 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/13/2026 10:21 AM

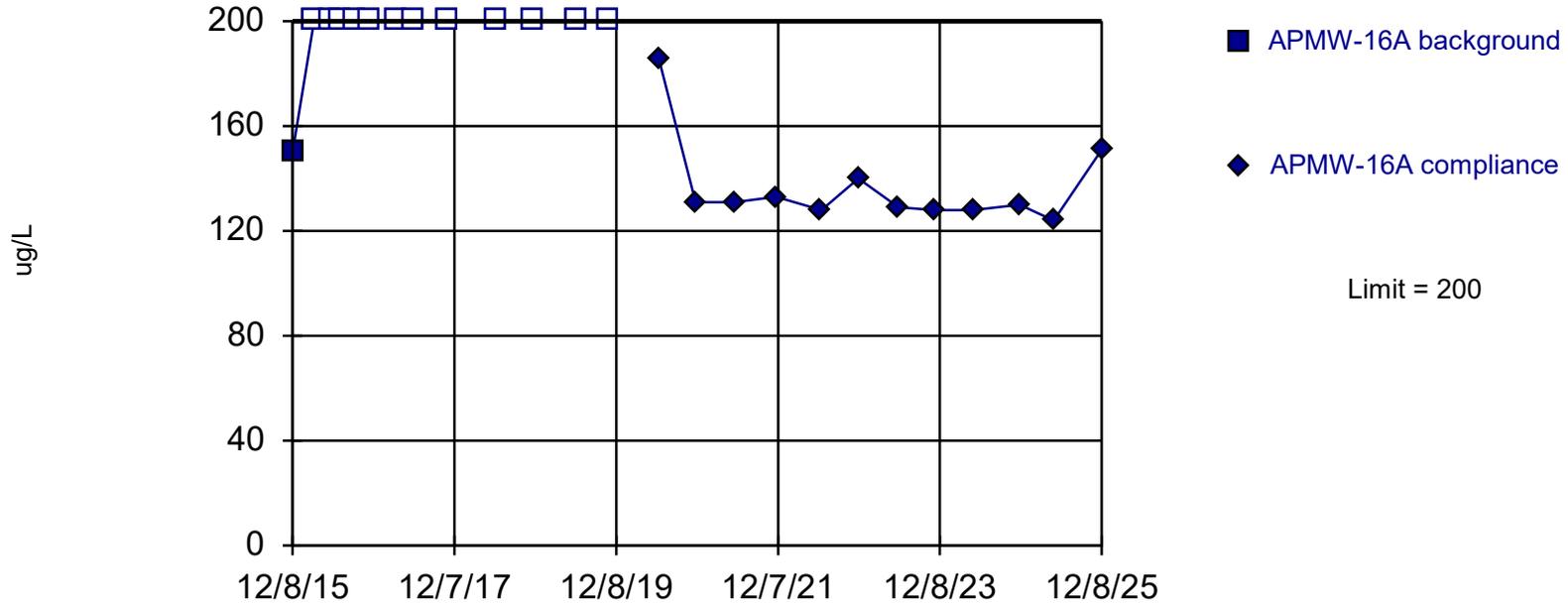
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Within Limit

Prediction Limit

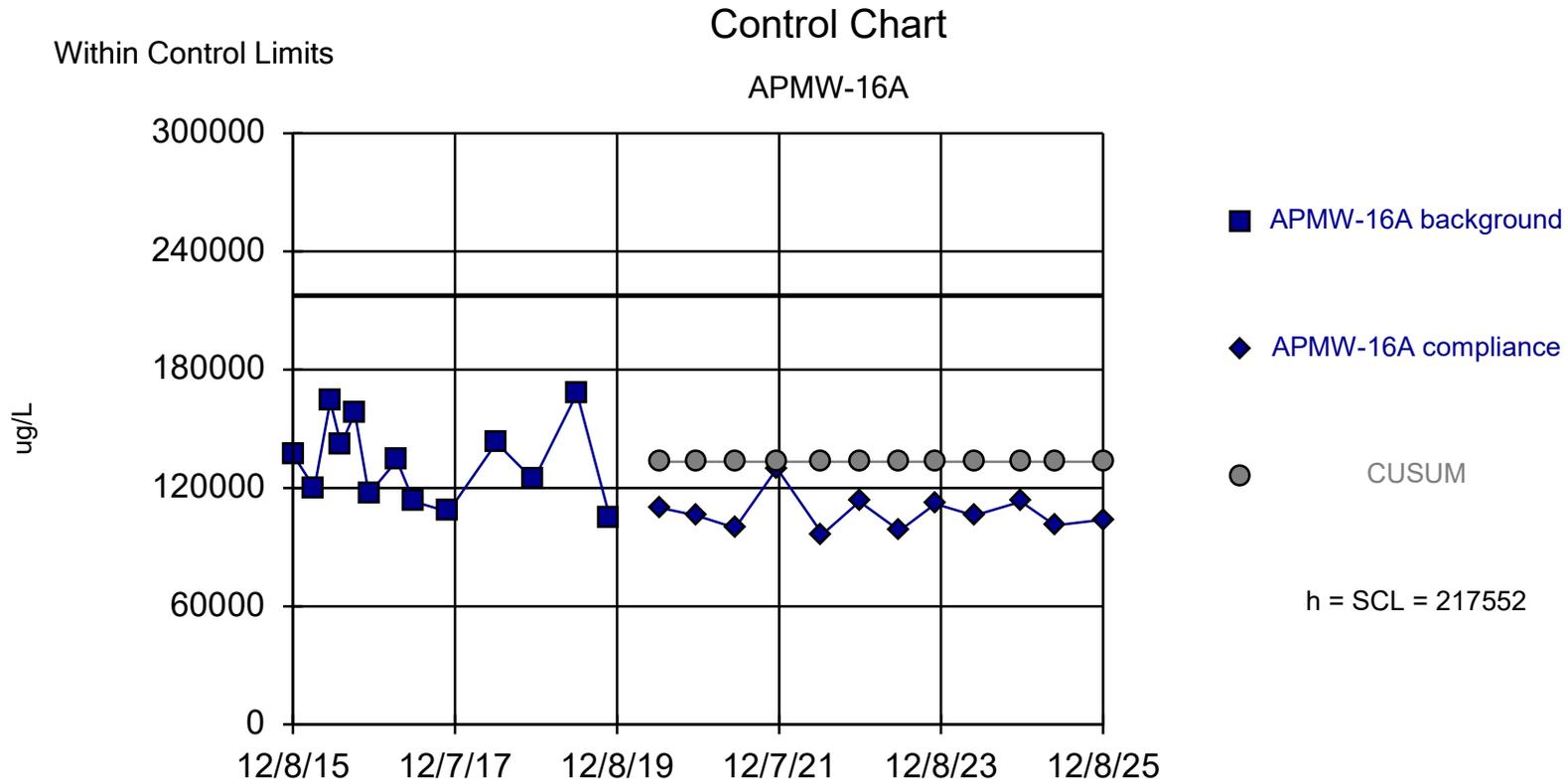
Intrawell Non-parametric



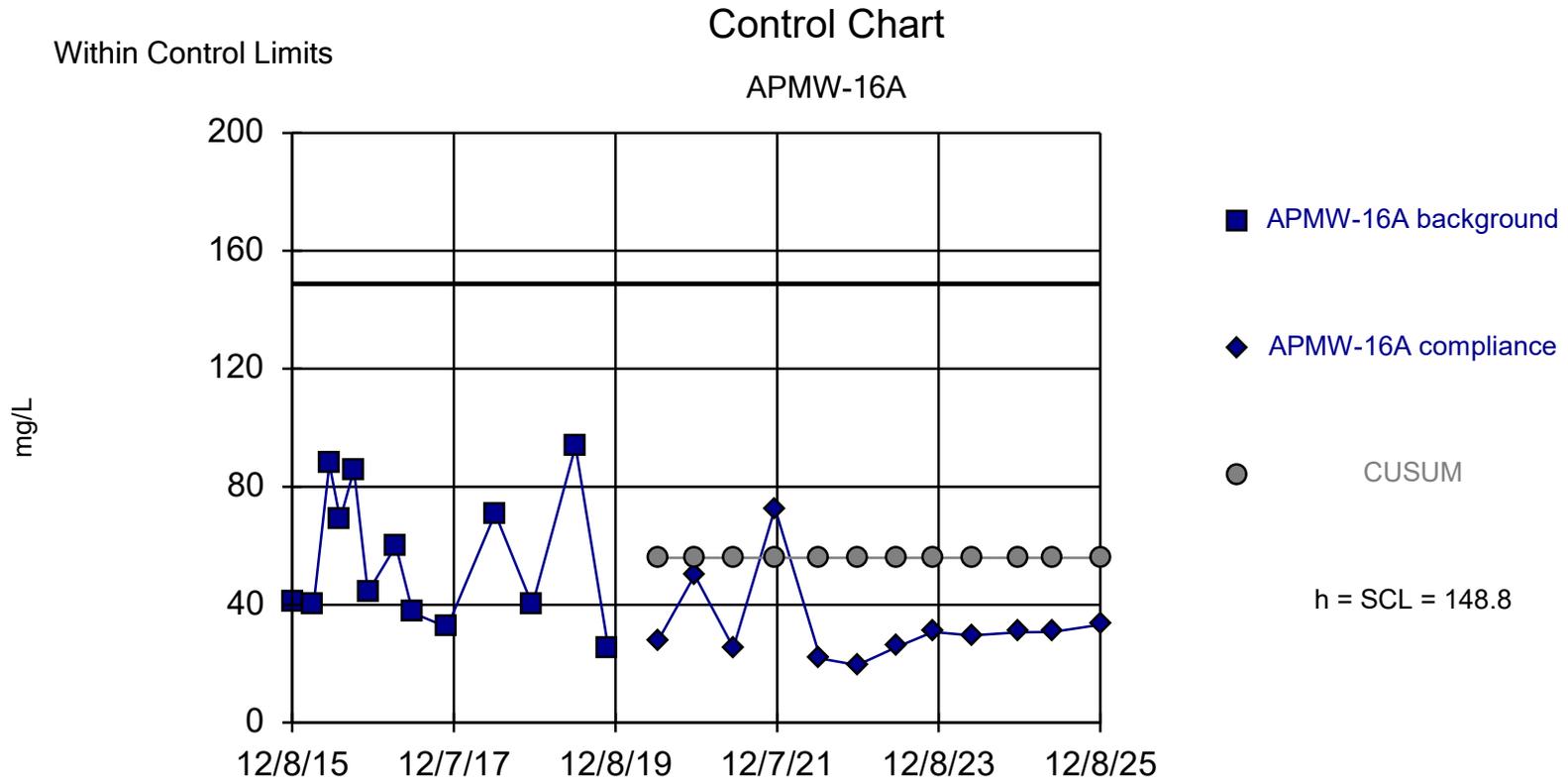
Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/14/2026 11:34 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=133308, Std. Dev.=21061, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9415, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.



Background Data Summary: Mean=55.95, Std. Dev.=23.21, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9017, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

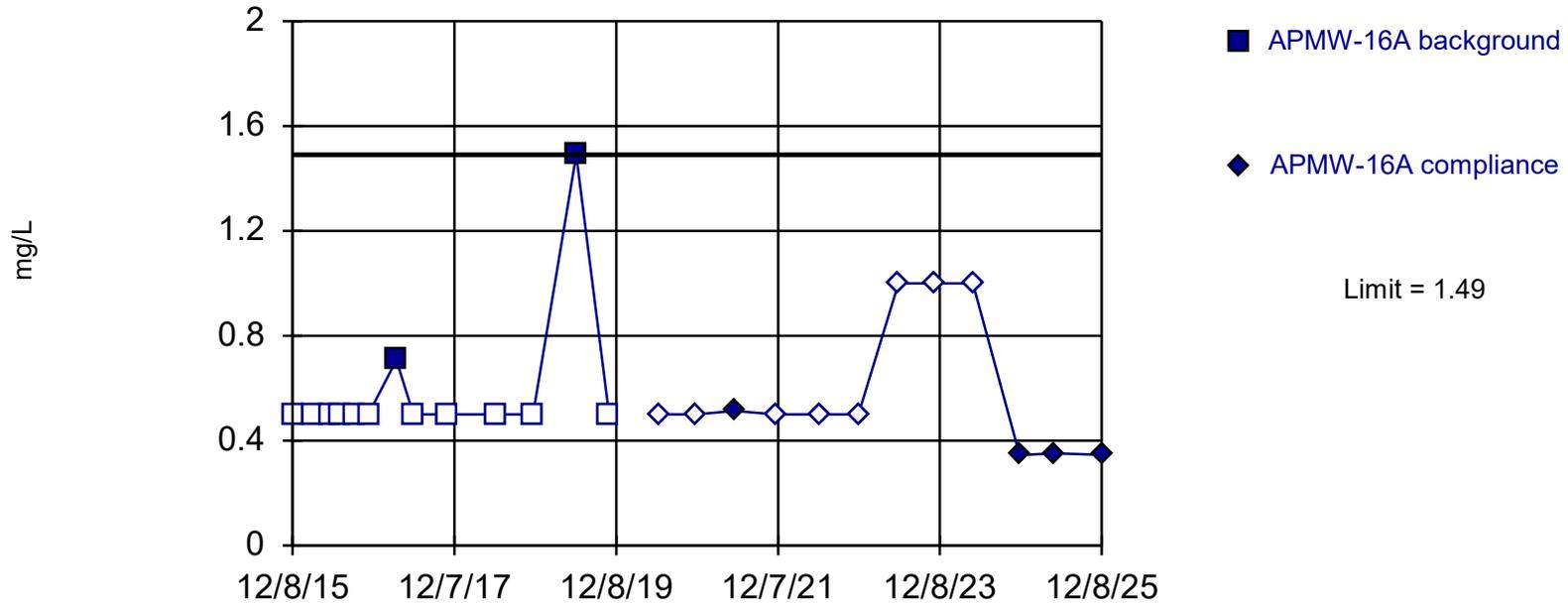
Constituent: Chloride Analysis Run 1/14/2026 11:34 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

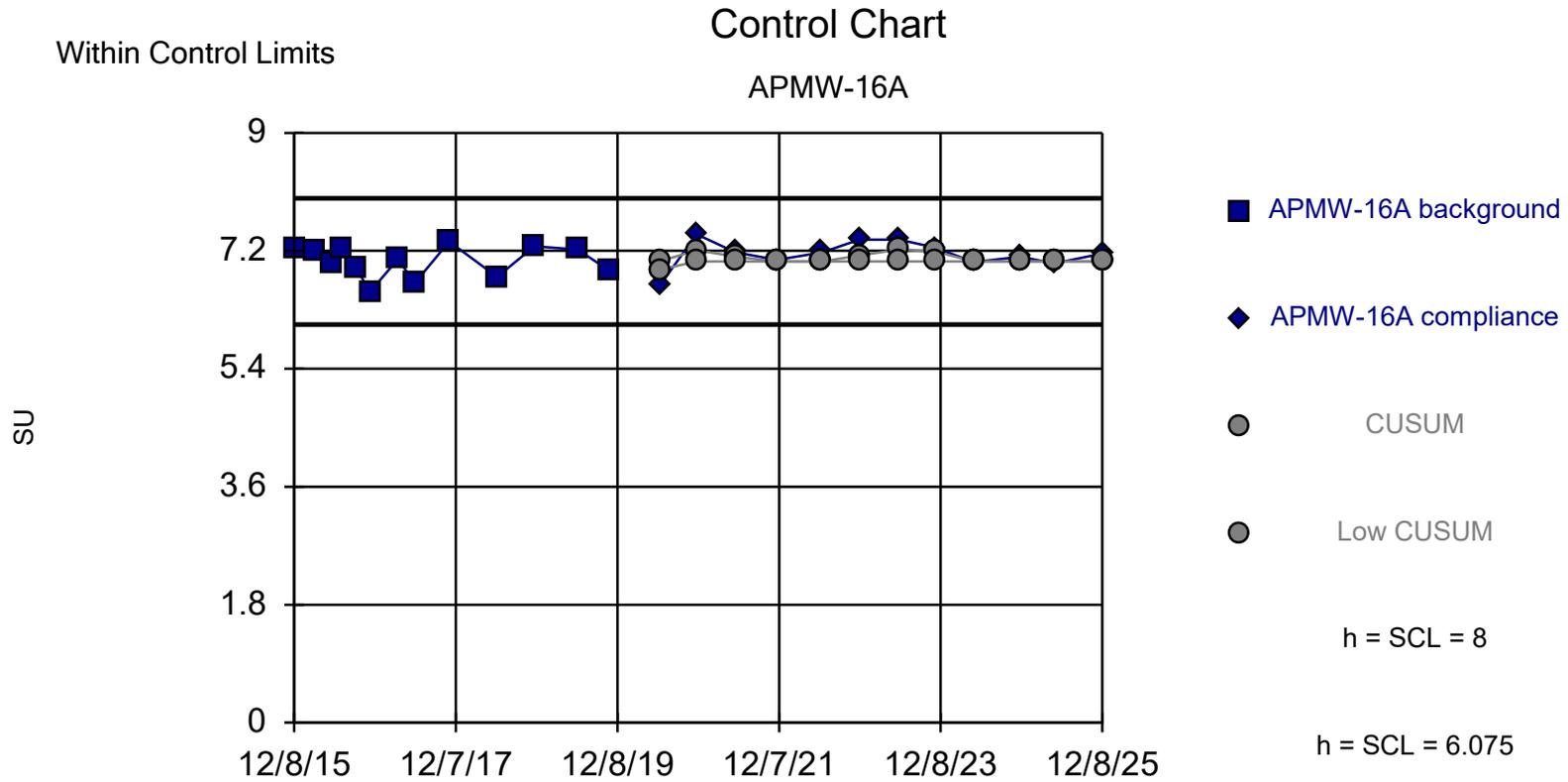
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 84.62% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

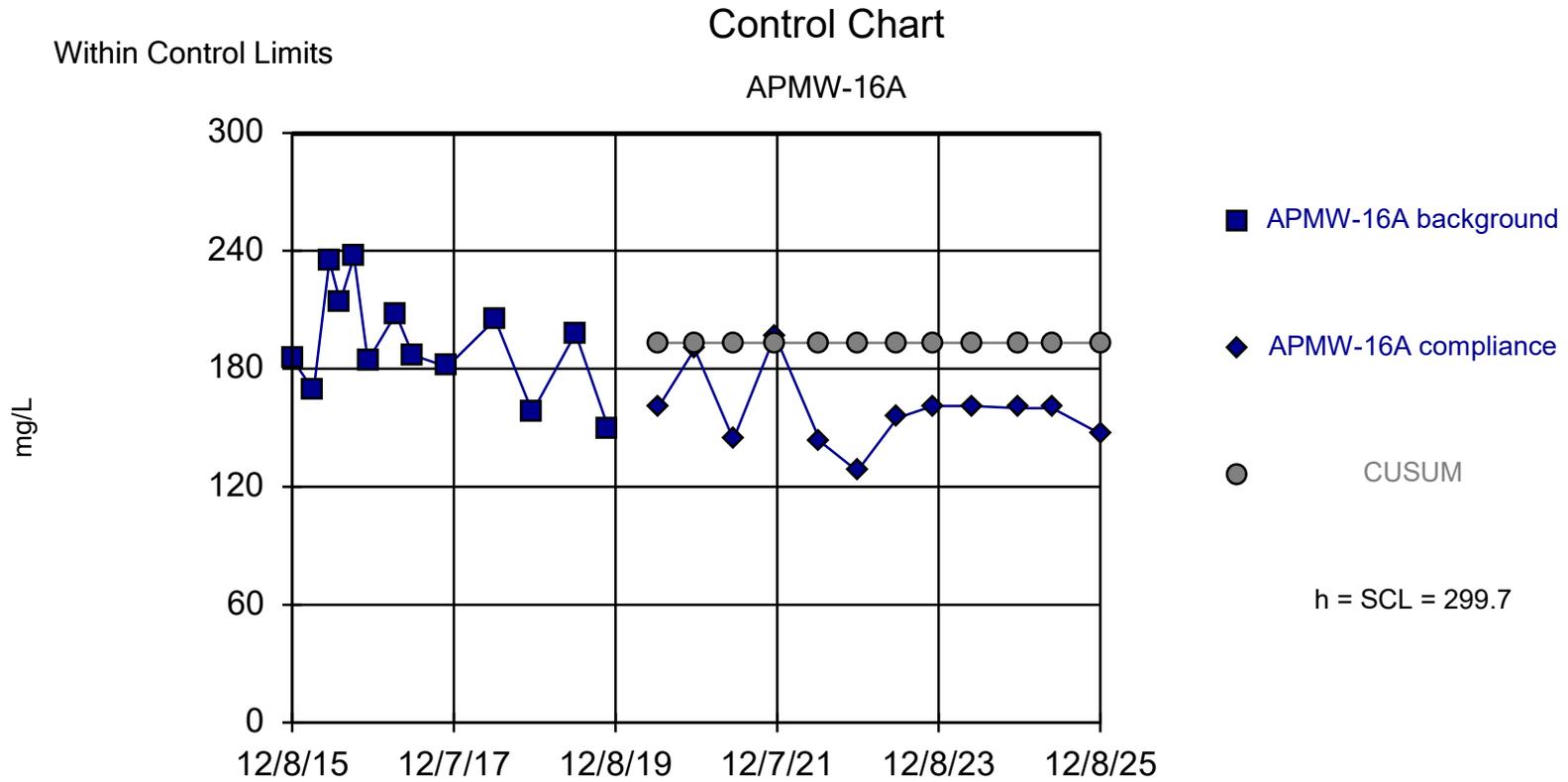
Constituent: Fluoride Analysis Run 1/14/2026 11:35 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=7.038, Std. Dev.=0.2406, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9309, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

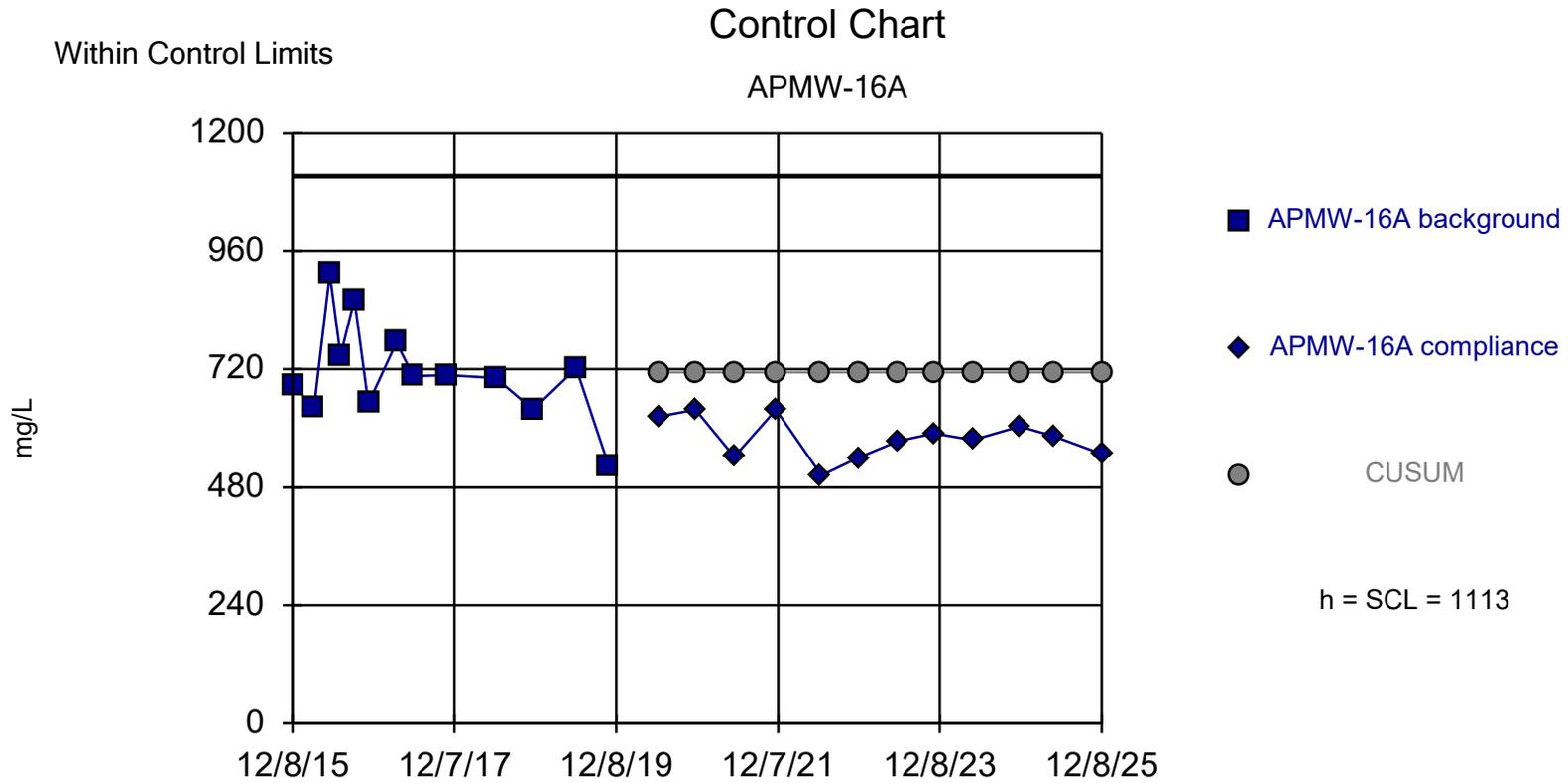
Constituent: pH, Field-Measured Analysis Run 1/14/2026 11:35 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=193.2, Std. Dev.=26.63, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9667, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 11:35 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



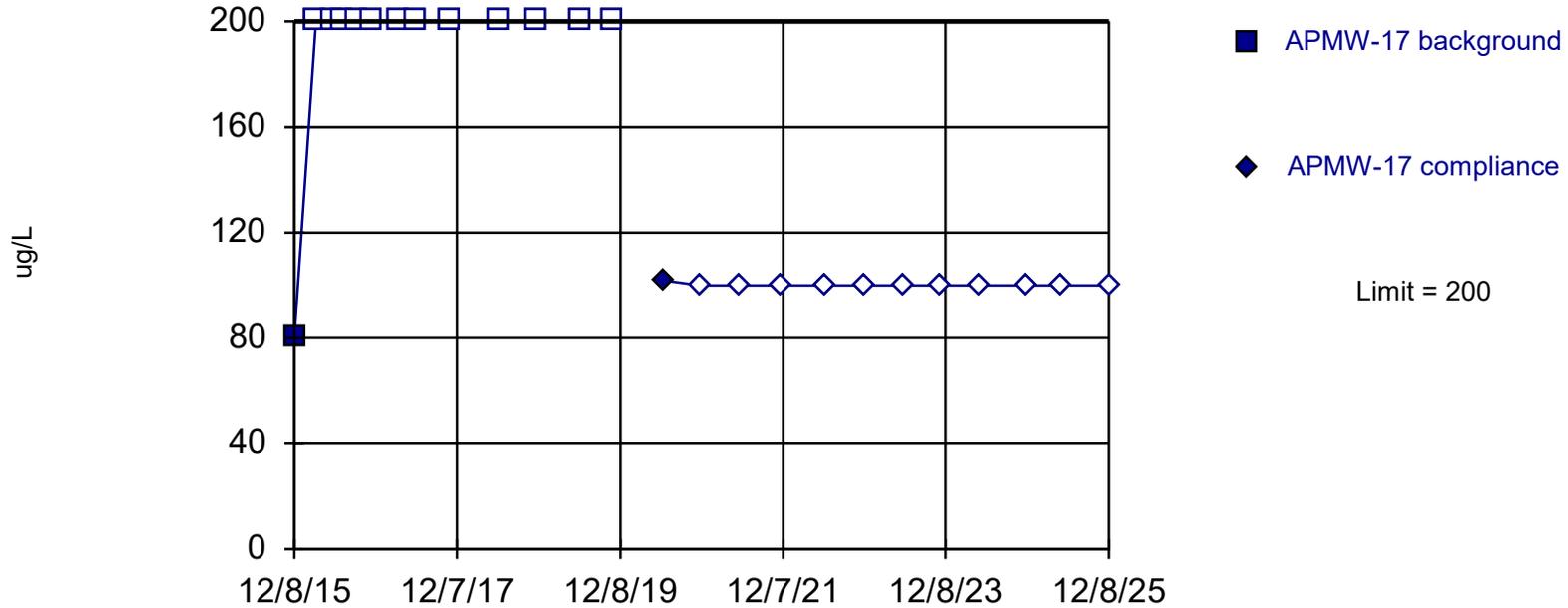
Background Data Summary: Mean=713.5, Std. Dev.=99.82, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9509, critical = 0.866. Report alpha = 0.02686. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Total Dissolved Solids Analysis Run 1/14/2026 11:35 AM
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

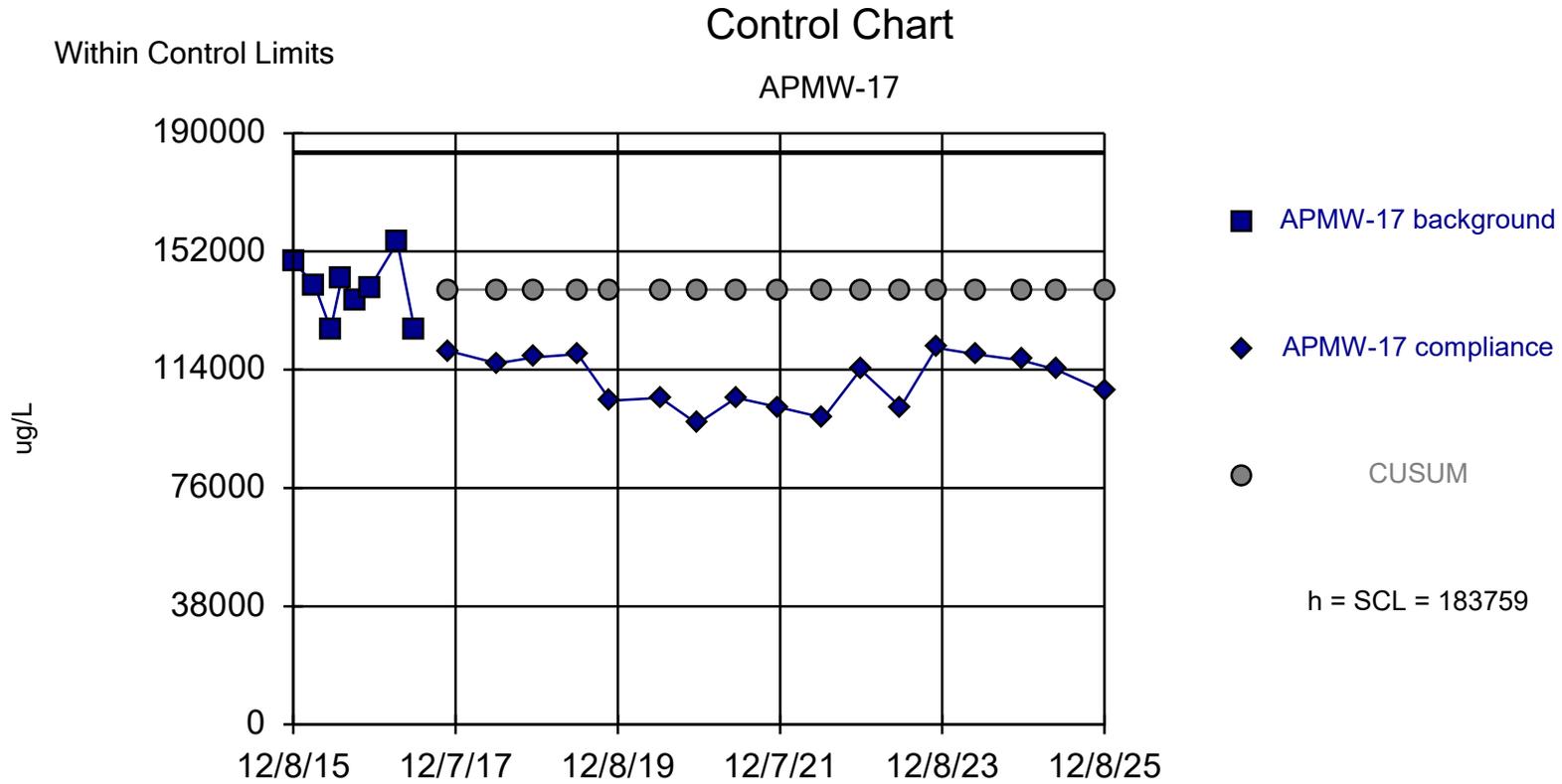
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/14/2026 11:26 AM

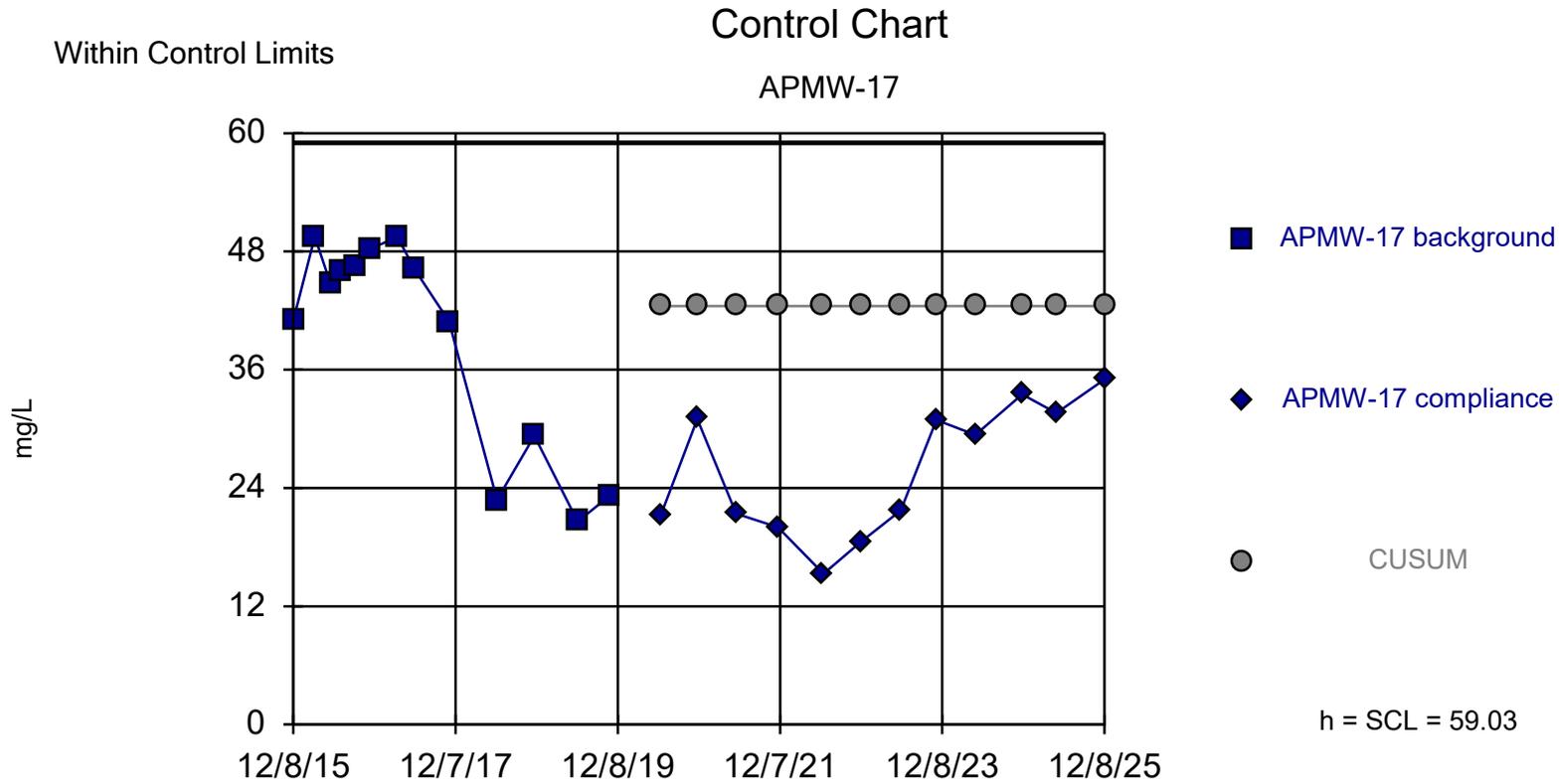
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=139750, Std. Dev.=9780, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9472, critical = 0.818. Report alpha = 0.05785. Dates ending 6/5/2017 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: Calcium Analysis Run 1/13/2026 12:02 PM

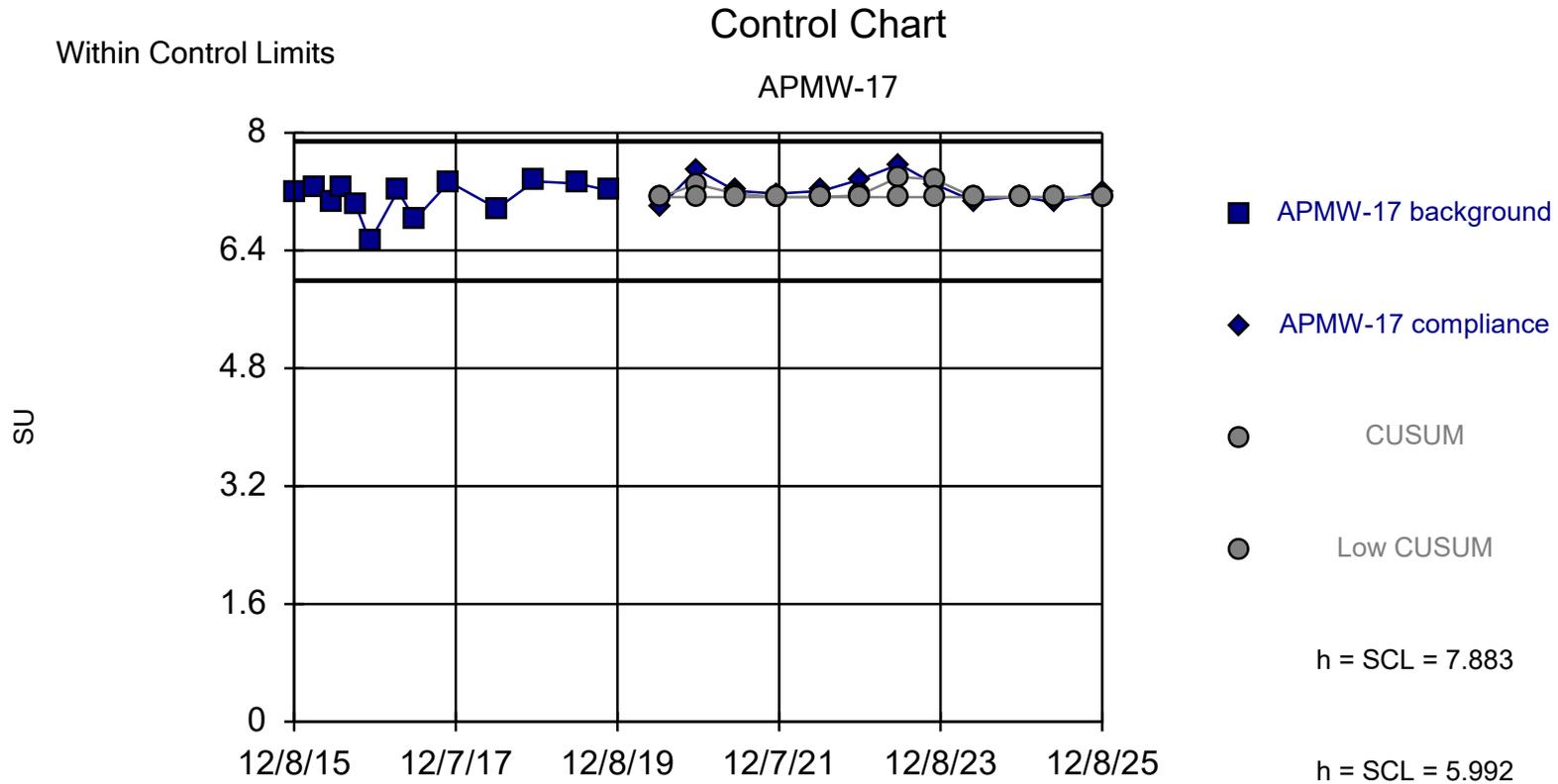
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on x^4 transformation): Mean=3247075, Std. Dev.=2223138, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8771, critical = 0.866. Report alpha = 0.02701. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

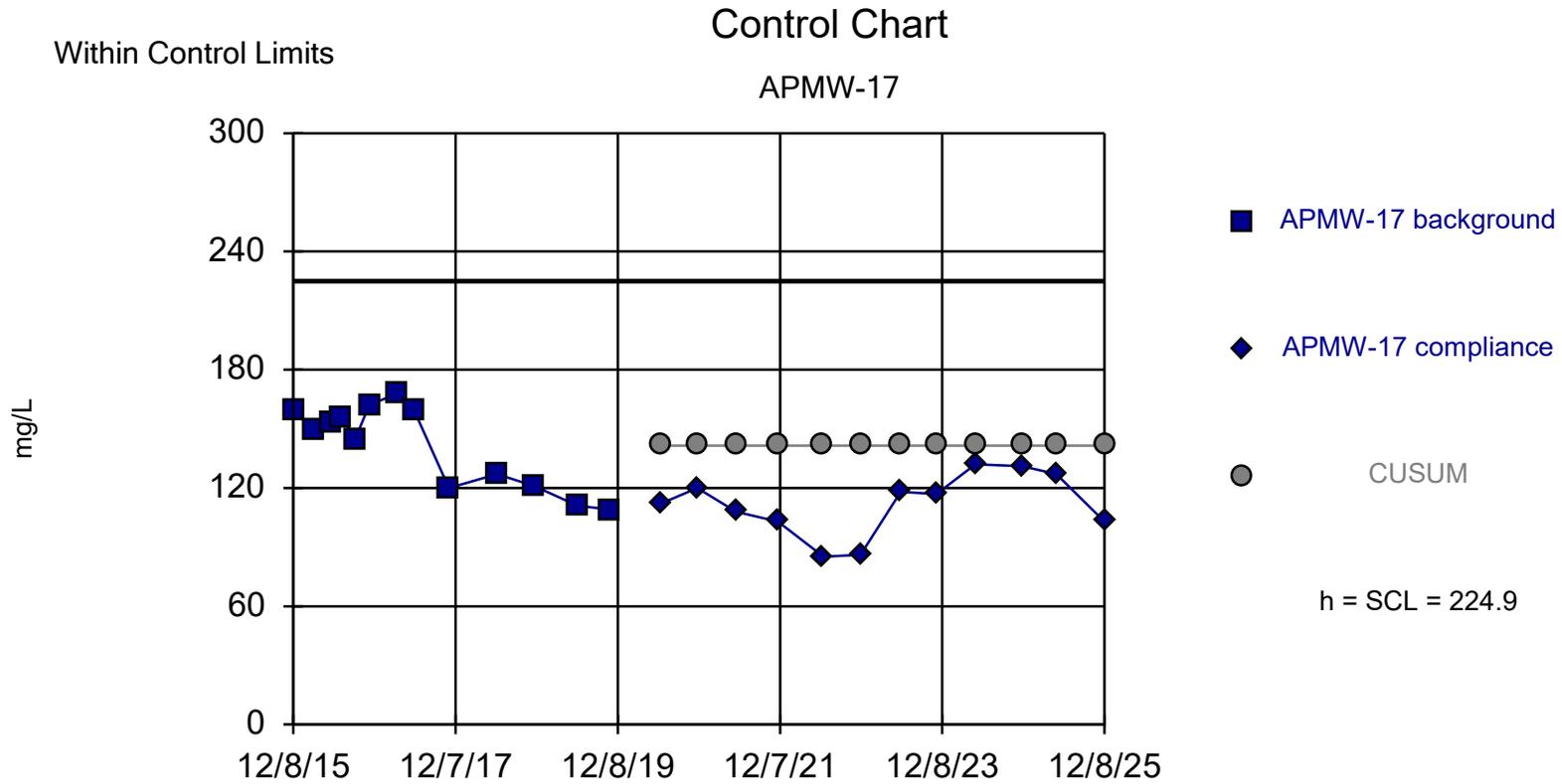
Constituent: Chloride Analysis Run 1/14/2026 11:26 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on x^4 transformation): Mean=2575, Std. Dev.=321.6, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8721, critical = 0.866. Report alpha = 0.02701. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

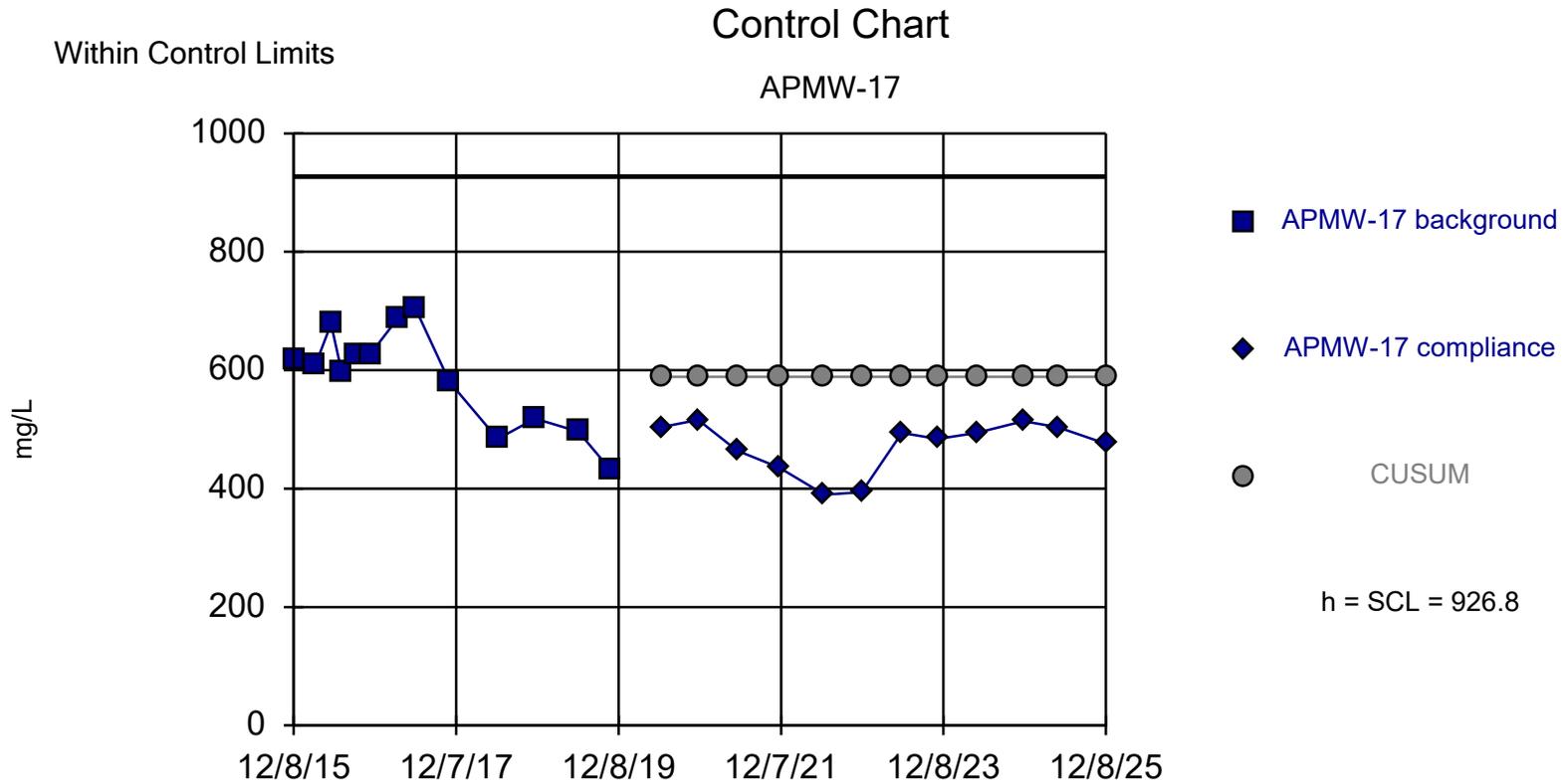
Constituent: pH, Field-Measured Analysis Run 1/14/2026 11:26 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=141.5, Std. Dev.=20.87, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8872, critical = 0.866. Report alpha = 0.02701. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 11:26 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



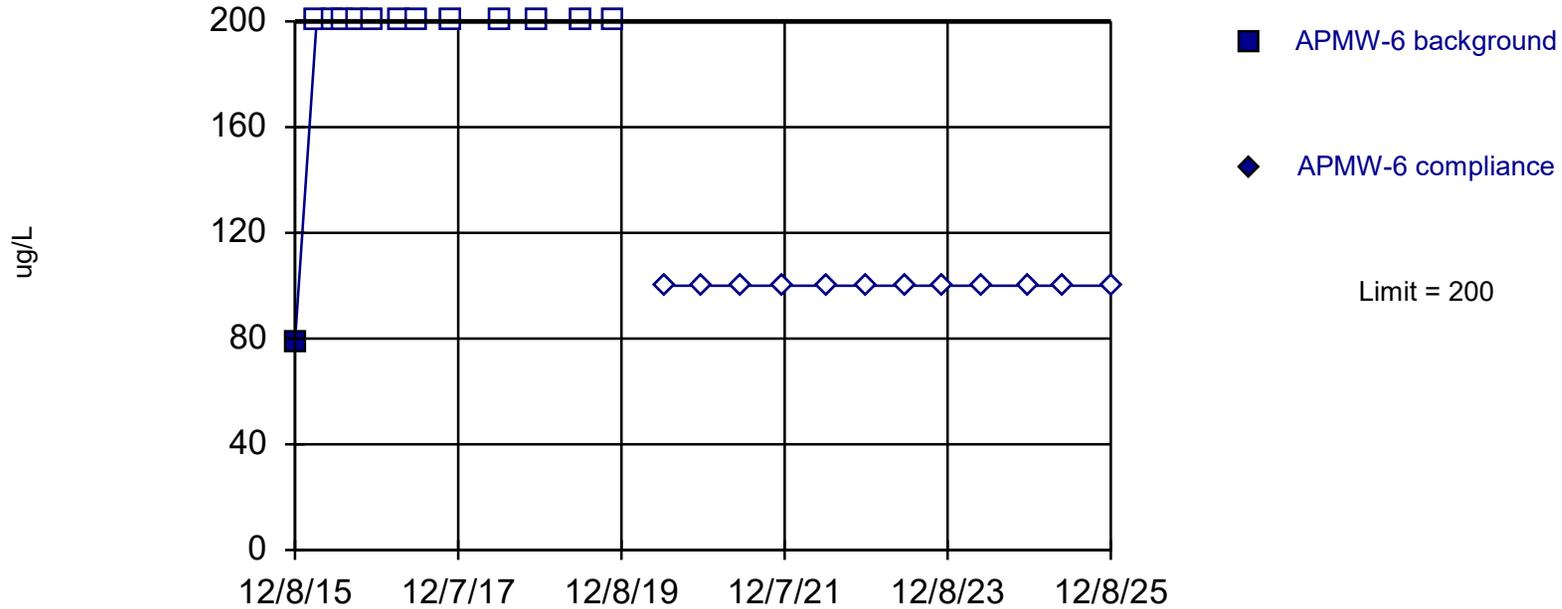
Background Data Summary: Mean=588.9, Std. Dev.=84.47, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9463, critical = 0.866. Report alpha = 0.02701. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Total Dissolved Solids Analysis Run 1/14/2026 11:26 AM
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

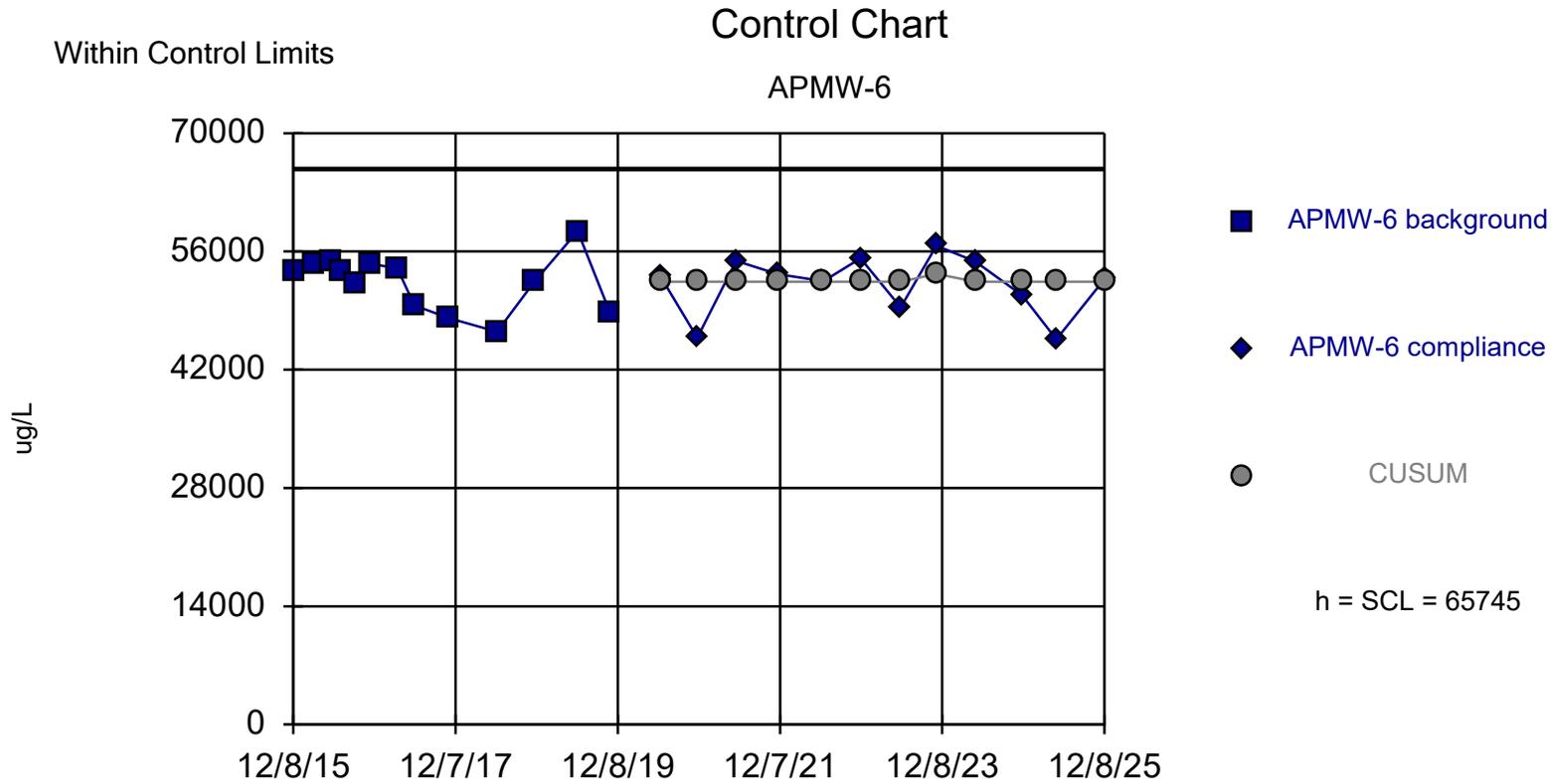
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/13/2026 12:42 PM

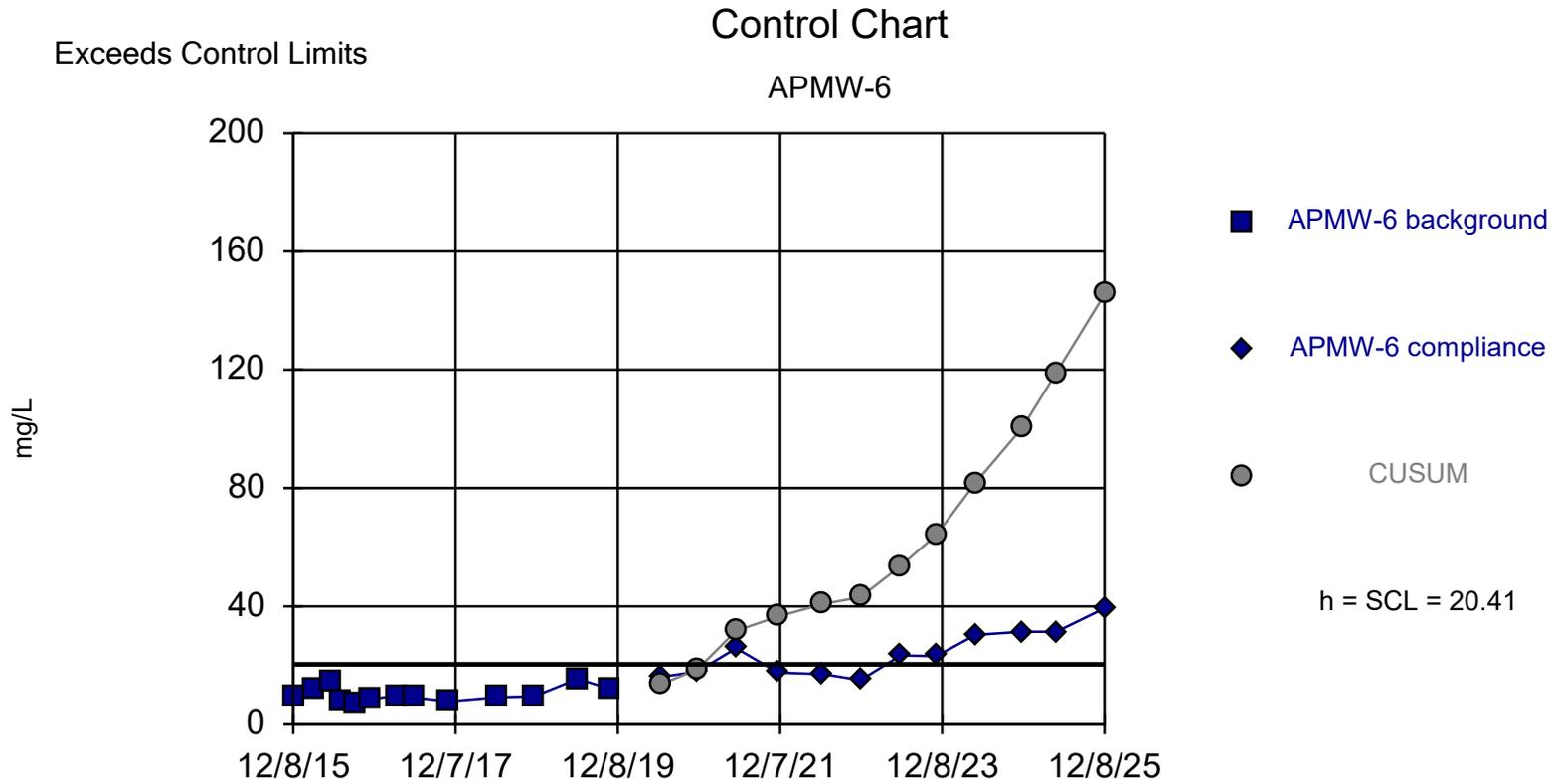
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=52400, Std. Dev.=3336, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9431, critical = 0.866. Report alpha = 0.02714. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 12:42 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=10.21, Std. Dev.=2.551, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8941, critical = 0.866. Report alpha = 0.02714. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

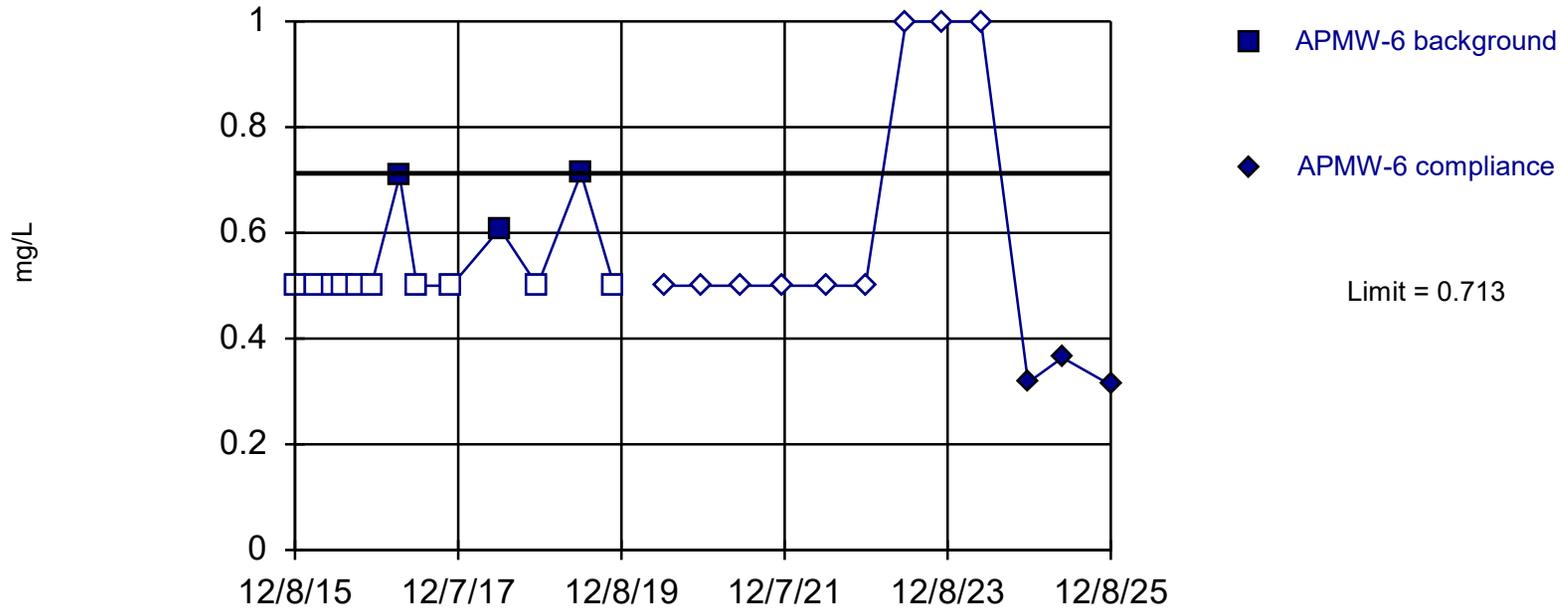
Constituent: Chloride Analysis Run 1/13/2026 12:42 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

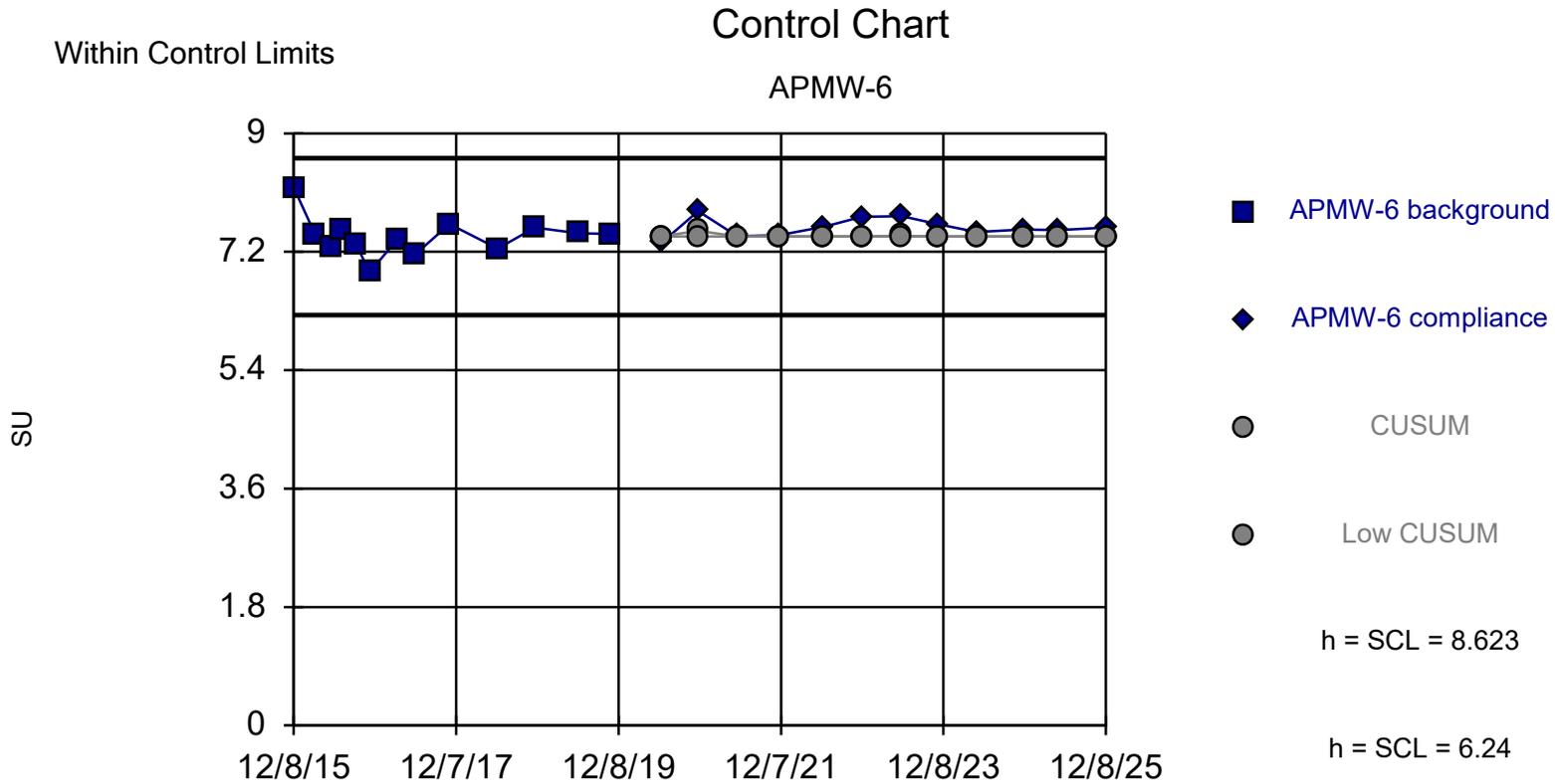
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

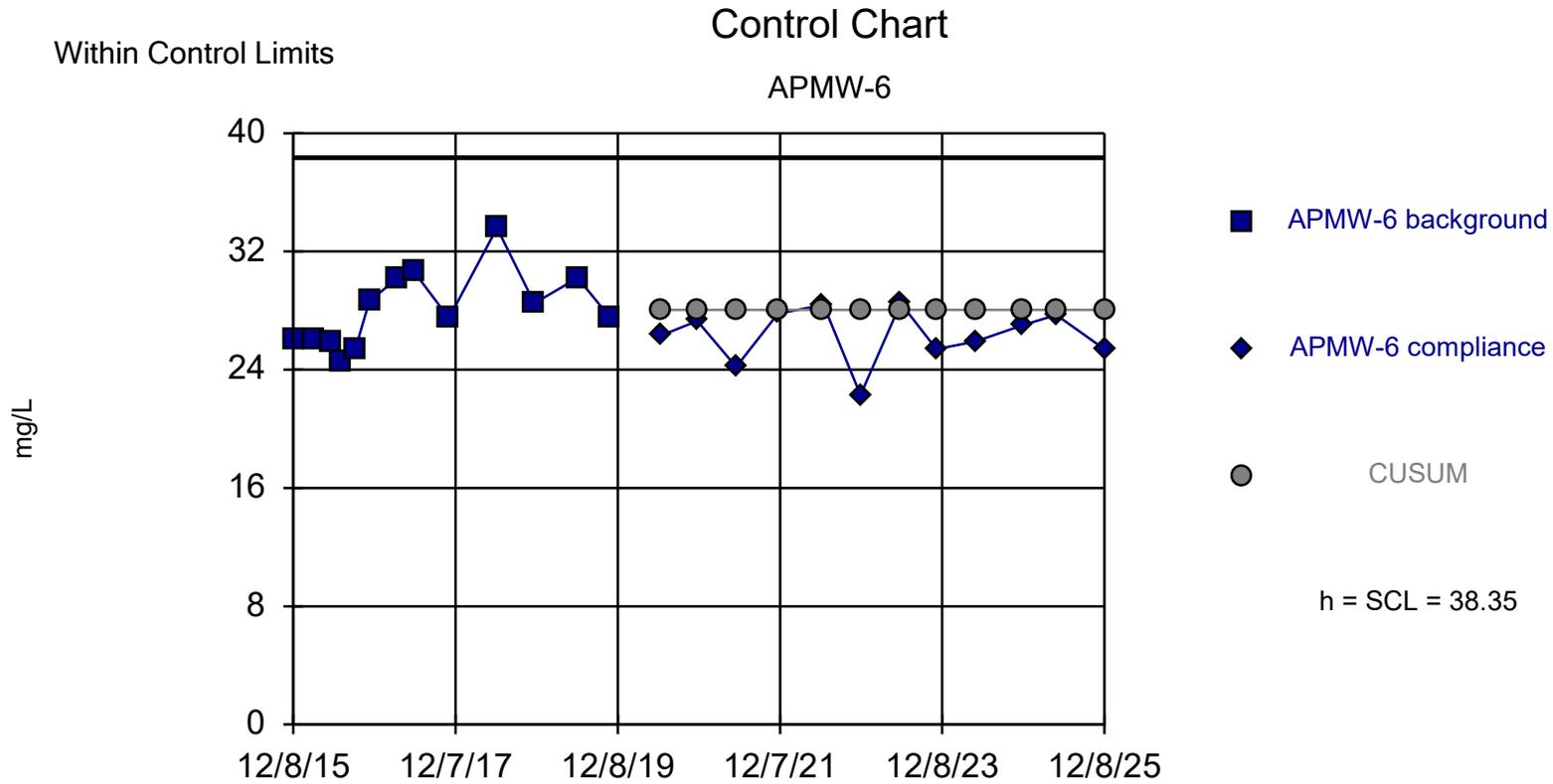
Constituent: Fluoride Analysis Run 1/13/2026 12:42 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=7.432, Std. Dev.=0.298, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9114, critical = 0.866. Report alpha = 0.02714. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

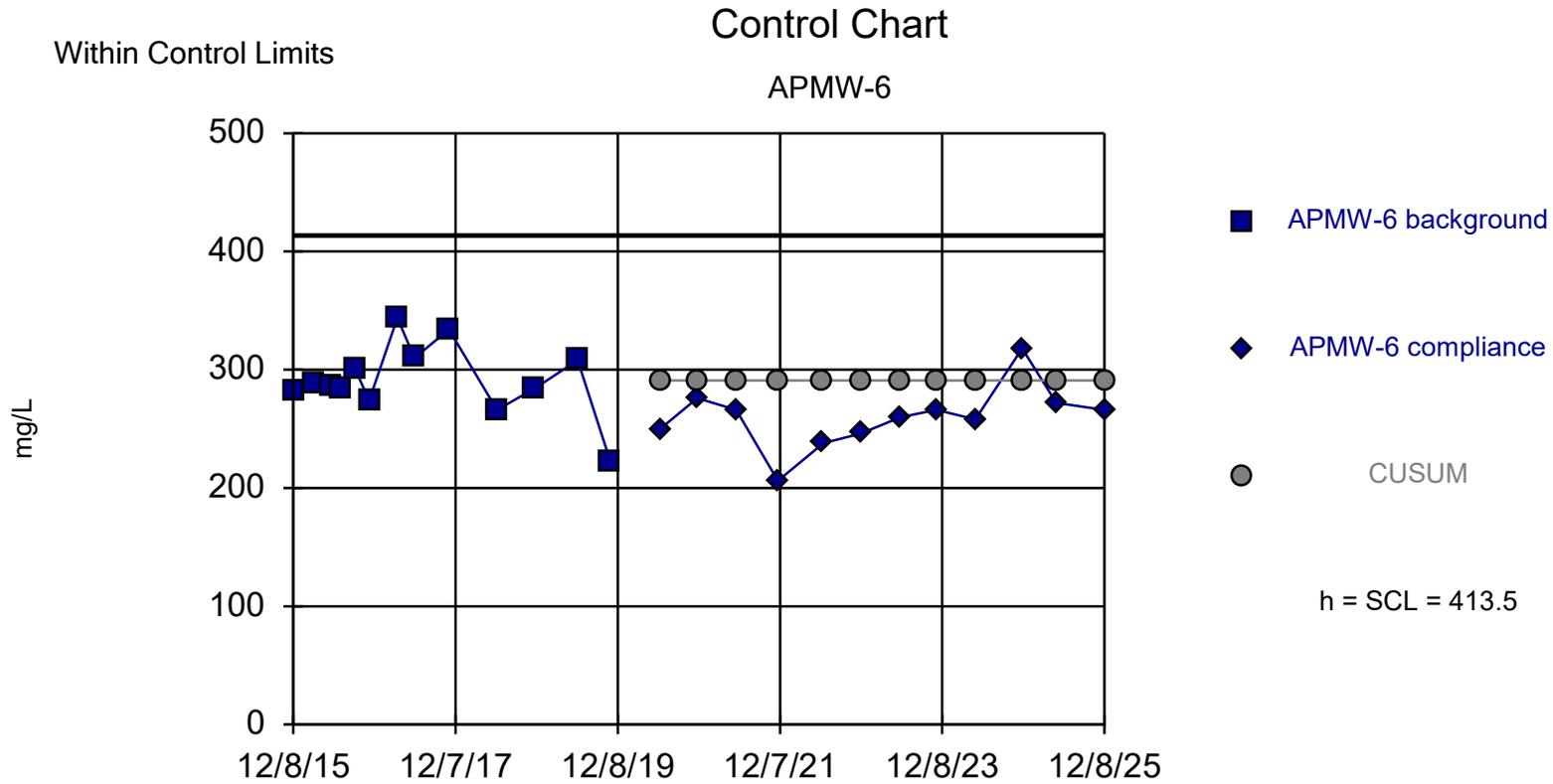
Constituent: pH, Field-Measured Analysis Run 1/13/2026 12:42 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=28.05, Std. Dev.=2.576, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9413, critical = 0.866. Report alpha = 0.02714. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/13/2026 12:42 PM

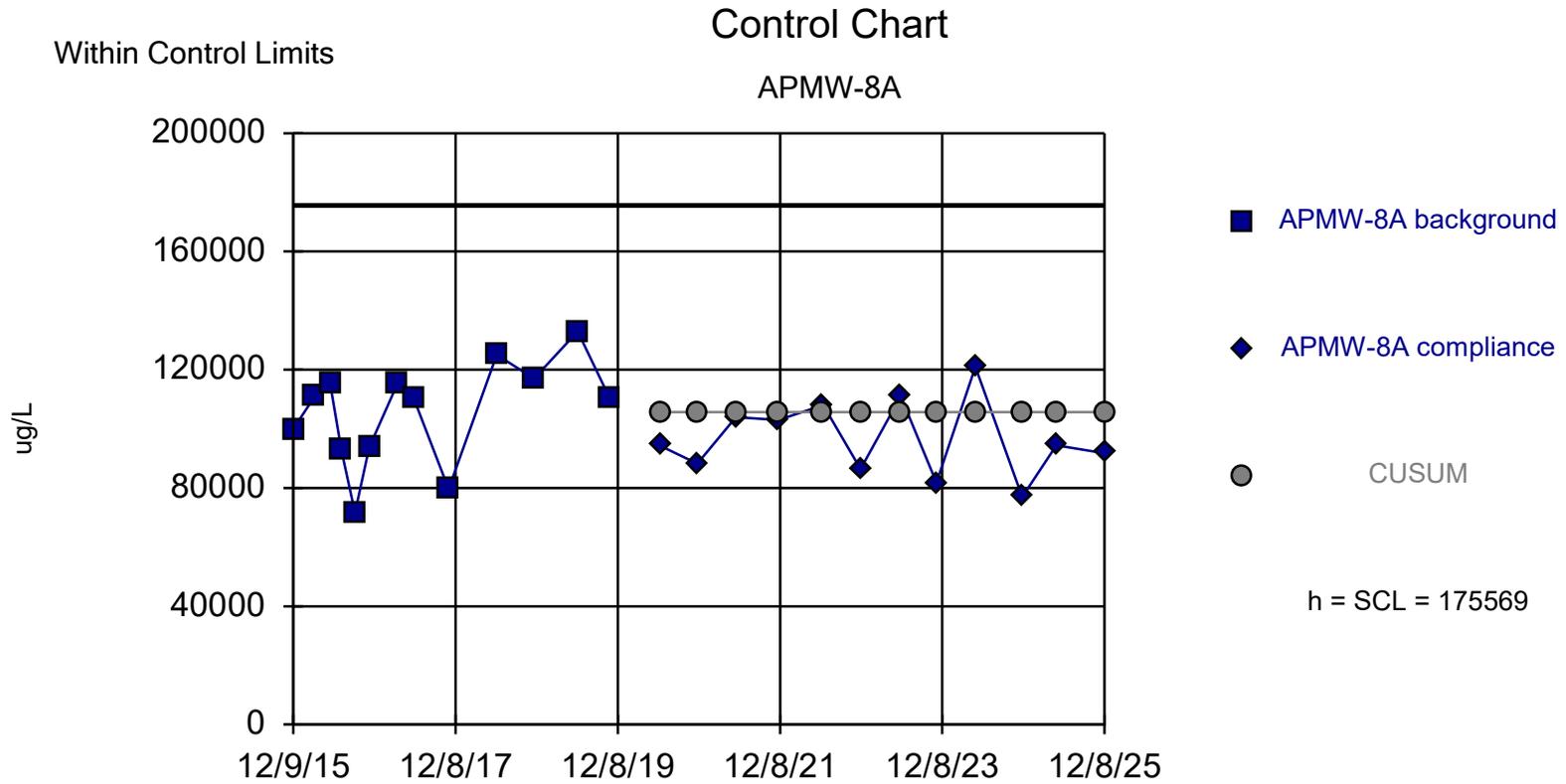
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=290.9, Std. Dev.=30.66, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9423, critical = 0.866. Report alpha = 0.02714. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Total Dissolved Solids Analysis Run 1/13/2026 12:42 PM

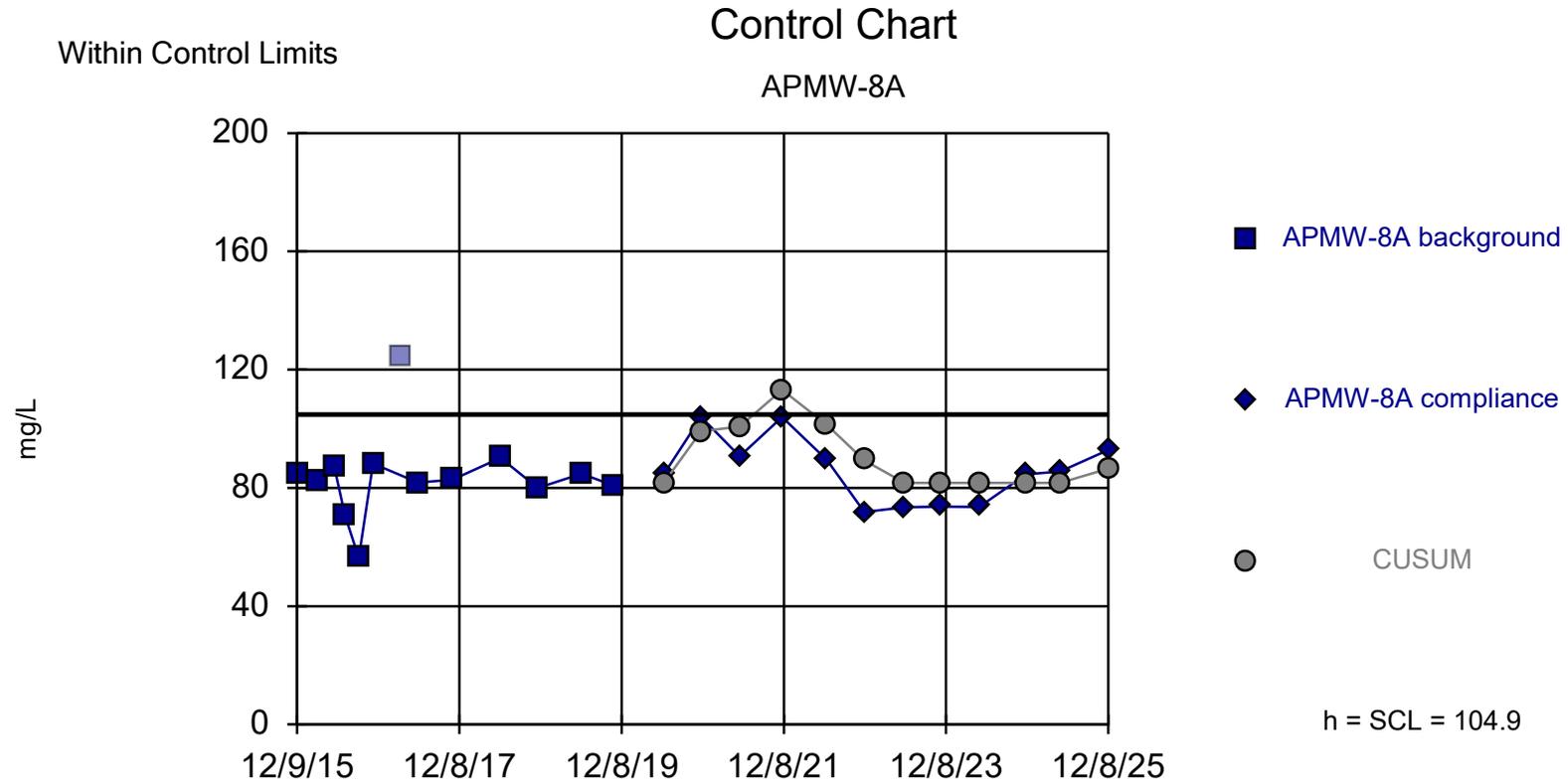
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=105685, Std. Dev.=17471, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9544, critical = 0.866. Report alpha = 0.02677. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 1:05 PM

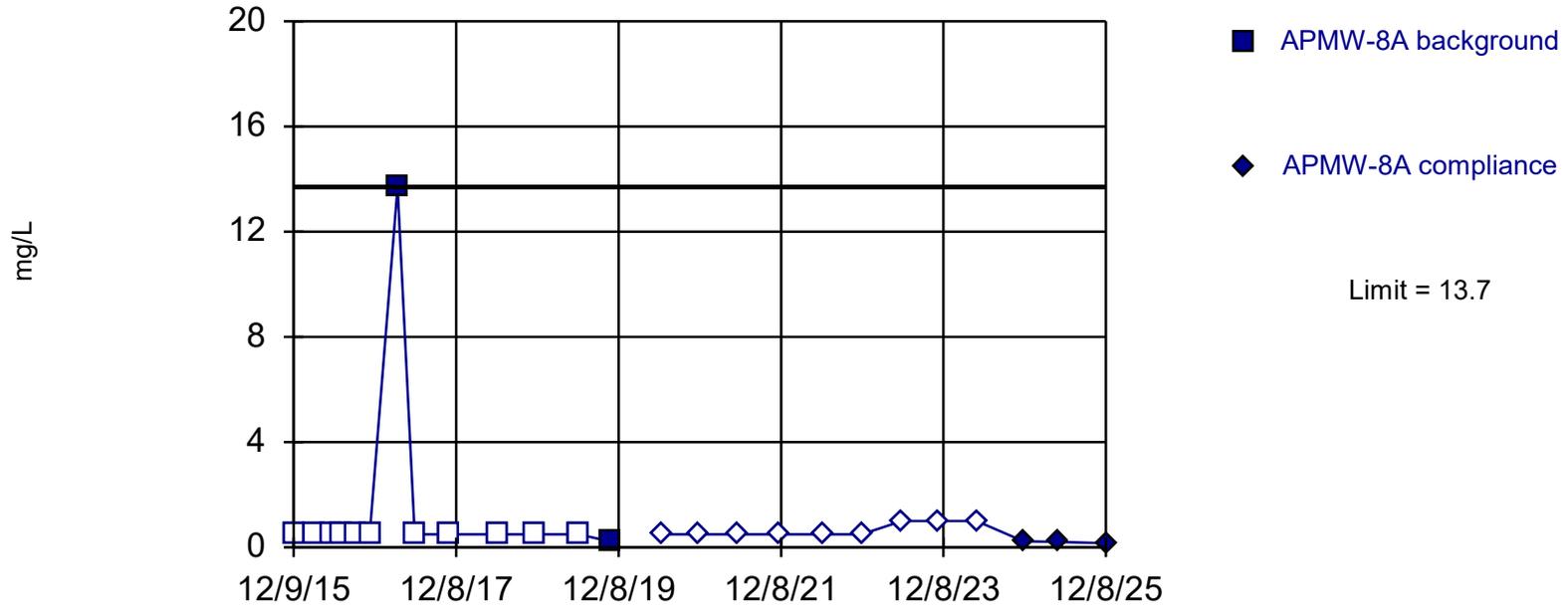
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

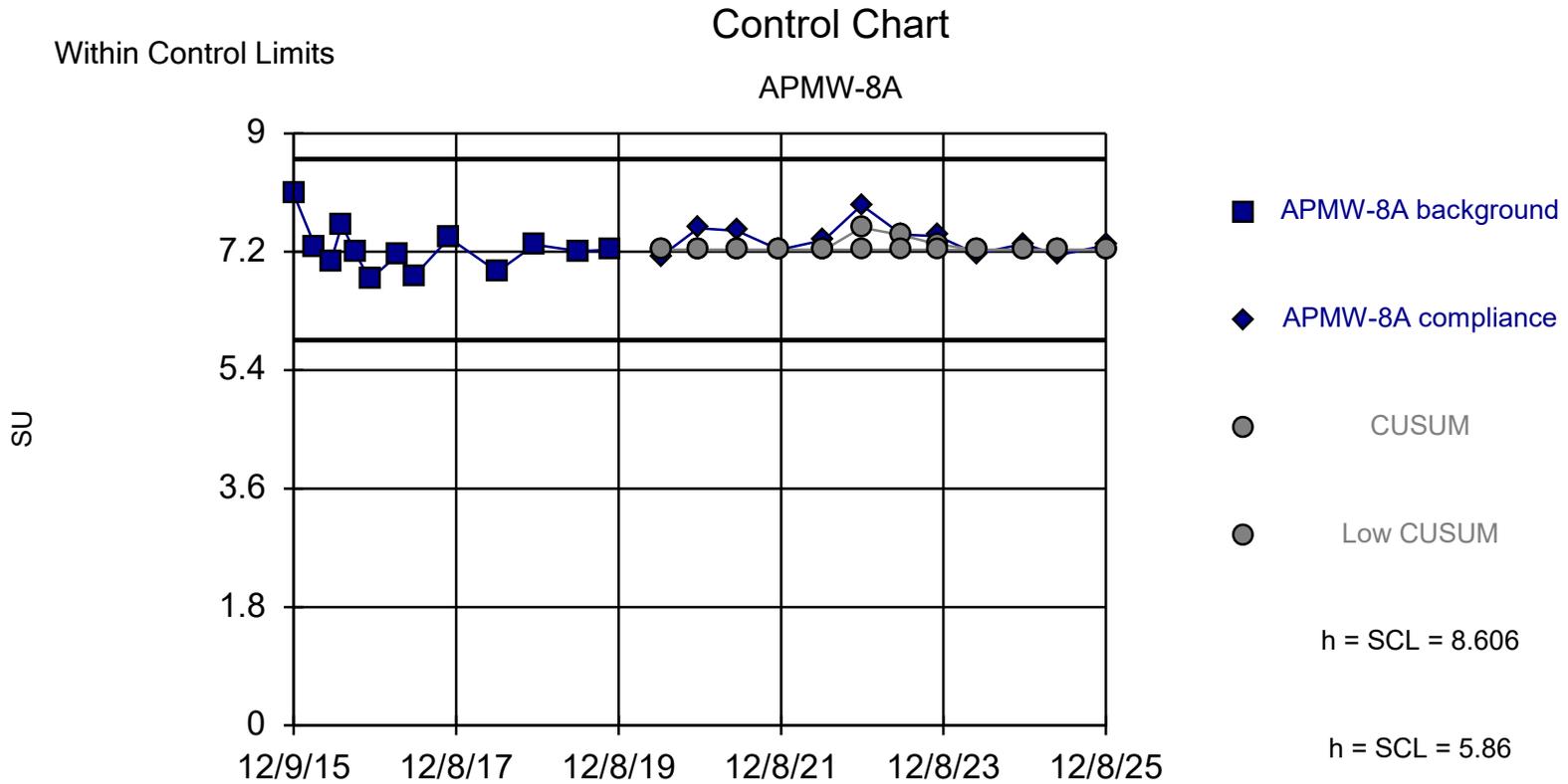


Within Limit

Prediction Limit

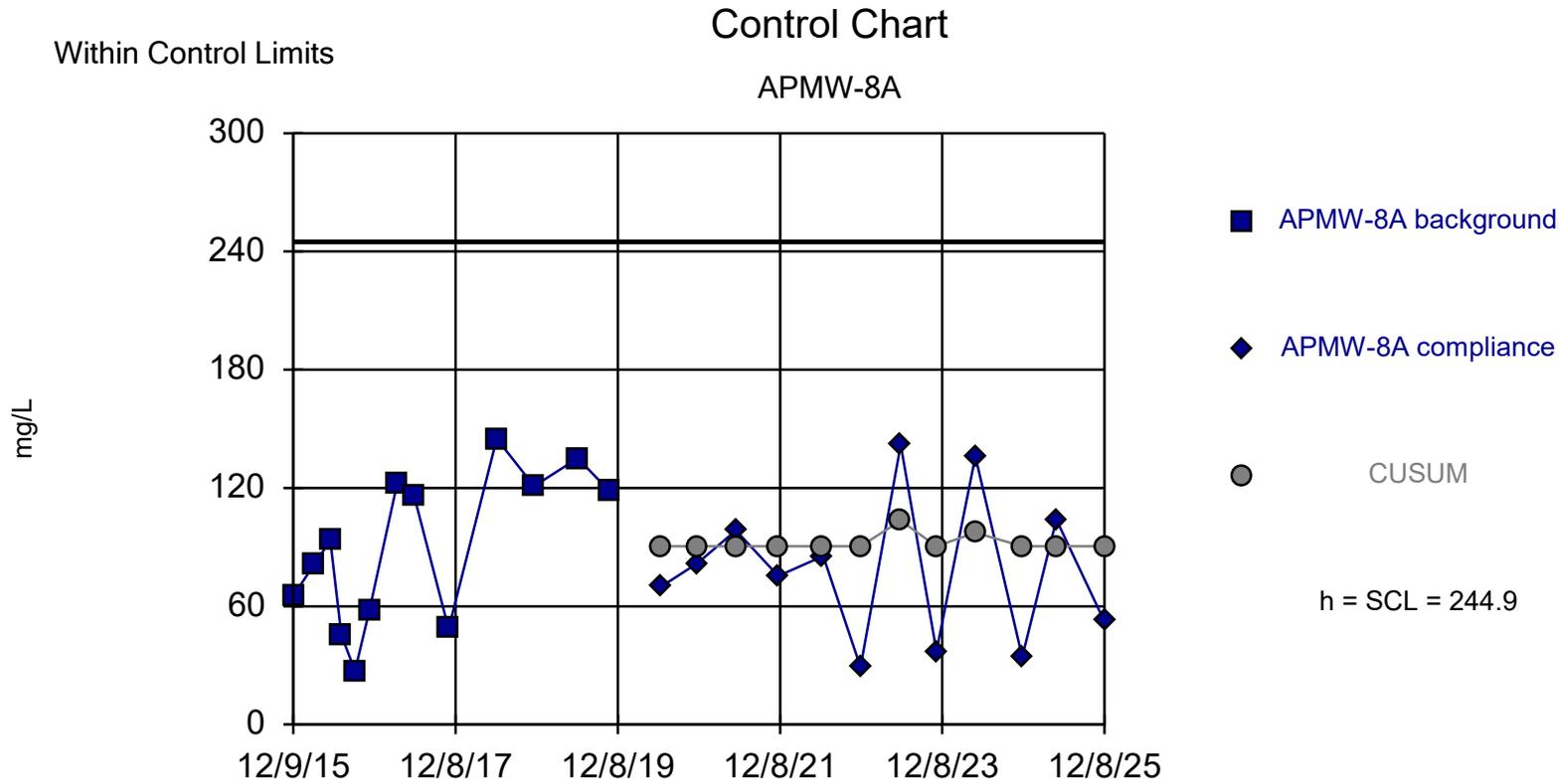
Intrawell Non-parametric

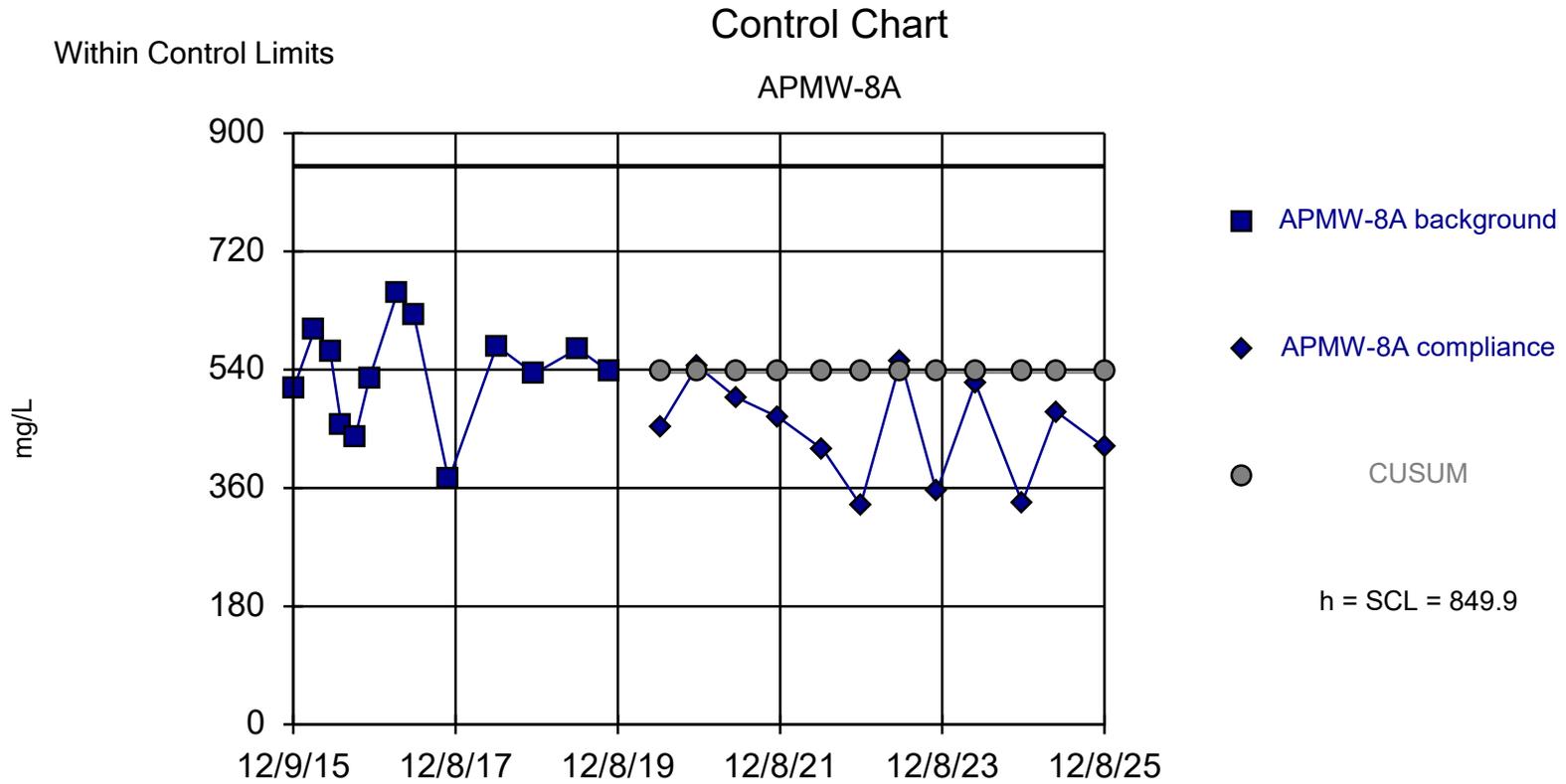


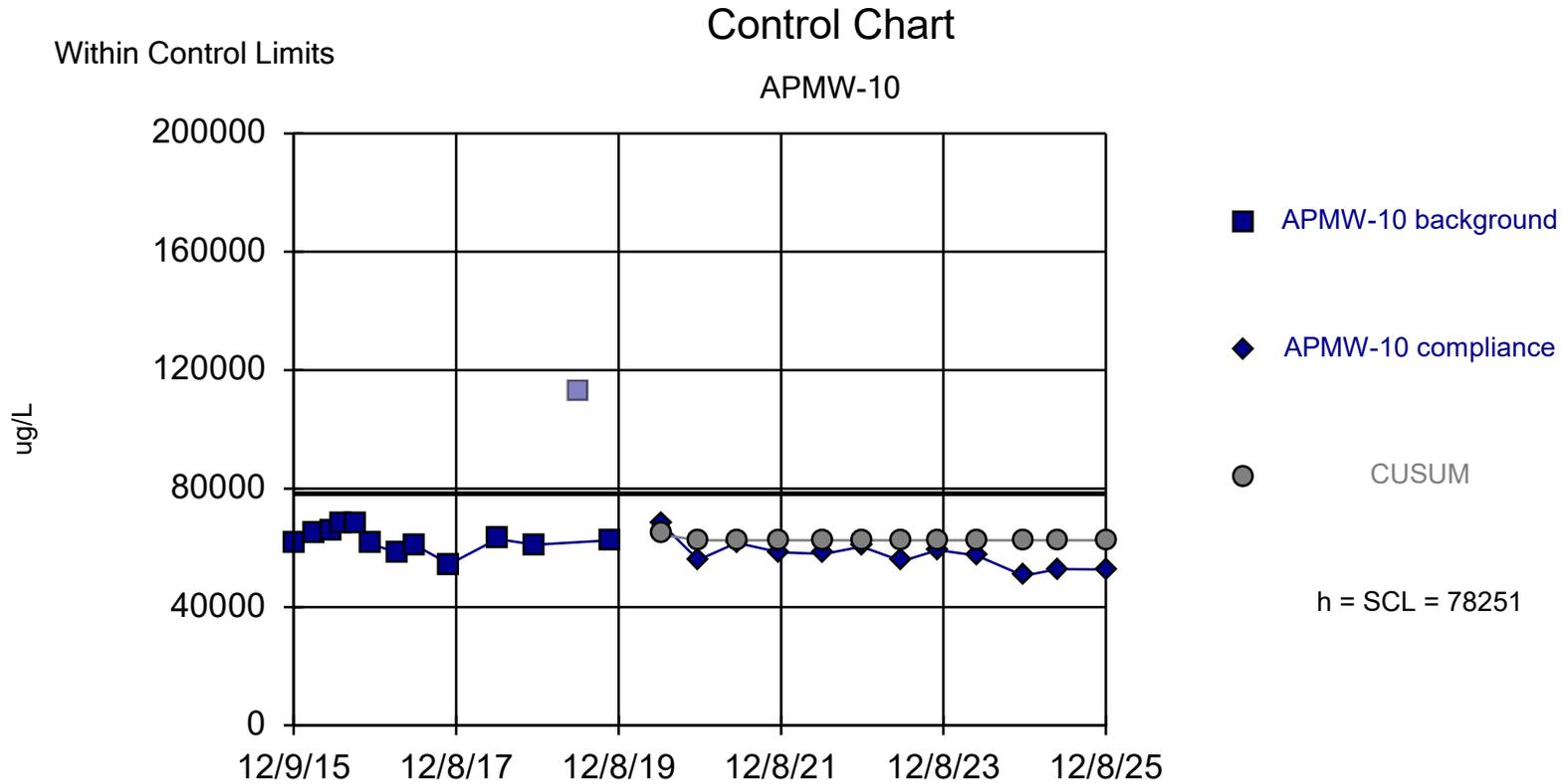


Background Data Summary: Mean=7.233, Std. Dev.=0.3432, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9148, critical = 0.866. Report alpha = 0.02677. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: pH, Field-Measured Analysis Run 1/13/2026 1:05 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



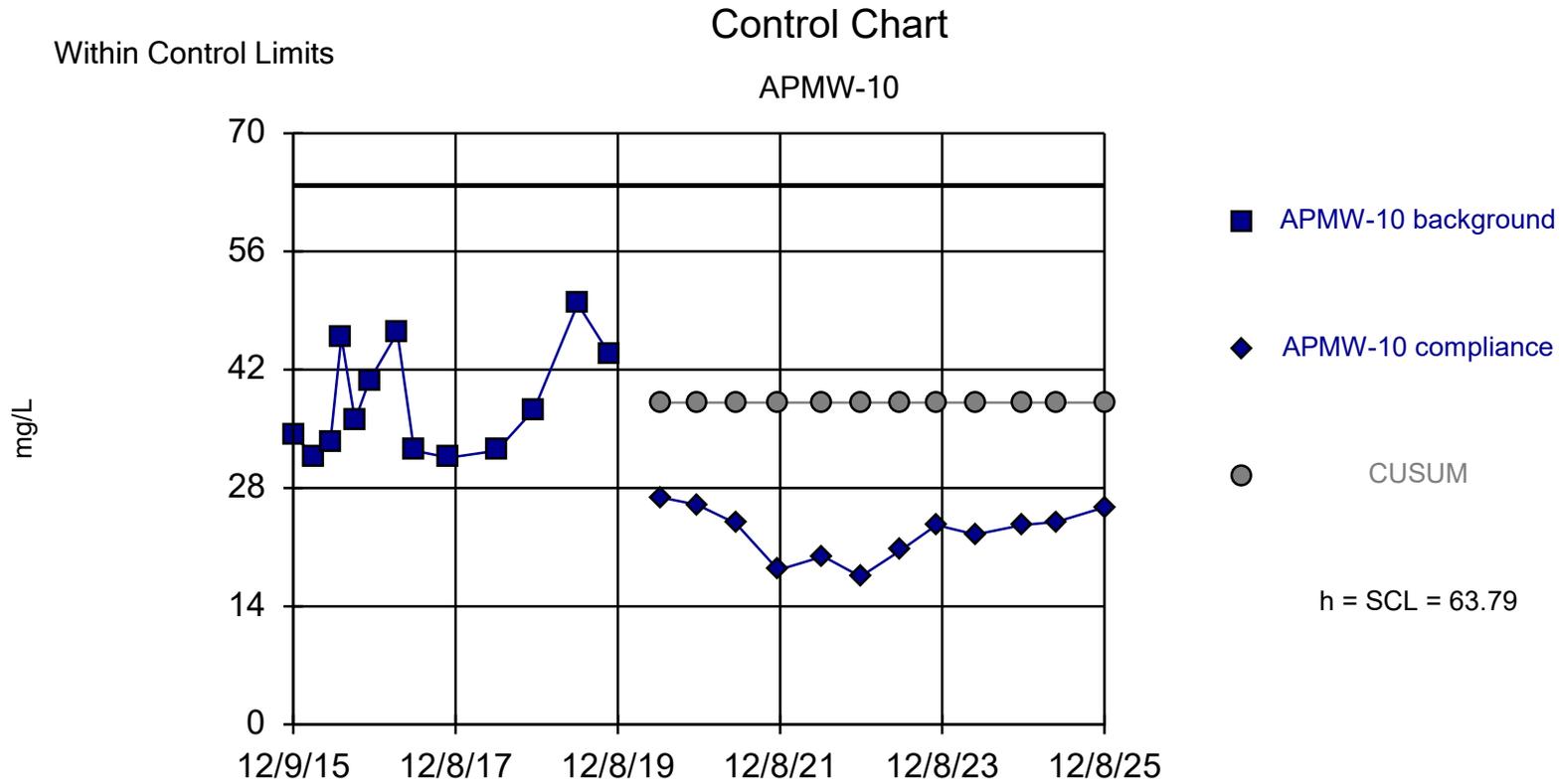




Background Data Summary: Mean=62525, Std. Dev.=3931, n=12. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.956, critical = 0.859. Report alpha = 0.03107. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 1:17 PM

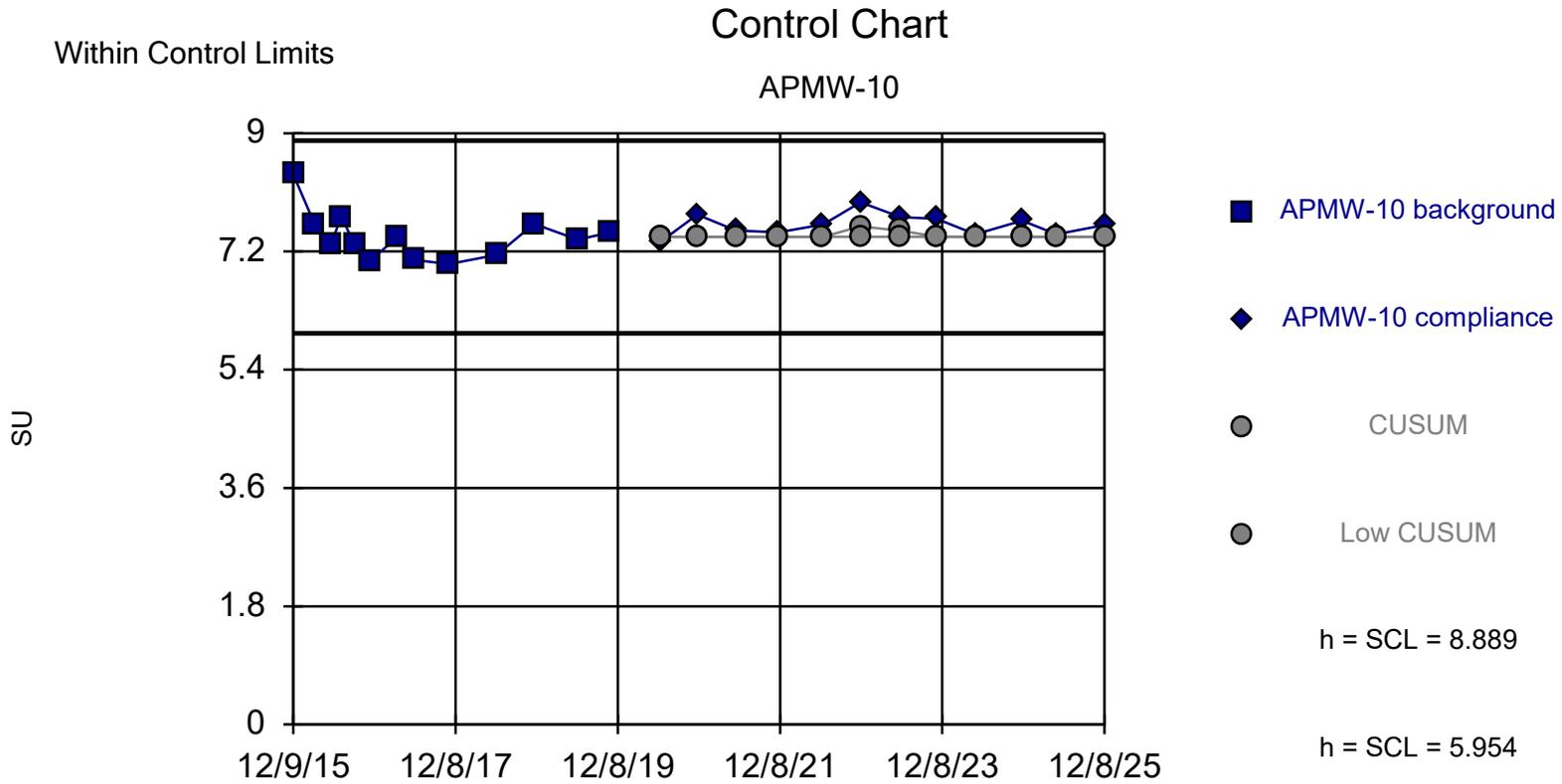
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=38.12, Std. Dev.=6.416, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8726, critical = 0.866. Report alpha = 0.02698. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

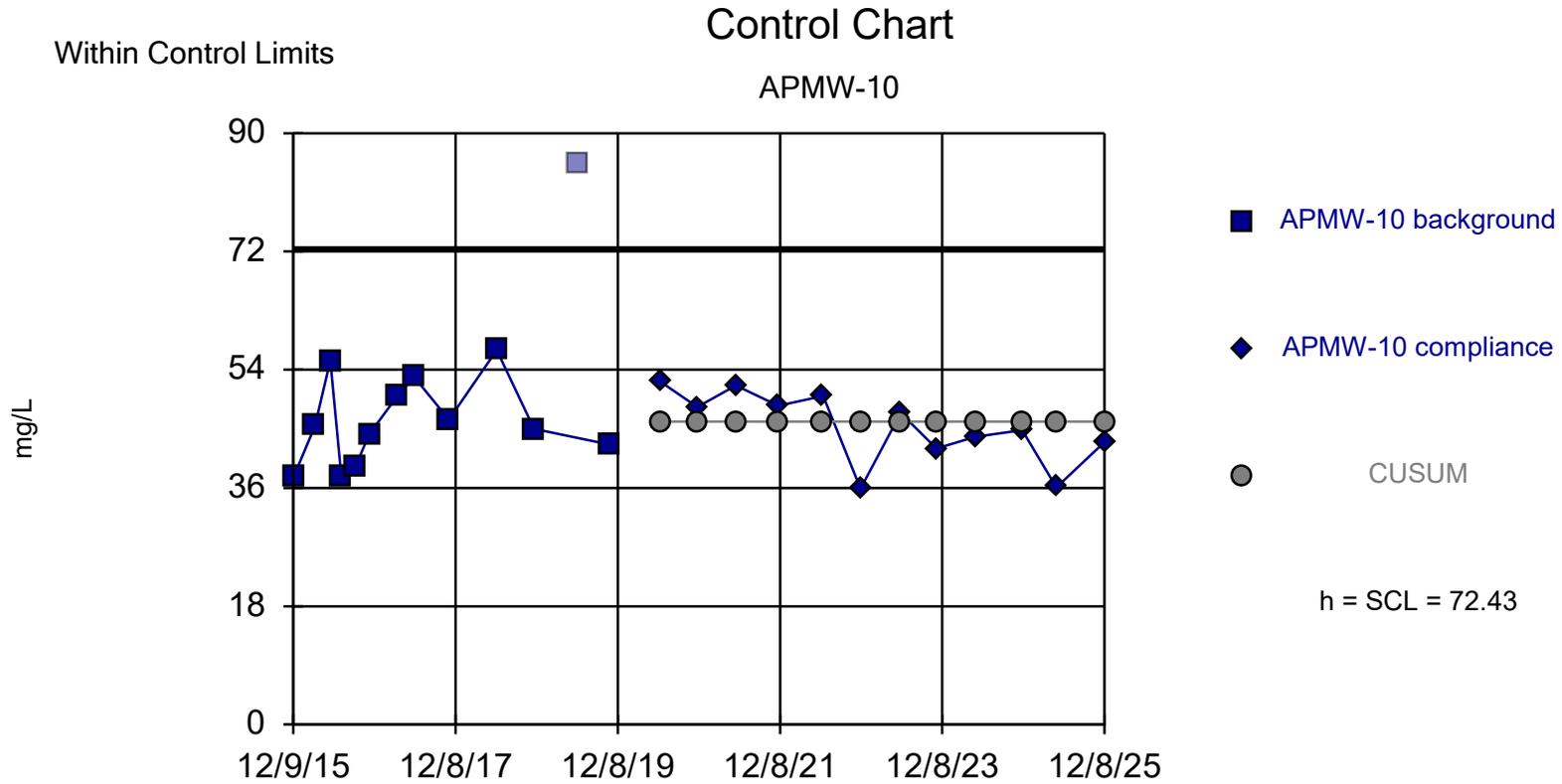
Constituent: Chloride Analysis Run 1/13/2026 1:15 PM

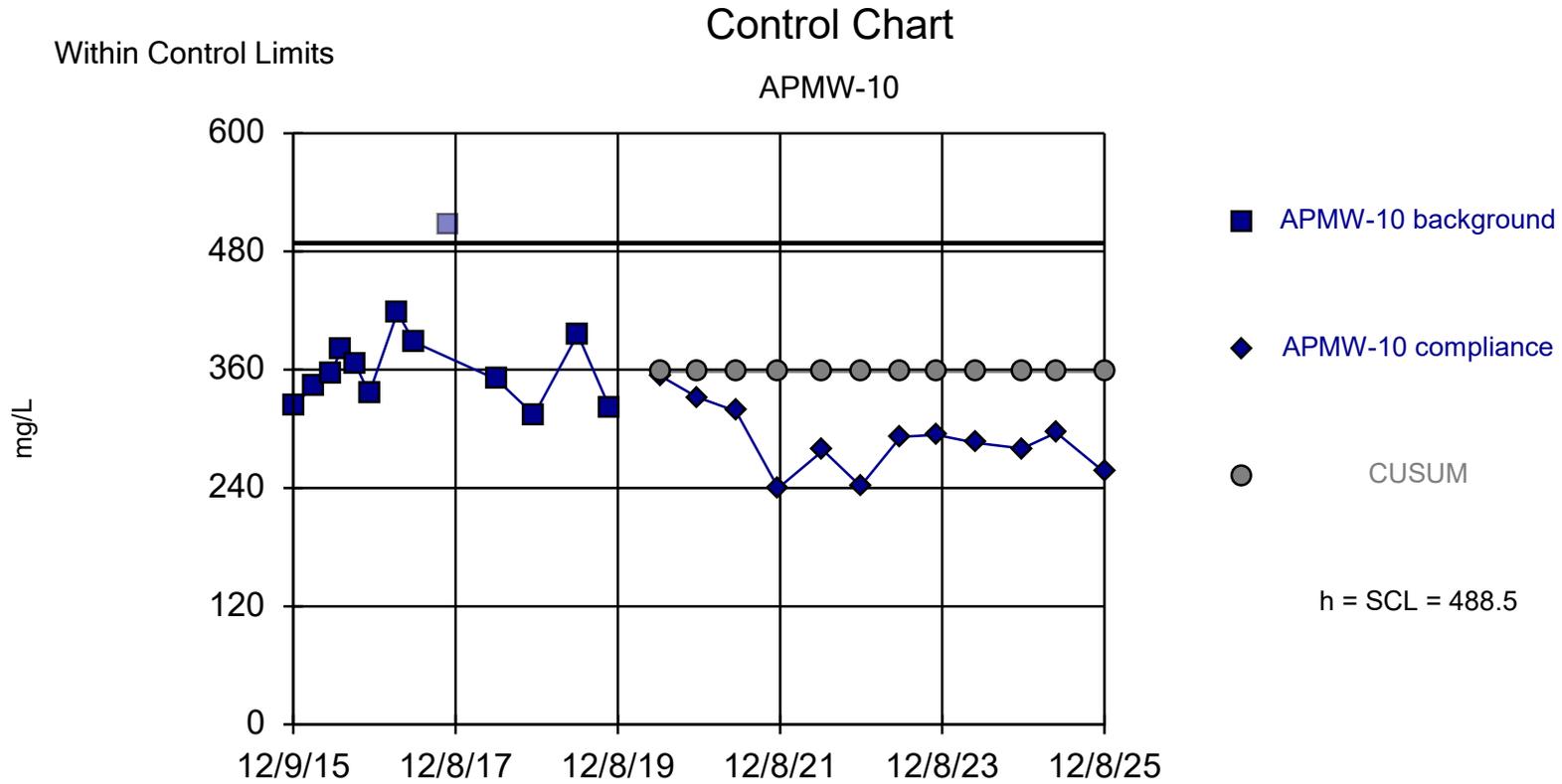
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



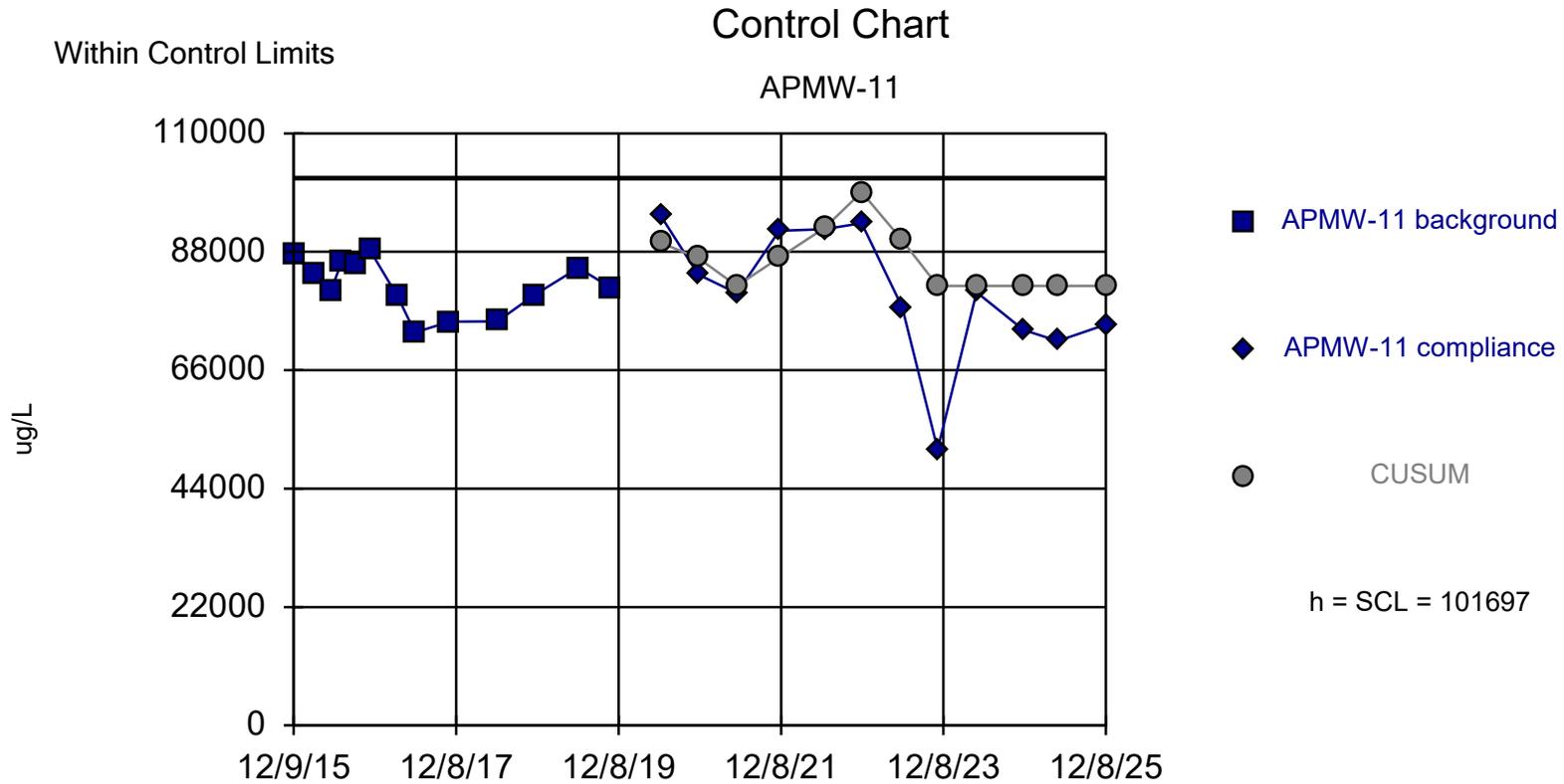
Background Data Summary: Mean=7.422, Std. Dev.=0.3669, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8842, critical = 0.866. Report alpha = 0.02698. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: pH, Field-Measured Analysis Run 1/13/2026 1:15 PM
 Gerald Gentleman Station Client: NPPD Data: N





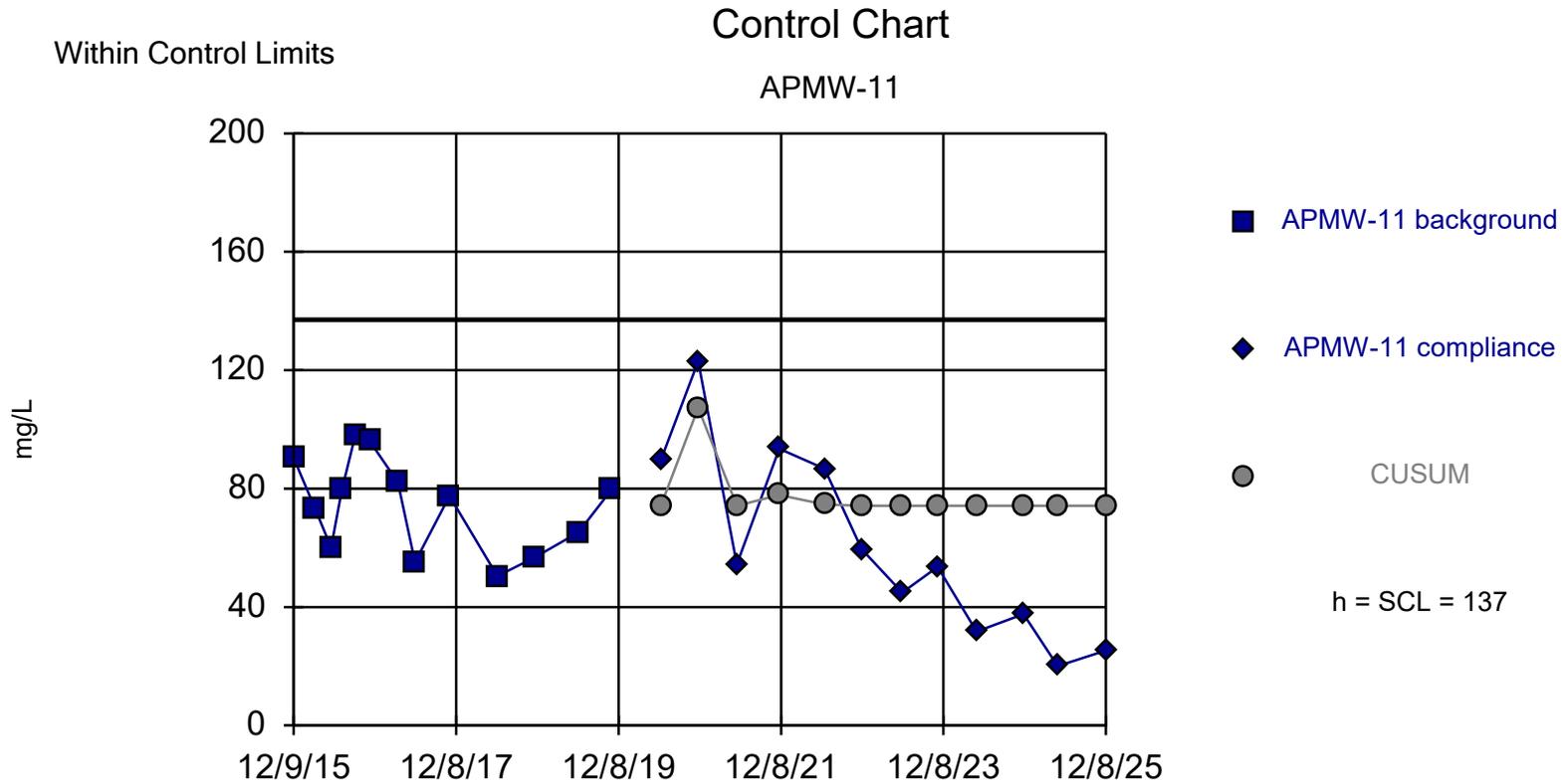
Background Data Summary: Mean=357.7, Std. Dev.=32.72, n=12. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9618, critical = 0.859. Report alpha = 0.03056. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.



Background Data Summary: Mean=81646, Std. Dev.=5013, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9374, critical = 0.866. Report alpha = 0.0268. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 2:40 PM

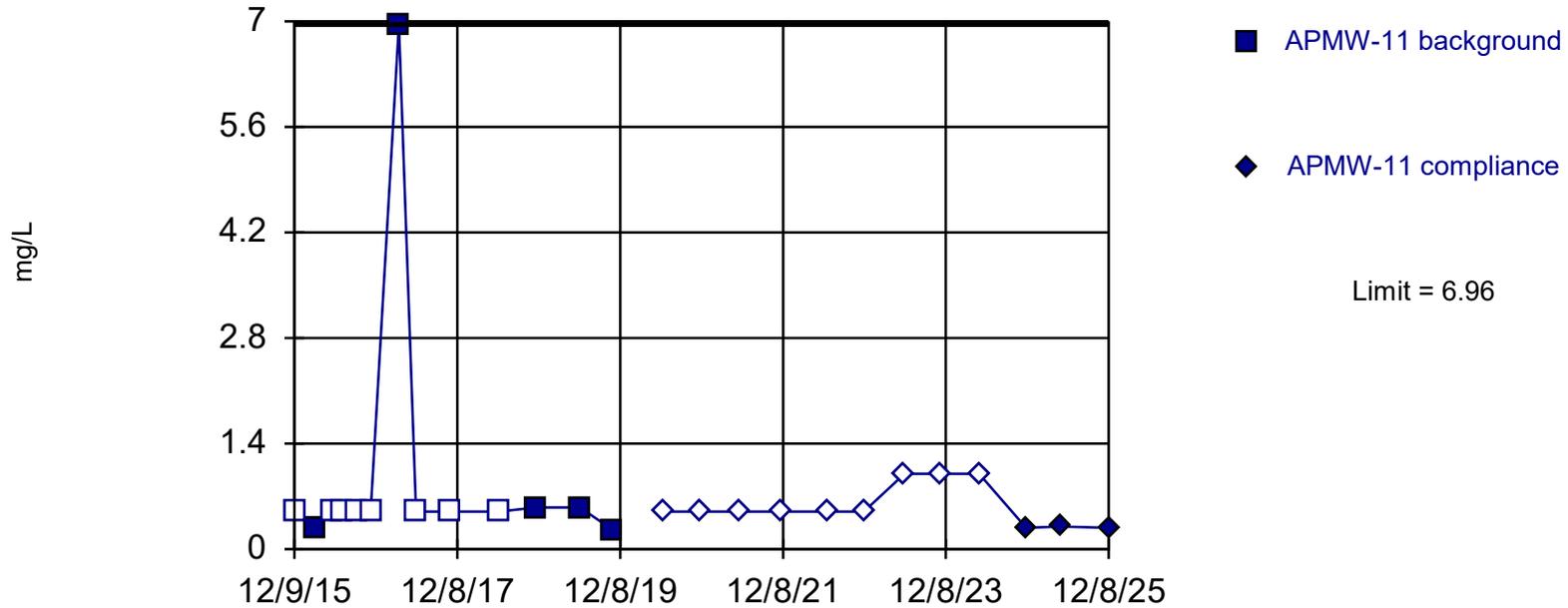
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

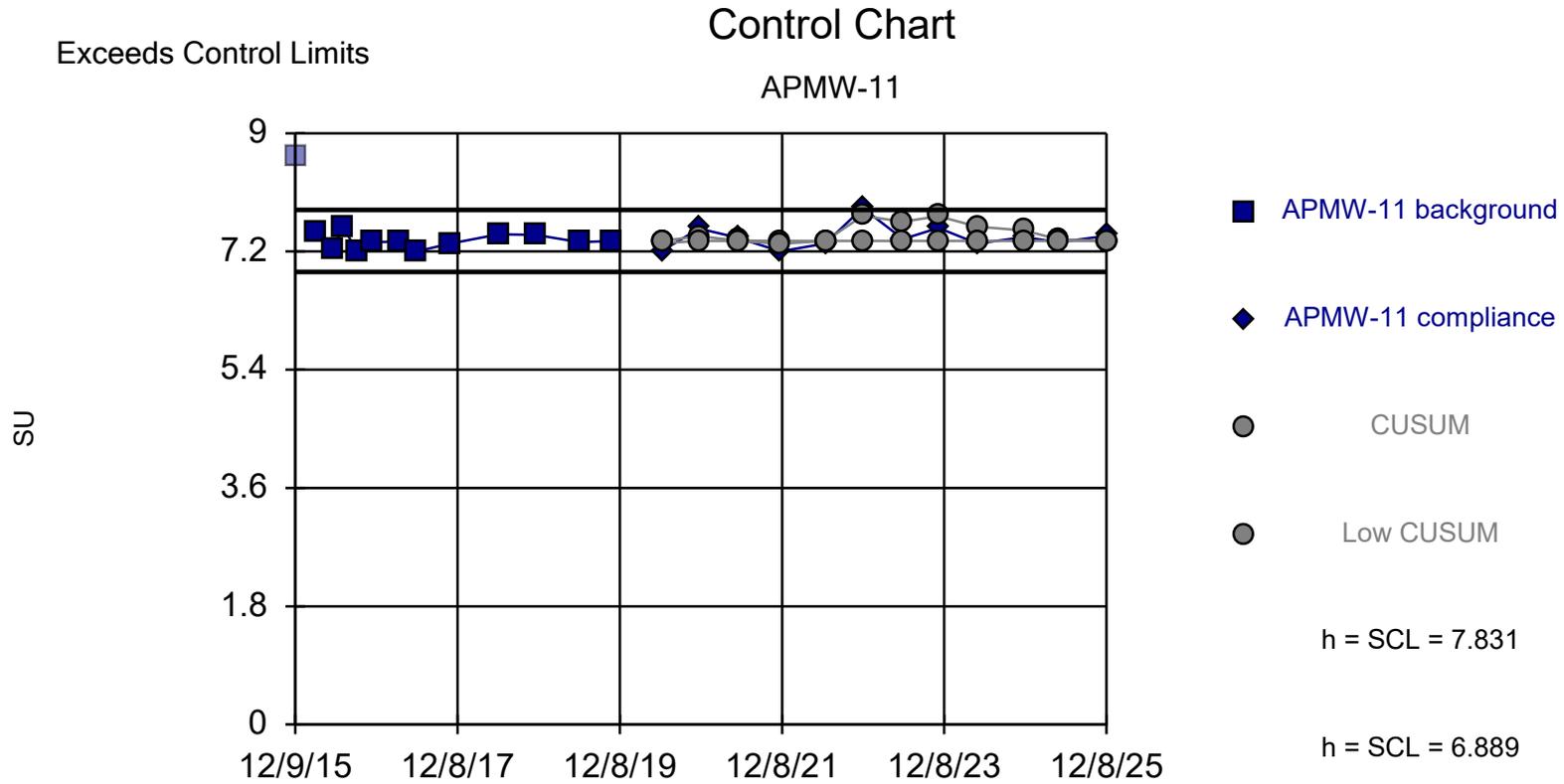


Within Limit

Prediction Limit

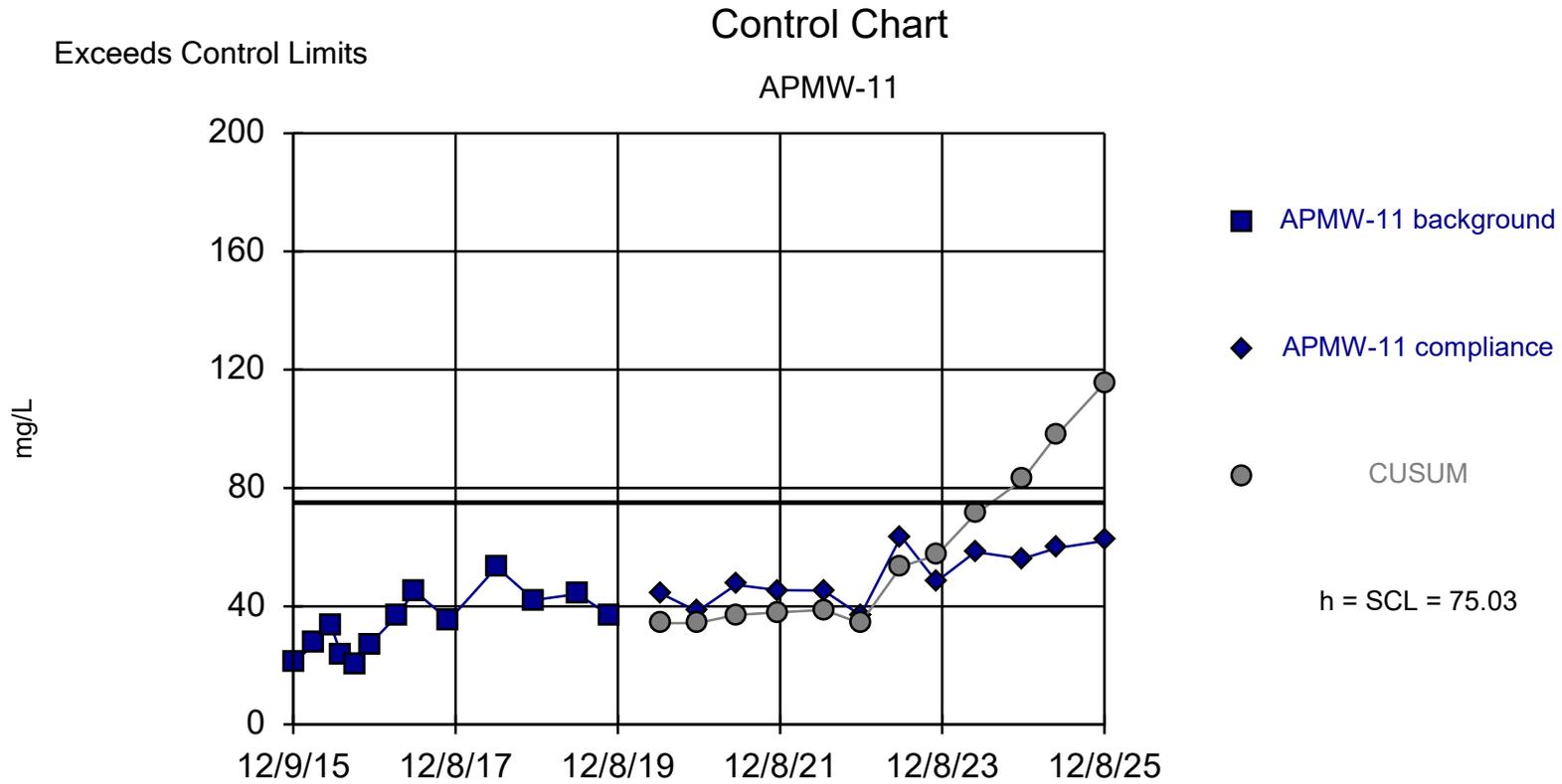
Intrawell Non-parametric

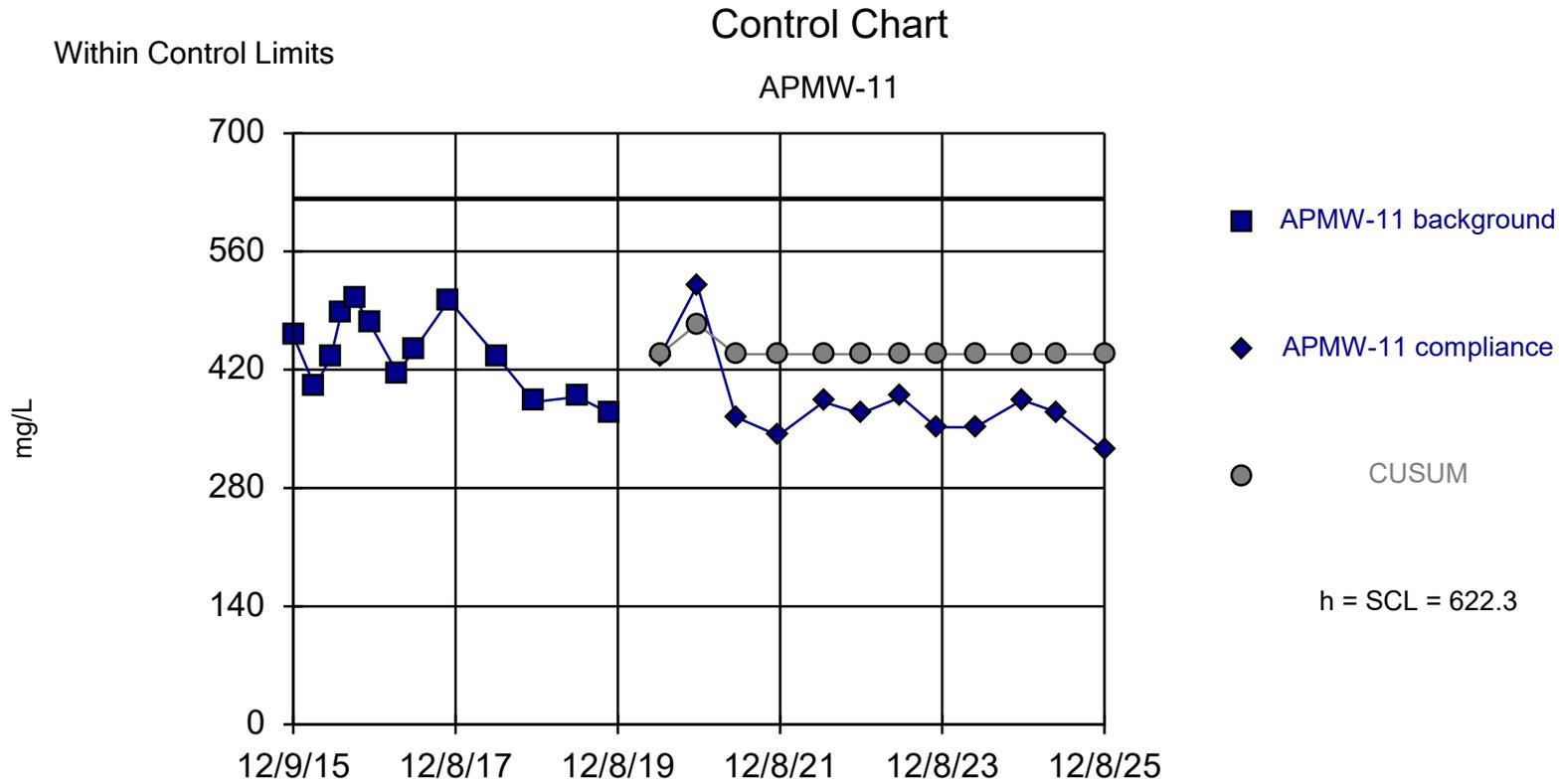


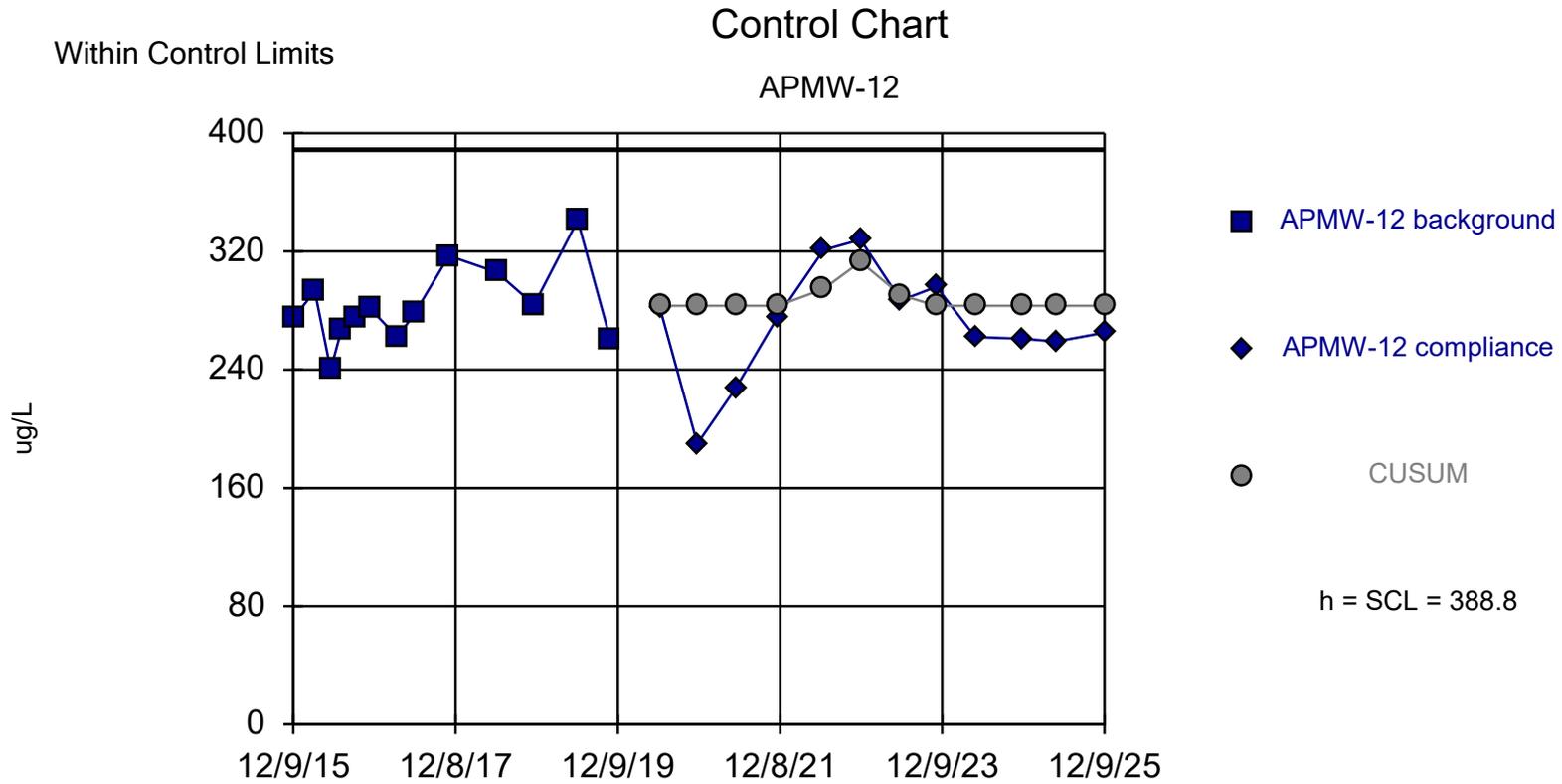


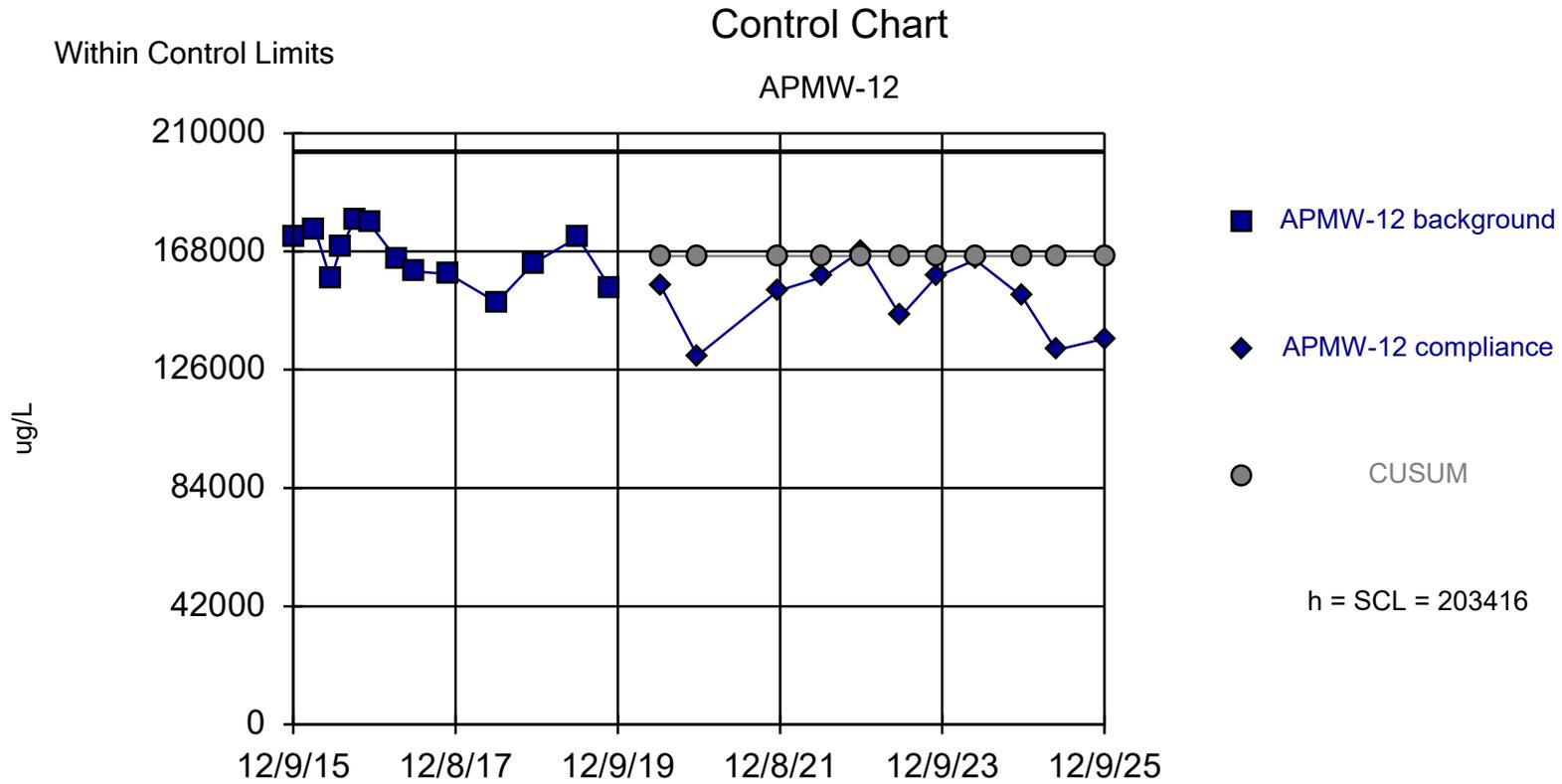
Background Data Summary: Mean=7.36, Std. Dev.=0.1177, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9429, critical = 0.859. Report alpha = 0.03058. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: pH, Field-Measured Analysis Run 1/14/2026 10:34 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters





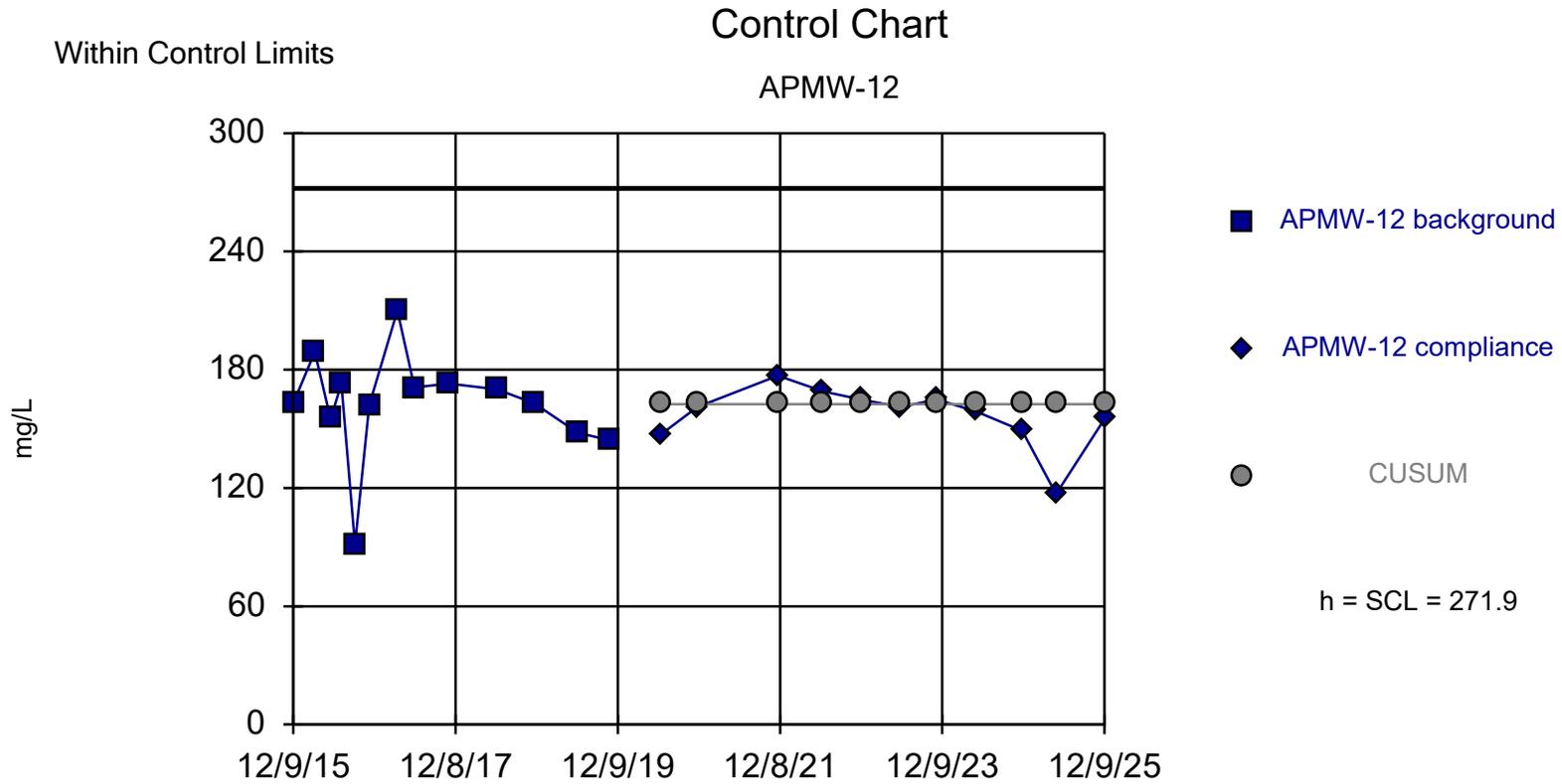




Background Data Summary: Mean=166308, Std. Dev.=9277, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9542, critical = 0.866. Report alpha = 0.0249. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 3:07 PM

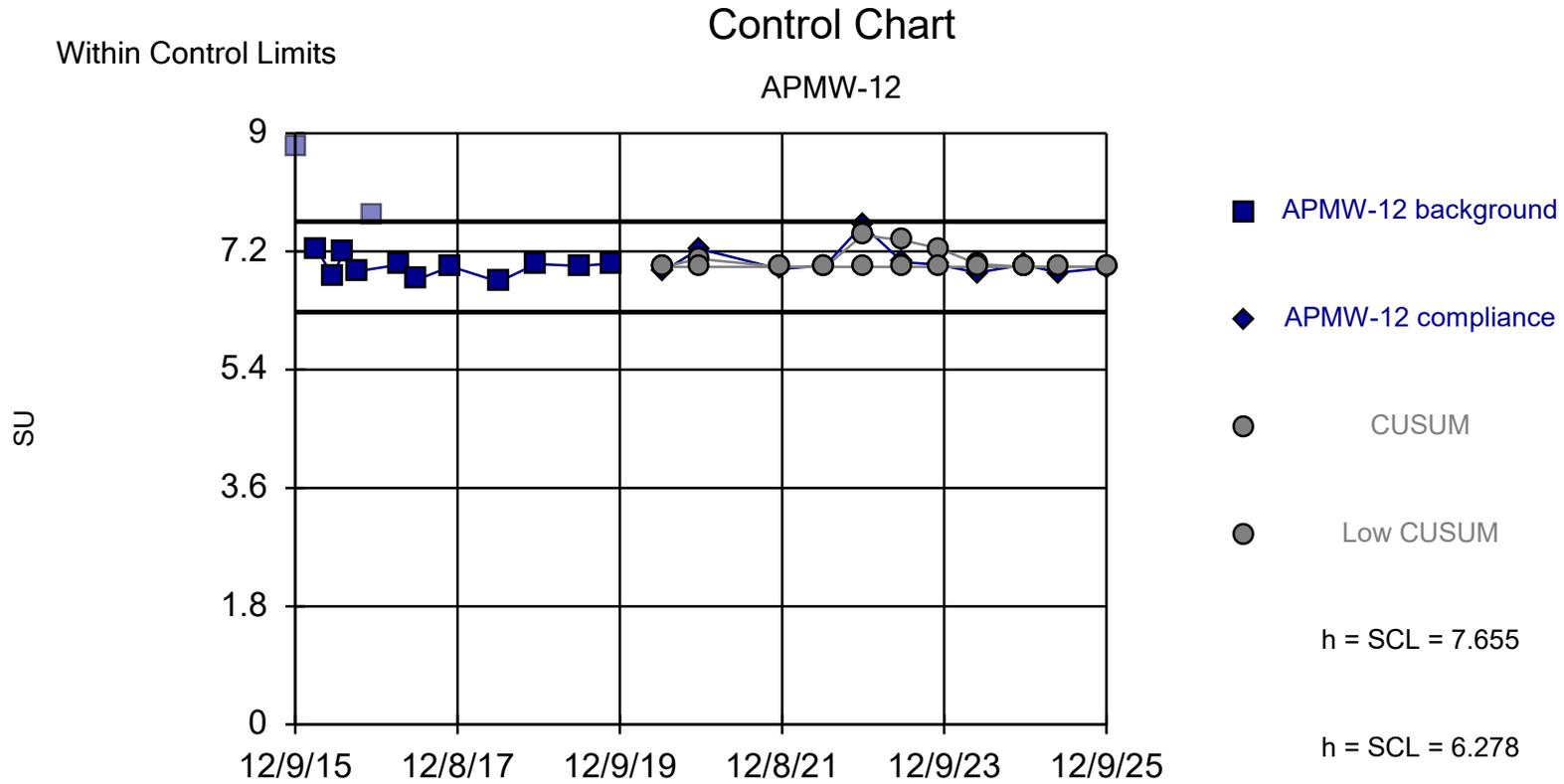
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=162.5, Std. Dev.=27.37, n=13. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8823, critical = 0.866. Report alpha = 0.0249. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

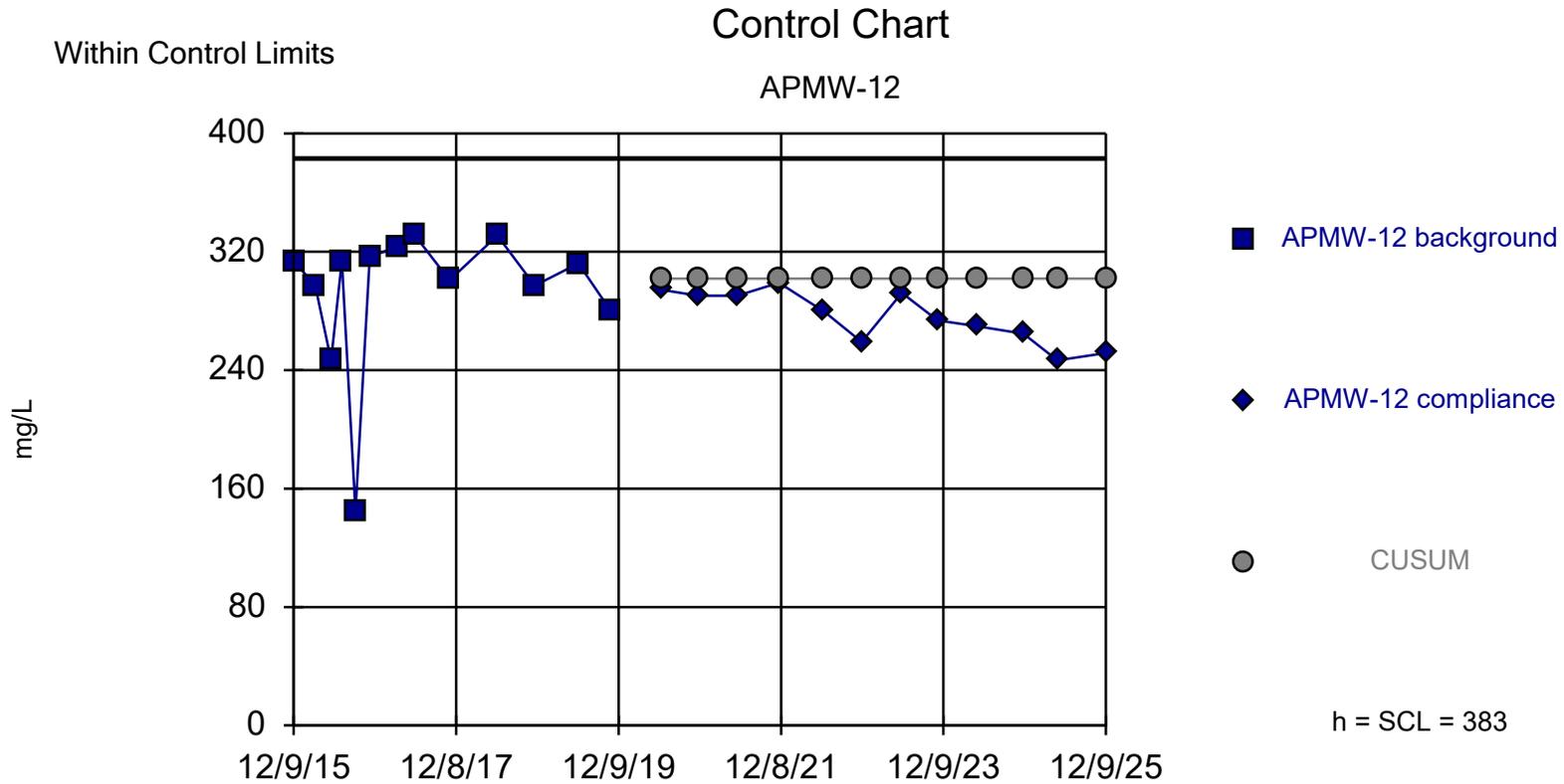
Constituent: Chloride Analysis Run 1/13/2026 3:07 PM

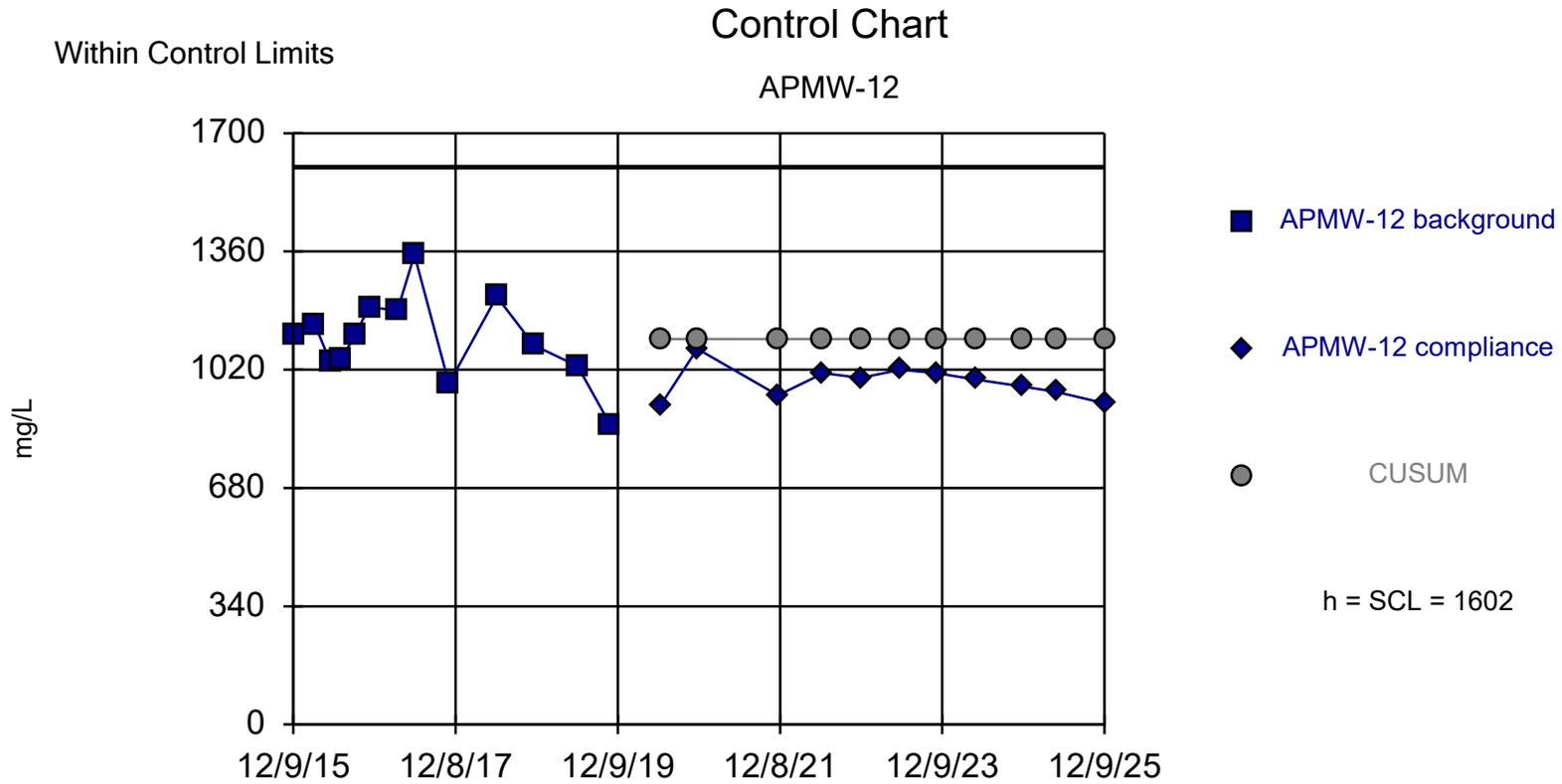
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

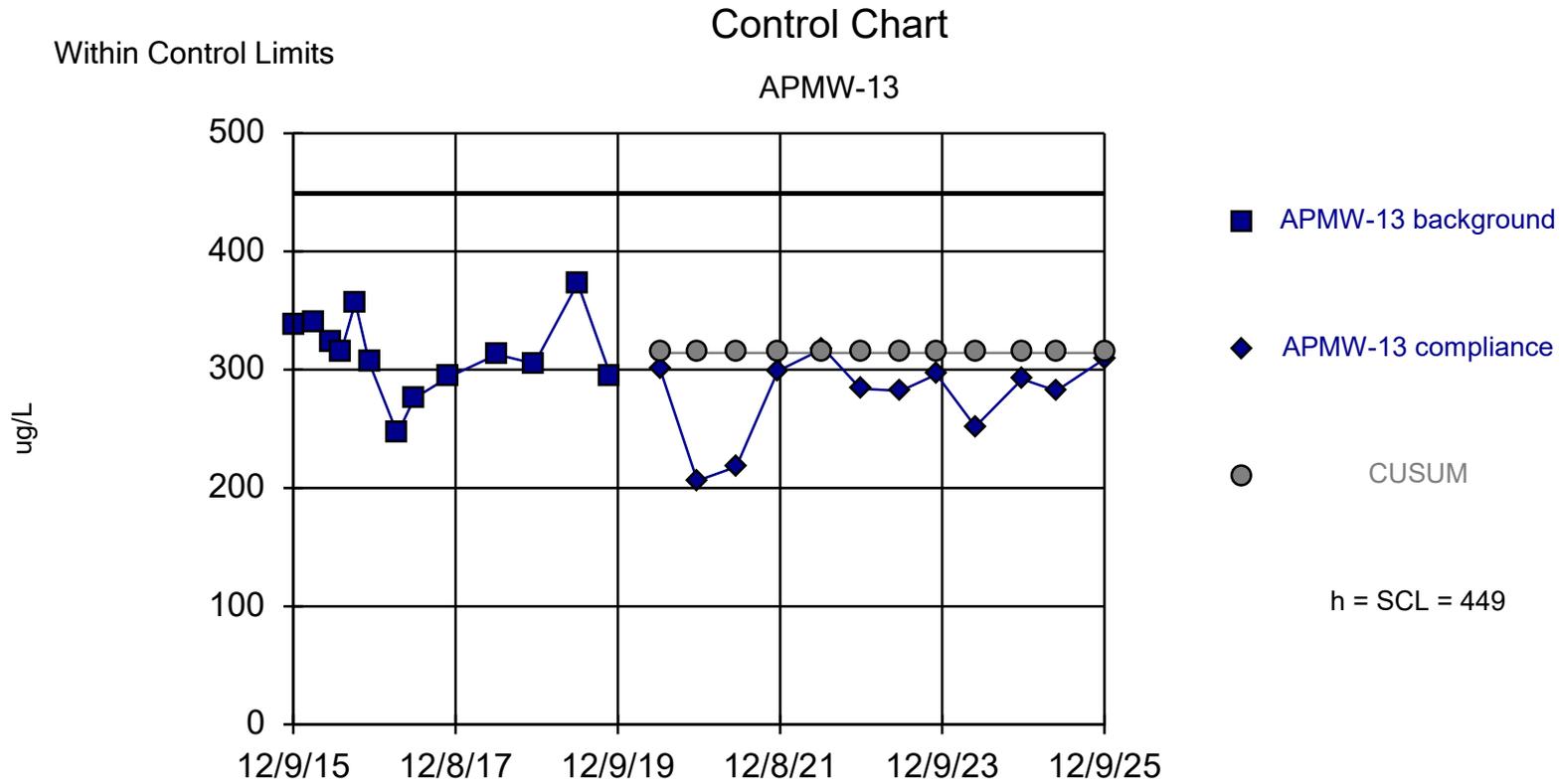


Background Data Summary: Mean=6.966, Std. Dev.=0.153, n=11. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9483, critical = 0.85. Report alpha = 0.02177. Dates ending 11/6/2019 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: pH, Field-Measured Analysis Run 1/13/2026 3:17 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



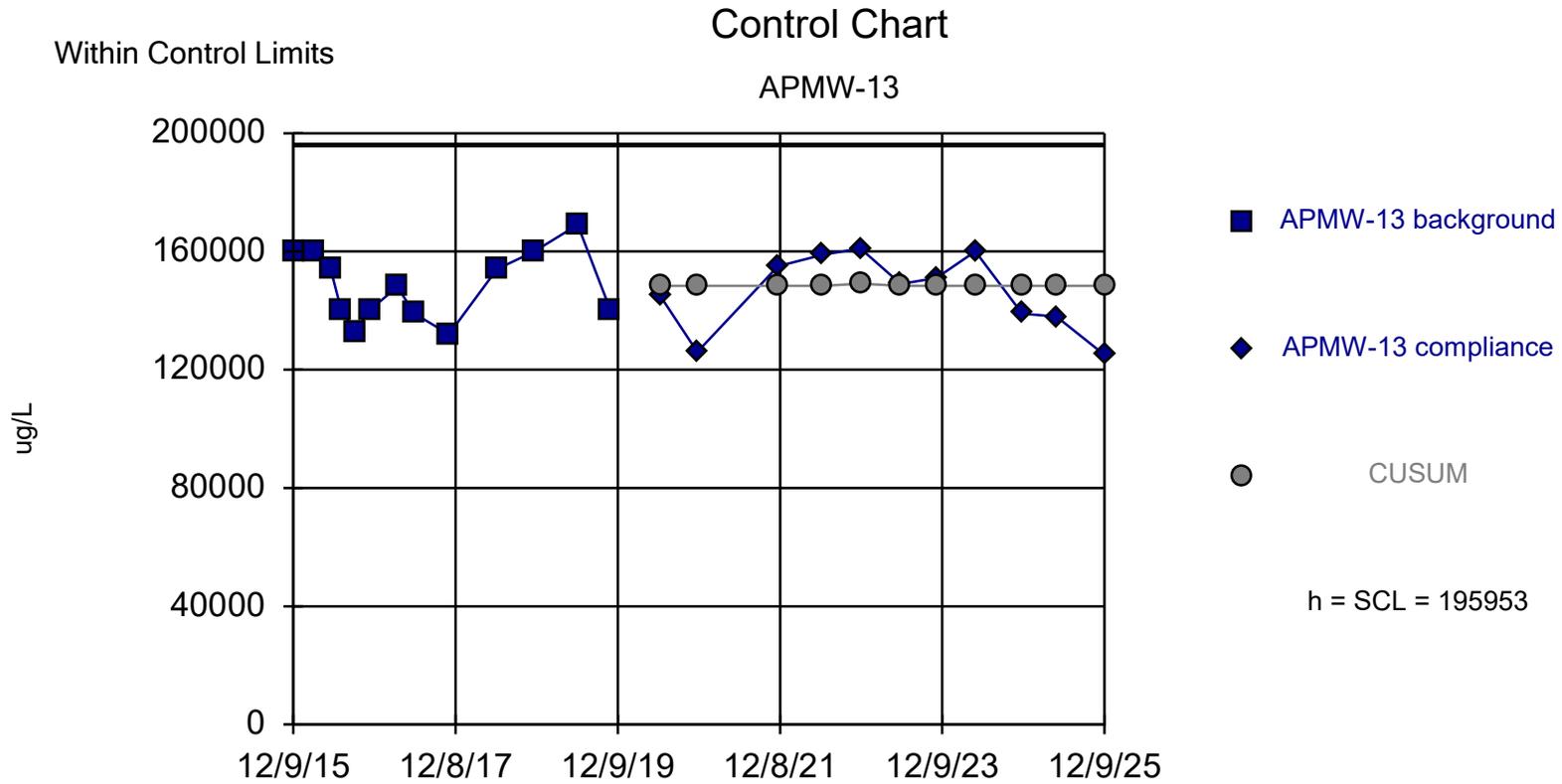




Background Data Summary: Mean=314.1, Std. Dev.=33.74, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9859, critical = 0.866. Report alpha = 0.02674. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Boron Analysis Run 1/13/2026 3:23 PM

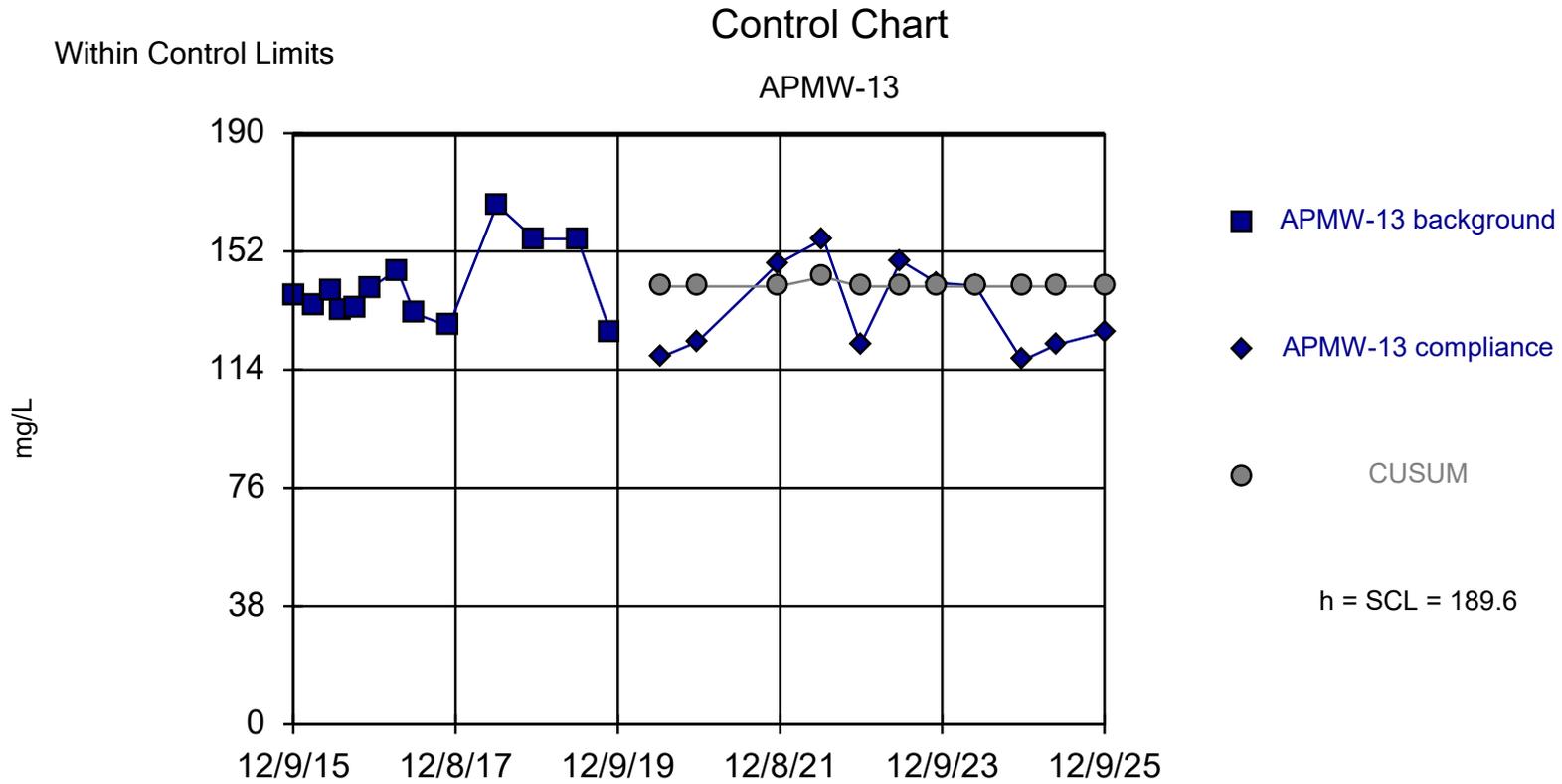
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=148385, Std. Dev.=11892, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.923, critical = 0.866. Report alpha = 0.02423. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/13/2026 3:23 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=140.8, Std. Dev.=12.21, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9021, critical = 0.866. Report alpha = 0.02423. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

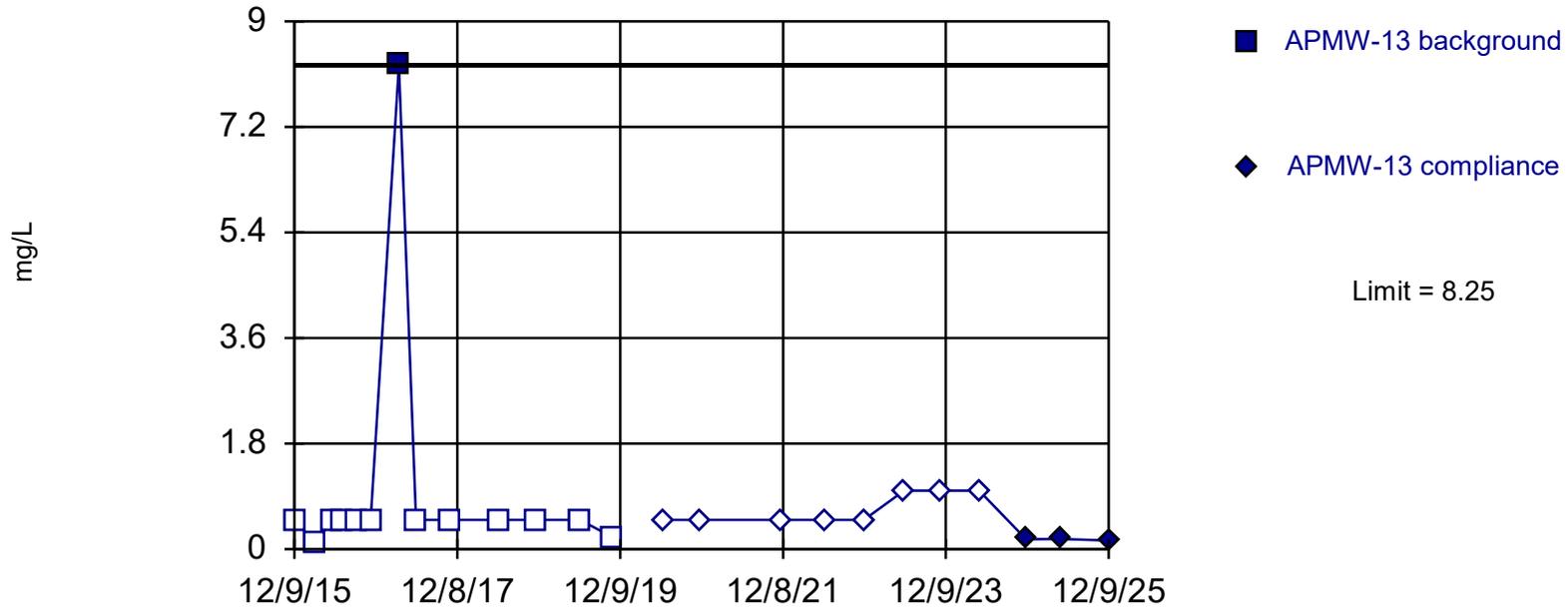
Constituent: Chloride Analysis Run 1/13/2026 3:23 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

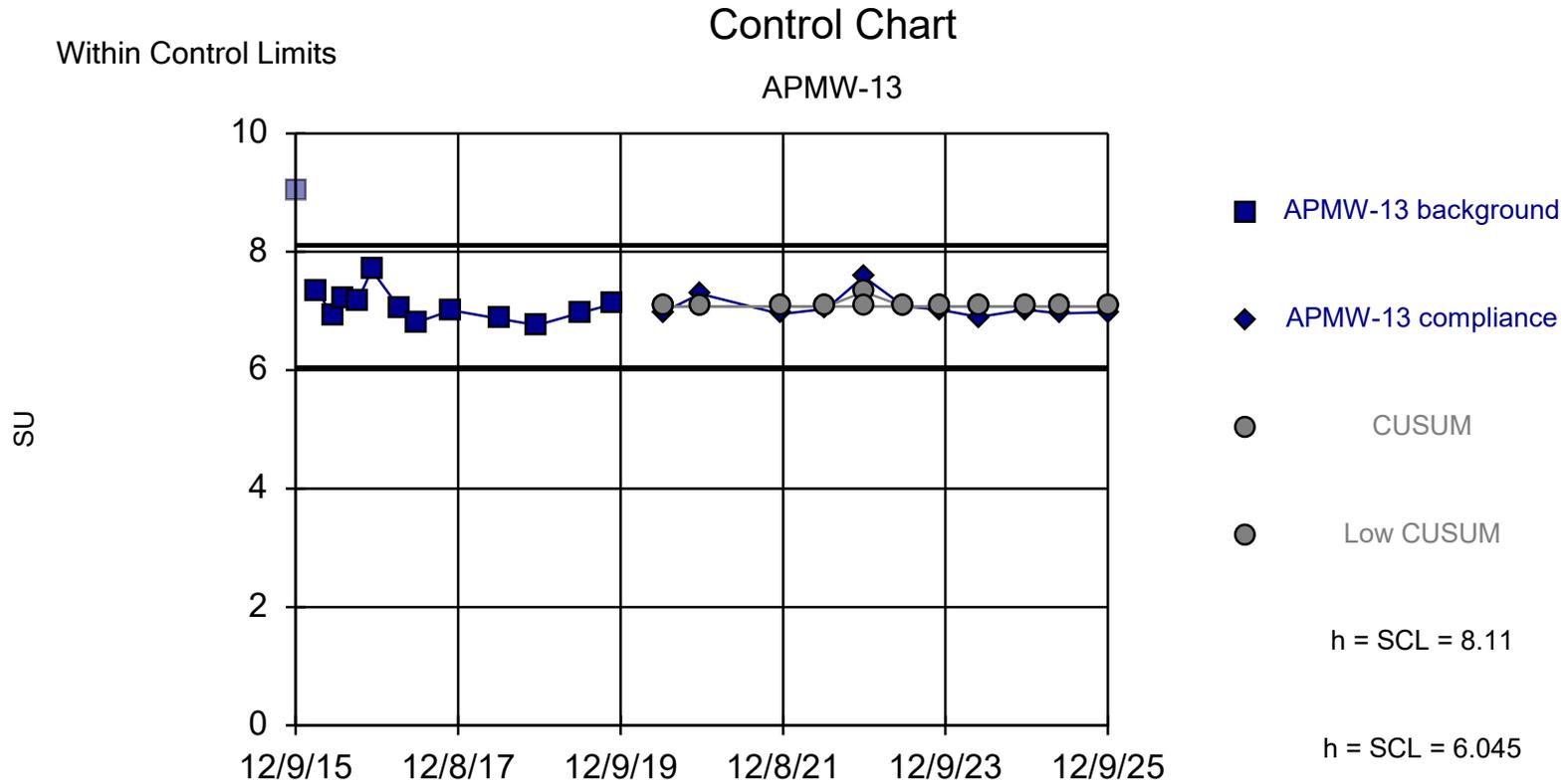
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

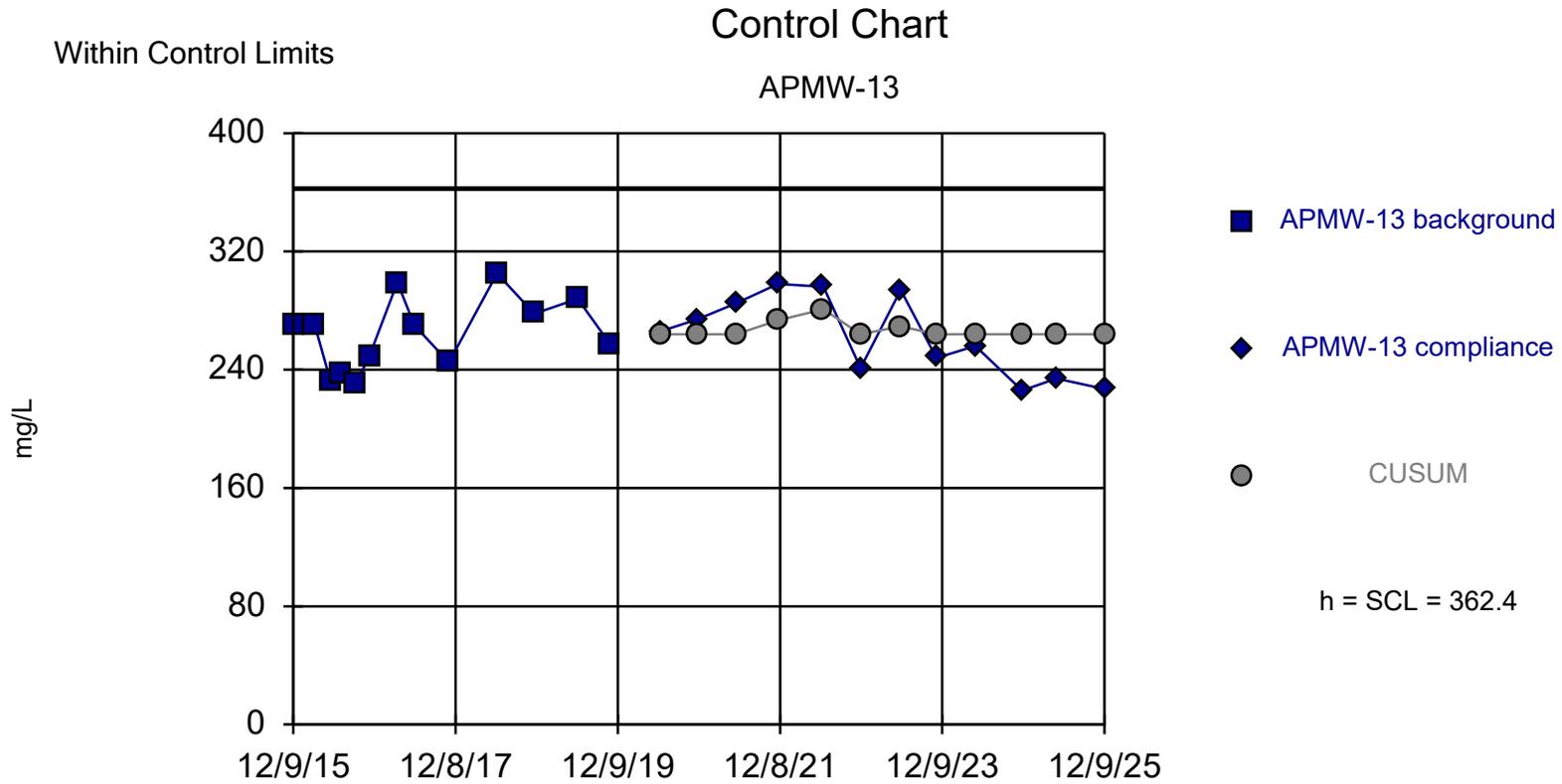
Constituent: Fluoride Analysis Run 1/13/2026 3:23 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=7.078, Std. Dev.=0.258, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.924, critical = 0.859. Report alpha = 0.02795. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

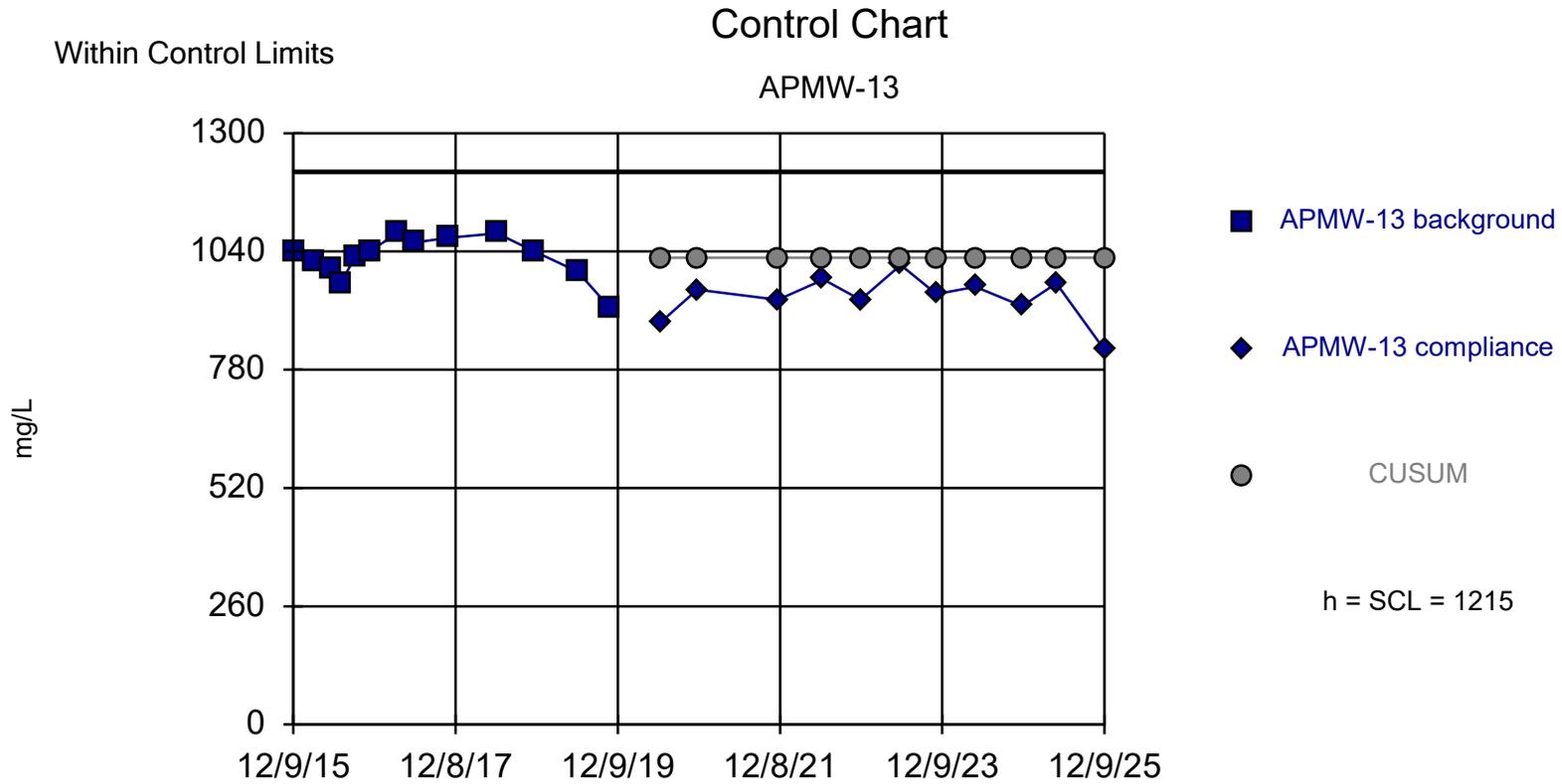
Constituent: pH, Field-Measured Analysis Run 1/13/2026 3:27 PM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=263.9, Std. Dev.=24.63, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9506, critical = 0.866. Report alpha = 0.02708. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/13/2026 3:23 PM

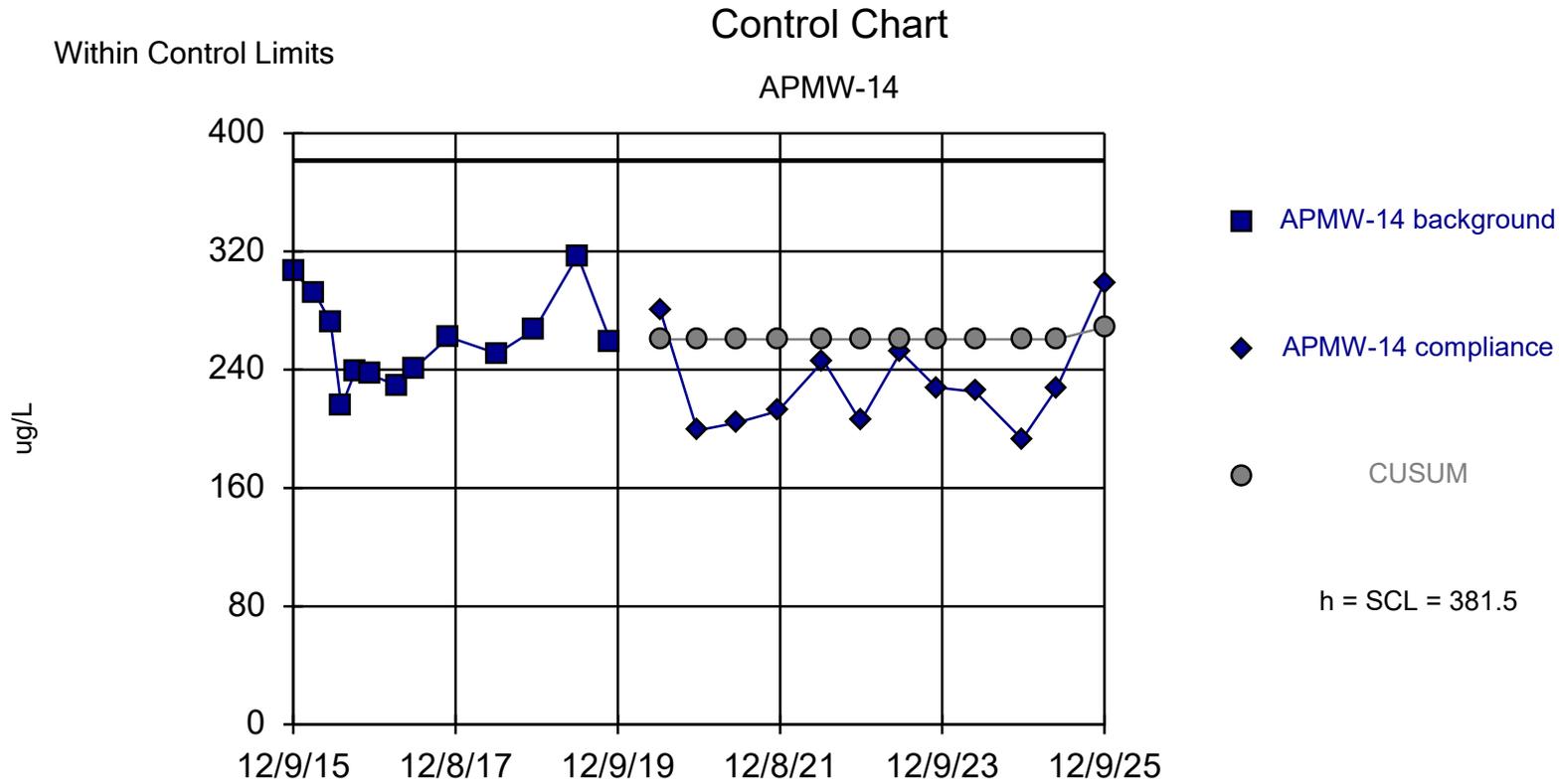
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

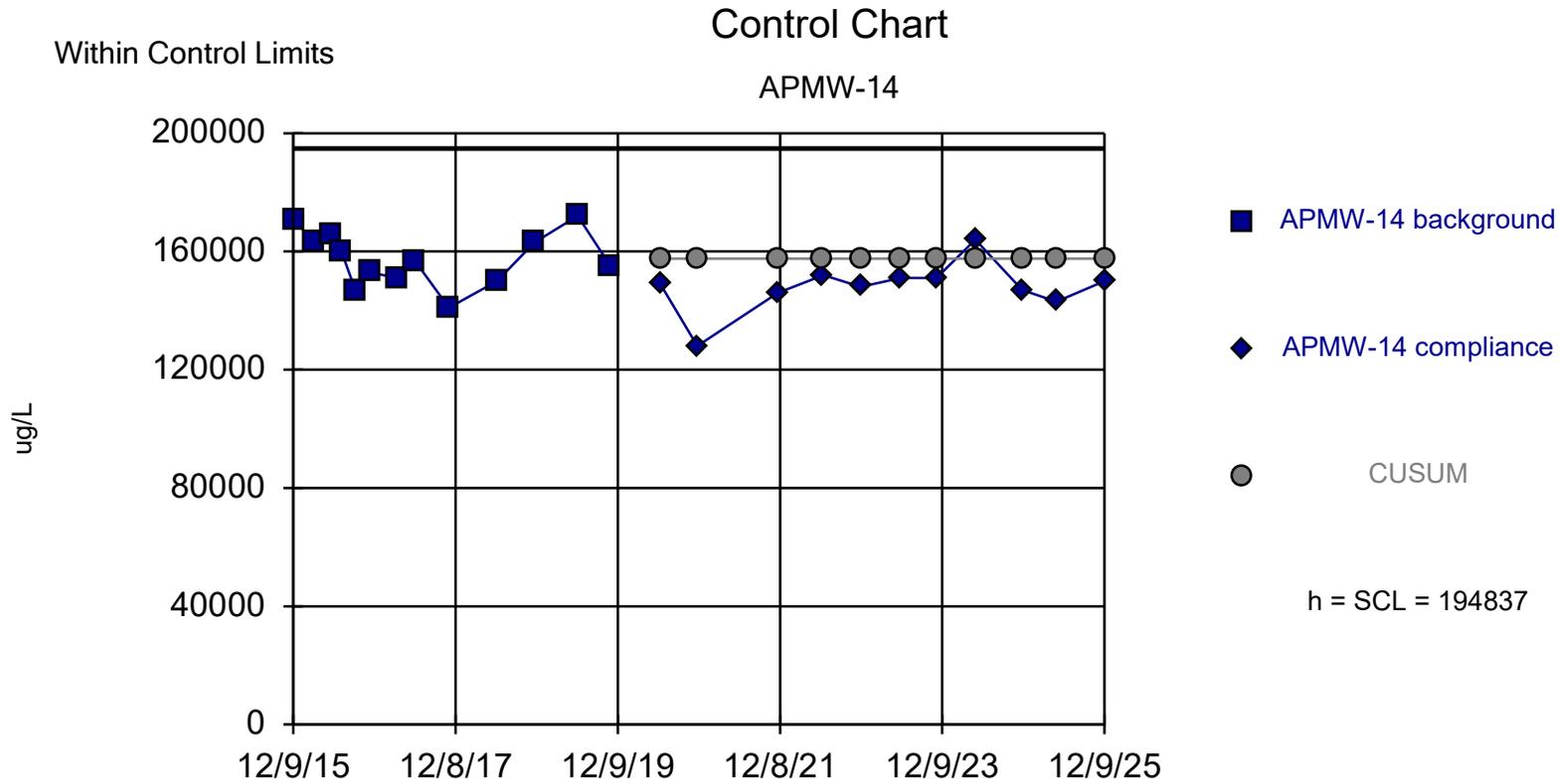


Background Data Summary: Mean=1026, Std. Dev.=47.08, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9114, critical = 0.866. Report alpha = 0.02436. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Total Dissolved Solids Analysis Run 1/13/2026 3:23 PM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

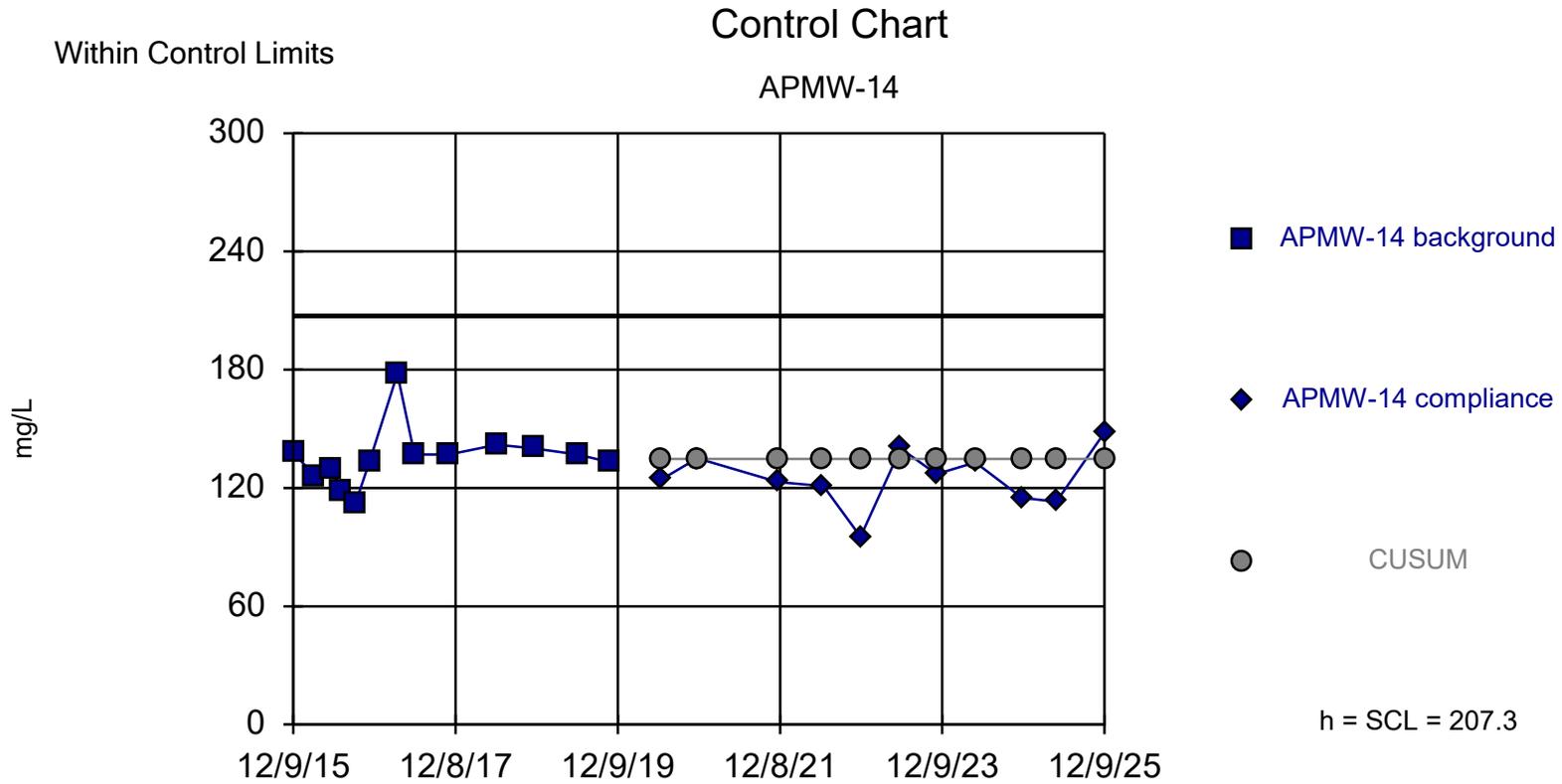




Background Data Summary: Mean=157615, Std. Dev.=9305, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9774, critical = 0.866. Report alpha = 0.02428. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/14/2026 8:32 AM

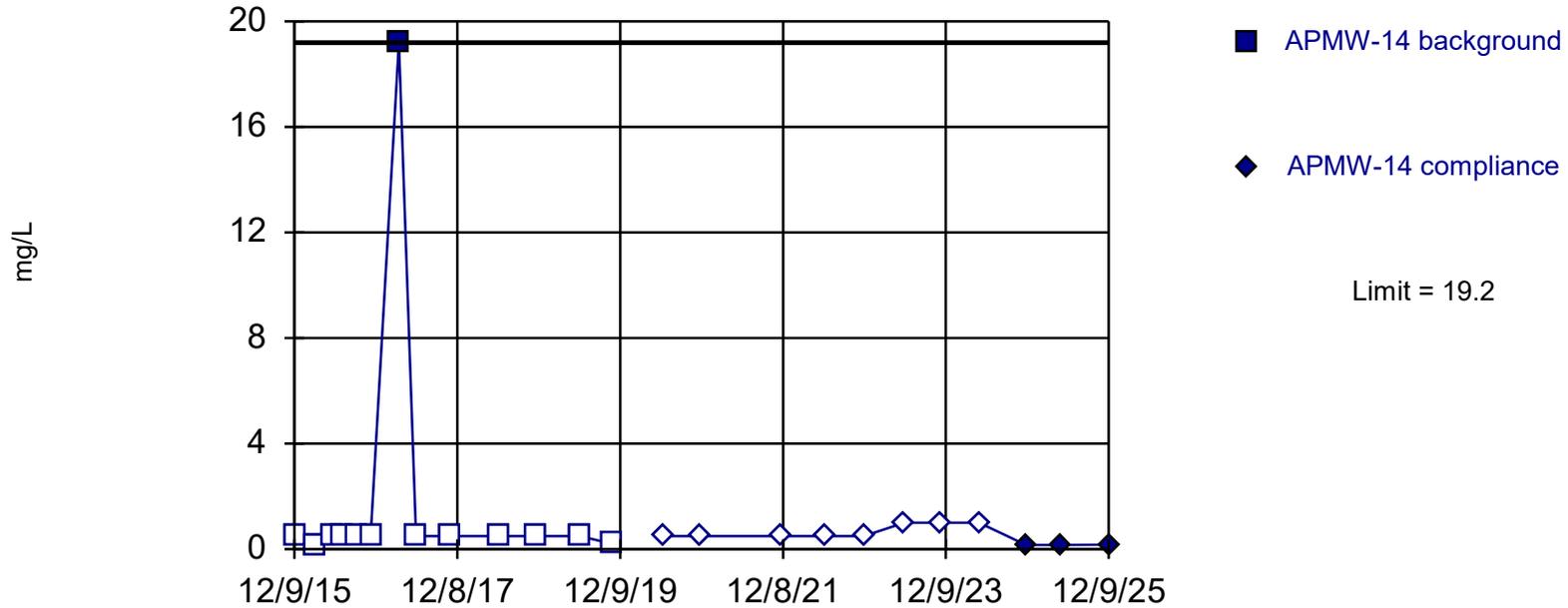
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Within Limit

Prediction Limit

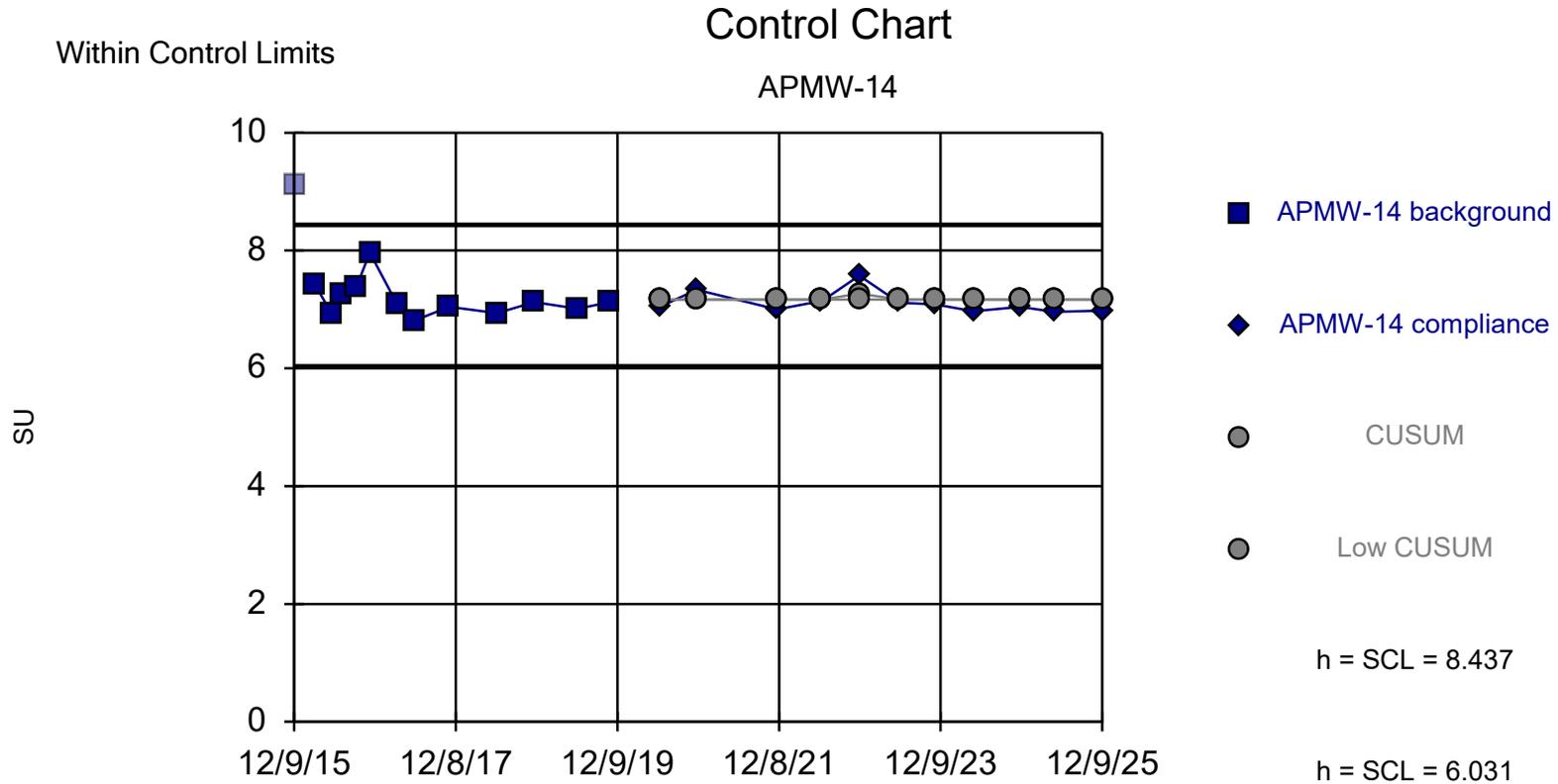
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

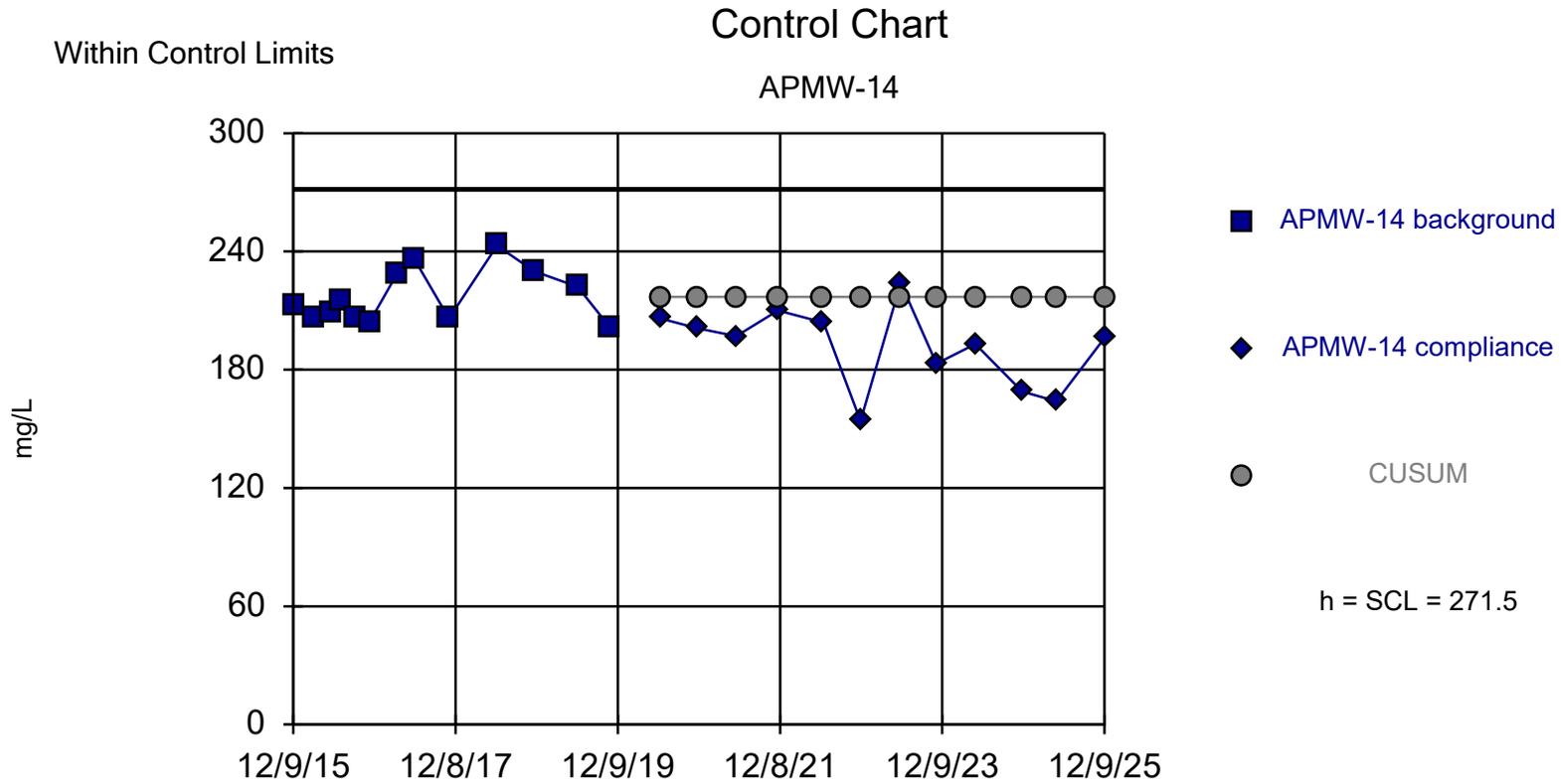
Constituent: Fluoride Analysis Run 1/14/2026 8:32 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on cube root transformation): Mean=1.928, Std. Dev.=0.02694, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8605, critical = 0.859. Report alpha = 0.02799. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

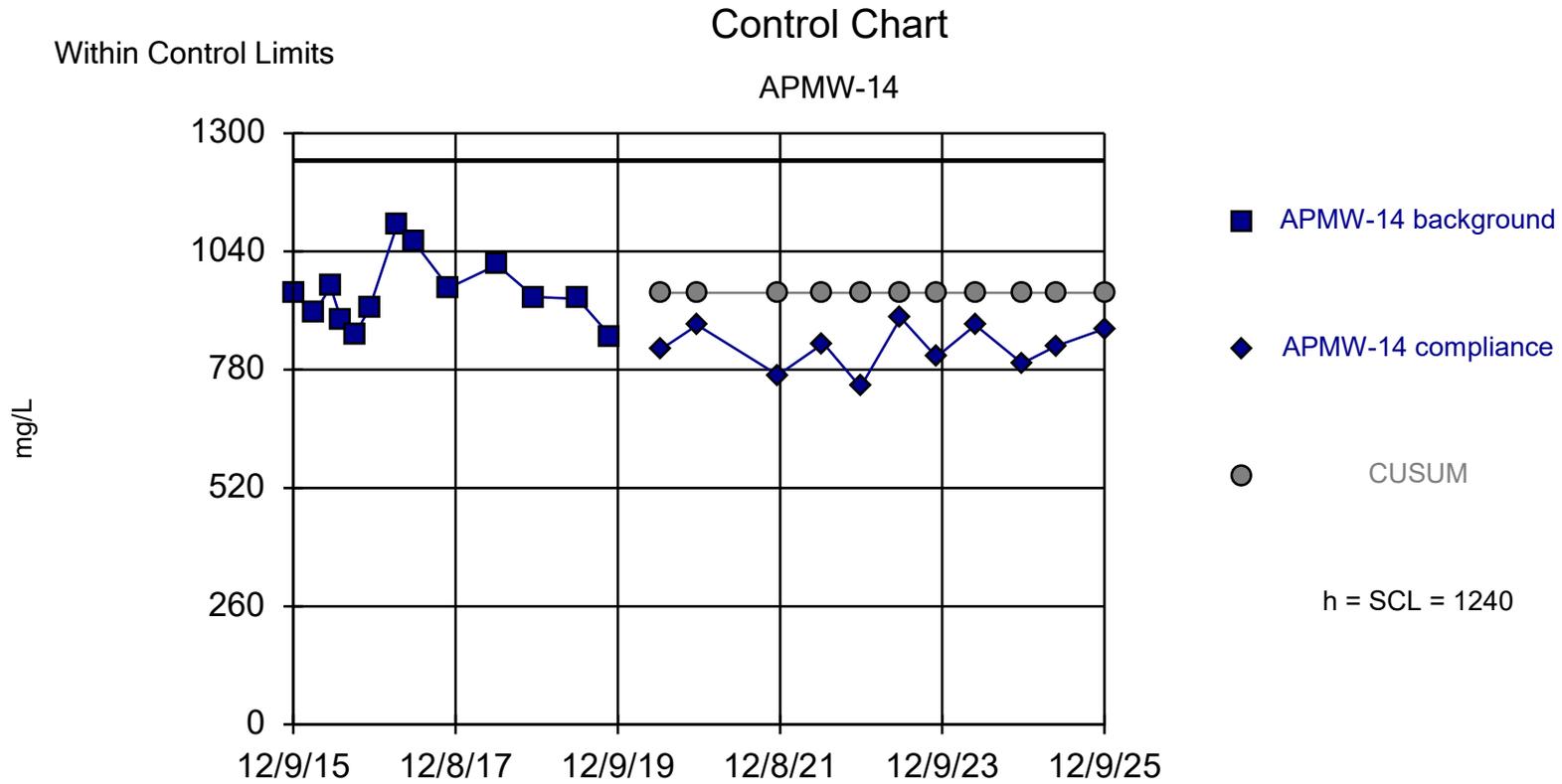
Constituent: pH, Field-Measured Analysis Run 1/14/2026 9:22 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=216.9, Std. Dev.=13.65, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8994, critical = 0.866. Report alpha = 0.02682. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 8:32 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=948.8, Std. Dev.=72.74, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9344, critical = 0.866. Report alpha = 0.02456. Dates ending 11/6/2019 used for control stats. Standardized h=4, SCL=4.

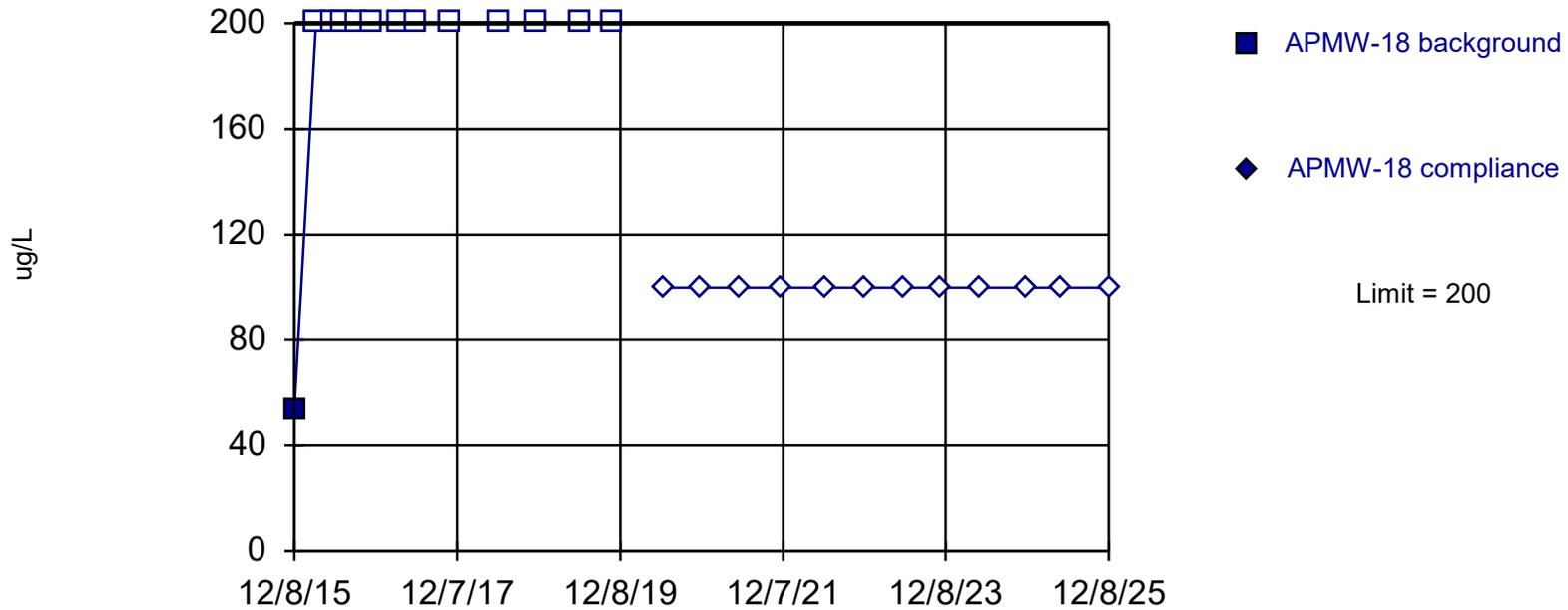
Constituent: Total Dissolved Solids Analysis Run 1/14/2026 8:32 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

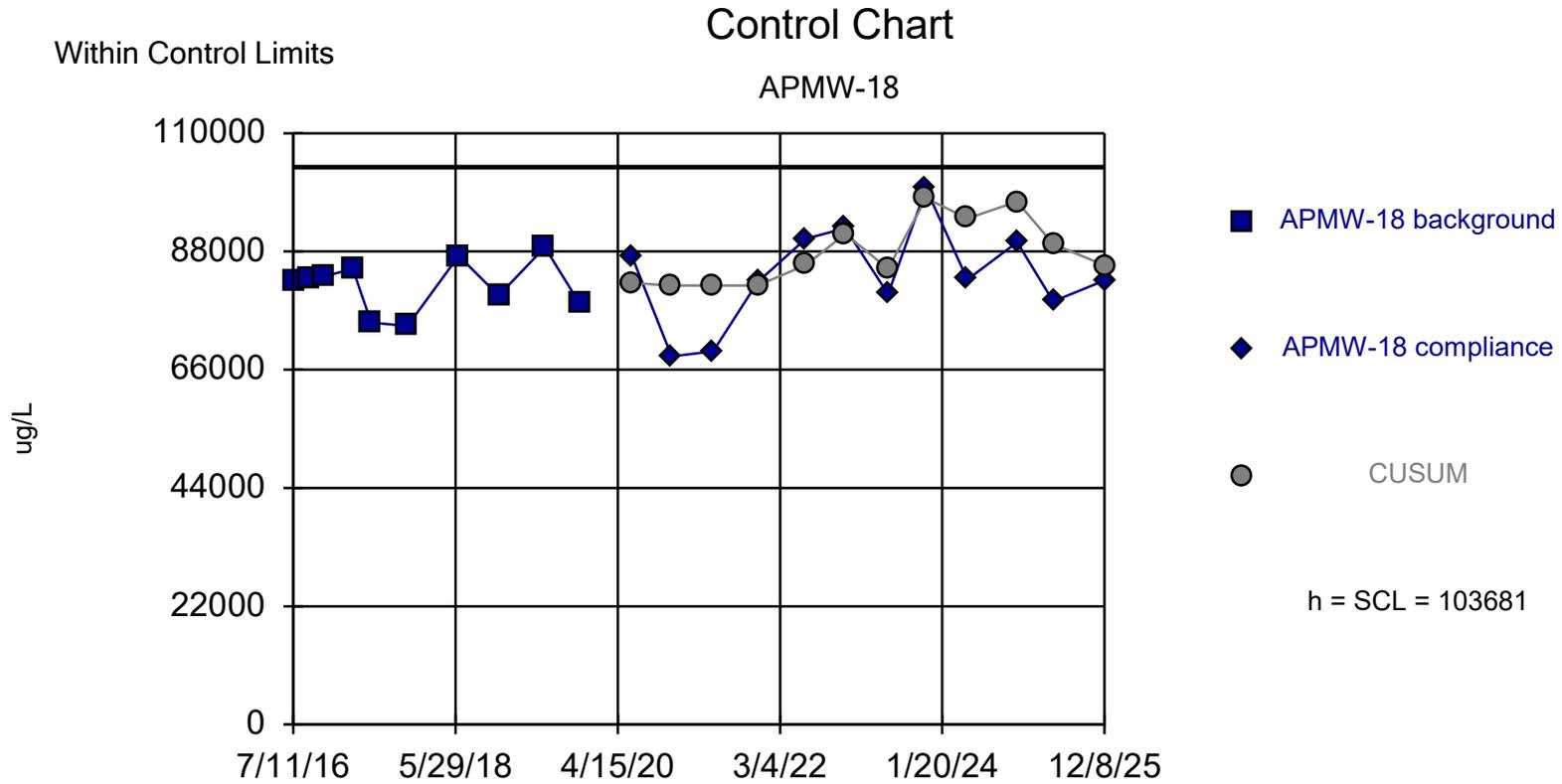
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/14/2026 9:35 AM

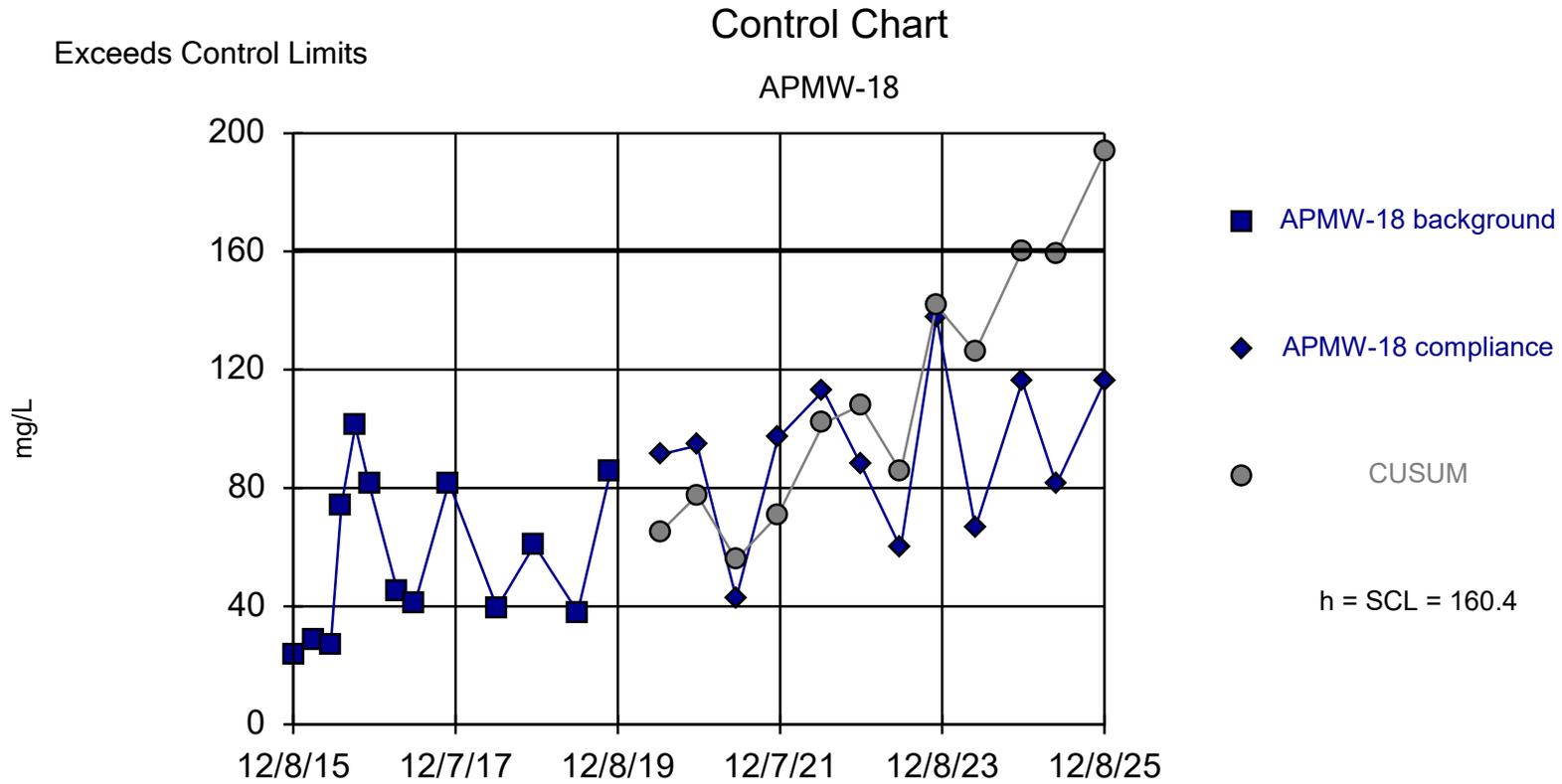
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=81680, Std. Dev.=4889, n=10. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9537, critical = 0.842. Report alpha = 0.02832. Dates ending 11/5/2019 used for control stats. Standardized h=4.5, SCL=4.5.

Constituent: Calcium Analysis Run 1/14/2026 9:43 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=55.84, Std. Dev.=26.14, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9088, critical = 0.866. Report alpha = 0.02716. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

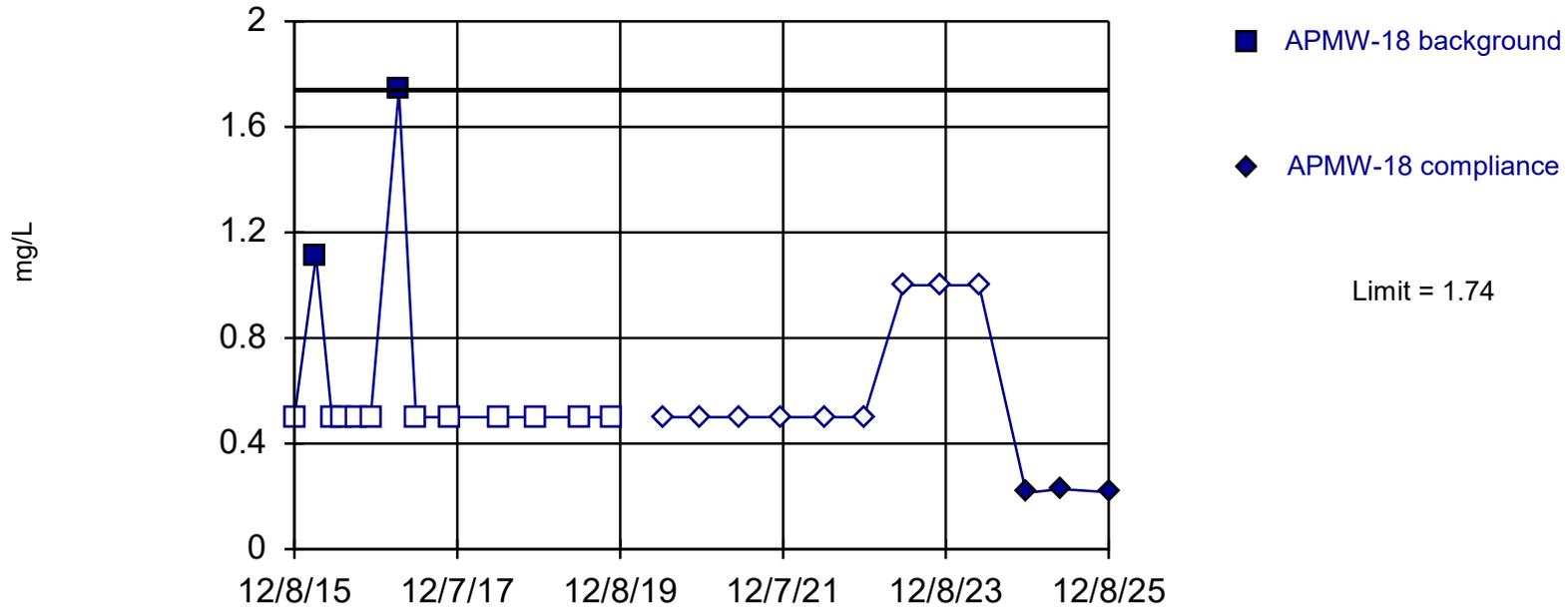
Constituent: Chloride Analysis Run 1/14/2026 9:35 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

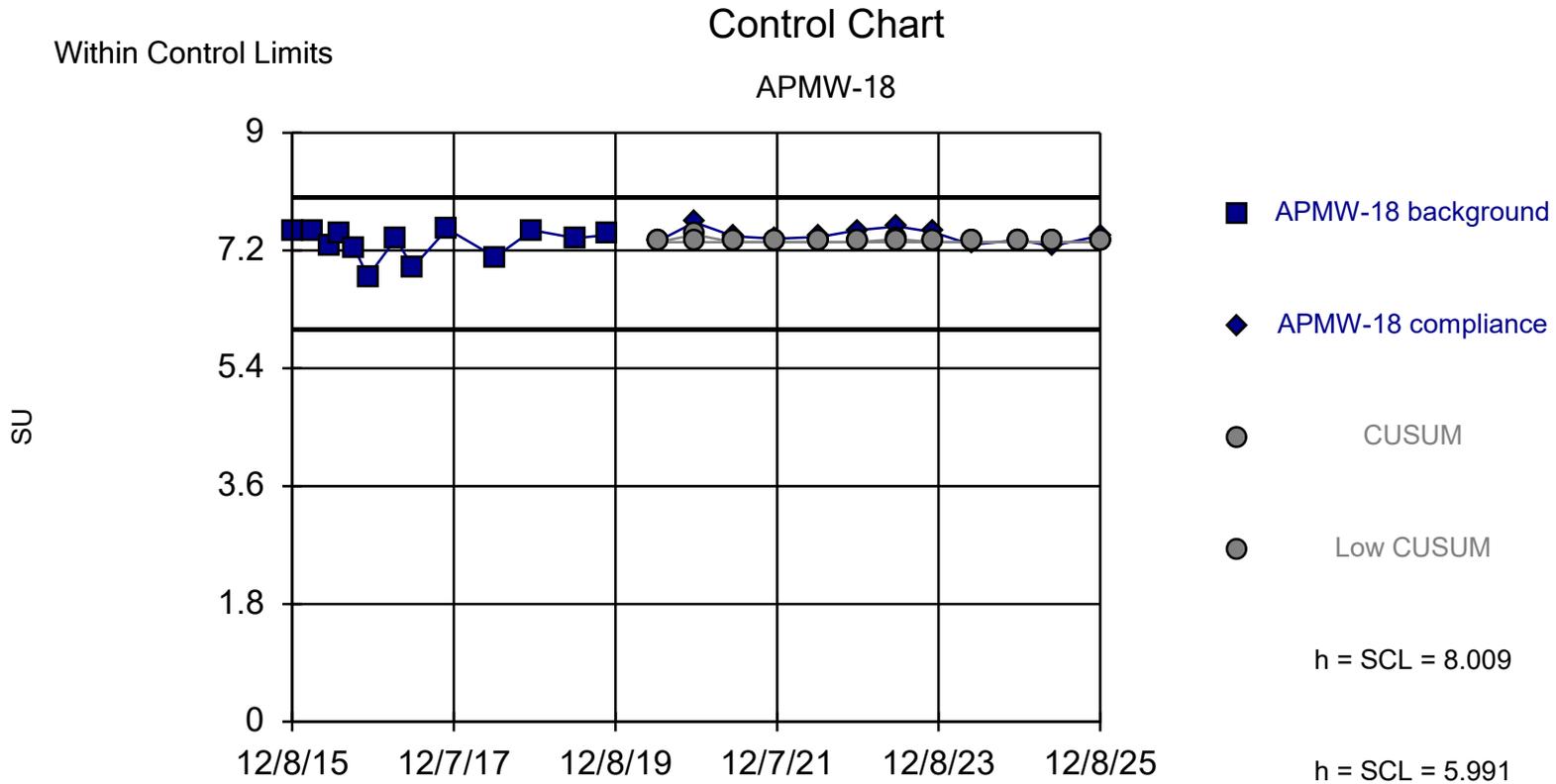
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 84.62% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

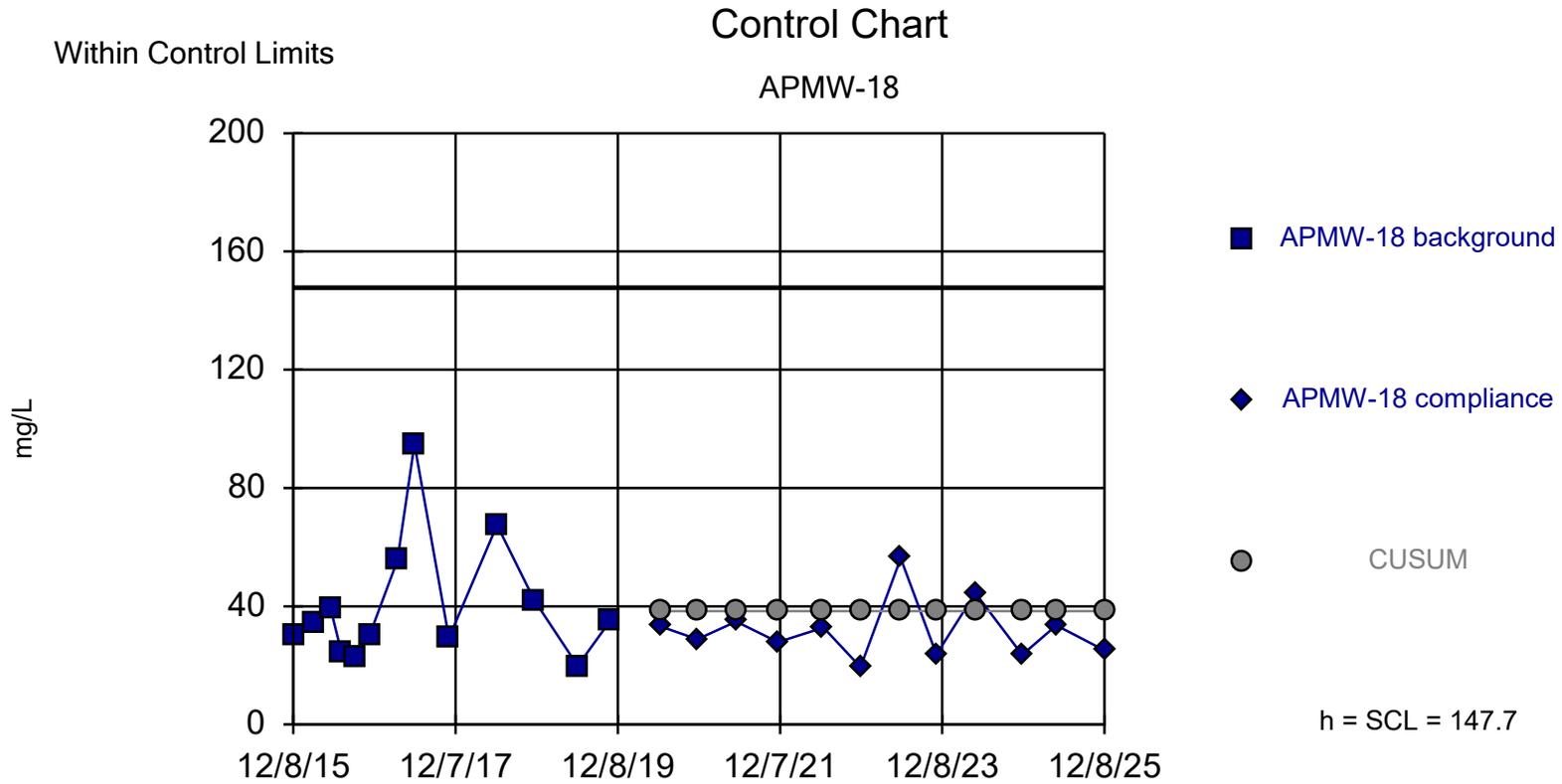
Constituent: Fluoride Analysis Run 1/14/2026 9:35 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on x^6 transformation): Mean=155040, Std. Dev.=27197, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8703, critical = 0.866. Report alpha = 0.02716. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

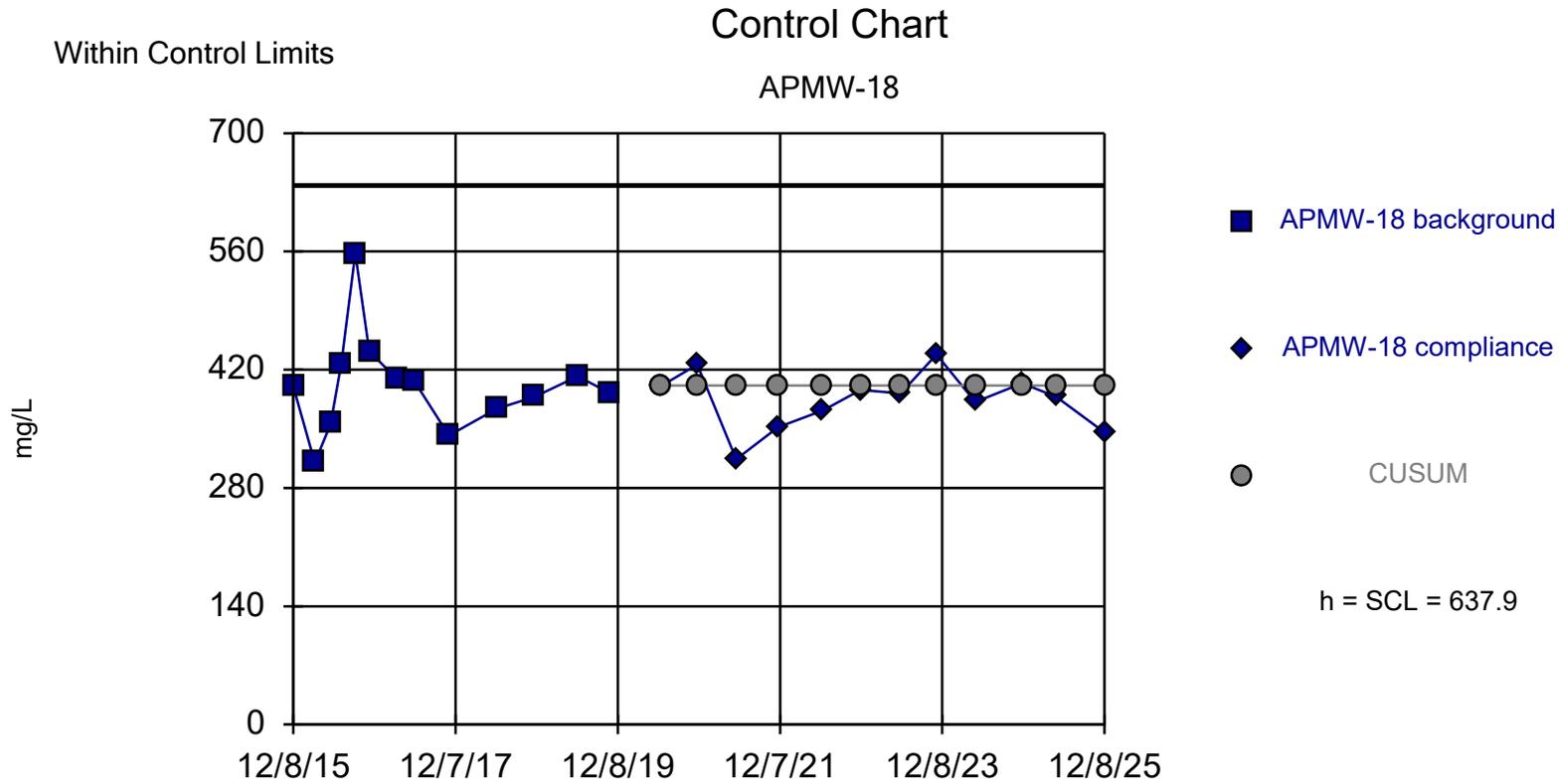
Constituent: pH, Field-Measured Analysis Run 1/14/2026 9:35 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary (based on square root transformation): Mean=6.19, Std. Dev.=1.491, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8874, critical = 0.866. Report alpha = 0.02716. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 9:35 AM

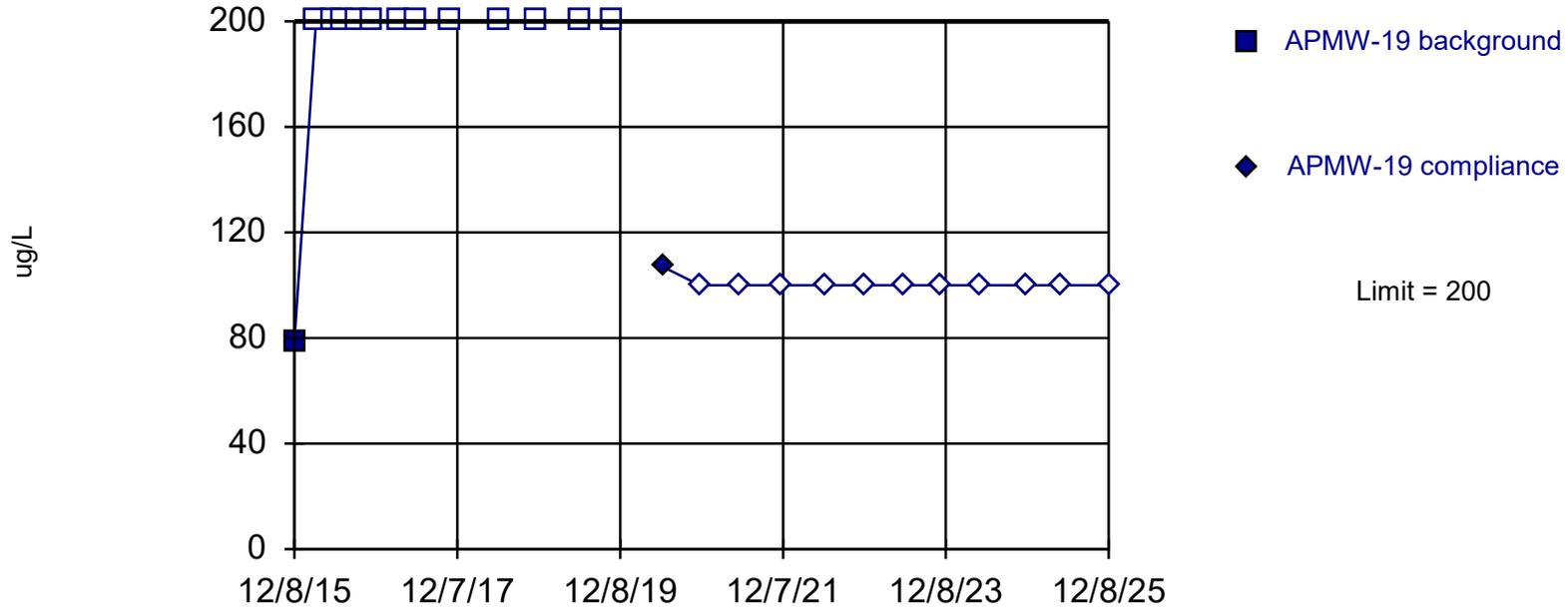
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Within Limit

Prediction Limit

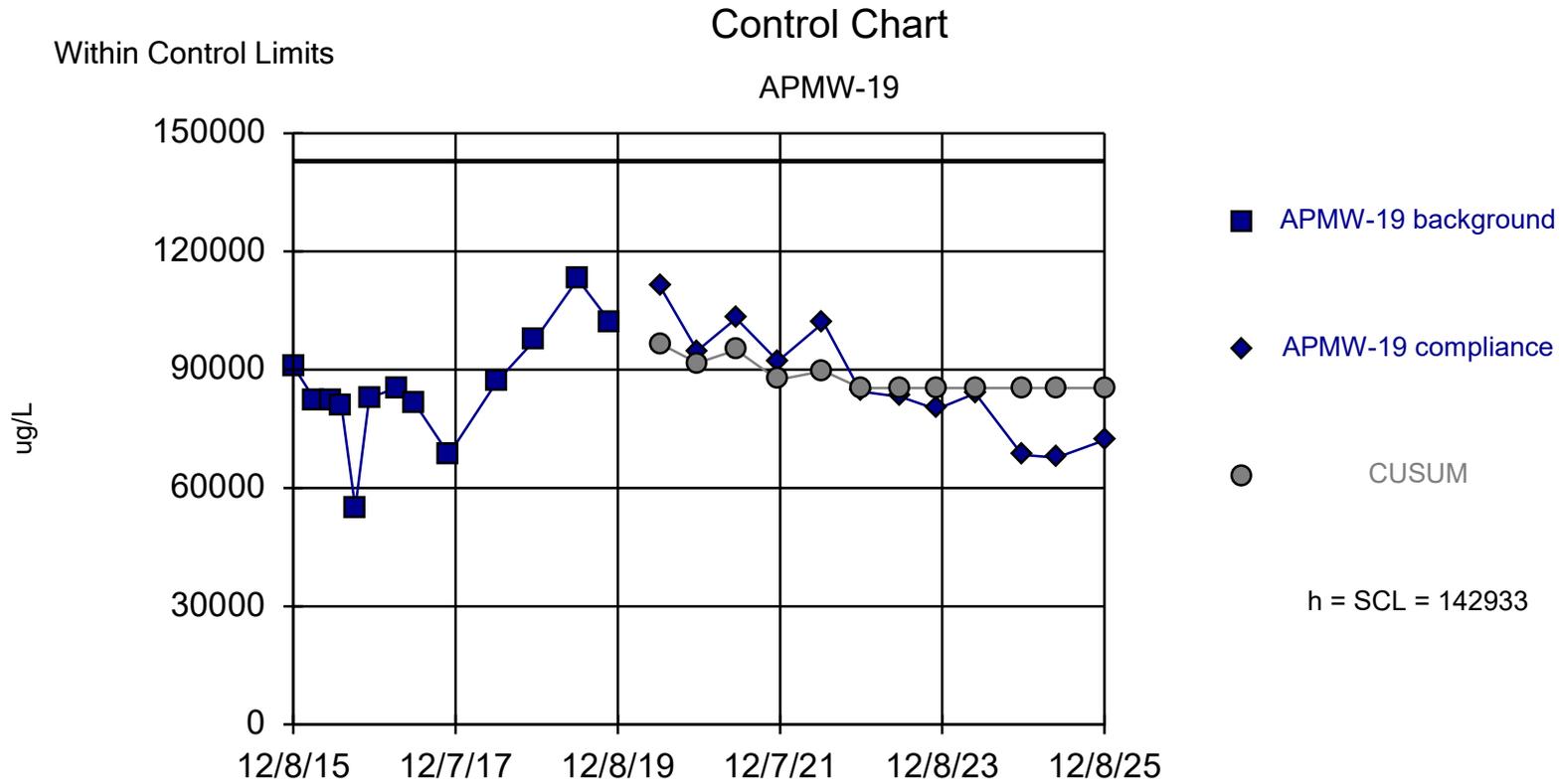
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 1/14/2026 10:11 AM

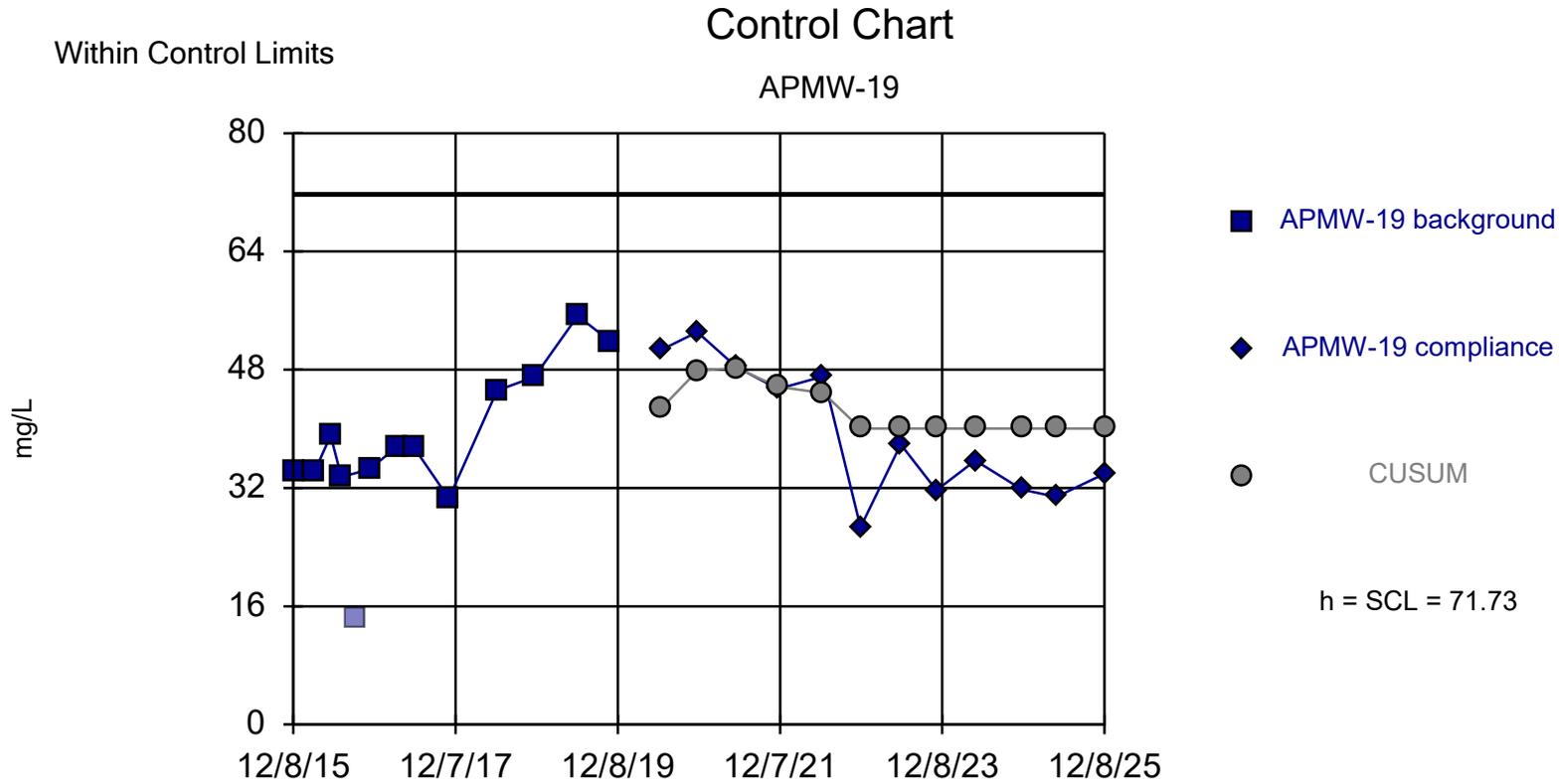
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=85323, Std. Dev.=14403, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9453, critical = 0.866. Report alpha = 0.02681. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Calcium Analysis Run 1/14/2026 10:11 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=40.03, Std. Dev.=7.925, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8899, critical = 0.859. Report alpha = 0.03091. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

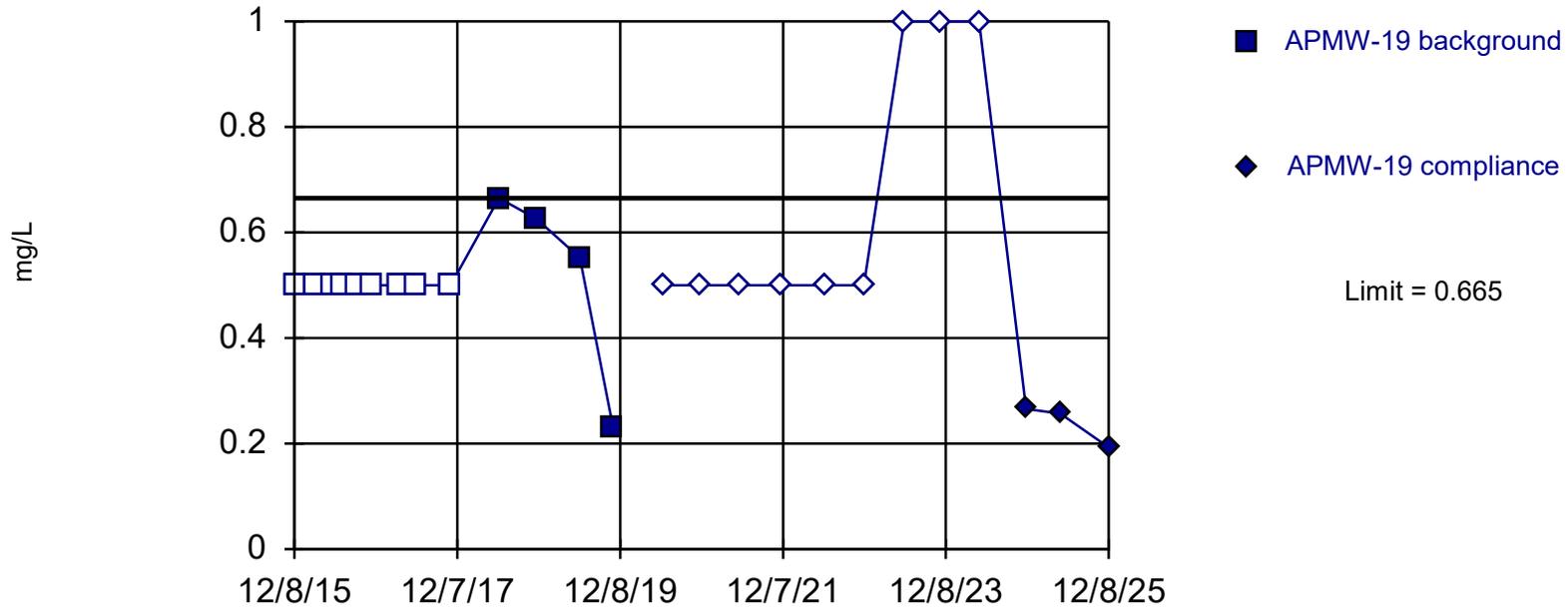
Constituent: Chloride Analysis Run 1/14/2026 10:16 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

Within Limit

Prediction Limit

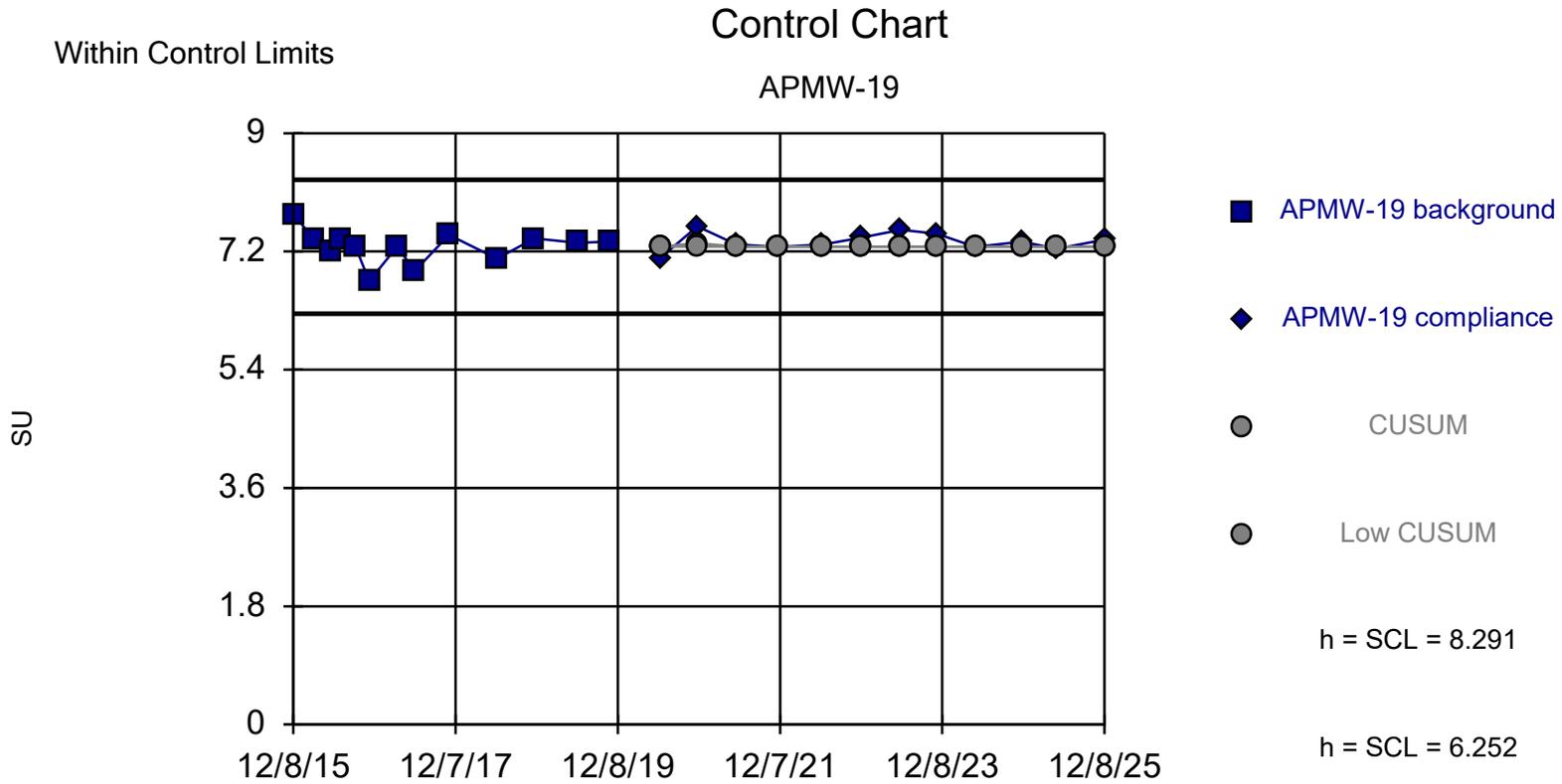
Intrawell Non-parametric



Non-parametric test used in lieu of control chart because non-detects exceed user-adjustable maximum of 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2). Most recent point compared to limit. Seasonality was not detected with 95% confidence.

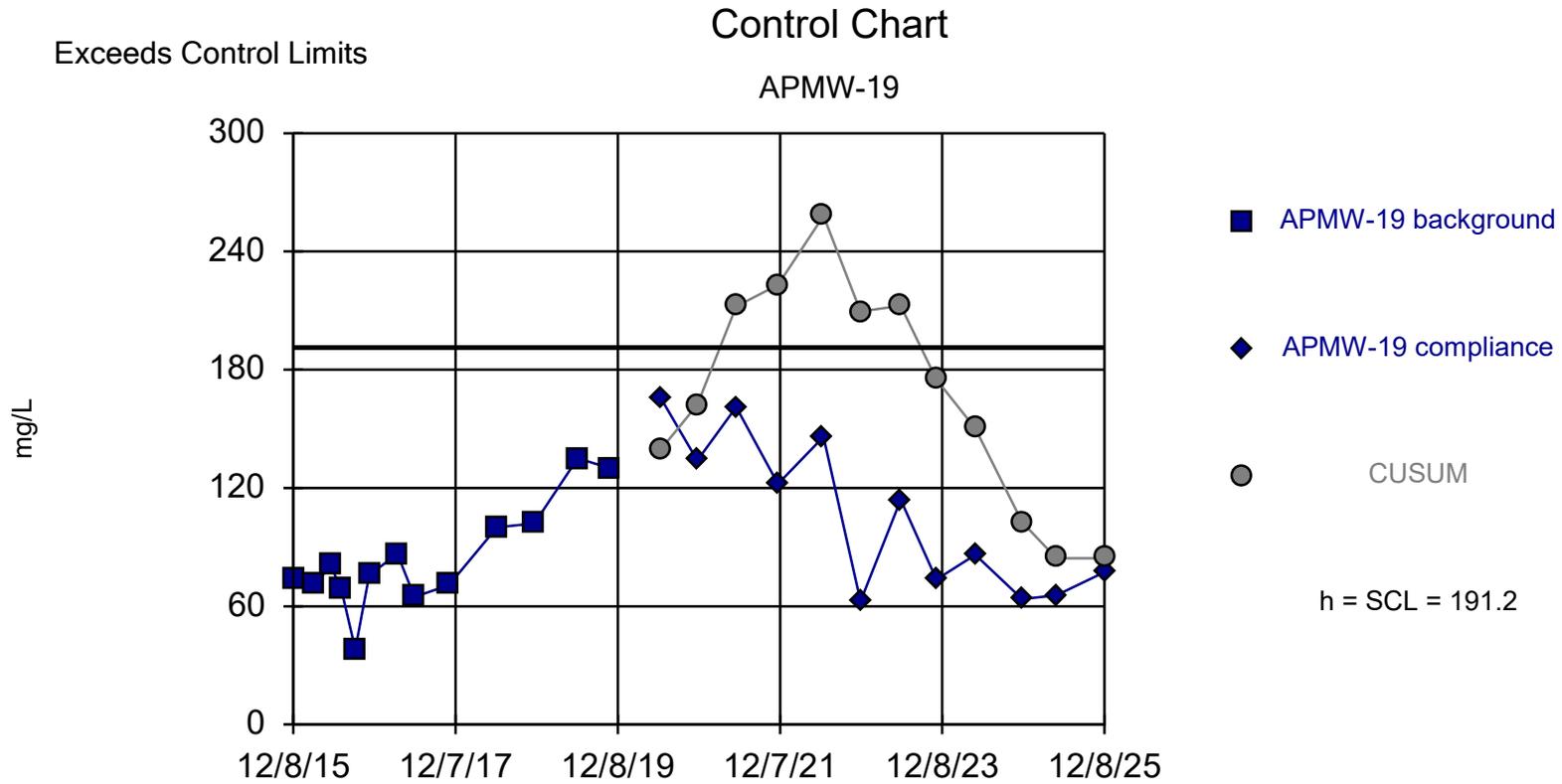
Constituent: Fluoride Analysis Run 1/14/2026 10:11 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=7.272, Std. Dev.=0.2548, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9316, critical = 0.866. Report alpha = 0.02681. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

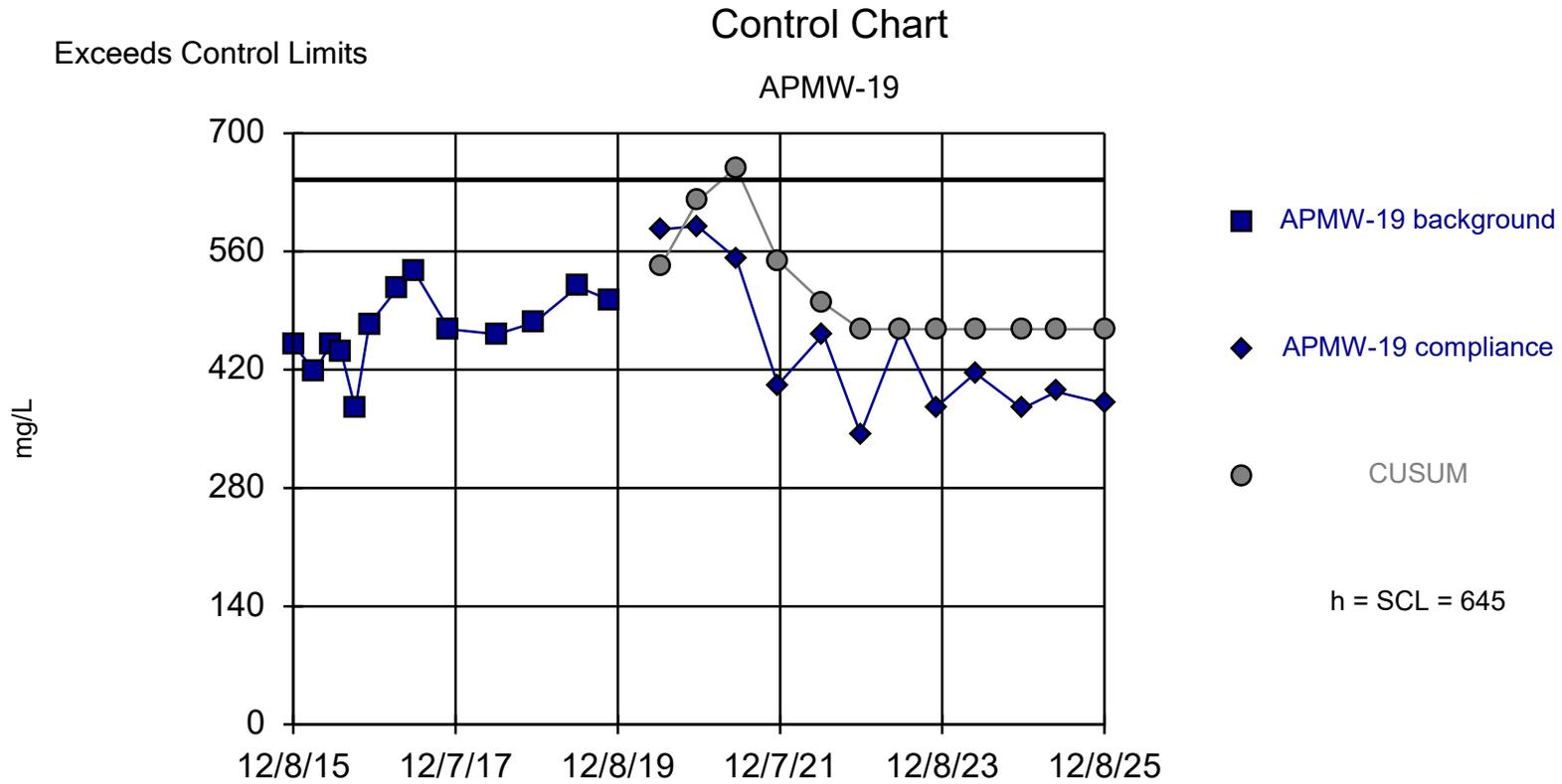
Constituent: pH, Field-Measured Analysis Run 1/14/2026 10:11 AM
 Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=84.34, Std. Dev.=26.71, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9224, critical = 0.866. Report alpha = 0.02681. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Sulfate Analysis Run 1/14/2026 10:11 AM

Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters



Background Data Summary: Mean=468, Std. Dev.=44.24, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9679, critical = 0.866. Report alpha = 0.02681. Dates ending 11/5/2019 used for control stats. Standardized h=4, SCL=4.

Constituent: Total Dissolved Solids Analysis Run 1/14/2026 10:11 AM
Gerald Gentleman Station Client: NPPD Data: NPPD-GGS_Q22024_CCRParameters

APPENDIX C

Alternative Source Demonstrations



REPORT

**Alternative Source Demonstration for Chloride at
APMW-6**

Nebraska Public Power District

Submitted to:

Nebraska Public Power District

Gerald Gentleman Station,
6089 South Highway 25,
Sutherland, Nebraska 69165

Submitted by:

Golder Associates USA Inc.

7245 W Alaska Drive, Suite 200, Lakewood, Colorado, USA 80226

+1 303 980-0540

31404512.000-004-RPT-0

October 26, 2022



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APPENDICES

APPENDIX A

Historical Concentrations of Appendix III and Selected Appendix IV Analytes

APPENDIX B

Eurofins TestAmerica Laboratory Report for Irrigation Water Samples

1.0 INTRODUCTION

On behalf of Nebraska Public Power District (NPPD), Golder Associates USA Inc. (Golder), a member of WSP, performed a statistical evaluation of groundwater quality from the second quarter groundwater detection monitoring event in 2022 (Q2 2022) at the Gerald Gentleman Station (GGS or Site) ash landfill (or CCR Unit), located at 6089 South Highway 25, Sutherland, Lincoln County, Nebraska. The statistical evaluation was performed in accordance with the Site Sampling and Analysis Plan (Golder 2019a), which was developed in compliance with applicable provisions of 40 Code of Federal Regulations (CFR) Part 257, “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities; Final Rule” (CCR Final Rule), as amended, and corresponding regulations under Nebraska Administrative Code (NAC) Title 132, Chapter 7 (Integrated Solid Waste Management Regulations, Groundwater Monitoring and Remedial Action).

Statistical analyses of the Appendix III detection monitoring data for chloride in groundwater at the downgradient monitoring well APMW-6 indicated a potential exceedance of the statistical limit based on the parametric Cumulative Summation analysis (CUSUM) in the Q2 2021 sampling results, which was subsequently verified as evidence of a statistically significant increase (SSI) after the Q4 2021 event and again after the Q2 2022 results. Although determination of an SSI generally indicates that the groundwater monitoring program should transition from detection monitoring to assessment monitoring, both 40 CFR §257.94(e)(2) and NAC Title 132, Ch. 7, 004.03 allow the owner or operator (i.e., NPPD) 90 days from the date of determination (October 26, 2022) to demonstrate a source other than the CCR Unit, or another condition, caused the potential SSI for chloride at APMW-6.

Golder’s review of the hydrological and geologic conditions at the Site indicated the potential for the SSI to have resulted from a source other than the CCR Unit. To assess potential chloride sources and the natural variability of chloride concentrations in groundwater, Golder reviewed analytical results of previously collected CCR-impacted water samples from the ash landfills, evaporation pond, surface water from the Sutherland Reservoir, surface waters from nearby agricultural areas, and groundwater samples. Based upon this assessment and in accordance with provisions of the CCR Final Rule, the NAC, and the site SAP (Golder 2019a), Golder prepared this Alternative Source Demonstration (ASD) for the CCR Unit. This ASD includes an evaluation of geological, hydrogeological, and chemical information regarding ash, surface water, and groundwater obtained from surface waters and monitoring wells installed within and adjacent to the CCR Unit.

This ASD conforms to the requirements of 40 CFR §257.94(e)(2) and NAC Title 132, Ch.7, 004.03 and provides the basis for concluding that the apparent SSI for chloride in groundwater at APMW-6 are not a result of a release from the CCR unit. The following sections provide a summary of the GGS CCR Unit, analytical and geochemical assessment results, a conceptual site model, and lines of evidence demonstrating an alternative source is responsible for the chloride SSI in groundwater at APMW-6.

2.0 BACKGROUND

2.1 Description of Waste Disposal Area

The ash landfill at GGS is located southwest of the plant’s generation facility, in the northern one-half of Section 30, Township 13N, Range 33W. The ash disposal facility consists of Ash Landfill Nos. 1, 2, 3, and 4 and the bottom ash landfill. Ash Landfill Nos.1 and 2 are closed, and Ash Landfill Nos. 3 and 4 are active (Figure 1). The bottom ash landfill was closed in October 2018.

Fly ash is currently disposed at Ash Landfill No. 4 and in the east cell of Ash Landfill No. 3. The liner design at Ash Landfill No. 4 consists of a 60-mil high density polyethylene (HDPE) geomembrane over compacted subgrade. Prior to geomembrane installation, the existing subgrade was scored to a depth of at least 6 inches and compacted to 95 percent of its maximum dry density (standard Proctor). Smooth HDPE geomembrane was placed on the bottom of the ash landfill and textured HDPE geomembrane was placed on the side slopes. Construction quality assurance for the geomembrane installation was performed by Golder Construction Services and completed on November 15, 1994. There is no leachate collection system (LCS) at Ash Landfill No. 4.

The original liner at Ash Landfill No. 3 consisted of 2 feet of soil compacted to 95 percent of the standard Proctor maximum dry density. The average permeability of the liner was 1.2×10^{-8} centimeters per second (cm/sec). Ash Landfill No. 3 was previously closed in 1995 with 2.0 to 7.5 feet of soil cover. This cover was removed and the historically placed CCR was covered with a new liner in 2015. The new liner system at Ash Landfill No. 3 consists of a prepared subgrade overlain by a geosynthetic clay liner and 60-mil linear low-density polyethylene (LLDPE) geomembrane. Ash Landfill No. 3 also has a 1-foot LCS sand layer that reports to two sumps. Construction of the new Ash Landfill No. 3 liner system was completed in November 2015.

To the east of the ash landfill, plant process water, such as boiler blowdown, is managed in a 50-acre evaporation pond, as shown in Figure 1. CCR materials are not stored within the evaporation pond, and the facility is not regulated under the CCR rule. The bottom of the approximately 8 to 10 feet deep evaporation pond consists of re-compacted native soils.

2.2 Site Geology

The geologic sequence near the ash landfill was summarized by Woodward-Clyde in 1991. In the report, soil boring data from nine boreholes (APMW-1, APMW-2, APMW-3, APMW-4, APMW-5, EPMW-1, EPMW-2, EPMW-3, and EPMW-4) were used to characterize the Site geology. The geologic sequence, from top to bottom, was described as follows:

- 4 to 5 feet of topsoil and/or fill
- 20 to 35 feet of eolian silty sands
- 8 to 10 feet of silty clay paleosol at the top of the Ogallala Formation
- 25 to 35 feet of Ogallala Formation silts
- approximately 50 feet of Ogallala Formation sands or Ogallala Formation silts and clays, to the bottoms of the boreholes

The topsoil layer consists of stiff, dark brown, low to medium plasticity silty clay directly overlying the eolian silts and sands. Thickness of topsoil ranges from 0 to 4 feet. The fill material consists of stiff, dark brown, low plasticity sandy silty clay with trace gravel and other debris. Fill thickness ranges from 0 to 5 feet.

The eolian silts and sands (Quaternary Period) consist of loose to medium dense, tan, very fine-grained, well-rounded, and well-sorted sandy silts and silty sands. The thickness of this unit ranges from 17 feet (APMW-5) to 34 feet (EPMW-2). Materials with a bimodal texture (two distinct grain sizes) are present in the lower part of this unit. The eolian silts and sands are interpreted as wind-blown dune sand deposits.

The Ogallala Formation (Tertiary Period) was encountered in each of the nine boreholes at a depth beginning at 16 to 38 feet below ground surface (ft bgs) and extending to the bottom of the boreholes (109 to 133 ft bgs). The Ogallala Formation near the ash landfill may be separated into three general stratigraphic units:

- upper silty clay paleosol unit
- middle clayey or sandy silt unit
- lower unit of either predominantly sand and gravel or an equivalent unit of predominantly silt and clay

The top of the Ogallala Formation is represented by a widespread paleosol (a previous soil horizon) that consists of a very stiff, reddish-brown to buff, low plasticity, silty clay to clayey silt with abundant calcareous nodules, calcareous matrix, and interbedded layers of caliche up to 1-foot thick. The thickness of the initial paleosol is about 8 to 10 feet, but the presence of interbedded caliche layers continues into the middle and lower Ogallala units.

The middle Ogallala Formation unit consists of a stiff to very stiff, buff-white to reddish-brown, low plasticity, clayey silt to sandy silt with abundant calcareous nodules, matrix, and caliche layers. Scattered occurrences of calcareously cemented siltstone layers from 0.5- to 1-foot thick are present in the lower part of this unit. The thickness of this middle unit ranges from about 25 to 35 feet. The clayey silts and sandy silts of this unit were possibly deposited as overbank or floodplain deposits in an alluvial depositional system.

There are two distinct lithofacies recognized in the lower Ogallala Formation unit. This unit is present for about 45 to 50 feet in the borings. One lithofacies consists of dense to very dense, reddish-brown, fine-grained silty sands grading into medium- and coarse-grained, poorly-graded sands with some fine gravels and some calcareously cemented sandstone beds (0.5- to 1-foot thick). This lithofacies was primarily encountered in borings on the northern side of the ash landfill (APMW-1, APMW-2, APMW-5, and EPMW-1; Woodward-Clyde 1991).

The second lithofacies recognized in the lower unit consists of stiff to hard, reddish-brown, low plasticity clayey or sandy silts with some calcareously-cemented siltstone beds. This lithofacies was encountered in borings on the southern side of the ash landfill (APMW-3, APMW-4, EPMW-2, EPMW-3, and EPMW-4; Woodward-Clyde 1991).

The lithologic differences and areal distribution of the two lower units suggest that the units were deposited in two separate facies of an alluvial system. The sand and gravel unit are possibly a series of longitudinal bars, channels, and channel-fill deposits, while the silt and clay unit is possibly a series of upper channel fills, overbank, or floodplain deposits (Woodward-Clyde 1991).

2.3 Site Hydrogeology

Based on observations made during logging of soil borings and findings of the Nebraska Water Survey Paper No. 70 (Goeke et al. 1992), the unsaturated geologic units underlying the ash landfill area consist of topsoil (0 to 4 feet thick), eolian silts and sands (15 to 25 feet thick), Ogallala Formation silts (40 to 50 feet thick), and Ogallala Formation sands and gravels (unsaturated portion of this unit is approximately 20 to 25 feet thick). Beneath these units lies 10 feet or more of saturated Ogallala Formation sands and gravels. Based on the Site observations, the thickness of the vadose zone ranges from approximately 90 to 100 feet.

The saturated geologic units underlying the ash landfill area consist of Ogallala Formation silts and sands that extend to the bottom of the aquifer. The Ogallala Formation is underlain by the White River Group, which is composed of the Brule and Chadron formations. The bedrock formations of the White River Group are not considered to be an important potential source of water, and therefore their surface is considered to form the base

of the aquifer and is regarded as the lower drilling limit for irrigation wells in the agricultural region near the Site. Underlying the White River Group is the impermeable Pierre Shale (Goeke et al. 1992).

Available groundwater elevation data indicate that groundwater beneath GGS flows from north to south (Figure 1). The groundwater gradient is controlled by the Sutherland Reservoir, an approximately 3,200-acre open water body located 1.5 miles north of the ash landfill that is used as a source of condenser cooling water for GGS (McMahon et al. 2010). Since groundwater level monitoring began in 1996, regular water level fluctuations have been observed in the monitoring wells located around the ash landfill. These fluctuations are attributed to seasonal trends in water consumption or recharge and precipitation patterns. From the time-series plot of historical water levels in each monitoring well (Figure 2), long-term changes in water levels between 1996 and 2022 are apparent. In general, water levels rose approximately 1.5 feet between 1996 and 2000 before declining between 9 to 10 feet between 2000 and 2009. The cause of the decline is not clear, but possible explanations include a regional response to the drought being experienced by parts of the western United States and/or a change in the amount of groundwater used for irrigation in the area around the Site. Between 2009 and 2022 water levels have continued to show seasonal variability, with seasonal maximums occurring in the spring and seasonal minimums occurring in the fall with no apparent long-term increasing or decreasing trend.

Groundwater flow velocity ranges from 5.0×10^{-4} to 6.7×10^{-2} per day (ft/day) and was estimated based on the following site-specific hydrogeologic data:

- estimated site hydraulic conductivities range from 0.14 ft/day to 19 ft/day (Woodward-Clyde 1991)
- an average horizontal hydraulic gradient of 0.00091 feet per foot (ft/ft) from the potentiometric surface shown in Figure 1
- an average effective porosity for Ogallala Formation sands and silts of 25 percent (Fetter 1994)

Two agricultural fields are present immediately to the south of the ash landfills. Historical aerial imagery (Figure 3) showed that there was no center-pivot irrigation system prior to 2004. By 2006, a center-pivot irrigation system was installed, and aerial images from 2006, 2012, and 2020 indicate that irrigation water from that center-pivot was crossing the property boundary of GGS, as delineated by the greener foliage compared to the unirrigated land. The greener foliage along the southern edge of the ash landfills also indicates that the irrigation runoff discharges north towards GGS, into the ditch at that location.

Photographs of the southern property boundary indicate taken August 2, 2022, indicate two drainages are present from the agricultural area onto GGS property (Figure 4A and 4B), though no runoff was observed in the drainages. On August 11, 2022, NPPD observed irrigation water from the center pivot spraying across the property boundary (Figure 4C).

2.4 Groundwater Monitoring Network

Design of the ash landfill groundwater monitoring program considered the size, disposal and operational history, anticipated groundwater flow direction, and saturated thickness of the uppermost aquifer. Based on these factors, a monitoring well network that consists of four upgradient (background) monitoring wells and ten downgradient monitoring wells was installed around the ash landfill. The monitoring wells are listed in Table 1 and presented in Figure 1.

Table 1: Monitoring Well Network

Location	Upgradient (Background) Monitoring Wells	Downgradient Monitoring Wells
Ash Landfill	APMW-5, APMW-15, APMW-16A, APMW-17	APMW-4, APMW-6, APMW-8A, APMW-10, APMW-11, APMW-12, APMW-13, APMW-14, APMW-18, APMW-19

The four upgradient monitoring wells included in the groundwater monitoring program are used to represent the background groundwater quality, including potential variability. The ten downgradient wells were installed along the western, southern, and eastern boundaries of the active ash landfill. The depths of the monitoring wells were selected such that the monitoring wells are screened in the Ogallala Formation to yield groundwater samples that are representative of water quality in the uppermost water-bearing zone.

2.5 Groundwater Monitoring Program

Between March 1996 and December 2015, groundwater samples were collected for arsenic, selenium, and sulfate measurement twice a year from the 10 GGS monitoring wells administered under the Nebraska Department of Environment and Energy (NDEE) monitoring program (APMW-5, APMW-15, APMW-4, APMW-6, APMW-8A, APMW-10, APMW-11, APMW-12, APMW-13, and APMW-14). In June 2005, boron measurements were added to the analyte list. In 2015, four additional monitoring wells were installed to support the federal CCR monitoring program (APMW-16A, APMW-17, APMW-18, and APMW-19) and have been incorporated into the NDEE monitoring program.

For APMW-6, the current baseline for chloride was calculated using 13 independent groundwater samples collected between December 2015 and November 2019. Statistically valid baseline values were developed for each constituent at each monitoring well (Golder 2017 and Golder 2019a).

2.5.1 Chloride Concentration Trends

Chloride concentrations in the upgradient and downgradient groundwater are shown in Appendix A, Figure A4. Chloride concentrations in upgradient groundwater (from the four upgradient monitoring wells) ranged from less than 5.0 to 93.8 milligrams per liter (mg/L) between December 2015 and June 2022. Chloride concentrations varied between 7.02 to 210 mg/L in downgradient groundwater wells (based on the 10 downgradient monitoring wells) over the same period.

During the current baseline dates for APMW-6 (December 2015 to November 2019), chloride concentrations in groundwater at APMW-6 remained relatively steady compared to other downgradient wells, with values ranging between 7.0 and 15.5 mg/L in the 13 samples representing the current baseline period. A concentration of 20.4 mg/L was calculated as the parametric CUSUM statistical limit for chloride at APMW-6.

The Q2 2021 detection monitoring event reported a chloride concentration of 25.8 mg/L in groundwater at APMW-6 with a parametric CUSUM value of 31.7 mg/L, both exceeding the statistical limit of 20.4 mg/L. The exceedance was verified in Q4 2021 when the reported chloride concentration was 17.6 mg/L with a parametric CUSUM value of 36.6 mg/L exceeded the statistical allowance of 20.4 mg/L. A successful alternative source demonstration report was prepared for the elevated chloride at APMW-6 and submitted to NDEE on April 28, 2022 (Golder 2022) and accepted by NDEE on July 8, 2022 (NDEE 2022).

The Q2 2022 detection monitoring event reported a chloride concentration of 17.0 mg/L, which resulted in a parametric CUSUM value of 40.8 mg/L, which continued to exceed the statistical allowance of 20.4 mg/L.

2.6 Review of Sampling and Laboratory Testing Procedures

As part of the ASD, a review was conducted of the sampling and laboratory testing procedures used throughout baseline monitoring and detection monitoring to date, along with the collected results. Golder found that the analytical methodologies used were consistent with the stated objectives of the sampling program. No anomalies were found within the sampling and laboratory testing procedures and the collected results are considered valid.

Additionally, a review of the statistical assessment methods and associated results found the procedures followed during baseline and detection monitoring to be consistent with the stated procedures listed in the published Groundwater Monitoring Statistical Methods Certification (Golder 2017). Calculated limits were found to be consistent with the chosen statistical procedures as described in the Sampling and Analysis Plan (Golder 2019a) and recommended methodology found within the Unified Guidance (Environmental Protection Agency [EPA] 2009).

3.0 DATA SOURCES USED IN ALTERNATIVE SOURCE REVIEW

To assess groundwater downgradient of the GGS CCR facilities, Golder reviewed previously collected data and performed supplemental assessment activities. The following sections summarize the supplemental assessment activities.

3.1 Groundwater

3.1.1 On-site Groundwater Monitoring Data

NPPD GGS field personnel routinely collect groundwater samples from 14 monitoring wells around the ash landfill at GGS and submit them for chemical analysis. The following datasets were available to characterize the groundwater in the vicinity of the ash landfills:

- **NDEE and CCR monitoring programs:** As described in Section 2.5, the ongoing groundwater monitoring samples were collected between 1996 and 2022, and analyzed for field parameters, major cations, major anions, and select dissolved metals.
- **Supplemental sampling in First Quarter (Q1) 2019:** In February 2019, an additional set of groundwater samples were collected from eight of the 14 wells (APMW-5, APMW-17, APMW-4, APMW-8A, APMW-18, APMW-19, APMW-12, and APMW-14) to support the Q4 2018 ASD for fluoride at APMW-19 (Golder 2019b). These samples were analyzed for field parameters, major cations, major anions, and select dissolved metals. In addition, detection monitoring groundwater samples collected in Q4 2019 and Q2 2021 also had an expanded analyte list, including field parameters, major cations, major anions, and select dissolved metals.

3.1.2 Upgradient Off-site Monitoring Data

As discussed in Section 2.3, upgradient groundwater is sourced from the Sutherland Reservoir, which is fed by the Sutherland Canal with water from North Platte and South Platte Rivers. The following data sources were used to constrain the range of potential water qualities upgradient of GGS and the ash landfill:

- **North Platte and South Platte Rivers:** The United States Geological Survey (USGS) monitored South Platte River chemistry at Roscoe, Nebraska between 1975 and 2013 (USGS 2016a). The monitoring

location at Roscoe, Nebraska is less than one mile downstream of where South Platte River water is diverted into the Sutherland Canal. The USGS also characterized North Platte River water between 1972 and 2011 at Keystone, Nebraska, immediately downstream of Lake Ogallala, where North Platte River water is diverted into the Sutherland Canal (USGS 2016b).

- **Sutherland Reservoir and Canal:** Surface water samples were collected from the Sutherland Reservoir and Sutherland Canal on October 28, 2019, to assess the source of regional groundwater at the site. These samples were analyzed for field parameters, major cations, major anions, and select dissolved metals (Golder 2019b). In addition to samples collected by NPPD personnel, seven water samples were collected from the center of the Sutherland Reservoir by the USGS between August 2005 and December 2006 (USGS 2016c and USGS 2016d).
- **Shallow Groundwater around the Sutherland Reservoir:** Between September 2005 and May 2007, the USGS collected 14 shallow groundwater samples from 12 wells less than one mile from the perimeter of Sutherland Reservoir (USGS 2016e).
- **Upgradient Wells:** In Q2 2021, NPPD personnel collected groundwater samples from wells north and east of GGS to characterize the regional groundwater. The wells included potable water wells (PW #1, PW #2, and PW #3), livestock watering wells (livestock well), and operating wells (OW-20, OW-21, OW-22, OW-23, OW-24, OW-25, and OW-36, as shown in Figure 5. The samples were analyzed for field parameters, major cations, major anions, and select dissolved metals.

3.2 Irrigation Water

Two types of irrigation water are identified as potentially important: center pivot spray and irrigation runoff. Center pivot spray is irrigation water that is sprayed directly onto GGS property without touching agricultural soil by the irrigation system near the southern property boundary (Figure 4c). Historical aerial imagery indicates that this irrigation system was installed in 2006 (Figure 3). NPPD was able to collect two samples of center pivot spray on August 11, 2022, with one sample collected from a tire depression in the ground and one sample caught directly in a bucket as the water sprayed onto the Site. Samples were sent to Eurofins Cedar Fall for water quality analysis, including field parameters, major cations, major anions, and select dissolved metals (Results in Appendix B). These samples were collected to characterize the water quality of the center pivot spray as it flows and infiltrates on the ground in the area of APMW-6.

Irrigation water runoff is surface water that flows through agricultural soils prior to traveling onto the Site through drainages into the ditch immediately south of the CCR unit and immediately upgradient of multiple downgradient monitoring wells, including APMW-4, APMW-6, APMW-8A, APMW-10, and APMW-11. Three indications that irrigation runoff is occurring include:

- 1) Historical aerial images from 2012 and 2020 showing green vegetation in the ditch outside of the range of the center pivot spray.
- 2) Deep drainages at low points between the agricultural fields and the ditch south of the CCR unit (Figure 4A and 4B).
- 3) Corn shucks in the ditch on NPPD property (Figure 4C).

NPPD field personnel monitored the drainages and ditch for irrigation water runoff to characterize the water quality of this flow. Unfortunately, no irrigation water runoff was observed in the drainages and ditch. Ongoing monitoring will continue until irrigation water runoff samples can be collected.

3.3 Evaporation Pond

In Q1 2019 and Q4 2020, surface water samples were collected from the evaporation pond. The samples were analyzed for field parameters, major cations, major anions, and select dissolved metals.

3.4 Coal Combustion Residuals Contact Water

To characterize the potential for the material in the ash landfill to release contaminants, NPPD GGS field personnel retrieved sump water from the Ash Landfill No. 3 LCS, and pond water in direct contact with CCR materials in Ash Landfill No.4 on October 28, 2019. These sample were analyzed for the same suite of parameters as the groundwater: field parameters, major cations, major anions, and select dissolved metals (Golder 2019b).

3.5 Geochemical Methods

The geochemical analysis of groundwater and surface water samples included field parameters, major cations and anions, and dissolved metals. Conductivity, pH, and temperature were measured in the field using a handheld meter. The pH of each sample was also measured in the laboratory. Major anions analyzed included chloride, sulfate, and bicarbonate and major cations included calcium, magnesium, potassium, and sodium.

The laboratory analyzed the ash landfill pond and sump water, onsite and off-site groundwater, and surface water (evaporation pond, Sutherland Reservoir, and Sutherland Canal) samples using the following methods:

- pH following SM 4500 H+ B (2017)
- alkalinity following Standard Method (SM) 2320B Alkalinity by Titration (2005)
- chloride, fluoride, and sulfate following USEPA SW846 9056A Determination of Inorganic Anions by Ion Chromatography Revision 1 (February 2007)
- ammonia following USEPA 350.1 Determination of Ammonia Nitrogen by Automated Colorimetry, Revision 2 (August 1993)
- total Kjeldahl nitrogen following USEPA 351.2 Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry, Revision 2 (August 1993)
- total nitrate-nitrite nitrogen following USEPA 353.2 Determination of Nitrate-Nitrite Nitrogen by Automated Colorimetry, Revision 2 (August 1993)
- antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, lead, lithium, magnesium, molybdenum, potassium, selenium, sodium, and thallium following USEPA SW-846 6020A (November 2004)

4.0 DATA EVALUATION

Historical concentrations of Appendix III analytes and selected Appendix IV analytes in groundwater at GGS, including analytes that are typically indicators of potential CCR seepage (e.g., arsenic, barium, molybdenum, and selenium), are presented in time series plots in Appendix A. The plots include the results of the supplemental samples that were collected in Q1 2019 to support the Q4 2018 ASD for fluoride at APMW-19 (Golder 2019b).

Sampling for the Appendix IV analytes concluded with the end of baseline monitoring in Q2 2017, which means there is a gap of six quarters in the data plots until the supplemental sampling results are shown in Q1 2019.

Figure 6 presents a Piper diagram with relative major ion chemistry for the monitoring well groundwater samples (only for samples analyzed for all major cations and anions; Q4 2017, Q1 2019, Q4 2019, and Q2 2021), offsite upgradient groundwater (NPPD and USGS sampled wells), regional groundwater sources (Sutherland Reservoir, Sutherland Canal, and North and South Platte River), irrigation waters from the center pivot spray, evaporation pond water, and coal ash impacted waters (Ash Landfill No. 3 sump water and Ash Landfill No. 4 surface pond water). The groundwater at the upgradient monitoring wells was dominated by calcium and bicarbonate. Samples from the downgradient monitoring wells were also majority calcium and bicarbonate ions, with the exception of a single sample (Q1 2019) from APMW-12 that was dominated by calcium and sulfate. The Sutherland Reservoir and Canal water, along with the average North and South Platte River waters are generally dominated by calcium, sodium, bicarbonate, and sulfate. Irrigation waters from the center pivot spray were dominated by calcium and bicarbonate. The evaporation pond water contained majority sodium and sulfate ions. The Ash Landfill No. 3 sump water sample was primarily sodium and bicarbonate, while the Ash Landfill No. 4 pond water was dominated by sodium and sulfate.

4.1 Potential Chloride Sources

Several potential sources, other than the active CCR Units, can contribute chloride to local groundwater at GGS, including outflows from the Sutherland Reservoir into regional groundwater, irrigation water runoff and center pivot spray from across southern property boundary, seepage from the evaporation pond, and seepage from historical deposits of fly ash that remain at GGS. These four potential sources of chloride to groundwater are described in this section.

4.1.1 Regional Groundwater from Sutherland Reservoir

As described in Section 2.3, the groundwater gradient in the area around the ash landfill shows groundwater flows from north to south, rather than from south to north in the direction of the South Platte River. The groundwater flow direction appears to be based on both the groundwater recharge provided by the Sutherland Reservoir to the north of GGS and groundwater extraction by irrigation wells located south of GGS that are pumped seasonally and used to support local agriculture. The Sutherland Reservoir is fed by the Sutherland Canal, which delivers water from both the North and South Platte Rivers for use as condenser cooling water at GGS.

The USGS collected 37 samples for chloride concentration analysis from the South Platte River at Roscoe, Nebraska between 1975 and 2013 (USGS 2016a). Chloride concentrations in the South Platte River ranged from 28 to 140 mg/L. The USGS collected 26 samples for chloride concentration analysis from the North Platte River at Keystone, Nebraska between 1972 and 2011 (USGS 2016b). Chloride concentrations in the North Platte River ranged from 16 to 24 mg/L.

The chloride concentrations of the Sutherland Reservoir and Sutherland Canal samples collected by NPPD field staff in October 2019 were 21.9 and 20.9 mg/L, respectively (Section 3.1.2). The six Sutherland Reservoir samples the USGS collected between August 2005 and December 2006 had chloride concentrations that ranged from 23.4 to 27.2 mg/L (USGS 2016c and USGS 2016d). The chloride concentrations in the Sutherland Reservoir and Sutherland Canal at the times of sampling (2005, 2006, and 2019) were more similar to concentrations observed in the North Platte River and lower than concentrations observed in the South Platte River.

Chloride concentrations in the North Platte River, South Platte River, and Sutherland Reservoir were sufficiently high enough to be regarded as a source of the elevated concentrations measured in groundwater at the upgradient monitoring wells at the Site and the elevated concentrations measured in downgradient groundwater at APMW-6, APMW-8A, and APMW-18. The groundwater from APMW-6 has the lowest chloride concentrations of any upgradient or downgradient CCR monitoring well (Figure 7 and Appendix A Figure A4). While the small increases in chloride concentrations at APMW-6 were only observed during detection monitoring (25.8 mg/L in Q2 2021, 17.6 mg/L in Q4 2021 which triggered the SSI, and 17.0 in Q2 2022), elevated concentrations at APMW-8A (56.3 mg/L to 124 mg/L) and APMW-18 (23.7 mg/L to 101 mg/L) were observed during the baseline and detection monitoring periods. The groundwater samples collected by the USGS and NPPD immediately around the Sutherland Reservoir (less than 1 mile) also support the hypothesis that the reservoir is the source of the elevated chloride concentrations at the Site (USGS 2016e). These shallow groundwater samples (10 collected by the USGS and 11 samples collected by NPPD) had chloride concentrations of between 21.9 and 36.1 mg/L, which is similar to the 5 to 93.8 mg/L chloride concentration range measured in groundwater at the GGS upgradient monitoring wells (APMW-5, APMW-15, APMW-16A, and APMW-17) between December 2015 and June 2022.

Figure 7 displays a box and whisker plot of the chloride concentrations from the GGS monitoring well network and samples of possible chloride sources at the Site. The plot indicates that groundwater-containing elevated chloride concentrations has been traveling across the Site, including past the upgradient monitoring wells, and has only recently started reaching downgradient monitoring wells.

McMahon et al. (2010) details the southerly flow of surface water from the Sutherland Canal and Sutherland Reservoir to the surrounding groundwater near GGS. Their analysis indicated that the front “edge” of Sutherland Reservoir water was in the approximate area of the CCR landfills, though the low density of wells sampled around the CCR landfills limited the resolution in that area.

4.1.2 Irrigation Water

As discussed in Section 2.3, historical ariel imagery (Figure 3) and site photographs (Figure 4) indicate that irrigation water runoff and center pivot spray are crossing the southern property boundary at GGS and flowing into the ditch immediately south of Ash Landfill No. 3 and No. 4. Ponded water in that ditch could infiltrate to groundwater and would have the potential to impact the wells located south of the ash landfills (APMW-4, APMW-6, APMW-8A, APMW-10, and APMW-11).

Chloride concentrations in center pivot irrigation water samples (Section 3.2) were elevated over concentrations recently observed in APMW-6 (17.0 to 25.8 mg/L between Q2 2021 and Q2 2022). On the piper diagram (Figure 6), groundwater from APMW-6 does have a similar signature (calcium bicarbonate dominant) to irrigation waters.

While two samples were collected and analyzed to represent center pivot spray water quality, NPPD field personnel did not observe irrigation water runoff to sample during the spring and summer of 2022.

4.1.3 Evaporation Pond

Although the evaporation pond is located to the east of APMW-6, and side-gradient in terms of groundwater flow (i.e., seepage from the evaporation pond would be unlikely to impact groundwater at monitoring well APMW-6), evaporation pond water quality was evaluated as a potential source in this section as it contains water related to GGS plant operations.

Groundwater quality at the three downgradient monitoring wells located around the evaporation pond (i.e., APMW-12, APMW-13, and APMW-14) indicates that process water discharged from the GGS plant and stored in the evaporation pond has migrated to groundwater. Historical monitoring results show that elevated concentrations of boron (Figure A2), chloride (Figure A4), sulfate (Figure A8), and TDS (Figure A9), which are elements that are typically associated with CCR, were detected in groundwater at these three monitoring wells closest to the evaporation pond compared to the upgradient monitoring wells.

Based on the slight differences in water quality between the groundwater at the monitoring wells APMW-12, APMW-13 and APMW-14 and the evaporation pond, mixing between the evaporation pond water and the upgradient groundwater likely occurs and groundwater at the monitoring wells is not entirely composed of seepage from the evaporation pond. This mixing reaction is supported by the Piper diagram in Figure 6, which shows samples from monitoring wells APMW-12 and APMW-14 plot on a mixing line between the evaporation pond and upgradient groundwater end-member data points.

During the Q4 2020 sampling of the evaporation pond surface water, the chloride concentration was 259 mg/L. Based on the similarities in water quality between the evaporation pond and adjacent groundwater monitoring wells (APMW-12, APMW-13, and APMW-14), the evaporation pond is considered a potential source of chloride to groundwater at GGS. However, it is unlikely the evaporation pond influenced groundwater quality at APMW-6, which is side gradient to groundwater flow underneath the evaporation pond (Figure 1).

4.1.4 Historical Ash Landfills

Historical deposits of fly ash present at GGS in the closed soil-lined Ash Landfills Nos. 1 and 2 may release soluble constituents to groundwater as the seepage generated by infiltrating precipitation interacts with the ash. While it was not feasible to collect a sample of seepage from Ash Landfills Nos. 1 and 2 directly, ash-impacted waters collected from Ash Landfill No. 3 sump and Ash Landfill No. 4 pond (Section 3.4) had chloride concentrations of 69 and 463 mg/L, respectively, and are assumed to represent potential ash impacted waters from closed ash landfills. At these concentrations, ash impacted seepage has the potential to increase chloride concentrations in downgradient wells, including APMW-6.

A ternary plot comparing sodium, potassium, and sulfate (Figure 8) reveals that ash impacted waters (i.e., contact water) have higher relative sodium abundances and lower relative potassium and sulfate abundances compared to the upgradient and downgradient groundwater. If infiltrating precipitation was leaching chloride from the closed fly ash storage facilities, the relative concentrations of sodium would increase considerably in the groundwater and would be more similar to the ash impacted waters, but this elevated sodium signature was not observed in any of the samples collected from the downgradient groundwater monitoring wells.

In addition to the elevated levels of chloride in the ash-impacted waters, boron was also identified as a primary CCR indicator based on high concentrations in sump water from Ash Landfill No. 3 (18.3 mg/L) and pond water from Ash Landfill No.4 (13.8 mg/L). Boron concentrations in groundwater at the upgradient and downgradient CCR Unit monitoring wells are presented in Appendix A, Figure A2. All upgradient and downgradient CCR Unit monitoring wells, with the exception of monitoring wells near the evaporation pond that may be influenced by process waters, have boron concentrations below the practical quantitation limit (PQL) (typically less than 0.2 mg/L). If seepage from the ash landfills were impacting groundwater and causing the chloride SSI, boron concentrations would be expected to be increasing.

5.0 EVIDENCE OF AN ALTERNATIVE SOURCE

Based on the testing results and list of potential alternate sources of chloride presented in this report, primary lines of evidence and conclusions drawn from the evidence used to support this ASD are provided in Table 2.

Table 2: Primary Lines of Evidence and Supporting ASD Analysis

Key Line of Evidence	Supporting Evidence	Description
Lack of Primary CCR Indicators	Boron concentrations in groundwater	Boron (Figure A2) is a primary CCR indicator based on high concentrations in sump water from Ash Landfill No. 3 (18.3 mg/L) and pond water from Ash Landfill No.4 (13.8 mg/L). All upgradient and downgradient CCR unit monitoring wells, with the exception of monitoring wells near the evaporation pond that may be influenced by process waters, have boron concentrations below the PQL (typically <0.2 mg/L).
	Sodium concentrations in CCR impacted waters	The relative abundance of sodium in CCR impacted waters would indicate that high sodium concentrations would also be expected in groundwater if chloride was from CCR materials (Figure 8). Relative increases in sodium were not observed in monitoring wells at the Site, suggesting an alternative source of elevated chloride in groundwater at APMW-6
Groundwater Geochemistry	Elevated and variable chloride concentrations in upgradient monitoring wells	Chloride concentrations in groundwater at upgradient monitoring wells APMW-5, APMW-16A, and APMW-17 were elevated compared to chloride concentrations at monitoring well APMW-6 throughout the baseline monitoring period. Since the CCR unit cannot influence the chloride groundwater concentration in the upgradient wells, the only explanation is that there is an alternate source of chloride present in groundwater across the Site.
	Relative ion abundances in groundwater differs from ash landfill water	As presented in the Piper plot (Figure 6), relative differences in major ion concentrations show a distinct dissimilarity between the ash-impacted sump and pond waters and the downgradient groundwater samples, including from APMW-6. The geochemical properties of the downgradient groundwater samples are not consistent with seepage from the CCR unit.
Engineering Controls	Both Active CCR Landfill are Lined	The liner system at Ash Landfill No. 3 consists of a prepared subgrade overlain by a geosynthetic clay liner and 60-mil linear low-density polyethylene (LLDPE) geomembrane. Ash Landfill No. 3 also has a 1-foot LCS sand layer that reports to two sumps. The liner design at Ash Landfill No. 4 consists of a 60-mil high density polyethylene (HDPE) geomembrane over compacted subgrade.

Key Line of Evidence	Supporting Evidence	Description
		Liner system are less likely to release seepage and impact groundwater.
Local Sources of Chloride	Hydrogeology	The North and South Platte Rivers, which are ultimately the source of groundwater recharge that occurs from the Sutherland Reservoir located approximately 1.5 miles north of the ash landfill, have chloride concentrations between 16 and 140 mg/L. Samples from shallow wells near the Sutherland Reservoir and upgradient wells (Figures 6 and 7) indicate that groundwater with elevated chloride is migrating south through the Site (McMahon et al. 2010). Chloride concentrations in groundwater at APMW-6 were lower than other nearby wells, indicating that APMW-6 is the last of the downgradient monitoring wells to be affected by the higher chloride groundwater migrating south (Figure 7 and Appendix A Figure A4).
	Drainages from agricultural lands flow into the ditch immediately upgradient of APMW-6	Irrigation waters spraying directly onto GGS property near APMW-6 had sufficiently elevated chloride concentrations (32 to 34 mg/L) to be a potential source of chloride in groundwater downgradient of the ash landfills. Additional study is needed to understand the water quality, frequency, and magnitude of irrigation water runoff events.

6.0 CONCEPTUAL SITE MODEL

Golder developed a conceptual site model (CSM) that is presented graphically in Figure 9 to frame and support the ASD assessment approach. The CSM presents the GGS site layout, a summary of the geologic and hydrogeologic information, and a discussion of groundwater monitoring data, which together lays the groundwork for consideration and development of the ASD. Additionally, the CSM summarizes the findings of literature research that suggest certain naturally occurring groundwater conditions observed in Nebraska are present at the Site and may contribute to naturally elevated chloride concentrations in groundwater around the ash landfill.

7.0 CONCLUSIONS

In accordance with §257.95(g)(3) and NAC Title 132, Ch.7, 004.03, this ASD has been prepared in response the identification of an SSI for chloride at monitoring well APMW-6 following the Q2 2022 sampling event for the ash landfill at Gerald Gentleman Station.

A review of historical analytical results indicates that the elevated chloride concentrations in groundwater at APMW-6 were not the result of seepage from the ash landfill but can be attributed to chloride in regional groundwater from the Sutherland Reservoir or in infiltrating surficial flows of irrigation water from agricultural lands immediately to the south of the GGS property. Therefore, no further action (i.e., transition to Assessment Monitoring) is warranted, and the Gerald Gentleman Station ash landfill will remain in detection monitoring.

Signature Page

Golder Associates USA Inc.



Gregory Lehn, PhD
Project Geochemist



Emily Sportsman
Senior Geochemist



Jacob Sauer, PE(NE, CO)
Senior Lead Consultant

GL/ES/JS/rm

[https://golderassociates.sharepoint.com/sites/141322/project files/6 deliverables/reports/4-r-asd_chloride_apmw6/4-r-0/31404512.000-004-rpt-0-chloride_asd_apmw6_26oct22.docx](https://golderassociates.sharepoint.com/sites/141322/project%20files/6%20deliverables/reports/4-r-asd_chloride_apmw6/4-r-0/31404512.000-004-rpt-0-chloride_asd_apmw6_26oct22.docx)

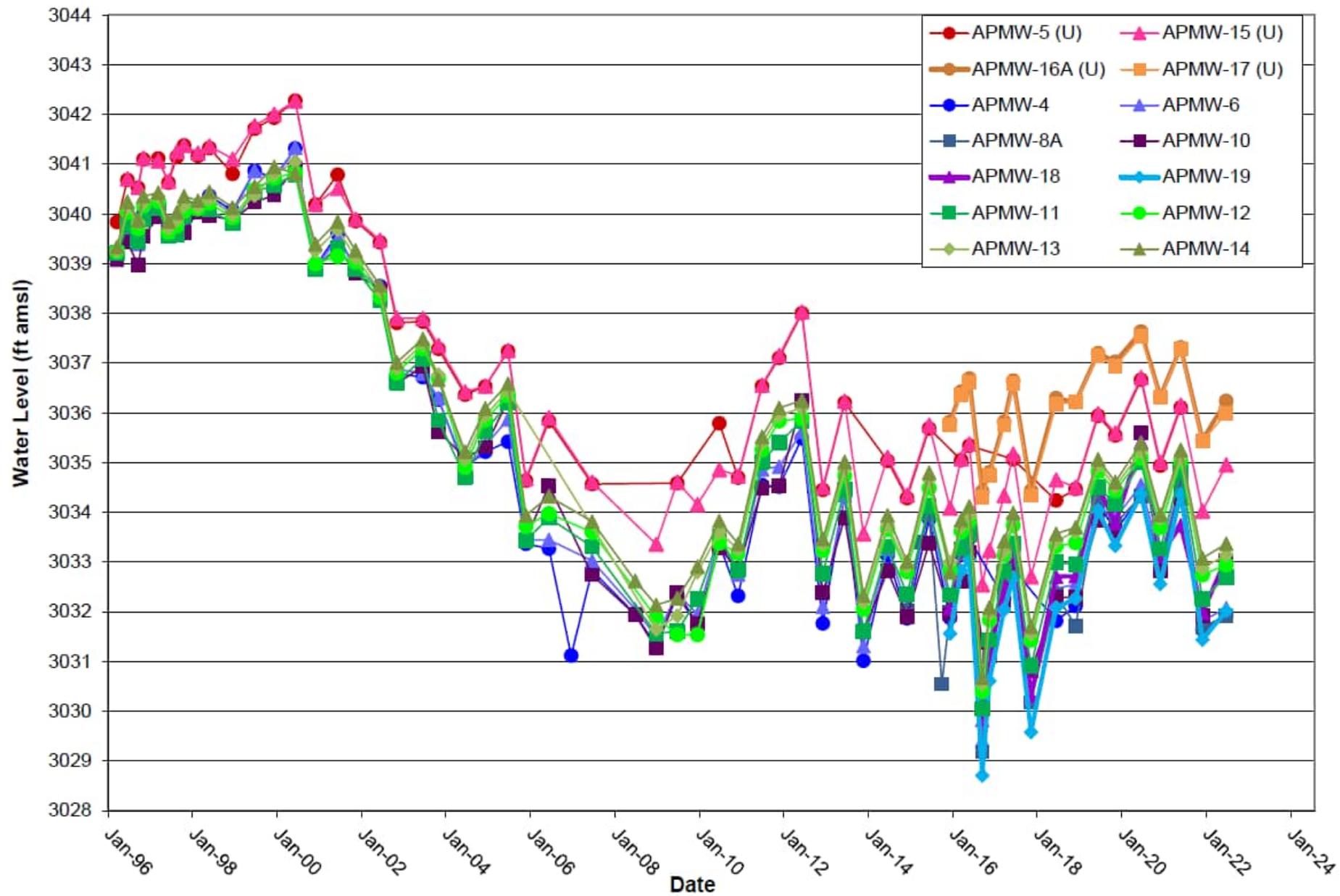
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USGS. 2016e. National Water Information System data available on the World Wide Web (USGS Water Data for the Nation: USGS-410711101060201, USGS-410606101061301, USGS-410529101062501, USGS-410542101053501, USGS-410438101055301, USGS-410452101055301, USGS-410522101075601, USGS-410508101091501, USGS-410456101091801, USGS-410530101093701, and USGS-410811101072501), accessed April 2020, at URL: <https://www.waterqualitydata.us/portal/#siteid=USGS-410711101060201&siteid=USGS-410606101061301&siteid=USGS-410529101062501&siteid=USGS-410542101053501&siteid=USGS-410438101055301&siteid=USGS-410452101055301&siteid=USGS-410522101075601&siteid=USGS-410508101091501&siteid=USGS-410456101091801&siteid=USGS-410530101093701&siteid=USGS-410811101072501&mimeType=csv>.

Woodward-Clyde Consultants. 1991. Design and Construction of a Groundwater Monitoring Network, Final Report, Gerald Gentleman Station, Nebraska Public Power District, Sutherland, Nebraska, WCC Project No. 90MC176, Omaha, Nebraska, September.

Figures



CLIENT
Nebraska Public Power District: Gerald Gentleman Station

PROJECT
Alternate Source Demonstration



TITLE
Groundwater Monitoring Well Water Levels

PROJECT NO. 31404512.000 PHASE 1 REV. FIGURE 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

- MONITORING WELLS (QUALITY)
- APPROXIMATE NPPD PROPERTY BOUNDARY

KEY MAP

REFERENCES

- AERIAL IMAGERY: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP), USDA. IMAGERY COLLECTED 06/26/2012, AND 07/14/2006.
- AERIAL IMAGERY: ESRI PROVIDED BASEMAP. VIVID. MAXAR. IMAGERY COLLECTED 07/03/2020
- AERIAL IMAGERY: COPYRIGHT GOOGLE 2021. IMAGERY CAPTURED MAY 2004.. IMAGE ACCURACY TO BE CONSIDERED APPROXIMATE. GOOGLE IS NOT LIABLE FOR ANY DECISIONS MADE BASED ON THE CONTENTS OF THE IMAGE SHOWN ON THIS FIGURE.
- APPROXIMATE WATER WELL LOCATIONS: NEBRASKA DEPARTMENT OF NATURAL RESOURCES. DATASET DOWNLOADED MARCH 2019.
- APPROXIMATE NPPD PARCEL BOUNDARIES: LINCOLN COUNTY ASSESSOR'S OFFICE, APRIL 2019.

CLIENT
NEBRASKA PUBLIC POWER DISTRICT
GERALD GENTLEMAN STATION
SUTHERLAND, NEBRASKA

PROJECT
Alternative Source Demonstration

Aerial Imagery of Irrigation Water Runoff and Center Pivot spray onto GGS Property

CONSULTANT

YYYY-MM-DD	2021-10-26
DESIGNED	RG/JAM
PREPARED	JAM
REVIEWED	GOL
APPROVED	JS

PROJECT NO.
31404512.000

FIGURE
3

Scale: 0 250 500 1,000 Feet

Scale: 0 1m

R:\TH\1\NPPD_GeraldGentlemanStation\Maping\Satellite\1117_NPPD_GGS_LandUse_Working_JAM.mxd PRINTED ON: 2021-10-26 AT: 10:22:37 AM



Evidence of past irrigation water runoff

East Drainage from agricultural fields onto NPPD GGS property at southern property boundary fence. No water in the drainage at the time of photograph.

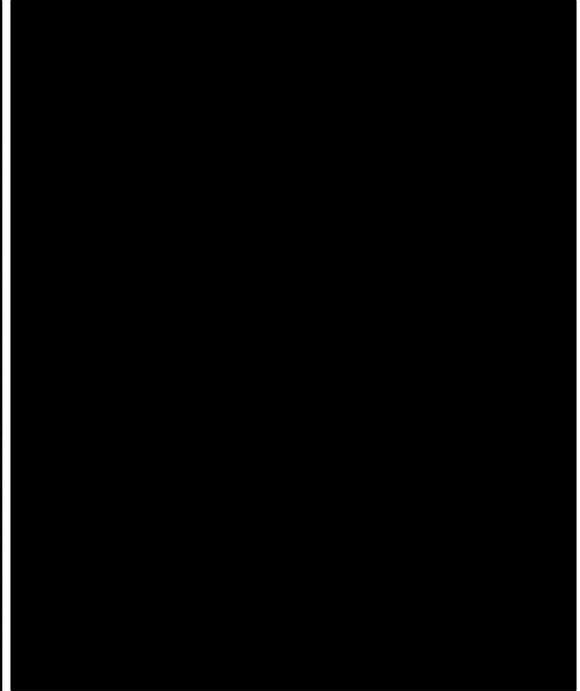
Photo taken by Gregory Lehn (WSP-Golder) on August 2nd, 2022 facing south.



Evidence of past irrigation water runoff

West Drainage from agricultural fields onto NPPD GGS property at southern property boundary fence. Presence of dried corn shucks indicates previous flows through the drainage.

Photo taken by Gregory Lehn (WSP-Golder) on August 2nd, 2022 facing south.



Evidence of center pivot spray

Irrigation system spray from agricultural fields onto NPPD GGS property along southern property boundary fence. Water has been observed ponded on the surface and grass is green throughout the summer months.

Photo taken by Douglas Harris (NPPD) on August 11th, 2022 facing east along southern boundary.

CLIENT

Nebraska Public Power District: Gerald Gentleman Station

CONSULTANT



PROJECT

Alternate Source Demonstration

TITLE

Photographs of Drainages and Center Pivot Spray onto GGS Property

PROJECT NO.
31404512.000

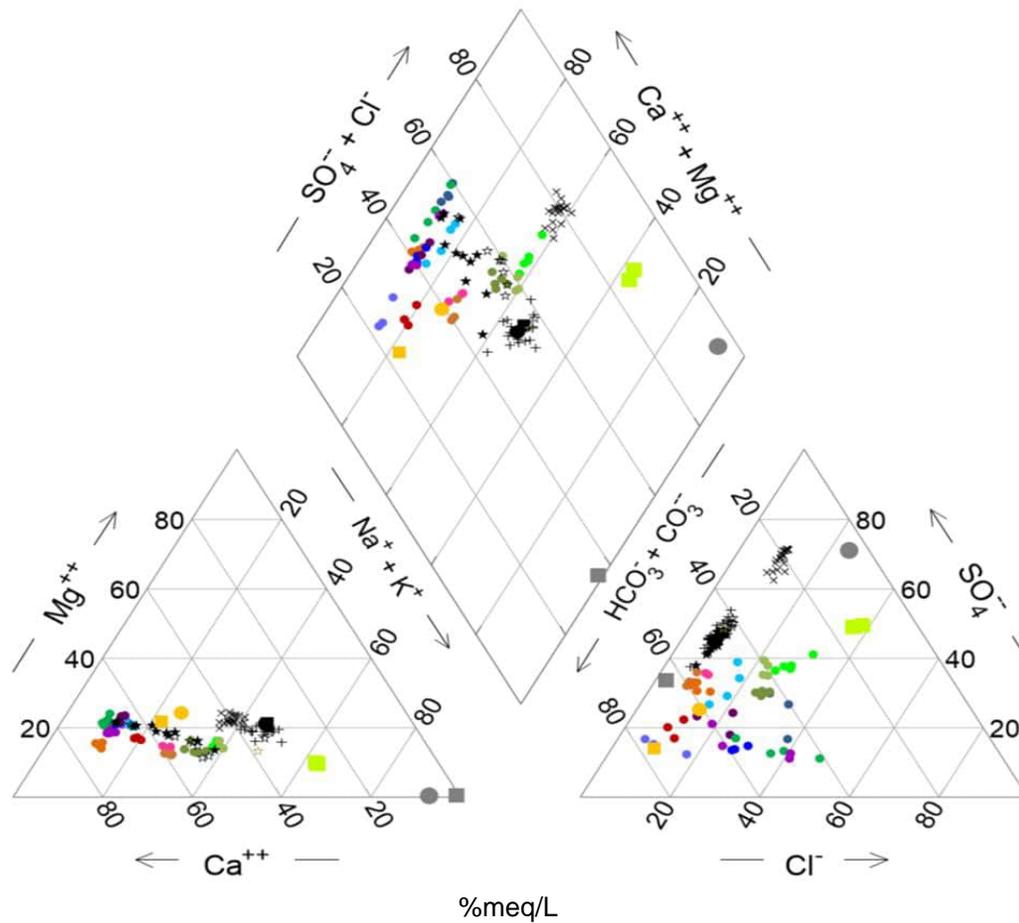
PHASE
1

REV.

FIGURE
4



Path: \\golder-gis-complex\data\offices\Denver\asaf\NPPD\GIS\99_PROJECTS\20141315_GCS_GW_Quality_2020_1_FileName_ASD_20141315_0402_GCS_Figure 5.dwg



- Upgradient CCR Wells**
- APMW-5
- APMW-15
- APMW-16A
- APMW-17
- Downgradient CCR Wells**
- APMW-4
- APMW-6
- APMW-8A
- APMW-10
- APMW-11
- APMW-18
- APMW-19
- Wells Impacted By Evap Pond**
- APMW-12
- APMW-13
- APMW-14
- Potential Sources Upgradient of GGS**
- + North Platte River (USGS)
- × South Platte River (USGS)
- Sutherland Canal (NPPD)
- Sutherland Reservoir (USGS and NPPD)
- ★ GW near Sutherland R. (NPPD)
- ☆ GW near Sutherland R. (USGS)
- Potential Sources at GGS**
- Ash Pit 3 Sump
- Ash Pit 4 Pond
- Evaporation Pond
- Potential Sources Downgradient of GGS**
- Center Pivot Spray (from ground)
- Center Pivot Spray (bucket)

CLIENT
Nebraska Public Power District: Gerald
Gentleman Station

CONSULTANT

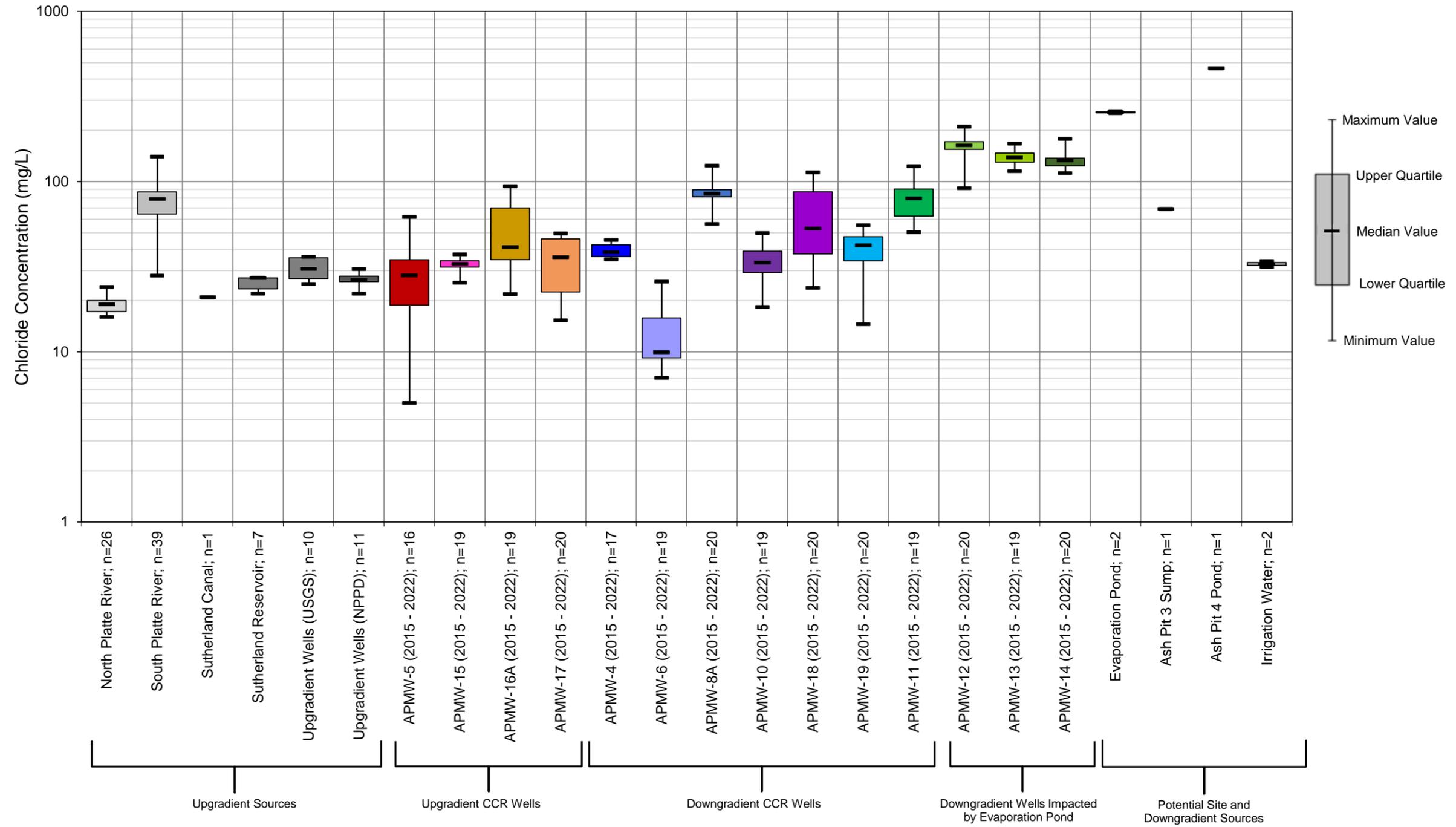


PROJECT
Alternate Source Demonstration

TITLE
Piper Diagram of Groundwater and Potential
Chloride Sources

PROJECT NO. 31404512.000 PHASE 1 REV. FIGURE 6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



CLIENT
Nebraska Public Power District: Gerald Gentleman Station

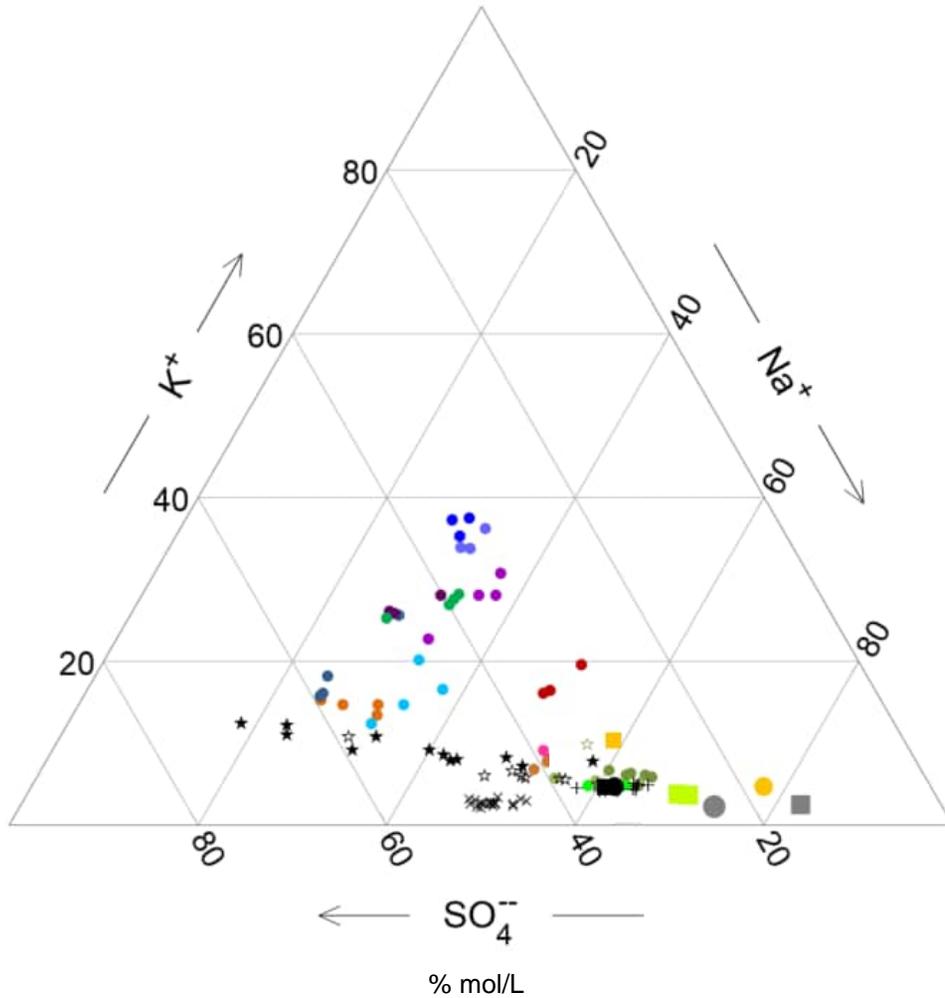
PROJECT
Alternate Source Demonstration



TITLE
Chloride Box and Whisker Plot

PROJECT NO. 31404512.000 PHASE 1 REV. FIGURE 7

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



- Upgradient CCR Wells**
- APMW-5
- APMW-15
- APMW-16A
- APMW-17
- Downgradient CCR Wells**
- APMW-4
- APMW-6
- APMW-8A
- APMW-10
- APMW-11
- APMW-18
- APMW-19
- Wells Impacted By Evap Pond**
- APMW-12
- APMW-13
- APMW-14
- Potential Sources Upgradient of GGS**
- + North Platte River (USGS)
- × South Platte River (USGS)
- Sutherland Canal (NPPD)
- Sutherland Reservoir (USGS and NPPD)
- ★ GW near Sutherland R. (NPPD)
- ☆ GW near Sutherland R. (USGS)
- Potential Sources at GGS**
- Ash Pit 3 Sump
- Ash Pit 4 Pond
- Evaporation Pond
- Potential Sources Downgradient of GGS**
- Center Pivot Spray (from ground)
- Center Pivot Spray (bucket)

CLIENT
Nebraska Public Power District: Gerald Gentleman Station

CONSULTANT



PROJECT
Alternate Source Demonstration

TITLE

Ternary Diagram of Groundwater and Potential Chloride Sources

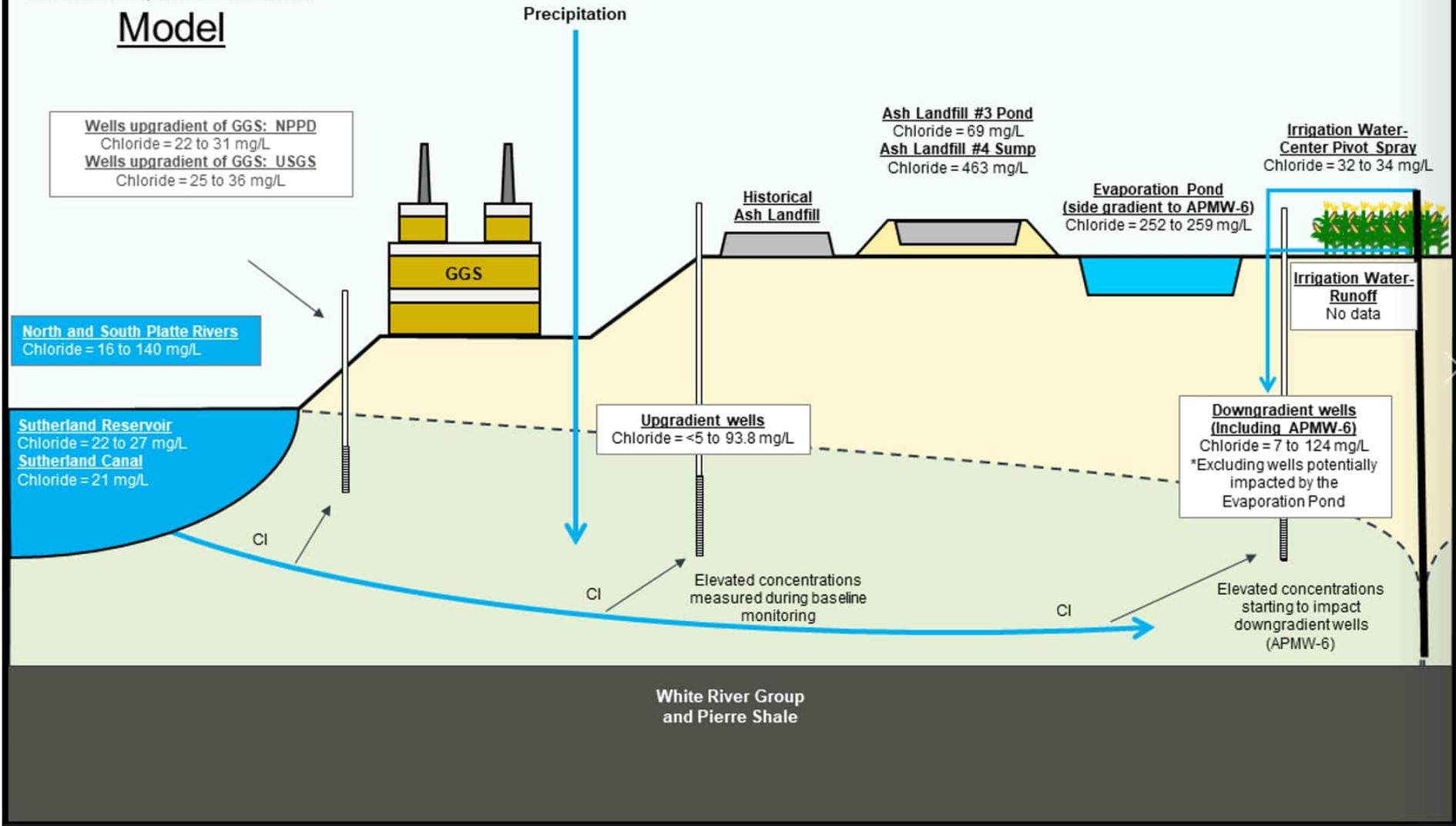
PROJECT NO. 31404512.000 PHASE 1 REV. FIGURE 8

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

1 in

8

Conceptual Site Model



CLIENT
Nebraska Public Power District: Gerald Gentleman Station

PROJECT
Alternate Source Demonstration



TITLE
Chloride Conceptual Site Model

PROJECT NO. 31404512.000 PHASE 1 REV. FIGURE 9

1/11 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

APPENDIX A

**Historical Concentrations of
Appendix III and Selected Appendix
IV Analytes**

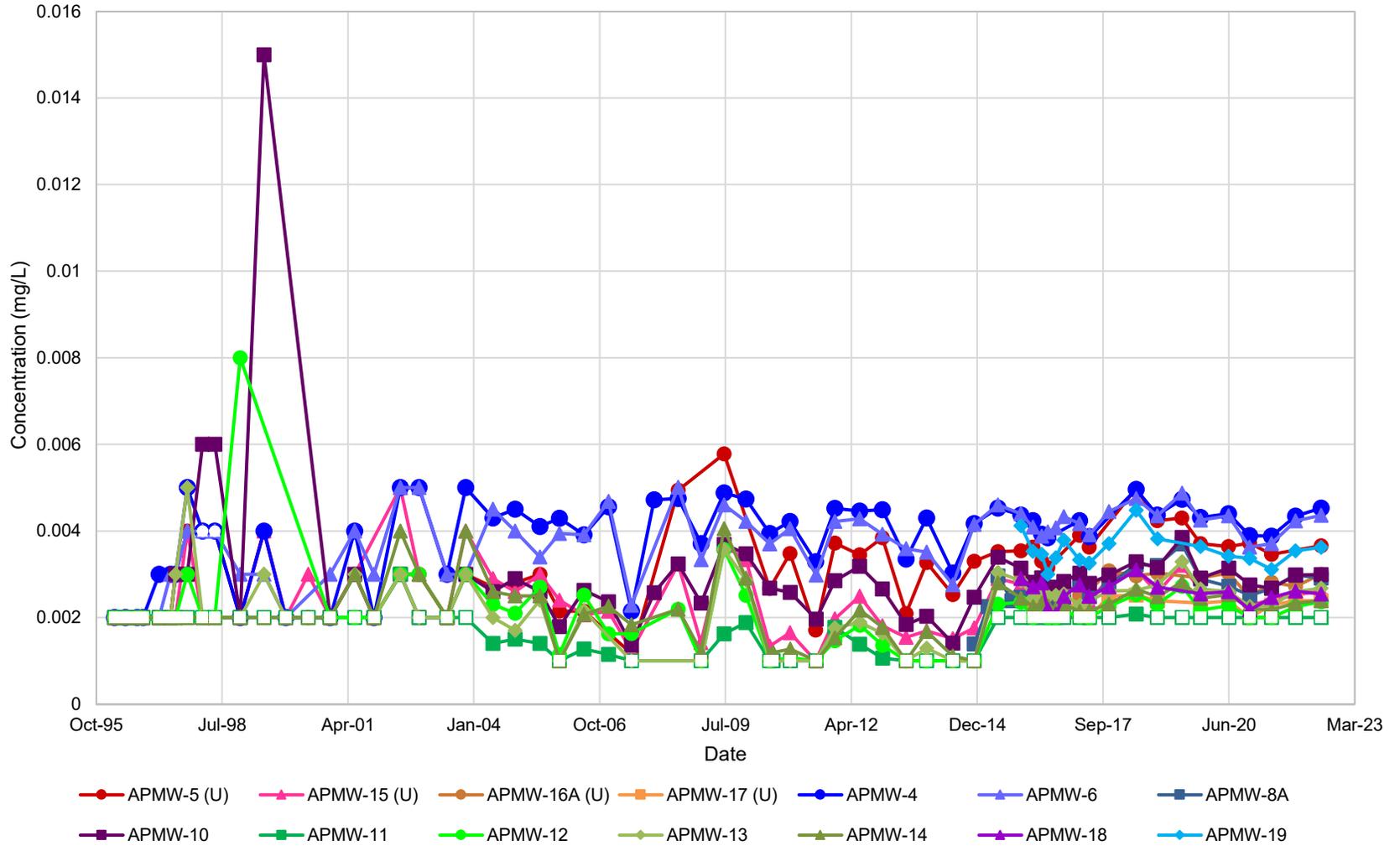
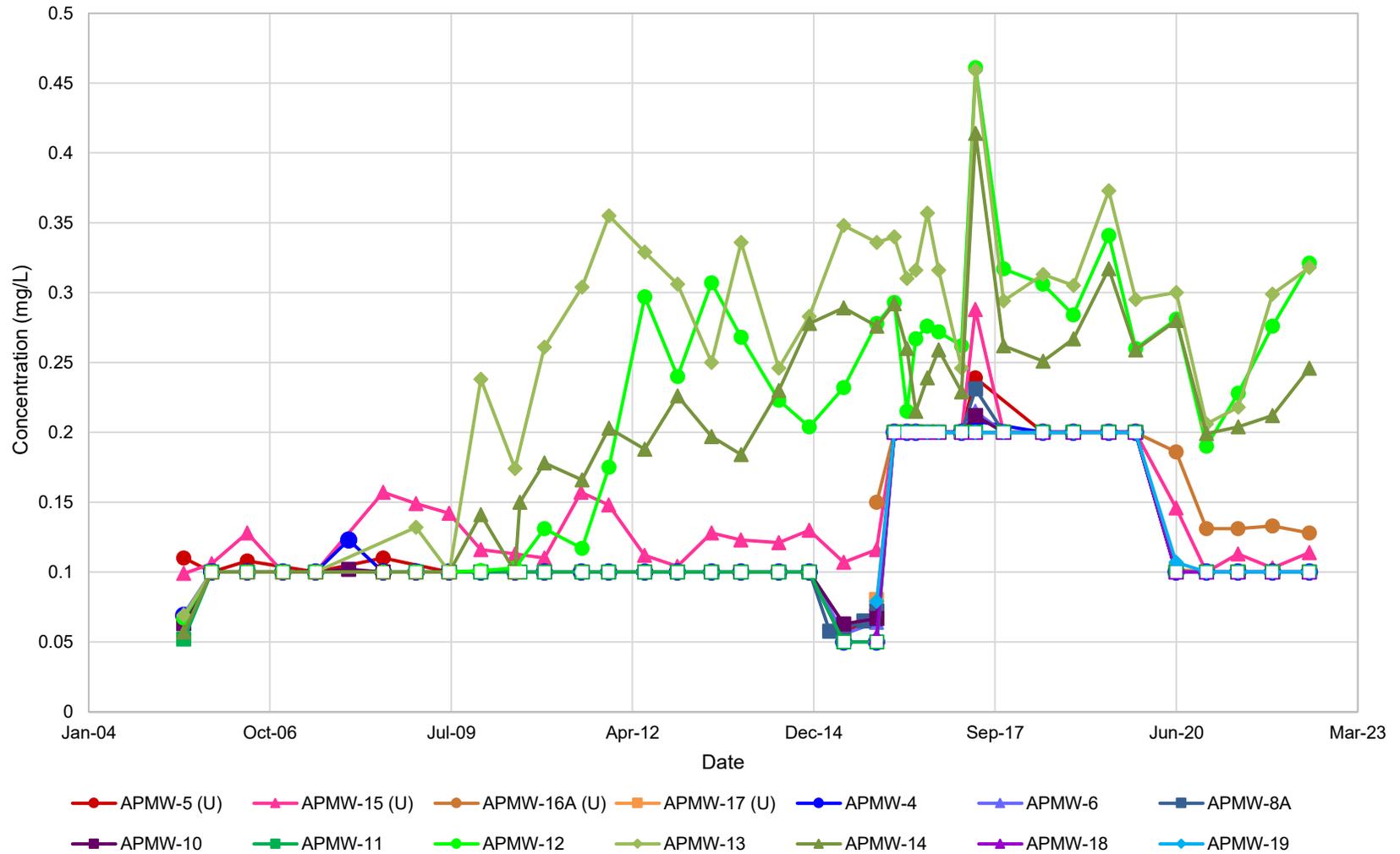


Figure A-1
Arsenic

Nebraska Public Power District
Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-2
Boron

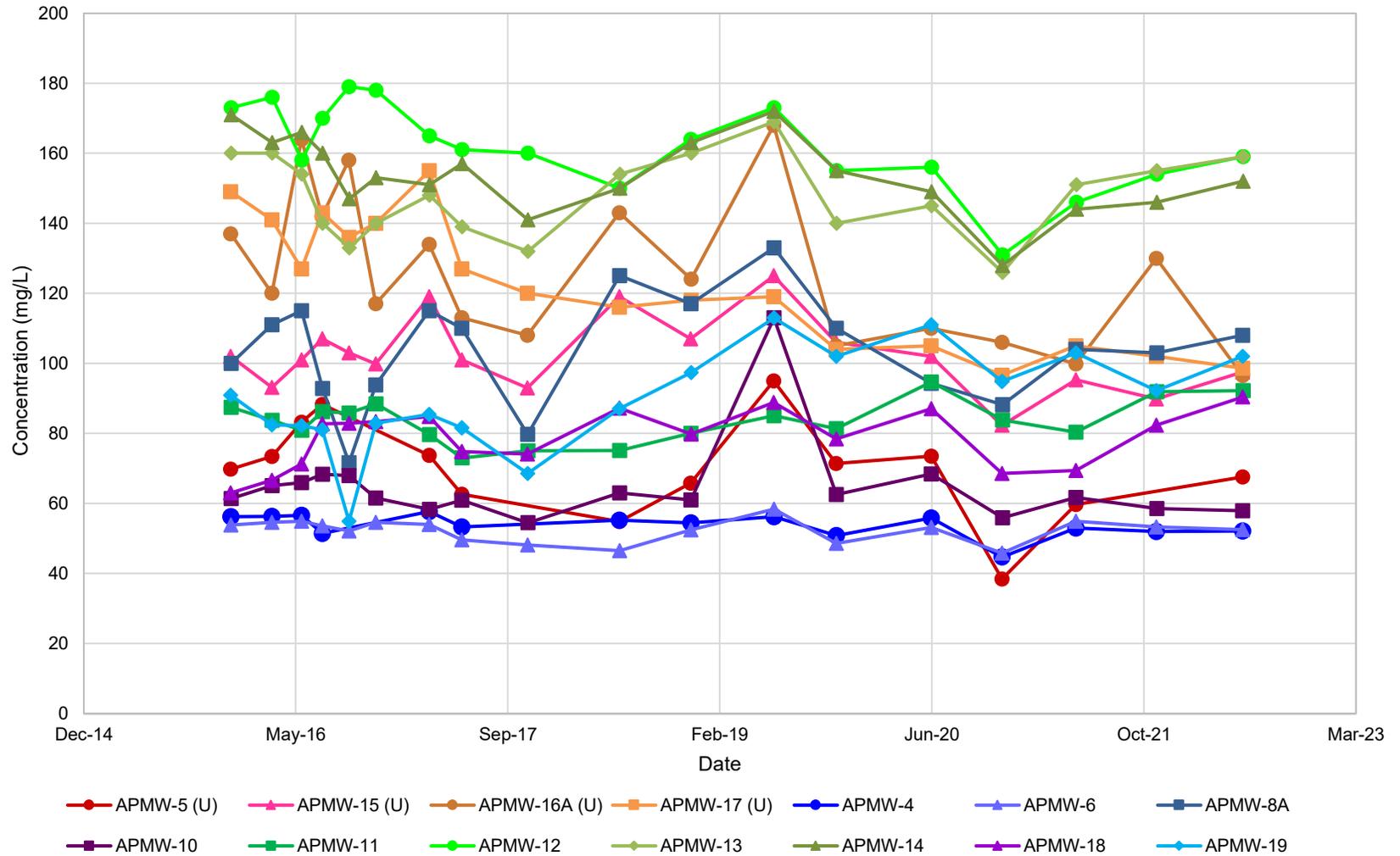
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP



Non-detect values are plotted with an open symbol at the practical quantitation limit.

**Figure A-3
Calcium**

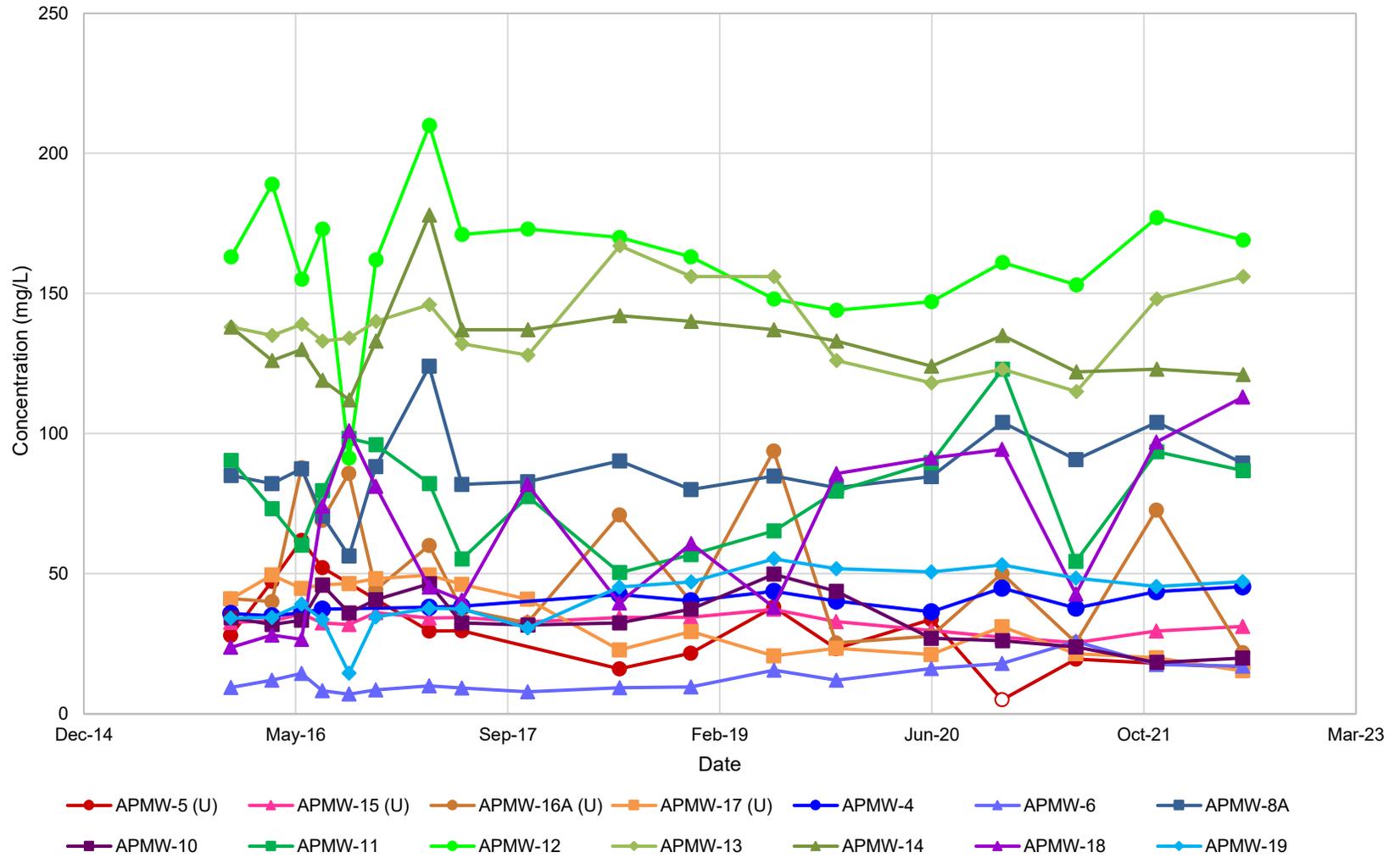
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP



Non-detect values are plotted with an open symbol at the practical quantitation limit.

**Figure A-4
Chloride**

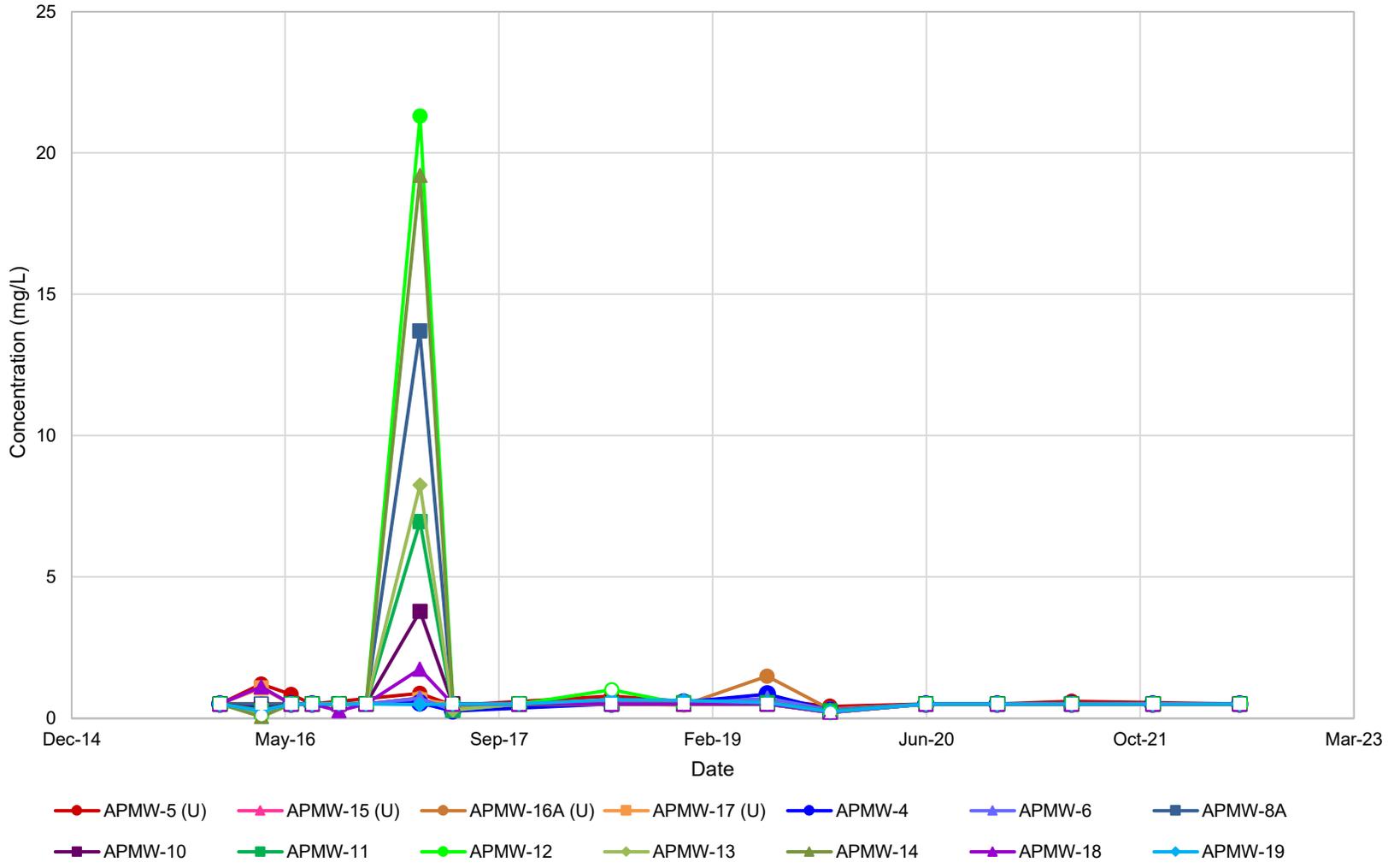
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP

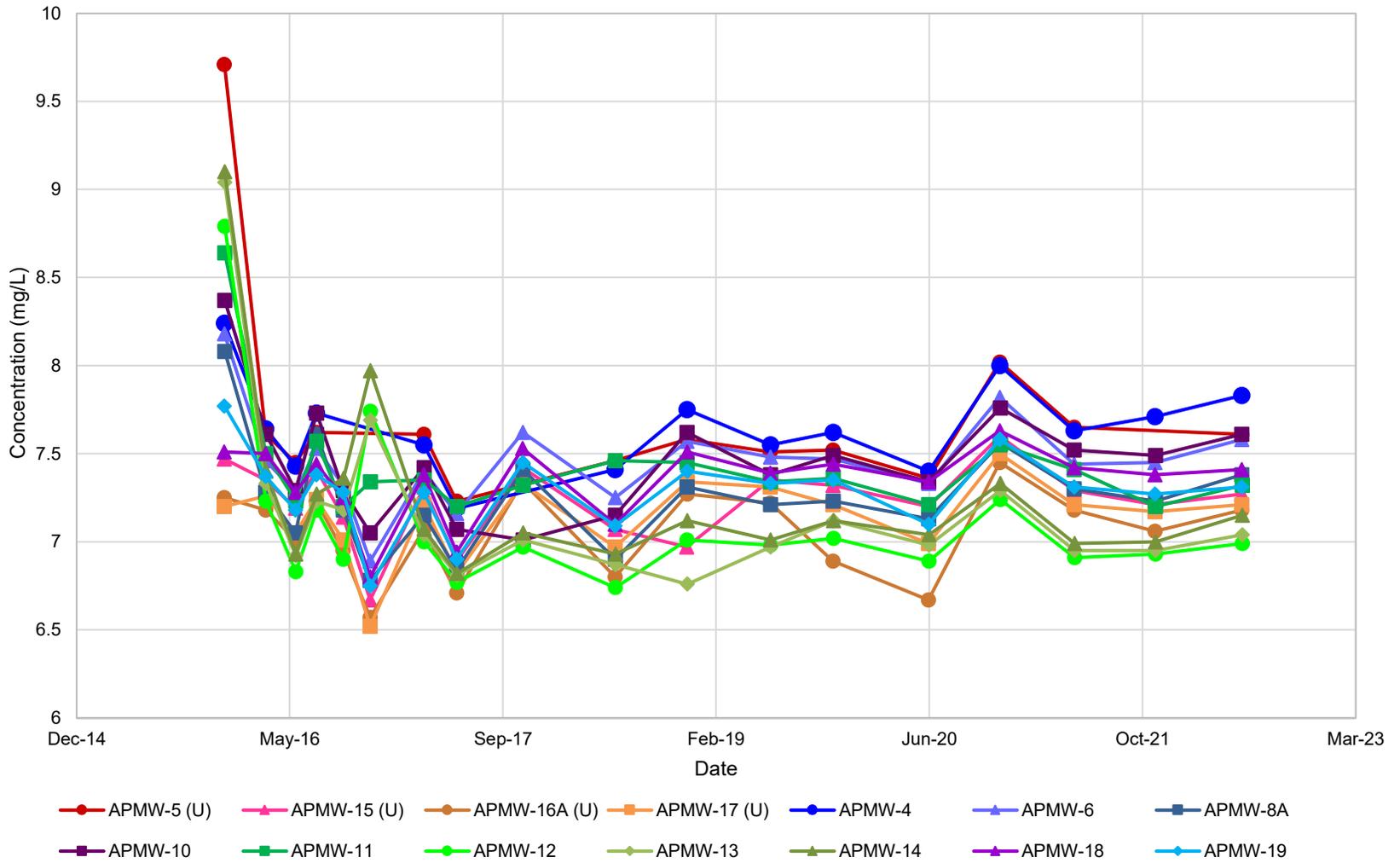


Non-detect values are plotted with an open symbol at the practical quantitation limit.

**Figure A-5
Fluoride**

Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA



Non-detect values are plotted with an open symbol at the practical quantitation limit.

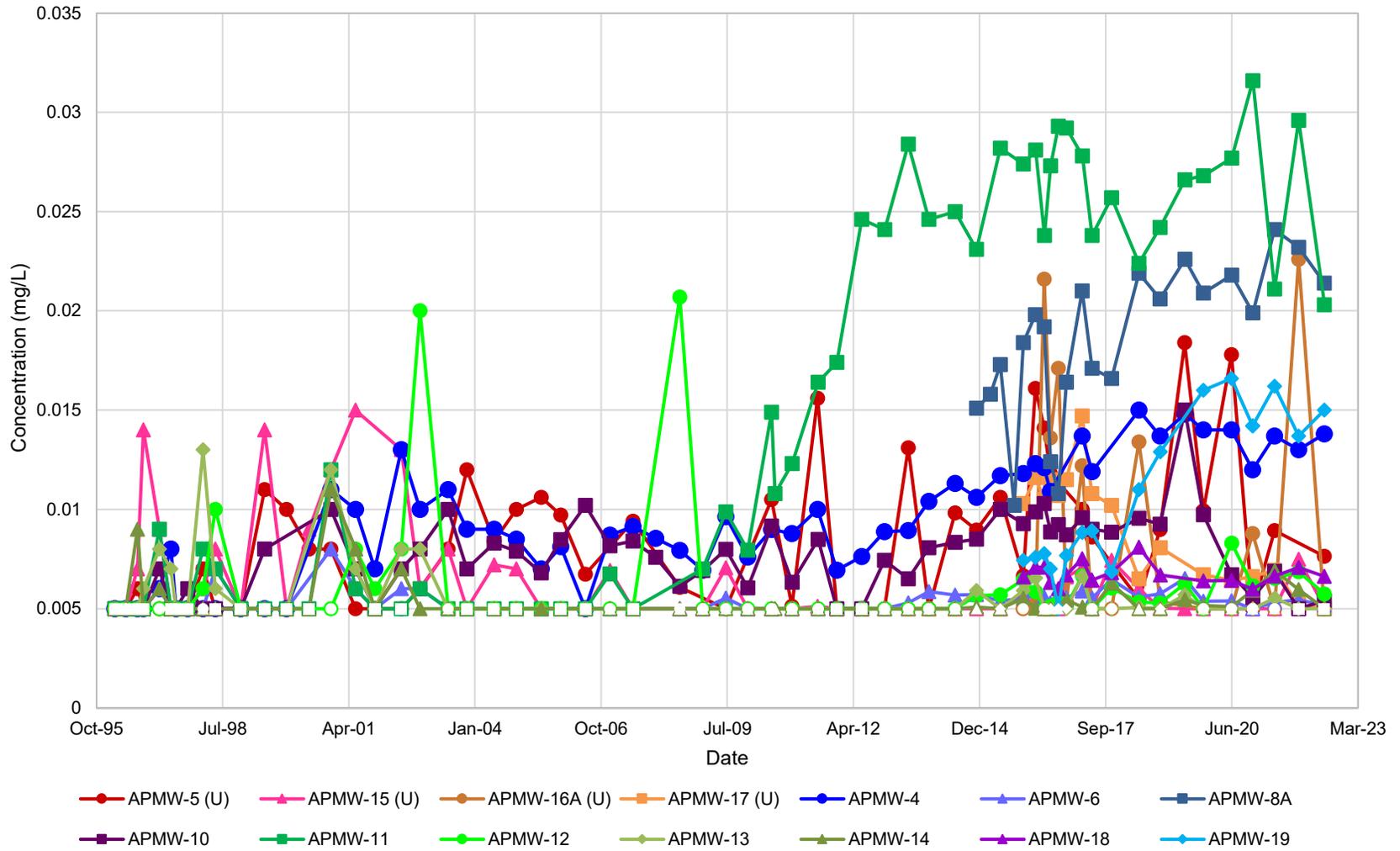
Figure A-6
pH, Field Measured
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-7
Selenium

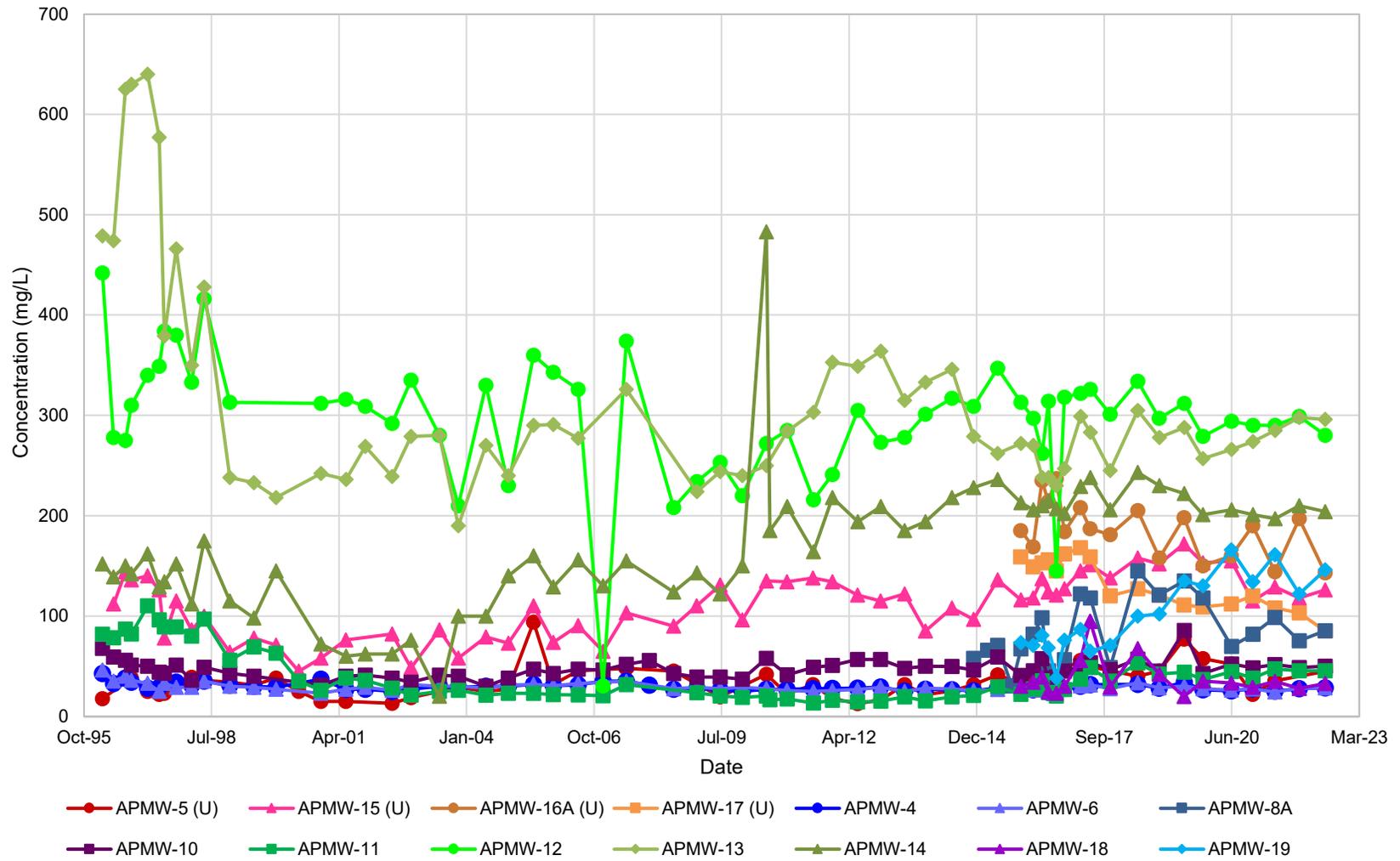
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-8
Sulfate

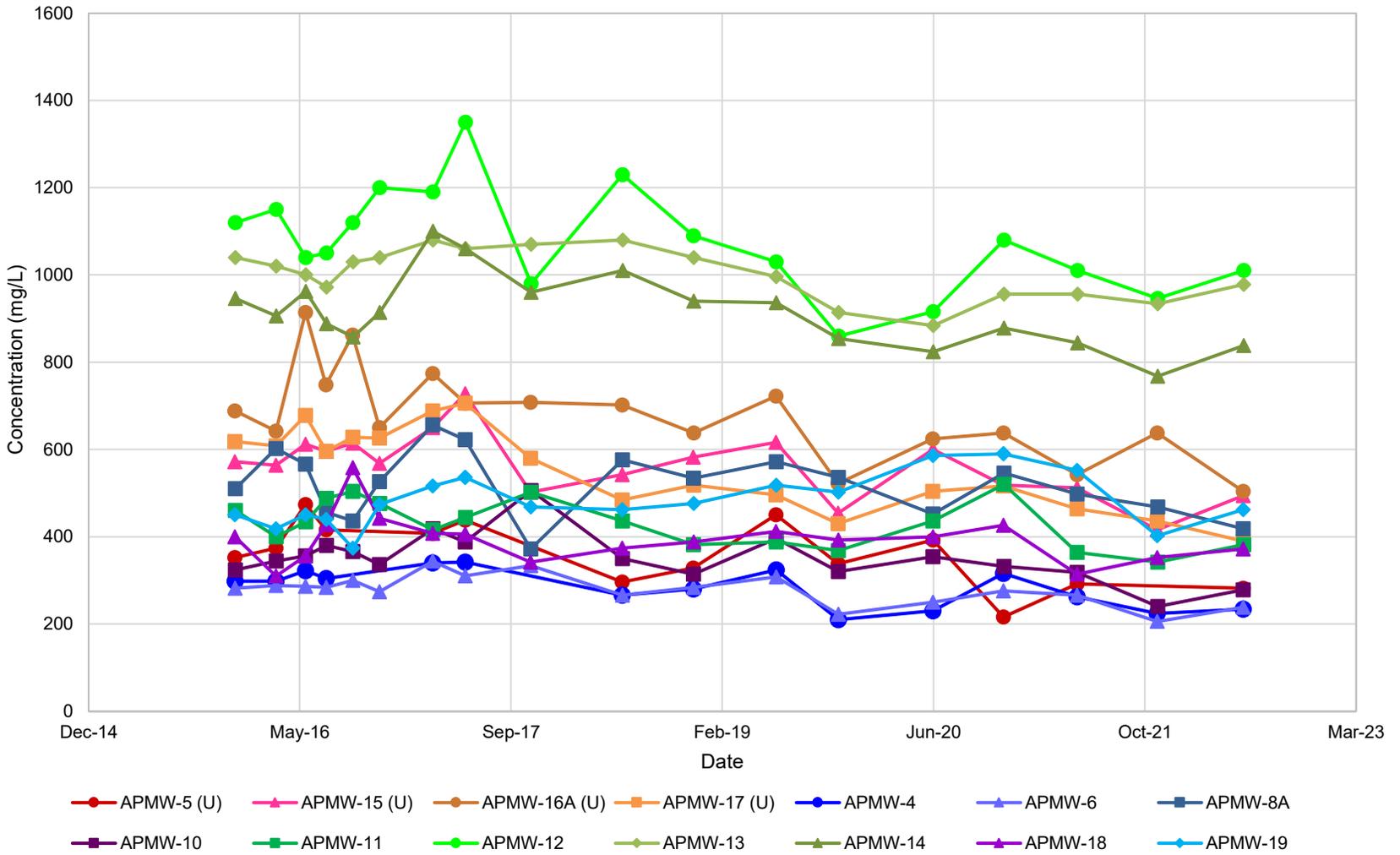
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022

31404512.000

Golder Associates USA Inc., A Member of WSP

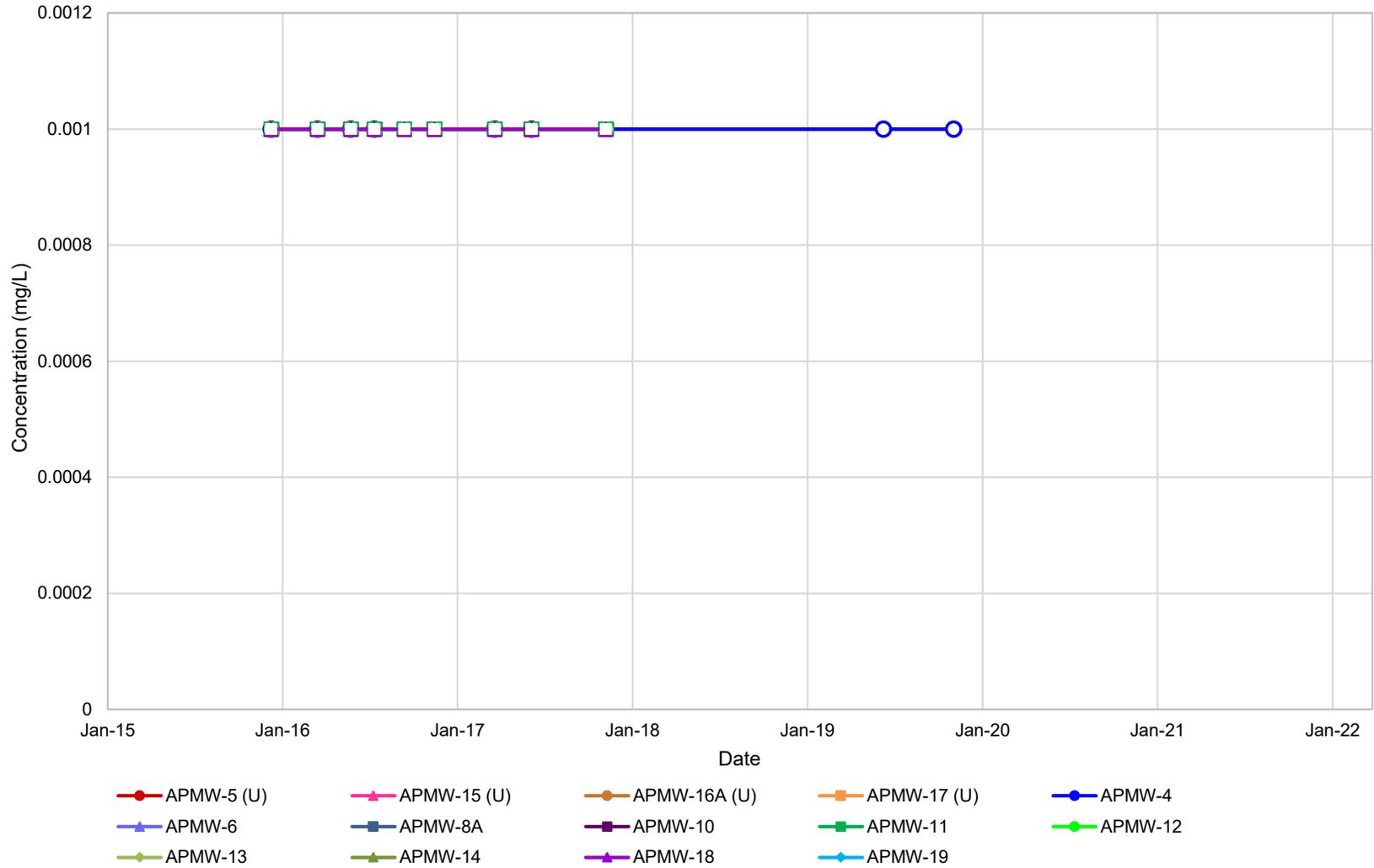


Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-9
Total Dissolved Solids
Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

10/26/2022 31404512.000



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-10
Antimony

Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

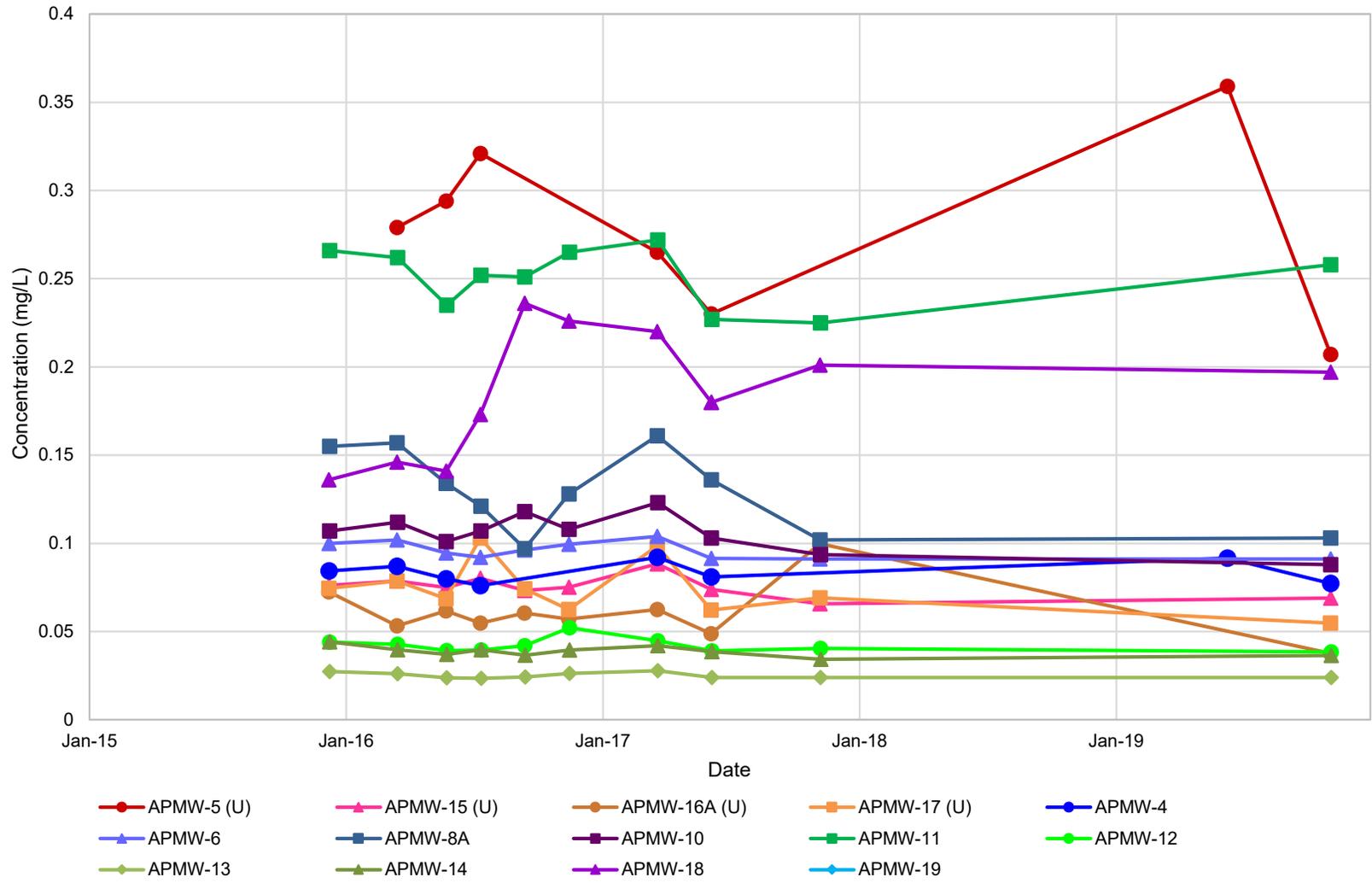


Figure A-11

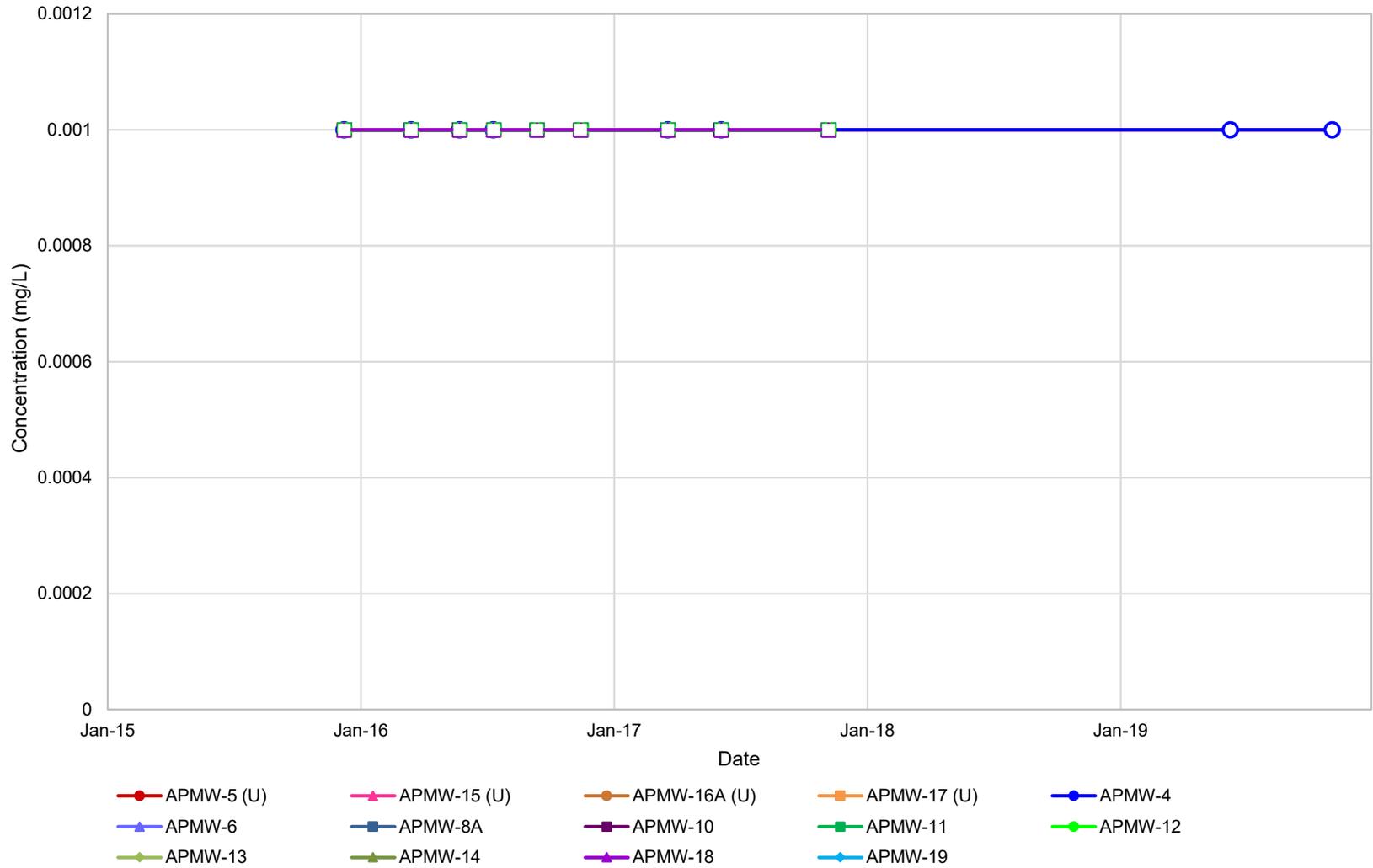
Barium

Nebraska Public Power District

Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

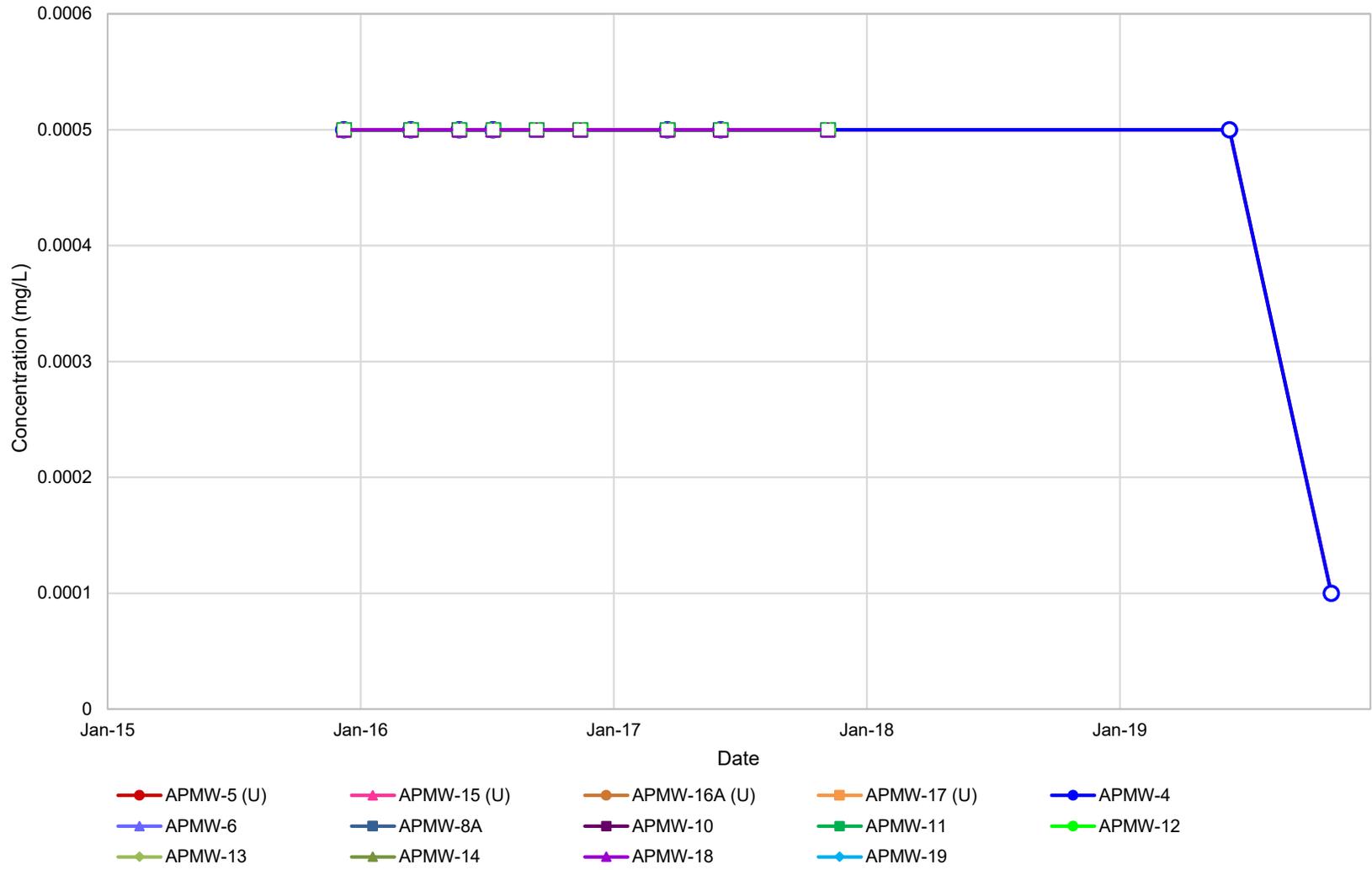


Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-12
Beryllium

Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Figure A-13
Cadmium

Nebraska Public Power District
Gerald Gentleman Station

Denver, Colorado, USA

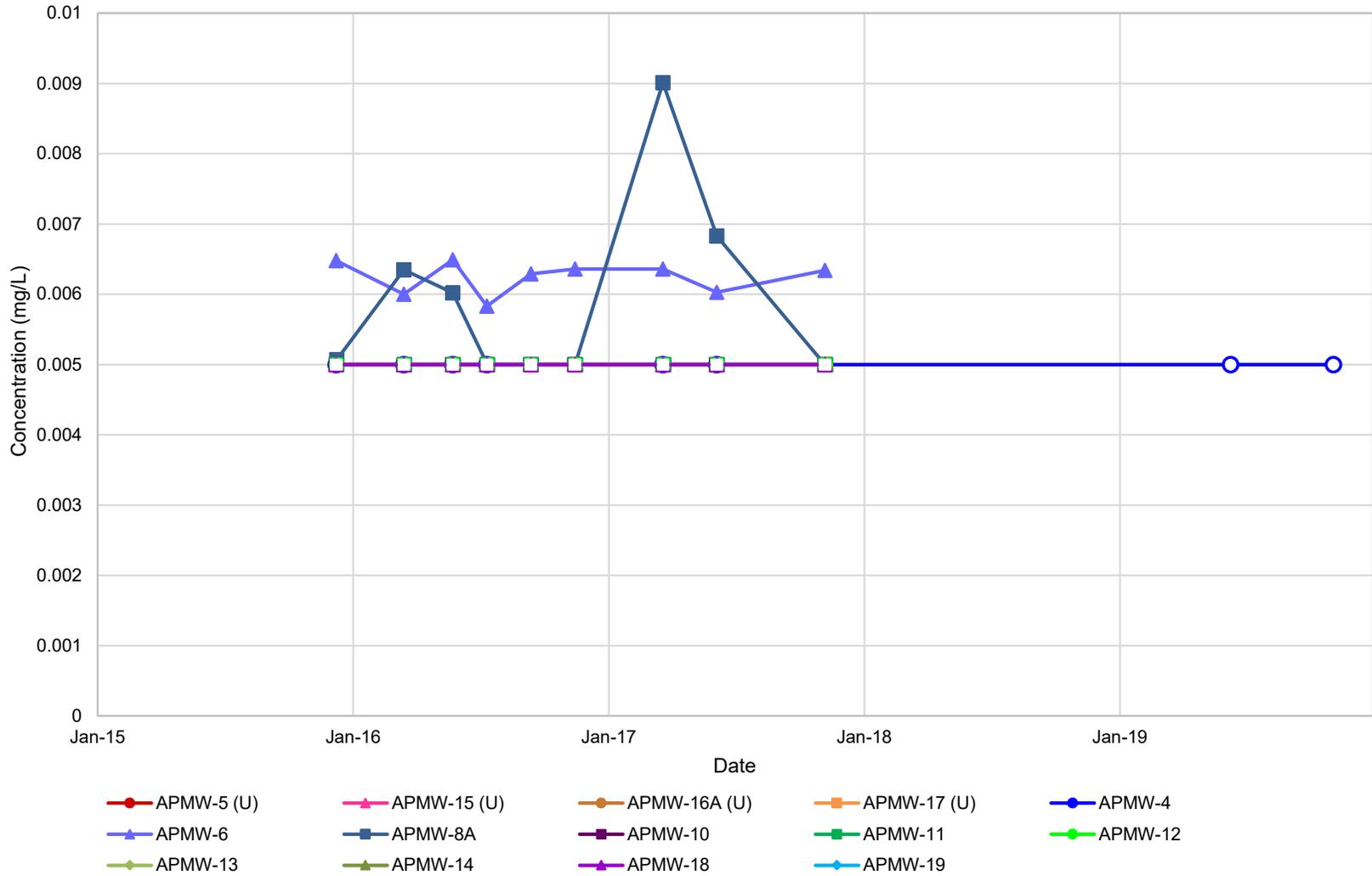


Figure A-14
Chromium

Nebraska Public Power District
Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

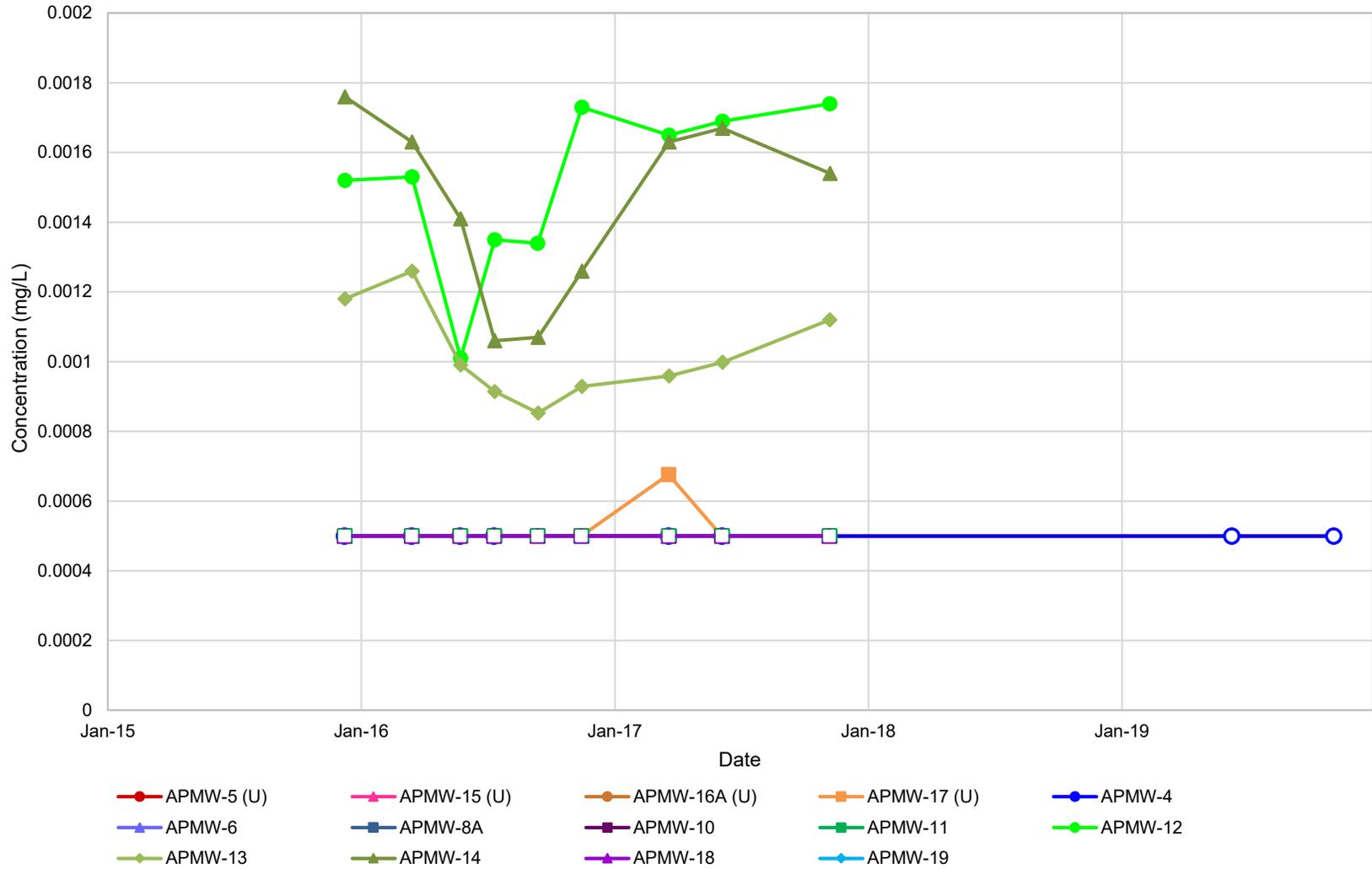


Figure A-15
Cobalt

Nebraska Public Power District
Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

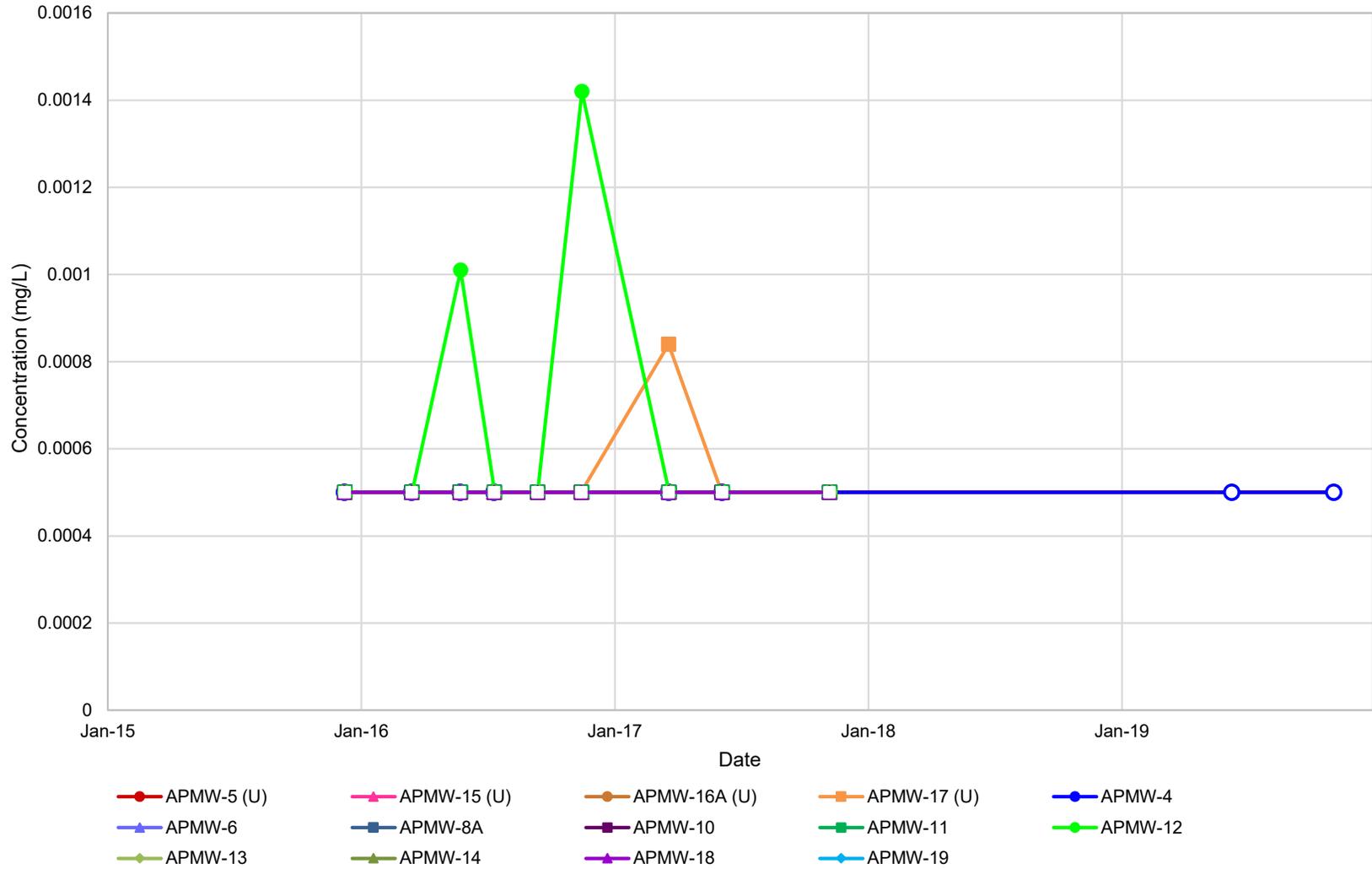


Figure A-16

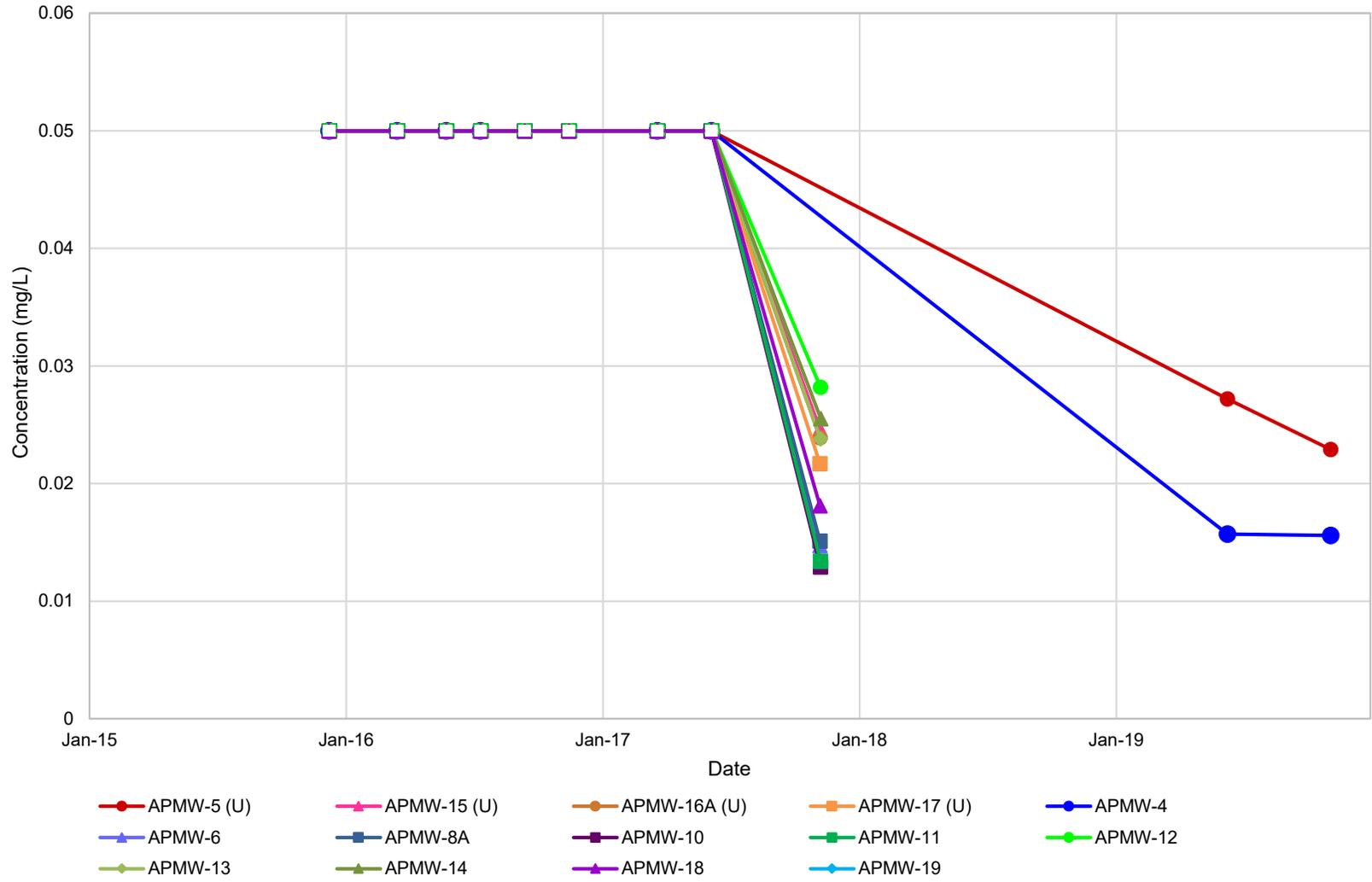
Lead

Nebraska Public Power District

Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA



**Figure A-17
Lithium**

Nebraska Public Power District
Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

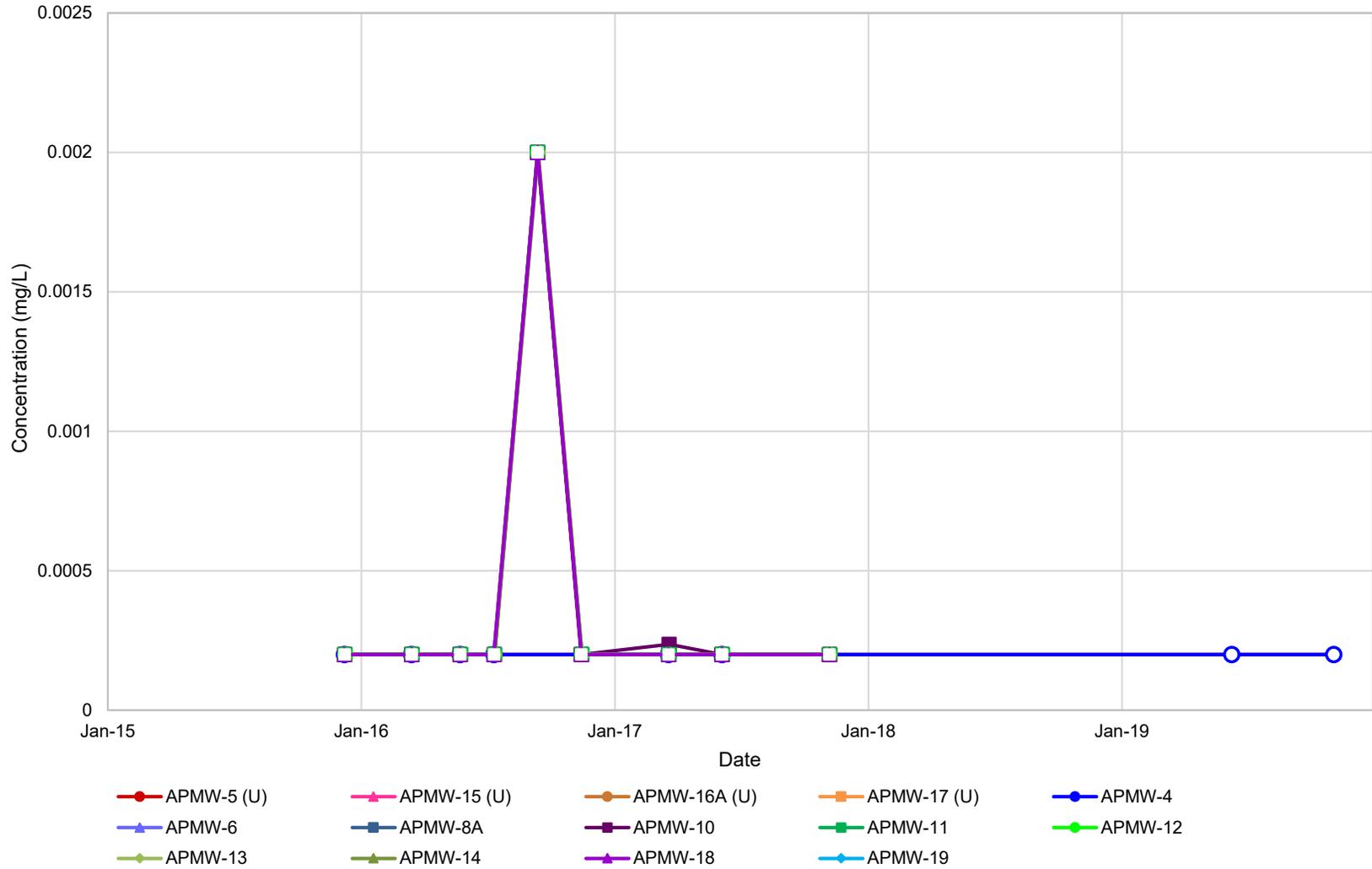


Figure A-18

Mercury

Nebraska Public Power District

Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

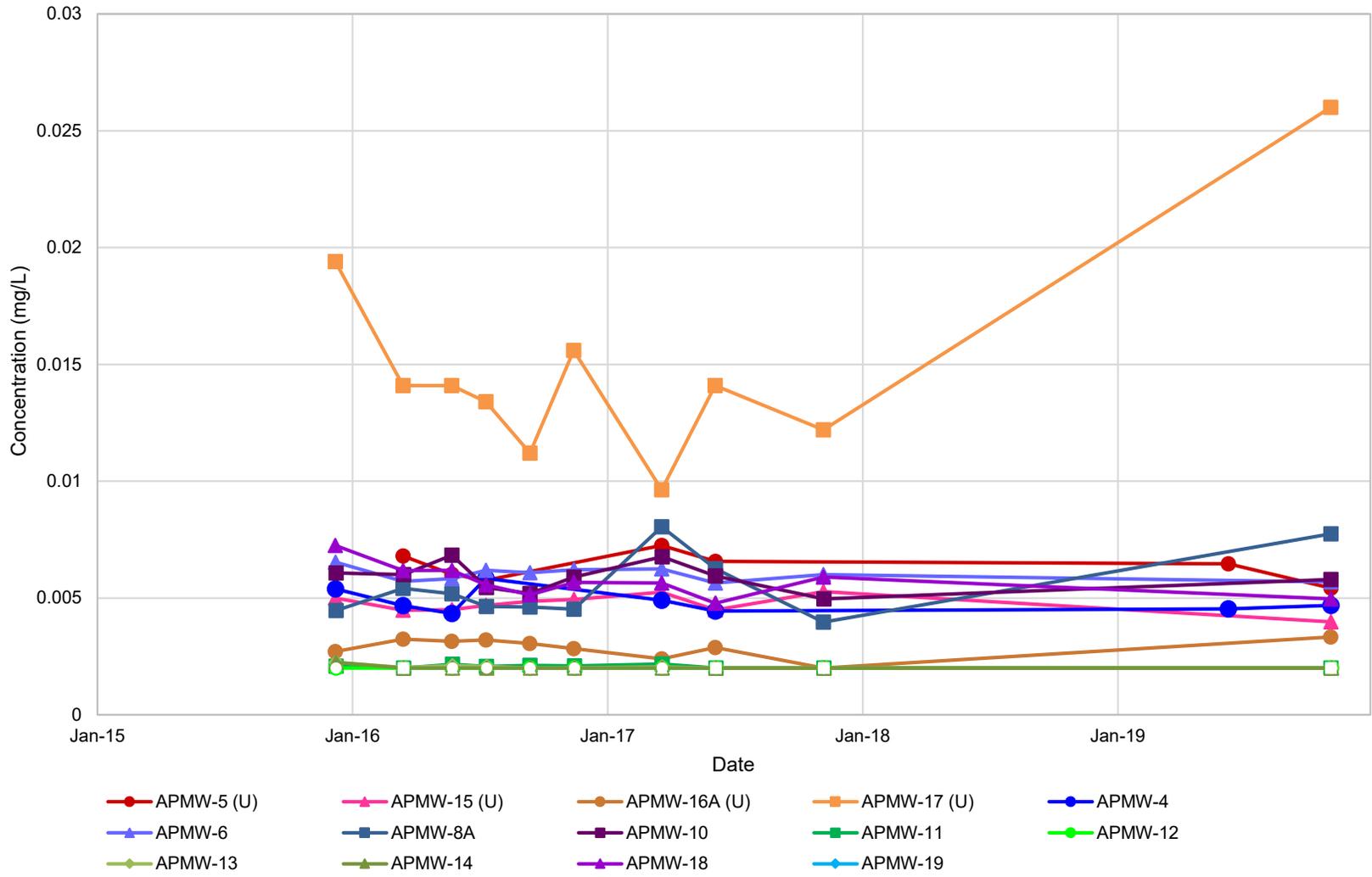


Figure A-19

Molybdenum

Nebraska Public Power District

Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

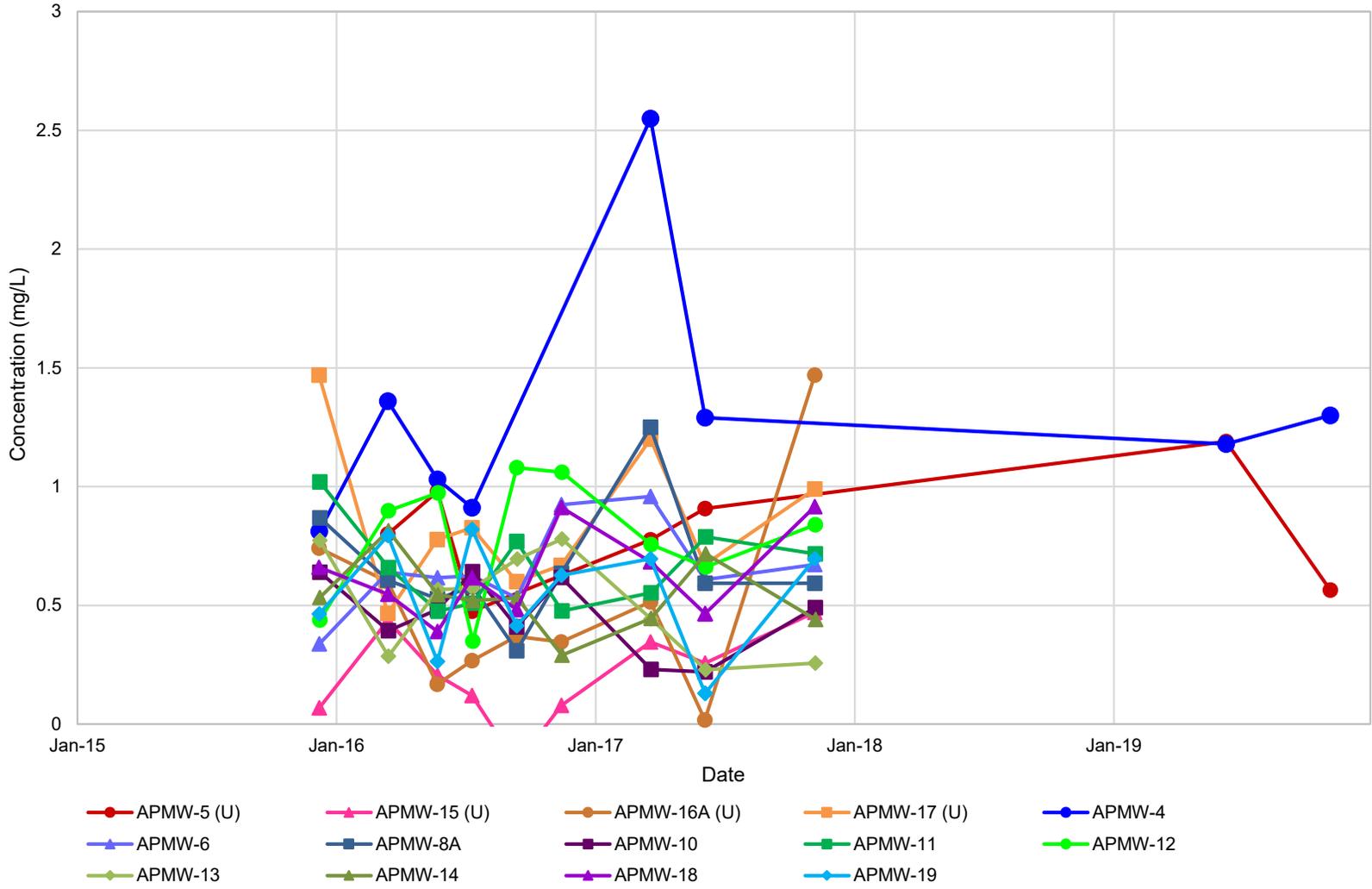


Figure A-20

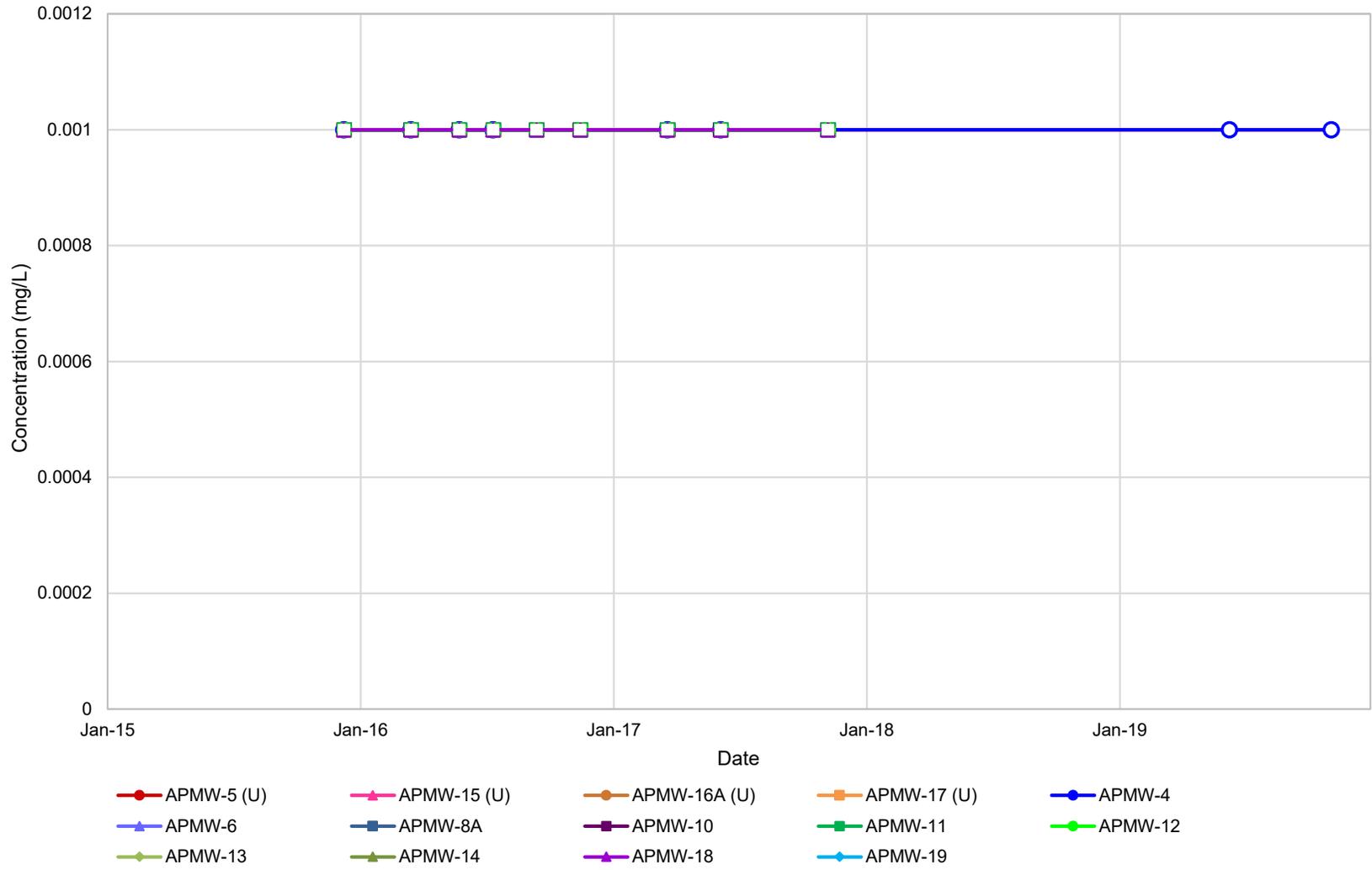
Radium, Total

Nebraska Public Power District

Gerald Gentleman Station

Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA



Non-detect values are plotted with an open symbol at the practical quantitation limit.

Denver, Colorado, USA

10/26/2022 31404512.000

Figure A-21
Thallium

Nebraska Public Power District
Gerald Gentleman Station

APPENDIX B

**Eurofins TestAmerica Laboratory
Report for Irrigation Water Samples**

ANALYTICAL REPORT

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

Laboratory Job ID: 310-237917-1
Client Project/Site: Irrigation Runoff

For:
Nebraska Public Power District
6089 S Hwy 25
Gerald Gentleman Station South
Sutherland, Nebraska 69165

Attn: Doug Harris



Authorized for release by:
8/24/2022 3:50:48 PM
Brian Graettinger, Lab Director
(319)595-2012
Brian.Graettinger@et.eurofinsus.com

Designee for
Shirley Thompson, Client Service Manager
(319)277-2401
Shirley.Thompson@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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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14



Table of Contents

Cover Page	1
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Detection Summary	5
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Definitions	8
QC Sample Results	9
QC Association	14
Chronicle	17
Certification Summary	18
Method Summary	19
Chain of Custody	20
Receipt Checklists	22

Case Narrative

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Job ID: 310-237917-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-237917-1

Comments

No additional comments.

Receipt

The samples were received on 8/12/2022 8:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -1.6° C.

HPLC/IC

Method 9056A: The following samples were diluted due to the nature of the sample matrix: Road Track (310-237917-1) and Pivot Bucket (310-237917-2). Elevated reporting limits (RLs) are provided.

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

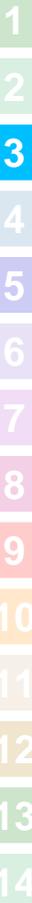
Metals

Method 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: Road Track (310-237917-1).

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: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-237917-1	Road Track	Water	08/11/22 11:00	08/12/22 08:35
310-237917-2	Pivot Bucket	Water	08/11/22 11:05	08/12/22 08:35

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

Detection Summary

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Client Sample ID: Road Track

Lab Sample ID: 310-237917-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	31.5		5.00		mg/L		5		9056A	Total/NA
Sulfate	61.7		5.00		mg/L		5		9056A	Total/NA
Barium	0.0228		0.00200		mg/L		1		6020A	Total/NA
Boron	0.166	*+	0.100		mg/L		1		6020A	Total/NA
Calcium	71.7		2.00		mg/L		4		6020A	Total/NA
Lithium	0.0464		0.0100		mg/L		1		6020A	Total/NA
Magnesium	16.8		2.00		mg/L		4		6020A	Total/NA
Potassium	8.28		0.500		mg/L		1		6020A	Total/NA
Sodium	28.2		1.00		mg/L		1		6020A	Total/NA
Total Kjeldahl Nitrogen	4.66		1.00		mg/L		1		351.2	Total/NA
Nitrate Nitrite as N	1.69		0.100		mg/L		1		353.2	Total/NA
Alkalinity as CaCO3 to pH 4.5	356		25.0		mg/L		1		SM 2320B	Total/NA
pH	8.1	HF	0.1		SU		1		SM 4500 H+ B	Total/NA

Client Sample ID: Pivot Bucket

Lab Sample ID: 310-237917-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	34.1		5.00		mg/L		5		9056A	Total/NA
Sulfate	82.8		5.00		mg/L		5		9056A	Total/NA
Barium	0.377		0.00200		mg/L		1		6020A	Total/NA
Calcium	156		0.500		mg/L		1		6020A	Total/NA
Cobalt	0.000798		0.000500		mg/L		1		6020A	Total/NA
Lithium	0.0108		0.0100		mg/L		1		6020A	Total/NA
Magnesium	45.0		0.500		mg/L		1		6020A	Total/NA
Molybdenum	0.00401		0.00200		mg/L		1		6020A	Total/NA
Potassium	8.65		0.500		mg/L		1		6020A	Total/NA
Sodium	86.7		1.00		mg/L		1		6020A	Total/NA
Ammonia as N	0.690		0.500		mg/L		1		350.1	Total/NA
Total Kjeldahl Nitrogen	3.74		1.00		mg/L		1		351.2	Total/NA
Nitrate Nitrite as N	3.89		0.100		mg/L		1		353.2	Total/NA
Alkalinity as CaCO3 to pH 4.5	209		10.0		mg/L		1		SM 2320B	Total/NA
pH	8.2	HF	0.1		SU		1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Client Sample ID: Road Track

Lab Sample ID: 310-237917-1

Date Collected: 08/11/22 11:00

Matrix: Water

Date Received: 08/12/22 08:35

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.5		5.00		mg/L			08/22/22 15:34	5
Fluoride	<0.500		0.500		mg/L			08/22/22 15:34	5
Sulfate	61.7		5.00		mg/L			08/22/22 15:34	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/16/22 08:30	08/18/22 17:47	1
Arsenic	<0.00200		0.00200		mg/L		08/16/22 08:30	08/18/22 17:47	1
Barium	0.0228		0.00200		mg/L		08/16/22 08:30	08/18/22 17:47	1
Beryllium	<0.00400		0.00400		mg/L		08/16/22 08:30	08/19/22 16:31	4
Boron	0.166	*+	0.100		mg/L		08/16/22 08:30	08/18/22 17:47	1
Cadmium	<0.000100		0.000100		mg/L		08/16/22 08:30	08/18/22 17:47	1
Calcium	71.7		2.00		mg/L		08/16/22 08:30	08/19/22 16:31	4
Chromium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/18/22 17:47	1
Cobalt	<0.000500		0.000500		mg/L		08/16/22 08:30	08/18/22 17:47	1
Lead	<0.000500		0.000500		mg/L		08/16/22 08:30	08/18/22 17:47	1
Lithium	0.0464		0.0100		mg/L		08/16/22 08:30	08/18/22 17:47	1
Magnesium	16.8		2.00		mg/L		08/16/22 08:30	08/19/22 16:31	4
Molybdenum	<0.00200		0.00200		mg/L		08/16/22 08:30	08/18/22 17:47	1
Potassium	8.28		0.500		mg/L		08/16/22 08:30	08/18/22 17:47	1
Selenium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/18/22 17:47	1
Sodium	28.2		1.00		mg/L		08/16/22 08:30	08/18/22 17:47	1
Thallium	<0.00100		0.00100		mg/L		08/16/22 08:30	08/18/22 17:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/22/22 14:34	08/23/22 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		08/18/22 09:51	08/18/22 20:31	1
Total Kjeldahl Nitrogen	4.66		1.00		mg/L		08/17/22 07:00	08/17/22 19:01	1
Nitrate Nitrite as N	1.69		0.100		mg/L			08/16/22 20:12	1
Alkalinity as CaCO3 to pH 4.5	356		25.0		mg/L			08/15/22 08:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1	HF	0.1		SU			08/12/22 15:15	1

Client Sample Results

Client: Nebraska Public Power District
 Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Client Sample ID: Pivot Bucket

Lab Sample ID: 310-237917-2

Date Collected: 08/11/22 11:05

Matrix: Water

Date Received: 08/12/22 08:35

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.1		5.00		mg/L			08/22/22 15:49	5
Fluoride	<0.500		0.500		mg/L			08/22/22 15:49	5
Sulfate	82.8		5.00		mg/L			08/22/22 15:49	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/16/22 08:30	08/18/22 18:03	1
Arsenic	<0.00200		0.00200		mg/L		08/16/22 08:30	08/18/22 18:03	1
Barium	0.377		0.00200		mg/L		08/16/22 08:30	08/18/22 18:03	1
Beryllium	<0.00100		0.00100		mg/L		08/16/22 08:30	08/19/22 16:34	1
Boron	<0.100	*+	0.100		mg/L		08/16/22 08:30	08/18/22 18:03	1
Cadmium	<0.000100		0.000100		mg/L		08/16/22 08:30	08/18/22 18:03	1
Calcium	156		0.500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Chromium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Cobalt	0.000798		0.000500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Lead	<0.000500		0.000500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Lithium	0.0108		0.0100		mg/L		08/16/22 08:30	08/18/22 18:03	1
Magnesium	45.0		0.500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Molybdenum	0.00401		0.00200		mg/L		08/16/22 08:30	08/18/22 18:03	1
Potassium	8.65		0.500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Selenium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/18/22 18:03	1
Sodium	86.7		1.00		mg/L		08/16/22 08:30	08/18/22 18:03	1
Thallium	<0.00100		0.00100		mg/L		08/16/22 08:30	08/18/22 18:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/22/22 14:38	08/23/22 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.690		0.500		mg/L		08/18/22 09:51	08/18/22 20:32	1
Total Kjeldahl Nitrogen	3.74		1.00		mg/L		08/17/22 07:00	08/17/22 19:02	1
Nitrate Nitrite as N	3.89		0.100		mg/L			08/16/22 20:13	1
Alkalinity as CaCO3 to pH 4.5	209		10.0		mg/L			08/15/22 08:30	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2	HF	0.1		SU			08/12/22 15:21	1

Definitions/Glossary

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-363601/3
Matrix: Water
Analysis Batch: 363601

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<1.00		1.00		mg/L			08/22/22 10:23	1
Fluoride	<0.100		0.100		mg/L			08/22/22 10:23	1
Sulfate	<1.00		1.00		mg/L			08/22/22 10:23	1

Lab Sample ID: LCS 310-363601/4
Matrix: Water
Analysis Batch: 363601

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	10.0	10.06		mg/L		101	90 - 110
Fluoride	2.00	2.035		mg/L		102	90 - 110
Sulfate	10.0	10.08		mg/L		101	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-362614/1-A
Matrix: Water
Analysis Batch: 362935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 362614

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		08/16/22 08:30	08/17/22 14:51	1
Arsenic	<0.00200		0.00200		mg/L		08/16/22 08:30	08/17/22 14:51	1
Barium	<0.00200		0.00200		mg/L		08/16/22 08:30	08/17/22 14:51	1
Beryllium	<0.00100		0.00100		mg/L		08/16/22 08:30	08/17/22 14:51	1
Boron	<0.100		0.100		mg/L		08/16/22 08:30	08/17/22 14:51	1
Cadmium	<0.000100		0.000100		mg/L		08/16/22 08:30	08/17/22 14:51	1
Calcium	<0.500		0.500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Chromium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Cobalt	<0.000500		0.000500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Lead	<0.000500		0.000500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Magnesium	<0.500		0.500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Molybdenum	<0.00200		0.00200		mg/L		08/16/22 08:30	08/17/22 14:51	1
Potassium	<0.500		0.500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Selenium	<0.00500		0.00500		mg/L		08/16/22 08:30	08/17/22 14:51	1
Sodium	<1.00		1.00		mg/L		08/16/22 08:30	08/17/22 14:51	1
Thallium	<0.00100		0.00100		mg/L		08/16/22 08:30	08/17/22 14:51	1

Lab Sample ID: MB 310-362614/1-A
Matrix: Water
Analysis Batch: 363247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 362614

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lithium	<0.0100		0.0100		mg/L		08/16/22 08:30	08/19/22 16:24	1

Lab Sample ID: LCS 310-362614/2-A
Matrix: Water
Analysis Batch: 362935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362614

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	0.200	0.2356		mg/L		118	80 - 120

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QC Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

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

Lab Sample ID: LCS 310-362614/2-A
Matrix: Water
Analysis Batch: 362935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362614

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Arsenic	0.200	0.2068		mg/L		103	80 - 120
Barium	0.100	0.1131		mg/L		113	80 - 120
Beryllium	0.100	0.1097		mg/L		110	80 - 120
Cadmium	0.100	0.1050		mg/L		105	80 - 120
Calcium	2.00	1.612		mg/L		81	80 - 120
Chromium	0.100	0.1047		mg/L		105	80 - 120
Cobalt	0.100	0.1036		mg/L		104	80 - 120
Lead	0.200	0.2116		mg/L		106	80 - 120
Magnesium	2.00	2.050		mg/L		102	80 - 120
Molybdenum	0.200	0.2236		mg/L		112	80 - 120
Potassium	2.00	2.059		mg/L		103	80 - 120
Selenium	0.400	0.3907		mg/L		98	80 - 120
Sodium	2.00	2.207		mg/L		110	80 - 120
Thallium	0.200	0.2293		mg/L		115	80 - 120

Lab Sample ID: LCS 310-362614/2-A
Matrix: Water
Analysis Batch: 363247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362614

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Lithium	0.200	0.2192		mg/L		110	80 - 120

Lab Sample ID: LCS 310-362614/2-A
Matrix: Water
Analysis Batch: 363273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362614

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Boron	0.200	0.2190		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-363323/1-A
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 363323

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000200		0.000200		mg/L		08/22/22 14:34	08/23/22 11:44	1

Lab Sample ID: LCS 310-363323/2-A
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 363323

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Mercury	0.00167	0.001689		mg/L		101	80 - 120

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QC Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

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

Lab Sample ID: MB 310-363324/1-A
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 363324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/22/22 14:38	08/23/22 12:44	1

Lab Sample ID: LCS 310-363324/2-A
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 363324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001697		mg/L		102	80 - 120

Lab Sample ID: 310-237917-2 MS
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Pivot Bucket
Prep Type: Total/NA
Prep Batch: 363324

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001664		mg/L		100	80 - 120

Lab Sample ID: 310-237917-2 MSD
Matrix: Water
Analysis Batch: 363477

Client Sample ID: Pivot Bucket
Prep Type: Total/NA
Prep Batch: 363324

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001669		mg/L		100	80 - 120	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-363012/1-A
Matrix: Water
Analysis Batch: 363102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 363012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		08/18/22 09:51	08/18/22 20:09	1

Lab Sample ID: LCS 310-363012/2-A
Matrix: Water
Analysis Batch: 363102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 363012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	4.056		mg/L		101	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 310-362810/1-A
Matrix: Water
Analysis Batch: 362944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 362810

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	<1.00		1.00		mg/L		08/17/22 07:00	08/17/22 18:34	1

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QC Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 310-362810/2-A
Matrix: Water
Analysis Batch: 362944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	4.01	4.054		mg/L		101	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 310-362793/43
Matrix: Water
Analysis Batch: 362793

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.100		0.100		mg/L			08/16/22 19:56	1

Lab Sample ID: LCS 310-362793/44
Matrix: Water
Analysis Batch: 362793

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	5.32	5.674		mg/L		107	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-362556/1
Matrix: Water
Analysis Batch: 362556

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/L			08/15/22 08:30	1

Lab Sample ID: LCS 310-362556/2
Matrix: Water
Analysis Batch: 362556

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity as CaCO3 to pH 4.5	1000	997.5		mg/L		100	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-362509/1
Matrix: Water
Analysis Batch: 362509

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: LCS 310-362509/25
Matrix: Water
Analysis Batch: 362509

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

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QC Sample Results

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 310-237917-1 DU

Matrix: Water

Analysis Batch: 362509

Client Sample ID: Road Track

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	8.1	HF	8.0		SU		0.5	20

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

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: Irrigation Runoff

Job ID: 310-237917-1

HPLC/IC

Analysis Batch: 363601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	9056A	
310-237917-2	Pivot Bucket	Total/NA	Water	9056A	
MB 310-363601/3	Method Blank	Total/NA	Water	9056A	
LCS 310-363601/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 362614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	3005A	
310-237917-2	Pivot Bucket	Total/NA	Water	3005A	
MB 310-362614/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-362614/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 362935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-362614/1-A	Method Blank	Total/NA	Water	6020A	362614
LCS 310-362614/2-A	Lab Control Sample	Total/NA	Water	6020A	362614

Analysis Batch: 363152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	6020A	362614
310-237917-2	Pivot Bucket	Total/NA	Water	6020A	362614

Analysis Batch: 363247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	6020A	362614
310-237917-2	Pivot Bucket	Total/NA	Water	6020A	362614
MB 310-362614/1-A	Method Blank	Total/NA	Water	6020A	362614
LCS 310-362614/2-A	Lab Control Sample	Total/NA	Water	6020A	362614

Analysis Batch: 363273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-362614/2-A	Lab Control Sample	Total/NA	Water	6020A	362614

Prep Batch: 363323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	7470A	
MB 310-363323/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-363323/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 363324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-2	Pivot Bucket	Total/NA	Water	7470A	
MB 310-363324/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-363324/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-237917-2 MS	Pivot Bucket	Total/NA	Water	7470A	
310-237917-2 MSD	Pivot Bucket	Total/NA	Water	7470A	

QC Association Summary

Client: Nebraska Public Power District
 Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Metals

Analysis Batch: 363477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	7470A	363323
310-237917-2	Pivot Bucket	Total/NA	Water	7470A	363324
MB 310-363323/1-A	Method Blank	Total/NA	Water	7470A	363323
MB 310-363324/1-A	Method Blank	Total/NA	Water	7470A	363324
LCS 310-363323/2-A	Lab Control Sample	Total/NA	Water	7470A	363323
LCS 310-363324/2-A	Lab Control Sample	Total/NA	Water	7470A	363324
310-237917-2 MS	Pivot Bucket	Total/NA	Water	7470A	363324
310-237917-2 MSD	Pivot Bucket	Total/NA	Water	7470A	363324

General Chemistry

Analysis Batch: 362509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	SM 4500 H+ B	
310-237917-2	Pivot Bucket	Total/NA	Water	SM 4500 H+ B	
LCS 310-362509/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-362509/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-237917-1 DU	Road Track	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 362556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	SM 2320B	
310-237917-2	Pivot Bucket	Total/NA	Water	SM 2320B	
MB 310-362556/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-362556/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 362793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	353.2	
310-237917-2	Pivot Bucket	Total/NA	Water	353.2	
MB 310-362793/43	Method Blank	Total/NA	Water	353.2	
LCS 310-362793/44	Lab Control Sample	Total/NA	Water	353.2	

Prep Batch: 362810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	351.2	
310-237917-2	Pivot Bucket	Total/NA	Water	351.2	
MB 310-362810/1-A	Method Blank	Total/NA	Water	351.2	
LCS 310-362810/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 362944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	351.2	362810
310-237917-2	Pivot Bucket	Total/NA	Water	351.2	362810
MB 310-362810/1-A	Method Blank	Total/NA	Water	351.2	362810
LCS 310-362810/2-A	Lab Control Sample	Total/NA	Water	351.2	362810

Prep Batch: 363012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	Distill/Ammonia	
310-237917-2	Pivot Bucket	Total/NA	Water	Distill/Ammonia	

Eurofins Cedar Falls

QC Association Summary

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

General Chemistry (Continued)

Prep Batch: 363012 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-363012/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-363012/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 363102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-237917-1	Road Track	Total/NA	Water	350.1	363012
310-237917-2	Pivot Bucket	Total/NA	Water	350.1	363012
MB 310-363012/1-A	Method Blank	Total/NA	Water	350.1	363012
LCS 310-363012/2-A	Lab Control Sample	Total/NA	Water	350.1	363012

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

Lab Chronicle

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Client Sample ID: Road Track

Lab Sample ID: 310-237917-1

Date Collected: 08/11/22 11:00

Matrix: Water

Date Received: 08/12/22 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	363601	DHM5	EET CF	08/22/22 15:34
Total/NA	Prep	3005A			362614	QTZ5	EET CF	08/16/22 08:30
Total/NA	Analysis	6020A		1	363152	A6US	EET CF	08/18/22 17:47
Total/NA	Prep	3005A			362614	QTZ5	EET CF	08/16/22 08:30
Total/NA	Analysis	6020A		4	363247	A6US	EET CF	08/19/22 16:31
Total/NA	Prep	7470A			363323	XXW3	EET CF	08/22/22 14:34
Total/NA	Analysis	7470A		1	363477	XXW3	EET CF	08/23/22 12:41
Total/NA	Prep	Distill/Ammonia			363012	ENB7	EET CF	08/18/22 09:51
Total/NA	Analysis	350.1		1	363102	ZJX4	EET CF	08/18/22 20:31
Total/NA	Prep	351.2			362810	W9YR	EET CF	08/17/22 07:00
Total/NA	Analysis	351.2		1	362944	ZJX4	EET CF	08/17/22 19:01
Total/NA	Analysis	353.2		1	362793	ZJX4	EET CF	08/16/22 20:12
Total/NA	Analysis	SM 2320B		1	362556	MAQ3	EET CF	08/15/22 08:30
Total/NA	Analysis	SM 4500 H+ B		1	362509	N7RT	EET CF	08/12/22 15:15

Client Sample ID: Pivot Bucket

Lab Sample ID: 310-237917-2

Date Collected: 08/11/22 11:05

Matrix: Water

Date Received: 08/12/22 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	363601	DHM5	EET CF	08/22/22 15:49
Total/NA	Prep	3005A			362614	QTZ5	EET CF	08/16/22 08:30
Total/NA	Analysis	6020A		1	363152	A6US	EET CF	08/18/22 18:03
Total/NA	Prep	3005A			362614	QTZ5	EET CF	08/16/22 08:30
Total/NA	Analysis	6020A		1	363247	A6US	EET CF	08/19/22 16:34
Total/NA	Prep	7470A			363324	XXW3	EET CF	08/22/22 14:38
Total/NA	Analysis	7470A		1	363477	XXW3	EET CF	08/23/22 12:48
Total/NA	Prep	Distill/Ammonia			363012	ENB7	EET CF	08/18/22 09:51
Total/NA	Analysis	350.1		1	363102	ZJX4	EET CF	08/18/22 20:32
Total/NA	Prep	351.2			362810	W9YR	EET CF	08/17/22 07:00
Total/NA	Analysis	351.2		1	362944	ZJX4	EET CF	08/17/22 19:02
Total/NA	Analysis	353.2		1	362793	ZJX4	EET CF	08/16/22 20:13
Total/NA	Analysis	SM 2320B		1	362556	MAQ3	EET CF	08/15/22 08:30
Total/NA	Analysis	SM 4500 H+ B		1	362509	N7RT	EET CF	08/12/22 15:21

Laboratory References:

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

Accreditation/Certification Summary

Client: Nebraska Public Power District
Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Laboratory: Eurofins 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	11-29-22
Iowa	State	007	12-01-21 *
Kansas	NELAP	E-10341	01-31-23
Minnesota	NELAP	019-999-319	12-31-22
Minnesota (Petrofund)	State	3349	01-18-24
North Dakota	State	R-186	09-29-22
Oregon	NELAP	IA100001	09-29-22

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

Method Summary

Client: Nebraska Public Power District
 Project/Site: Irrigation Runoff

Job ID: 310-237917-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020A	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	MCAWW	EET CF
351.2	Nitrogen, Total Kjeldahl	MCAWW	EET CF
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	MCAWW	EET CF
7470A	Preparation, Mercury	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

Protocol References:

- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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





Environment Testing
America



Cooler/Sample Receipt and Temperature Log Form

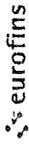
Client Information			
Client: <i>Nebraska Public Power</i>			
City/State:	CITY <i>Sutherland</i>	STATE <i>NE</i>	Project:
Receipt Information			
Date/Time Received:	DATE <i>8-12-22</i>	TIME <i>835</i>	Received By: <i>[Signature]</i>
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> 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: _____
Multiple Coolers?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
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: <i>P</i>		Correction Factor (°C): <i>0</i>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <i>-1.6</i>		Corrected Temp (°C): <i>-1.6</i>	
• 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			



Eurofins Cedar Falls

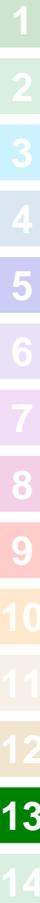
3019 Venture Way
 Cedar Falls IA 50613
 Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: Doug Harris		Lab PM: Hayes, Shawn M		Carrier Tracking No(s):		COC No:	
Client Contact: Doug Harris		Phone: 308-530-1124		E-Mail: Shawn Hayes@eurofins.com		State of Origin:		Page: Page 1 of 1	
Company: Nebraska Public Power District		Address: 6089 S Hwy 25 Gerald Gentleman Station		City: Sutherland		State: NE		Zip: 69165	
Phone: 308-530-1124		Email: ddhari@nppd.com		Project Name: Irrigation Runoff		Site: GGS		Due Date Requested:	
TAT Requested (days):		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #: 4500245807		WO #: 31007155		SSOW#:	
Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (Water, Soil, On-surface, Air)		Field Filled Sample (Yes or No)	
8-11-22		1100		G		Water		X	
8-11-22		1105		G		Water		X	
Road Track		Pivot Bucket		sample bottles only partially filled due to lack of sample - please do what we can		Doug		S	
Perform MS/MSD (Yes or No)		S		D		N		X	
350 1 Ammonia, 351 2 TKN, 353 2 Nitrate+Nitrite		6020A, 7470A Select Metals		SM4500 H+ pH		2320B Alkalinity, 9056A Chloride, Fluoride, Sulfate,		Total Number of containers	
Special Instructions/Note		Analysis Requested		Preservation Codes		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other		M - Hexane N - None O - AshtO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - 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		Archive For		Months	
Possible Hazard Identification		<input checked="" type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B	
Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by		Date		Method of Shipment		Special Instructions/QC Requirements	
Relinquished by: Doug Harris		Date/Time: 8-11-22 1400		Company: NPPD		Received by: MC		Date/Time: 8-12-22 835	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					



Login Sample Receipt Checklist

Client: Nebraska Public Power District

Job Number: 310-237917-1

Login Number: 237917

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

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	

wsp **GOLDER**

golder.com



REPORT

Alternate Source Demonstration

Nebraska Public Power District

Submitted to:

Nebraska Public Power District

Gerald Gentleman Station, 6089 South Highway 25, Sutherland, Nebraska 69165

Submitted by:

Golder Associates Inc.

7245 W Alaska Drive, Suite 200, Lakewood, Colorado, USA 80226

+1 303 980-0540

20140070

April 22, 2020



Distribution List

Nebraska Public Power District

Golder Associates, Inc.

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FIGURES

Figure 1: Site Map with Groundwater Contours- November 2019

Figure 2: Groundwater Monitoring Well Water Levels

Figure 3: Piper Diagram of Groundwater and Potential Calcium and Sulfate Sources

Figure 4: Box and Whisker Plot of Calcium Concentrations

Figure 5: Box and Whisker Plot of Sulfate Concentrations

Figure 6: Ternary Diagram of Groundwater and Potential Calcium and Sulfate Sources

Figure 7: Conceptual Site Model

APPENDICES

APPENDIX A

Historical Concentrations of Appendix III and Selected Appendix IV Analytes

1.0 INTRODUCTION

On behalf of Nebraska Public Power District (NPPD), Golder Associates Inc. (Golder) performed a statistical evaluation of groundwater quality from the fourth quarter groundwater detection monitoring event of 2019 (Q4 2019) at the Gerald Gentleman Station (GGS or Site) ash landfill (or CCR Unit), located at 6089 South Highway 25, Sutherland, Lincoln County, Nebraska (Figure 1). The statistical evaluation was performed in accordance with applicable provisions of 40 Code of Federal Regulations (CFR) Part 257, "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities; Final Rule" (CCR Final Rule), as amended, and corresponding regulations under Nebraska Administrative Code (NAC) Title 132, Chapter 7 (Integrated Solid Waste Management Regulations, Groundwater Monitoring and Remedial Action).

Statistical analyses of the Appendix III detection monitoring data for calcium and sulfate in groundwater at the downgradient monitoring well APMW-19 indicated a potential exceedances of the statistical limit based on the parametric Cumulative Sum analysis (CUSUM) in the Q2 2019 sampling results, which was subsequently verified as evidence of statistically-significant increases (SSIs) after the Q4 2019 event. Although determination of an SSI generally indicates that the groundwater monitoring program should transition from detection monitoring to assessment monitoring, 40 CFR §257.94(e)(2) allows the owner or operator (i.e., NPPD) 90 days from the date of determination (January 25, 2020) to demonstrate a source other than the CCR unit, or another condition, caused the potential SSIs for calcium and sulfate at APMW-19.

Golder's review of the hydrological and geologic conditions at the Site indicated the potential for the SSIs to have resulted from a source other than the CCR unit. To assess potential calcium and sulfate sources and the natural variability of calcium and sulfate concentrations in groundwater, Golder reviewed analytical results of previously collected CCR-impacted water samples from the ash landfills, surface water from the Sutherland Reservoir, and groundwater samples. Based upon this assessment and in accordance with provisions of the CCR Final Rule, Golder prepared this Alternative Source Demonstration (ASD) for the CCR unit. This ASD includes an evaluation of geological, hydrogeological, and chemical information regarding ash, surface water, and groundwater obtained from surface waters and monitoring wells installed within and adjacent to the CCR Unit.

This ASD conforms to the requirements of 40 CFR §257.94(e)(2) and provides the basis for concluding that the apparent SSIs for calcium and sulfate in groundwater at APMW-19 are not a result of a release from the CCR Unit. The following sections provide a summary of the GGS CCR Unit, analytical and geochemical assessment results, a Conceptual Site Model, and lines of evidence demonstrating an alternative source is responsible for the calcium and sulfate SSIs in groundwater at APMW-19.

2.0 BACKGROUND

2.1 Description of Waste Disposal Area

The ash landfill at GGS is located southwest of the plant's generation facility, in the northern one-half of Section 30, Township 13N, Range 33W. The ash disposal facility consists of Ash Landfill Nos. 1, 2, 3, and 4 and the bottom ash landfill. Ash Landfill Nos. 1 and 2 are closed, and Ash Landfill Nos. 3 and 4 are active (Figure 1). The bottom ash landfill was closed in October 2018.

Fly ash is currently disposed at Ash Landfill No. 4 and in the east cell of Ash Landfill No. 3. The liner design at Ash Landfill No. 4 consists of a 60-mil high density polyethylene (HDPE) geomembrane over compacted subgrade. Prior to geomembrane installation, the existing subgrade was scored to a depth of at least 6 inches and compacted to 95 percent of its maximum dry density (standard Proctor). Smooth HDPE geomembrane was placed on the bottom

of the ash landfill and textured HDPE geomembrane was placed on the side slopes. Construction quality assurance (CQA) for the geomembrane installation was performed by Golder Construction Services and completed on November 15, 1994. There is no leachate collection system (LCS) at Ash Landfill No. 4.

The original liner at Ash Landfill No. 3 consisted of 2 feet of soil compacted to 95 percent of the standard Proctor maximum dry density. The average permeability of the liner was 1.2×10^{-8} cm/sec. Ash Landfill No. 3 was previously closed in 1995 with 2.0 to 7.5 feet of soil cover. This cover was removed and the historically placed CCR was covered with a new liner in 2015. The new liner system at Ash Landfill No. 3 consists of a prepared subgrade overlain by a geosynthetic clay liner (GCL) and 60-mil linear low-density polyethylene (LLDPE) geomembrane. Ash Landfill No. 3 also has a 1-foot LCS sand layer that reports to two sumps. Construction of the new Ash Landfill No. 3 liner system was completed in November 2015.

To the east of the ash landfills, plant process water, such as boiler blowdown, is managed in a 50-acre evaporation pond, as shown in Figure 1. The bottom of the approximately 8 to 10 foot (ft) deep evaporation pond consists of re-compacted native soils.

2.2 Site Geology

The geologic sequence near the ash landfill was summarized by Woodward-Clyde in 1991. In the report, soil boring data from nine boreholes (APMW-1, APMW-2, APMW-3, APMW-4, APMW-5, EPMW-1, EPMW-2, EPMW-3, and EPMW-4) were used to characterize the Site geology. The geologic sequence, from top to bottom, was described as follows:

- 4 to 5 feet of topsoil and/or fill
- 20 to 35 feet of eolian silty sands
- 8 to 10 feet of silty clay paleosol at the top of the Ogallala Formation
- 25 to 35 feet of Ogallala Formation silts
- Approximately 50 feet of Ogallala Formation sands or Ogallala Formation silts and clays, to the bottoms of the boreholes

The topsoil layer consists of stiff, dark brown, low to medium plasticity silty clay directly overlying the eolian silts and sands. Thickness of topsoil ranges from 0 to 4 feet. The fill material consists of stiff, dark brown, low plasticity sandy silty clay with trace gravel and other debris. Fill thickness ranges from 0 to 5 feet.

The eolian silts and sands (Quaternary Period) consist of loose to medium dense, tan, very fine-grained, well-rounded, and well-sorted sandy silts and silty sands. The thickness of this unit ranges from 17 feet (APMW-5) to 34 feet (EPMW-2). Materials with a bimodal texture (two distinct grain sizes) are present in the lower part of this unit. The eolian silts and sands are interpreted as wind-blown dune sand deposits.

The Ogallala Formation (Tertiary Period) was encountered in each of the nine boreholes at a depth beginning at 16 to 38 feet bgs and extending to the bottom of the boreholes (109 to 133 feet bgs). The Ogallala Formation near the ash landfill may be separated into three general stratigraphic units:

- Upper silty clay paleosol unit
- Middle clayey or sandy silt unit
- Lower unit of either predominantly sand and gravel or an equivalent unit of predominantly silt and clay

The top of the Ogallala Formation is represented by a widespread paleosol (a previous soil horizon) that consists of a very stiff, reddish-brown to buff, low plasticity, silty clay to clayey silt with abundant calcareous nodules, calcareous matrix, and interbedded layers of caliche up to one foot thick. The thickness of the initial paleosol is about 8 to 10 feet, but the presence of interbedded caliche layers continues into the middle and lower Ogallala units.

The middle Ogallala Formation unit consists of a stiff to very stiff, buff-white to reddish-brown, low plasticity, clayey silt to sandy silt with abundant calcareous nodules, matrix, and caliche layers. Scattered occurrences of calcareously cemented siltstone layers from ½ to 1 foot thick are present in the lower part of this unit. The thickness of this middle unit ranges from about 25 to 35 feet. The clayey silts and sandy silts of this unit were possibly deposited as overbank or floodplain deposits in an alluvial depositional system.

There are two distinct lithofacies recognized in the lower Ogallala Formation unit. This unit is present for about 45 to 50 feet in the borings. One lithofacies consists of dense to very dense, reddish-brown, fine-grained silty sands grading into medium- and coarse-grained, poorly-graded sands with some fine gravels and some calcareously cemented sandstone beds (½ to 1 foot thick). This lithofacies was primarily encountered in borings on the northern side of the ash landfill (APMW-1, APMW-2, APMW-5, and EPMW-1).

The second lithofacies recognized in the lower unit consists of stiff to hard, reddish-brown, low plasticity clayey or sandy silts with some calcareously-cemented siltstone beds. This lithofacies was encountered in borings on the southern side of the ash landfill (APMW-3, APMW-4, EPMW-2, EPMW-3, and EPMW-4).

The lithologic differences and areal distribution of the two lower units suggest that the units were deposited in two separate facies of an alluvial system. The sand and gravel unit is possibly a series of longitudinal bars, channels, and channel-fill deposits, while the silt and clay unit is possibly a series of upper channel fills, overbank, or floodplain deposits (Woodward-Clyde 1991).

2.3 Site Hydrogeology

Based on observations made during logging of soil borings and findings of the Nebraska Water Survey Paper No. 70 (Goeke et al. 1992), the unsaturated geologic units underlying the ash landfill area consist of topsoil (0 to 4 feet thick), eolian silts and sands (15 to 25 feet thick), Ogallala Formation silts (40 to 50 feet thick), and Ogallala Formation sands and gravels (unsaturated portion of this unit is approximately 20 to 25 feet thick). Beneath these units lies 10 feet or more of saturated Ogallala Formation sands and gravels. Based on the Site observations, the thickness of the vadose zone ranges from approximately 90 to 100 ft.

The saturated geologic units underlying the ash landfill area consist of Ogallala Formation silts and sands that extend to the bottom of the aquifer. The Ogallala Formation is underlain by the White River Group, which is composed of the Brule and Chadron formations. The bedrock formations of the White River Group are not considered to be an important potential source of water, and therefore their surface is considered to form the base of the aquifer and is regarded as the lower drilling limit for irrigation wells in the agricultural region near the Site. Underlying the White River Group is the impermeable Pierre Shale (Goeke et al. 1992).

Available groundwater elevation data indicate that groundwater beneath GGS flows from north to south (Figure 1). The groundwater gradient is controlled by the Sutherland Reservoir, an approximately 3,200-acre open water body located 1.5 miles north of the ash landfill that is used as a source of condenser cooling water for GGS. Since groundwater level monitoring began in 1996, regular water level fluctuations have been observed in the monitoring wells located around the ash landfill. These fluctuations are attributed to seasonal trends in water consumption or recharge and precipitation patterns. In Figure 2, which shows a time-series plot of historical water

levels in each monitoring well, it is also apparent that long-term changes in water levels have occurred between 1996 and 2019. In general, water levels rose by approximately 1.5 feet between 1996 and 2000, before declining by between 9 to 10 feet between 2000 and 2009. The cause of the decline is not clear, but possible explanations include a regional response to the drought being experienced by parts of the western United States and/or a change in the amount of groundwater used for irrigation in the area around the Site. Between 2009 and 2019 water levels have continued to show seasonal variability, with seasonal maximums occurring in the spring and seasonal minimums occurring in the fall, but there is no apparent long-term increasing or decreasing trend.

2.4 Groundwater Monitoring Network

Design of the CCR Final Rule-compliant ash landfill monitoring program considered the size, disposal and operational history, anticipated groundwater flow direction, and saturated thickness of the uppermost aquifer. Based on these factors, a monitoring well network that consists of four background monitoring wells and ten downgradient monitoring wells was installed around the ash landfill. The monitoring wells are listed in Table 1 and presented in Figure 1.

Table 1: Monitoring Well Network

Location	Background Monitoring Wells	Downgradient Monitoring Wells
Ash Landfill	APMW-5, APMW-15, APMW-16A, APMW-17	APMW-4, APMW-6, APMW-8A, APMW-10, APMW-11, APMW-12, APMW-13, APMW-14, APMW-18, APMW-19

The four upgradient monitoring wells included in the groundwater monitoring program are used to represent the background groundwater quality, including its potential variability. The ten downgradient wells were installed along the western, southern, and eastern boundaries of the active ash landfill. The depths of the monitoring wells were selected such that the monitoring wells are screened in the Ogallala Formation to yield groundwater samples that are representative of water quality in the uppermost water-bearing zone.

2.5 Groundwater Conditions

Between December 2015 and June 2017, NPPD collected eight quarterly independent baseline groundwater samples from each of the background and downgradient monitoring wells listed in Table 1, as required by 40 CFR §257.94. The results of the baseline monitoring phase were used to develop appropriate and statistically valid baseline values for each constituent at each monitoring well (Golder 2017).

Following completion of the eight baseline monitoring events, NPPD started collecting groundwater samples on a semiannual basis in November 2017 to support the detection monitoring program. Groundwater samples for detection monitoring were collected at all four background and ten downgradient monitoring wells and analyzed for 40 CFR Part 257 Appendix III constituents. During the detection monitoring program, the results of groundwater analysis are compared to the calculated prediction limits to determine whether groundwater quality remains consistent, or if changes are considered statistically significant increases (SSI).

2.5.1 Calcium Concentrations

During the baseline monitoring period, calcium concentrations were variable in the upgradient and downgradient groundwater, as shown in Appendix A, Figure A2. Calcium concentrations in upgradient groundwater (based on 30 samples from four wells) ranged from 54.6 to 168 mg/L between December 2015 and June 2017.

Downgradient groundwater quality was also variable (based on 78 samples from 10 wells), with calcium concentrations ranging from 49.6 to 179 mg/L.

Calcium concentrations in groundwater at APMW-19 remained relatively steady compared to other downgradient wells during the baseline monitoring period, with values ranging between 54.9 and 90.9 mg/L in the eight samples collected. A concentration of 104.4 mg/L was calculated as the statistical limit for calcium at this monitoring well.

The Q2 2019 detection monitoring event reported a calcium concentration of 113 mg/L in groundwater at APMW-19 and the parametric CUSUM value (115.8 mg/L) exceeded the calculated statistical limit of 104.4 mg/L. Verification sampling was completed in November 2019 (i.e., Q4 2019) and although the sample result was below the statistical limit at 102 mg/L, a confirmed SSI for calcium at APMW-19 was identified based on the CUSUM value of 122.7 mg/L.

2.5.2 Sulfate Concentrations

Sulfate concentrations in the upgradient and downgradient groundwater are shown in Appendix A, Figure A7. Sulfate concentrations in upgradient groundwater (based on 30 samples from four wells) ranged from 32.4 to 237 mg/L between December 2015 and June 2017. Sulfate concentrations varied between 20.2 to 328 mg/L in downgradient groundwater wells (based on 78 samples from 10 wells).

Sulfate concentrations in groundwater at APMW-19 remained relatively steady compared to other downgradient wells during the baseline monitoring period, with values ranging between 38.1 and 86.6 mg/L in the eight samples collected. A concentration of 135.4 mg/L was calculated as the statistical limit for sulfate at this monitoring well.

The Q2 2019 detection monitoring event reported a sulfate concentration of 135.0 mg/L in groundwater at APMW-19 and the parametric CUSUM value exceeded the calculated statistical limit of 135.6 mg/L. Verification sampling was completed in Q4 2019 and although the results were below the statistical limit at 130.0 mg/L, a confirmed SSI for sulfate at APMW-19 was identified based on the CUSUM value of 199.2 mg/L.

2.6 Review of Sampling and Laboratory Testing Procedures

As part of the ASD, a review was conducted of the sampling and laboratory testing procedures used throughout baseline monitoring and detection monitoring to date, along with the collected results. Golder found that the analytical methodologies used were consistent with the stated objectives of the sampling program. No anomalies were found within the sampling and laboratory testing procedures and the collected results are considered valid.

Additionally, a review of the statistical assessment methods and associated results found the procedures followed during baseline and detection monitoring to be consistent with the stated procedures listed in the published Groundwater Monitoring Statistical Methods Certification (Golder 2017). Calculated limits were found to be consistent with the chosen statistical procedures and recommended methodology found within the Unified Guidance (EPA 2009).

3.0 DATA SOURCES USED IN ALTERNATE SOURCE REVIEW

To assess groundwater downgradient of the GGS CCR facilities, Golder reviewed previously collected data and performed supplemental assessment activities. The following sections summarize the supplemental assessment activities.

3.1 Groundwater

3.1.1 Baseline Monitoring Data

As part of the baseline monitoring, NPPD GGS field personnel collected groundwater samples from the 14 GGS monitoring wells listed in Table 1. Between December 2015 and June 2017, quarterly samples were collected to establish background concentrations for Appendix III and Appendix IV constituents. After June 2017, groundwater samples were collected twice a year (Q2 and Q4) and analyzed for Appendix III constituents as part of the ongoing detection monitoring program at NPPD GGS.

For baseline monitoring groundwater samples collected in Q4 2019, an expanded analyte list was collected, including field parameters, major cations, major anions, and select dissolved metals (Section 3.5).

3.1.2 Supplemental Groundwater Samples

In February (Q1) 2019, an additional set of groundwater samples were collected from eight of the 14 wells listed in Table 1 (APMW-5, APMW-17, APMW-4, APMW-8A, APMW-18, APMW-19, APMW-12, and APMW-14) to support advanced geochemical modeling. These samples were analyzed for field parameters, major cations, major anions, and select dissolved metals.

3.2 Evaporation Pond

While collecting the supplemental groundwater samples in Q1 2019, a surface water sample was also collected from the Evaporation Pond. The sample was analyzed for the same suite of parameters as the groundwater: field parameters, major cations, major anions, and select dissolved metals.

3.3 Ash Impacted Water

To characterize the potential for the material in the ash landfill to release calcium and sulfate, NPPD GGS field personnel retrieved sump water from Ash Landfill No. 3 and pond water in direct contact with CCR materials in Ash Landfill No.4 on October 28th, 2019. The sample was analyzed for the same suite of parameters as the groundwater: field parameters, major cations, major anions, and select dissolved metals.

3.4 Surface Water

Surface water samples were collected from the Sutherland Reservoir and Sutherland Canal on October 28th, 2019, to access the source of regional groundwater at the Site. These samples were analyzed for the same suite of parameters as the groundwater: field parameters, major cations, major anions, and select dissolved metals.

3.5 Geochemical Methods

The geochemical analysis of groundwater and surface water samples included fluid parameters, major cations and anions, and dissolved metals. The methods selected for these analyses are summarized below.

Field Parameters: Parameters measured in the field using a handheld meter included pH, conductivity, and temperature. The pH of each sample was also measured in the laboratory.

Major Cations and Anions: Geochemical modeling of mineral solubility, metal attenuation and background contributions required analysis of major cations and anions because they affect and participate in sorption and mineral dissolution/precipitation reactions. Major anions included chloride, sulfate, and bicarbonate and major cations included calcium, magnesium, potassium, and sodium.

Metals: Metals analyses (i.e., Appendix III and IV) are important to understand the geochemical properties of groundwater. For groundwater, metals analysis allows for the delineation of a potential plume, and identification of background contributions from natural sources or off-site locations.

The laboratory analyzed the ash landfill water, groundwater, and surface water samples using the following methods:

- Alkalinity following Standard Method (SM) 2320B Alkalinity by Titration (2005)
- Chloride, fluoride, and sulfate following USEPA SW846 9056A Determination of Inorganic Anions by Ion Chromatography Revision 1 (February 2007)
- pH following SM 4500 H+ B (2017)
- Arsenic, boron, barium, calcium, magnesium, molybdenum, potassium, selenium, and sodium following USEPA SW-846 6020A (November 2004)
- Ammonia following USEPA 350.1 Determination of Ammonia Nitrogen by Automated Colorimetry, Revision 2 (August 1993)
- Total Kjeldahl nitrogen following USEPA 351.2 Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry, Revision 2 (August 1993)
- Total nitrate-nitrite nitrogen following USEPA 353.2 Determination of Nitrate-Nitrite Nitrogen by Automated Colorimetry, Revision 2 (August 1993)
- Fluoride following SM 4500-F-C (2017)
- Dissolved silica following SM4500-SiO₂-C Silica, Molybdosilicate Method (2017)

4.0 DATA EVALUATION

Historical concentrations of Appendix III analytes and selected Appendix IV analytes in groundwater at GGS, including analytes that are typically indicators of potential CCR seepage (e.g., arsenic, barium, molybdenum, and selenium), are presented in time series plots in Appendix A. The plots include the results of the supplemental samples that were collected in Q1 2019 to support the Q4 2018 ASD for fluoride at APMW-19 (Golder 2019). Sampling for the Appendix IV analytes concluded with the end of baseline monitoring in Q2 2017, which means there is a gap of six quarters in the data plots until the supplemental sampling results are shown in Q1 2019.

Figure 3 presents a Piper diagram with relative major ion chemistry for the monitoring well groundwater samples (Q1 2019 supplemental samples and Q4 2019 assessment monitoring samples), regional groundwater sources (Sutherland Reservoir, Sutherland Canal, and North and South Platte River), and coal ash impacted waters (Ash Landfill No. 3 sump water, Ash Landfill No. 4 surface pond water, fly ash SPLP leachate, and Evaporation Pond water). The groundwater at the upgradient monitoring wells was dominated by calcium and bicarbonate. Samples from the downgradient monitoring wells were also majority calcium and bicarbonate ions. The downgradient well APMW-12 was the only well where the major ion composition was dominated by calcium and sulfate. The Sutherland Reservoir and Canal water, along with the average North and South Platte River waters are generally dominated by calcium, sodium, bicarbonate and sulfate. The Ash Landfill No. 3 sump water sample was primarily sodium and bicarbonate, while the Ash Landfill No. 4 pond water was dominated by sodium and sulfate. The evaporation pond water also contained majority sodium and sulfate ions.

4.1 Potential Calcium and Sulfate Sources

Several potential sources, other than the active CCR units, can contribute calcium and sulfate to local groundwater at GGS, including outflows from the Sutherland Reservoir into regional groundwater, seepage from the Evaporation Pond, and seepage from historical deposits of fly ash that remain at GGS. These three potential sources of calcium to groundwater are described in this section.

4.1.1 Regional Groundwater from Sutherland Reservoir

As described in Section 2.3, the groundwater gradient in the area around the ash landfill shows groundwater flows from north to south, rather than from south to north in the direction of the Platte River. The groundwater flow direction appears to be based on both the groundwater recharge provided by the Sutherland Reservoir to the north of GGS and groundwater extraction by irrigation wells located south of GGS that are pumped seasonally and used to support local agriculture. The Sutherland Reservoir is fed by the Sutherland Canal, which delivers water from both the North and South Platte River for use as condenser cooling water at GGS.

4.1.1.1 Calcium

The USGS monitored South Platte River chemistry at Rosco, NE between 1975 and 2013 (USGS 2016a). The monitoring location at Rosco, NE is less than one mile downstream of where South Platte River water is diverted into the Sutherland Canal. Calcium concentrations in the South Platte River (n=59) ranged from 63 to 230 mg/L. The USGS also characterized North Platte River waters at Keystone, NE, immediately downstream of Lake Ogallala, where North Platte River water is diverted into the Sutherland Canal (USGS 2016b). The USGS measured calcium concentrations 26 times at Keystone, NE between 1972 and 2011, with values ranging from 50 to 67 mg/L.

Calcium concentrations of 47.5 and 48.9 mg/L were measured in Sutherland Reservoir and Sutherland Canal surface water samples collected by NPPD in October 2019, respectively (Section 3.2). Seven water samples were also collected from the center of the Sutherland Reservoir by the USGS between August 2005 and December 2006, with calcium concentrations ranging from 41.2 to 49.6 mg/L (USGS 2016c and USGS 2016d). These calcium concentrations were similar to the concentrations observed in the North Platte River and lower than concentrations in the South Platte River.

Given the difference in the calcium concentrations in North and South Platte River waters, potentially variable flow rates of the two sources into the Sutherland Reservoir could have caused historical variability in calcium concentrations within the Sutherland Reservoir and the groundwater underneath the Site. Higher proportions of South Platte River water within the Sutherland Reservoir could lead to a groundwater quality with a calcium concentration sufficiently high enough to cause the elevated calcium concentrations measured at the upgradient monitoring wells at the Site and the calcium concentrations measured at downgradient monitoring wells APMW-8A and APMW-19. While the elevated calcium concentrations at APMW-19 were only observed during detection monitoring (113 mg/L in Q2 2019 and 102 mg/L in Q4 2019, which triggered the SSI), elevated concentrations at APMW-8A (71.6 mg/L to 133 mg/L) were observed during the baseline and detection monitoring periods.

Evidence of shifts in Sutherland Reservoir chemistry are apparent in groundwater immediately surrounding the Sutherland Reservoir. Between September 2005 and May 2007, the USGS collected 14 shallow groundwater samples from 12 wells less than 1 mile from the perimeter Sutherland Reservoir (USGS 2016e). The calcium concentrations in the shallow groundwater ranged from 59.6 to 129 mg/L, which were similar to the concentrations in groundwater at the four GGS upgradient monitoring wells (APMW-5, APMW-15, APMW-16A, and APMW-17). On the Piper diagram (Figure 3), the shallow groundwater samples appear to be a mixture of water from the North Platte River, South Platte River, and groundwater similar to the downgradient monitoring wells (i.e. APMW-4, APMW-8A,

APMW-10, APMW-11, APMW-12, APMW-13, APMW-14, APMW-18, APMW-19), which suggest that multiple shifts in the source to the Sutherland Reservoir may have occurred over time.

Figure 4 displays a box and whisker plot of the calcium concentrations in groundwater at wells in the monitoring well network and possible calcium sources at or near the Site. The distribution of data shows a large variability in calcium concentrations in groundwater at the background monitoring wells (APMW-5, APMW-15, APMW-16A, and APMW-17). This variability may reflect calcium concentration fluctuations that have occurred over time in the Sutherland Reservoir. The Piper diagram (Figure 3) also shows that groundwater samples at two of the background wells (APMW-15 and APMW-16A) had major ion ratios similar to the Sutherland Reservoir, providing further evidence of a natural shift in groundwater geochemistry.

4.1.1.2 Sulfate

The USGS collected 60 sulfate samples from the South Platte River at Rosco, NE between 1975 and 2013 (USGS 2016a). Sulfate concentrations in the South Platte River ranged from 208 to 930 mg/L. The USGS collected 26 sulfate samples from the North Platte River at Keystone, NE between 1972 and 2011 (USGS 2016b). Sulfate concentrations in the North Platte River ranged from 150 to 230 mg/L.

The sulfate concentrations of the Sutherland Reservoir and Sutherland Canal samples collected by NPPD field staff in October 2019 were 172 and 164 mg/L, respectively (Section 3.2). The seven Sutherland Reservoir samples the USGS collected between August 2005 and December 2006 had sulfate concentrations that ranged from 194 to 220 mg/L (USGS 2016c and USGS 2016d). Similar to calcium, the sulfate concentrations in the Sutherland Reservoir and Sutherland Canal were similar to concentrations observed in the North Platte River and lower than concentrations observed in the South Platte River.

Sulfate concentrations in the North Platte River, South Platte River, and Sutherland Reservoir were sufficiently high enough to be regarded as a source of the elevated concentrations measured in groundwater at the upgradient monitoring wells at the Site and the elevated concentrations measured in downgradient groundwater at APMW-8a and APMW-19. While the elevated sulfate concentrations at APMW-19 were only observed during detection monitoring (135.6 mg/L in Q2 2019 and 130 mg/L in Q4 2019, which triggered the SSI), elevated concentrations at APMW-8A (23.2 mg/L to 145 mg/L) were observed during the baseline and detection monitoring periods. The groundwater samples collected by the USGS immediately around the Sutherland Reservoir (less than 1 mile) also support the hypothesis that the reservoir is the source of the elevated sulfate concentrations at the Site (USGS 2016). These 14 shallow groundwater samples had sulfate concentrations of between 191 and 296 mg/L, which is similar to the 32.4 to 237 mg/L sulfate concentration range measured in groundwater at the GGS upgradient monitoring wells (APMW-5, APMW-15, APMW-16A, and APMW-17) between December 2015 and June 2017.

Figure 5 displays a box and whisker plot of the sulfate concentrations from the GGS monitoring well network and samples of possible sulfate sources at the Site. The plot indicates that groundwater containing elevated sulfate concentrations has been traveling across the Site, including past the background monitoring wells, and has only recently started reaching downgradient monitoring wells.

4.1.2 Evaporation Pond

Although the evaporation pond is located to the east of APMW-19, and side-gradient in terms of groundwater flow (i.e., seepage from the evaporation pond would be unlikely to be detected at monitoring well APMW-19), evaporation pond water quality is described in this section as it contains water related to GGS plant operations.

Groundwater quality at the three downgradient monitoring wells located around the evaporation pond (i.e., APMW-12, APMW-13, and APMW-14) indicates that process water discharged from the GGS plant and stored in the evaporation pond has migrated to groundwater. Historical monitoring results show that elevated concentrations of boron (Figure A1), chloride (Figure A4), sulfate (Figure A9), and TDS (Figure A10), which are elements that are typically associated with CCR, were detected in groundwater at the three monitoring wells closest to the evaporation pond compared to the background monitoring wells.

Based on the slight differences in water quality between the groundwater at the monitoring wells APMW-12, APMW-13 and APMW-14 and the evaporation pond, mixing between the evaporation pond water and the upgradient groundwater likely occurs and groundwater at the monitoring wells is not entirely composed of seepage from the evaporation pond. This mixing reaction is supported by the Piper diagram in Figure 3, which shows samples from monitoring wells APMW-12 and APMW-14 plot on a mixing line between the evaporation pond and background groundwater end-member data points.

During the Q1 2019 sampling, the calcium concentration in the evaporation pond water was 111 mg/L and the sulfate concentration was 436 mg/L. Based on the similarities in water quality between the evaporation pond and adjacent groundwater monitoring wells, the evaporation pond is considered a potential source of calcium and sulfate to groundwater at GGS. However, it is unlikely the evaporation pond influenced groundwater quality at APMW-19, which is side gradient to groundwater flow underneath the evaporation pond (Figure 1).

4.1.3 Historical Ash Landfills

Historical deposits of fly ash present at GGS in historic soil-lined Ash Landfills Nos. 1 and 2 may release soluble constituents to groundwater as the seepage generated by infiltrating precipitation interacts with the ash. While it was not feasible to collect a sample of seepage from Ash Landfills Nos. 1 and 2 directly, ash-impacted waters collected from Ash Landfill No. 3 sump and Ash Landfill No. 4 pond (Section 3.1) had calcium concentrations of 10.7 and 86.9 mg/L, respectively, which are lower than the calcium concentrations that triggered the SSI. These results indicate that the ash is unlikely to be contributing calcium to the groundwater.

Sulfate concentrations in the ash-impacted waters from Ash Landfills Nos. 3 and 4 (Section 3.1) were 1,270 and 1,810 mg/L, respectively. At these concentrations, ash impacted seepage have the potential to increased sulfate concentrations in downgradient wells.

A ternary plot comparing sodium, calcium, and sulfate (Figure 6) reveals that ash impacted waters have higher relative sodium abundances and lower relative calcium abundance compared to the upgradient and downgradient groundwater. If infiltrating precipitation was leaching calcium and sulfate from the historical fly ash, the relative concentrations of sodium would increase considerably in the groundwater and would be similar to the ash impacted waters, but this elevated sodium signature was not observed in any of the samples collected from the downgradient groundwater monitoring wells.

4.1.4 Mineral Weathering

Another potential source of calcium and sulfate in the watershed is from the natural weathering of calcium bearing minerals and sulfur bearing minerals. McMahan et al. (2007) used a mass balance approach to study increases in calcium and sulfate concentrations along a groundwater flow path in Central Nebraska. They determined that the dissolution of calcite and oxidation of pyrite were the likely sources of calcium and sulfate increases in groundwater, respectively. These natural weathering products have the potential to raise concentrations to a small

degree, but the natural concentrations were relatively low compared to the concentrations in groundwater generated by the Sutherland Reservoir, particularly as demonstrated by comparing groundwater quality between the USGS shallow wells and the GGS upgradient wells.

5.0 EVIDENCE OF AN ALTERNATIVE SOURCE

Based on the testing results and list of potential alternate sources of calcium and sulfate presented in this report, primary lines of evidence and conclusions drawn from the evidence used to support this ASD are provided in Table 2.

Table 2: Primary Lines of Evidence and Supporting ASD Analysis

Key Line of Evidence	Supporting Evidence	Description
Primary CCR Indicators	Calcium concentrations in CCR impacted waters	Calcium concentrations in the sump water from Ash Landfill No. 3 and pond water from Ash Landfill No. 4 are lower than calcium concentrations that triggered the SSI at APMW-19 (Figure 4). An alternative source is required to elevate calcium in APMW-19.
	Boron concentrations in groundwater	Boron (Figure A1) is a primary CCR indicator based on high concentrations in sump water from Ash Landfill No. 3 (18.3 mg/L) and pond water from Ash Landfill No.4 (13.8 mg/L). All upgradient and downgradient CCR unit monitoring wells, with the exception of monitoring wells near the evaporation pond that may be influenced by process waters, have boron concentrations below the PQL (typically <0.2 mg/L).
	Sodium concentrations in CCR impacted waters	The relative abundance of sodium in CCR impacted waters would indicate that high sodium concentrations would also be expected in groundwater if calcium and sulfate were from CCR materials (Figure 6). Relative increases in sodium were not observed in monitoring wells at the Site, suggesting an alternative source of elevated calcium and sulfate in groundwater at APMW-19.
Groundwater Geochemistry	Relative ion abundances in groundwater differs from ash landfill water	As presented in the Piper plot (Figure 3), relative differences in major ion concentrations show a distinct dissimilarity between the ash-impacted sump and pond waters and the downgradient groundwater samples, including from APMW-19. The geochemical properties of the downgradient groundwater samples are not consistent with seepage from the CCR unit.
	Elevated and variable calcium and sulfate concentrations in background monitoring wells	Calcium and sulfate concentrations in groundwater at background monitoring wells APMW-5, APMW-16A, and APMW-17 were elevated compared to calcium and sulfate concentrations at monitoring well APMW-19 throughout the baseline monitoring period. Since the CCR unit cannot influence the calcium and sulfate groundwater concentrations in the upgradient wells, the only explanation is that there is an alternate source of calcium and sulfate present in groundwater across the Site.

Key Line of Evidence	Supporting Evidence	Description
Local Sources of Calcium and Sulfate	Hydrogeology	The North and South Platte Rivers, which are ultimately the source of groundwater recharge that occurs from the Sutherland Reservoir located approximately 1.5 miles north of the ash landfill, have calcium concentrations between 47.5 and 230 mg/L and sulfate concentrations between 150 and 930 mg/L. Samples from shallow wells near the Sutherland Reservoir and upgradient wells (Figures 4 and 5) indicate that groundwater with elevated calcium and sulfate is migrating south through the Site.
	Mineral weathering of calcium and sulfate bearing minerals	McMahon et al. (2007) found that small increases in calcium and sulfate concentrations along a groundwater flow path in Central Nebraska were due to calcite dissolution and pyrite oxidation, respectively.

6.0 CONCEPTUAL SITE MODEL

Golder developed a conceptual site model (CSM) that is presented graphically in Figure 7 to frame and support the ASD assessment approach. The CSM presents the GGS site layout, a summary of the geologic and hydrogeologic information, and a discussion of groundwater monitoring data, which together lays the groundwork for consideration and development of the ASD. Additionally, the CSM summarizes the findings of literature research that suggest certain naturally occurring groundwater conditions observed in Nebraska are present at the Site and may contribute to naturally elevated calcium and sulfate concentrations in groundwater around the ash landfill.

7.0 CONCLUSION

In accordance with §257.95(g)(3), this ASD has been prepared in response to the identification of SSIs for calcium and sulfate at monitoring well APMW-19 following the Q4 2019 sampling event for the ash landfill at Gerald Gentleman Station.

A review of historical analytical results indicates that the elevated calcium and sulfate concentrations in groundwater at APMW-19 were not the result of seepage from the ash landfill but can be attributed to naturally occurring calcium and sulfate in regional groundwater. Therefore, no further action (i.e., transition to Assessment Monitoring) is warranted, and the Gerald Gentleman Station ash landfill will remain in detection monitoring.

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Signature Page

Golder Associates Inc.



Jacob Sauer
Senior Engineer



Hugh Davies
Senior Geochemist



Gregory Lehn
Staff Geochemist

JS/HD/GL/cc

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Figures

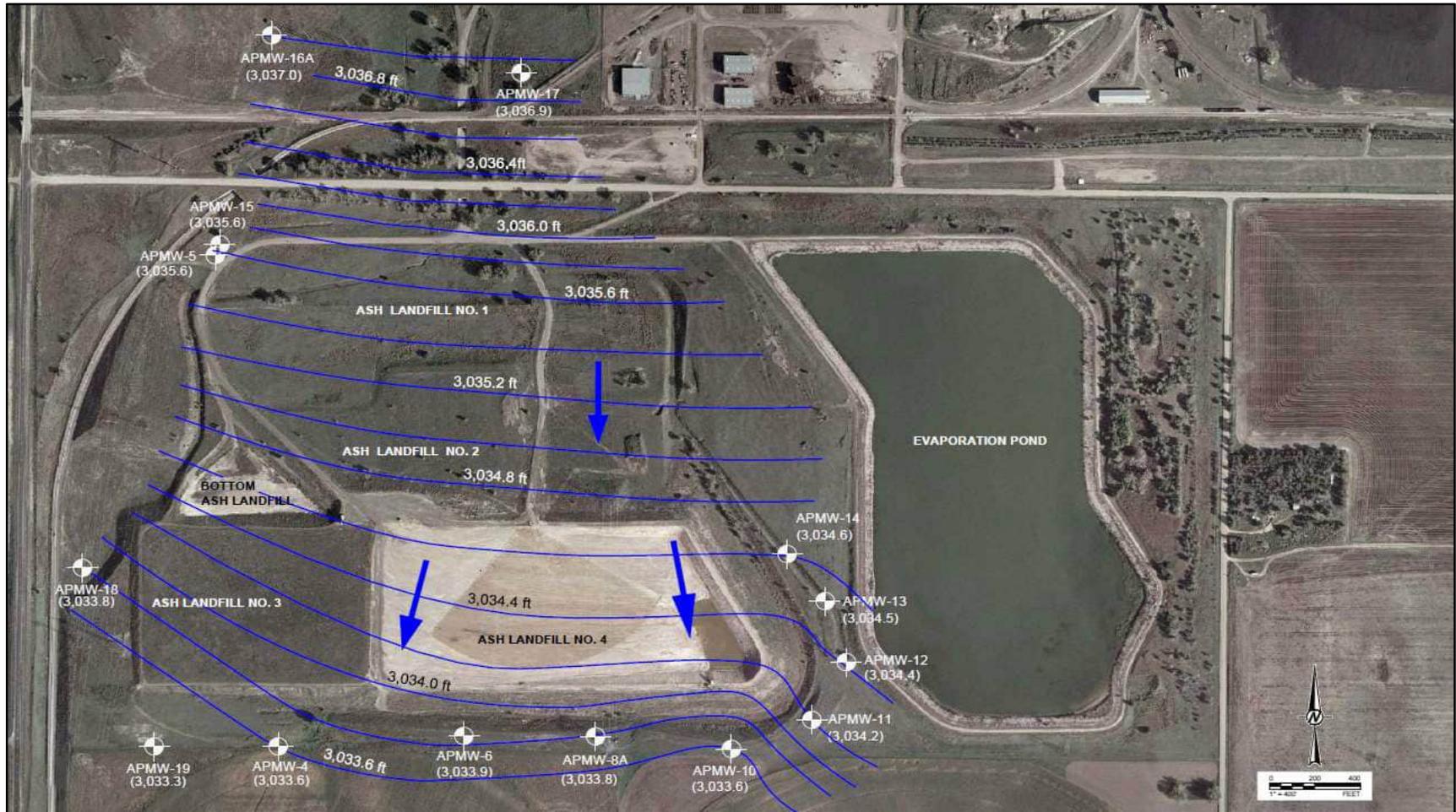


Figure 1

Site Map with Groundwater Contours- November 2019

Alternate Source Demonstration

Nebraska Public Power District - Gerald Gentleman Station

Golder Associates

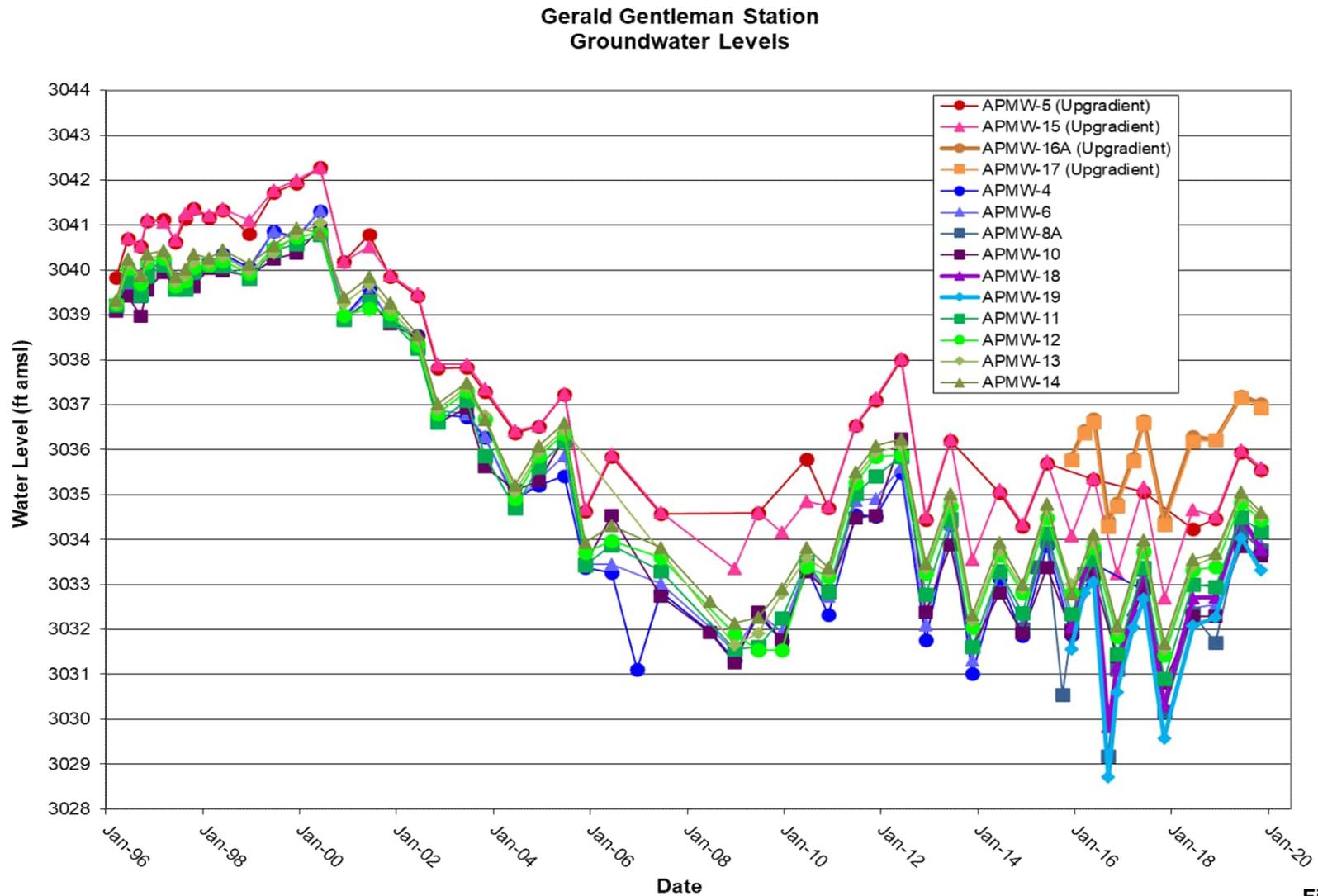
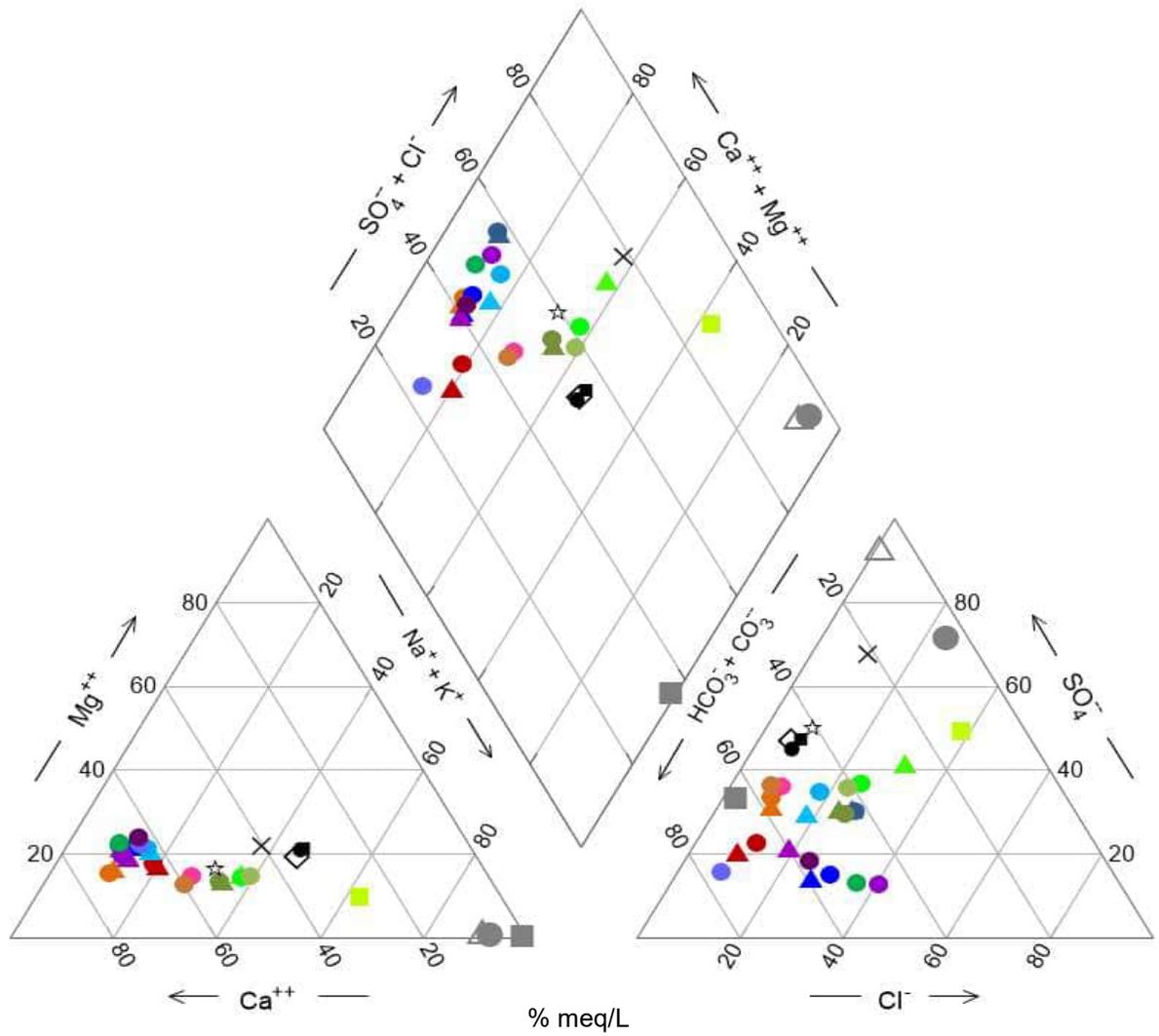


Figure 2
Groundwater Monitoring Well Water Levels

Alternate Source Demonstration
Nebraska Public Power District - Gerald Gentleman Station



- ▲ APMW-5 (Upgradient; Q1 2019)
- APMW-5 (Upgradient; Q4 2019)
- ▲ APMW-17 (Upgradient; Q1 2019)
- APMW-17 (Upgradient; Q4 2019)
- APMW-15 (Upgradient; Q4 2019)
- APMW-16A (Upgradient; Q4 2019)
- ▲ APMW-4 (Q1 2019)
- APMW-4 (Q4 2019)
- ▲ APMW-8A (Q1 2019)
- APMW-8A (Q4 2019)
- ▲ APMW-18 (Q1 2019)
- APMW-18 (Q4 2019)
- ▲ APMW-19 (Q1 2019)
- APMW-19 (Q4 2019)
- ▲ APMW-12 (Q1 2019)
- APMW-12 (Q4 2019)
- ▲ APMW-14 (Q1 2019)
- APMW-14 (Q4 2019)
- APMW-6 (Q4 2019)
- APMW-10 (Q4 2019)
- APMW-11 (Q4 2019)
- APMW-13 (Q4 2019)
- Evaporation Pond (Q1 2019)
- × South Platte River (Average)
- ◇ North Platte River (Average)
- Reservoir (Q4 2019)
- Canal (Q4 2019)
- Ash Pit 3 Sump (Q4 2019)
- Ash Pit 4 Pond (Q4 2019)
- △ SPLP leachate from fly ash
- ☆ USGS Wells near Sutherland R.

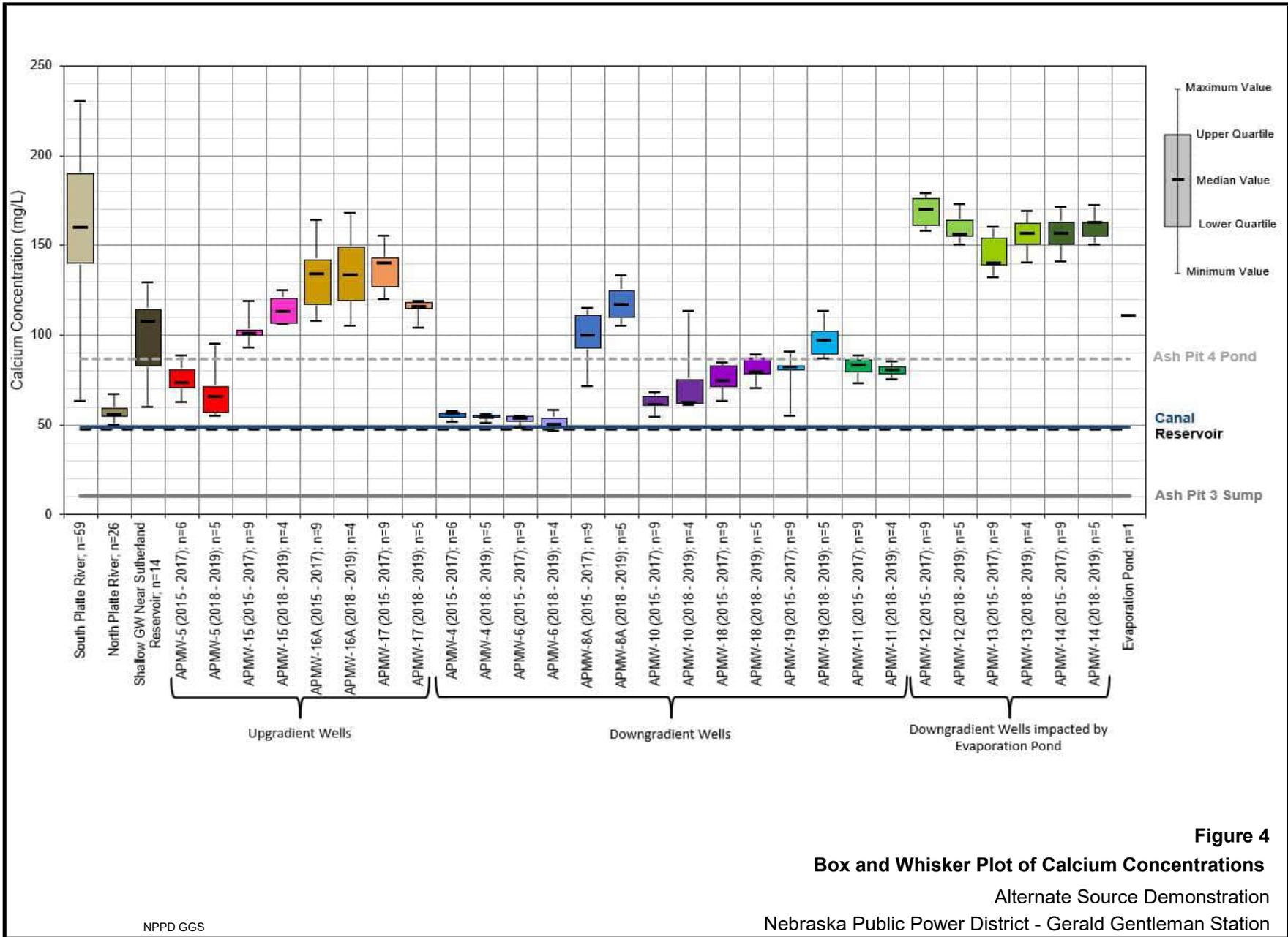
Figure 3

Piper Diagram of Groundwater and Potential Calcium and Sulfate Sources

Alternate Source Demonstration

Nebraska Public Power District - Gerald Gentleman Station

Golder Associates



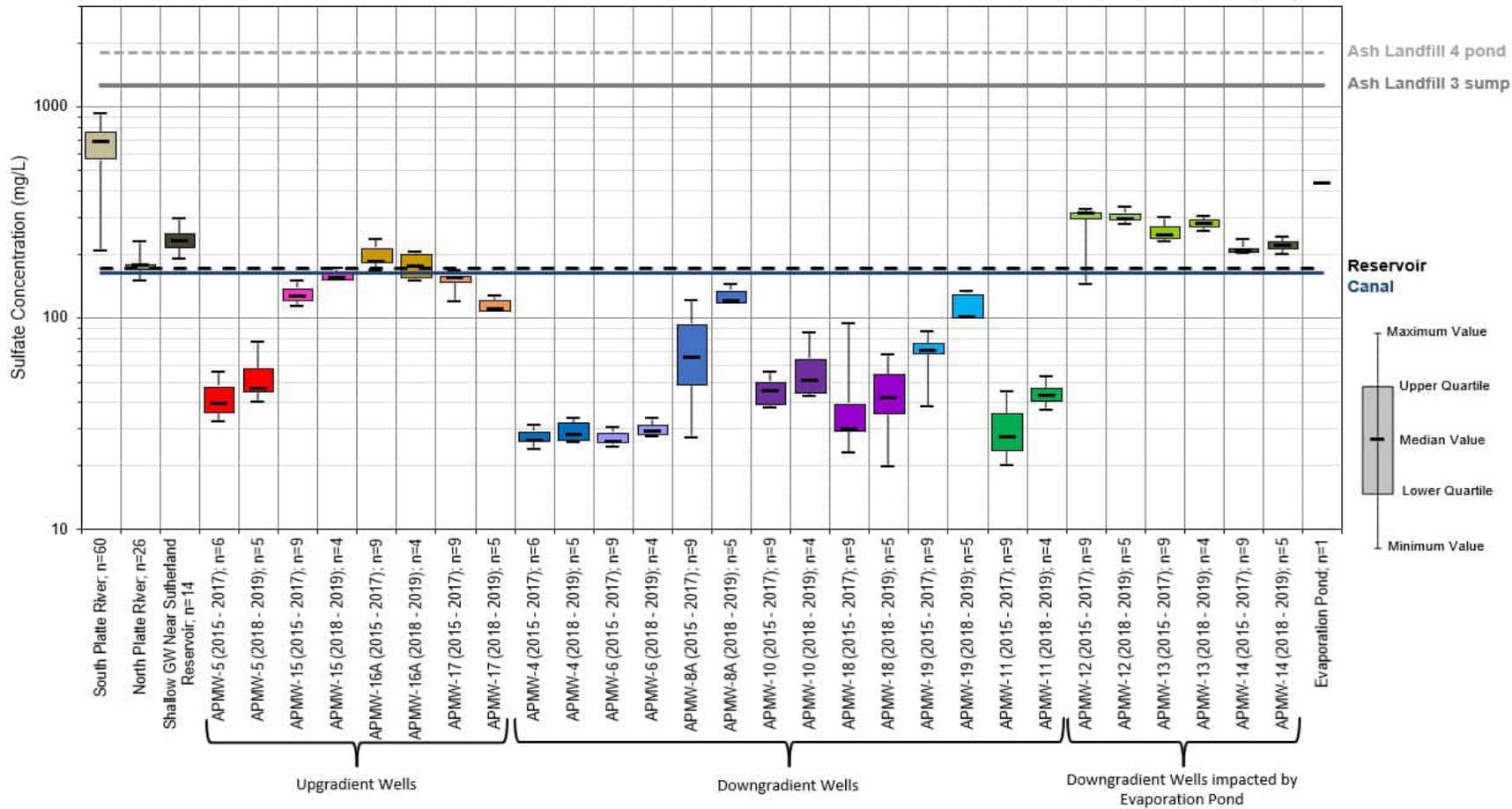
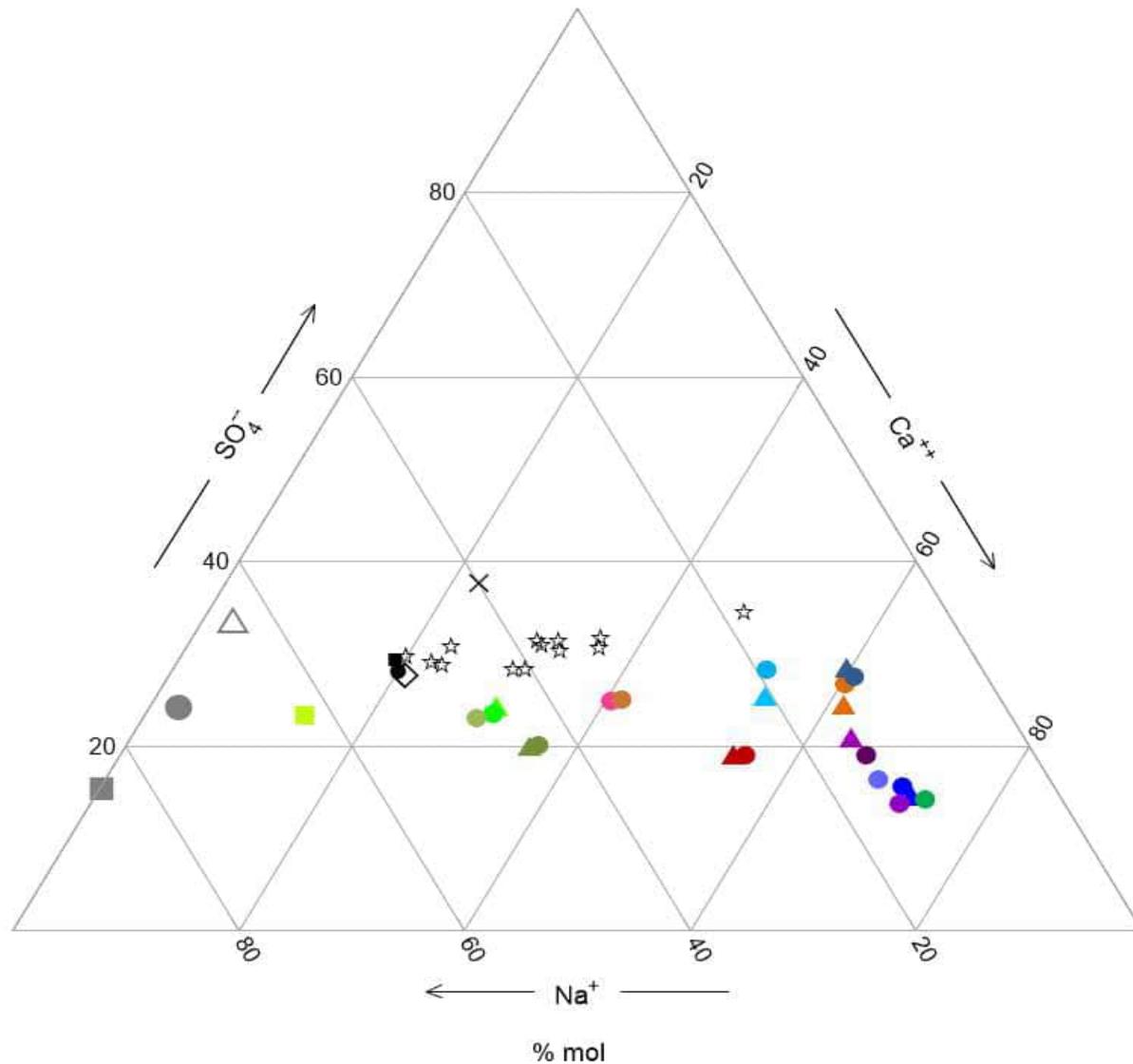


Figure 5

Box and Whisker Plot of Sulfate Concentrations

Alternate Source Demonstration
Nebraska Public Power District - Gerald Gentleman Station

Golder Associates



- ▲ APMW-5 (Upgradient; Q1 2019)
- APMW-5 (Upgradient; Q4 2019)
- ▲ APMW-17 (Upgradient; Q1 2019)
- APMW-17 (Upgradient; Q4 2019)
- APMW-15 (Upgradient; Q4 2019)
- APMW-16A (Upgradient; Q4 2019)
- ▲ APMW-4 (Q1 2019)
- APMW-4 (Q4 2019)
- ▲ APMW-8A (Q1 2019)
- APMW-8A (Q4 2019)
- ▲ APMW-18 (Q1 2019)
- APMW-18 (Q4 2019)
- ▲ APMW-19 (Q1 2019)
- APMW-19 (Q4 2019)
- ▲ APMW-12 (Q1 2019)
- APMW-12 (Q4 2019)
- ▲ APMW-14 (Q1 2019)
- APMW-14 (Q4 2019)
- APMW-6 (Q4 2019)
- APMW-10 (Q4 2019)
- APMW-11 (Q4 2019)
- APMW-13 (Q4 2019)
- Evaporation Pond (Q1 2019)
- × South Platte River (Average)
- ◇ North Platte River (Average)
- Reservoir (Q4 2019)
- Canal (Q4 2019)
- Ash Pit 3 Sump (Q4 2019)
- Ash Pit 4 Pond (Q4 2019)
- △ SPLP leachate from fly ash
- ☆ USGS Wells near Sutherland R.

Figure 6
Ternary Diagram of Groundwater and Potential Calcium and Sulfate Sources

Alternate Source Demonstration
 Nebraska Public Power District - Gerald Gentleman Station

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https://golderassociates.sharepoint.com/sites/12377/Project_Files/5_Technical_Work/Geochem_Working_Folder/GGS_ASD_Working_Data.xlsx17

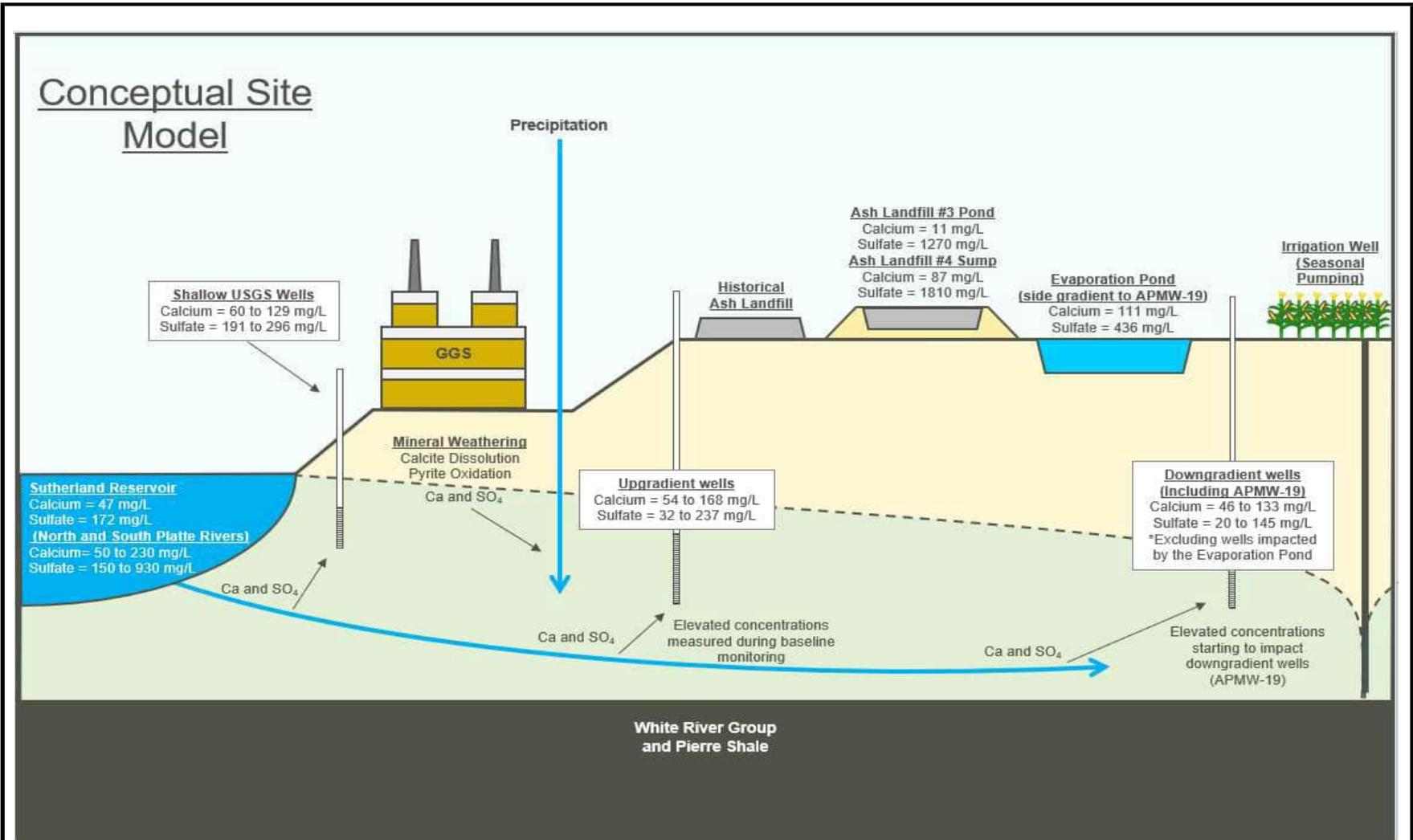


Figure 7
Conceptual Site Model
Alternate Source Demonstration
Nebraska Public Power District - Gerald Gentleman Station
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APPENDIX A

**Historical Concentrations of
Appendix III and Selected Appendix
IV Analytes**

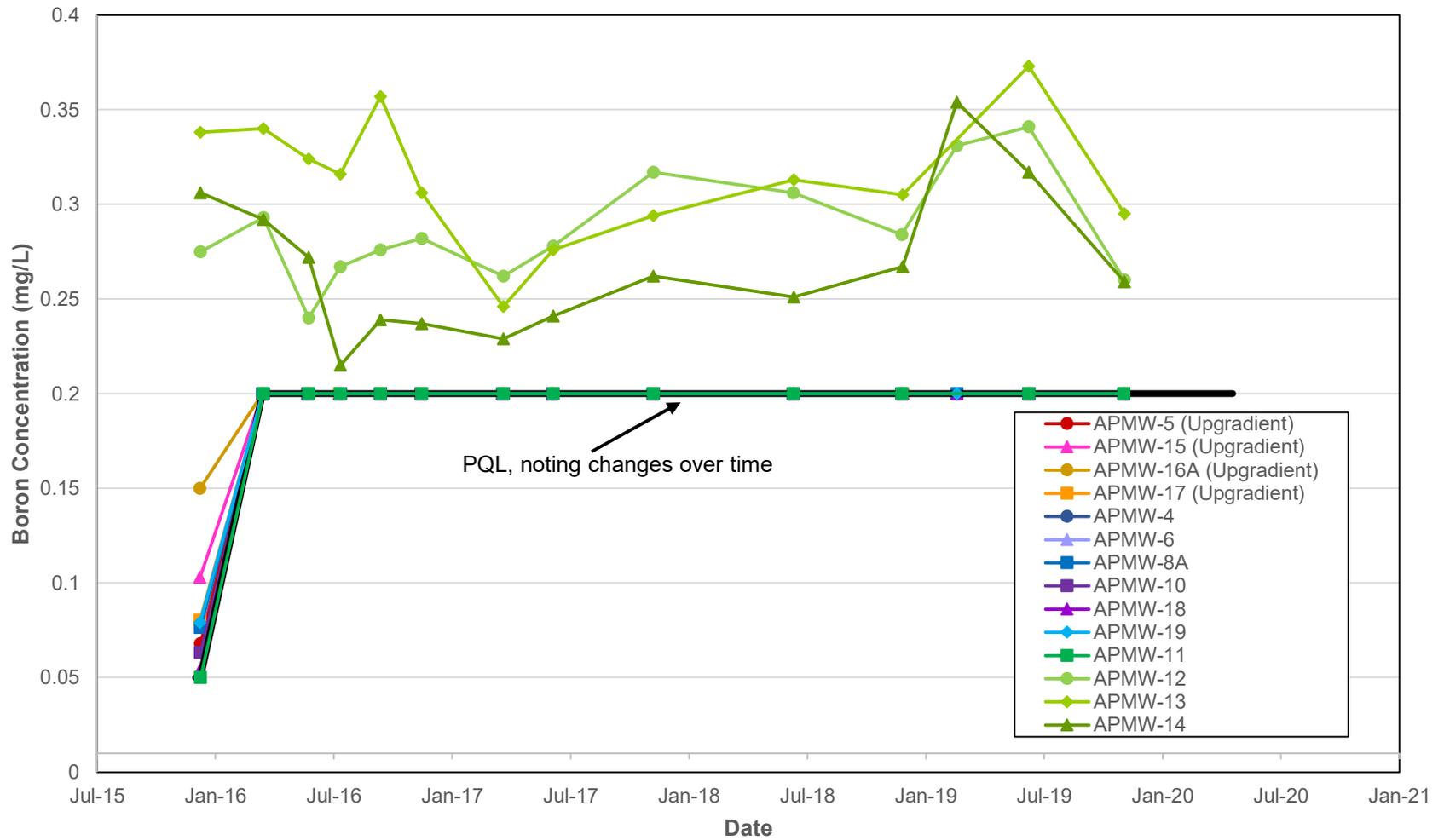


Figure A1
Groundwater Boron Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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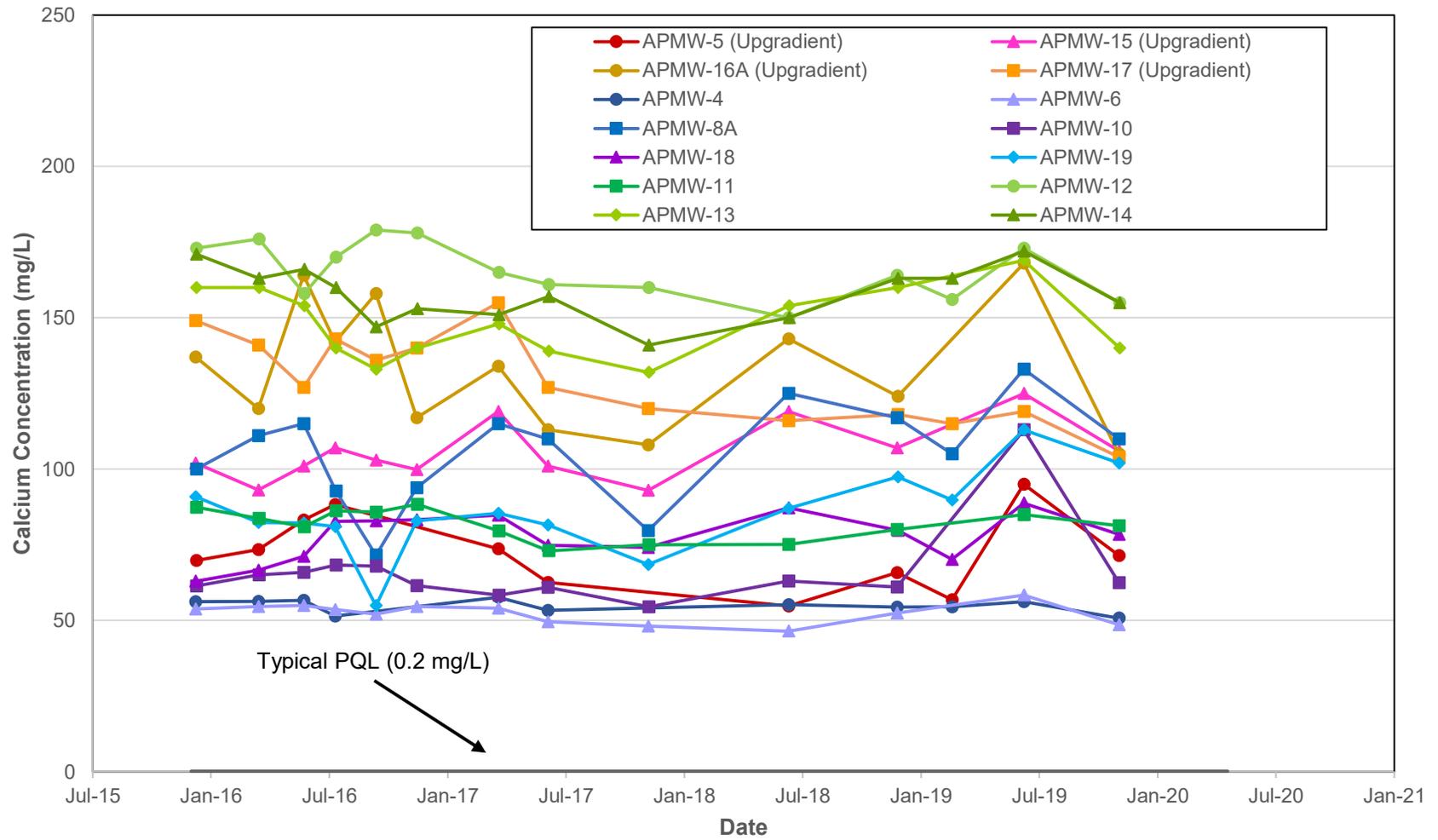


Figure A2
Groundwater Calcium Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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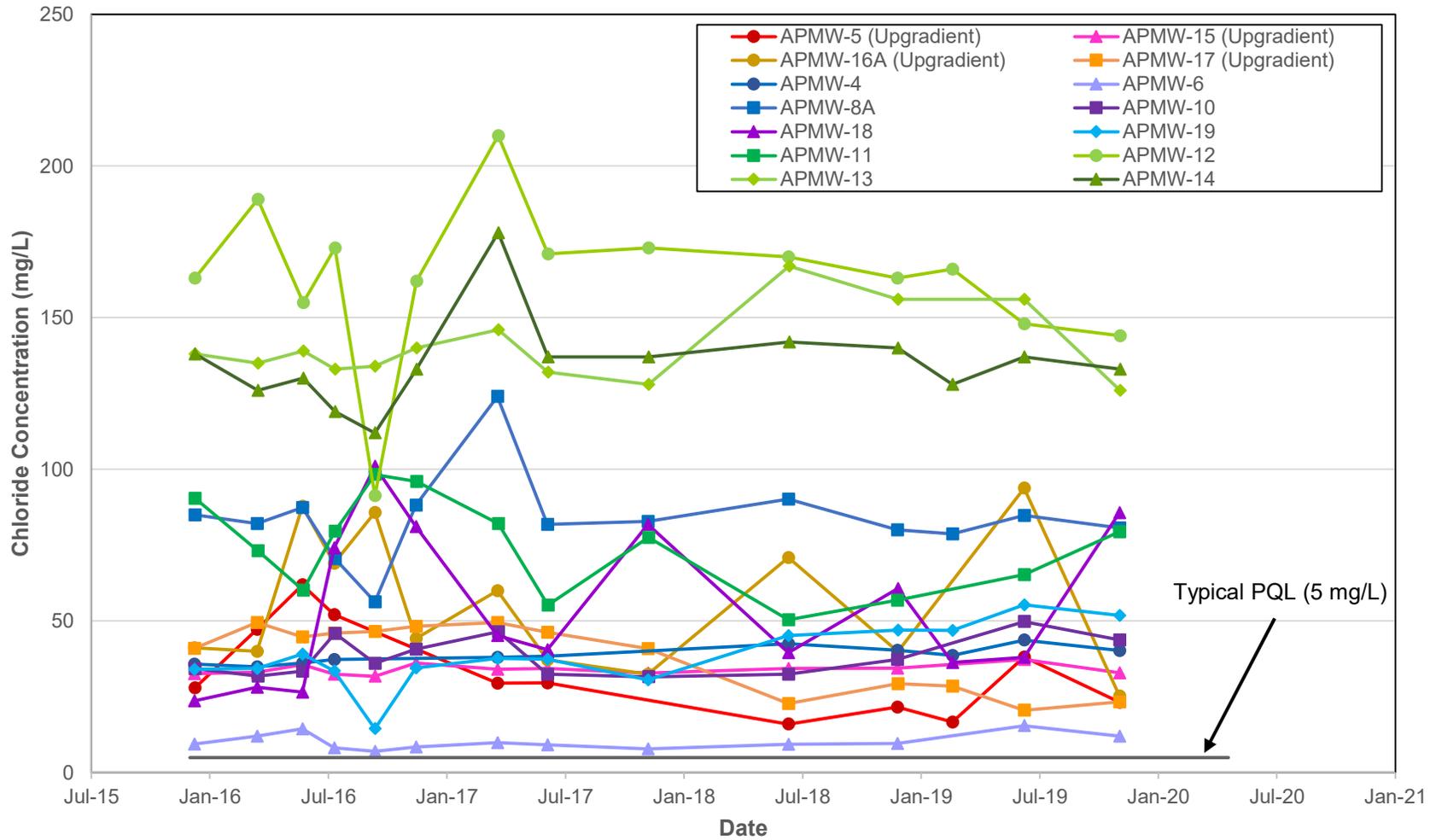


Figure A3
Groundwater Chloride Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

Golder Associates

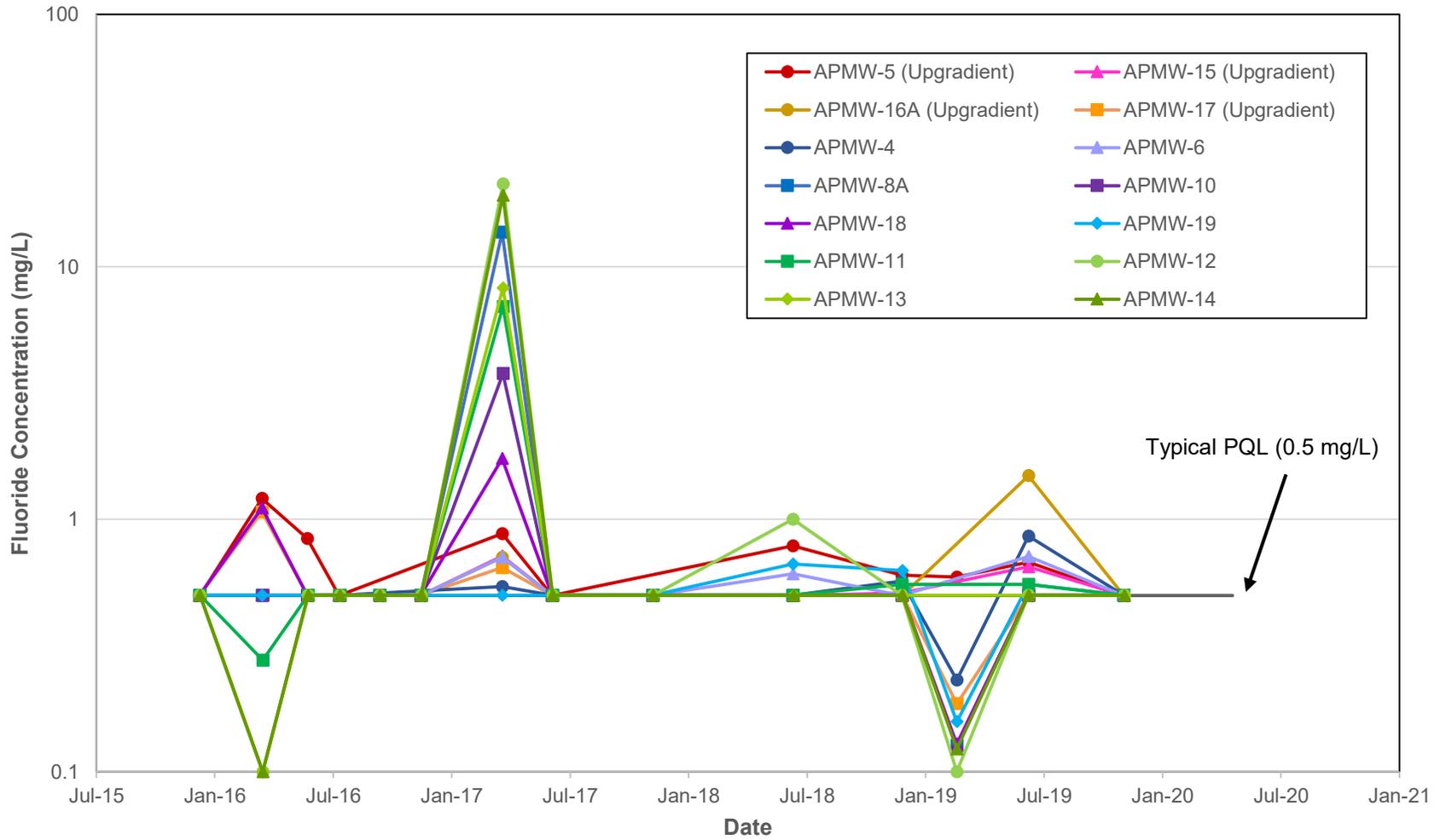


Figure A4
Groundwater Fluoride Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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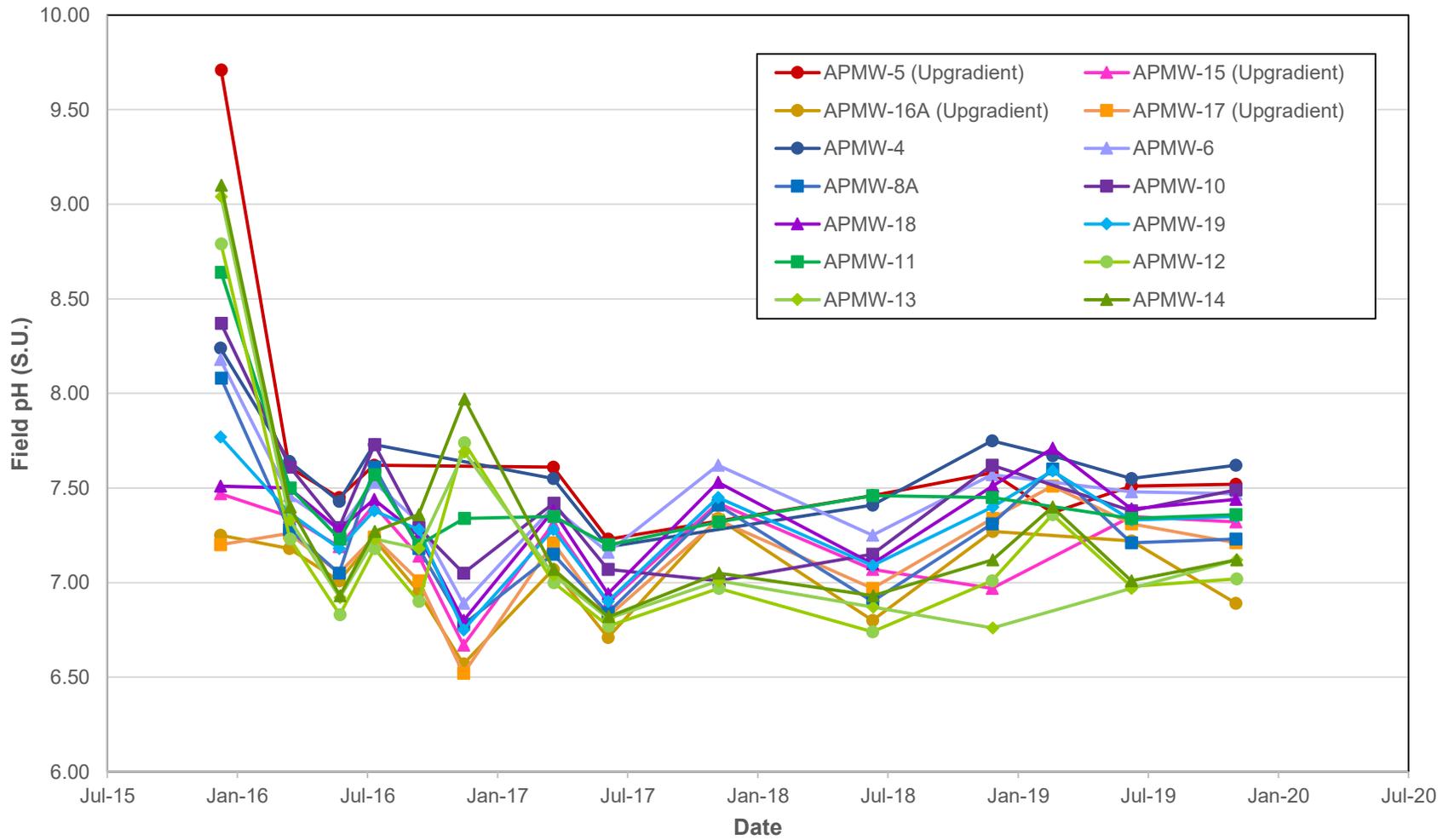


Figure A5
Groundwater Field pH

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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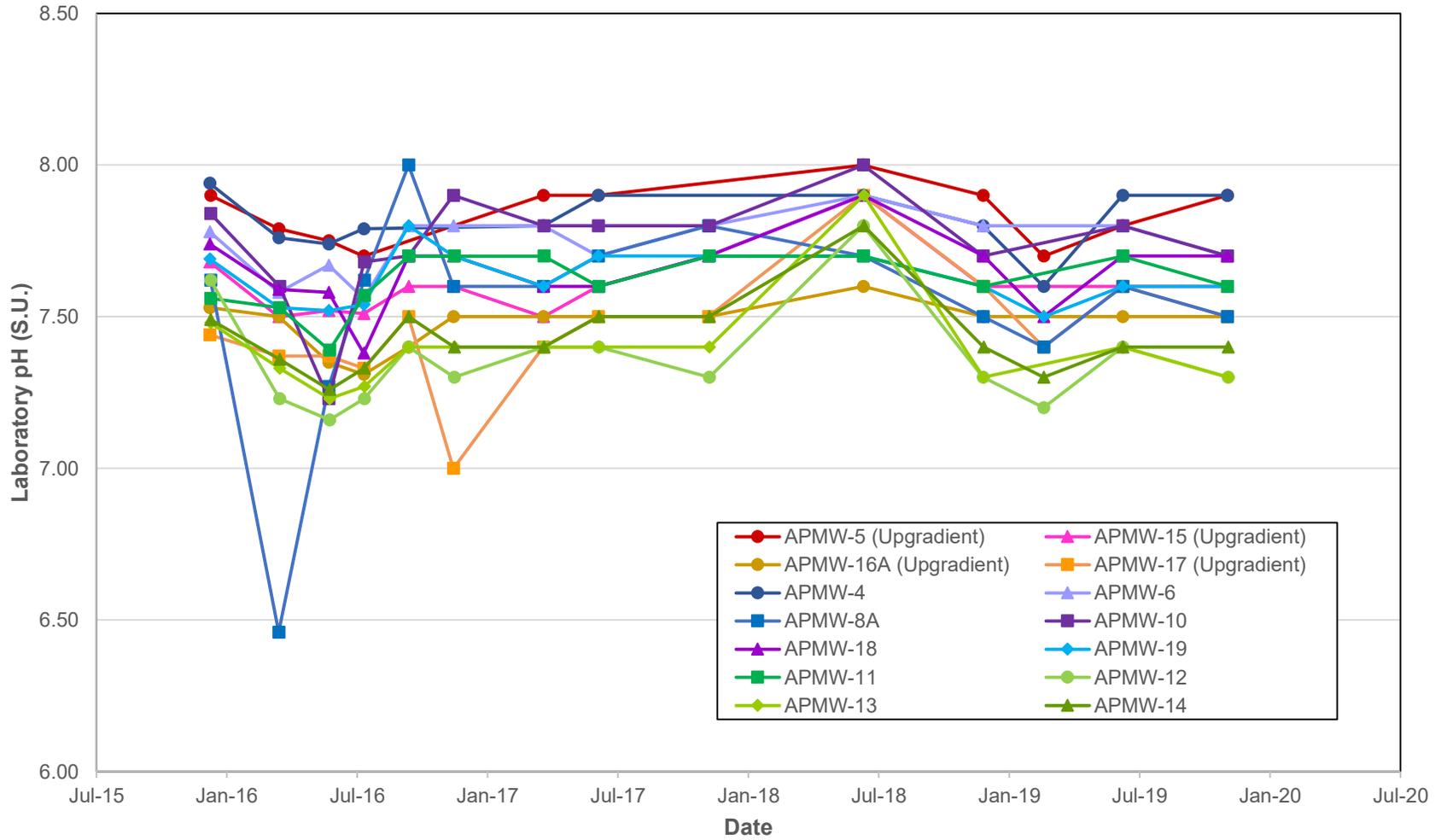


Figure A6
Groundwater Laboratory pH

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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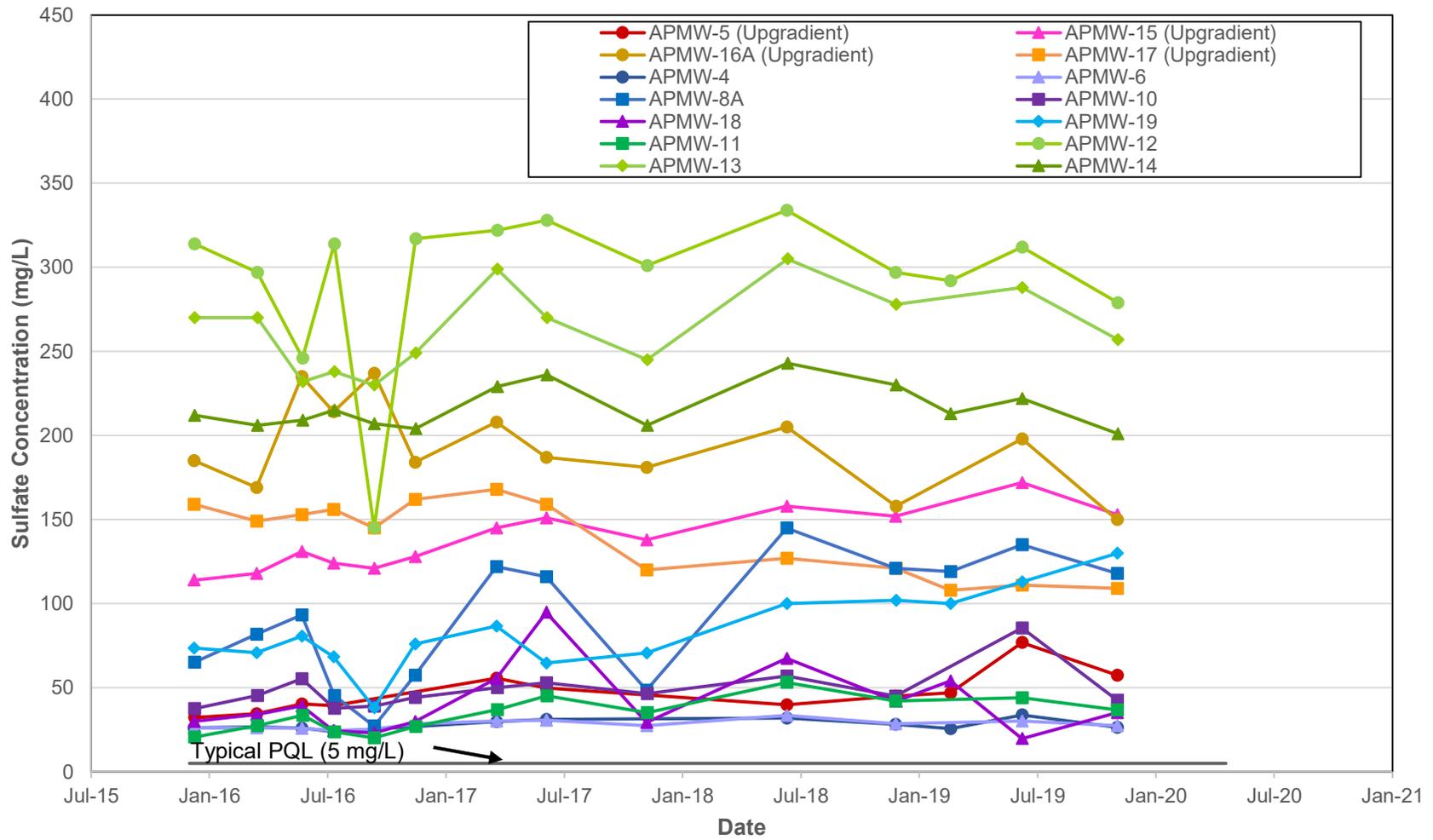


Figure A7
Groundwater Sulfate Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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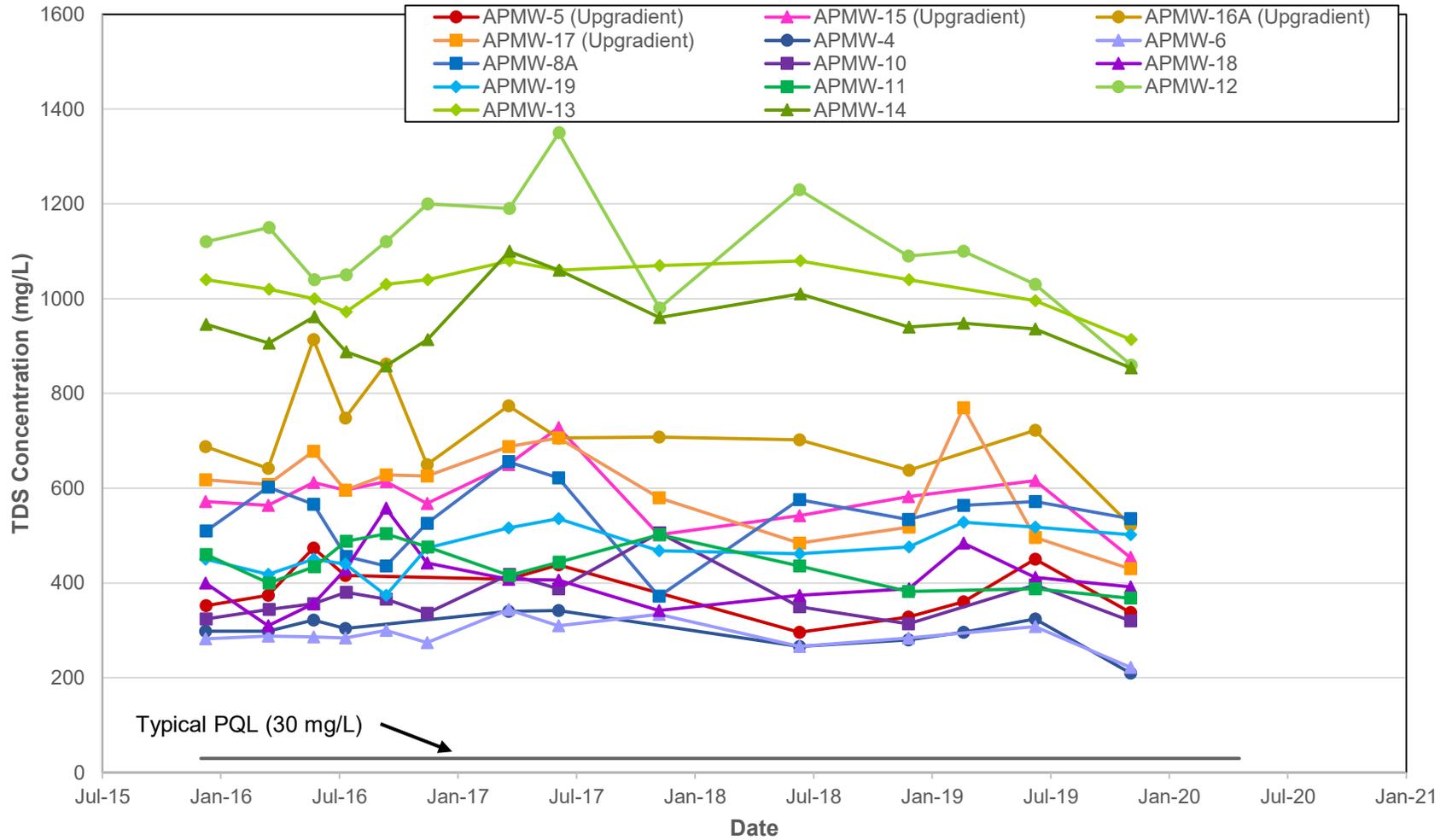


Figure A8
Groundwater TDS Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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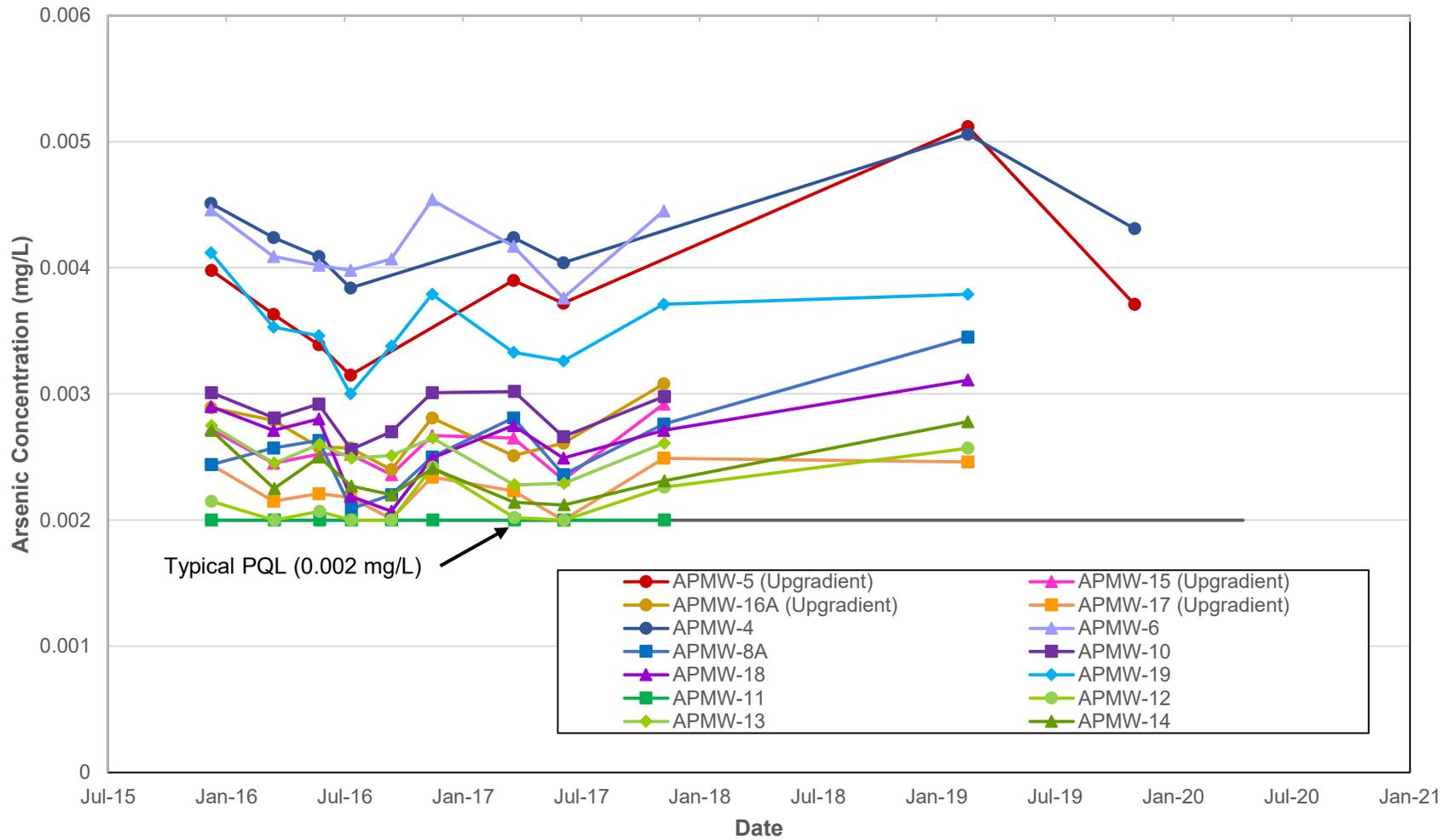


Figure A9
Groundwater Arsenic Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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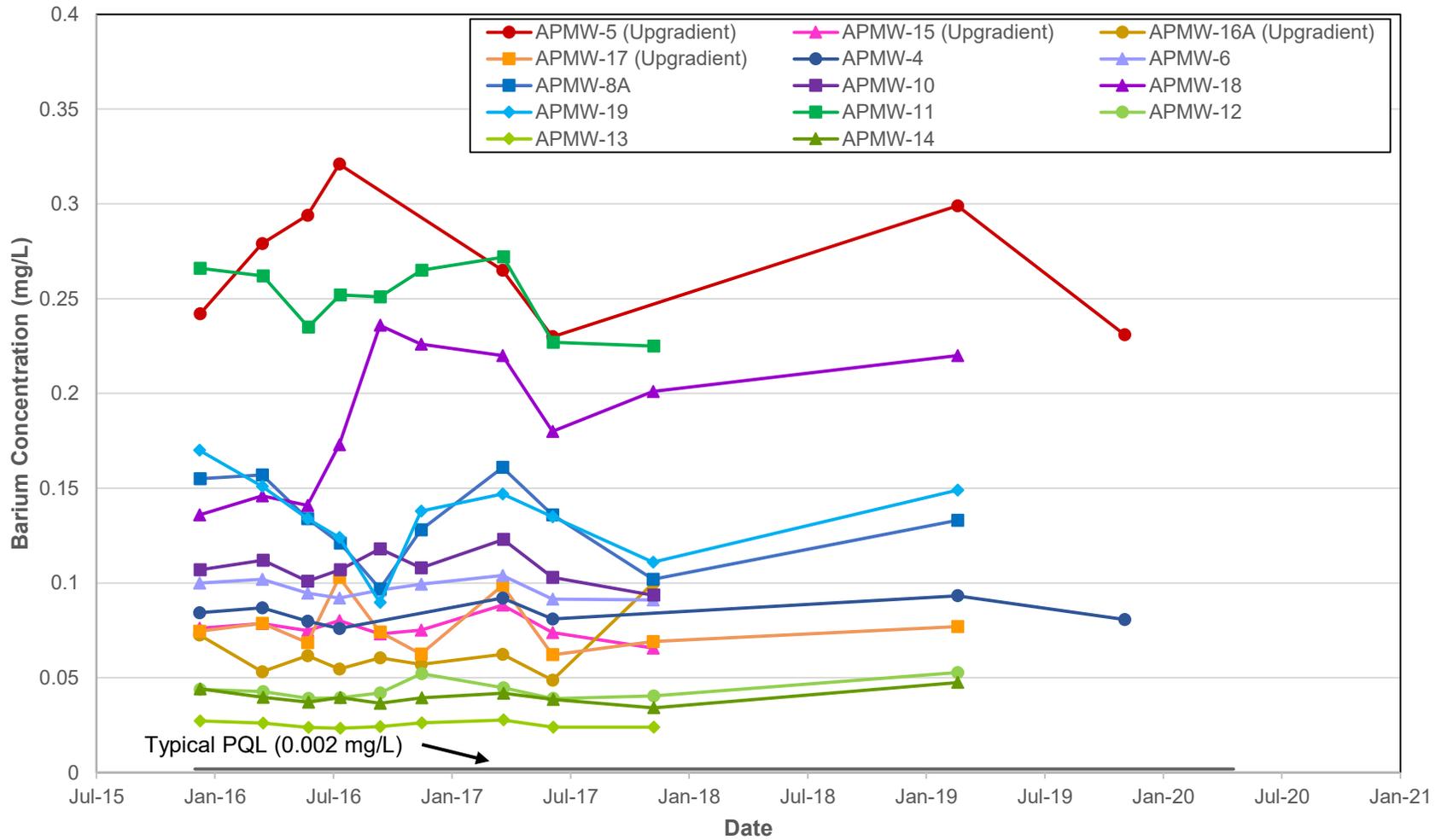


Figure A10
Groundwater Barium Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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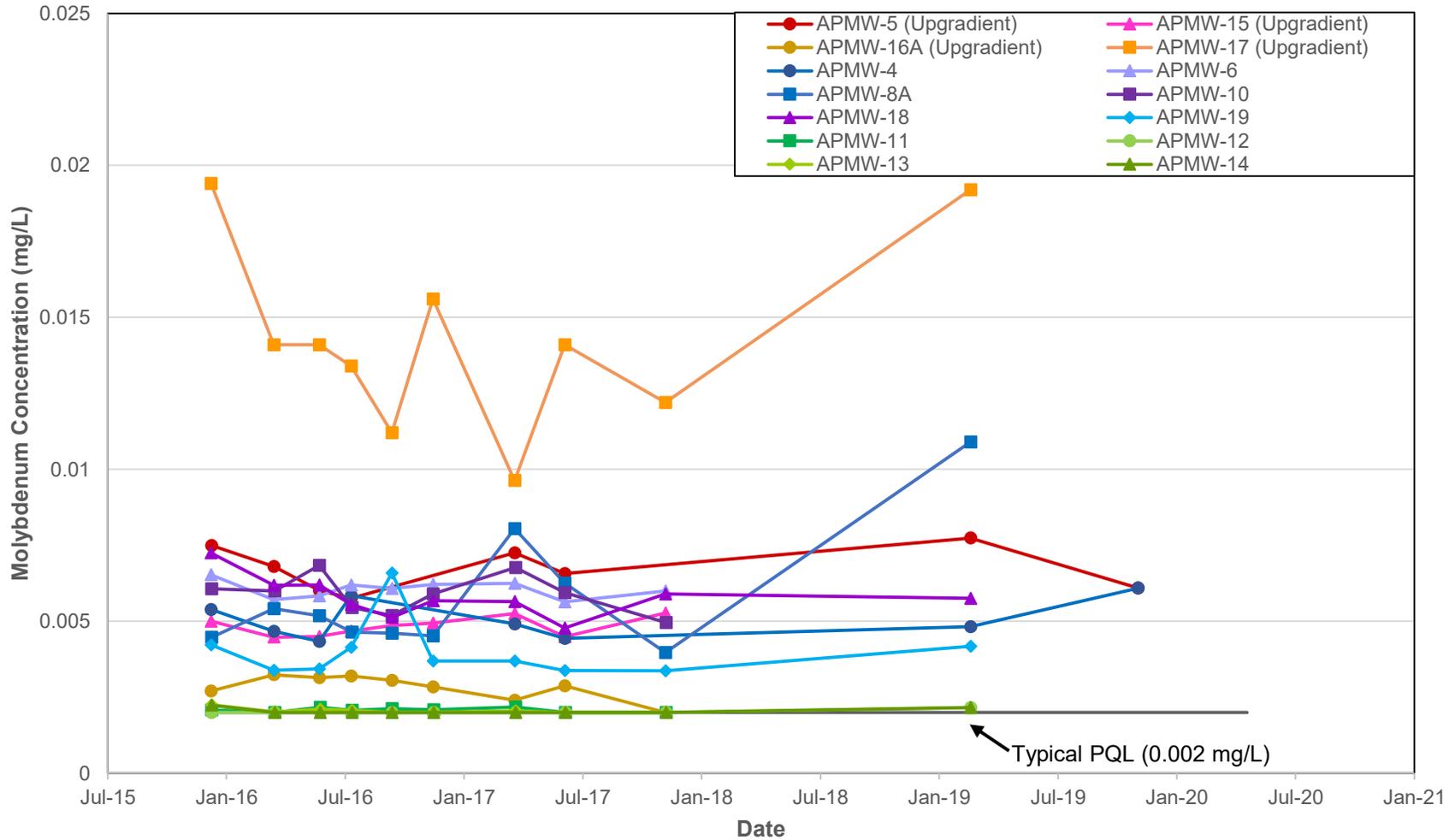


Figure A11
Groundwater Molybdenum Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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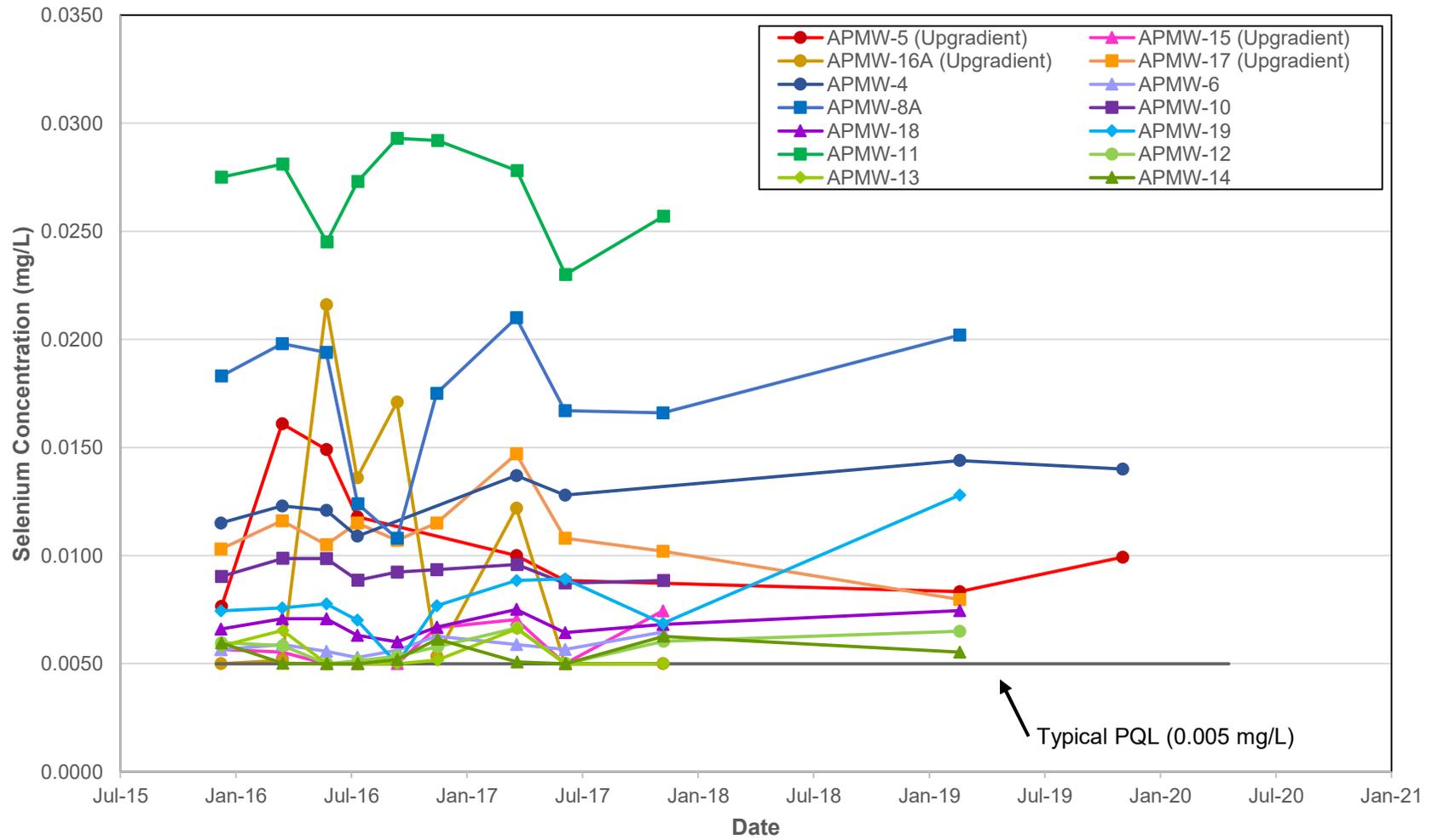


Figure A12
Groundwater Selenium Concentrations

CCR Detection Monitoring
Nebraska Public Power District - Gerald Gentleman Station

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August 3, 2025

Project No. US0044982.5796

Nebraska Public Power District
Gerald Gentleman Station
6089 South Highway 25
Sutherland, Nebraska 69165

ALTERNATIVE SOURCE DEMONSTRATION REVIEW – Q2 2025 MONITORING EVENT

1.0 INTRODUCTION

Following the second quarter (Q2 2025) coal combustion residuals detection monitoring event, a previously identified verified statistically significant increase was found at Gerald Gentleman Station for chloride at APMW-6. Chloride was initially identified as a verified statistically significant increase following the fourth quarter (Q4) 2021 monitoring event.

An alternative source demonstration was previously prepared for the verified statistically significant increase for chloride at APMW-6 following the Q2 2022 monitoring event, which has been reviewed following the subsequent monitoring events. The previously prepared ASD was reviewed for ongoing applicability in the context of the current monitoring event.

Additionally, sulfate was identified as a verified statistically significant increase at APMW-11 following the Q2 2025 detection monitoring event. An alternative source demonstration was previously prepared for sulfate at APMW-19 following the Q4 2019 monitoring event that included discussion and analysis of sulfate at APMW-11. The previously prepared ASD was reviewed for applicability at APMW-11 in the context of the current monitoring event.

2.0 APMW-6 CHLORIDE

During the Q2 2025 monitoring event, chloride at APMW-6 was reported at a concentration of 31.4 mg/L, with a CUSUM value of 119.0 mg/L, exceeding the Shewhart-CUSUM statistical limit of 20.4 mg/L. Chloride concentrations from the upgradient, unimpacted wells (APMW-15, APMW-16A, and APMW-17) ranged from 22.8 mg/L to 31.6 mg/L for the same monitoring event. The range of values over time at the upgradient wells reaffirms the presence of higher chloride concentrations upgradient of the unit.

Further, as discussed within the prior alternative source demonstration, concentrations of chloride in the Sutherland Reservoir continue to remain elevated and serve as an influence on the groundwater upgradient of the

CCR unit. As such, the CCR unit is not the source of the verified statistically significant increase in chloride at APMW-6.

3.0 APMW-11 SULFATE

During the Q2 2025 monitoring event, sulfate at APMW-11 was reported at 59.6 mg/L, with a CUSUM value of 82.7 mg/L, exceeding the Shewhart-CUSUM statistical limit of 75.0 mg/L. Sulfate concentrations from the upgradient, unimpacted wells (APMW-15, APMW-16A, and APMW-17) ranged from 127 mg/L to 160 mg/L for the same monitoring event, significantly higher than the measured concentration at APMW-11. The range of values over time at the upgradient wells reaffirms the presence of higher sulfate concentrations upgradient of the unit.

Further, as discussed within the prior alternative source demonstration, concentrations of sulfate in the North and South Platte River as they feed into the Sutherland Reservoir continue to remain elevated and serve as an influence on the groundwater upgradient of the CCR unit. As such, the CCR unit is not the source of the verified statistically significant increase in sulfate at APMW-11.

4.0 CLOSING

Based on our review of the previously collected information as presented in the Q2 2022 alternative source demonstration for chloride, the previously collected information presented in the Q4 2019 alternative source demonstration from sulfate, and the data associated with the current event at APMW-6 and APMW-11, the verified statistically significant increases identified during the Q2 2025 event for chloride at APMW-6 and sulfate at APMW-11 are not an indication of a release from the CCR unit. The identified conclusions within the previously completed alternative source demonstrations remain true, and Gerald Gentleman Station is recommended to remain in detection monitoring for the next scheduled coal combustion residuals monitoring event, scheduled for Q4 2025.

WSP USA Inc.



Erin L. Hunter, PhD, PE
Assistant Vice President, Civil Engineer



Jacob J. Sauer, PE
Vice President, Civil Engineer

ELH/JJS

[https://wsponline.sharepoint.com/sites/global-nppd2023gwqualityrep/project files/5 technical work/ggs/2025 - q4/ccr report/for admin/app c - asds and reviews/app c-x_asd_reviewletter-q22025.docx](https://wsponline.sharepoint.com/sites/global-nppd2023gwqualityrep/project%20files/5%20technical%20work/ggs/2025%20-%20q4/ccr%20report/for%20admin/app%20c%20-%20asds%20and%20reviews/app%20c-x_asd_reviewletter-q22025.docx)



January 20, 2026

Project No. US0044982.5796

Nebraska Public Power District
Gerald Gentleman Station
6089 South Highway 25
Sutherland, Nebraska 69165

ALTERNATIVE SOURCE DEMONSTRATION REVIEW – Q2 2025 MONITORING EVENT

1.0 INTRODUCTION

Following the second quarter (Q2 2025) coal combustion residuals detection monitoring event, a previously identified verified statistically significant increase was found at Gerald Gentleman Station for chloride at APMW-6. Chloride was initially identified as a verified statistically significant increase following the fourth quarter (Q4) 2021 monitoring event.

An alternative source demonstration was previously prepared for the verified statistically significant increase for chloride at APMW-6 following the Q2 2022 monitoring event, which has been reviewed following the subsequent monitoring events. The previously prepared ASD was reviewed for ongoing applicability in the context of the current monitoring event.

Additionally, sulfate was identified as a verified statistically significant increase at APMW-11 following the Q4 2025 detection monitoring event. Sulfate was initially identified as a verified statistically significant increase following the Q2 2025 monitoring event. An alternative source demonstration was previously prepared for sulfate at APMW-19 following the Q4 2019 monitoring event that included discussion and analysis of sulfate at APMW-11. The previously prepared ASD was reviewed for applicability at APMW-11 in the context of the current monitoring event.

2.0 APMW-6 CHLORIDE

During the Q4 2025 monitoring event, chloride at APMW-6 was reported at a concentration of 39.3 mg/L, with a CUSUM value of 145.5 mg/L, exceeding the Shewhart-CUSUM statistical limit of 20.4 mg/L. Chloride concentrations from the upgradient, unimpacted wells (APMW-15, APMW-16A, and APMW-17) ranged from 27.3 mg/L to 35.0 mg/L for the same monitoring event. While the collected upgradient data for the current event is slightly lower than the current result for APMW-6, the range of values over time at the upgradient wells reaffirms the presence of higher chloride concentrations upgradient of the unit.

Further, as discussed within the prior alternative source demonstration, concentrations of chloride in the Sutherland Reservoir continue to remain elevated and serve as an influence on the groundwater upgradient of the CCR unit. As such, the CCR unit is not the source of the verified statistically significant increase in chloride at APMW-6.

3.0 APMW-11 SULFATE

During the Q4 2025 monitoring event, sulfate at APMW-11 was reported at 62.1 mg/L, with a CUSUM value of 115.4 mg/L, exceeding the Shewhart-CUSUM statistical limit of 75.0 mg/L. Sulfate concentrations from the upgradient, unimpacted wells (APMW-15, APMW-16A, and APMW-17) ranged from 103 mg/L to 147 mg/L for the same monitoring event, higher than the measured concentration at APMW-11. The range of values over time at the upgradient wells reaffirms the presence of higher sulfate concentrations upgradient of the unit.

Further, as discussed within the prior alternative source demonstration, concentrations of sulfate in the North and South Platte River as they feed into the Sutherland Reservoir continue to remain elevated and serve as an influence on the groundwater upgradient of the CCR unit. As such, the CCR unit is not the source of the verified statistically significant increase in sulfate at APMW-11.

4.0 CLOSING

Based on our review of the previously collected information as presented in the Q2 2022 alternative source demonstration for chloride, the previously collected information presented in the Q4 2019 alternative source demonstration from sulfate, and the data associated with the current event at APMW-6 and APMW-11, the verified statistically significant increases identified during the Q4 2025 event for chloride at APMW-6 and sulfate at APMW-11 are not an indication of a release from the CCR unit. The identified conclusions within the previously completed alternative source demonstrations remain true, and Gerald Gentleman Station is recommended to remain in detection monitoring for the next scheduled coal combustion residuals monitoring event, scheduled for Q2 2026.

WSP USA Inc.



Erin L. Hunter, PhD, PE
Senior Lead Consultant, Civil Engineer



Jacob J. Sauer, PE
Associate Vice President, Civil Engineer

ELH/JJS

[https://wsponline.sharepoint.com/sites/global-nppd2023gwqualityrep/project files/6 deliverables/us0044982.5796/006-rpt-ccr_gw/rev0/app c-4_asd_reviewletter-q42025.docx](https://wsponline.sharepoint.com/sites/global-nppd2023gwqualityrep/project%20files/6%20deliverables/us0044982.5796/006-rpt-ccr_gw/rev0/app%20c-4_asd_reviewletter-q42025.docx)

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