

2025 Annual Water Quality Report

Corn Belt Power Cooperative
Wisdom Station CCR Landfill
Solid Waste Permit No. 21-SDP-04-95C

Prepared for:

Corn Belt Power Cooperative

SCS ENGINEERS

27225421.00 | November 2025

1690 All-State Court, Suite 100
West Des Moines, Iowa 50265
515-631-6160

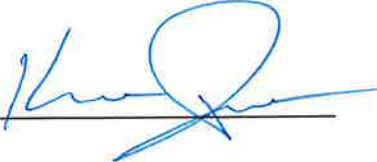
[This page left blank intentionally]

CERTIFICATION

Prepared by: 

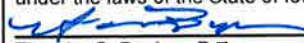
Date: 11/17/2025

Typed: Semir Omerovic

Reviewed by: 

Date: 11/17/2025

Typed: Kevin Jensen

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.
	<u></u> Date: <u>11/17/2025</u>
	Timothy C. Buelow, P.E.
	License No. 14445
	My license renewal date is December 31, 2025.
	Pages or sheets covered by this seal:
	<u>All except Appendix B-1.</u>
	<u> </u>
	<u> </u>

EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

SCS Engineers (SCS), on behalf of Corn Belt Power Cooperative, has completed the required groundwater sampling for the Wisdom Station Coal Combustion Residue (CCR) Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results since the 2024 AWQR up to and including the 2025 annual sampling event. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-103, the site permit, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

ES.2 REPORT PRIORITY

The following summarizes report priorities associated with groundwater compliance at the Landfill:

- Department review urgency: None.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 SITE STATUS AND APPLICABLE RULES

- Landfill Status: Closed, Closure Permit
- Types of waste previously accepted: Coal Combustion Residue (CCR)
- Applicable IAC rules: 567-103

ES.4 COMMENTS

The following summarizes points of special emphasis: Concentrations of the analyzed constituents in groundwater at the Landfill generally appear to be stable to decreasing. The concentration of manganese in monitoring well MW-7 was found to be decreasing at a 99% confidence level based on 2025 sampling results. Only one prediction limit exceedance was detected in 2025 compared to five prediction limit exceedances detected based on 2024 sampling results. Low-flow sample collection techniques utilized since the 2023 sampling event have continued to produce samples with low concentrations of suspended solids and will continue to be utilized in future sample collection.

Table of Contents

Section	Page
Certification	i
Executive Summary.....	ii
ES.1 Period of Report Coverage	ii
ES.2 Report Priority	ii
ES.3 Site Status and Applicable Rules	ii
ES.4 Comments.....	ii
1.0 Acronyms/Abbreviations	1
2.0 Site Background	2
2.1 Site Location	2
2.2 Facility	2
2.3 Geology of the Site	2
2.4 Hydrology of the Site	2
3.0 Figures Discussion.....	3
3.1 Figure 1 – Approved Monitoring Network	3
3.2 Figure 2 – Groundwater Contours.....	3
4.0 QA/QC Summary.....	4
4.1 September 12, 2024 (2024 Annual Sampling Event).....	4
5.0 Data Evaluation	5
5.1 Data Evaluation	5
5.2 Trending in Monitoring Wells	6
6.0 Recommendations	7
6.1 Site Impact on Groundwater.....	7
6.2 Proposed Monitoring.....	7
6.3 Proposed Monitoring Well Changes	7

Tables

Table 1	Monitoring Program Summary
Table 2	Monitoring Program Implementation Schedule
Table 4	Monitoring Well Performance and Maintenance Summary
Table 5	Background and GWPS Summary
Table 6	Summary of Well/Detected Constituent Pairs with No Immediately Preceding Prediction Limit Exceedances
Table 7	Summary Table of Ongoing and Newly Identified Prediction Limit Exceedances
Table 8	Summary of Groundwater Chemistry
Table 9	Historical Prediction Limit and Action Level Exceedances
Table 10	Groundwater Quality Assessment Plan Trend Analysis

Figures

Figure 1	Approved Monitoring Network
Figure 2	Groundwater Contours

Appendices

Appendix A	Field Sampling Forms
Appendix B-1	Laboratory Analytical Data Sheets
Appendix B-2	Data Validation
Appendix C	Summary of Groundwater Chemistry
Appendix D	Statistical Report
Appendix E	Mann-Kendall Trend Table

1.0 ACRONYMS/ABBREVIATIONS

AL = Action Level
CCV = Continuing Calibration Verification
CL = Control Limit - Mean plus Two Standard Deviations (+/- for pH)
DNR = Iowa Department of Natural Resources
DO = Dissolved Oxygen
GWPS = Groundwater Protection Standard
GWQAP = Groundwater Quality Assessment Plan
LEL = Lower Explosive Limit
LCL = Lower Confidence Limit
LCS = Laboratory Control Sample
LN = Lognormal
M+/-2SD = Mean Plus/Minus Two Standard Deviations
MCL = EPA Maximum Contaminant Level
MDL = Method Detection Limit
N = Normal
NC = No Change
NM = Not Measured
ORP = Oxidation-Reduction Potential
PL = Prediction Limit
QA = Quality Assurance
QC = Quality Control
RL = Reporting Limit
SWS = DNR Statewide Standard for a Protected Groundwater Source
SSI = Statistically Significant Increase Above Background
SSL = Statistically Significant Level Above Groundwater Protection Standard
SSS = Site-Specific Standard (Site-Specific GWPS)
TSS = Total Suspended Solids
UCL = Upper Confidence Limit

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Wisdom Station CCR Landfill (Landfill) is depicted on **Figure 1**, Approved Monitoring Network. The Landfill property is located on an approximately 4-acre plot of land east of the Wisdom Station Power Plant and County Road B24, approximately 5 miles west of Spencer, Iowa. The legal description is as follows: Southeast ¼ of Section 6, Township 96 North, Range 37 West, Clay County, Iowa.

2.2 FACILITY

The Landfill is classified as a coal-combustion residue landfill, and it contains coal ash from power generation at the plant and lime softening solids used to treat cooling water at the plant. The Landfill was in operation from 1960 to 2015 and filling began in the southwest corner and expanded eastward over that time period.

2.3 GEOLOGY OF THE SITE

The following information pertaining to this section was obtained from the Hydrogeologic Investigation Report prepared by Preston Engineering, Inc., January 1997:

The geologic materials at the surface consist of Quaternary ground moraine and lake bed sediments. Unconsolidated sediments of Quaternary and Pleistocene age are at least 300 feet thick. Beneath these sediments is Cretaceous shale of the Dakota Group.

Boring logs of wells from the area, available from the Iowa Geologic Survey, show that most wells are 50 feet or less in depth and are completed in Pleistocene sand and gravel.

Ten soil borings from the site, drilled and logged by Stanley Engineering Company in 1958, show that there is about 1 foot of topsoil, 1.5 to 2 feet of yellow sandy clay subsoil, about 20 feet of sand and gravel, and at least 53 feet of gray clay. None of the borings encountered bedrock.

2.4 HYDROLOGY OF THE SITE

The following information pertaining to this section was obtained from the Hydrogeologic Investigation Report prepared by Preston Engineering, Inc., January 1997:

The surficial sand is fine to medium grained, poorly graded, and has less than 10 percent silt and clay. The water table aquifer is in the sand. Slug tests on wells in the sand show that it has a high conductivity which means that groundwater and leachate will quickly move through it if even a slight gradient exists. Underlying the sand is a clay layer that is over 50 feet thick. A comparison between the permeability of the clay and the hydraulic conductivity of the sand from slug tests shows that the clay is about 10 million times less permeable than the sand. The clay layer should be a good aquiclude, based on its thickness and low permeability in the area beneath the landfill.

3.0 FIGURES DISCUSSION

The following figures are attached.

3.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrological monitoring system plan (HMSP) network are depicted in **Figure 1**. **Figure 1** indicates the locations of each monitoring well.

3.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured in the monitoring wells during the September 2025 groundwater sampling event is included as **Figure 2**. **Figure 2** indicates a generally divergent north/south flow direction from an east/west line through the Landfill with a slight easterly component of flow.

4.0 QA/QC SUMMARY

Date indicates the date(s) of sampling.

4.1 SEPTEMBER 18, 2025 (2025 ANNUAL SAMPLING EVENT)

Based on the QA review, no samples were rejected as unusable due to QC failures. In general, the quality of the analytical data for this reporting period does not appear to have been compromised by analytical irregularities and results affected by QC anomalies are qualified with the appropriate data flags, which are listed in the laboratory report in **Appendix B-1**. Data validation documentation can be found in **Appendix B-2**.

5.0 DATA EVALUATION

Statistical evaluation in accordance with the requirements of IAC 567-103, the closure permit, and subsequent permit amendments and correspondence were conducted for the groundwater analytical data collected during the 2025 annual sampling event. The statistical evaluation for samples collected during the 2025 annual sampling event is located in **Appendix D** of this report.

5.1 DATA EVALUATION

Groundwater monitoring for the Landfill consists of samples from one background monitoring well located on the northeast corner of the Landfill and four compliance monitoring wells, one located along the eastern border of the Landfill, one located off the southeast corner of the Landfill, one located along the southern border of the Landfill, and one located along the western border of the Landfill.

There was one prediction limit exceedance detected based on 2025 sampling results as listed in **Table 1** compared to five prediction limit exceedances detected based on 2024 sampling results as reported in the 2024 AWQR. The prediction limit exceedance detected based on 2025 sampling results was attributed to manganese in monitoring well MW-7. A change to low-flow sample collection techniques was initiated during the 2023 sampling event in an effort to reduce total suspended solids in the samples. Low-flow sample collection techniques have provided samples with comparatively low concentrations of suspended solids since the 2023 sampling event.

Exceedances of action or advisory levels were associated with manganese in two monitoring wells as listed in **Table 9**. The monitoring wells, in which manganese exceeded action or advisory levels were background monitoring well MW-4 and compliance monitoring well MW-7. Manganese has exceeded the regulatory action or advisory level at monitoring well MW-7 since sampling for the constituent began in 2016; however, an overall decrease in the concentrations of manganese detected in monitoring well MW-7 have occurred since a change to low-flow sample collection techniques was initiated during the 2023 sampling event.

5.2 TRENDING IN MONITORING WELLS

Statistically significant decreasing trends at a 99% confidence level ($\alpha=0.01$) were identified in five monitoring well/constituent pairs by Mann Kendall trend analysis during this reporting period. The trend analysis is included in **Attachment D** of **Appendix D**. The statistically significant trends were as follows:

Monitoring Point	Constituent	Trend
MW-4 (bg)	Lead	Decreasing
MW-7	Barium	Decreasing
MW-7	Cadmium	Decreasing
MW-7	Copper	Decreasing
MW-7	Manganese	Decreasing

Although not necessarily statistically significant, the Mann-Kendall statistics can provide an indication of general trending in the data. Trend indications for wells in the monitoring program are shown in the table below. The statistics used to develop the general trending differ from the Mann-Kendall statistics used in the diagnostics section of the statistical evaluation in that a much lower trend threshold is applied for the general trending information ($\alpha=0.20$ versus $\alpha=0.01$). Trends

classified as decreasing or increasing exhibited a statistically significant trend with 80% confidence using the most recent eight data points. Trends classified as stable did not exhibit a statistically significant trend with 80% confidence using the eight most recent data points. A summary of Mann-Kendall statistics by constituent in each monitoring point is included in **Appendix E** of this report.

Trending in Monitoring Wells				
Monitoring Well	Decreasing Trends	Stable Trends	Increasing Trends	Number of Constituents Analyzed
MW-1	61.54%	38.46%	0.00%	13
MW-4 (bg)	7.69%	92.31%	0.00%	13
MW-5	38.46%	53.85%	7.69%	13
MW-6	46.15%	46.15%	7.69%	13
MW-7	57.14%	42.86%	0.00%	14
Site Wide	42.42%	54.55%	3.03%	66

(bg) indicates an background monitoring point.

Review of the Mann-Kendall statistics indicated that approximately 97% of the Mann-Kendall statistics were considered stable or decreasing following the 2025 annual statistical evaluation. There were two monitoring well/constituent pairs with a generally increasing trend. The monitoring well/constituent pairs with increasing trends are discussed in the following table.

Monitoring Well	Constituent Name	Comments
MW-5	Chloride	Based on eleven actual detections with duplicate data included. Recent detections are generally above earlier detections. Highest concentration of 26.7 mg/L measured in 2022 prior to the change to low-flow sample collection techniques.
MW-6	Chloride	Based on nine actual detections with duplicate data included. Recent detections are generally above earlier detections. Maximum concentration in recent trend of 21.2 mg/L measured in 2022 prior to the change to low-flow sample collection techniques.

Two monitoring well/constituent pairs were found to be increasing at an 80% confidence level based on 2025 sampling results compared to the three increasing trends measured at an 80% confidence level based on 2024 sampling results. It should be noted that the monitoring well/constituent pairs found to be increasing at an 80% confidence level based on 2025 sampling results did not exceed their respective prediction limit in 2025 and that the highest concentrations in the recent sample trends were all measured in 2022 before the incorporation of low-flow sampling techniques.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

Concentrations of the analyzed constituents in groundwater at the Landfill generally appear to be stable to decreasing. The concentration of manganese in monitoring well MW-7 was found to be decreasing at a 99% confidence level based on 2025 sampling results. Only one prediction limit exceedance was detected in 2025 compared to five prediction limit exceedances detected based on 2024 sampling results. Low-flow sample collection techniques utilized since the 2023 sampling event have continued to produce samples with low concentrations of suspended solids and will continue to be utilized in future sample collection.

6.2 PROPOSED MONITORING

The groundwater monitoring program is summarized in **Table 1**. No changes to the HMSP monitoring program are recommended at this time. It is recommended that sampling continue for calendar year 2026 as summarized in **Table 2**.

6.3 PROPOSED MONITORING WELL CHANGES

Monitoring well performance is summarized in **Table 4**. No proposed changes to the existing monitoring wells are recommended at this time.

Tables

- 1 Monitoring Program Summary
- 2 Monitoring Program Implementation Schedule
- 4 Monitoring Well Performance and Maintenance Summary
- 5 Background and GWPS Summary
- 6 Summary of Well/Detected Constituent Pairs with No
Immediately Preceding Control Limit Exceedances
- 7 Summary Table of Ongoing and Newly Identified Control Limit
Exceedances
- 8 Summary of Groundwater Chemistry
- 9 Historical Control and Action Level Exceedances
- 10 Groundwater Quality Assessment Plan Trend Analysis

Table 1
Monitoring Program Summary
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Monitoring Well	Formation	Current Monitoring Program	Change for Next Sampling Event	Prediction Limit Exceedances	Total Number of Samples in Each Monitoring Program Since January 1, 2018		
					Routine	Supplemental	Remedial Action
MW-1	Shallow alluvial sand and gravel	Detection	None	-	8	-	-
MW-4	Shallow alluvial sand and gravel	Background	None	-	8	-	-
MW-5	Shallow alluvial sand and gravel	Detection	None	-	8	-	-
MW-6	Shallow alluvial sand and gravel	Detection	None	-	8	-	-
MW-7	Shallow alluvial sand and gravel	Detection	None	Manganese	8	-	-

Notes: None.

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Monitoring Well	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents
	9/18/2024	2026
MW-1	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS
MW-4	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS
MW-5	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS
MW-6	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Zinc, TSS
MW-7	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Selenium, Zinc, TSS	Chloride, Sulfate, Fluoride, Arsenic, Barium, Boron, Cadmium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Selenium, Zinc, TSS

Note: TSS – Total Suspended Solids.

Table 4
Monitoring Well Performance and Maintenance Summary
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements	Maximum Depth
					9/18/2025	Discrepancy (ft)
MW-1	1343.40	1334.60	18.7	Groundwater Level (ft)	11.48	0.1
				Groundwater Elevation (Ft MSL)	1331.92	
				Measured Well Depth (ft)	18.6	
				Submerged screen	N	
MW-4	1338.11	1332.02	15.6	Groundwater Level (ft)	5.37	0.0
				Groundwater Elevation (Ft MSL)	1332.74	
				Measured Well Depth (ft)	15.6	
				Submerged screen	Y	
MW-5	1338.04	1331.69	15.7	Groundwater Level (ft)	5.81	0.0
				Groundwater Elevation (Ft MSL)	1332.23	
				Measured Well Depth (ft)	15.7	
				Submerged screen	Y	
MW-6	1337.93	1331.63	15.8	Groundwater Level (ft)	6.12	0.0
				Groundwater Elevation (Ft MSL)	1331.81	
				Measured Well Depth (ft)	15.8	
				Submerged screen	Y	
MW-7	1344.83	1335.80	19.9	Groundwater Level (ft)	13.18	0.1
				Groundwater Elevation (Ft MSL)	1331.65	
				Measured Well Depth (ft)	19.8	
				Submerged screen	N	

Comments:

- 1) Measured well depths were within 1.0 foot of the installed depths where measured.

Table 5
Background and GWPS Summary
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Interwell Background/GWPS (MW-4)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	Action Level	Source
Inorganics										
Arsenic	mg/L	10	10	0.00303	0.00533	0.00405	0.004051	PL (P)	0.01 mg/L	MCL/SWS
Barium	mg/L	10	10	0.0855	0.188	0.1311	0.1311	PL (P)	2.0 mg/L	MCL/SWS
Cadmium	mg/L	10	2	.00005 (1/2 RL)	0.00025 (1/2 RL)	0.000140	0.00014	PL (NP)	0.005 mg/L	MCL/SWS
Chloride	mg/L	10	10	12.6	61.1	24.67	24.67	PL (P)	-	-
Cobalt	mg/L	10	6	0.000223*	0.00131	0.00047	0.00047	PL (P)	0.0021 mg/L	SWS
Copper	mg/L	10	1	0.0025 (1/2 RL)	0.00496*	0.00275	0.003	PL (NP)	1.3 mg/L	SWS
Iron	mg/L	10	10	0.308	3.75	1.745	1.745	PL (P)	-	-
Lead	mg/L	10	8	0.00025 (1/2 RL)	0.00455	0.00125	0.001252	PL (P)	0.015 mg/L	MCL/SWS
Magnesium	mg/L	10	10	18.5	50	30.4	30.4	PL (P)	-	-
Manganese	mg/L	10	10	0.113	0.413	0.269	0.2693	PL (P)	0.3 mg/L	HAL/SWS
Molybdenum	mg/L	4	4	0.00156*	0.00599	0.00292	-	-	0.04 mg/L	MCL/SWS
Selenium	mg/L	6	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.0025	0.003	DQR	0.05 mg/L	MCL/SWS
Sulfate	mg/L	10	10	44.6	143	68.210	68.2	PL (P)	250 mg/L	SMCL
Zinc	mg/L	10	9	0.01 (1/2 RL)	0.232	0.134	0.1344	PL (P)	2.0 mg/L	SWS

Notes: None.

Acronyms/Abbreviations:

RL = Reporting Limit

GWPS = Groundwater Protection Standard

SSS = Site-Specific GWPS

SWS = Statewide Standard

SD = Standard Deviation

MCL = EPA Maximum Contaminant Level

SMCL = Secondary Maximum Contaminant Level

PL = Prediction Limits

HAL = Health Advisory Level

DWA = Drinking Water Advisory

ND = Non-Detect

Comments:

- 1) **Water quality results and effectiveness of the statistical data evaluation criteria:** Statistical evaluations consist of prediction limits and the double quantification rule.
- 2) **Changes to the previous statistical method during reporting period:** None.

Table 6
Summary of Well/Detected Constituent Pairs With No Immediately Preceding Prediction Limit
Exceedances
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

There were no prediction limit exceedances with no immediately preceding prediction limit exceedances.

Comments:

- 1) **Problems with the current HMSP network:** None.
- 2) **Schedule to implement remedies:** Not applicable.
- 3) **Alternative constituent or sample frequency changes:** None.
- 4) **Significant changes to prediction limits:** None.

Table 7
Summary Table of Ongoing and Newly Identified Prediction Limit Exceedances
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Key

	Denotes ongoing prediction limit exceedances that were identified as prediction limit exceedances during this reporting period and the previous reporting period at least once during each reporting period.
	Denotes newly identified prediction limit exceedances in the 2025 reporting period. Newly identified is defined as occurring at least once in the current reporting period but not in the immediately preceeding reporting period.

Well	Constituent	Units	Most Recent Result	Background Standard	Action Level/ Statewide Standard
MW-7	Manganese	mg/L	1.07	0.2693	0.3

Notes: None.

Comments:

- 1) **Problems with the current HMSP network:** None.
- 2) **Proposed remedies:** None.
- 3) **Alternative constituent or sample frequency changes:** None.
- 4) **Plume delineation strategies:** Not Applicable.
- 5) **Property owner notifications:** Not applicable.

Table 8
Summary of Groundwater Chemistry
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

The Summary of Groundwater Chemistry is located in **Appendix C**.

Table 9
Historical Control Limit and Action Level Exceedances
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

Key

	Prediction Limit Exceedance
X	Action Level Exceedance

Well	Constituent	2022	2023	2024	2025
MW-1	Cadmium				
	Cobalt	X			
	Copper				
	Iron				
	Manganese	X			
MW-4 (u)	Manganese			X	X
MW-5	Cadmium				
	Manganese	X		X	
MW-6	Arsenic	X			
	Barium				
	Cadmium				
	Cobalt	X			
	Iron				
	Manganese	X	X	X	
MW-7	Cobalt	X			
	Manganese	X	X	X	X
	Molybdenum		X	X	
	Sulfate				

Comments: None

Table 10
Groundwater Quality Assessment Plan Trend Analysis
2025 Annual Water Quality Report
Corn Belt Power Cooperative - Wisdom Station CCR Landfill
Permit No. 21-SDP-04-95C

See **Appendix E** for Mann Kendall Trend Analysis.



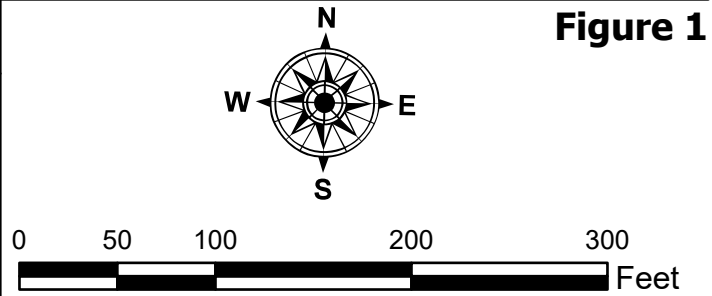
Figures

- 1 Approved Monitoring Network
- 2 Groundwater Contours

Path: C:\Users\hmadison\OneDrive - SCS Engineers\Desktop\GIS\Waste\Iowa Office\Site Maps\Corn Belt Power 2024 AMOP.aprx
User: hmadison
Date Saved: 11/12/2024 10:57 AM



Approved Monitoring Network		
Legend	Corn Belt Power Cooperative Wisdom Station CCR Landfill Spencer, Iowa	
	Project No: 27225421.00 Drawing Date: November 2025	
 HMSP Monitoring Well		
 Approximate Waste Boundary		

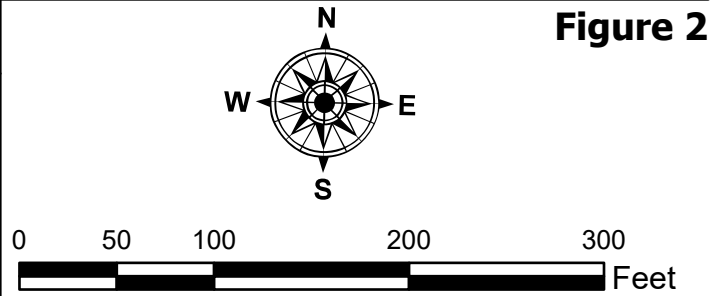


ESRI, TomTom, Garmin, FAO, METI/NASA, USGS, Esri, COAR, USGS, USDA NRI, Iowa State University GIS Facility

C:\Users\hmadson\OneDrive - SCS Engineers\Desktop\GIS\Map\Iowa Office\Site Maps\CBPCCO\2024 AWOP\Corn Belt Power 2024 AWOP.aprx
Path: C:\Users\hmadson\OneDrive - SCS Engineers\Desktop\GIS\Map\Iowa Office\Site Maps\CBPCCO\2024 AWOP\Corn Belt Power 2024 AWOP.aprx
User: hmadson
Date Saved: 9/23/2025 7:14 AM



Groundwater Contours		
Legend		Corn Belt Power Cooperative Wisdom Station CCR Landfill Spencer, Iowa Project No: 27225421.00 Drawing Date: November 2025
— Approximate Groundwater Contours Based on Field Measurements Taken September 18, 2025	▲ Approximate Monitoring Well Location	
	- - - Approximate Waste Boundary	



ESRI, COGNAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, USDA NRI, Iowa State University GIS Facility



Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project: Corn Belt Power Cooperative	
Monitoring Well/Piezometer ID: MW-1	Date: 9/18/2025
Gradient: Down	Sampler: Michael Morgan

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.6
Initial Static Water Level (feet):	11.48
Initial Groundwater Elevation (ft-amsl):	1331.92
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:30 PM	Purging start time.						
3:33 PM	16.3	2.5	625.2	7.17	137.7	2.0	
3:36 PM	16.2	1.8	611.3	7.18	138.3	1.8	
3:39 PM	16.3	1.7	607.5	7.19	138.9	1.8	
3:42 PM	15.8	1.4	606.8	7.19	139.6	1.9	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: clear Odor: none

FORM FOR GROUNDWATER SAMPLING

Project: Corn Belt Power Cooperative	
Monitoring Well/Piezometer ID: MW-4	Date: 9/18/2025
Gradient: Down	Sampler: Michael Morgan

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	15.6
Initial Static Water Level (feet):	5.37
Initial Groundwater Elevation (ft-amsl):	1332.74
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:35 PM	Purging start time.						
12:38 PM	15.7	1.6	1365.8	6.79	153.6	7.4	
12:41 PM	15.8	1.0	1361.6	6.79	153.2	5.9	
12:44 PM	16.0	0.8	1359.9	6.80	152.9	6.7	
12:47 PM	15.8	0.5	1344.3	6.80	153.1	7.7	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: clear Odor: none

FORM FOR GROUNDWATER SAMPLING

Project: Corn Belt Power Cooperative	
Monitoring Well/Piezometer ID: MW-5	Date: 9/18/2025
Gradient: Down	Sampler: Michael Morgan

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	15.7
Initial Static Water Level (feet):	5.81
Initial Groundwater Elevation (ft-amsl):	1332.23
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:20 PM	Purging start time.						
1:23 PM	17.9	2.0	941.0	6.86	111.1	15.9	
1:26 PM	17.7	1.1	918.9	6.85	86.1	6.7	
1:29 PM	17.5	0.8	914.7	6.85	71.5	3.1	
1:32 PM	17.6	0.6	914.3	6.85	61.7	2.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: clear Odor: none

FORM FOR GROUNDWATER SAMPLING

Project: Corn Belt Power Cooperative	
Monitoring Well/Piezometer ID: MW-6	Date: 9/18/2025
Gradient: Down	Sampler: Michael Morgan

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	15.8
Initial Static Water Level (feet):	6.12
Initial Groundwater Elevation (ft-amsl):	1331.81
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:58 PM	Purging start time.						
2:01 PM	15.4	1.7	1030.8	6.76	106.7	2.2	
2:04 PM	15.2	1.0	1026.9	6.77	109.8	2.0	
2:07 PM	15.1	0.7	1016.6	6.78	111.0	2.0	
2:10 PM	14.8	0.6	997.3	6.77	112.8	2.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: clear Odor: none

FORM FOR GROUNDWATER SAMPLING

[illegible]

Appendix B-1

Laboratory Analytical Data Sheets

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Jensen
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 10/7/2025 3:58:15 PM

JOB DESCRIPTION

Corn Belt-Spencer CCR Landfill Sampling 2025
Corn Belt-Spencer CCR Landfil

JOB NUMBER

310-316199-1

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
10/7/2025 3:58:15 PM

Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)595-2008

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	14
QC Sample Results	15
QC Association	18
Chronicle	20
Certification Summary	22
Method Summary	23
Chain of Custody	24
Receipt Checklists	26



Case Narrative

Client: SCS Engineers
Project: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1

Job ID: 310-316199-1

Eurofins Cedar Falls

Job Narrative 310-316199-1

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 9/19/2025 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

HPLC/IC

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW-1 (310-316199-1) and MW-7 (310-316199-5). Elevated reporting limits (RLs) are provided.

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

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-316199-1	MW-1	Water	09/18/25 15:42	09/19/25 16:35	Iowa
310-316199-2	MW-4	Water	09/18/25 12:47	09/19/25 16:35	Iowa
310-316199-3	MW-5	Water	09/18/25 13:32	09/19/25 16:35	Iowa
310-316199-4	MW-6	Water	09/18/25 14:10	09/19/25 16:35	Iowa
310-316199-5	MW-7	Water	09/18/25 15:05	09/19/25 16:35	Iowa
310-316199-6	MW-D	Water	09/18/25 14:26	09/19/25 16:35	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-1

Lab Sample ID: 310-316199-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.18	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	18.7		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.000699	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0509		0.00200	0.000660	mg/L	1		6020B	Total/NA
Magnesium	24.3		0.500	0.150	mg/L	1		6020B	Total/NA
Boron	0.101		0.100	0.0820	mg/L	1		6020B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 310-316199-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29.7		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	143		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.588	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.00336		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.188		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000518		0.000500	0.000170	mg/L	1		6020B	Total/NA
Iron	0.303		0.100	0.0500	mg/L	1		6020B	Total/NA
Magnesium	50.0		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.413		0.0100	0.00360	mg/L	1		6020B	Total/NA
Zinc	0.232		0.0200	0.0130	mg/L	1		6020B	Total/NA
Molybdenum	0.00599		0.00200	0.00130	mg/L	1		6020B	Total/NA
Boron	0.139		0.100	0.0820	mg/L	1		6020B	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-316199-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26.2		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	108		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.708	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.000960	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0303		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000196	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Iron	0.202		0.100	0.0500	mg/L	1		6020B	Total/NA
Magnesium	34.9		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.269		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00988		0.00200	0.00130	mg/L	1		6020B	Total/NA
Boron	0.0922	J	0.100	0.0820	mg/L	1		6020B	Total/NA
Total Suspended Solids	9.50		1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 310-316199-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.0		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	106		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.415	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.00236		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.102		0.00200	0.000660	mg/L	1		6020B	Total/NA
Magnesium	34.0		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.101		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00272		0.00200	0.00130	mg/L	1		6020B	Total/NA
Boron	0.184		0.100	0.0820	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-7

Lab Sample ID: 310-316199-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	19.4		5.00	2.25	mg/L	5			9056A	Total/NA
Sulfate	123		5.00	2.10	mg/L	5			9056A	Total/NA
Arsenic	0.00203		0.00200	0.000530	mg/L	1			6020B	Total/NA
Barium	0.0801		0.00200	0.000660	mg/L	1			6020B	Total/NA
Cobalt	0.00120		0.000500	0.000170	mg/L	1			6020B	Total/NA
Magnesium	26.8		0.500	0.150	mg/L	1			6020B	Total/NA
Manganese	0.870		0.0100	0.00360	mg/L	1			6020B	Total/NA
Molybdenum	0.0143		0.00200	0.00130	mg/L	1			6020B	Total/NA
Boron	1.06		0.100	0.0820	mg/L	1			6020B	Total/NA

Client Sample ID: MW-D

Lab Sample ID: 310-316199-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	17.1		5.00	2.25	mg/L	5			9056A	Total/NA
Sulfate	106		5.00	2.10	mg/L	5			9056A	Total/NA
Fluoride	0.403	J	1.00	0.375	mg/L	5			9056A	Total/NA
Arsenic	0.00238		0.00200	0.000530	mg/L	1			6020B	Total/NA
Barium	0.0989		0.00200	0.000660	mg/L	1			6020B	Total/NA
Cobalt	0.000171	J	0.000500	0.000170	mg/L	1			6020B	Total/NA
Magnesium	33.4		0.500	0.150	mg/L	1			6020B	Total/NA
Manganese	0.135		0.0100	0.00360	mg/L	1			6020B	Total/NA
Molybdenum	0.00285		0.00200	0.00130	mg/L	1			6020B	Total/NA
Boron	0.193		0.100	0.0820	mg/L	1			6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-1

Lab Sample ID: 310-316199-1

Date Collected: 09/18/25 15:42

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.18	J	5.00	2.25	mg/L			09/27/25 10:41	5
Sulfate	18.7		5.00	2.10	mg/L			09/27/25 10:41	5
Fluoride	<1.00		1.00	0.375	mg/L			09/27/25 10:41	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000699	J	0.00200	0.000530	mg/L		10/01/25 09:00	10/03/25 14:43	1
Barium	0.0509		0.00200	0.000660	mg/L		10/01/25 09:00	10/03/25 14:43	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/03/25 14:43	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/01/25 09:00	10/03/25 14:43	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/03/25 14:43	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/03/25 14:43	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/03/25 14:43	1
Magnesium	24.3		0.500	0.150	mg/L		10/01/25 09:00	10/03/25 14:43	1
Manganese	<0.0100		0.0100	0.00360	mg/L		10/01/25 09:00	10/03/25 14:43	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/03/25 14:43	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		10/01/25 09:00	10/03/25 14:43	1
Boron	0.101		0.100	0.0820	mg/L		10/01/25 09:00	10/03/25 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			09/23/25 12:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-4

Lab Sample ID: 310-316199-2

Date Collected: 09/18/25 12:47

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.7		5.00	2.25	mg/L			09/27/25 11:36	5
Sulfate	143		5.00	2.10	mg/L			09/27/25 11:36	5
Fluoride	0.588	J	1.00	0.375	mg/L			09/27/25 11:36	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00336		0.00200	0.000530	mg/L		10/01/25 09:00	10/03/25 20:33	1
Barium	0.188		0.00200	0.000660	mg/L		10/01/25 09:00	10/03/25 20:33	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/03/25 20:33	1
Cobalt	0.000518		0.000500	0.000170	mg/L		10/01/25 09:00	10/03/25 20:33	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/03/25 20:33	1
Iron	0.303		0.100	0.0500	mg/L		10/01/25 09:00	10/03/25 20:33	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/06/25 13:08	1
Magnesium	50.0		0.500	0.150	mg/L		10/01/25 09:00	10/03/25 20:33	1
Manganese	0.413		0.0100	0.00360	mg/L		10/01/25 09:00	10/03/25 20:33	1
Zinc	0.232		0.0200	0.0130	mg/L		10/01/25 09:00	10/03/25 20:33	1
Molybdenum	0.00599		0.00200	0.00130	mg/L		10/01/25 09:00	10/03/25 20:33	1
Boron	0.139		0.100	0.0820	mg/L		10/01/25 09:00	10/03/25 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			09/23/25 12:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-5

Lab Sample ID: 310-316199-3

Date Collected: 09/18/25 13:32

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.2		5.00	2.25	mg/L			09/27/25 11:48	5
Sulfate	108		5.00	2.10	mg/L			09/27/25 11:48	5
Fluoride	0.708	J	1.00	0.375	mg/L			09/27/25 11:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000960	J	0.00200	0.000530	mg/L		10/01/25 09:00	10/03/25 20:35	1
Barium	0.0303		0.00200	0.000660	mg/L		10/01/25 09:00	10/03/25 20:35	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/03/25 20:35	1
Cobalt	0.000196	J	0.000500	0.000170	mg/L		10/01/25 09:00	10/03/25 20:35	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/03/25 20:35	1
Iron	0.202		0.100	0.0500	mg/L		10/01/25 09:00	10/03/25 20:35	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/06/25 13:10	1
Magnesium	34.9		0.500	0.150	mg/L		10/01/25 09:00	10/03/25 20:35	1
Manganese	0.269		0.0100	0.00360	mg/L		10/01/25 09:00	10/03/25 20:35	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/03/25 20:35	1
Molybdenum	0.00988		0.00200	0.00130	mg/L		10/01/25 09:00	10/03/25 20:35	1
Boron	0.0922	J	0.100	0.0820	mg/L		10/01/25 09:00	10/03/25 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	9.50		1.88	1.31	mg/L			09/23/25 12:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-6

Lab Sample ID: 310-316199-4

Date Collected: 09/18/25 14:10

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.0		5.00	2.25	mg/L			09/27/25 11:59	5
Sulfate	106		5.00	2.10	mg/L			09/27/25 11:59	5
Fluoride	0.415	J	1.00	0.375	mg/L			09/27/25 11:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00236		0.00200	0.000530	mg/L		10/01/25 09:00	10/07/25 13:57	1
Barium	0.102		0.00200	0.000660	mg/L		10/01/25 09:00	10/07/25 13:57	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/07/25 13:57	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/01/25 09:00	10/07/25 13:57	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/07/25 13:57	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/07/25 13:57	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/07/25 13:57	1
Magnesium	34.0		0.500	0.150	mg/L		10/01/25 09:00	10/07/25 13:57	1
Manganese	0.101		0.0100	0.00360	mg/L		10/01/25 09:00	10/07/25 13:57	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/07/25 13:57	1
Molybdenum	0.00272		0.00200	0.00130	mg/L		10/01/25 09:00	10/07/25 13:57	1
Boron	0.184		0.100	0.0820	mg/L		10/01/25 09:00	10/07/25 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			09/23/25 12:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-7

Lab Sample ID: 310-316199-5

Date Collected: 09/18/25 15:05

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.4		5.00	2.25	mg/L			09/27/25 12:10	5
Sulfate	123		5.00	2.10	mg/L			09/27/25 12:10	5
Fluoride	<1.00		1.00	0.375	mg/L			09/27/25 12:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00203		0.00200	0.000530	mg/L		10/01/25 09:00	10/07/25 13:59	1
Barium	0.0801		0.00200	0.000660	mg/L		10/01/25 09:00	10/07/25 13:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/07/25 13:59	1
Cobalt	0.00120		0.000500	0.000170	mg/L		10/01/25 09:00	10/07/25 13:59	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/07/25 13:59	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/07/25 13:59	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/07/25 13:59	1
Magnesium	26.8		0.500	0.150	mg/L		10/01/25 09:00	10/07/25 13:59	1
Manganese	0.870		0.0100	0.00360	mg/L		10/01/25 09:00	10/07/25 13:59	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/07/25 13:59	1
Selenium	<0.00500		0.00500	0.00140	mg/L		10/01/25 09:00	10/07/25 13:59	1
Molybdenum	0.0143		0.00200	0.00130	mg/L		10/01/25 09:00	10/07/25 13:59	1
Boron	1.06		0.100	0.0820	mg/L		10/01/25 09:00	10/07/25 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			09/23/25 12:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-D

Lab Sample ID: 310-316199-6

Date Collected: 09/18/25 14:26

Matrix: Water

Date Received: 09/19/25 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.1		5.00	2.25	mg/L			09/27/25 12:21	5
Sulfate	106		5.00	2.10	mg/L			09/27/25 12:21	5
Fluoride	0.403	J	1.00	0.375	mg/L			09/27/25 12:21	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00238		0.00200	0.000530	mg/L		10/01/25 09:00	10/07/25 14:02	1
Barium	0.0989		0.00200	0.000660	mg/L		10/01/25 09:00	10/07/25 14:02	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/07/25 14:02	1
Cobalt	0.000171	J	0.000500	0.000170	mg/L		10/01/25 09:00	10/07/25 14:02	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/07/25 14:02	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/07/25 14:02	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/07/25 14:02	1
Magnesium	33.4		0.500	0.150	mg/L		10/01/25 09:00	10/07/25 14:02	1
Manganese	0.135		0.0100	0.00360	mg/L		10/01/25 09:00	10/07/25 14:02	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/07/25 14:02	1
Molybdenum	0.00285		0.00200	0.00130	mg/L		10/01/25 09:00	10/07/25 14:02	1
Boron	0.193		0.100	0.0820	mg/L		10/01/25 09:00	10/07/25 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			09/23/25 12:45	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Qualifiers

HPLC/IC

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

Metals

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

Glossary

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

QC Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfill

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-468218/3

Matrix: Water

Analysis Batch: 468218

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			09/27/25 09:24	1
Sulfate	<1.00		1.00	0.420	mg/L			09/27/25 09:24	1
Fluoride	<0.200		0.200	0.0750	mg/L			09/27/25 09:24	1

Lab Sample ID: LCS 310-468218/4

Matrix: Water

Analysis Batch: 468218

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.411		mg/L		94	90 - 110
Sulfate	10.0	10.06		mg/L		101	90 - 110
Fluoride	2.00	2.040		mg/L		102	90 - 110

Lab Sample ID: 310-316199-1 MS

Matrix: Water

Analysis Batch: 468218

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	4.18	J	25.0	26.20		mg/L		88	80 - 120
Sulfate	18.7		25.0	43.37		mg/L		99	80 - 120
Fluoride	<1.00		5.00	5.386		mg/L		108	80 - 120

Lab Sample ID: 310-316199-1 MSD

Matrix: Water

Analysis Batch: 468218

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4.18	J	25.0	26.21		mg/L		88	80 - 120	0	15
Sulfate	18.7		25.0	43.24		mg/L		98	80 - 120	0	15
Fluoride	<1.00		5.00	5.415		mg/L		108	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-468438/1-A

Matrix: Water

Analysis Batch: 468963

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 468438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		10/01/25 09:00	10/03/25 14:37	1
Barium	<0.00200		0.00200	0.000660	mg/L		10/01/25 09:00	10/03/25 14:37	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/03/25 14:37	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/01/25 09:00	10/03/25 14:37	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/03/25 14:37	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/03/25 14:37	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/03/25 14:37	1
Magnesium	<0.500		0.500	0.150	mg/L		10/01/25 09:00	10/03/25 14:37	1
Manganese	<0.0100		0.0100	0.00360	mg/L		10/01/25 09:00	10/03/25 14:37	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/03/25 14:37	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		10/01/25 09:00	10/03/25 14:37	1
Boron	<0.100		0.100	0.0820	mg/L		10/01/25 09:00	10/03/25 14:37	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 310-468438/2-A
Matrix: Water
Analysis Batch: 468963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Arsenic	0.200	0.2090		mg/L		105	80 - 120	
Barium	0.100	0.09594		mg/L		96	80 - 120	
Cadmium	0.100	0.09715		mg/L		97	80 - 120	
Cobalt	0.100	0.09909		mg/L		99	80 - 120	
Copper	0.200	0.2042		mg/L		102	80 - 120	
Iron	0.200	0.2093		mg/L		105	80 - 120	
Lead	0.200	0.1995		mg/L		100	80 - 120	
Magnesium	2.00	1.980		mg/L		99	80 - 120	
Manganese	0.100	0.1027		mg/L		103	80 - 120	
Zinc	0.200	0.1857		mg/L		93	80 - 120	
Molybdenum	0.200	0.2198		mg/L		110	80 - 120	
Boron	0.200	0.2277		mg/L		114	80 - 120	

Lab Sample ID: 310-316199-1 MS
Matrix: Water
Analysis Batch: 468963

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 468438

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Arsenic	0.000699	J	0.200	0.2079		mg/L		104	75 - 125	
Barium	0.0509		0.100	0.1482		mg/L		97	75 - 125	
Cadmium	<0.000200		0.100	0.09732		mg/L		97	75 - 125	
Cobalt	<0.000500		0.100	0.09333		mg/L		93	75 - 125	
Copper	<0.00500		0.200	0.1937		mg/L		97	75 - 125	
Iron	<0.100		0.200	0.1993		mg/L		100	75 - 125	
Lead	<0.000500		0.200	0.1917		mg/L		96	75 - 125	
Magnesium	24.3		2.00	26.24	4	mg/L		97	75 - 125	
Manganese	<0.0100		0.100	0.1018		mg/L		102	75 - 125	
Zinc	<0.0200		0.200	0.1921		mg/L		96	75 - 125	
Molybdenum	<0.00200		0.200	0.2138		mg/L		107	75 - 125	
Boron	0.101		0.200	0.2948		mg/L		97	75 - 125	

Lab Sample ID: 310-316199-1 MSD
Matrix: Water
Analysis Batch: 468963

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 468438

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
											RPD	Limit
Arsenic	0.000699	J	0.200	0.2099		mg/L		105	75 - 125		1	20
Barium	0.0509		0.100	0.1479		mg/L		97	75 - 125		0	20
Cadmium	<0.000200		0.100	0.09877		mg/L		99	75 - 125		1	20
Cobalt	<0.000500		0.100	0.09437		mg/L		94	75 - 125		1	20
Copper	<0.00500		0.200	0.1959		mg/L		98	75 - 125		1	20
Iron	<0.100		0.200	0.2102		mg/L		105	75 - 125		5	20
Lead	<0.000500		0.200	0.1920		mg/L		96	75 - 125		0	20
Magnesium	24.3		2.00	26.14	4	mg/L		92	75 - 125		0	20
Manganese	<0.0100		0.100	0.1028		mg/L		103	75 - 125		1	20
Zinc	<0.0200		0.200	0.1913		mg/L		96	75 - 125		0	20
Molybdenum	<0.00200		0.200	0.2153		mg/L		108	75 - 125		1	20
Boron	0.101		0.200	0.2952		mg/L		97	75 - 125		0	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

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

Lab Sample ID: MB 310-468441/1-A
Matrix: Water
Analysis Batch: 469214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		10/01/25 09:00	10/07/25 13:31	1
Barium	<0.00200		0.00200	0.000660	mg/L		10/01/25 09:00	10/07/25 13:31	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/01/25 09:00	10/07/25 13:31	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/01/25 09:00	10/07/25 13:31	1
Copper	<0.00500		0.00500	0.00320	mg/L		10/01/25 09:00	10/07/25 13:31	1
Iron	<0.100		0.100	0.0500	mg/L		10/01/25 09:00	10/07/25 13:31	1
Lead	<0.000500		0.000500	0.000330	mg/L		10/01/25 09:00	10/07/25 13:31	1
Magnesium	<0.500		0.500	0.150	mg/L		10/01/25 09:00	10/07/25 13:31	1
Manganese	<0.0100		0.0100	0.00360	mg/L		10/01/25 09:00	10/07/25 13:31	1
Zinc	<0.0200		0.0200	0.0130	mg/L		10/01/25 09:00	10/07/25 13:31	1
Selenium	<0.00500		0.00500	0.00140	mg/L		10/01/25 09:00	10/07/25 13:31	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		10/01/25 09:00	10/07/25 13:31	1
Boron	<0.100		0.100	0.0820	mg/L		10/01/25 09:00	10/07/25 13:31	1

Lab Sample ID: LCS 310-468441/2-A
Matrix: Water
Analysis Batch: 469214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468441

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2068		mg/L		103	80 - 120
Barium	0.100	0.1004		mg/L		100	80 - 120
Cadmium	0.100	0.1016		mg/L		102	80 - 120
Cobalt	0.100	0.1040		mg/L		104	80 - 120
Copper	0.200	0.2036		mg/L		102	80 - 120
Iron	0.200	0.2123		mg/L		106	80 - 120
Lead	0.200	0.1978		mg/L		99	80 - 120
Magnesium	2.00	2.111		mg/L		106	80 - 120
Manganese	0.100	0.1018		mg/L		102	80 - 120
Zinc	0.200	0.1877		mg/L		94	80 - 120
Selenium	0.400	0.3956		mg/L		99	80 - 120
Molybdenum	0.200	0.1931		mg/L		97	80 - 120
Boron	0.200	0.2220		mg/L		111	80 - 120

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-467633/1
Matrix: Water
Analysis Batch: 467633

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			09/23/25 12:45	1

Lab Sample ID: LCS 310-467633/2
Matrix: Water
Analysis Batch: 467633

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	96.00		mg/L		96	82 - 117

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

HPLC/IC

Analysis Batch: 468218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-1	MW-1	Total/NA	Water	9056A	
310-316199-2	MW-4	Total/NA	Water	9056A	
310-316199-3	MW-5	Total/NA	Water	9056A	
310-316199-4	MW-6	Total/NA	Water	9056A	
310-316199-5	MW-7	Total/NA	Water	9056A	
310-316199-6	MW-D	Total/NA	Water	9056A	
MB 310-468218/3	Method Blank	Total/NA	Water	9056A	
LCS 310-468218/4	Lab Control Sample	Total/NA	Water	9056A	
310-316199-1 MS	MW-1	Total/NA	Water	9056A	
310-316199-1 MSD	MW-1	Total/NA	Water	9056A	

Metals

Prep Batch: 468438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-1	MW-1	Total/NA	Water	3005A	
310-316199-2	MW-4	Total/NA	Water	3005A	
310-316199-3	MW-5	Total/NA	Water	3005A	
MB 310-468438/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-468438/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-316199-1 MS	MW-1	Total/NA	Water	3005A	
310-316199-1 MSD	MW-1	Total/NA	Water	3005A	

Prep Batch: 468441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-4	MW-6	Total/NA	Water	3005A	
310-316199-5	MW-7	Total/NA	Water	3005A	
310-316199-6	MW-D	Total/NA	Water	3005A	
MB 310-468441/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-468441/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 468963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-1	MW-1	Total/NA	Water	6020B	468438
310-316199-2	MW-4	Total/NA	Water	6020B	468438
310-316199-3	MW-5	Total/NA	Water	6020B	468438
MB 310-468438/1-A	Method Blank	Total/NA	Water	6020B	468438
LCS 310-468438/2-A	Lab Control Sample	Total/NA	Water	6020B	468438
310-316199-1 MS	MW-1	Total/NA	Water	6020B	468438
310-316199-1 MSD	MW-1	Total/NA	Water	6020B	468438

Analysis Batch: 469052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-2	MW-4	Total/NA	Water	6020B	468438
310-316199-3	MW-5	Total/NA	Water	6020B	468438

Analysis Batch: 469214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-4	MW-6	Total/NA	Water	6020B	468441
310-316199-5	MW-7	Total/NA	Water	6020B	468441
310-316199-6	MW-D	Total/NA	Water	6020B	468441

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Metals (Continued)

Analysis Batch: 469214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-468441/1-A	Method Blank	Total/NA	Water	6020B	468441
LCS 310-468441/2-A	Lab Control Sample	Total/NA	Water	6020B	468441

General Chemistry

Analysis Batch: 467633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316199-1	MW-1	Total/NA	Water	I-3765-85	
310-316199-2	MW-4	Total/NA	Water	I-3765-85	
310-316199-3	MW-5	Total/NA	Water	I-3765-85	
310-316199-4	MW-6	Total/NA	Water	I-3765-85	
310-316199-5	MW-7	Total/NA	Water	I-3765-85	
310-316199-6	MW-D	Total/NA	Water	I-3765-85	
MB 310-467633/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-467633/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-1

Lab Sample ID: 310-316199-1

Date Collected: 09/18/25 15:42

Matrix: Water

Date Received: 09/19/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 10:41
Total/NA	Prep	3005A			468438	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	468963	NFT2	EET CF	10/03/25 14:43
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Client Sample ID: MW-4

Lab Sample ID: 310-316199-2

Date Collected: 09/18/25 12:47

Matrix: Water

Date Received: 09/19/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 11:36
Total/NA	Prep	3005A			468438	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	468963	NFT2	EET CF	10/03/25 20:33
Total/NA	Prep	3005A			468438	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	469052	NFT2	EET CF	10/06/25 13:08
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Client Sample ID: MW-5

Lab Sample ID: 310-316199-3

Date Collected: 09/18/25 13:32

Matrix: Water

Date Received: 09/19/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 11:48
Total/NA	Prep	3005A			468438	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	468963	NFT2	EET CF	10/03/25 20:35
Total/NA	Prep	3005A			468438	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	469052	NFT2	EET CF	10/06/25 13:10
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Client Sample ID: MW-6

Lab Sample ID: 310-316199-4

Date Collected: 09/18/25 14:10

Matrix: Water

Date Received: 09/19/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 11:59
Total/NA	Prep	3005A			468441	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	469214	NFT2	EET CF	10/07/25 13:57
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Client Sample ID: MW-7

Lab Sample ID: 310-316199-5

Date Collected: 09/18/25 15:05

Matrix: Water

Date Received: 09/19/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 12:10

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Client Sample ID: MW-7
Date Collected: 09/18/25 15:05
Date Received: 09/19/25 16:35

Lab Sample ID: 310-316199-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			468441	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	469214	NFT2	EET CF	10/07/25 13:59
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Client Sample ID: MW-D
Date Collected: 09/18/25 14:26
Date Received: 09/19/25 16:35

Lab Sample ID: 310-316199-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468218	QTZ5	EET CF	09/27/25 12:21
Total/NA	Prep	3005A			468441	QTZ5	EET CF	10/01/25 09:00
Total/NA	Analysis	6020B		1	469214	NFT2	EET CF	10/07/25 14:02
Total/NA	Analysis	I-3765-85		1	467633	DGU1	EET CF	09/23/25 12:45

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1
SDG: Corn Belt-Spencer CCR Landfil

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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

Method Summary

Client: SCS Engineers

Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2025

Job ID: 310-316199-1

SDG: Corn Belt-Spencer CCR Landfil

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

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

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

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>SCS</u>			
City/State	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received	DATE <u>9-19-25</u>	TIME <u>1635</u>	Received By <u>PH</u>
Delivery Type ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		☒ Yes ☐ No	If yes: Cooler ID.
Multiple Coolers?		☐ Yes ☒ No	If yes: Cooler # ____ of ____
Cooler Custody Seals Present?		☐ Yes ☒ No	If yes. Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?		☐ Yes ☒ No	If yes Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?		☐ Yes ☒ No	If yes Which VOA samples are in cooler? ↓
Temperature Record			
Coolant ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE			
Thermometer ID <u>CC</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>0.1</u>		Corrected Temp (°C): <u>0.1</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? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Chain of Custody Record



Cedar Falls IA 50613-6907
phone 319 277 2401 fax 319 277 2425

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: Groundwater

Project Manager			Client Contact			Site Contact:			Date.			COC No								
Email			Cell			Lab Contact:			Carrier			1 of 1 COCs								
Analysis Turnaround Time			CALENDAR DAYS			WORKING DAYS			Other:			Sampler								
			☐ 2 weeks			☐ 1 week			☐ 2 days			☐ 1 day			For Lab Use Only.					
Project Name: Corn Belt-Spencer CCR Landfill Sampling 2025			Project Name: Corn Belt-Spencer CCR Landfill Sampling 2025			Site: Corn Belt-Spencer CCR Landfill			Job / SDG No			Walk-in Client:			Lab Sampling					
P O #			Sample Identification			Sample Date			Sample Time			Sample Type (C=Comp, G=Grab)			Matrix			# of Cont.		
MW 1			9/18/25			15			42			G								
MW-4			9/18/25			12			47			G								
MW-5			9/19/25			13			32			G								
MW-6			9/19/25			4			10			G								
MW-7			9/19/25			15			05			G								
MW D			9/18/25			14			26			G								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other																				
Possible Hazard Identification																				
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample																				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown																				
Special Instructions/QC Requirements & Comments.																				
Custody Seals Intact: ☐ Yes ☐ No			Custody Seal No			Cooler Temp (°C)			Obs'd			Corr'd			Therm ID No					
Relinquished by: <i>Michael Morgan</i>			Company: SCS Engineers			Date/Time: 9/19/25 2 PM			Received by			Company:			Date/Time					
Relinquished by:			Company:			Date/Time			Received by			Company:			Date/Time					
Relinquished by			Company			Date/Time			Received in Laboratory by: <i>[Signature]</i>			Company			Date/Time 9.19.25 [Signature]					

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-316199-1

SDG Number: Corn Belt-Spencer CCR Landfil

Login Number: 316199

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Robison, Jessie

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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Appendix B-2

Data Validation

Site Name: Corn Belt Power Cooperative - Wisdom Station CCR Landfill
 Completed by: Semir Omerovic
 Lab Report Date: 10/7/2025
 Sampling Date: 9/18/2025
 Lab Report Number: 310-316199-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody

Temperature

Preservation

Condition

Case Narrative

Reporting Limits

Holding Times

Analytical Sensitivity and Blanks

Method Blank Detections

Trip Blank Detections

Accuracy

ICV/CCV

LCS/LCSD

MS/MSD

Surrogates (organics only)

Precision

QA/QC Sample RPDs

Field Duplicates

X			
X			
X			
X			
X			
	X		Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW-1 (310-31619-1) and MW-7 (310-316199-5). Elevated reporting limits (RLs) were provided.
X			

X			
		X	

X			
X			
X			
		X	

X			
X			The duplicate sample was collected from MW-6 during the 2025 sampling event. All parameters had <50% relative difference. Constituents with J flag concentrations were not considered for the duplicate sample comparisons.



Appendix C

Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Corn Belt Power Cooperative - Wisdom Station CCR Landfill (21-SPD-04-95C)

	Sample Date	MW-4 UPG	MW-1 DNG	MW-5 DNG	MW-6 DNG	MW-7 DNG
Total Metals Constituents						
Arsenic, mg/L (CAS NO - 7440-38-2)	9/20/2016	0.0032	< 0.002	< 0.002	0.00606	0.00262
	9/21/2017	0.0038	0.00485	< 0.002	0.00309	0.00261
	9/17/2018	0.00498	0.00576	0.008	0.00548	0.016
	9/10/2019	0.00419	0.00416	N/A	0.00768	0.00208
	9/16/2020	0.00303	< 0.002	< 0.002	0.00585	< 0.002
	9/13/2021	0.00353	< 0.002	< 0.002	0.00538	0.00224
	9/27/2022	0.00533	0.00386	0.000806*	0.0134	0.00288
	9/27/2022	N/A	N/A	0.00112*	N/A	N/A
	9/19/2023	0.00432	0.000759*	0.0011*	0.00278	0.00192*
	9/19/2023	N/A	N/A	0.00087*	N/A	N/A
	9/12/2024	0.00477	0.00104*	0.000884*	0.00242	0.00246
	9/12/2024	N/A	N/A	0.00104*	N/A	N/A
	9/18/2025	0.00336	0.000699*	0.00096*	0.00238	0.00203
	9/18/2025	N/A	N/A	N/A	0.00236	N/A
Barium, mg/L (CAS NO - 7440-39-3)	9/20/2016	0.0957	0.0549	0.0814	0.16	0.218
	9/21/2017	0.115	0.206	0.179	0.105	0.407
	9/17/2018	0.157	0.137	0.312	0.198	0.43
	9/10/2019	0.184	0.166	N/A	0.433	0.322
	9/16/2020	0.108	0.183	0.721	0.332	0.401
	9/13/2021	0.0855	0.0936	0.131	0.256	0.287
	9/27/2022	0.133	0.18	0.173	0.406	0.234
	9/27/2022	N/A	N/A	0.173	N/A	N/A
	9/19/2023	0.092	0.0577	0.0397	0.102	0.0814
	9/19/2023	N/A	N/A	0.0384	N/A	N/A
	9/12/2024	0.153	0.0511	0.0381	0.116	0.083
	9/12/2024	N/A	N/A	0.0331	N/A	N/A
	9/18/2025	0.188	0.0509	0.0303	0.0989	0.0801
	9/18/2025	N/A	N/A	N/A	0.102	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	9/20/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/21/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/17/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/10/2019	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	9/16/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/13/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Boron, mg/L (CAS NO - 7440-42-8)	9/27/2022	0.116	0.365	0.226	< 0.7	4.47
	9/27/2022	N/A	N/A	0.206	N/A	N/A
	9/19/2023	< 0.1	0.0899*	0.107	0.0907*	2.86
	9/19/2023	N/A	N/A	0.0812*	N/A	N/A
	9/12/2024	0.102	0.159	< 0.5	0.131	3.84
	9/12/2024	N/A	N/A	0.16	N/A	N/A
	9/18/2025	0.139	0.101	0.0922*	0.193	1.06
	9/18/2025	N/A	N/A	N/A	0.184	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Corn Belt Power Cooperative - Wisdom Station CCR Landfill (21-SPD-04-95C)

	Sample Date	MW-4 UPG	MW-1 DNG	MW-5 DNG	MW-6 DNG	MW-7 DNG
Total Metals Constituents						
Cadmium, mg/L (CAS NO - 7440-43-9)	9/20/2016	< 0.0005	0.000671	< 0.0005	< 0.0005	< 0.0005
	9/21/2017	< 0.0005	0.00068	< 0.0005	< 0.0005	0.000979
	9/17/2018	< 0.0005	0.000522	< 0.002	< 0.0005	< 0.004
	9/10/2019	0.000108	0.000813	N/A	0.00067	0.000623
	9/16/2020	< 0.0001	0.000884	0.000588	0.000474	0.000788
	9/13/2021	< 0.0001	0.000367	0.00016	0.000321	0.000382
	9/27/2022	0.000145	0.000868	0.000193	0.000549	0.000375
	9/27/2022	N/A	N/A	0.000207	N/A	N/A
	9/19/2023	< 0.0002	0.00012*	< 0.0002	< 0.0002	0.000154*
	9/19/2023	N/A	N/A	< 0.0002	N/A	N/A
	9/12/2024	< 0.0002	< 0.0002	0.00166	0.000215	< 0.0002
	9/12/2024	N/A	N/A	< 0.0002	N/A	N/A
	9/18/2025	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	9/18/2025	N/A	N/A	N/A	< 0.0002	N/A
Chloride, mg/L (CAS NO - 16887-00-6)	9/20/2016	17.1	< 5	11.3	13.4	18.1
	9/21/2017	22.3	15.1	15.8	13.5	22.5
	9/17/2018	61.1	< 5	7.66	12.1	21.6
	9/10/2019	12.6	< 5	N/A	13.2	22.4
	9/16/2020	19.7	11	12.1	14.4	29.4
	9/13/2021	16.6	13.8	18.3	14.1	14.2
	9/27/2022	21.3	15	26.7	21.2	18.8
	9/27/2022	N/A	N/A	26.4	N/A	N/A
	9/19/2023	19.5	16.1	26.3	18.2	19.8
	9/19/2023	N/A	N/A	26.2	N/A	N/A
	9/12/2024	26.8	5.03	25.6	20	22.3
	9/12/2024	N/A	N/A	25.1	N/A	N/A
	9/18/2025	29.7	4.18*	26.2	17.1	19.4
	9/18/2025	N/A	N/A	N/A	17	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	9/20/2016	0.000587	0.0103	< 0.0005	0.00318	0.00391
	9/21/2017	< 0.0005	0.0113	< 0.0005	0.00127	0.00426
	9/17/2018	0.000552	0.00535	0.00372	0.00427	0.0481
	9/10/2019	0.00131	0.00674	N/A	0.00628	0.00949
	9/16/2020	< 0.0005	0.00481	0.000971	0.00249	0.00175
	9/13/2021	< 0.0005	0.00178	< 0.0005	0.00153	0.00427
	9/27/2022	0.000461*	0.0062	0.00047*	0.00885	0.00971
	9/27/2022	N/A	N/A	0.0012	N/A	N/A
	9/19/2023	0.000223*	0.000198*	0.0002*	0.000799	0.00199
	9/19/2023	N/A	N/A	< 0.0005	N/A	N/A
	9/12/2024	< 0.0005	< 0.0005	0.000293*	0.000437*	0.00172
	9/12/2024	N/A	N/A	0.000267*	N/A	N/A
	9/18/2025	0.000518	< 0.0005	0.000196*	0.000171*	0.0012
	9/18/2025	N/A	N/A	N/A	< 0.0005	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Corn Belt Power Cooperative - Wisdom Station CCR Landfill (21-SPD-04-95C)

	Sample Date	MW-4 UPG	MW-1 DNG	MW-5 DNG	MW-6 DNG	MW-7 DNG
Total Metals Constituents						
Copper, mg/L (CAS NO - 7440-50-8)	9/20/2016	< 0.005	0.0139	< 0.005	< 0.005	0.00721
	9/21/2017	< 0.005	0.0178	< 0.005	< 0.005	0.0105
	9/17/2018	< 0.005	0.0112	< 0.02	< 0.005	< 0.04
	9/10/2019	< 0.005	0.013	N/A	< 0.005	0.00706
	9/16/2020	< 0.005	0.0133	0.00772	< 0.005	0.00727
	9/13/2021	< 0.005	0.00561	< 0.005	< 0.005	0.00501
	9/27/2022	0.00496*	0.0137	0.00245*	0.00453*	0.0049*
	9/27/2022	N/A	N/A	0.00282*	N/A	N/A
	9/19/2023	< 0.005	0.00181*	< 0.005	< 0.005	0.00196*
	9/19/2023	N/A	N/A	< 0.005	N/A	N/A
	9/12/2024	< 0.005	< 0.005	0.0018*	< 0.005	0.00184*
	9/12/2024	N/A	N/A	< 0.005	N/A	N/A
	9/18/2025	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/18/2025	N/A	N/A	N/A	< 0.005	N/A
Fluoride, mg/L (CAS NO - 16984-48-8)	9/27/2022	< 0.5	< 0.5	0.305*	< 0.5	< 0.5
	9/27/2022	N/A	N/A	0.303*	N/A	N/A
	9/19/2023	< 1	< 1	0.553*	< 1	< 1
	9/19/2023	N/A	N/A	0.54*	N/A	N/A
	9/12/2024	0.383*	< 1	0.655*	< 1	< 1
	9/12/2024	N/A	N/A	0.665*	N/A	N/A
	9/18/2025	0.588*	< 1	0.708*	0.403*	< 1
	9/18/2025	N/A	N/A	N/A	0.415*	N/A
Iron, Total, mg/L (CAS NO - 7439-89-6)	9/20/2016	0.308	8.24	1.56	2.35	2.08
	9/21/2017	1.32	16.3	0.869	1.02	1.09
	9/17/2018	2.72	12.5	4.22	4.77	4.84
	9/10/2019	3.07	16.5	N/A	3.79	1.15
	9/16/2020	1.33	4.9	0.576	2.43	0.191
	9/13/2021	1.52	2.97	0.117	2.16	0.56
	9/27/2022	2.11	13.6	0.212	6.11	1.77
	9/27/2022	N/A	N/A	1.05	N/A	N/A
	9/19/2023	1.02	0.379	0.192	0.527	0.0976*
	9/19/2023	N/A	N/A	0.125	N/A	N/A
	9/12/2024	3.75	0.0417*	0.14	0.214	0.401
	9/12/2024	N/A	N/A	0.177	N/A	N/A
	9/18/2025	0.303	< 0.1	0.202	< 0.1	< 0.1
	9/18/2025	N/A	N/A	N/A	< 0.1	N/A
Lead, mg/L (CAS NO - 7439-92-1)	9/20/2016	0.000752	0.00767	0.000567	0.00223	< 0.0005
	9/21/2017	0.000699	0.0104	< 0.0005	0.000913	< 0.0005
	9/17/2018	0.00212	0.00525	< 0.002	0.00223	< 0.004
	9/10/2019	0.00455	0.00695	N/A	< 0.0005	< 0.0005
	9/16/2020	0.00147	0.00199	< 0.0005	< 0.0005	< 0.0005
	9/13/2021	0.000612	0.00107	< 0.0005	< 0.0005	< 0.0005
	9/27/2022	0.00139	0.00584	< 0.0005	0.00155	0.000261*
	9/27/2022	N/A	N/A	0.000328*	N/A	N/A
	9/19/2023	0.000427*	< 0.0005	< 0.0005	0.000278*	< 0.0005
	9/19/2023	N/A	N/A	< 0.0005	N/A	N/A
	9/12/2024	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	9/12/2024	N/A	N/A	< 0.0005	N/A	N/A
	9/18/2025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	9/18/2025	N/A	N/A	N/A	< 0.0005	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Corn Belt Power Cooperative - Wisdom Station CCR Landfill (21-SPD-04-95C)

	Sample Date	MW-4 UPG	MW-1 DNG	MW-5 DNG	MW-6 DNG	MW-7 DNG
Total Metals Constituents						
Magnesium, mg/L (CAS NO - 7439-95-4)	9/20/2016	18.5	38.1	29.9	30.8	35.6
	9/21/2017	30.1	37.4	28.6	26.4	36.5
	9/17/2018	34.5	24	34.3	29.3	44.5
	9/10/2019	31.6	19.4	N/A	23.6	35.4
	9/16/2020	24.2	29.9	29	23.5	44.3
	9/13/2021	22.3	24	27.5	25.3	27.5
	9/27/2022	32.4	35.8	41.7	26.8	37.3
	9/27/2022	N/A	N/A	41.8	N/A	N/A
	9/19/2023	21.9	22	41.5	23.8	28
	9/19/2023	N/A	N/A	35.3	N/A	N/A
	9/12/2024	38.3	16.5	35	26.5	28.7
	9/12/2024	N/A	N/A	33.1	N/A	N/A
	9/18/2025	50	24.3	34.9	33.4	26.8
	9/18/2025	N/A	N/A	N/A	34	N/A
Manganese, mg/L (CAS NO - 7439-96-5)	9/20/2016	0.113	2.6	0.385	1.17	1.56
	9/21/2017	0.235	2.15	1	26.4	2.72
	9/17/2018	0.226	1.48	9.06	2.22	16.5
	9/10/2019	0.326	2.19	N/A	4.26	3.06
	9/16/2020	0.254	1.91	3.62	1.98	1.7
	9/13/2021	0.271	0.816	0.543	1.56	1.69
	9/27/2022	0.272	2.7	1.52	6.83	2.66
	9/27/2022	N/A	N/A	3.13	N/A	N/A
	9/19/2023	0.196	0.153	0.272	0.649	1.12
	9/19/2023	N/A	N/A	0.215	N/A	N/A
	9/12/2024	0.387	0.0273	0.701	0.483	1.07
	9/12/2024	N/A	N/A	0.502	N/A	N/A
	9/18/2025	0.413	< 0.01	0.269	0.135	0.87
	9/18/2025	N/A	N/A	N/A	0.101	N/A
Molybdenum, mg/L (CAS NO - 7439-98-7)	9/27/2022	0.00156*	0.00137*	< 0.002	0.0111	0.0219
	9/27/2022	N/A	N/A	0.0075	N/A	N/A
	9/19/2023	0.00202	< 0.002	0.00988	0.00423	0.0854
	9/19/2023	N/A	N/A	0.00997	N/A	N/A
	9/12/2024	0.00209	0.00181*	0.0227	0.00624	0.0664
	9/12/2024	N/A	N/A	0.0127	N/A	N/A
	9/18/2025	0.00599	< 0.002	0.00988	0.00285	0.0143
	9/18/2025	N/A	N/A	N/A	0.00272	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	9/20/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/21/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/17/2018	< 0.005	< 0.005	< 0.02	< 0.005	< 0.005
	9/10/2019	< 0.005	< 0.005	N/A	< 0.005	< 0.005
	9/16/2020	< 0.005	< 0.005	< 0.005	< 0.005	0.0128
	9/13/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/27/2022	N/A	N/A	N/A	N/A	0.00629
	9/19/2023	N/A	N/A	N/A	N/A	< 0.005
	9/12/2024	N/A	N/A	N/A	N/A	0.0035*
	9/18/2025	N/A	N/A	N/A	N/A	< 0.005

SCS ENGINEERS

Summary of Groundwater Chemistry

Corn Belt Power Cooperative - Wisdom Station CCR Landfill (21-SPD-04-95C)

	Sample Date	MW-4 UPG	MW-1 DNG	MW-5 DNG	MW-6 DNG	MW-7 DNG
Total Metals Constituents						
Sulfate, mg/L (CAS NO - 14808-79-8)	9/20/2016	44.6	10.2	37.1	51.9	162
	9/21/2017	78.3	49.3	95.9	79.9	197
	9/17/2018	94.9	16.5	82.4	62.4	270
	9/10/2019	48.9	11	N/A	66.3	237
	9/16/2020	53.8	36.5	63	74.4	353
	9/13/2021	51.4	50.3	96.2	145	94.2
	9/27/2022	61.6	48.4	122	116	239
	9/27/2022	N/A	N/A	121	N/A	N/A
	9/19/2023	47.6	48.6	113	103	207
	9/19/2023	N/A	N/A	114	N/A	N/A
	9/12/2024	58	13.6	97.5	93.1	175
	9/12/2024	N/A	N/A	94.3	N/A	N/A
	9/18/2025	143	18.7	108	106	123
	9/18/2025	N/A	N/A	N/A	106	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	9/20/2016	0.104	0.0407	0.0117	0.0522	0.0122
	9/21/2017	0.109	0.0585	0.0564	0.0497	< 0.02
	9/17/2018	0.112	0.0762	0.101	0.0815	< 0.16
	9/10/2019	0.209	0.0859	N/A	0.218	< 0.02
	9/16/2020	0.175	0.0217	0.139	0.117	0.0922
	9/13/2021	0.143	0.0352	0.0426	0.132	< 0.02
	9/27/2022	0.193	0.0661	0.0777	0.189	< 0.02
	9/27/2022	N/A	N/A	0.0766	N/A	N/A
	9/19/2023	0.057	0.00972*	< 0.02	0.0177*	0.00973*
	9/19/2023	N/A	N/A	< 0.02	N/A	N/A
	9/12/2024	< 0.02	< 0.02	< 0.02	0.025	< 0.02
	9/12/2024	N/A	N/A	< 0.02	N/A	N/A
	9/18/2025	0.232	< 0.02	< 0.02	< 0.02	< 0.02
	9/18/2025	N/A	N/A	N/A	< 0.02	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	9/27/2022	61	264	115	160	73
	9/27/2022	N/A	N/A	176	N/A	N/A
	9/19/2023	14.3	8.13	1.25*	20.8	4.62
	9/19/2023	N/A	N/A	11.4	N/A	N/A
	9/12/2024	20.8	3.75	< 1.88	5.88	4.38
	9/12/2024	N/A	N/A	19.7	N/A	N/A
	9/18/2025	< 1.88	< 1.88	9.5	< 1.88	< 1.88
	9/18/2025	N/A	N/A	N/A	< 1.88	N/A

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.

Appendix D
Statistical Report

STATISTICAL METHODOLOGY

Statistical Method

The approved Groundwater Assessment Plan Update (Doc #79942) proposed the use of parametric and non-parametric prediction limits for statistical evaluation in lieu of the control limits required by Iowa Administrative Code 567-103. Prediction limits are the recommended approach of the "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Unified Guidance," as published by the United States Environmental Protection Agency. Prediction limits are used for the statistical evaluation during this reporting period.

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The statistical program includes diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time series plots
- Ohio EPA Method for Outliers

Management of Non-Detect Data

Non-detect values in the dataset are managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data are non-detects, simple substitution is used, where non-detect values are assigned a concentration of one-half ($\frac{1}{2}$) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data are non-detects, the Kaplan-Meier estimator is used to define the distribution for the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

Background datasets are evaluated for outliers using the Ohio EPA Method as included in the statistical software program Sanitas™ and described below, which included the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets containing less than 75% of the measured concentrations below the practical quantification limit (PQL).

Management of Data (ND data < 75%)

If less than 75% of the background dataset is below the PQL, outliers are statistically evaluated using the following guidelines.

- Parametric datasets with $n < 20$ are evaluated using Dixon's outlier test.
- Parametric datasets with $n \geq 20$ are evaluated using Rosner's outlier test.
- Non-parametric datasets are evaluated using Tukey's outlier test.

In accordance with the Ohio EPA Method, if a statistically significant outlier is not found using the above tests, but the highest value data point exceeded the second highest data point by an order of magnitude, the highest point is considered an outlier.

Management of Data (ND data $\geq$ 75%)

If greater than or equal to 75% of the background dataset is less than the PQL, outliers are statistically evaluated using the following guidelines.

- Single detection $\geq$ PQL:
 - If $\geq$ 50% of the background dataset has detections $\geq$ method detection limit (MDL), any value $\geq$ two times PQL of background is considered an outlier.
 - If $<$ 50% of the background dataset has detections $\geq$ MDL, any value $\geq$ PQL of background is considered an outlier.
- Two or more detections $\geq$ PQL:
 - If $\geq$ 50% of the background dataset has detections $\geq$ MDL, any value $\geq$ three times PQL of background is considered an outlier.
 - If $<$ 50% of the background dataset has detections $\geq$ MDL, any value $\geq$ two times the PQL of background is considered an outlier.

Interwell Prediction Limits

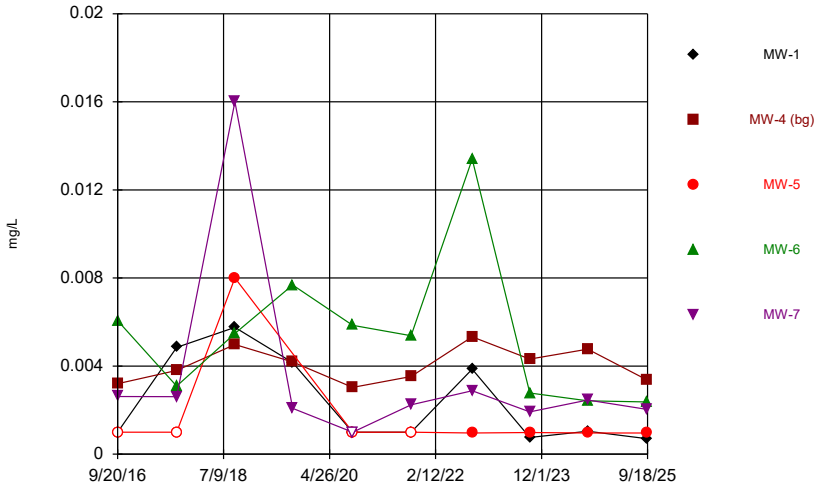
Interwell prediction limits were selected as the appropriate statistical method for the determination of constituents statistically above background. Prediction limits are established using the process below. Data from the most recent sampling events is compared to the prediction limits for the determination of constituents above background.

- If the dataset has a normal distribution (or could be transformed to a normal distribution using Ladder of Powers) and has less than 50% non-detects, parametric interwell prediction limits are calculated if at least five data sets had been collected.
- If the dataset did not have a normal distribution (and could not be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, non-parametric interwell prediction limits are calculated if at least five data sets had been collected.

Attachment A

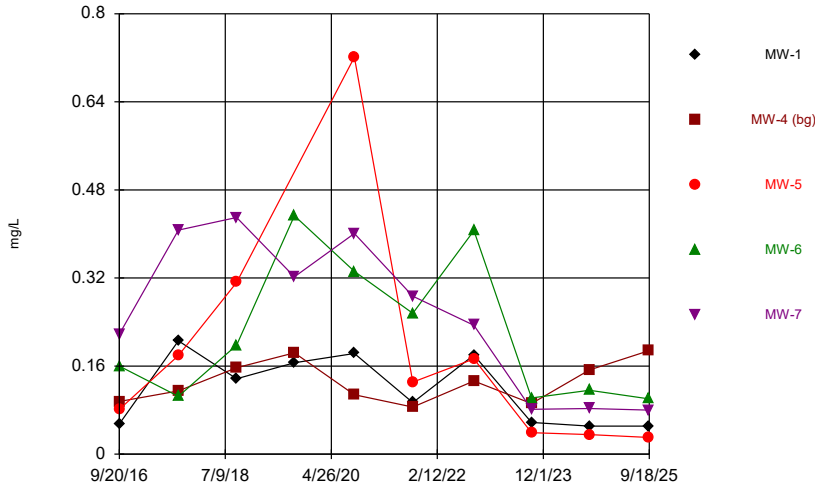
Time Series Graphs

Time Series



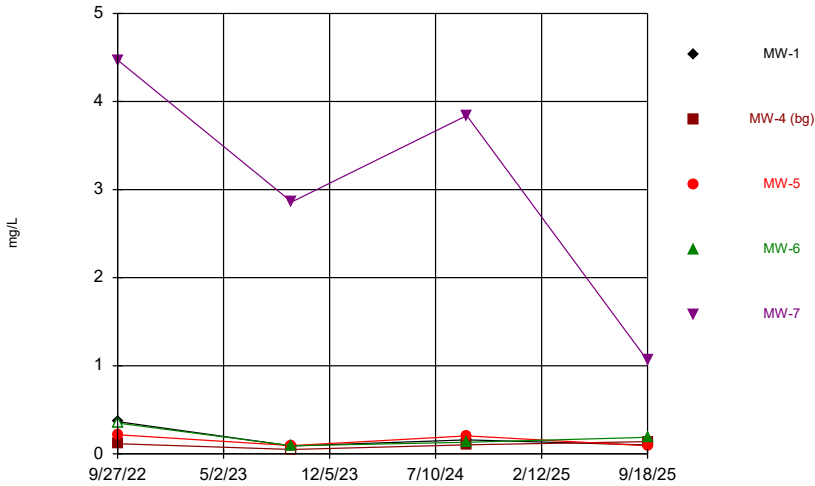
Constituent: Arsenic Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



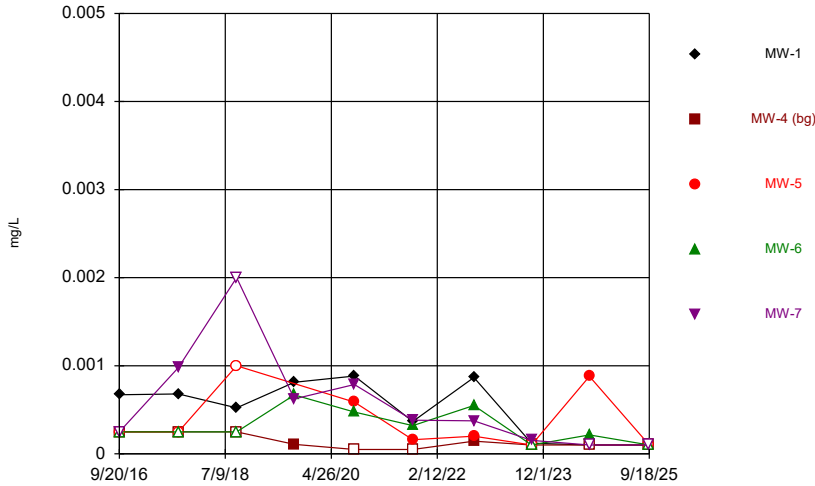
Constituent: Barium Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



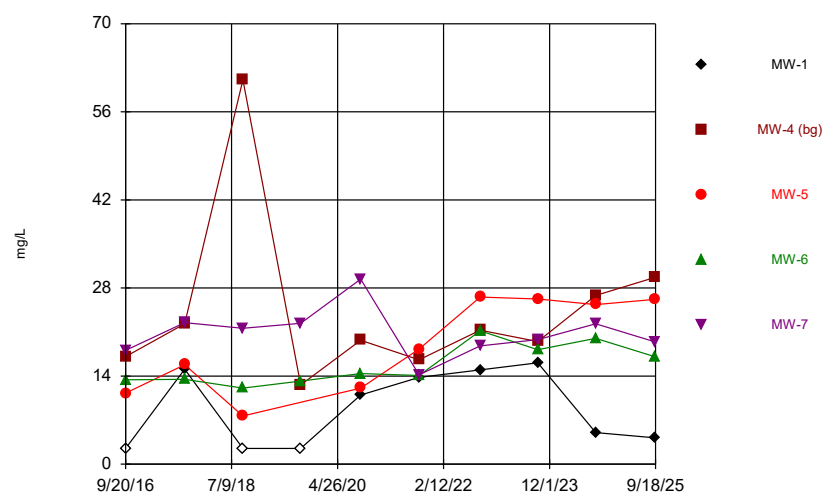
Constituent: Boron Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



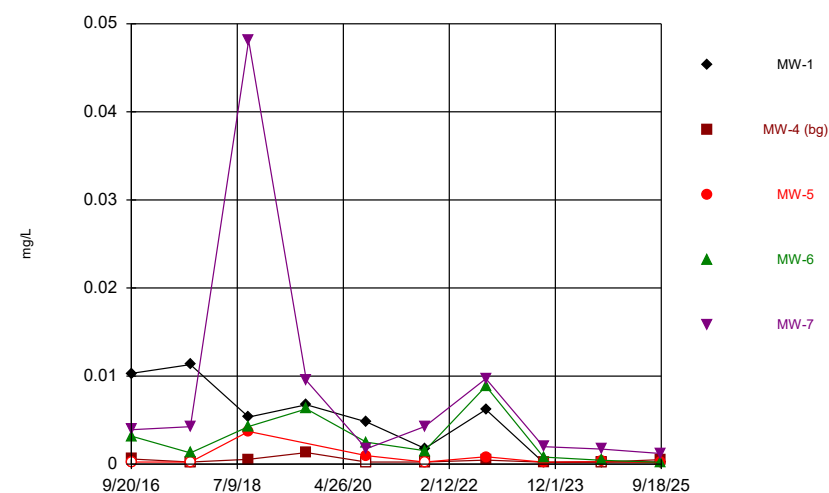
Constituent: Cadmium Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



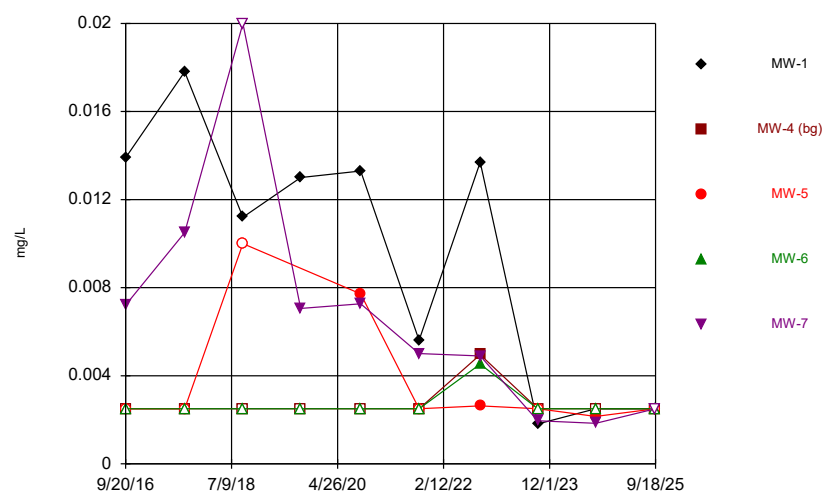
Constituent: Chloride Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



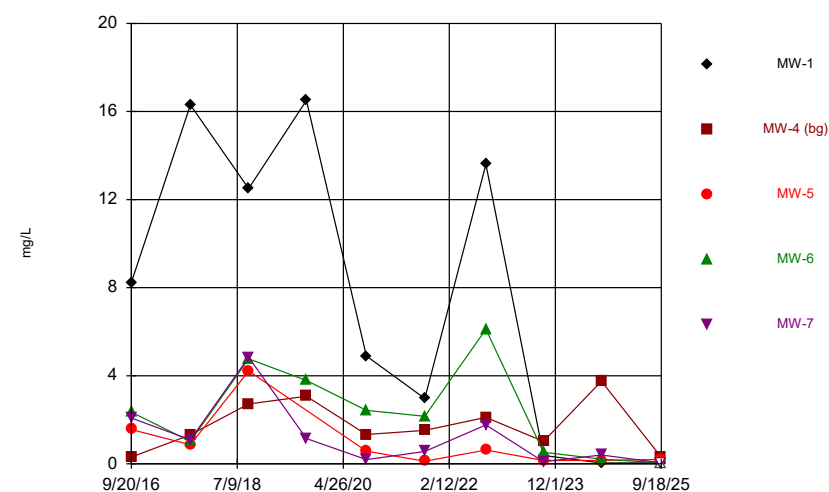
Constituent: Cobalt Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



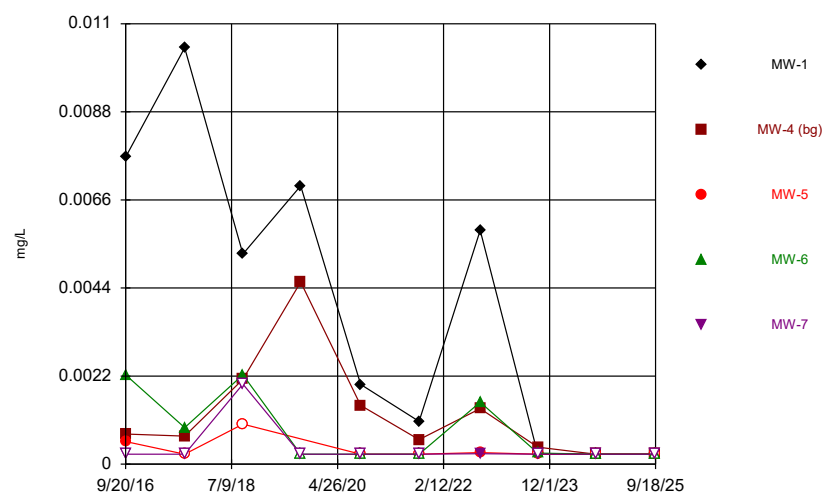
Constituent: Copper Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



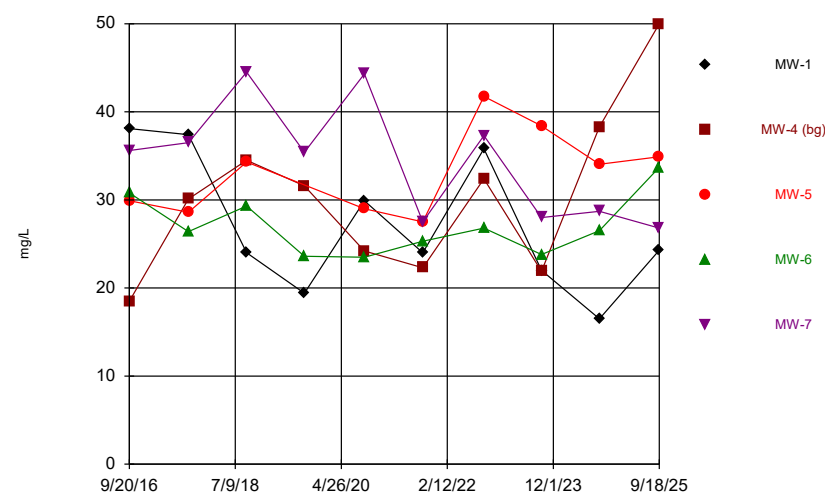
Constituent: Iron Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



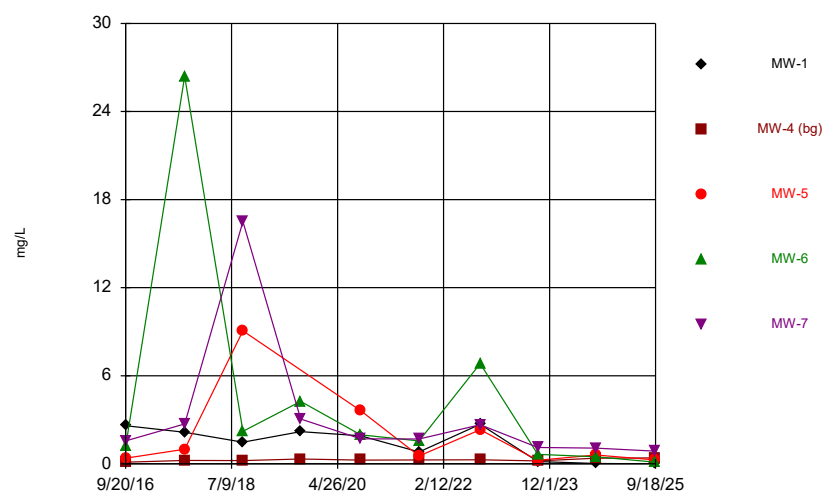
Constituent: Lead Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



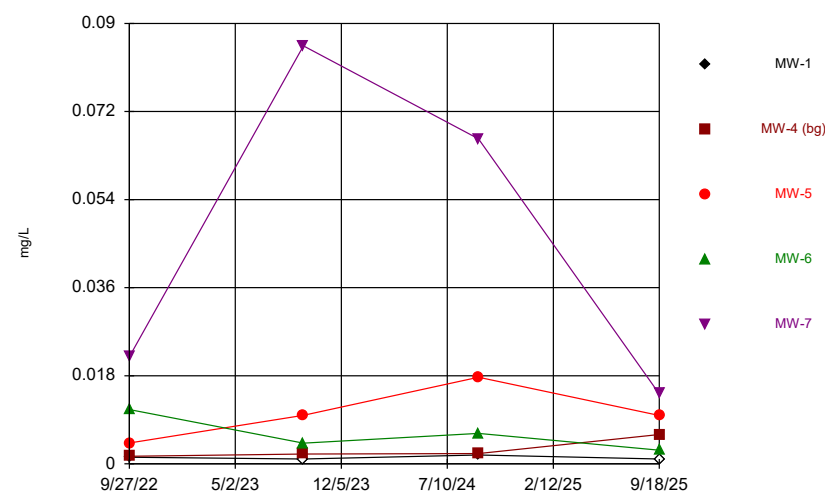
Constituent: Magnesium Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



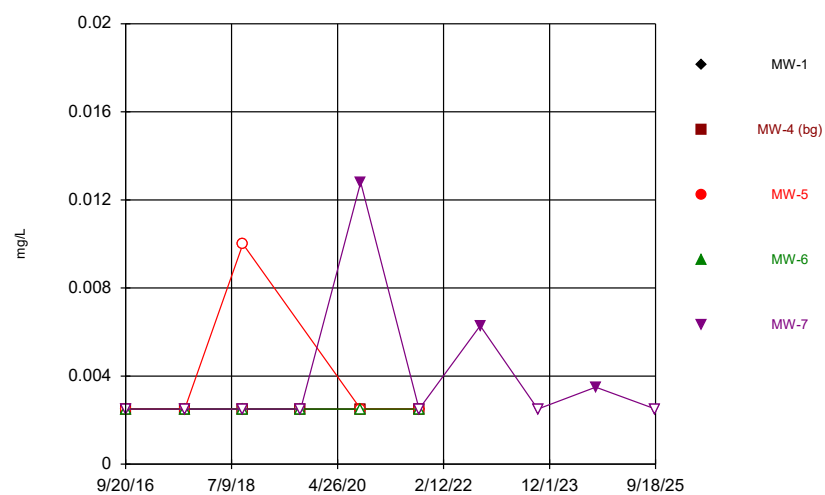
Constituent: Manganese Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



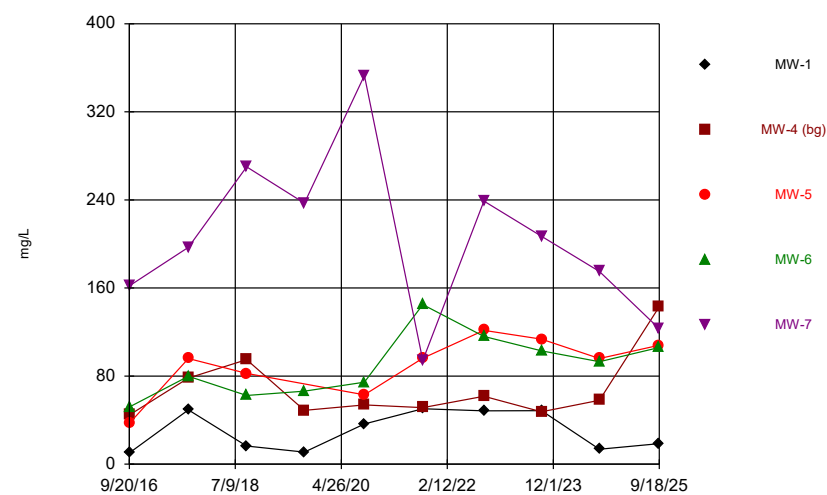
Constituent: Molybdenum Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



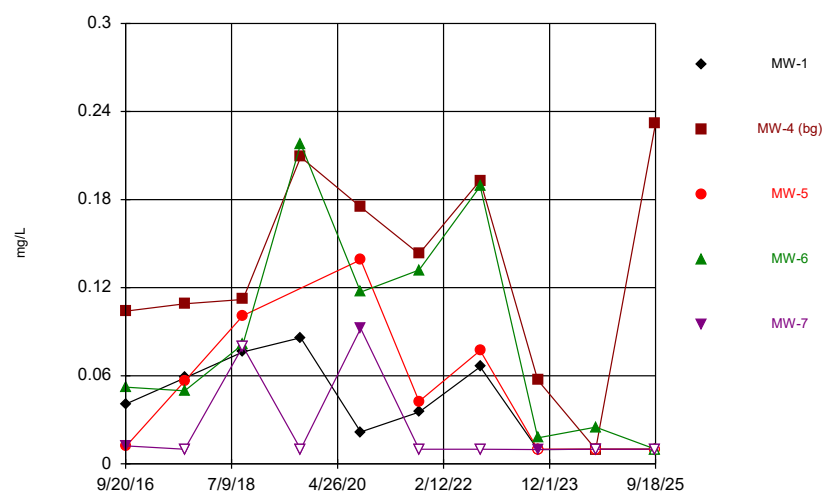
Constituent: Selenium Analysis Run 10/21/2025 12:29 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



Constituent: Sulfate Analysis Run 10/21/2025 12:30 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Time Series



Constituent: Zinc Analysis Run 10/21/2025 12:30 PM View: 2025_AWQR-Time_Series
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Attachment B

Outliers

MW-4 BG Outlier Analysis

Wisdom Station CCR LF

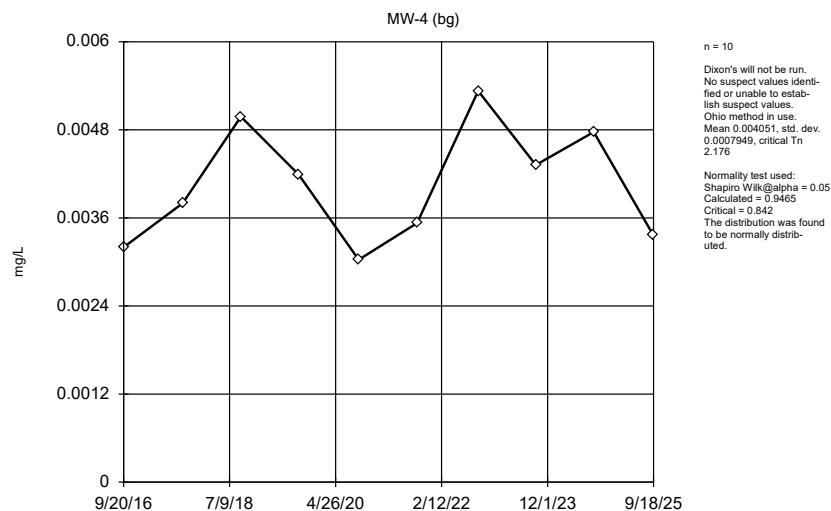
Client: Corn Belt Power Cooperative

Data: CBPCO HMSP

Printed 10/21/2025, 1:20 PM

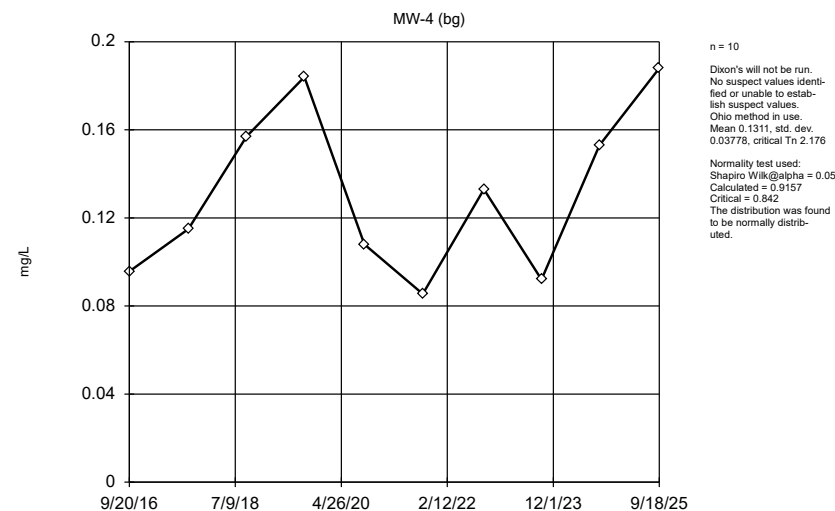
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-4 (bg)	No	n/a	n/a	EPA/OH	0.05	10	0.004051	0.0007949	normal	ShapiroWilk
Barium (mg/L)	MW-4 (bg)	No	n/a	n/a	EPA/OH	0.05	10	0.1311	0.03778	normal	ShapiroWilk
Cadmium (mg/L)	MW-4 (bg)	Yes	0.00025,0.00025,0.00025	9/20/2016,9/21/2017,9/17/2018	OH	NaN	10	0.0001403	0.00008052	n/a	n/a
Chloride (mg/L)	MW-4 (bg)	Yes	61.1	9/17/2018	Dixon/OH	0.05	10	24.67	13.72	normal	ShapiroWilk
Cobalt (mg/L)	MW-4 (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	10	0.0004651	0.0003304	unknown	ShapiroWilk
Copper (mg/L)	MW-4 (bg)	Yes	0.00496	9/27/2022	OH	NaN	10	0.002746	0.0007779	n/a	n/a
Iron (mg/L)	MW-4 (bg)	No	n/a	n/a	EPA/OH	0.05	10	1.745	1.151	normal	ShapiroWilk
Lead (mg/L)	MW-4 (bg)	No	n/a	n/a	EPA/OH	0.05	10	0.001252	0.001306	ln(x)	ShapiroWilk
Magnesium (mg/L)	MW-4 (bg)	No	n/a	n/a	EPA/OH	0.05	10	30.38	9.35	normal	ShapiroWilk
Manganese (mg/L)	MW-4 (bg)	No	n/a	n/a	Dixon/OH	0.05	10	0.2693	0.0887	normal	ShapiroWilk
Sulfate (mg/L)	MW-4 (bg)	Yes	143	9/18/2025	Dixon/OH	0.05	10	68.21	30.55	normal	ShapiroWilk
Zinc (mg/L)	MW-4 (bg)	No	n/a	n/a	Dixon/OH	0.05	10	0.1344	0.06975	normal	ShapiroWilk

EPA Screening (suspected outliers for Dixon's Test)



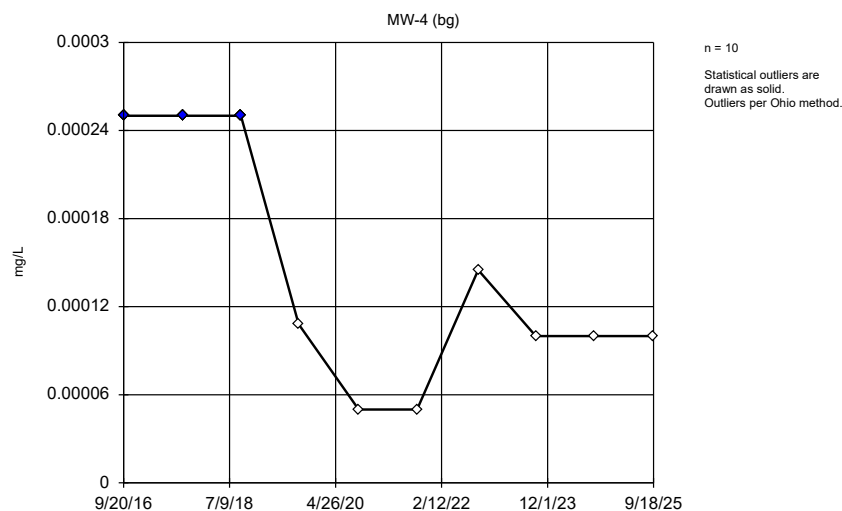
Constituent: Arsenic Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

EPA Screening (suspected outliers for Dixon's Test)



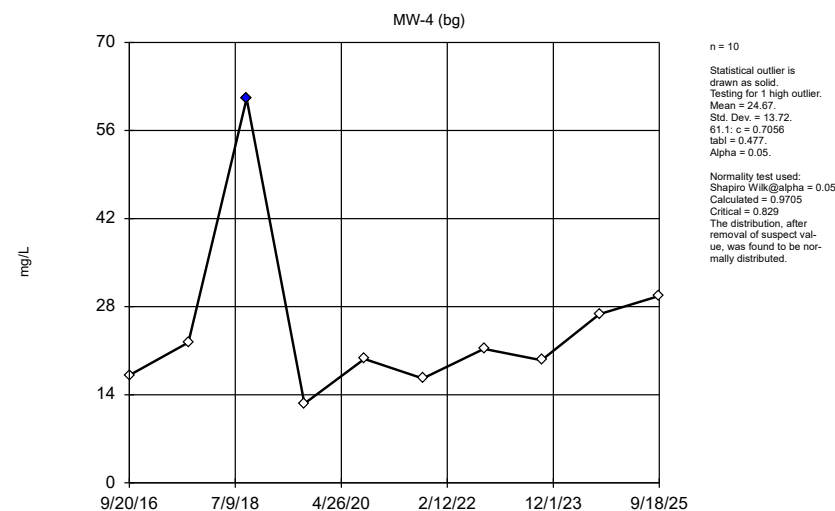
Constituent: Barium Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Ohio EPA 0715 Outlier Algorithm



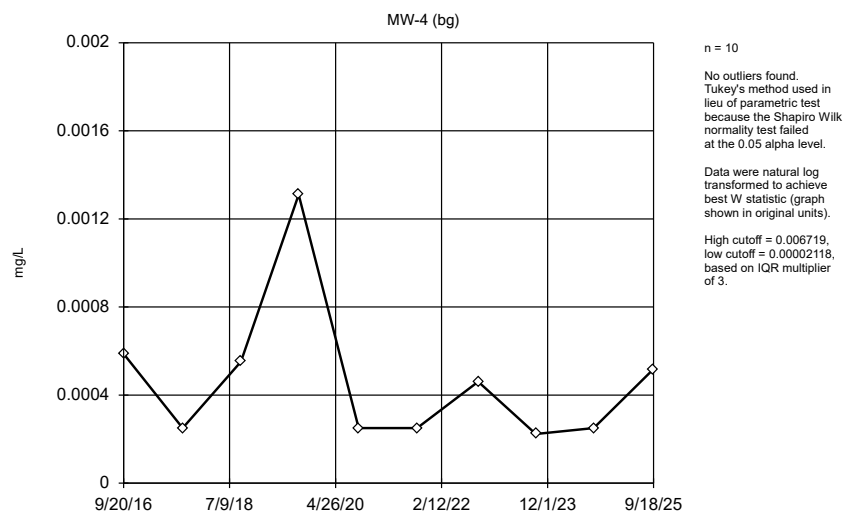
Constituent: Cadmium Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



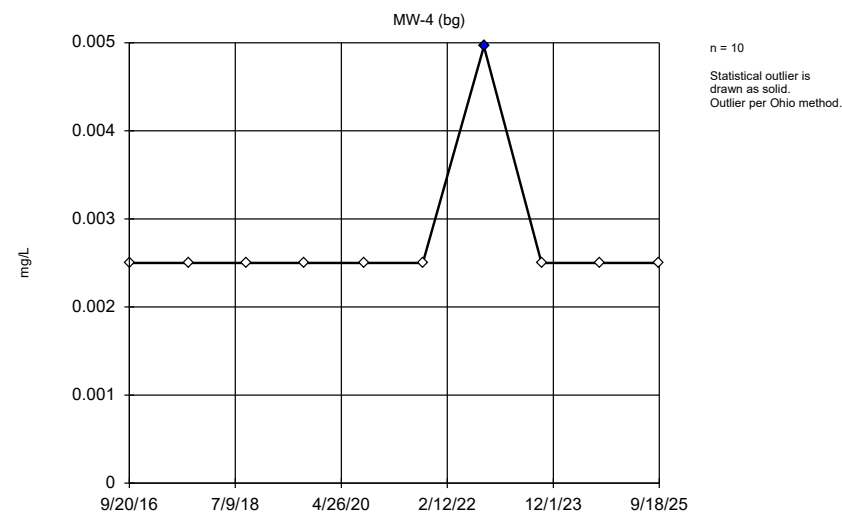
Constituent: Chloride Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



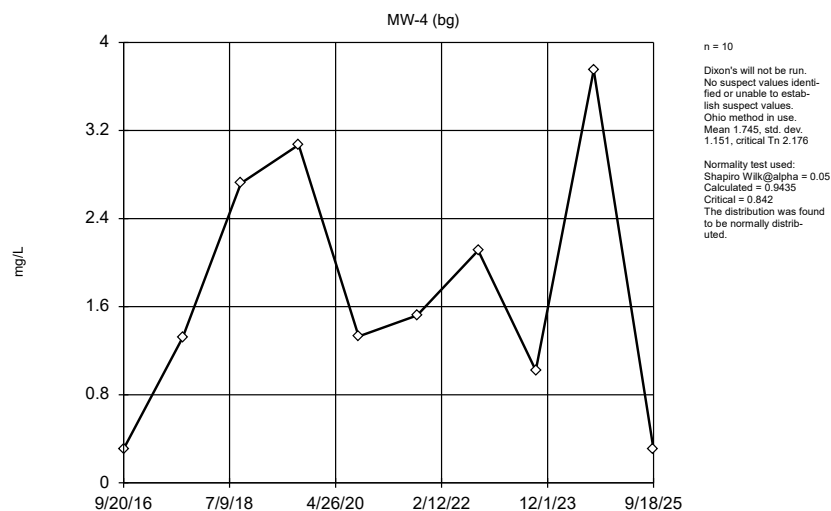
Constituent: Cobalt Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Ohio EPA 0715 Outlier Algorithm



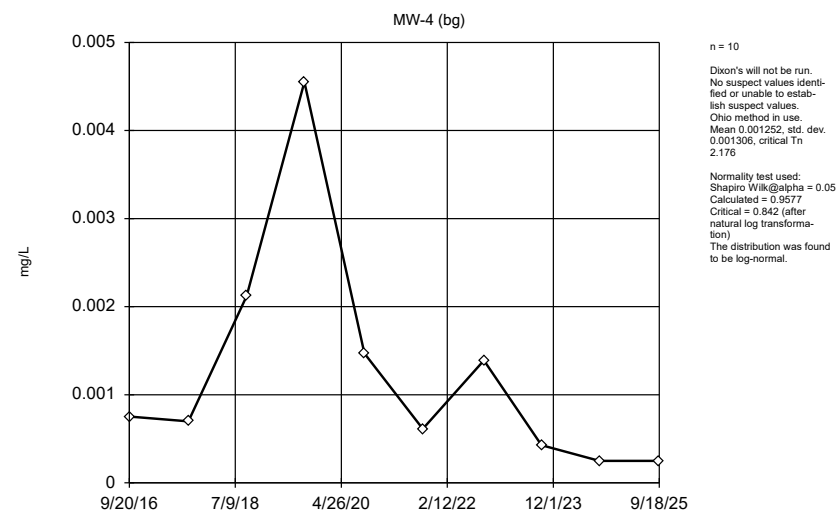
Constituent: Copper Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

EPA Screening (suspected outliers for Dixon's Test)



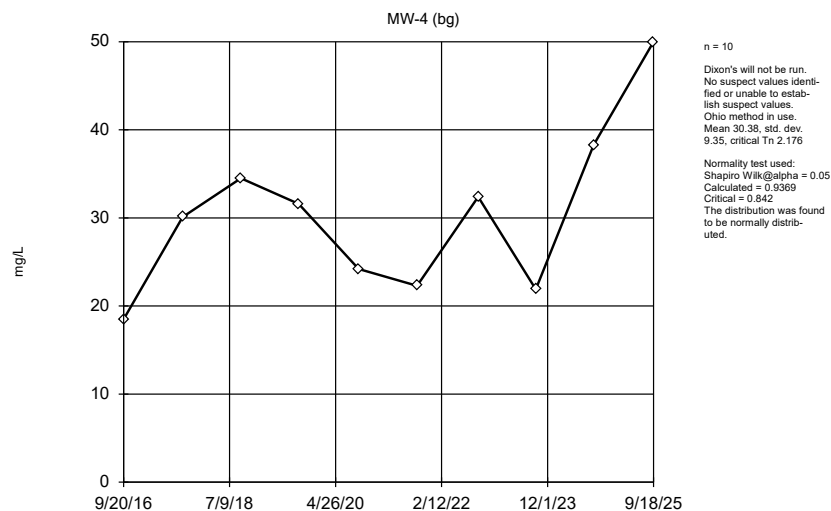
Constituent: Iron Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

EPA Screening (suspected outliers for Dixon's Test)



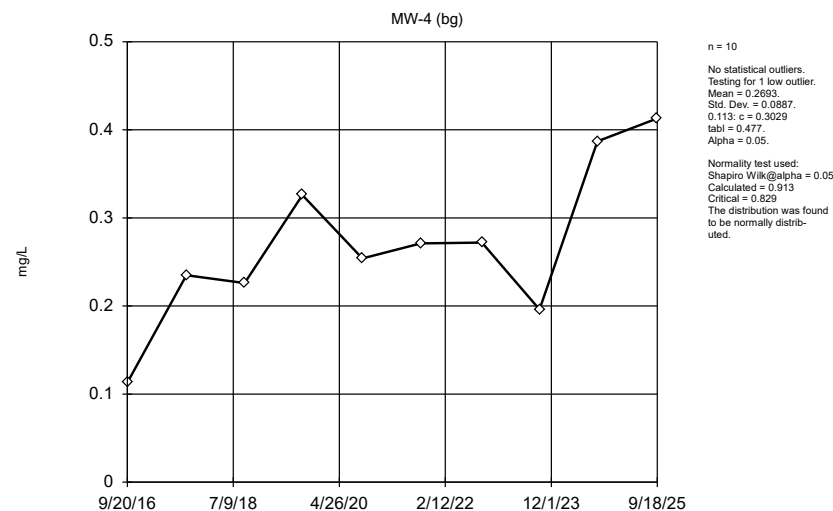
Constituent: Lead Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

EPA Screening (suspected outliers for Dixon's Test)



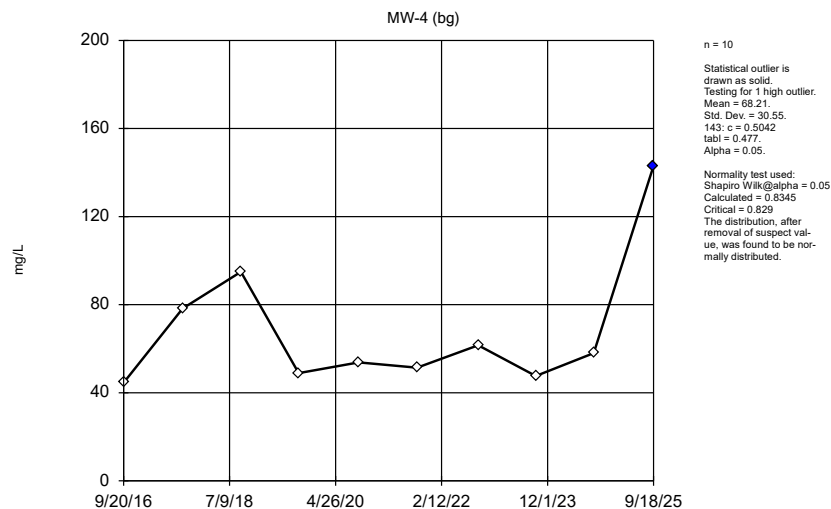
Constituent: Magnesium Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



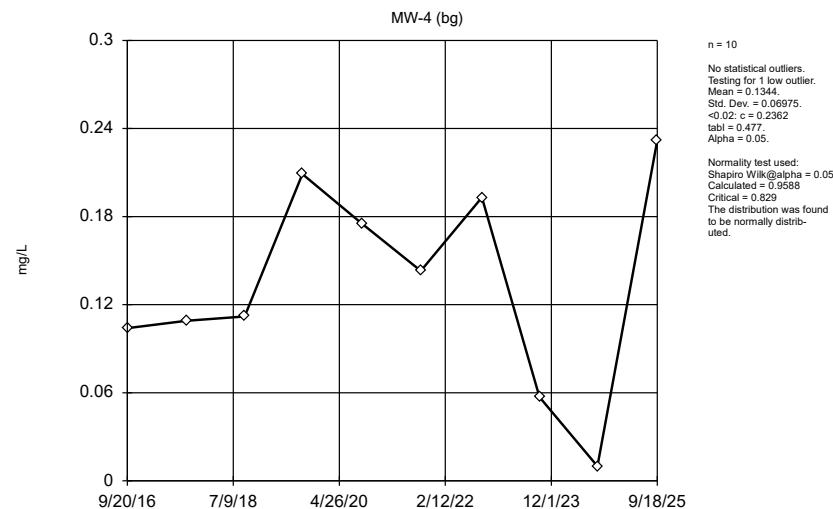
Constituent: Manganese Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



Constituent: Sulfate Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



Constituent: Zinc Analysis Run 10/21/2025 1:16 PM View: 2025_AWQR-MW-4_Outliers
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Attachment C

Prediction Limits

Prediction Limit

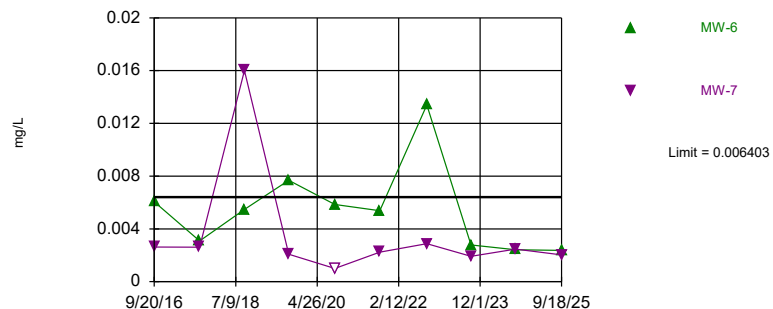
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP Printed 10/21/2025, 1:43 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-6	0.006403	n/a	9/18/2025	0.00237	No	10	MW-4	0.004051	0.0007949	0	None	No	0.01	Param Inter
Arsenic (mg/L)	MW-7	0.006403	n/a	9/18/2025	0.00203	No	10	MW-4	0.004051	0.0007949	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-1	0.2429	n/a	9/18/2025	0.0509	No	10	MW-4	0.1311	0.03778	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-5	0.2429	n/a	9/18/2025	0.0303	No	10	MW-4	0.1311	0.03778	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-6	0.2429	n/a	9/18/2025	0.1005	No	10	MW-4	0.1311	0.03778	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-7	0.2429	n/a	9/18/2025	0.0801	No	10	MW-4	0.1311	0.03778	0	None	No	0.01	Param Inter
Chloride (mg/L)	MW-5	69.33	n/a	9/18/2025	26.2	No	10	MW-4	4.839	1.178	0	None	sqrt(x)	0.01	Param Inter
Chloride (mg/L)	MW-6	69.33	n/a	9/18/2025	17.05	No	10	MW-4	4.839	1.178	0	None	sqrt(x)	0.01	Param Inter
Chloride (mg/L)	MW-7	69.33	n/a	9/18/2025	19.4	No	10	MW-4	4.839	1.178	0	None	sqrt(x)	0.01	Param Inter
Cobalt (mg/L)	MW-7	0.001544	n/a	9/18/2025	0.0012	No	10	MW-4	0.02159	0.005985	40	Kaplan-Meier	sqrt(x)	0.01	Param Inter
Iron (mg/L)	MW-5	5.152	n/a	9/18/2025	0.202	No	10	MW-4	1.745	1.151	0	None	No	0.01	Param Inter
Magnesium (mg/L)	MW-1	58.05	n/a	9/18/2025	24.3	No	10	MW-4	30.38	9.35	0	None	No	0.01	Param Inter
Magnesium (mg/L)	MW-5	58.05	n/a	9/18/2025	34.9	No	10	MW-4	30.38	9.35	0	None	No	0.01	Param Inter
Magnesium (mg/L)	MW-6	58.05	n/a	9/18/2025	33.7	No	10	MW-4	30.38	9.35	0	None	No	0.01	Param Inter
Magnesium (mg/L)	MW-7	58.05	n/a	9/18/2025	26.8	No	10	MW-4	30.38	9.35	0	None	No	0.01	Param Inter
Manganese (mg/L)	MW-5	0.5318	n/a	9/18/2025	0.269	No	10	MW-4	0.2693	0.0887	0	None	No	0.01	Param Inter
Manganese (mg/L)	MW-6	0.5318	n/a	9/18/2025	0.118	No	10	MW-4	0.2693	0.0887	0	None	No	0.01	Param Inter
Manganese (mg/L)	MW-7	0.5318	n/a	9/18/2025	0.87	Yes	10	MW-4	0.2693	0.0887	0	None	No	0.01	Param Inter
Sulfate (mg/L)	MW-1	169	n/a	9/18/2025	18.7	No	10	MW-4	8.109	1.653	0	None	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-5	169	n/a	9/18/2025	108	No	10	MW-4	8.109	1.653	0	None	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-6	169	n/a	9/18/2025	106	No	10	MW-4	8.109	1.653	0	None	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-7	169	n/a	9/18/2025	123	No	10	MW-4	8.109	1.653	0	None	sqrt(x)	0.01	Param Inter

Within Limit

Prediction Limit

Interwell Parametric



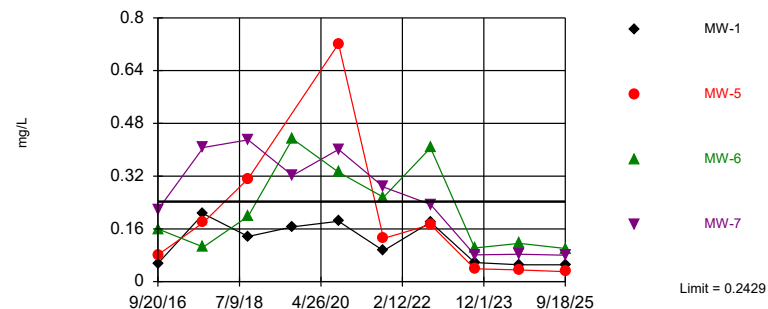
Background Data Summary: Mean=0.004051, Std. Dev.=0.0007949, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9465, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Based on user-set k of 4 (assumes 2 future values).

Constituent: Arsenic Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



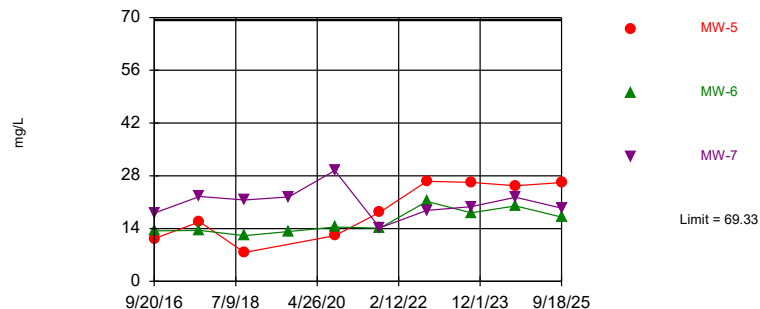
Background Data Summary: Mean=0.1311, Std. Dev.=0.03778, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9157, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

Constituent: Barium Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



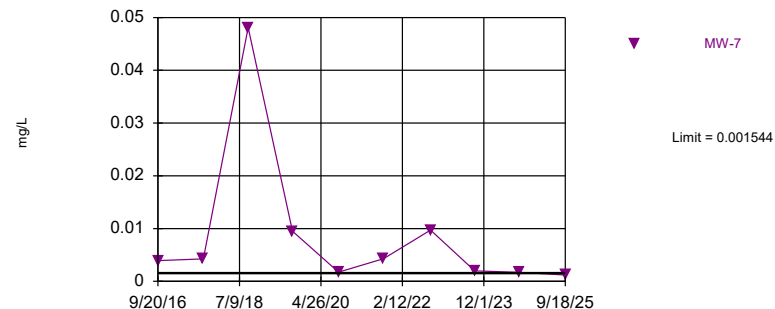
Background Data Summary (based on square root transformation): Mean=4.839, Std. Dev.=1.178, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8035, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Based on user-set k of 4 (assumes 1 future value).

Constituent: Chloride Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



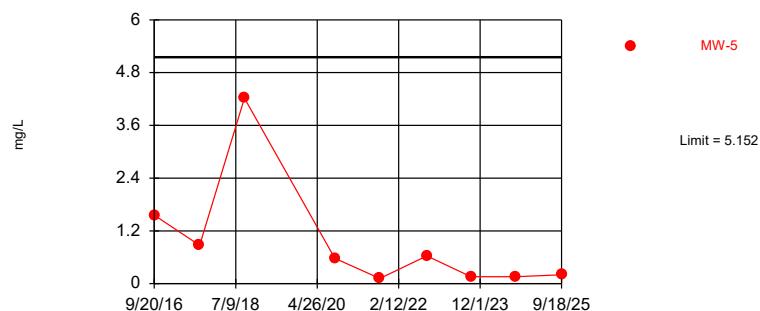
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.02159, Std. Dev.=0.005985, n=10, 40% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7946, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Based on user-set k of 4 (assumes 3 future values).

Constituent: Cobalt Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



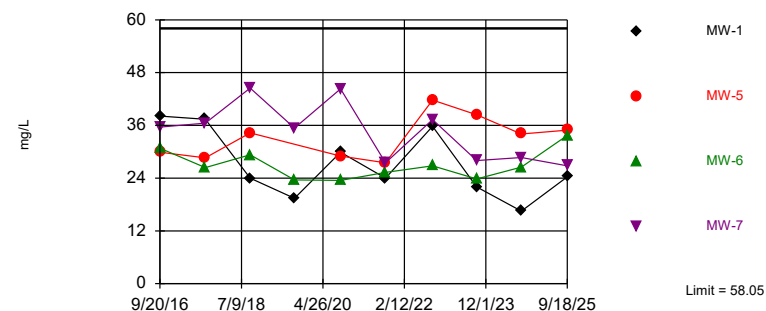
Background Data Summary: Mean=1.745, Std. Dev.=1.151, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9435, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Based on user-set k of 4 (assumes 3 future values).

Constituent: Iron Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



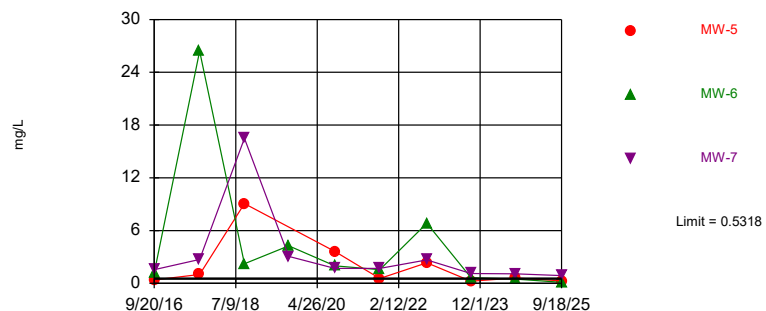
Background Data Summary: Mean=30.38, Std. Dev.=9.35, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9369, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

Constituent: Magnesium Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Exceeds Limit: MW-7

Prediction Limit

Interwell Parametric



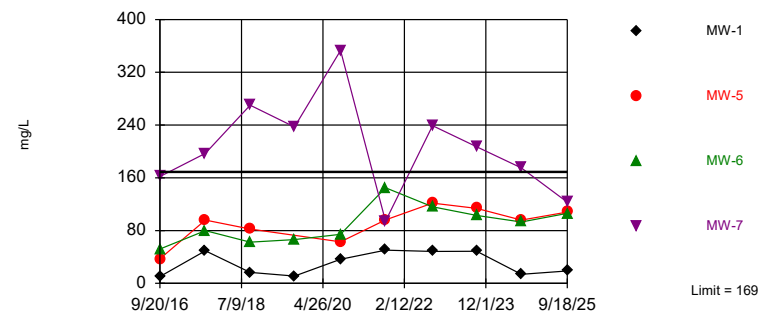
Background Data Summary: Mean=0.2693, Std. Dev.=0.0887, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9667, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Based on user-set k of 4 (assumes 1 future value).

Constituent: Manganese Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=8.109, Std. Dev.=1.653, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8083, critical = 0.781. Report alpha = 0.0394. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

Constituent: Sulfate Analysis Run 10/21/2025 1:40 PM View: 2025_AWQR-Prediction_Limit
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO HMSP

Attachment D

Trend Test ($\alpha=0.01$)

Trend Test

Wisdom Station CCR LF

Client: Corn Belt Power Cooperative

Data: CBPCO_AM_2025_AWQR_FromRStudio

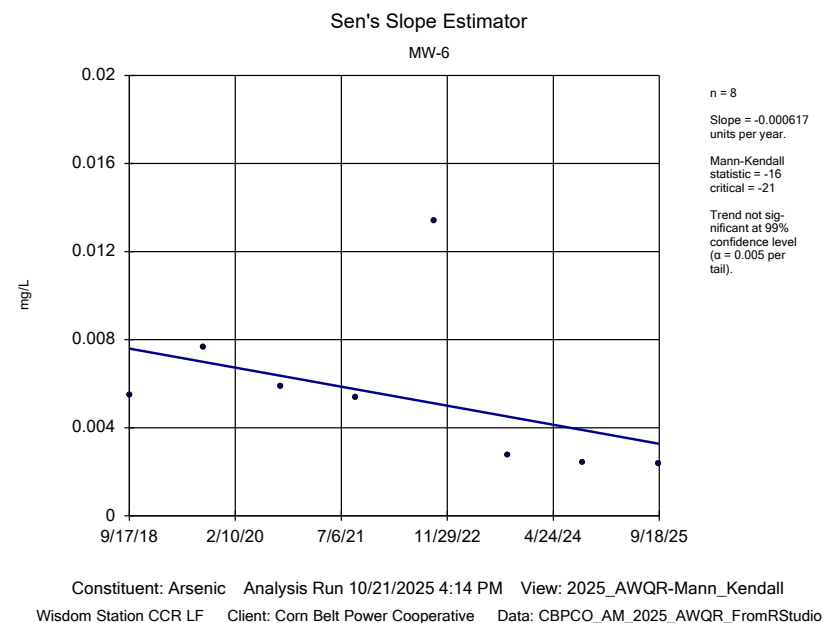
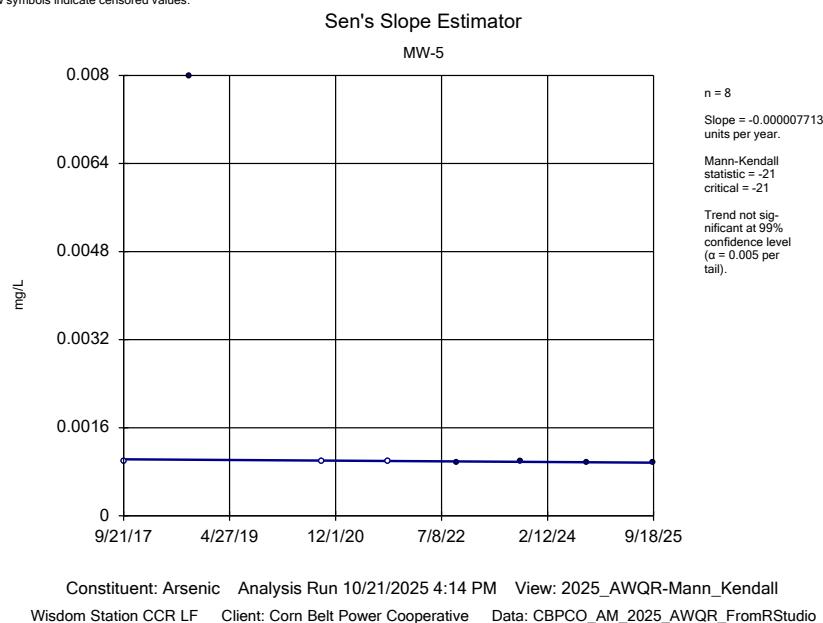
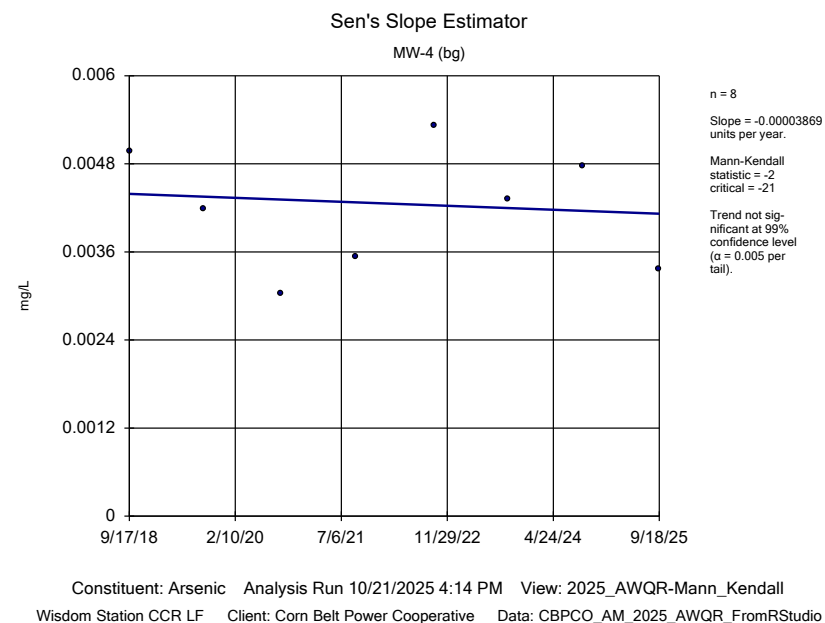
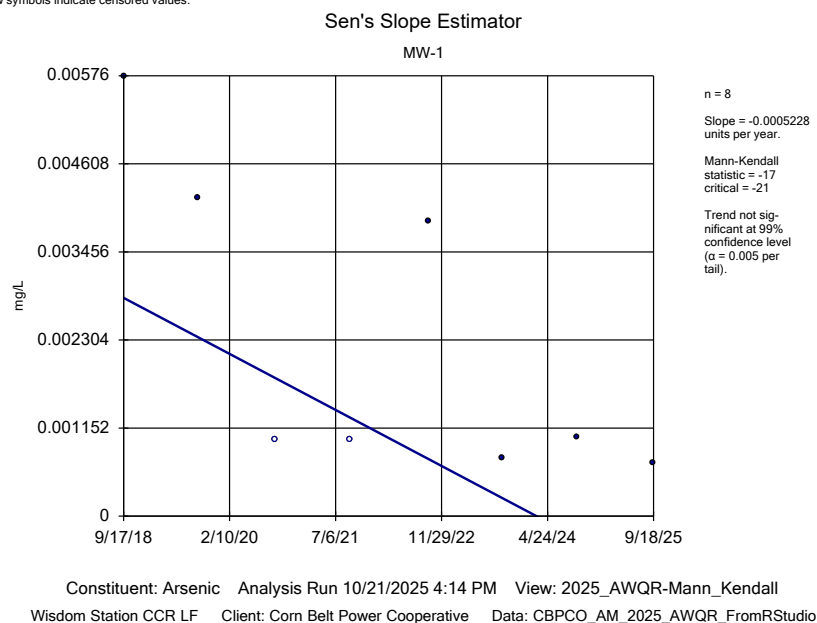
Printed 10/21/2025, 4:16 PM

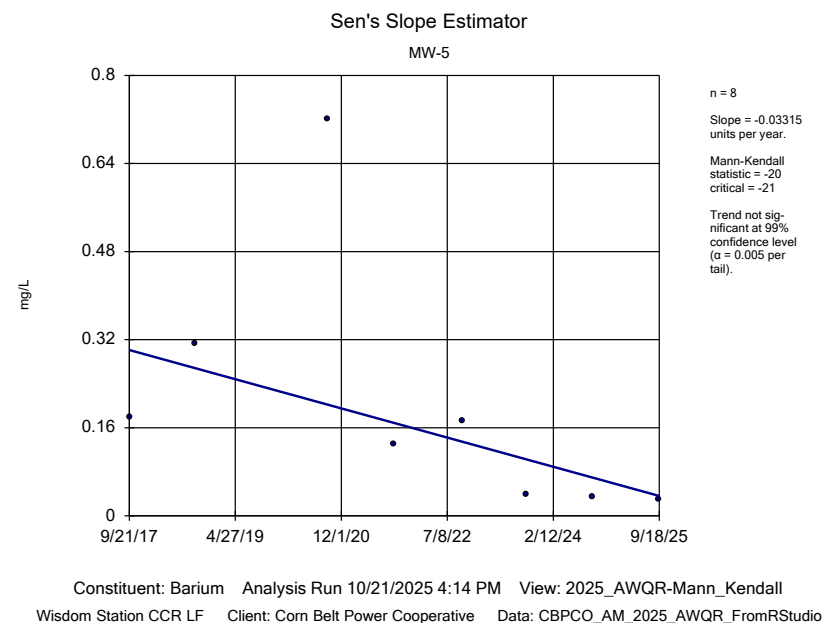
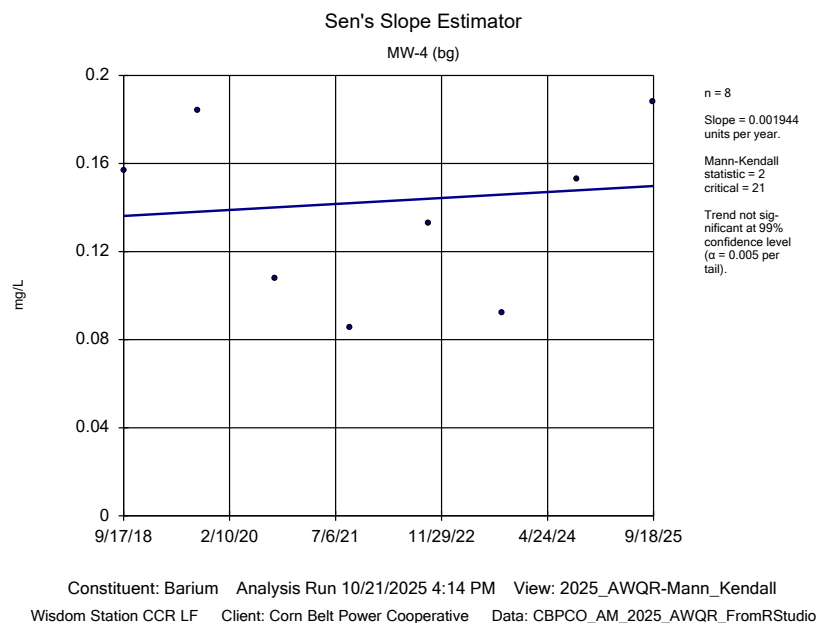
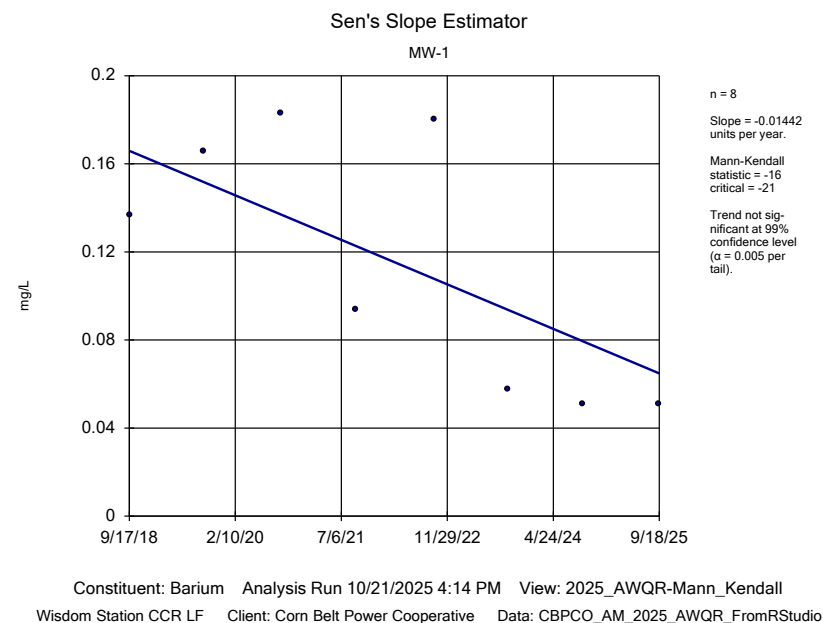
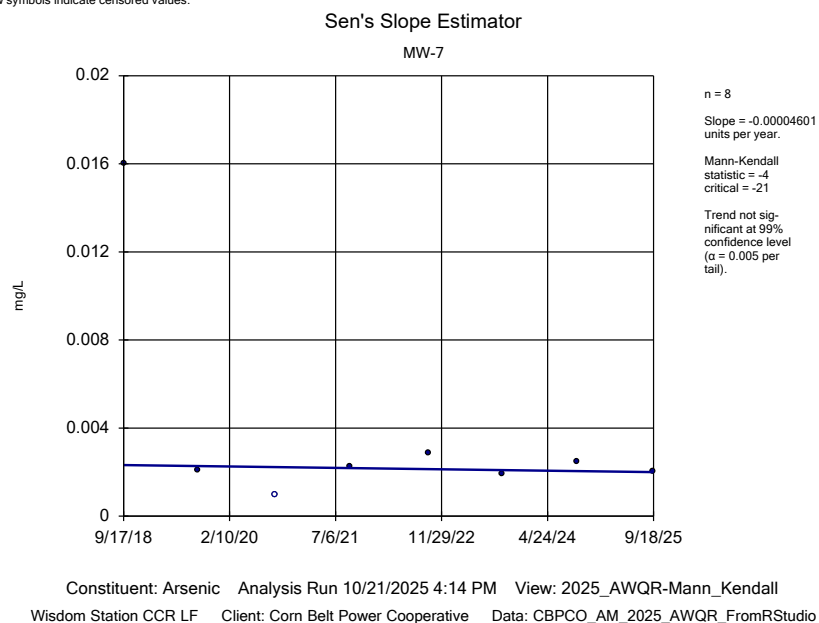
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-1	-0.0005228	-17	-21	No	8	25	0.01	NP
Arsenic (mg/L)	MW-4 (bg)	-0.00003869	-2	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-5	-0.000007713	-21	-21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-6	-0.000617	-16	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-7	-0.00004601	-4	-21	No	8	12.5	0.01	NP
Barium (mg/L)	MW-1	-0.01442	-16	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-4 (bg)	0.001944	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-5	-0.03315	-20	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-6	-0.04248	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-7	-0.0516	-24	-21	Yes	8	0	0.01	NP
Boron (mg/L)	MW-1	-0.07285	-2	-8	No	4	0	0.01	NP
Boron (mg/L)	MW-4 (bg)	0.02206	2	8	No	4	25	0.01	NP
Boron (mg/L)	MW-5	-0.02359	-4	-8	No	4	0	0.01	NP
Boron (mg/L)	MW-6	-0.006628	0	8	No	4	25	0.01	NP
Boron (mg/L)	MW-7	-1.023	-4	-8	No	4	0	0.01	NP
Cadmium (mg/L)	MW-1	-0.00007535	-15	-21	No	8	25	0.01	NP
Cadmium (mg/L)	MW-4 (bg)	-0.000001462	-6	-21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-5	-0.00002381	-11	-21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-6	-0.00005995	-13	-21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-7	-0.0001286	-25	-21	Yes	8	37.5	0.01	NP
Chloride (mg/L)	MW-1	0.8148	9	21	No	8	25	0.01	NP
Chloride (mg/L)	MW-4 (bg)	1.884	8	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-5	2.181	14	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-6	1.164	16	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-7	-0.257	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-1	-0.0008808	-15	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-4 (bg)	-0.00001118	-7	-21	No	8	37.5	0.01	NP
Cobalt (mg/L)	MW-5	-0.00007482	-13	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-6	-0.0005707	-18	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-7	-0.001463	-18	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-1	-0.001597	-9	-21	No	8	25	0.01	NP
Copper (mg/L)	MW-5	-0.0001273	-12	-21	No	8	62.5	0.01	NP
Copper (mg/L)	MW-7	-0.001217	-22	-21	Yes	8	25	0.01	NP
Iron (mg/L)	MW-1	-1.64	-18	-21	No	8	12.5	0.01	NP
Iron (mg/L)	MW-4 (bg)	-0.2755	-8	-21	No	8	0	0.01	NP
Iron (mg/L)	MW-5	-0.1032	-11	-21	No	8	0	0.01	NP
Iron (mg/L)	MW-6	-0.6611	-20	-21	No	8	12.5	0.01	NP
Iron (mg/L)	MW-7	-0.2453	-16	-21	No	8	12.5	0.01	NP
Lead (mg/L)	MW-1	-0.0006459	-17	-21	No	8	37.5	0.01	NP
Lead (mg/L)	MW-4 (bg)	-0.0003185	-23	-21	Yes	8	25	0.01	NP
Lead (mg/L)	MW-6	0	-6	-21	No	8	62.5	0.01	NP
Magnesium (mg/L)	MW-1	-0.1997	-1	-21	No	8	0	0.01	NP
Magnesium (mg/L)	MW-4 (bg)	0.9856	4	21	No	8	0	0.01	NP
Magnesium (mg/L)	MW-5	0.8032	8	21	No	8	0	0.01	NP
Magnesium (mg/L)	MW-6	0.6033	8	21	No	8	0	0.01	NP
Magnesium (mg/L)	MW-7	-2.197	-16	-21	No	8	0	0.01	NP
Manganese (mg/L)	MW-1	-0.2639	-16	-21	No	8	12.5	0.01	NP
Manganese (mg/L)	MW-4 (bg)	0.01474	12	21	No	8	0	0.01	NP
Manganese (mg/L)	MW-5	-0.4825	-14	-21	No	8	0	0.01	NP
Manganese (mg/L)	MW-6	-0.3591	-18	-21	No	8	0	0.01	NP

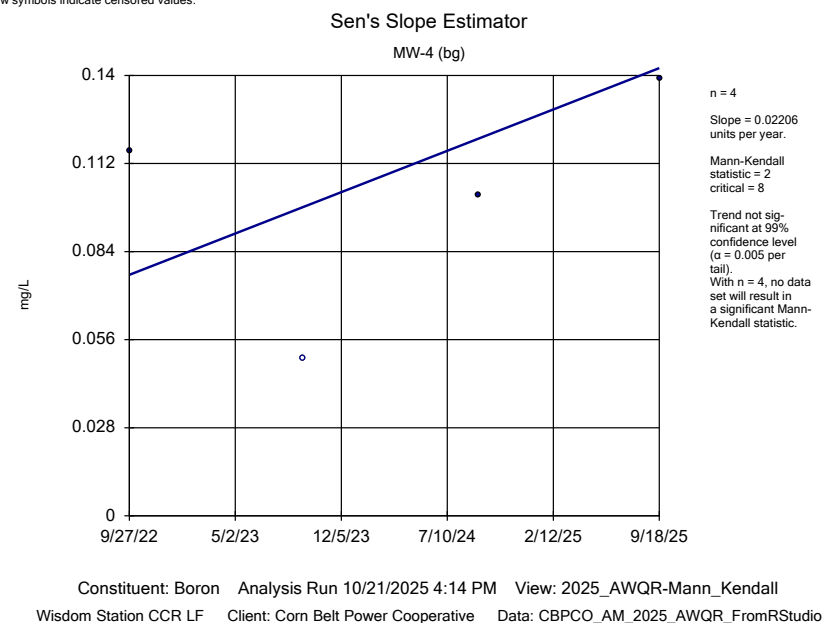
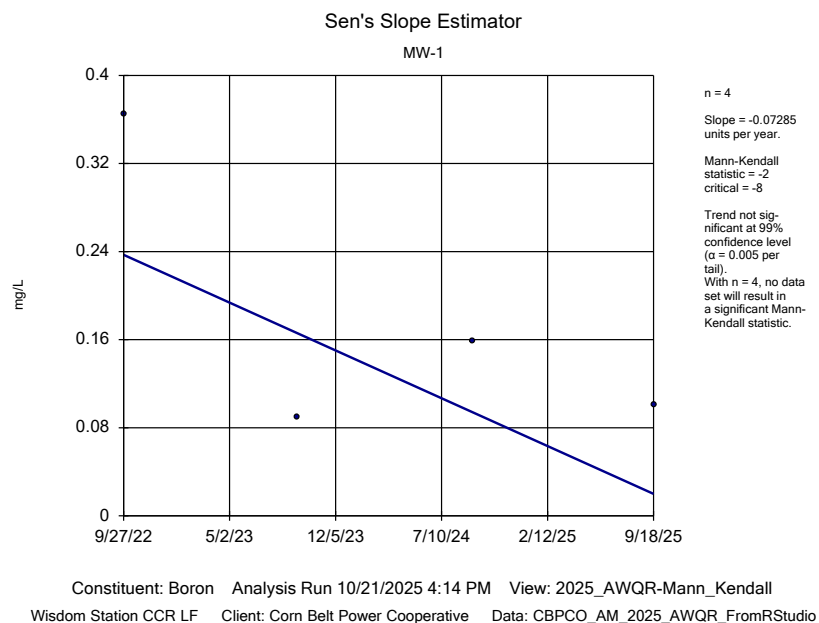
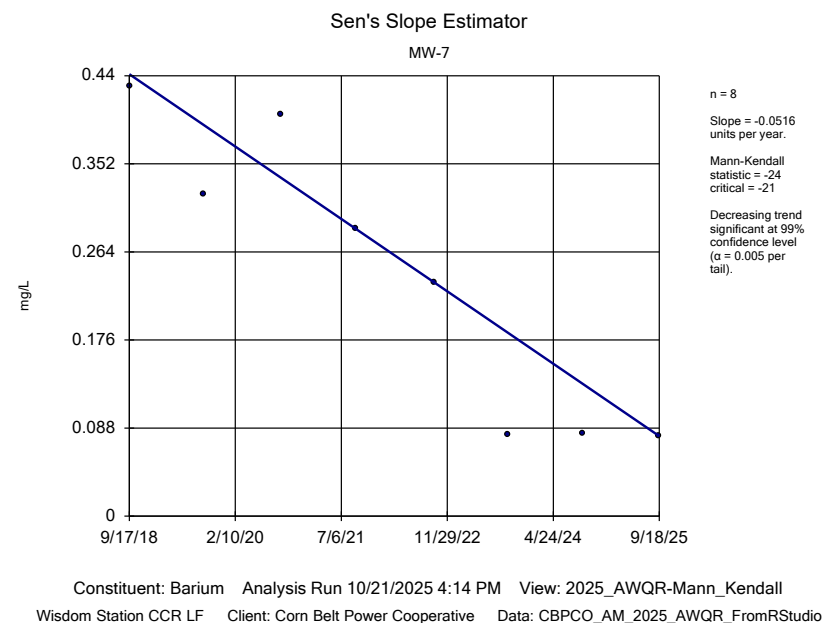
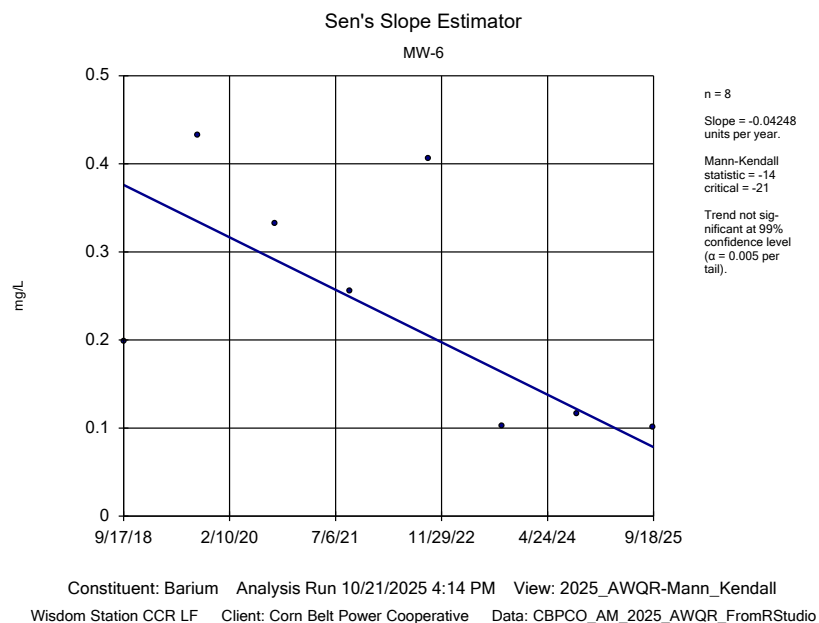
Trend Test

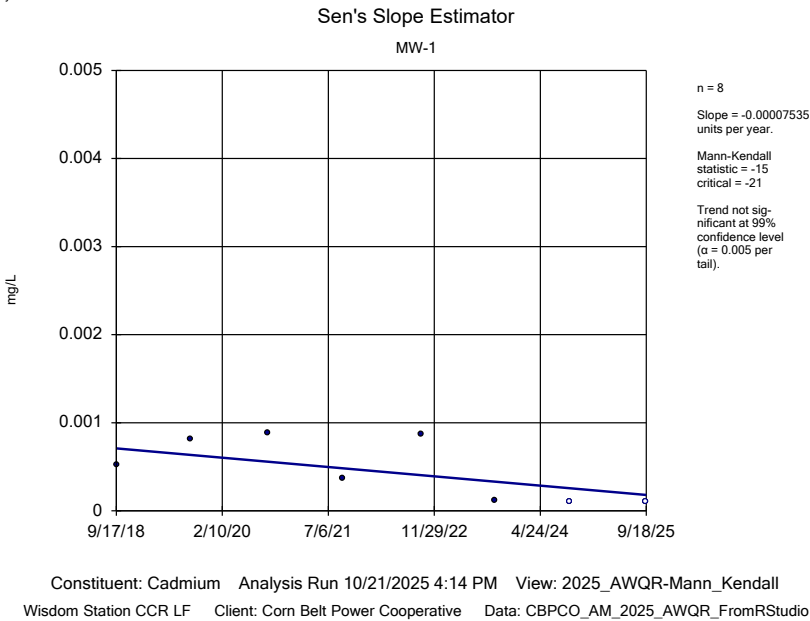
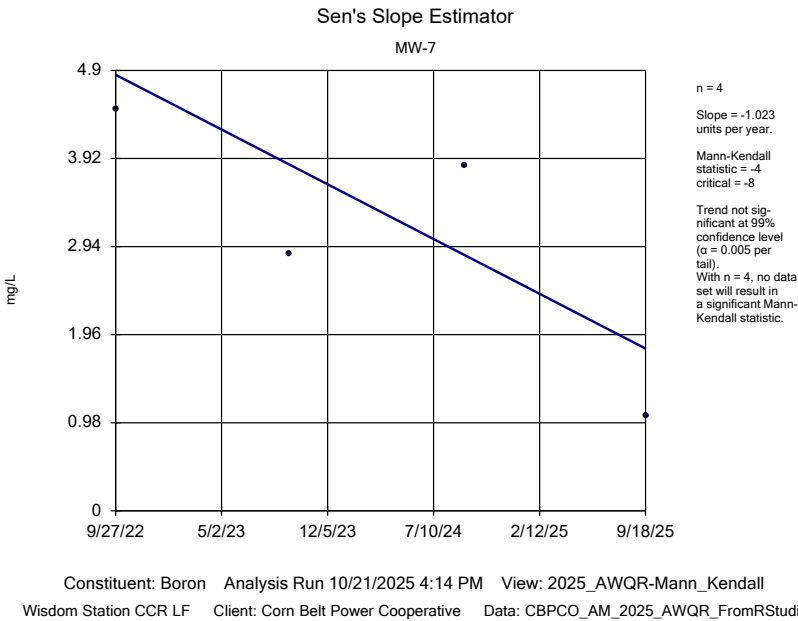
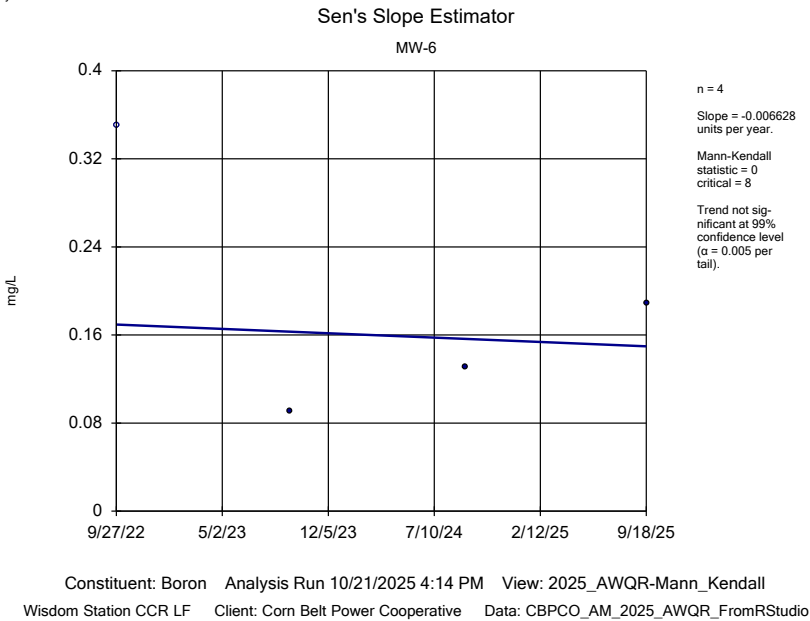
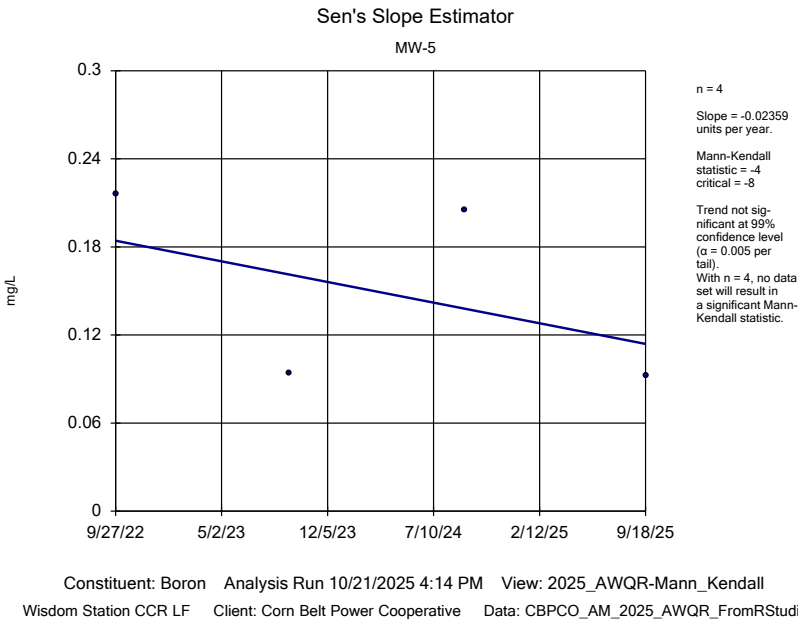
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio Printed 10/21/2025, 4:16 PM

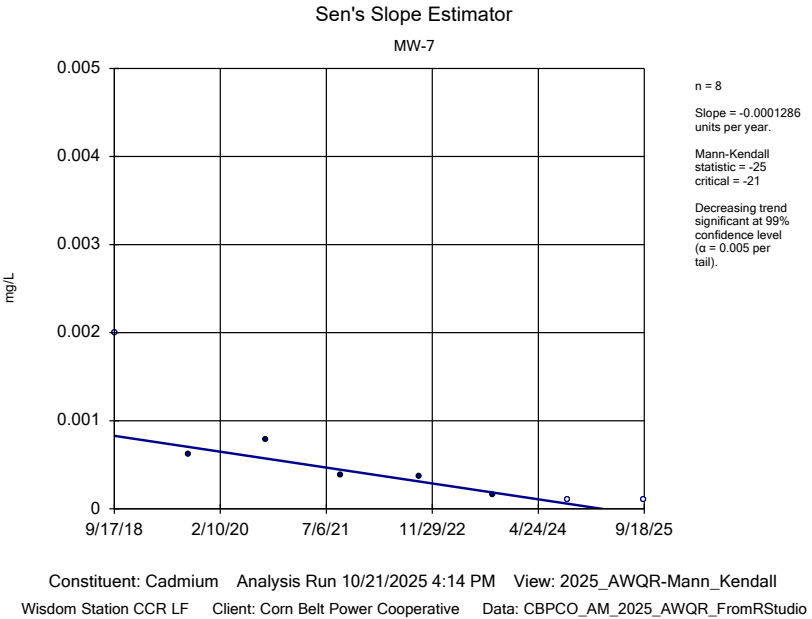
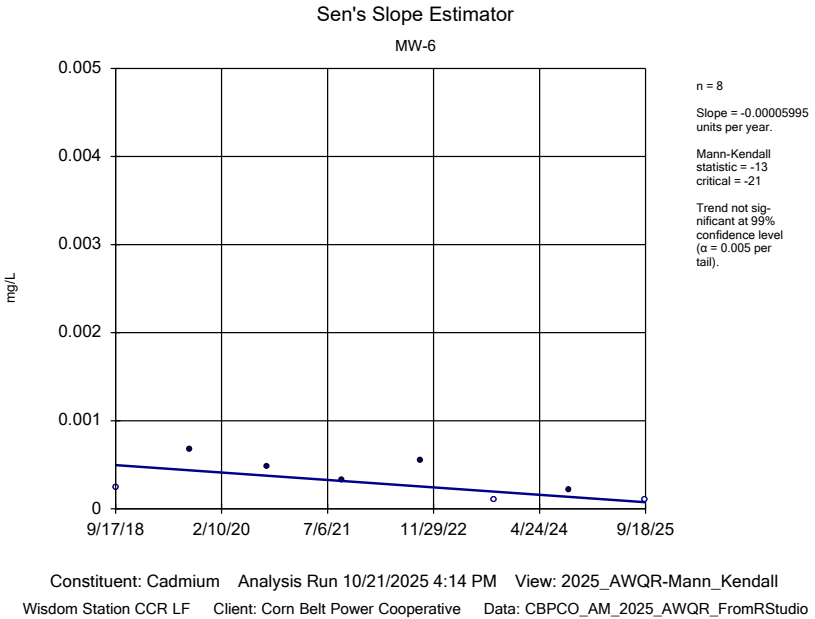
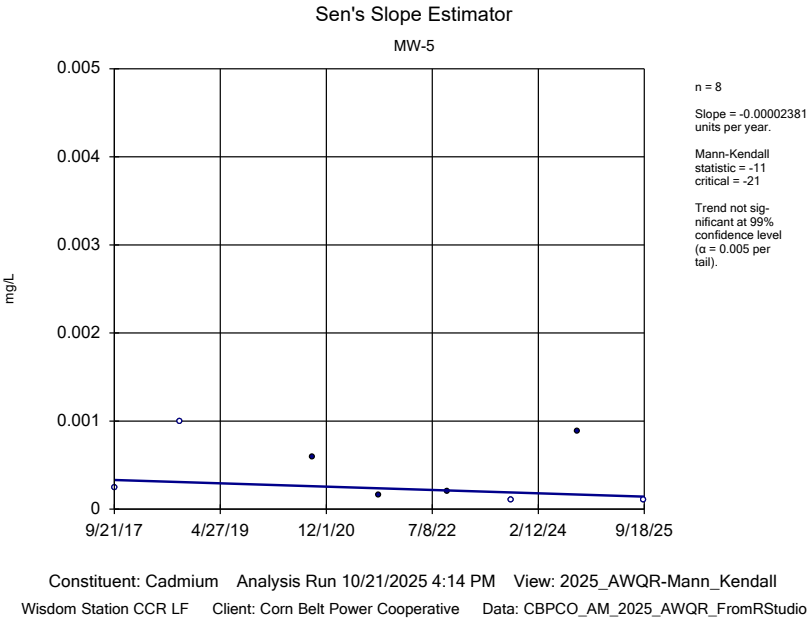
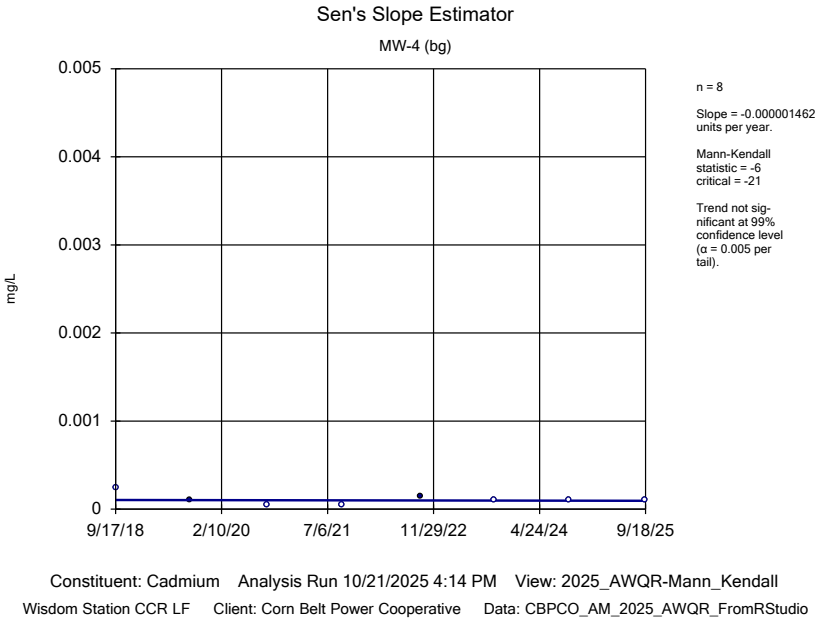
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Manganese (mg/L)	MW-7	-0.3802	-24	-21	Yes	8	0	0.01	NP
Molybdenum (mg/L)	MW-4 (bg)	0.0009789	6	8	No	4	0	0.01	NP
Molybdenum (mg/L)	MW-5	0.003846	2	8	No	4	0	0.01	NP
Molybdenum (mg/L)	MW-6	-0.002635	-4	-8	No	4	0	0.01	NP
Molybdenum (mg/L)	MW-7	-0.01093	-2	-8	No	4	0	0.01	NP
Selenium (mg/L)	MW-7	0	0	21	No	8	62.5	0.01	NP
Sulfate (mg/L)	MW-1	0.4164	4	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-4 (bg)	1.53	4	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-5	2.936	9	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-6	6.111	12	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-7	-26.76	-14	-21	No	8	0	0.01	NP
Zinc (mg/L)	MW-1	-0.008923	-15	-21	No	8	25	0.01	NP
Zinc (mg/L)	MW-4 (bg)	-0.008115	-2	-21	No	8	12.5	0.01	NP
Zinc (mg/L)	MW-5	-0.009492	-15	-21	No	8	37.5	0.01	NP
Zinc (mg/L)	MW-6	-0.01806	-12	-21	No	8	12.5	0.01	NP
Zinc (mg/L)	MW-7	-0.00003352	-10	-21	No	8	75	0.01	NP

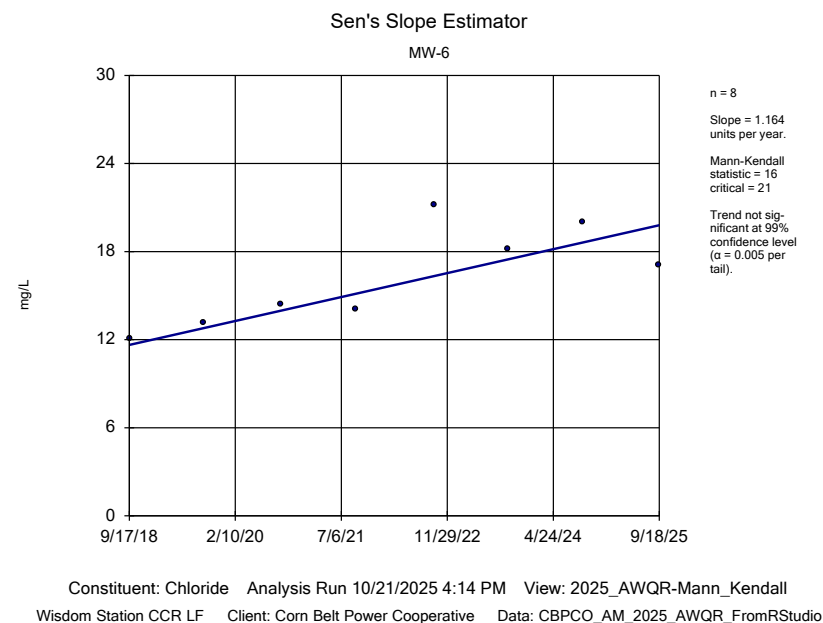
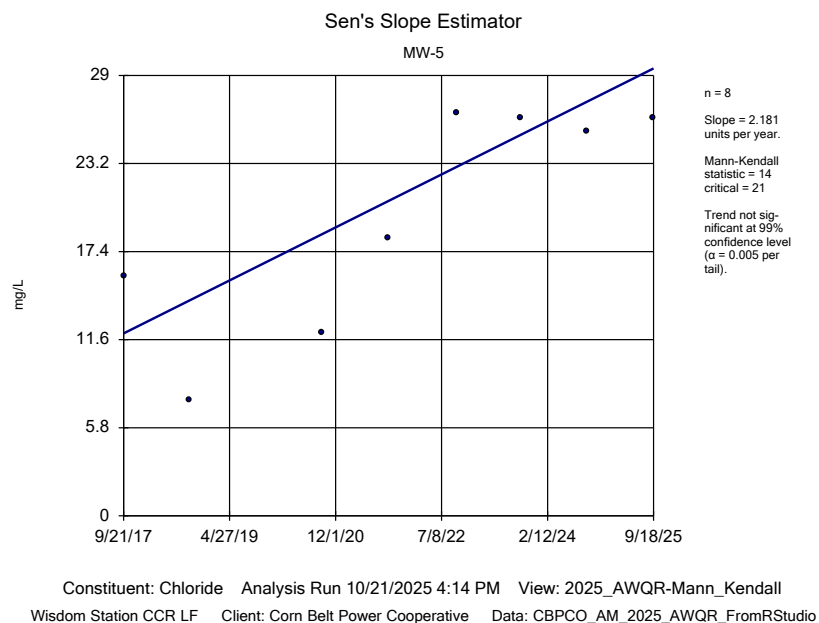
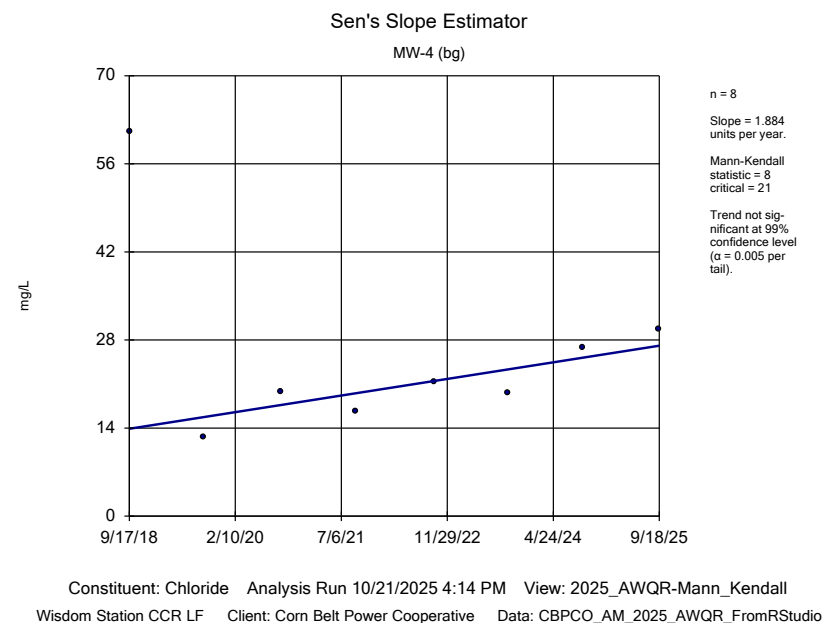
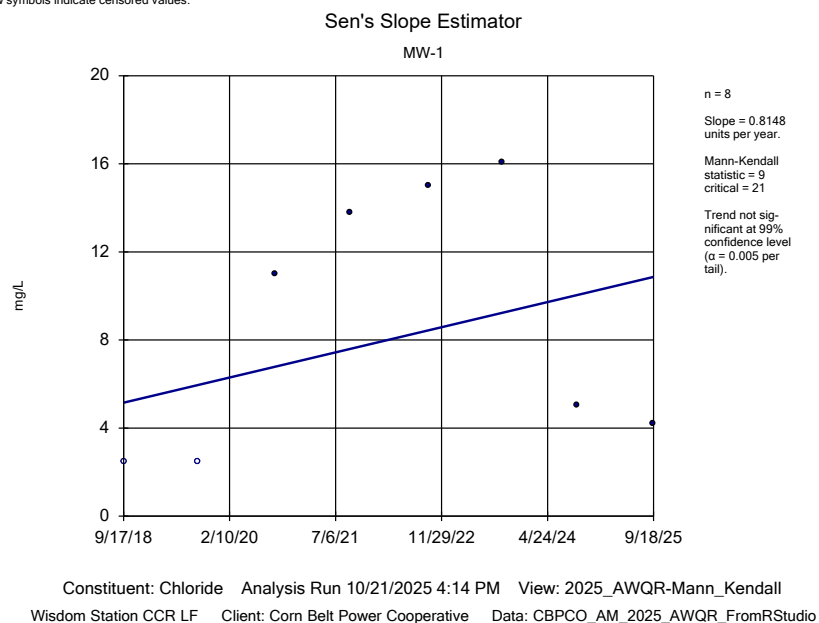


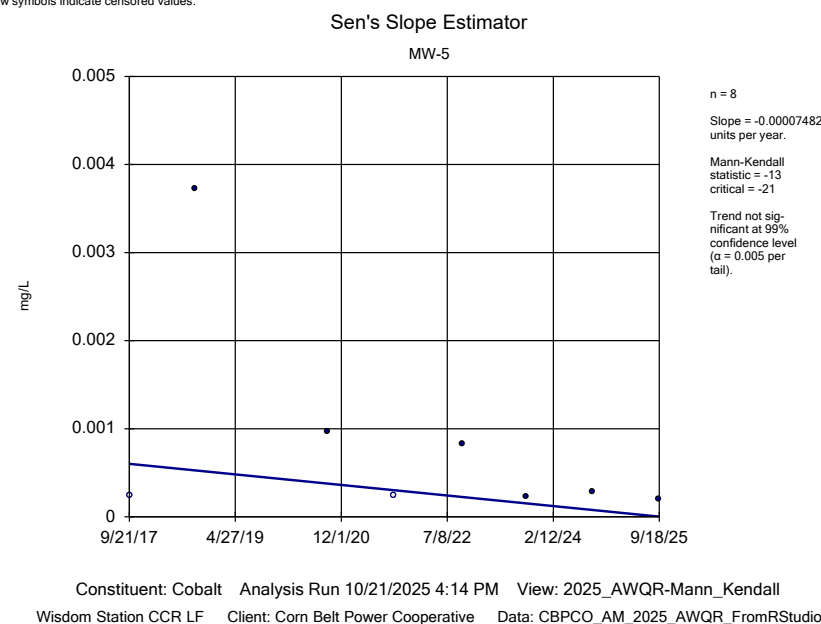
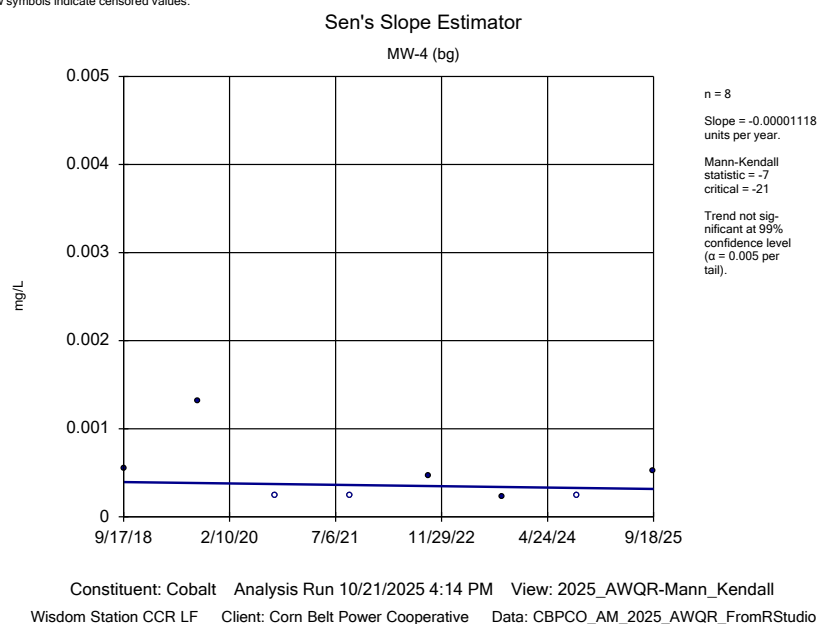
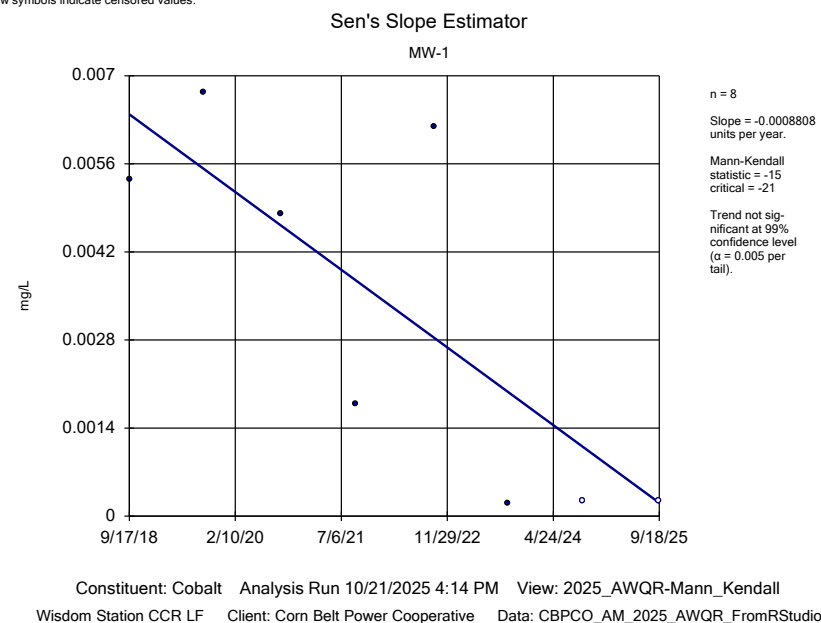
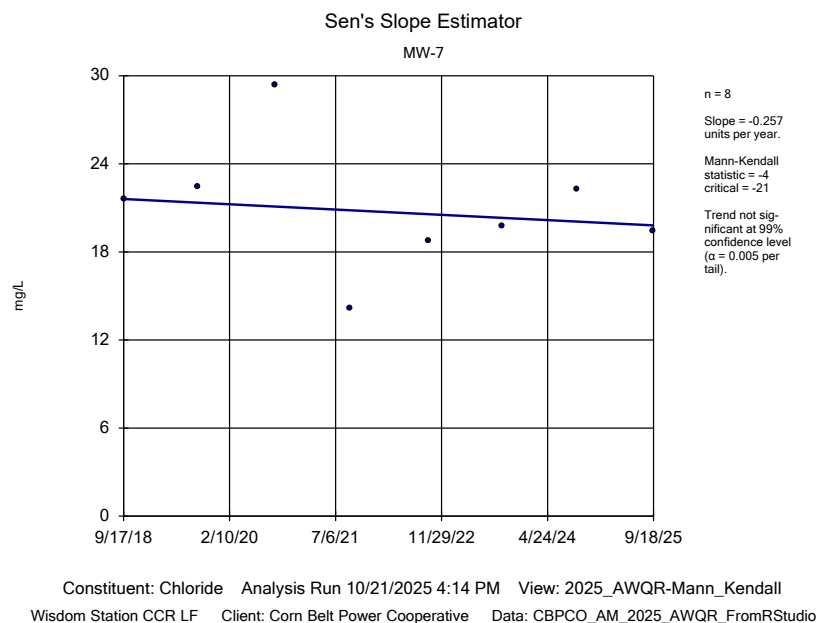


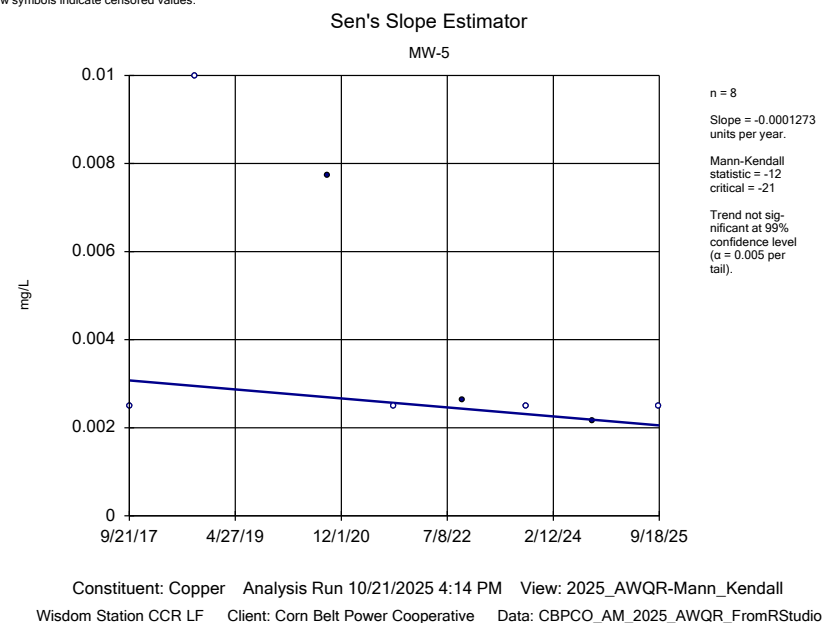
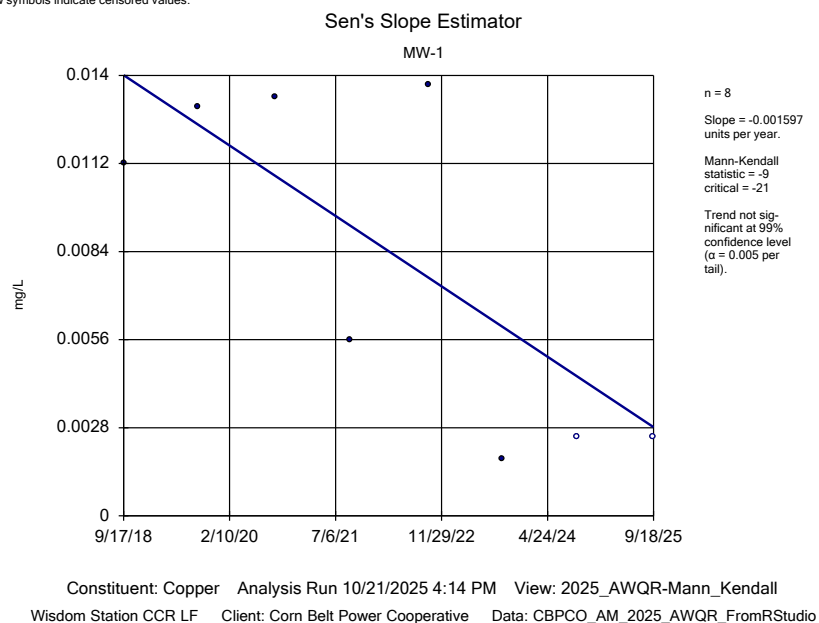
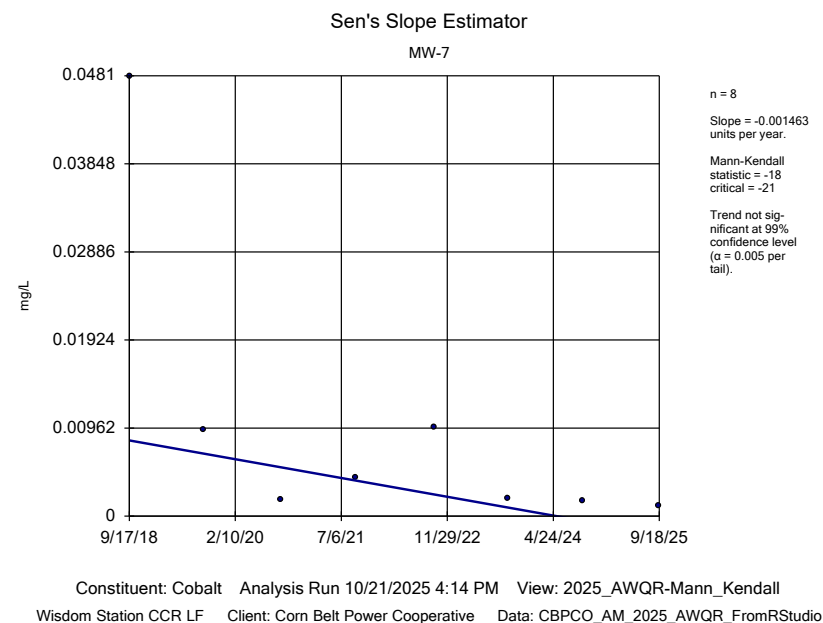
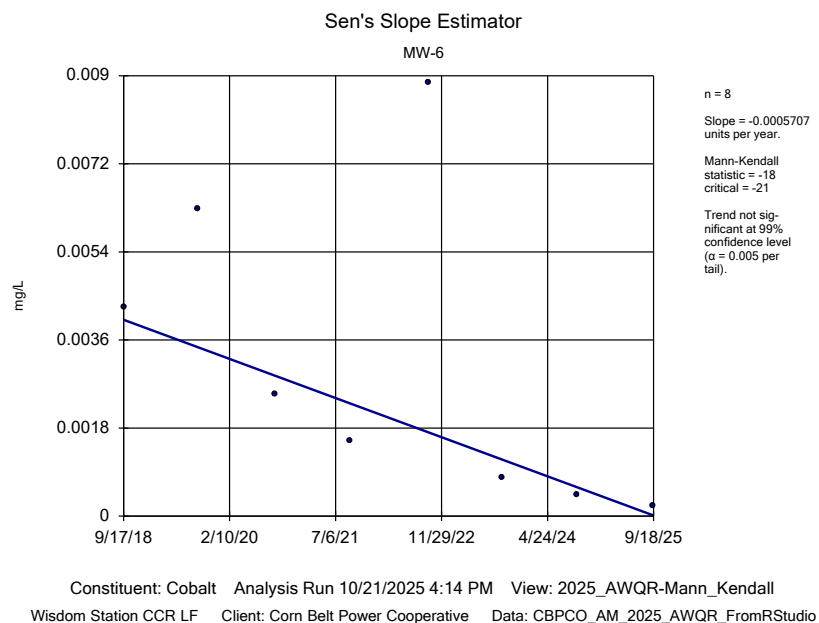


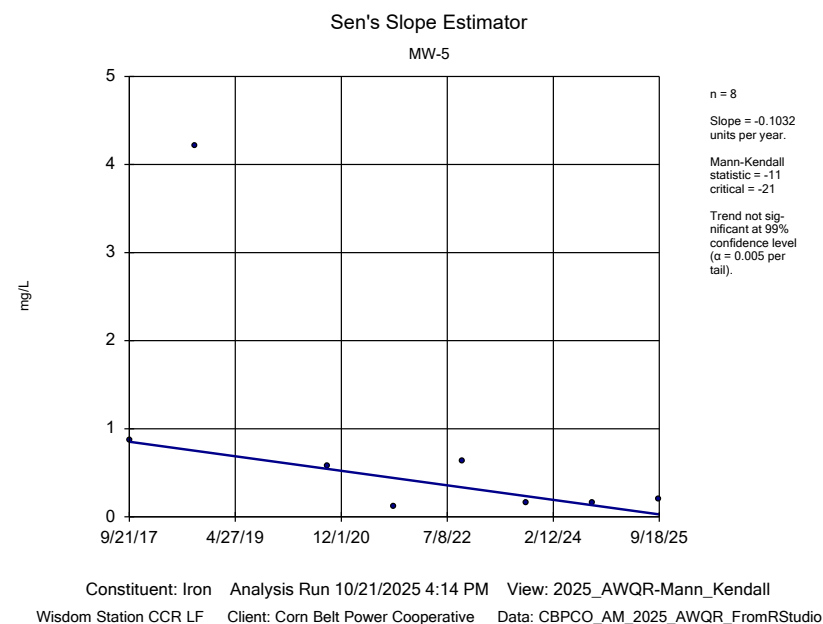
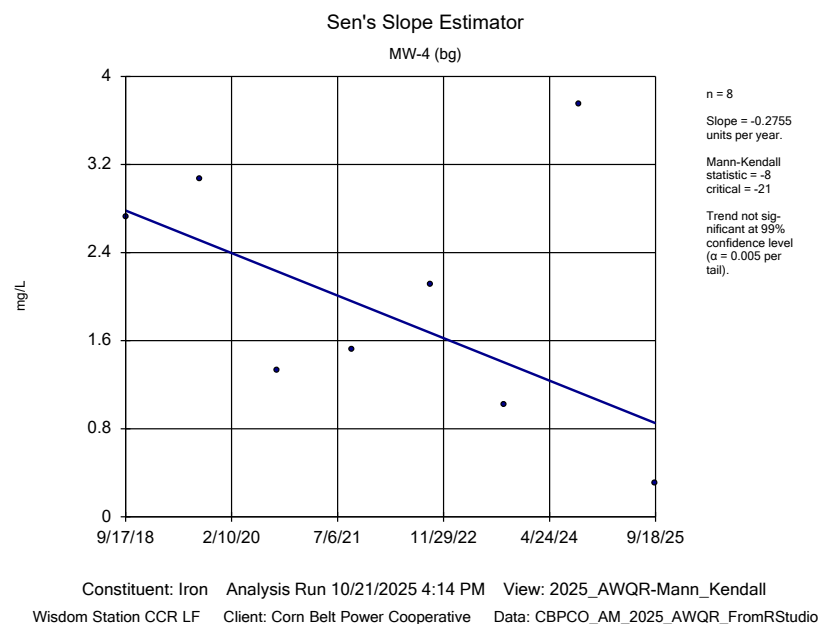
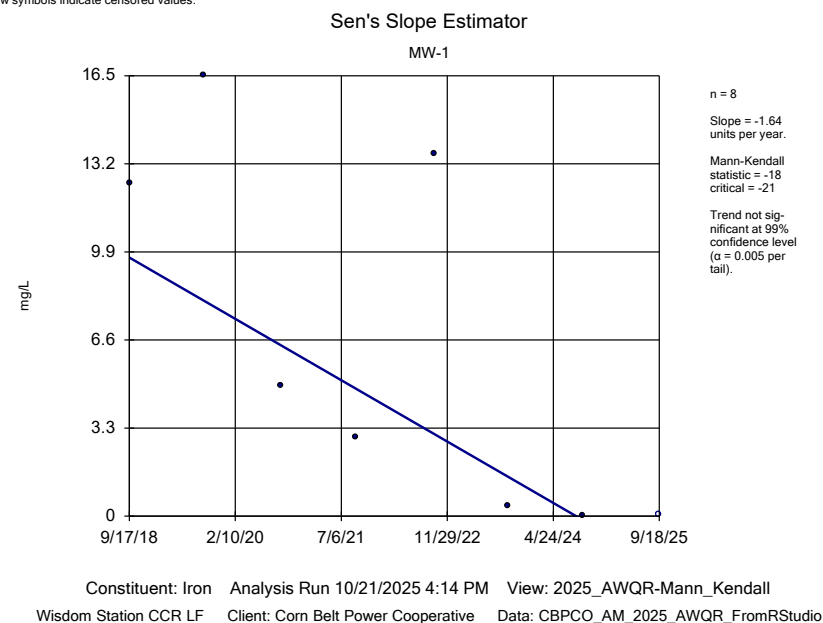
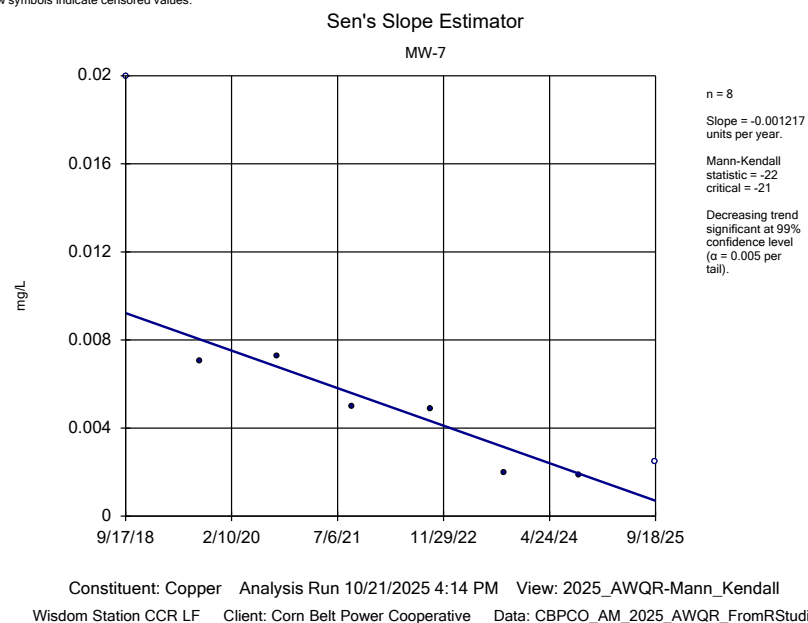




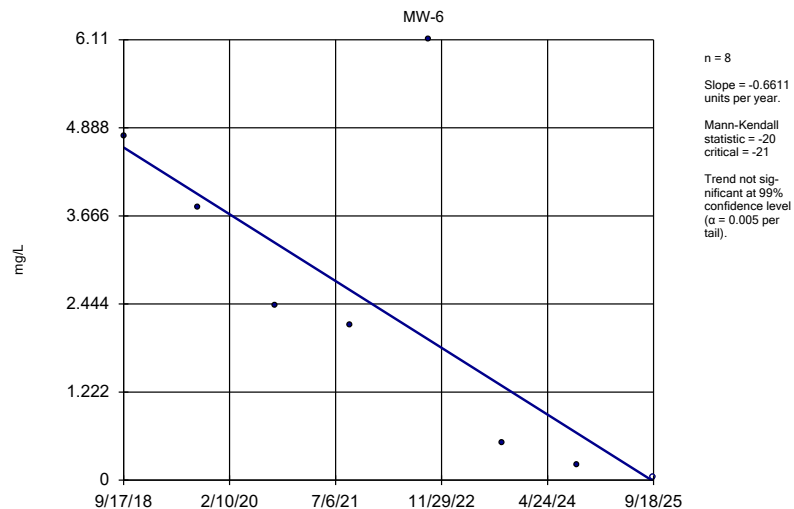






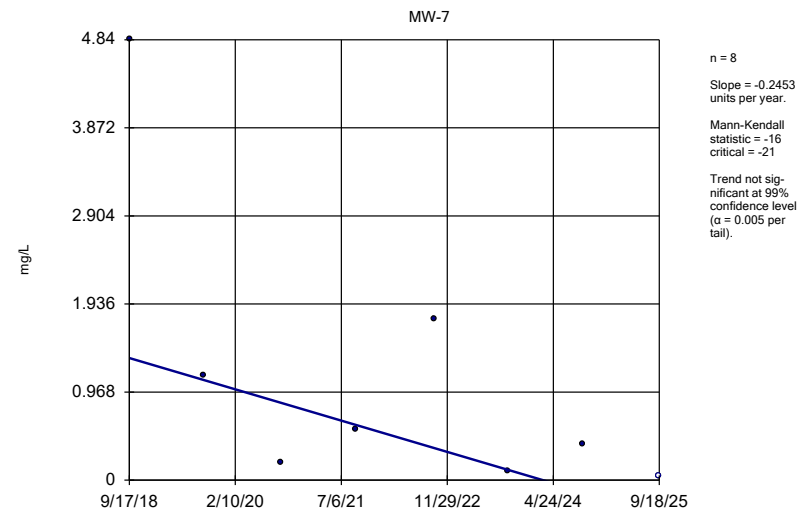


Sen's Slope Estimator



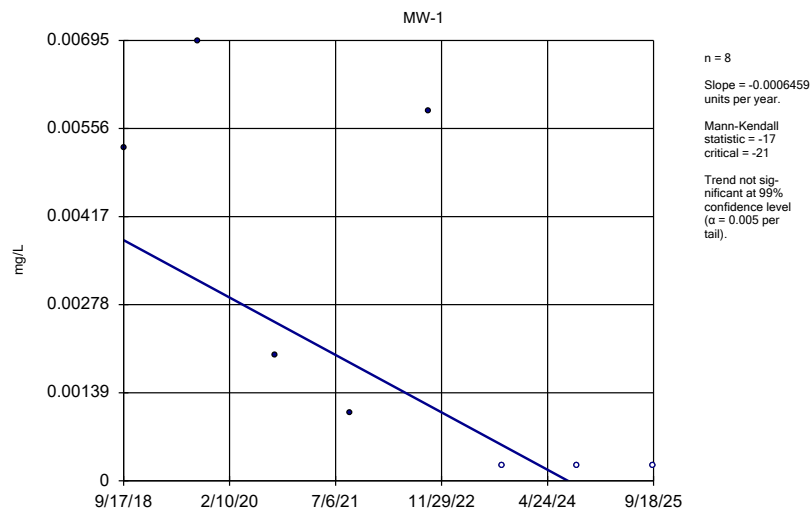
Constituent: Iron Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator



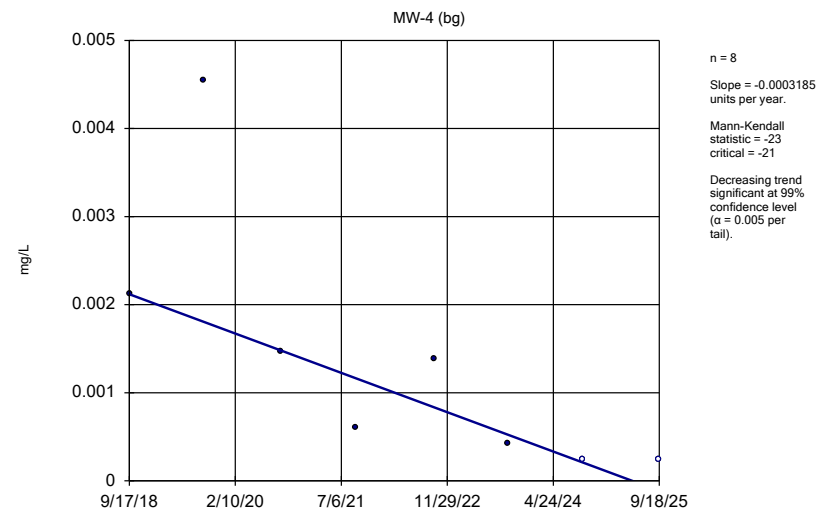
Constituent: Iron Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

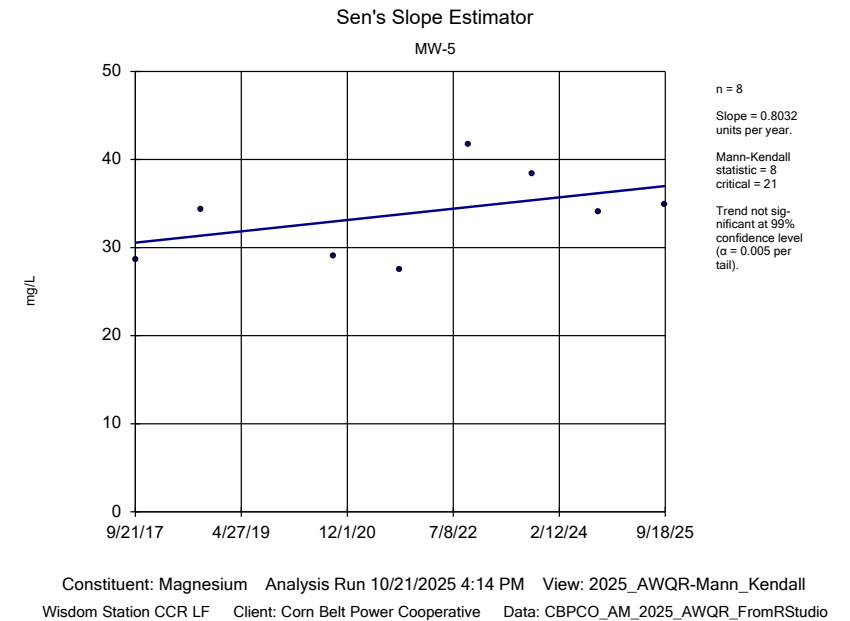
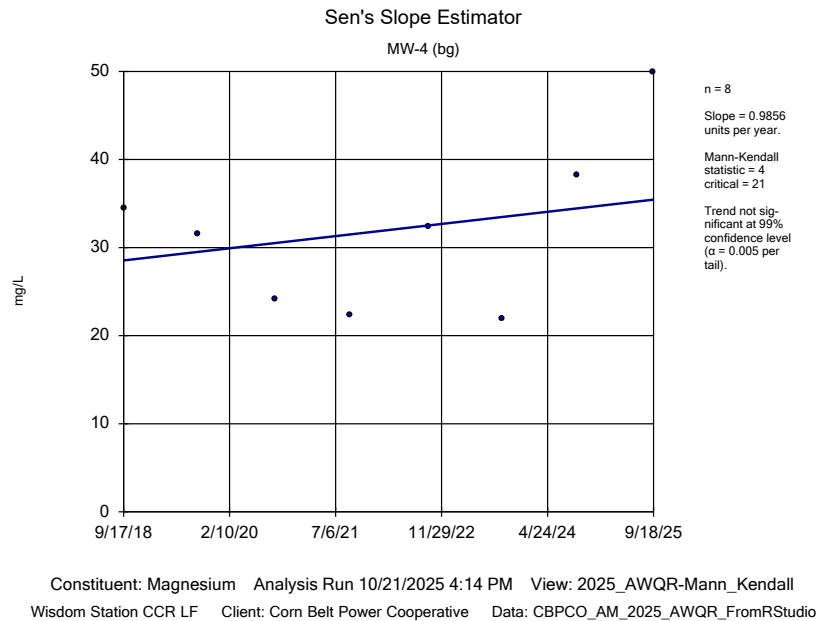
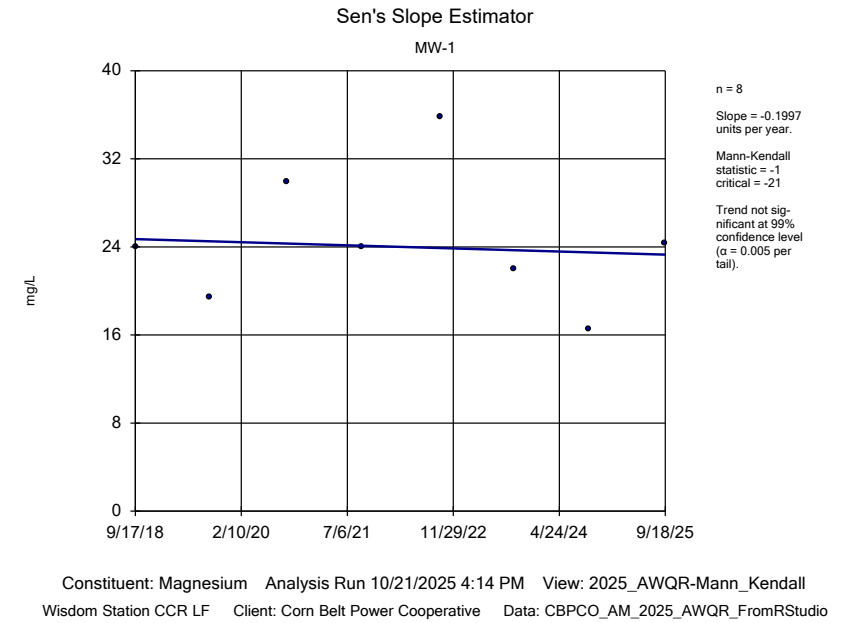
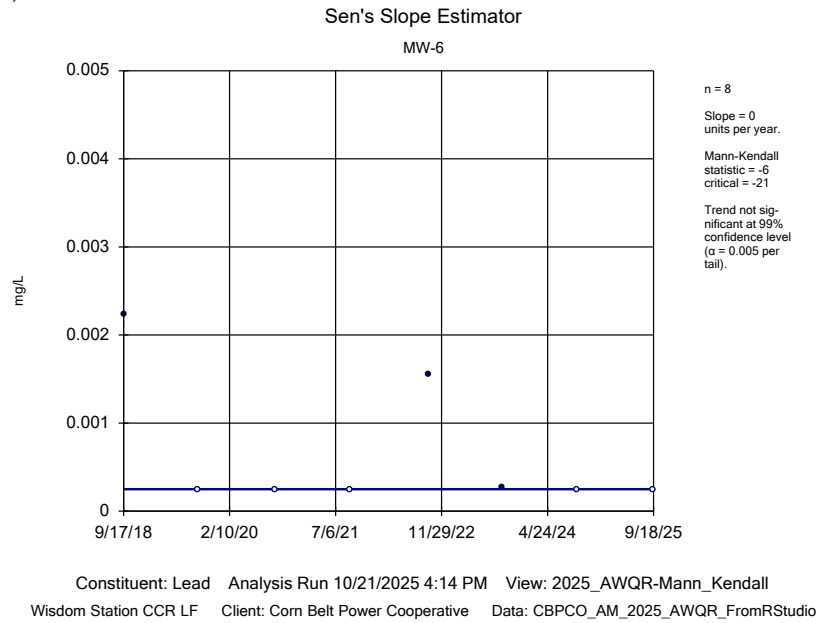


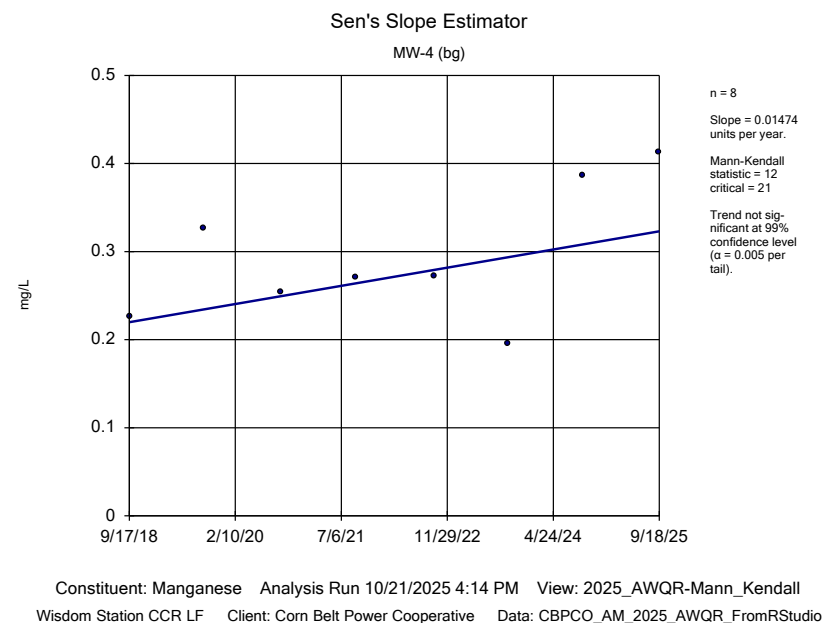
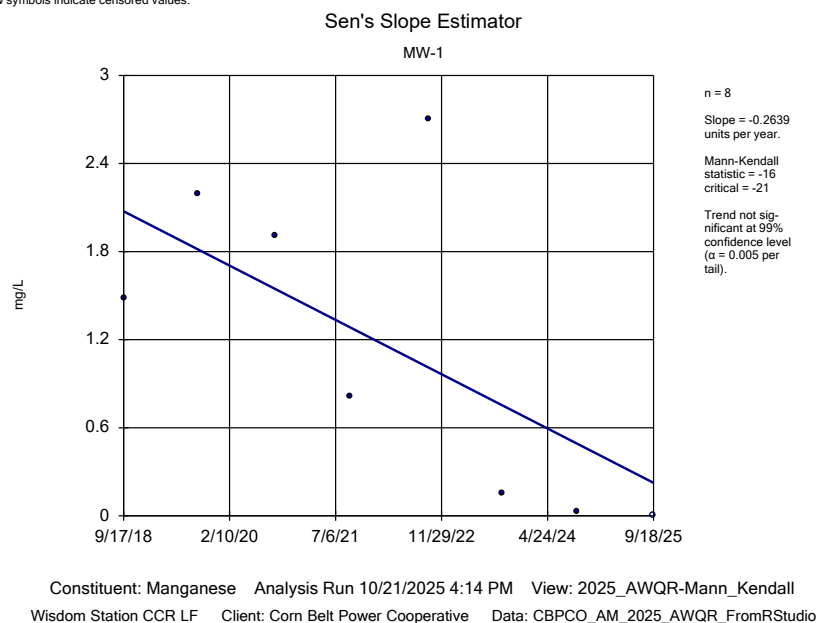
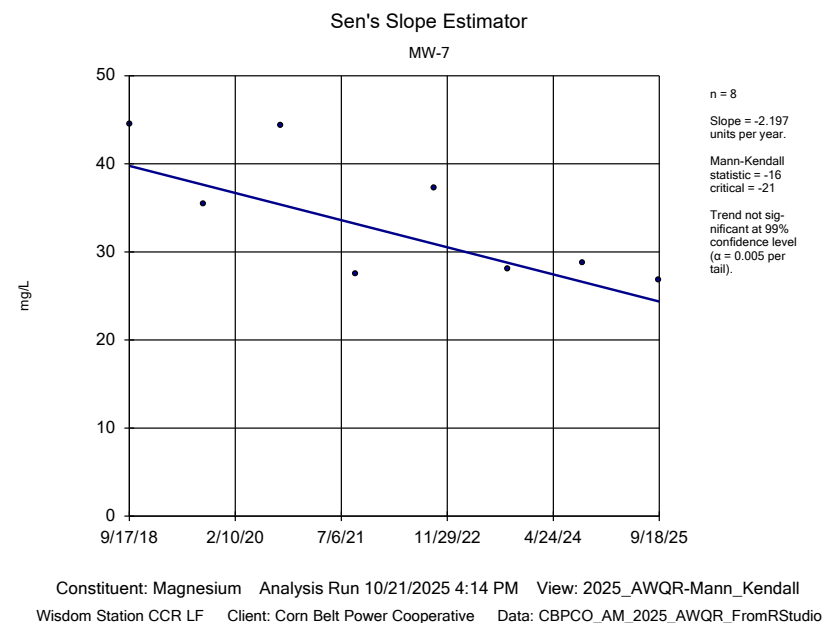
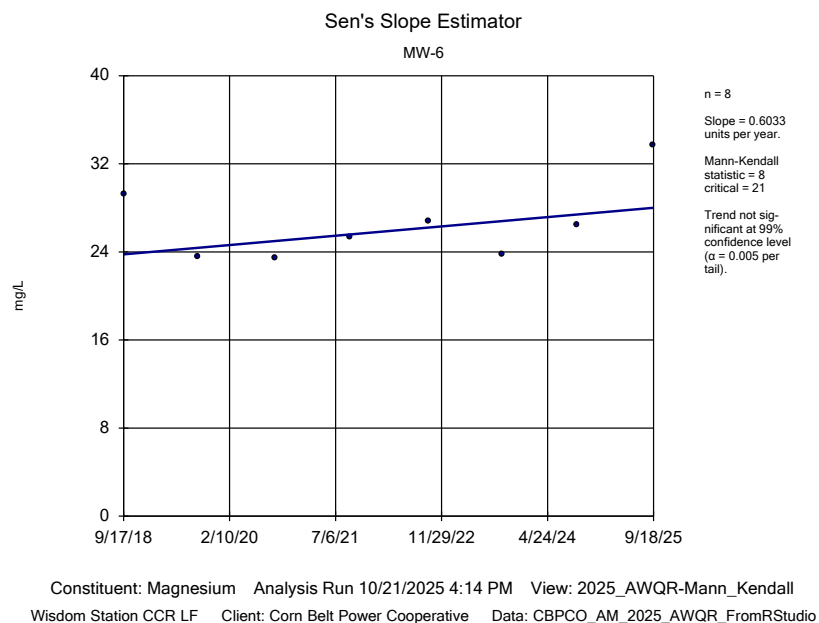
Constituent: Lead Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator



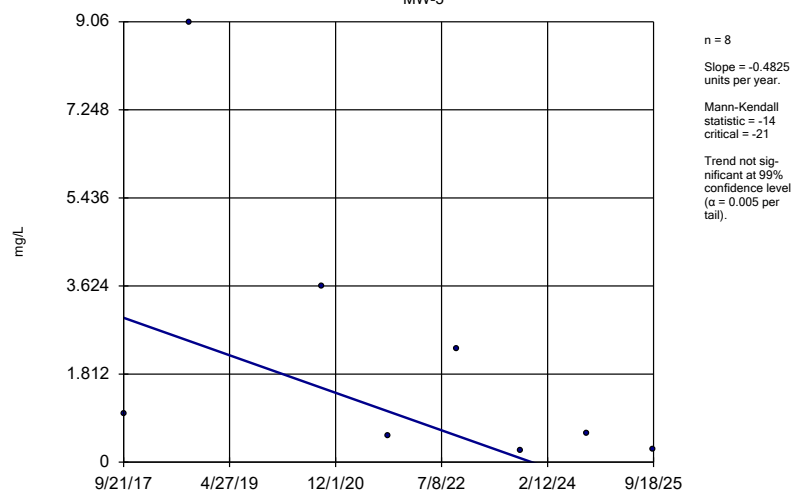
Constituent: Lead Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio





Sen's Slope Estimator

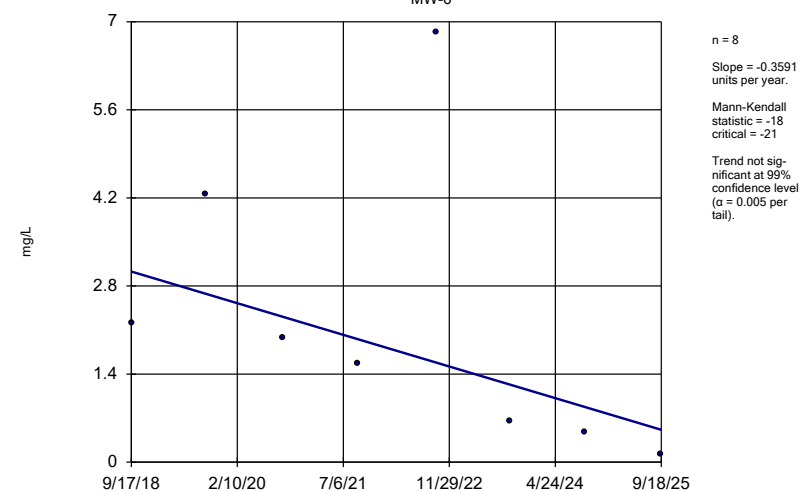
MW-5



Constituent: Manganese Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

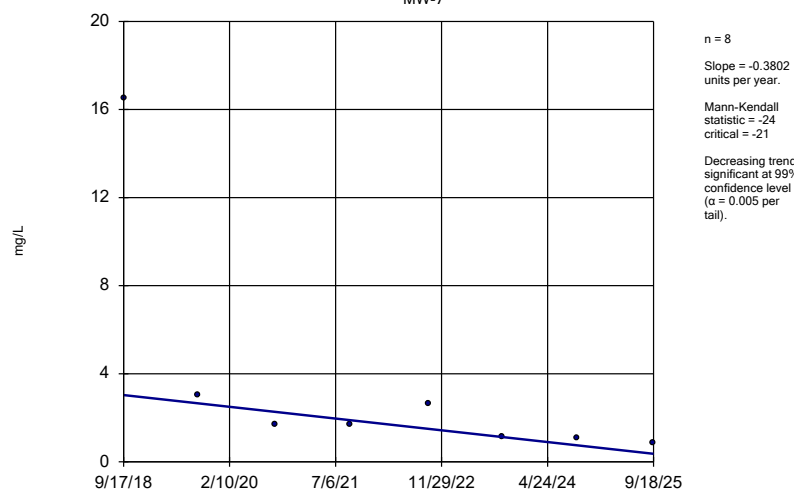
MW-6



Constituent: Manganese Analysis Run 10/21/2025 4:14 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

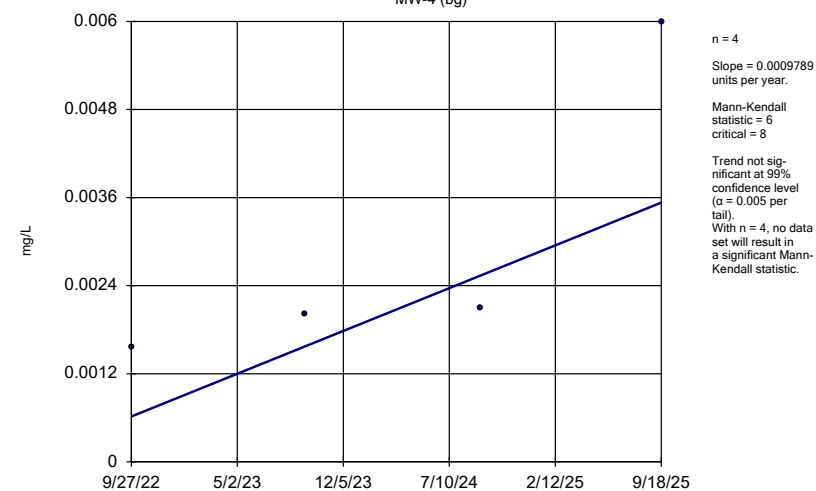
MW-7



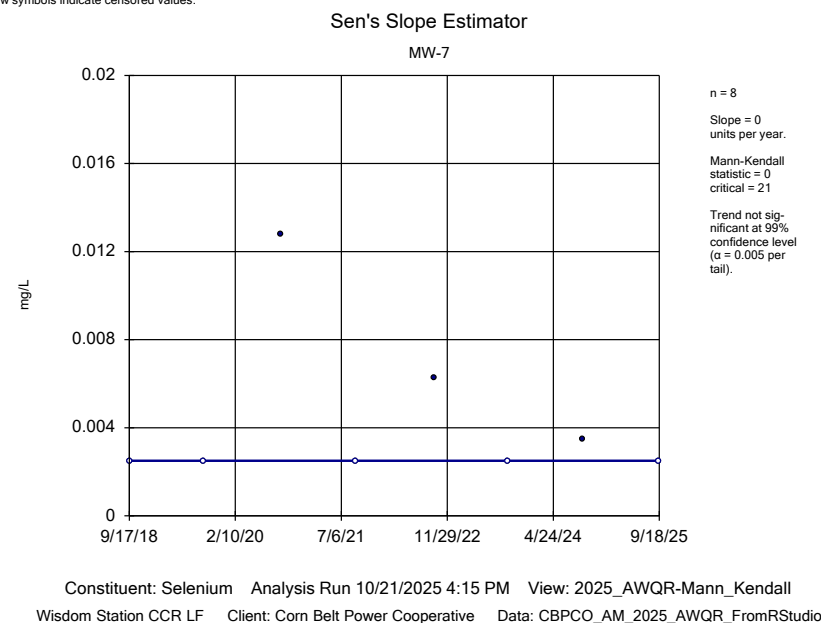
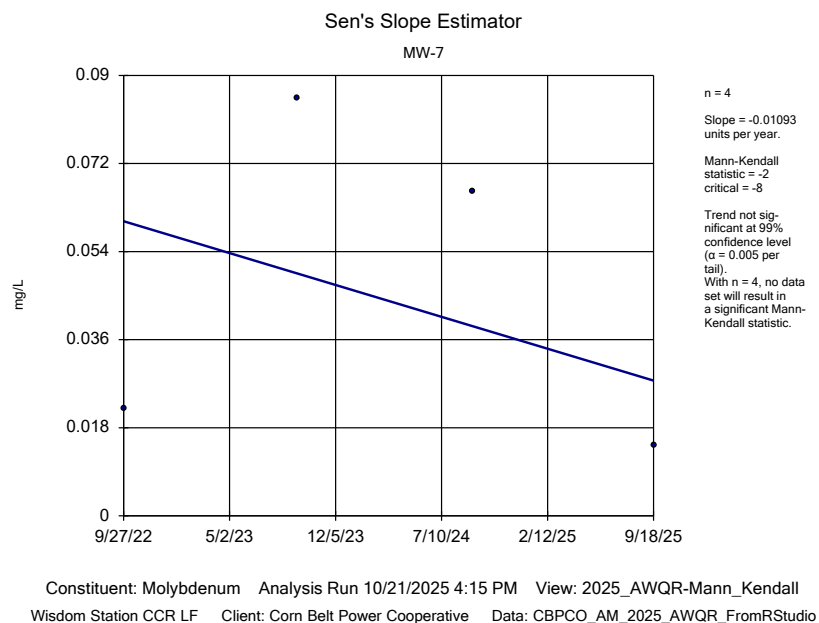
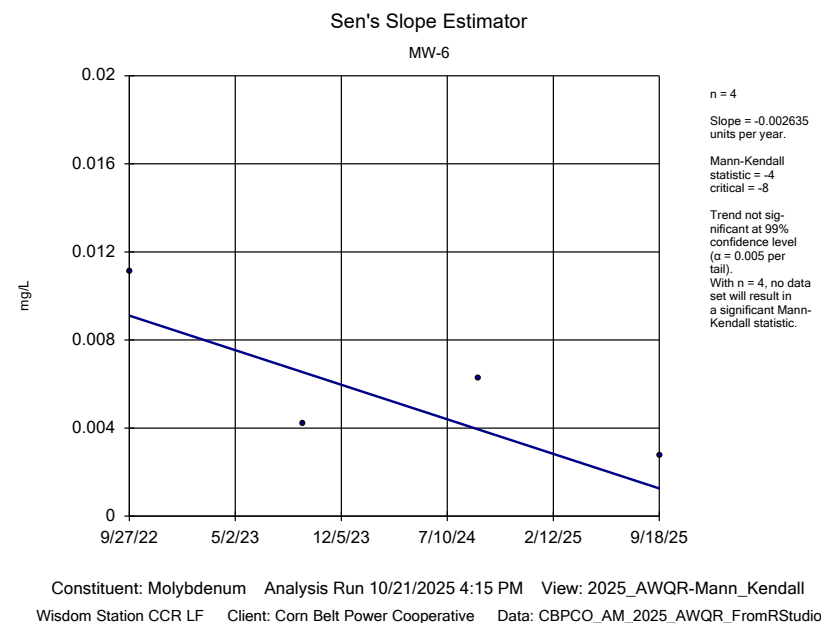
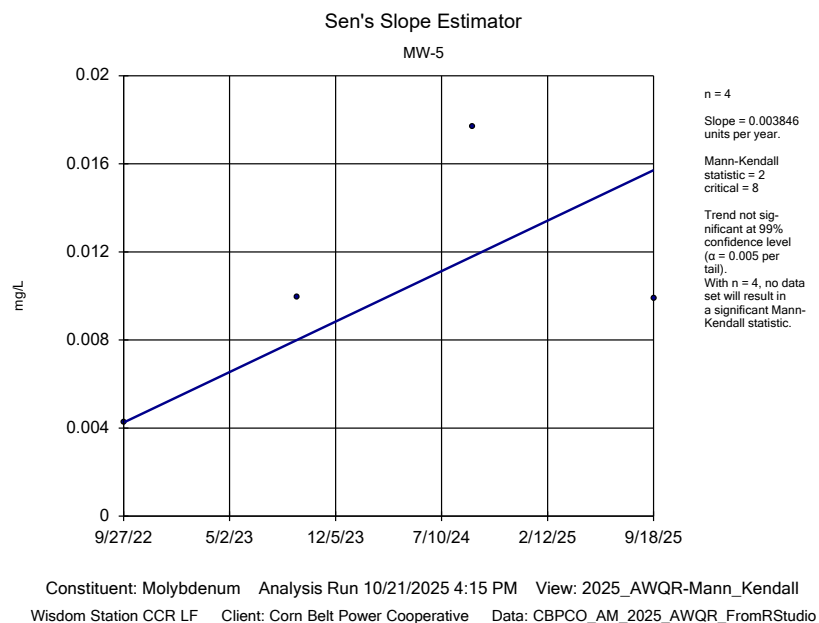
Constituent: Manganese Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

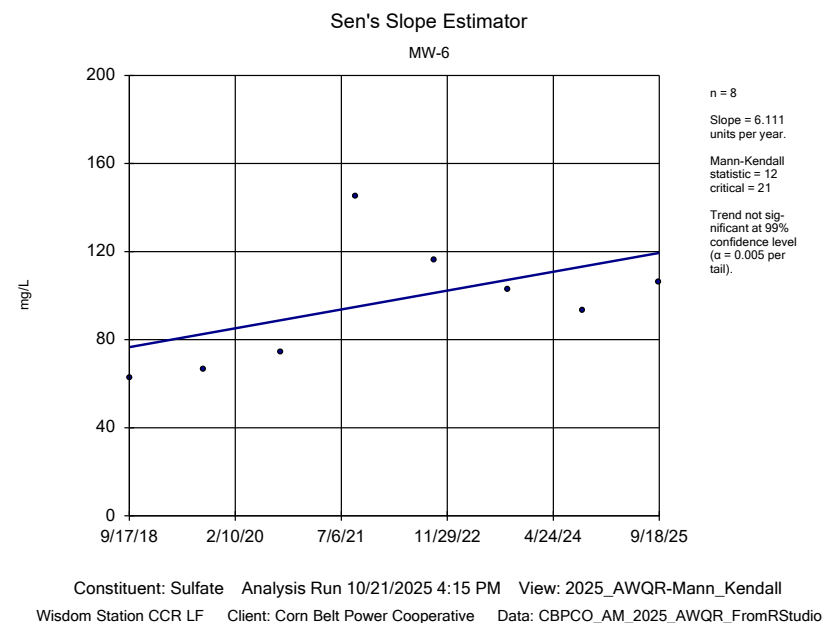
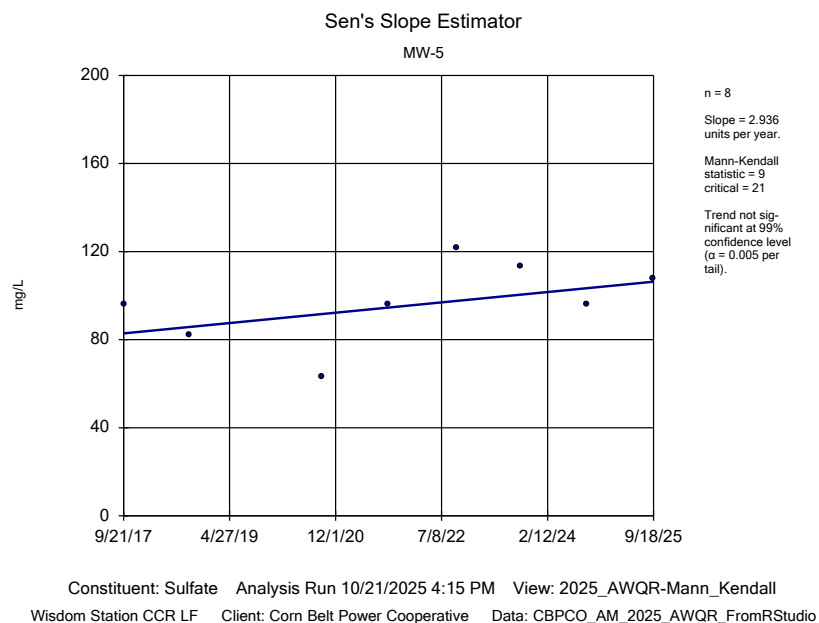
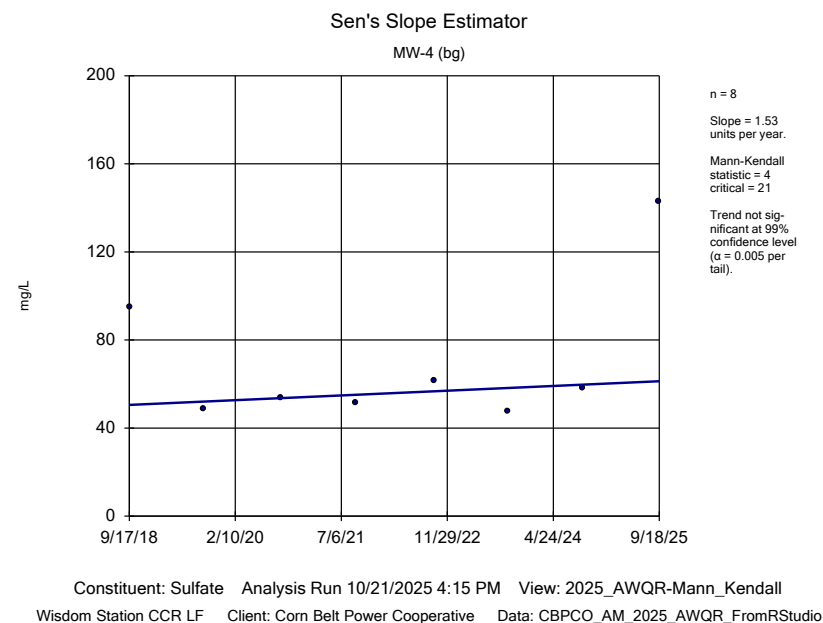
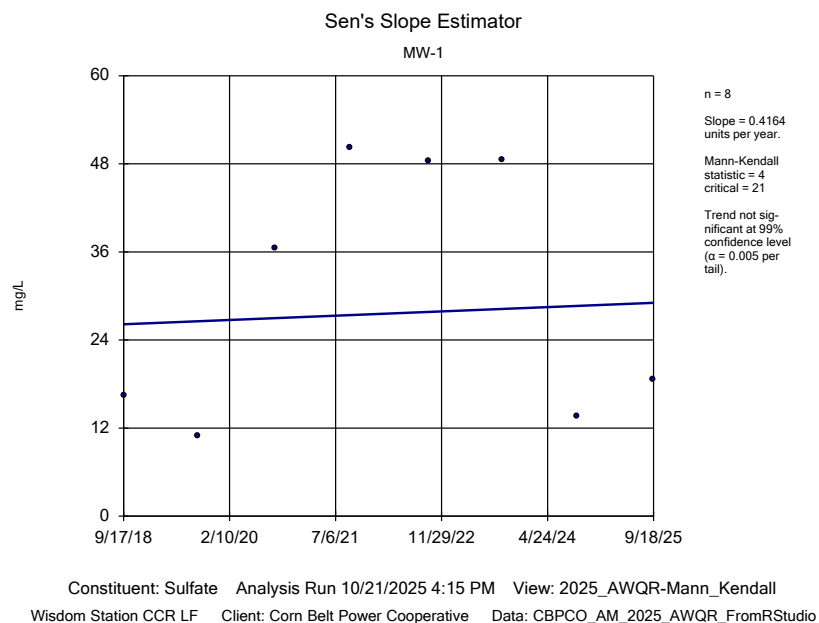
Sen's Slope Estimator

MW-4 (bg)



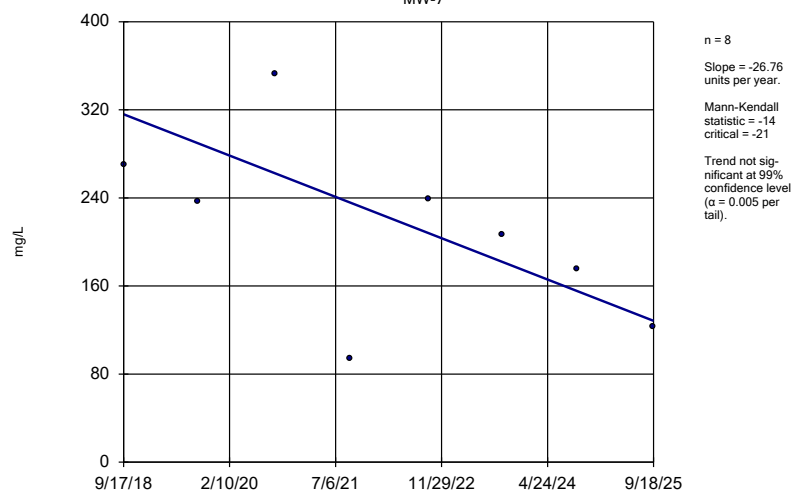
Constituent: Molybdenum Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio





Sen's Slope Estimator

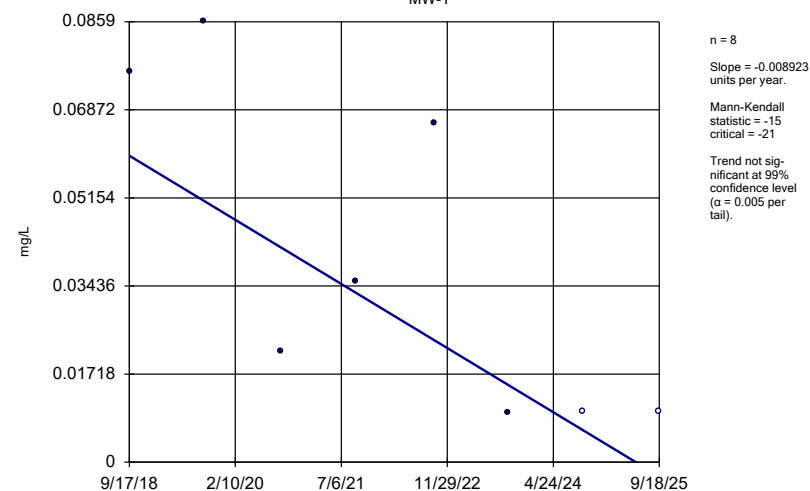
MW-7



Constituent: Sulfate Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

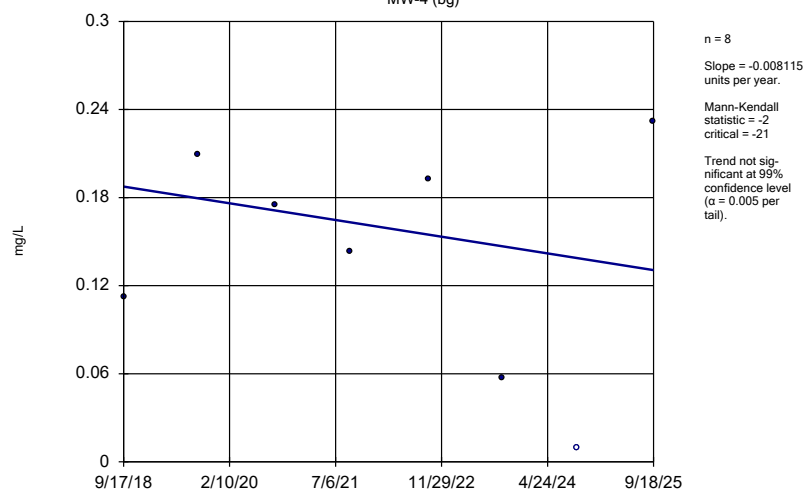
MW-1



Constituent: Zinc Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

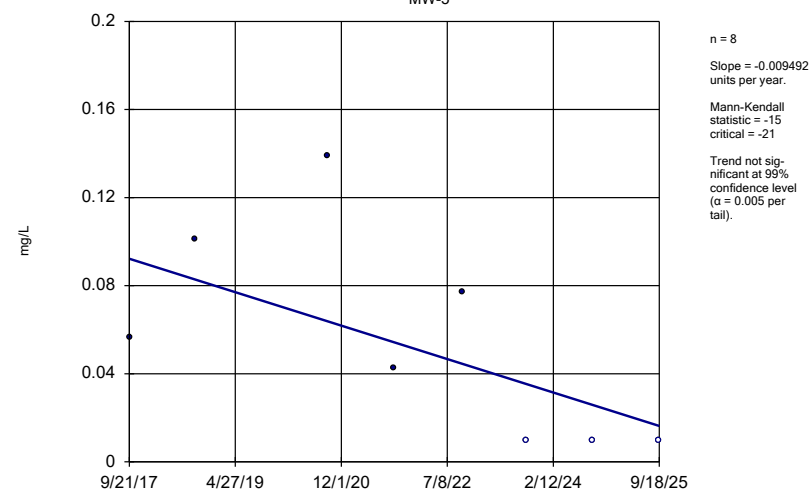
MW-4 (bg)



Constituent: Zinc Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

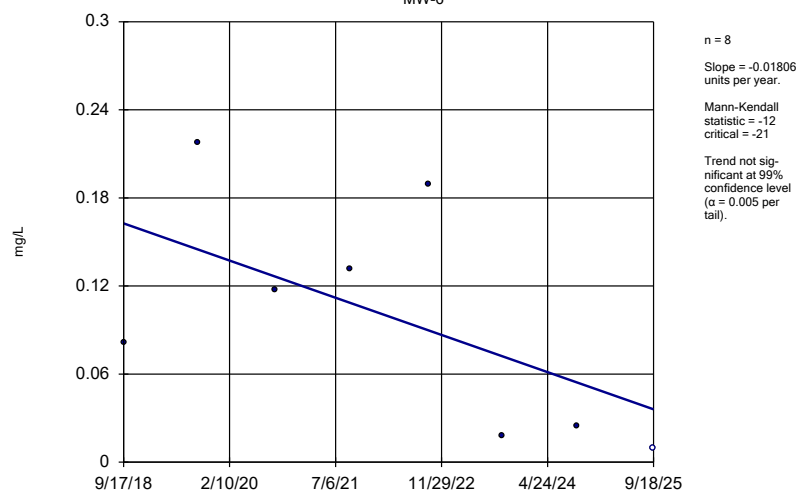
MW-5



Constituent: Zinc Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

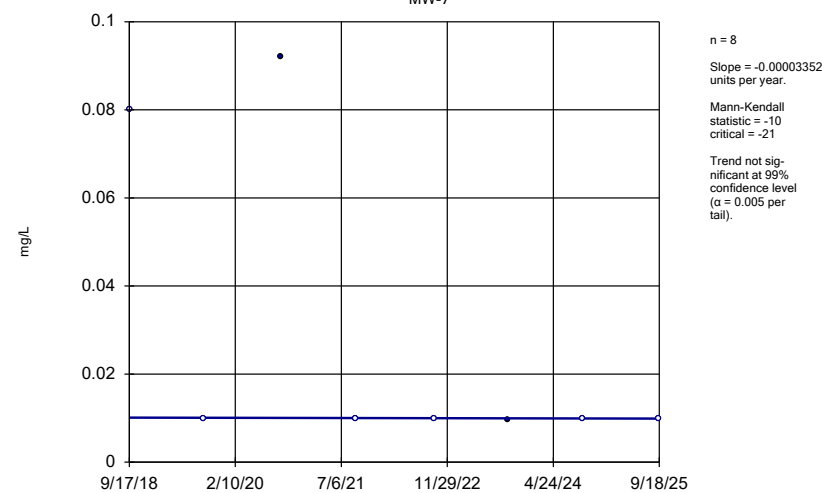
MW-6



Constituent: Zinc Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Sen's Slope Estimator

MW-7



Constituent: Zinc Analysis Run 10/21/2025 4:15 PM View: 2025_AWQR-Mann_Kendall
Wisdom Station CCR LF Client: Corn Belt Power Cooperative Data: CBPCO_AM_2025_AWQR_FromRStudio

Appendix E

Mann-Kendall Trend Table

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-1	Arsenic	-17		
	Barium	-16		
	Boron		-2	
	Cadmium	-15		
	Chloride		9	
	Cobalt	-15		
	Copper		-9	
	Iron	-18		
	Lead	-17		
	Magnesium		-1	
	Manganese	-16		
	Sulfate		4	
	Zinc	-15		
MW-4	Arsenic		-2	
	Barium		2	
	Boron		2	
	Cadmium		-6	
	Chloride		8	
	Cobalt		-7	
	Iron		-8	
	Lead	-23		
	Magnesium		4	
	Manganese		12	
	Molybdenum		6	
	Sulfate		4	
	Zinc		-2	
MW-5	Arsenic	-21		
	Barium	-20		
	Boron		-4	
	Cadmium		-11	
	Chloride			14
	Cobalt	-13		
	Copper		-12	
	Iron		-11	
	Magnesium		8	
	Manganese	-14		
	Molybdenum		2	
	Sulfate		9	
	Zinc	-15		
MW-6	Arsenic	-16		
	Barium	-14		
	Boron		0	
	Cadmium	-13		
	Chloride			16
	Cobalt	-18		
	Iron	-20		
	Lead		-6	
	Magnesium		8	
	Manganese	-18		
	Molybdenum		-4	
	Sulfate		12	
	Zinc		-12	

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-7	Arsenic		-4	
	Barium	-24		
	Boron		-4	
	Cadmium	-25		
	Chloride		-4	
	Cobalt	-18		
	Copper	-22		
	Iron	-16		
	Magnesium	-16		
	Manganese	-24		
	Molybdenum		-2	
	Selenium		0	
	Sulfate	-14		
	Zinc		-10	