REPORT

2025 Annual Groundwater Monitoring and Corrective Action Report

SCPA Surface Impoundment, Sioux Energy Center, St. Charles County, Missouri, USA

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Project Number: 23009-25

Submitted to:

Ameren Missouri
1901 Chouteau Avenue
St. Louis, Missouri 63103

Submitted by:

Rocksmith Geoengineering, LLC
2320 Creve Coeur Mill Rd
Maryland Heights, MO 63043



EXECUTIVE SUMMARY AND STATUS OF THE SCPA GROUNDWATER MONITORING PROGRAM

This annual report was developed to meet the requirements of United States Environmental Protection Agency (USEPA) 40 CFR Part 257 “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule” (the CCR Rule). The CCR Rule requires owners or operators of existing CCR units to produce an Annual Groundwater Monitoring and Corrective Action Report (Annual Report) each year (§ 257.90(e)). Ameren Missouri (Ameren) has determined that the SCPA Coal Combustion Residuals (CCR) Surface Impoundment at the Sioux Energy Center (SEC) is subject to the requirements of the CCR Rule. This Annual Report for the SCPA describes CCR Rule groundwater monitoring activities from January 1, 2025, through December 31, 2025, including verification results related to late 2024 sampling.

Throughout 2025, the SCPA has been in Corrective Action Monitoring with Detection and Assessment Monitoring continuing concurrently. Semi-annual groundwater sampling associated with Detection Monitoring has been ongoing since Detection Monitoring was initiated on October 17, 2017, as required by the CCR Rule. As a part of Detection Monitoring, statistical evaluations are completed after each sampling event to determine if there are any values at a Statistically Significant Increase (SSI) over background. SSIs have been determined for each sampling event and a summary of the SSIs is provided in **Table 1**.

The Assessment Monitoring program was established at the SCPA on April 15, 2018. Since that time, groundwater sampling and statistical evaluations have been completed semi-annually to determine if there are any values at a Statistically Significant Level (SSL) over the site-specific Groundwater Protection Standard (GWPS). On October 11, 2018, it was determined that molybdenum was present at an SSL. A summary of SSLs for the past year is provided in **Table 1**.

Table 1 - Summary of 2025 SCPA Sampling Events, Previous Year Verification, and Statistical Evaluations for Detection and Assessment Monitoring

Event Name	Type of Event and Sampling Dates	Laboratory Analytical Data Receipt	Parameters Collected	Verified SSIs	SSLs	SSI & SSL Determination Date
November 2024 Sampling Event	Detection and Assessment Monitoring, November 14-20, 2024	December 18, 2024	Appendix III, Detected Appendix IV (See Note 1), & Major Cations and Anions	**pH:** UMW-2D, UMW-3D **Boron:** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Calcium:** UMW-2D, UMW-3D **Chloride:** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Fluoride:** UMW-2D, UMW-4D **Sulfate:** UMW-1D, UMW-2D, UMW-3D, UMW-4D **TDS:** UMW-1D, UMW-2D, UMW-3D, UMW-4D	**Molybdenum:** UMW-2D, UMW-3D, UMW-4D, UMW-5D	March 18, 2025
	Verification Sampling, February 6-7, 2025	February 21, 2025	Detected Appendix III parameters (See Note 2)			
May 2025 Sampling Event	Detection and Assessment Monitoring, May 7-12, 2025	June 17, 2025	Appendix III, Appendix IV, Major Cations and Anions, & selected MNA Parameters	**pH:** UMW-2D, UMW-3D **Boron** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Calcium:** UMW-2D, UMW-3D **Chloride:** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Fluoride:** UMW-2D, UMW-4D, UMW-5D **Sulfate:** UMW-1D, UMW-2D, UMW-3D, UMW-4D **TDS:** UMW-1D, UMW-2D, UMW-3D, UMW-4D	**Molybdenum:** UMW-2D, UMW-3D, UMW-4D, UMW-5D	September 15, 2025
	Verification Sampling July 9, 2025	July 23, 2025	Detected Appendix III parameters (See Note 2)			

Event Name	Type of Event and Sampling Dates	Laboratory Analytical Data Receipt	Parameters Collected	Verified SSIs	SSLs	SSI & SSL Determination Date
October 2025 Sampling Event	Detection and Assessment Monitoring, October 6-8, 2025	November 3, 2025	Appendix III, Detected Appendix IV (See Note 3), & Major Cations and Anions	**pH:** UMW-2D, UMW-3D **Boron** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Calcium:** UMW-2D, UMW-3D **Chloride:** UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D **Fluoride:** UMW-2D, UMW-4D, UMW-5D **Sulfate:** UMW-1D, UMW-2D, UMW-3D, UMW-4D **TDS:** UMW-2D, UMW-3D, UMW-4D	**Molybdenum:** UMW-2D, UMW-3D, UMW-4D, UMW-5D	January 31, 2026 (See Note 4)
	December 3-4, 2025	December 19, 2025	Detected Appendix III parameters (See Note 2)			

Notes:
1) Testing was completed for Appendix IV analytes that were detected above the Practical Quantitation Limit (PQL) during the May 2024 sampling event.
2) Only analytes/wells that were detected above the prediction limit and that had not already been verified as SSIs were tested during Verification Sampling.
3) Testing was completed for Appendix IV analytes that were detected above the PQL during the May 2025 sampling event.
4) Statistical evaluations for the October 2025 sampling event were not completed until 2026. However, because the evaluations were completed prior to the date of this report, Ameren has elected to include the results in this Annual Report.
5) SSI – Statistically Significant Increase.
6) SSL – Statistically Significant Level.
7) TDS – Total Dissolved Solids.
8) MNA – Monitored Natural Attenuation.

On January 9, 2019, Ameren initiated its Corrective Measures Assessment (CMA) and posted the CMA report on May 20, 2019. A public meeting was held on May 31, 2019 and responses to public comments are posted on Ameren's CCR website. On August 30, 2019, Ameren published its "Remedy Selection Report – 40 CFR § 257.97 Rush Island, Labadie, Sioux and Meramec CCR Basins" (Remedy Selection Report) that identified source control through installation of a low permeability cover system, use of Monitored Natural Attenuation (MNA), and installation of Supplemental Corrective Measures as its chosen corrective action remedial plan. The Remedy Selection Report's remedial plan consists of two phases as follows:

1) Source control, stabilization and containment of CCR by installation of a low permeability geomembrane cap (a minimum 1 x 10^{-7} centimeters per second (cm/sec) versus 1 x 10^{-5} cm/sec required by the CCR Rule).

2) Once source control is achieved, monitor the natural attenuation of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modelling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

In January 2021, Ameren commenced Phase 1 of the corrective measures remedial plan by initiating closure at the SCPA. Capping and closure of the SCPA was fully completed in 2022 (closure certification on October 14, 2022). Therefore, the SCPA transitioned into the post-closure care requirements of the CCR Rule in October 2022. As outlined in §257.104 (Post-closure Care Requirements) of the CCR Rule, the monitoring system and programs must be maintained for at least 30 years. After 30 years, if the unit is in Detection Monitoring, the unit may cease groundwater sampling activities, otherwise post-closure care must continue until the unit can return to Detection Monitoring in accordance with section §257.95 (Assessment Monitoring Program).

Once the SCPA was certified closed, Phase 2 of the corrective measures remedial plan as outlined in the Remedy Selection Report began with the October 2022 Corrective Action sampling event. The associated statistical analysis for this event was completed in February 2023. Since that time, groundwater sampling and statistical evaluations have been completed semi-annually to determine if constituents are statistically in exceedance of the GWPS. A summary of Corrective Action Monitoring activities and associated statistical results for this year is provided in **Table 2**.

Table 2 - Summary of 2025 SCPA Sampling Events and Statistical Evaluations for Corrective Action Monitoring

Event Name	Type of Event and Sampling Dates	Laboratory Analytical Data Receipt Date	Parameters Collected	Constituents Statistically Exceeding the GWPS as a Part of Corrective Action Statistical Evaluations	Date Exceedance of GWPS was determined	ASD Completion Date
November 2024 Sampling Event	Phase 2 – Corrective Action Sampling November 14-20, 2024	December 19, 2024	Appendix III, Detected Appendix IV (See Note 1), & Major Cations and Anions	**Cobalt*:** LMW-6S **Lithium*:** LMW-5S, TP-2D, TP-5D **Molybdenum:** LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, PZ-1S	March 19, 2025	June 17, 2025
May 2025 Sampling Event	Phase 2 – Corrective Action Sampling May 7-12, 2025	June 27, 2025	Appendix III, Appendix IV, Major Cations and Anions, & selected MNA parameters	**Cobalt*:** LMW-6S, AM-1S **Lithium*:** LMW-5S, TP-2D **Molybdenum:** LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, PZ-1S	September 25, 2025	December 24, 2025
October 2025 Sampling Event	Phase 2 – Corrective Action Sampling October 3-9, 2025	November 3, 2025	Appendix III, Detected Appendix IV (See Note 2), & Major Cations and Anions	**Cobalt:** LMW-6S **Lithium:** LMW-5S, TP-2D **Molybdenum:** LMW-1S, LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, PZ-1S	January 31, 2026 (See Note 5)	To be completed in 2026

Notes:
1) Testing was completed for Appendix IV analytes that were detected above the PQL during the May 2024 sampling event.
2) Testing was completed for Appendix IV analytes that were detected above the PQL during the May 2025 sampling event.
3) MNA – Monitored Natural Attenuation.
4) * - Alternative Source Demonstrations (ASDs) were prepared for cobalt and lithium exceedances and conclude these statistical exceedances are not a result of impacts from the SCPA but appear to result from natural geochemical variability within the alluvial aquifer.
5) The Corrective Action statistical evaluation for the October 2025 sampling event was not completed until 2026. However, because the evaluation was completed prior to the date of this report, Ameren has elected to include the results in this Annual Report. The associated ASD for this event will be completed in 2026.

While there are exceedances of the GWPS using corrective action statistical analysis methods for cobalt, lithium, and molybdenum, variability in the initial groundwater results after closure of the SCPA is expected, especially at wells near the SCPA CCR unit. Concentrations of these constituents are expected to show decreases in concentration over time after stabilization occurs from closure and corrective measure remedial activities. Alternative Source Demonstration (ASDs) were completed for the cobalt and lithium exceedances, demonstrating that these exceedances are not a result of impacts from the SCPA but instead are the result of natural geochemical variability of groundwater within the alluvial aquifer at the site. Molybdenum remains as an exceedance of the GWPS and the unit remains in Corrective Action Monitoring.

In 2024, WSP USA Inc. (WSP) and Rocksmith Geoengineering, LLC (Rocksmith) prepared an evaluation of monitored natural attenuation (MNA) for molybdenum in groundwater at the Sioux Energy Center. This report is available on Ameren's publicly available CCR website and the investigation demonstrated that natural processes, including adsorption and mineral precipitation, are effectively reducing molybdenum concentrations. Supplemental corrective measures, such as a groundwater treatment system implemented in 2023, have further enhanced these reductions.

Supplemental Corrective Measures

In addition to MNA as a Corrective Measure, Ameren has also initiated a supplemental corrective measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective-ion exchange. The groundwater treatment system became fully operational in

February 2023, and approximately 56 million gallons of water have been treated since that time. A Supplemental Remedy Selection Report for the SEC was published in July 2024 by Haley & Aldrich, Inc. on behalf of Ameren Missouri. The report details the progress of corrective measures implemented since the 2019 Remedy Selection Report, including the completion of source control activities, ongoing natural attenuation processes, and the implementation of a groundwater treatment system. These corrective measures are effectively contributing to constituent mass reductions in groundwater near the SCPA and remain ongoing.

Overall, Corrective Action taken by Ameren has reduced concentrations of key CCR constituents by means of closure of the SCPA with an engineered geomembrane cover system, installation and operation of a groundwater treatment system, and MNA of impacts. In monitoring wells directly adjacent to the SCPA, average boron and molybdenum concentrations have decreased approximately 37% and 39%, respectively, since 2020 (the final year the SCPA was active). Groundwater monitoring and evaluations of monitoring results will continue, and progress will be tracked in future Annual Reports and statistical evaluations.

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1.0 INSTALLATION OR DECOMISSIONING OF MONITORING WELLS

There are currently two different monitoring well networks used for monitoring the SCPA: the network established under §257.91 for Detection and Assessment Monitoring and the network established under §257.98 for Corrective Action Monitoring. Well locations for each network are displayed in **Figure 1**. No new wells were installed or decommissioned in 2025. A summary of the construction details for monitoring wells in both networks is provided in **Table 3**. Further details, including well construction diagrams for these wells, are provided in previous annual reports for the SCPA.

2.0 GROUNDWATER SAMPLING RESULTS AND DISCUSSION

The following sections discuss the sampling events completed for the SCPA CCR Unit in 2025. **Tables 4** and **5** provide a summary of the groundwater samples collected in 2025 including the number of samples, the date of the sample collection, and the monitoring program for which the samples were collected. **Appendix A** provides laboratory analytical data for CCR Rule sampling events conducted in 2025.

2.1 Detection Monitoring Program

A Detection Monitoring groundwater sampling event was completed November 14-20, 2024. The statistical analysis to evaluate for SSIs for the November 2024 event was not completed until 2025 and is included in this report. Detections above respective prediction limits for some Appendix III analytes triggered a verification sampling event, which was completed February 6-7, 2025 and verified two new SSIs. **Table 6** summarizes the results and statistical analysis of the November 2024 Detection Monitoring event. Laboratory analytical data for the November 2024 Detection Monitoring event are provided in the 2024 Groundwater Monitoring and Corrective Action Annual Report for the SCPA.

Detection Monitoring samples were collected May 7-12, 2025, and testing was completed for all Appendix III analytes, as well as major cations and anions. As outlined in the Statistical Analysis Plan for the Site, updates to the statistical limits should be completed once four to eight new sample results are available. During the statistical analysis of the May 2025 sampling event, the statistical limits used to determine an SSI were updated according to the Statistical Analysis Plan. Two new initial exceedances were noted, triggering a verification sampling event. Verification sampling on July 9, 2025 confirmed these two new exceedances as SSIs. **Table 7** summarizes the results and statistical analysis of the May 2025 Detection Monitoring event.

A Detection Monitoring groundwater sampling event was completed October 6-8, 2025, and testing was performed for all Appendix III analytes, as well as major cations and anions. Several new initial exceedances triggered a verification sampling event, which was completed December 3-4, 2025. None of the new initial exceedances were verified as SSIs. **Table 8** summarizes the results and statistical analysis of the October 2025 Detection Monitoring event.

2.2 Assessment Monitoring Program

An Assessment Monitoring groundwater sampling event was completed November 14-20, 2024, and testing was completed for Appendix IV parameters detected above the Practical Quantitation Limit (PQL) during the previous sampling event from either Assessment or Corrective Action Monitoring, as well as major cations and anions. **Table 9** summarizes the results of the November 2024 Assessment Monitoring event. Laboratory analytical data for this event are provided in the 2024 Annual Report. The statistical evaluation for this event was completed in 2025 and is included in this report. The statistical evaluation for this event and a table that displays the site-specific GWPSs are provided in **Appendix B** and determined there were no new SSLs. The SSLs for the SCPA continue to be:

- Molybdenum at UMW-2D, UMW-3D, UMW-4D, and UMW-5D

An Assessment Monitoring groundwater sampling event was completed from May 7-12, 2025 and testing was completed for all Appendix IV analytes, major cations and anions, and other selected MNA parameters. **Table 10** summarizes the results of the May 2025 Assessment Monitoring event. Concurrent with prediction limit updates for the Detection Monitoring network, site-specific GWPSs used to determine SSLs and Corrective Action exceedances were updated according to the Statistical Analysis Plan. The statistical evaluation for this event and updated site GWPSs are provided in **Appendix C**. There were no new SSLs as of the May 2025 event, and the molybdenum SSLs listed above remain.

An Assessment Monitoring groundwater sampling event was completed October 6-8, 2025, and testing was completed for Appendix IV analytes that were detected above the PQL during the May 2025 sampling event from either the Assessment or Corrective Action Monitoring, as well as major cations and anions. **Table 11** summarizes the results of the October 2025 Assessment Monitoring event. The statistical evaluation for this event is provided in **Appendix D** and determined that there were no new SSLs, and the molybdenum SSLs listed above remain.

2.3 Corrective Action Monitoring Program

A Corrective Action Monitoring groundwater sampling event was completed November 14-20, 2024, and testing was completed for all Appendix III analytes, Appendix IV analytes that were detected above the PQL during the previous sampling event from either Assessment or Corrective Action Monitoring, and major cations and anions. A summary of the November 2024 Corrective Action sampling event results is provided in **Table 12** and the results of the statistical evaluation for this event are provided in **Appendix E**. Based on this evaluation, the following constituents at corresponding wells displayed statistical exceedances of the GWPS using Corrective Action statistical methods[1]:

- Cobalt at LMW-6S
- Lithium at LMW-5S, TP-2D, and TP-5D
- Molybdenum at LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

A Corrective Action Monitoring sampling event was completed on May 7-12, 2025. Testing was completed for all Appendix III and IV analytes, major cations and anions, and other selected MNA parameters. A summary of the May 2025 Corrective Action sampling results is provided in **Table 13**. Results of the statistical evaluation for this event and the updated site GWPSs discussed previously are provided in **Appendix F**. Based on the statistical evaluation, as of the May 2025 sampling event, lithium at TP-5D is no longer a statistical exceedance of GWPS. Additionally, statistical evaluation identified cobalt at AM-1S as an exceedance of GWPS. Other exceedances remained the same as those identified following the November 2024 Corrective Action event, and they are listed as follows:

- Cobalt at LMW-6S and AM-1S
- Lithium at LMW-5S and TP-2D
- Molybdenum at LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

A Corrective Action Monitoring sampling event was completed on October 3-9, 2025, and testing was completed for Appendix III analytes, Appendix IV analytes that were detected above the PQL during the May 2025 sampling event from either the Assessment or Corrective Action Monitoring, including major cations and anions. **Table 14** summarizes the results of the October 2025 Corrective Action event. The statistical analysis to evaluate exceedances of the GWPS was completed in 2026 prior to this report and is included in **Appendix G**. As of

[1] The statistical testing method used to evaluate the Corrective Action monitoring results is the confidence interval method, which is the same method used during Assessment Monitoring, except the null hypothesis for the confidence intervals is reversed. For Corrective Action, the Unified Guidance states that the appropriate null hypothesis is that the groundwater population (mean) exceeds the Groundwater Protection Standard (GWPS) for those constituents that exceed the GWPS under Assessment Monitoring program. Therefore, in Corrective Action the Upper Confidence Limit (UCL) is compared to the GWPS instead of the Lower Confidence Limit (LCL) [as used during Assessment Monitoring].

October 2025, cobalt at AM-1S is no longer an exceedance. Molybdenum at LMW-1S is again an exceedance, having last been identified as an exceedance following the November 2023 sampling event. Exceedances within Corrective Action Monitoring as of the October 2025 sampling event are as follows:

- Cobalt at LMW-6S
- Lithium at LMW-5S and TP-2D
- Molybdenum at LMW-1S, LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

As stated in the Corrective Action GMP, if the statistical evaluation determines that a constituent exceeds the GWPS that was not identified as an SSL in Assessment Monitoring, the data should be evaluated to determine the source of the exceedance. Cobalt and lithium have not historically been identified as an SSL in Assessment Monitoring and a review of the data determined that the statistical cobalt and lithium exceedances at select wells are not caused by the SCPA CCR unit. Therefore, Alternative Source Demonstrations (ASDs) were completed following the November 2024 and May 2025 sampling events for these cobalt and lithium exceedances, provided in **Appendix H** and **Appendix I**. These ASDs conclude that the statistical exceedances for cobalt and lithium at applicable wells are not a result of impacts from the SCPA but appear to result from natural geochemical variability within the alluvial aquifer.

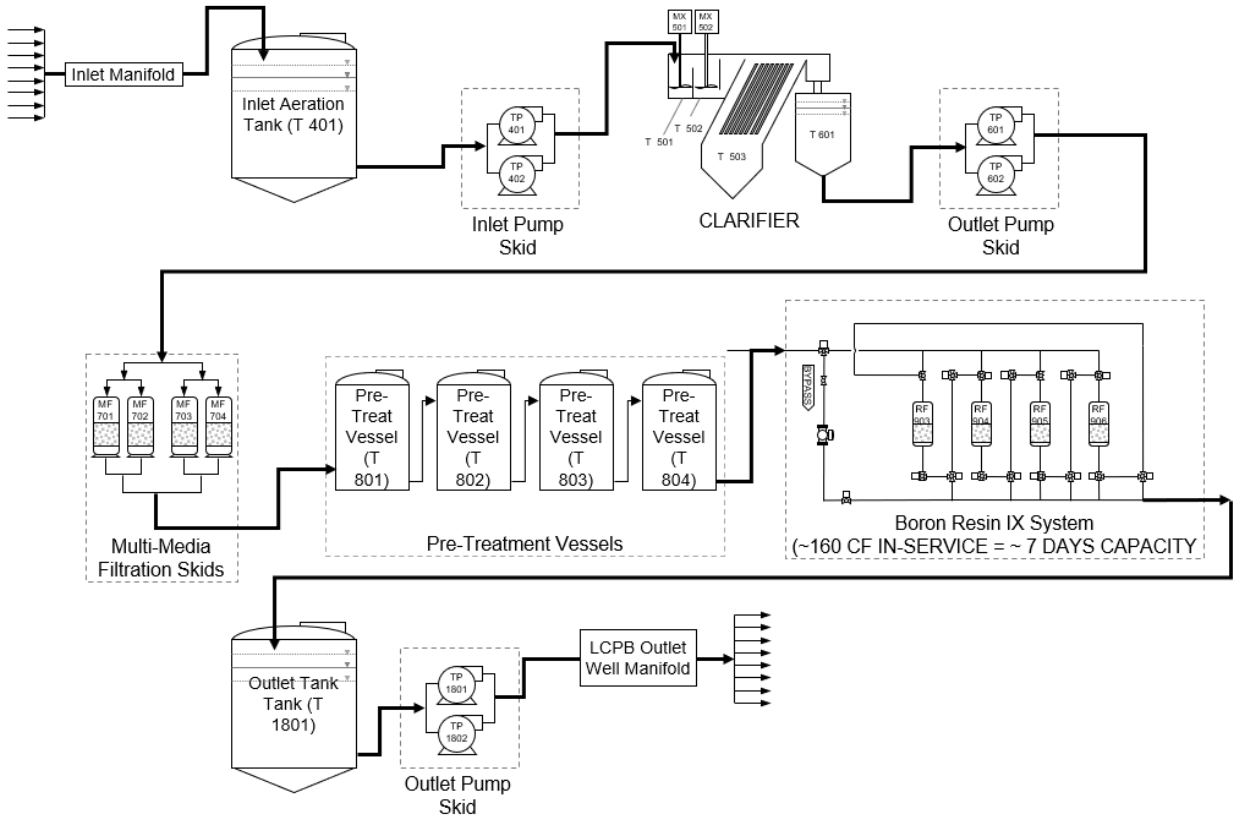
An ASD for the cobalt and lithium exceedances noted in October 2025 statistical evaluation will be evaluated in 2026.

2.4 Supplemental Corrective Measures

As outlined in Ameren's Remedy Selection Report, once source control is achieved, Ameren will monitor natural attenuation of groundwater and complete supplemental corrective measures using groundwater treatment. In 2021, Ameren began implementing the supplemental corrective measure for CCR groundwater impacts using ex-situ treatment technologies of chemical precipitation and selective-ion exchange by completing a pilot study at the Rush Island Energy Center. The results of this groundwater treatment pilot study displayed significant reductions in key CCR indicator concentrations. Due to the success, Ameren expanded this technology to the Sioux Energy Center and operation of the treatment system began in February 2023. After a period of optimization, the system achieved design targets in September 2023 and has been operational since that time.

The groundwater treatment system was developed to successfully capture the CCR impacted groundwater from the SCPA, treat the water by removing contaminants, and return treated water to the same hydrogeologic horizon. The process used for this treatment is illustrated in **Figure 2**.

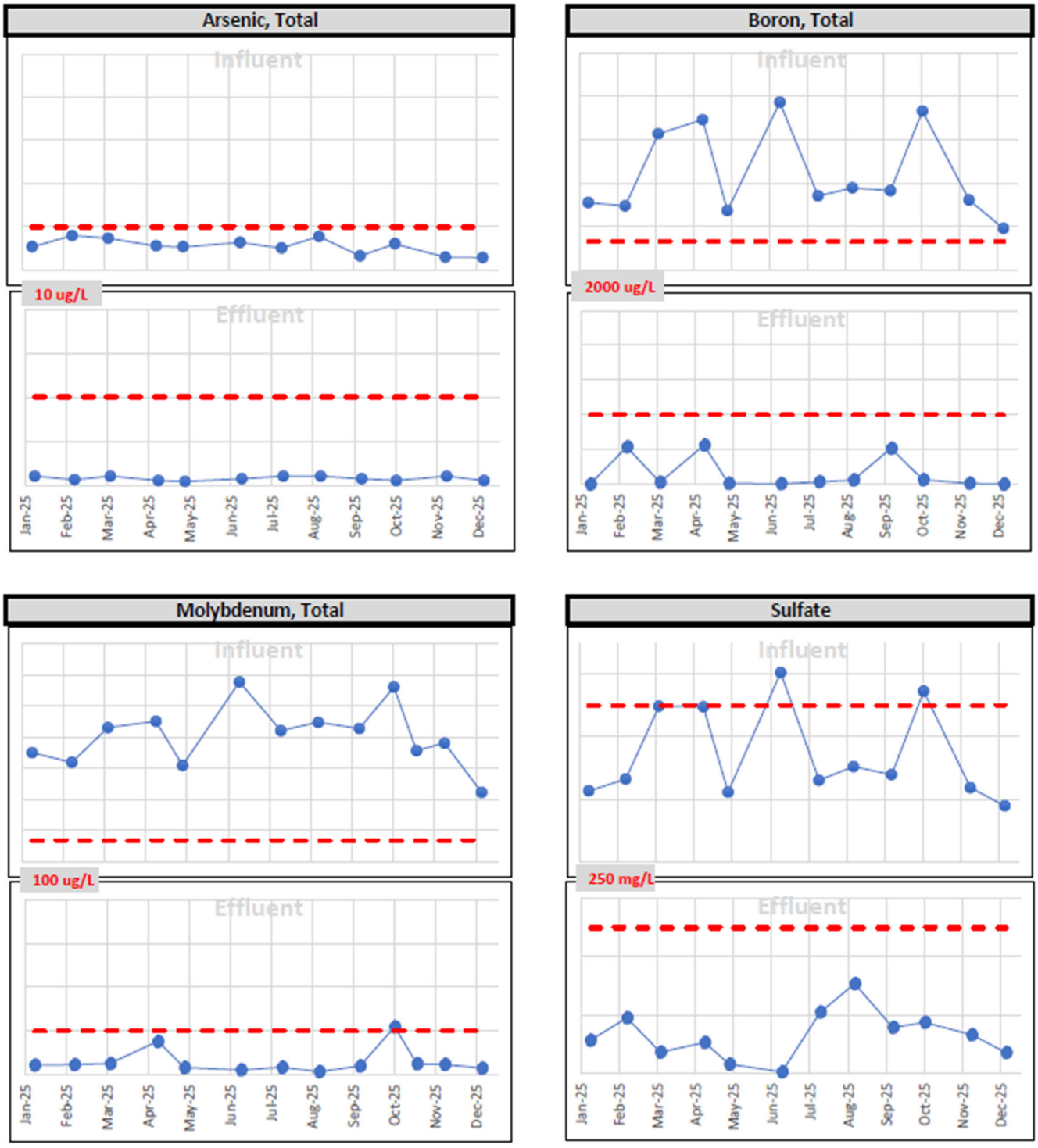
Figure 2: CCR Impacted Groundwater Treatment Process



The process is constructed to minimize waste generation and operate independently of other facilities onsite.

Figure 3 on the following page shows the influent and effluent data from the SCPA groundwater treatment collected over the period of system optimization through initial full-scale system operation. Displayed data are for key CCR constituents in groundwater downgradient of the impoundment. The figure illustrates that, after a few months of optimization, the system effluent concentrations have consistently been below the discharge standards for groundwater (indicated in red). These discharge standards meet drinking water action levels for the applicable constituents.

Figure 3: SCPA Groundwater Treatment System Influent and Effluent Concentrations – 2025



Note: Influent and effluent figures produced by Ameren.

2.5 Evaluation of Corrective Measures

Ameren commenced Phase 1 of the corrective measures remedial plan by initiating closure of the SCPA in January 2021. Closure was completed on October 14, 2022. The October 2025 groundwater sampling event represents the seventh event since closure of the SCPA was completed, and the fifth sampling event since the implementation of the full groundwater treatment system.

In order to document the effectiveness of the Corrective Action Remedies (corrective measures), an evaluation of the key site CCR indicators was completed. **Figures 4** and **5** (below) display the average concentrations for boron and molybdenum in the monitoring wells directly adjacent to the SCPA. While there is variability in individual well results, the average annual concentrations of boron and molybdenum at the site are decreasing as follows:

- Boron – Average concentrations in the monitoring wells downgradient of the SCPA have decreased approximately 37% since 2020.
- Molybdenum – Average concentrations in the monitoring wells downgradient of the SCPA have decreased approximately 39% since 2020.

Figure 4 - Average Boron Concentrations

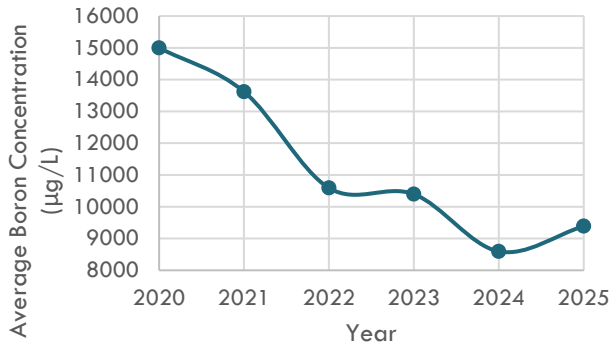
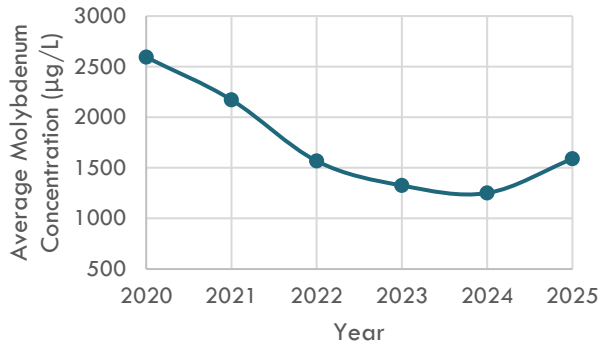


Figure 5 - Average Molybdenum Concentrations



As displayed by these figures, corrective measures taken by Ameren, including the closure of the SCPA with an engineered geomembrane cover system, installation and operation of a groundwater treatment system, and MNA have been effective in reducing concentrations of these constituents, which is further detailed in the Supplemental Remedy Selection Report published by Haley & Aldrich in July 2024. Variability in results is expected as the effects of corrective measures are realized throughout the alluvial aquifer. Groundwater monitoring activities will continue, and progress will be documented in future Annual Reports and statistical evaluations.

2.6 Groundwater Elevation, Flow Rate and Direction

To meet the requirements of §257.93(c), water level measurements were taken at all monitoring wells prior to the start of groundwater purging and sampling. Static water levels were measured within a 24-hour period in each monitoring well using an electronic water level indicator.

Groundwater elevations were used to generate potentiometric surface maps included in **Appendix J**. As shown on the potentiometric surface maps, groundwater flow direction within the uppermost aquifer is dynamic and influenced by seasonal changes in the water level in the adjacent Mississippi and Missouri Rivers, which affect water levels, gradients and flow directions in the alluvial aquifer. Groundwater in the alluvial aquifer will generally flow from the higher of the two rivers toward the lower water elevation river. Water flows into and out of the alluvial aquifer as a result of fluctuating river water levels that produce “bank recharge” and “bank discharge” conditions. At this facility, groundwater can flow north and south toward the Mississippi and Missouri Rivers, depending on river levels.

Groundwater flow direction and hydraulic gradient at the SEC were estimated for the alluvial aquifer wells using commercially available software to evaluate manually collected water level data since 2016. Results indicate that groundwater flow direction at the SEC is variable due to fluctuating river levels but generally flows to the south. The overall net groundwater flow direction in the alluvial aquifer at the SEC was south-southeast in 2025 because of river level differences between the Missouri and Mississippi Rivers. From 2016 through 2025, horizontal gradients have ranged from 0.00006 to 0.001 feet/foot with an estimated net annual groundwater movement of approximately 10 feet per year in the prevailing downgradient direction. Based on water level data collected in 2025, net annual groundwater movement across the site during the year was approximately 8 feet to the south-southeast.

2.7 Sampling Issues

Following a courier error, wells UMW-5D and UMW-6D were resampled due to arriving at the laboratory outside of the hold temperature control range. These wells were originally sampled on October 2, 2025 and were resampled on October 8, 2025. Results from the resampling are reported and the original sample bottles were discarded by the laboratory.

There were no other notable sampling issues associated with the SCPA monitoring network in 2025.

3.0 ACTIVITIES PLANNED FOR 2026

Detection and Assessment Monitoring are scheduled to continue on a semi-annual basis in the second and fourth quarters of 2026. As part of Phase 2 of the Remedy Selection Report's corrective measures remedial plan, Corrective Action Monitoring is scheduled to continue on a semi-annual basis in the second and fourth quarters of 2026. Monitoring and statistical evaluation of the corrective measures will be completed in accordance with the corrective measures remedial plan discussed in the Remedy Selection Report.

Evaluation of the effectiveness of Corrective Action and Corrective Measures (groundwater treatment) on CCR constituent concentrations in groundwater will continue in 2026 and be included in the 2026 Annual Report.

Tables

Table 3
Summary of Well Construction Details
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Monitoring Well ID	Installation Date	Location		Top of Casing Elevation	Ground Surface Elevation	Top of Screen Elevation	Base of Well	Total Depth
		Northing[1]	Easting[1]	(FT MSL)[2]	(FT MSL)[2]	(FT MSL)[2]	(FT MSL)[2]	(FT BGS)[3]
CCR RULE COMPLIANCE NETWORK								
UMW-1D*	12/15/2015	1121321.4	879420.3	444.95	445.4	383.9	373.7	71.7
UMW-2D	12/17/2015	1120266.7	878981.6	433.86	431.7	386.6	376.4	55.4
UMW-3D	12/16/2015	1120570.4	878251.1	431.67	430.1	384.3	374.1	56.0
UMW-4D	12/16/2015	1121077.9	877859.9	423.52	421.7	380.7	370.5	51.2
UMW-5D	12/17/2015	1121815.0	877799.1	446.66	444.8	384.8	374.6	70.2
UMW-6D	12/18/2015	1122312.0	878639.5	447.02	444.9	384.1	373.9	71.0
BMW-1D	12/8/2015	1121713.6	876740.9	428.28	426.0	383.1	372.9	53.2
BMW-3D	11/8/2016	1121798.8	875798.3	426.41	424.2	381.8	371.6	52.6
CORRECTIVE ACTION MONITORING WELL NETWORK								
LMW-1S*	12/15/2015	1121320.4	879427.6	445.07	445.4	414.8	404.6	40.8
LMW-2S	12/16/2015	1120332.8	879283.7	447.16	445.2	414.7	404.5	40.8
LMW-4S	12/8/2015	1119226.6	879561.5	429.40	427.3	412.4	402.2	25.1
LMW-5S	12/14/2015	1119250.6	880348.6	447.36	445.5	410.1	399.9	45.6
LMW-6S	12/14/2015	1119782.0	880867.8	446.00	444.1	414.1	403.9	40.2
BMW-1S	12/8/2015	1121709.2	876755.6	427.77	426.0	412.0	401.8	24.2
BMW-3S	11/8/2016	1121792.9	875809.5	426.69	424.1	410.2	400.0	24.2
UMW-7S (AM-1S)	7/11/2018	1122151.7	877672.3	425.56	423.3	408.5	398.2	25.1
UMW-7D (AM-1D)	7/11/2018	1122156.7	877672.7	425.47	423.5	378.7	368.4	55.1
PZ-1S	6/17/2018	1121157.5	877799.8	423.94	422.1	402.4	391.7	30.5
PZ-9D	6/19/2018	1119526.8	881125.3	434.30	432.4	377.2	366.5	65.9
UG-3	12/16/2007	1118608.5	880519.4	429.71	427.1	410.0	399.7	27.4
TP-2D	7/9/2018	1123221.1	881698.8	429.26	426.7	347.3	342.2	84.4
TP-3D	7/9/2018	1120614.0	882877.1	434.82	432.1	356.1	351.0	81.1
TP-4D	7/8/2018	1118472.8	882589.0	428.72	426.4	349.3	344.2	82.2
TP-5D**	7/6/2018	1118812.3	879517.5	429.13	429.3	352.5	347.4	81.9
TP-6S	7/11/2018	1119284.6	876381.5	428.07	426.1	408.1	403.0	23.0
TP-6D	7/11/2018	1119284.6	876381.5	428.06	426.1	345.6	340.5	85.6
TP-8D	7/14/2018	1114533.1	881307.7	431.30	428.8	351.7	346.6	82.3

Notes:

1) Horizontal Datum: State Plane Coordinates NAD83 (2000) Missouri East Zone feet.

2) FT MSL - Feet above mean sea level.

3) FT BGS - Feet below ground surface.

4) Vertical Datum: NAVD88 feet.

5) *UMW-1D and LMW-1S were modified on 04/29/2020.

6) **TP-5D was modified on 3/26/2021.

Created By: GTM
Checked By: JSI
Reviewed By: MNH

Table 4
Summary of Detection and Assessment Monitoring Sampling Dates
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Groundwater Monitoring Wells	Date of Sample Collection					
	February 2025 Verification Sampling	May 2025 Sampling Event	July 2025 Verification Sampling	October 2025 Sampling Event	December 2025 Verification Sampling	Total Number of Samples
CCR Rule Compliance Monitoring Well Network						
BMW-1D	-	5/7/2025	-	10/6/2025	-	2
BMW-3D	-	5/7/2025	-	10/6/2025	-	2
UMW-1D	2/7/2025	5/12/2025	-	10/6/2025	12/4/2025	4
UMW-2D	-	5/8/2025	7/9/2025	10/7/2025	-	3
UMW-3D	-	5/8/2025	-	10/7/2025	12/3/2025	3
UMW-4D	2/6/2025	5/8/2025	-	10/7/2025	-	3
UMW-5D	-	5/8/2025	7/9/2025	10/8/2025	12/3/2025	4
UMW-6D	2/7/2025	5/8/2025	-	10/8/2025	12/3/2025	4
Assessment or Detection Monitoring	Detection	Assessment/ Detection	Detection	Assessment/ Detection	Detection	NA

Notes:

1.) Detection Monitoring results provided in Tables 6-8.

2.) Verification Sampling results provided in Tables 6-8.

3.) Assessment Monitoring results provided in Tables 9-11.

4.) "-" No sample collected.

5.) NA - Not Applicable.

Created By: JTR
Checked By: GTM
Reviewed By: JSI

Table 5
Summary of Corrective Action Monitoring Sampling Dates
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Groundwater Monitoring Wells	Date of Sample Collection		
	May 2025 Sampling Event	October 2025 Sampling	Total Number of Samples
Corrective Action Monitoring Well Network			
LMW-1S	5/12/2025	10/6/2025	2
LMW-2S	5/7/2025	10/7/2025	2
LMW-4S	5/9/2025	10/7/2025	2
LMW-5S	5/12/2025	10/3/2025	2
LMW-6S	5/12/2025	10/3/2025	2
AM-1S (UMW-7S)	5/7/2025	10/8/2025	2
AM-1D (UMW-7D)	5/7/2025	10/8/2025	2
PZ-1S	5/8/2025	10/7/2025	2
PZ-9D	5/12/2025	10/3/2025	2
UG-3	5/8/2025	10/7/2025	2
TP-2D	5/9/2025	10/8/2025	2
TP-3D	5/9/2025	10/9/2025	2
TP-4D	5/9/2025	10/8/2025	2
TP-5D	5/8/2025	10/7/2025	2
TP-6S	5/8/2025	10/9/2025	2
TP-6D	5/8/2025	10/9/2025	2
TP-8D	5/12/2025	10/7/2025	2
BMW-1S	5/7/2025	10/6/2025	2
BMW-3S	5/7/2025	10/6/2025	2
Event Type	Corrective Action	Corrective Action	NA

Notes:

1.) Corrective Action sampling results provided in Tables 12-14.

2.) NA - Not Applicable.

Created By: JTR
Checked By: GTM
Reviewed By: JSI

Table 6
November 2024 Detection Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

			BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	PREDICTION LIMITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
November 2024 Detection Monitoring Event										
DATE	NA	NA	11/20/2024	11/20/2024	11/14/2024	11/18/2024	11/18/2024	11/18/2024	11/18/2024	11/18/2024
pH	SU	6.722-7.464	6.94	6.83	7.43	8.17	8.06	7.34	7.09	6.65
BORON, TOTAL	µg/L	240	116	58.4 J	548	12,000	32,400	1,210	5,000	162
CALCIUM, TOTAL	µg/L	144,073	122,000	111,000	121,000	151,000	225,000	135,000	76,600	98,000 J
CHLORIDE, TOTAL	mg/L	11.46	11.6	12.6 J	161 J	23.3	18.4	30.9	32.0	5.6
FLUORIDE, TOTAL	mg/L	0.44	ND	ND	0.47 J	1.0	0.38	0.55	0.29	ND
SULFATE, TOTAL	mg/L	52.4	23.3	19.7	67.8 J	286	808	223	1.7	33.6
TOTAL DISSOLVED SOLIDS	mg/L	518.4	463	436	591	703	1,240	614	371	414
February 2025 Verification Sampling Event										
DATE	NA	NA			2/7/2025			2/6/2025		2/7/2025
pH	SU	6.722-7.464								7.08
BORON, TOTAL	µg/L	240								
CALCIUM, TOTAL	µg/L	144,073								
CHLORIDE, TOTAL	mg/L	11.46								
FLUORIDE, TOTAL	mg/L	0.44			0.24			0.84		
SULFATE, TOTAL	mg/L	52.4								
TOTAL DISSOLVED SOLIDS	mg/L	518.4			674					

NOTES:
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units.
2. J - Result is an estimated value.
3. NA - Not applicable.
4. Prediction limits calculated using Sanitas Software.
5. Values highlighted in yellow indicate a Statistically Significant Increase (SSI).
6. Values highlighted in green indicate an initial exceedance above the prediction limit that was not confirmed by Verification Sampling (not an SSI).
7. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
8. Only analytes/wells that were detected above the prediction limit and that had not already been verified were tested during Verification Sampling.

Prepared By: GTM
Checked By: JDQ
Reviewed By: JSI

Table 7
May 2025 Detection Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

			BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	PREDICTION LIMITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
May 2025 Detection Monitoring Event										
DATE	NA	NA	5/7/2025	5/7/2025	5/12/2025	5/8/2025	5/8/2025	5/8/2025	5/8/2025	5/8/2025
pH	SU	6.760-7.440	7.03	6.95	7.39	8.33	8.34	7.12	7.39	6.85
BORON, TOTAL	µg/L	240	103	61.8 J	598	12,500	29,900	15,600	5,490	187
CALCIUM, TOTAL	µg/L	141,619	116,000	110,000	114,000	159,000	214,000	98,600	89,600	107,000
CHLORIDE, TOTAL	mg/L	11.97	10.1	10.6	98.1	23.2 J*	33.7 J	27.0 J	46.6 J	6.0
FLUORIDE, TOTAL	mg/L	0.44	0.27	0.28	ND	1.0 J*	ND	0.71	0.56 J	ND
SULFATE, TOTAL	mg/L	51.351	22.2	17.4	62.0	298 J*	650 J	192 J	8.0 J	33.2
TOTAL DISSOLVED SOLIDS	mg/L	520.6	450	470	523	723	1,230	589	431	418
July 2025 Verification Sampling Event										
DATE	NA	NA				7/9/2025			7/9/2025	
pH	SU	6.760-7.440								
BORON, TOTAL	µg/L	240								
CALCIUM, TOTAL	µg/L	141,619								
CHLORIDE, TOTAL	mg/L	11.97								
FLUORIDE, TOTAL	mg/L	0.44				1.0			0.51	
SULFATE, TOTAL	mg/L	51.351								
TOTAL DISSOLVED SOLIDS	mg/L	520.6								

NOTES:
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units.
2. J - Result is an estimated value.
3. NA - Not applicable.
4. Prediction limits calculated using Sanitas Software.
5. Values highlighted in yellow indicate a Statistically Significant Increase (SSI).
6. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
7. Only analytes/wells that were detected above the prediction limit and that had not already been verified were tested during Verification Sampling.
8. * - Chloride, flouride and sulfate at UMW-2D were reanalyzed outside of hold time requirements due to reporting errors in intial reults. Results are estimated.

Prepared By: GTM
Checked By: JDQ
Reviewed By: JSI

Table 8
October 2025 Detection Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

			BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	PREDICTION LIMITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
October 2025 Detection Monitoring Event										
DATE	NA	NA	10/6/2025	10/6/2025	10/6/2025	10/7/2025	10/7/2025	10/7/2025	10/8/2025	10/8/2025
pH	SU	6.760-7.440	7.02	7.07	7.47	8.11	8.05	7.26	7.35	6.80
BORON, TOTAL	µg/L	240	151	76.3 J	826	15,800	34,900	18,200	5,150	158
CALCIUM, TOTAL	µg/L	141,619	118,000	108,000	91,600	149,000	240,000	103,000	131,000	112,000
CHLORIDE, TOTAL	mg/L	11.97	9.0	11.9	55.9	23.1	31.4	26.5	242	12.3
FLUORIDE, TOTAL	mg/L	0.44	0.27	0.28	0.34	1.3	0.56	0.85	0.61	0.23
SULFATE, TOTAL	mg/L	51.351	25.5	16.5	58.0	289	685	219	95.2	45.5
TOTAL DISSOLVED SOLIDS	mg/L	520.6	451	434	448	708	1,370	637	820	451 J
December 2025 Verification Sampling Event										
DATE	NA	NA			12/4/2025		12/3/2025		12/3/2025	12/3/2025
pH	SU	6.760-7.440			7.43					
BORON, TOTAL	µg/L	240								
CALCIUM, TOTAL	µg/L	141,619								
CHLORIDE, TOTAL	mg/L	11.97								11.4
FLUORIDE, TOTAL	mg/L	0.44					ND			
SULFATE, TOTAL	mg/L	51.351							21.9	
TOTAL DISSOLVED SOLIDS	mg/L	520.6							501	

NOTES:
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units.
2. J - Result is an estimated value.
3. NA - Not applicable.
4. Prediction limits calculated using Sanitas Software.
5. Values highlighted in yellow indicate a Statistically Significant Increase (SSI).
6. Values highlighted in green indicate an initial exceedance above the prediction limit that was not confirmed by Verification Sampling (not an SSI).
7. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
8. Only analytes/wells that were detected above the prediction limit and that had not already been verified were tested during Verification Sampling.

Prepared By: JTR
Checked By: GTM
Reviewed By: JSI

Table 9
November 2024 Assessment Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

		BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
FIELD PARAMETERS									
DATE	NA	11/20/2024	11/20/2024	11/14/2024	11/18/2024	11/18/2024	11/18/2024	11/18/2024	11/18/2024
DISSOLVED OXYGEN	mg/L	0.22	0.23	0.22	0.25	0.25	0.09	0.29	0.35
pH	SU	6.94	6.83	7.43	8.17	8.06	7.34	7.09	6.65
REDOX POTENTIAL	mV	-82.4	-124.2	94.8	113.8	42.1	-56.8	-145.2	-122.3
SPECIFIC CONDUCTIVITY	mS/cm	0.827	0.791	0.980	0.975	1.542	0.912	0.670	0.752
TURBIDITY	NTU	4.91	1.12	1.89	1.41	0.97	2.48	1.86	2.65
APPENDIX IV PARAMETERS									
ARSENIC, TOTAL	µg/L	0.48 J	0.32 J	2.3	3.7	1.5	0.56 J	0.42 J	0.59 J
BARIUM, TOTAL	µg/L	336	653	245	56.7	61.8	260	428	143
CADMIUM, TOTAL	µg/L	ND	ND	0.11 J	0.56	2.0	1.8	0.079 J	ND
CHROMIUM, TOTAL	µg/L	ND	ND	ND	0.37 J	ND	0.35 J	0.43 J	0.33 J
FLUORIDE, TOTAL	mg/L	ND	ND	0.47 J	1.0	0.38	0.55	0.29	ND
LITHIUM, TOTAL	µg/L	14.2	18.7	22.6	24.6	12.5	25.4	18.6	12.9
MOLYBDENUM, TOTAL	µg/L	ND	ND	70.6	1,310	4,820	85.4	173	26.0
RADIUM [226 + 228]	pCi/L	ND	ND	ND	ND	1.939	ND	ND	ND
SELENIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	0.22 J	ND	ND

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. NA - Not Applicable.
4. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
5. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.

Prepared By: GTM
Checked By: JTR
Reviewed By: MNH

Table 10
May 2025 Assessment Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

		BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
FIELD PARAMETERS									
DATE	NA	5/7/2025	5/7/2025	5/12/2025	5/8/2025	5/8/2025	5/8/2025	5/8/2025	5/8/2025
DISSOLVED OXYGEN	mg/L	0.14	0.20	0.26	0.38	0.35	0.39	0.56	0.94
pH	SU	7.03	6.95	7.39	8.33	8.34	7.12	7.39	6.85
REDOX POTENTIAL	mV	-22.4	-13.6	24.3	-10.8	-34.3	-12.7	-39.6	-9.3
SPECIFIC CONDUCTIVITY	mS/cm	0.753	0.731	0.920	0.970	1.479	0.862	0.730	0.719
TURBIDITY	NTU	3.56	1.30	2.46	0.39	0.68	3.59	0.77	2.89
APPENDIX IV PARAMETERS									
ANTIMONY, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC, TOTAL	µg/L	0.27 J	ND	2.1	3.4	0.63 J	0.30 J	0.25 J	0.42 J
BARIUM, TOTAL	µg/L	358	649	231	59.1	59.7	43.1	491	150
BERYLLIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM, TOTAL	µg/L	ND	ND	ND	0.41 J	1.6	1.4	ND	ND
CHROMIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	0.39 J	ND	ND
COBALT, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
FLUORIDE, TOTAL	mg/L	0.27	0.28	ND	1.0 J*	ND	0.71	0.56 J	ND
LEAD, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
LITHIUM, TOTAL	µg/L	12.4	22.2	22.5	31.3	16.9	27.6	23.3	19.4
MERCURY, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	µg/L	ND	ND	77.0	1,390	5,200	4,530	167	33.1
RADIUM [226 + 228]	pCi/L	2.634	2.012	ND	2.071	ND	ND	ND	ND
SELENIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
THALLIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. NA - Not Applicable.
4. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
5. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.
6. * - Flouride at UMW-2D was reanalyzed outside of hold time requirements due to a reporting error in the intial result. Result is estimated.

Prepared By: GTM
Checked By: JTR
Reviewed By: JSI

Table 11
October 2025 Assessment Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

		BACKGROUND		GROUNDWATER MONITORING WELLS					
ANALYTE	UNITS	BMW-1D	BMW-3D	UMW-1D	UMW-2D	UMW-3D	UMW-4D	UMW-5D	UMW-6D
FIELD PARAMETERS									
DATE	NA	10/6/2025	10/6/2025	10/6/2025	10/7/2025	10/7/2025	10/7/2025	10/8/2025	10/8/2025
DISSOLVED OXYGEN	mg/L	1.21	1.02	1.08	1.91	2.05	1.60	1.30	1.37
pH	SU	7.02	7.07	7.47	8.11	8.05	7.26	7.35	6.80
REDOX POTENTIAL	mV	-136.3	-131.4	-104.6	-76.0	-148.4	-137.2	-113.2	-71.4
SPECIFIC CONDUCTIVITY	mS/cm	0.698	0.659	0.696	0.834	1.429	0.805	1.144	0.652
TURBIDITY	NTU	1.25	2.69	2.89	0.43	0.44	1.45	0.66	1.38
APPENDIX IV PARAMETERS									
ARSENIC, TOTAL	µg/L	0.20 J	ND	1.9	3.0	0.96 J	0.28 J	0.31 J	0.38 J
BARIUM, TOTAL	µg/L	340	640	189	56.2	67.3	45.6	652	155
CADMIUM, TOTAL	µg/L	ND	ND	ND	0.33 J	1.2	1.3	0.11 J	ND
CHROMIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
COBALT, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
FLUORIDE, TOTAL	mg/L	0.27	0.28	0.34	1.3	0.56	0.85	0.61	0.23
LITHIUM, TOTAL	µg/L	13.9	19.8	23.1	28.2	19.0	27.1	29.0	17.1
MOLYBDENUM, TOTAL	µg/L	ND	ND	89.1	1,470	5,180	5,070	427	25.7
RADIUM [226 + 228]	pCi/L	ND	ND	ND	ND	ND	ND	ND	ND
SELENIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. NA - Not Applicable.
4. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
5. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.

Prepared By: GTM
Checked By: JDQ
Reviewed By: JSI

Table 12
November 2024 Corrective Action Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

ANALYTE	UNITS	BMW-1S	BMW-3S	LMW-1S	LMW-2S	LMW-4S	LMW-5S	LMW-6S	TP-6S	PZ-1S	UG-3	AM-1S	AM-1D	PZ-9D	TP-2D	TP-3D	TP-4D	TP-5D	TP-6D	TP-8D
FIELD PARAMETERS																				
DATE	NA	11/20/2024	11/20/2024	11/14/2024	11/19/2024	11/19/2024	11/15/2024	11/15/2024	11/14/2024	11/18/2024	11/14/2024	11/19/2024	11/19/2024	11/18/2024	11/20/2024	11/20/2024	11/20/2024	11/14/2024	11/14/2024	11/18/2024
DISSOLVED OXYGEN	mg/L	0.24	0.32	1.45	0.32	0.26	0.78	0.33	0.24	0.14	0.37	0.23	0.34	0.18	0.15	0.12	0.14	0.22	0.19	0.13
REDOX POTENTIAL	mV	31.7	8.4	-0.1	-75.2	-114.3	23.8	-227.1	-64.8	-45.8	-25.7	-65.3	13.6	-148.8	-26.6	-23.4	5.8	-130.5	-135.0	-24.3
SPECIFIC CONDUCTIVITY	mS/cm	1.081	0.729	1.233	1.409	1.383	2.114	1.749	0.873	0.693	0.842	0.527	0.607	0.729	1.720	0.814	0.770	1.151	0.824	0.737
TURBIDITY	NTU	3.49	0.51	2.34	0.97	0.77	4.17	3.00	4.83	3.97	4.81	3.97	1.42	19.3	1.66	0.14	0.39	3.37	1.88	1.02
APPENDIX III PARAMETERS																				
BORON, TOTAL	µg/L	61.9 J	57.3 J	1,240	9,060	310	17,700	17,800	113	8,120	418	158	2,510	2,010	87.5 J	55.2 J	56.8 J	7,800	97.7 J	72.6 J
CALCIUM, TOTAL	µg/L	175,000	113,000	142,000	172,000	220,000	236,000	259,000	135,000	81,900	120,000	59,600	83,700	91,800	281,000	127,000	115,000	156,000	119,000	116,000
CHLORIDE, TOTAL	mg/L	14.2	13.1	175 J	137	3.3	10.6 J	6.4 J	8.9 J	23.4	19.7 J	32.9	28.9	5.6	74.3	9.8	10.0	44.1 J	15.0 J	18.5
pH	SU	6.57	6.72	7.26	6.97	6.83	6.65	6.50	6.94	7.13	6.94	7.01	7.26	7.08	6.92	7.08	7.07	7.08	7.09	7.13
SULFATE, TOTAL	mg/L	37.1	17.1	108 J	234	33.3	915 J	547 J	35.2 J	73.3	79.1 J	23.3	2.7	139	502	92.0	118	242 J	55.7 J	41.7
TOTAL DISSOLVED SOLIDS	mg/L	613	413	713	892 J	785 J	1,630	1,290	520	450	497	324 J	387 J	449	1,270	527	494	784	465	427
APPENDIX IV PARAMETERS																				
ARSENIC, TOTAL	µg/L	0.84 J	0.71 J	2.2	1.2	0.98 J	1.3	1.2	0.97 J	0.52 J	0.64 J	1.3	0.32 J	0.89 J	0.63 J	0.38 J	2.4	0.54 J	0.33 J	1.5
BARIUM, TOTAL	µg/L	201	114	267	100	289	39.6	45.8	284	103	210	103	387	87.8	62.1	608	460	199	399	376
CADMIUM, TOTAL	µg/L	ND	ND	0.12 J	0.86	0.13 J	1.0	0.90	0.083 J	0.86	0.35 J	ND	0.11 J	0.12 J	ND	0.051 J	ND	0.23 J	ND	ND
CHROMIUM, TOTAL	µg/L	ND	ND	0.80 J	0.49 J	0.43 J	0.31 J	0.30 J	0.44 J	0.33 J	ND	ND	ND	1.1	0.60 J	ND	0.37 J	ND	0.38 J	ND
FLUORIDE, TOTAL	mg/L	ND	ND	0.34 J	ND	ND	0.37 J	0.33 J	0.44 J	0.15 J	0.47 J	0.19 J	0.28	ND	ND	ND	ND	0.34 J	0.41 J	ND
LITHIUM, TOTAL	µg/L	7.2 J	8.4 J	25.6	30.0	31.9	39.5	18.5	37.4	16.2	27.3	18.4	31.6	20.7	47.9	35.6	32.8	40.7	26.5	33.5
MOLYBDENUM, TOTAL	µg/L	2.5 J	3.4 J	87.0	1,060	1.2 J	1,710	2.5 J	3.6 J	1,840	4.4 J	45.2	178	19.6 J	ND	ND	1.5 J	564	ND	1.1 J
RADIUM [226 + 228]	pCi/L	ND	ND	ND	ND	1.690	ND	ND	ND	ND	ND	ND	1.994	ND	ND	ND	1.990	ND	1.808	ND
SELENIUM, TOTAL	µg/L	0.45 J	ND	4.8	ND	0.23 J	0.22 J	ND	0.23 J	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADDITIONAL PARAMETERS																				
ALKALINITY	mg/L	347	166	300	334	729	300	459	412	270	339	203	309	228	487	357	306	337	354	334
IRON, TOTAL	µg/L	121	28.9 J	39.6 J	23.4 J	9.7 J	66.1	43.6 J	251 J	5,960	ND	563	3,000	6,030	17,400	8,380	6,100	11,000	7,550	6,410
MAGNESIUM, TOTAL	µg/L	33,700	19,800	32,000	34,300	51,500	41,400	57,400	28,100	16,800	22,100	12,200	17,900	21,900	73,200	30,800	27,700	38,300	29,200	25,300
MANGANESE, TOTAL	µg/L	1,070	268	56.1	480	345	1,700	457	301	663	894	1,820	380	631	1,270	714	395	1,280	502	463
POTASSIUM, TOTAL	µg/L	450 J	452 J	9,960	5,590	5,810	4,190	4,320	2,620	1,760 J	4,590	7,150	6,510	3,360	6,280	4,270	3,270	5,700	3,710	3,580
SODIUM, TOTAL	mg/L	5.7	5.8	51.6	69.7	10.8	192	66.5	5.6	28.5	24.5	18.2	21.6	12.0	21.8	7.2	7.0	36.4	5.7	6.8

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
4. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.
5. NA - Not Applicable.

Prepared By: GTM
Checked By: JTR
Reviewed By: MNH

Table 13
May 2025 Corrective Action Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

ANALYTE	UNITS	BMW-1S	BMW-3S	LMW-1S	LMW-2S	LMW-4S	LMW-5S	LMW-6S	TP-6S	PZ-1S	UG-3	AM-1S	AM-1D	PZ-9D	TP-2D	TP-3D	TP-4D	TP-5D	TP-6D	TP-8D
FIELD PARAMETERS																				
DATE	NA	5/7/2025	5/7/2025	5/12/2025	5/7/2025	5/9/2025	5/12/2025	5/12/2025	5/8/2025	5/8/2025	5/8/2025	5/7/2025	5/7/2025	5/12/2025	5/9/2025	5/9/2025	5/9/2025	5/8/2025	5/8/2025	5/12/2025
DISSOLVED OXYGEN	mg/L	0.20	0.19	1.18	0.75	1.28	0.71	2.88	0.12	0.90	0.88	0.66	0.63	0.35	1.21	0.75	0.50	0.18	0.18	0.30
REDOX POTENTIAL	mV	12.3	6.8	39.8	21.3	56.0	102.2	67.0	26.7	28.9	27.4	-1.7	-31.1	-17.7	40.6	11.5	1.4	-8.9	3.1	11.5
SPECIFIC CONDUCTIVITY	mS/cm	1.001	0.734	1.161	1.382	1.327	1.984	1.618	0.854	0.770	0.911	0.870	0.615	0.603	1.716	0.795	0.769	1.112	0.814	0.737
TURBIDITY	NTU	0.61	0.42	4.60	0.51	1.58	3.50	1.28	0.98	4.03	0.93	2.49	1.82	3.66	1.27	3.37	0.26	0.59	0.52	0.50
APPENDIX III PARAMETERS																				
BORON, TOTAL	µg/L	56.5 J	55.1 J	900	8,970	216	18,000	16,700	112 J	5,660	282	440	2,180	1,800	95.4 J	57.5 J	62.5 J	7,270	ND	77.2 J
CALCIUM, TOTAL	µg/L	177,000 J	129,000	130,000	169,000 J	230,000	221,000	248,000	133,000	104,000	137,000	111,000	74,200	86,900	282,000	122,000	121,000	147,000	122,000	118,000
CHLORIDE, TOTAL	mg/L	11.4	10.6	130	128	2.6 J	9.7	3.5	8.1	17.2	24.8	41.9	29.3	4.2	72.1 J	7.6 J	9.1 J	42.4	13.6	14.3
pH	SU	6.82	6.85	7.19	6.96	6.79	6.85	6.80	6.93	7.23	6.94	7.15	7.15	7.28	6.89	7.16	7.15	7.08	7.01	7.08
SULFATE, TOTAL	mg/L	35.1	24.5	93.6	219	31.2 J	113	684	35.3	50.1 J	89.7	74.0	3.5	107	486 J	83.8 J	120 J	237	56.7	42.1
TOTAL DISSOLVED SOLIDS	mg/L	615	449	691	946	878	1,700	1,310	498	482	576	526	361	404	1,320	527	569	749	471	441
APPENDIX IV PARAMETERS																				
ANTIMONY, TOTAL	µg/L	0.13 J	ND	0.38 J	0.17 J	ND	0.15 J	0.21 J	ND	ND	0.15 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC, TOTAL	µg/L	1.0	0.64 J	2.0	0.85 J	0.61 J	0.79 J	0.73 J	0.64 J	0.29 J	0.40 J	1.3	0.15 J	0.41 J	0.17 J	0.14 J	1.9	0.27 J	ND	1.3
BARIUM, TOTAL	µg/L	178	111	259	99.5	299	36.1	45.5	270	117	211	225	365	85.0	61.6	581	484	196	395	376
BERYLLIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM, TOTAL	µg/L	0.062 J	0.065 J	0.083 J	0.61	0.085 J	0.84	0.63	0.066 J	0.45 J	0.21 J	ND	0.053 J	ND	ND	ND	ND	0.16 J	ND	ND
CHROMIUM, TOTAL	µg/L	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35 J	ND	ND	ND	ND	ND	0.39 J
COBALT, TOTAL	µg/L	ND	ND	ND	2.9 J	ND	ND	7.9	ND	ND	1.8 J	7.4	ND	ND	ND	ND	ND	ND	ND	ND
FLUORIDE, TOTAL	mg/L	0.26	0.30	ND	0.17 J	ND	ND	ND	ND	0.45	ND	0.34	0.56	ND	ND	ND	ND	0.16 J	ND	ND
LEAD, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LITHIUM, TOTAL	µg/L	6.2 J	8.7 J	24.0	29.5	30.7	34.1	17.0	33.3	22.6	22.6	25.7	30.8	16.7	48.0	36.0	35.3	29.1	22.8	28.3
MERCURY, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	µg/L	5.2 J	5.2 J	120	920	ND	1,670	6.7 J	8.0 J	1,440	4.2 J	34.9	174	19.9 J	2.5 J	1.7 J	4.0 J	450	2.8 J	1.6 J
RADIUM [226 + 228]	pCi/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.547	2.420	ND	ND	ND	2.185	ND	ND	ND	2.390
SELENIUM, TOTAL	µg/L	0.22 J	0.28 J	4.0	ND	0.43 J	ND	ND	0.18 J	ND	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
THALLIUM, TOTAL	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADDITIONAL PARAMETERS																				
ALKALINITY	mg/L	555	375	325	333	800	317	526	436	358	379	333	283	231	483	379	323	305	365	350
IRON, FERRIC, TOTAL	mg/L	ND	ND	0.068	ND	ND	ND	ND	0.059 J	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND
IRON, FERROUS, TOTAL	mg/L	ND	ND	ND	0.044 J	ND	ND	ND	0.15 J	9.3 J	ND	1.0 J	4.3 J	6.5 J	22.6 J	11.2 J	9.5 J	13.4 J	9.6 J	8.7 J
IRON, TOTAL	µg/L	38.1 J	ND	84.0 J	35.1 J	13.7 J	ND	ND	205	6,730	ND	2,230	2,740	4,950	17,300	8,100	6,820	10,100	7,660	6,350
MAGNESIUM, TOTAL	µg/L	35,100	22,700	29,300	30,800	54,900	39,200	54,000	28,400	22,200	26,600	23,000	16,000	21,400	72,500	29,600	28,500	36,800	30,500	25,900
MANGANESE, TOTAL	µg/L	749	249	66.4	376	131	1,570	431	273	768	414	3,670	352	554	1,240	682	455	1,060	482	458
POTASSIUM, TOTAL	µg/L	479 J	436 J	11,000	6,060	5,600	4,020	4,280	2,290	2,120	4,020	8,850	6,170	3,180	6,290	4,160	3,520	5,090	3,620	3,550
SODIUM, TOTAL	mg/L	5.5	6.4	60.4	69.8	10.3	204	71.2	5.5	29.4	18.5	22.0	19.4	10.5	21.7	7.0	7.1	35.1	5.2	6.3
SULFIDE, TOTAL	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016 J	ND	ND	ND	0.018 J	ND	ND	ND

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
4. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.
5. NA - Not Applicable.

Prepared By: GTM
Checked By: LES
Reviewed By: JSI

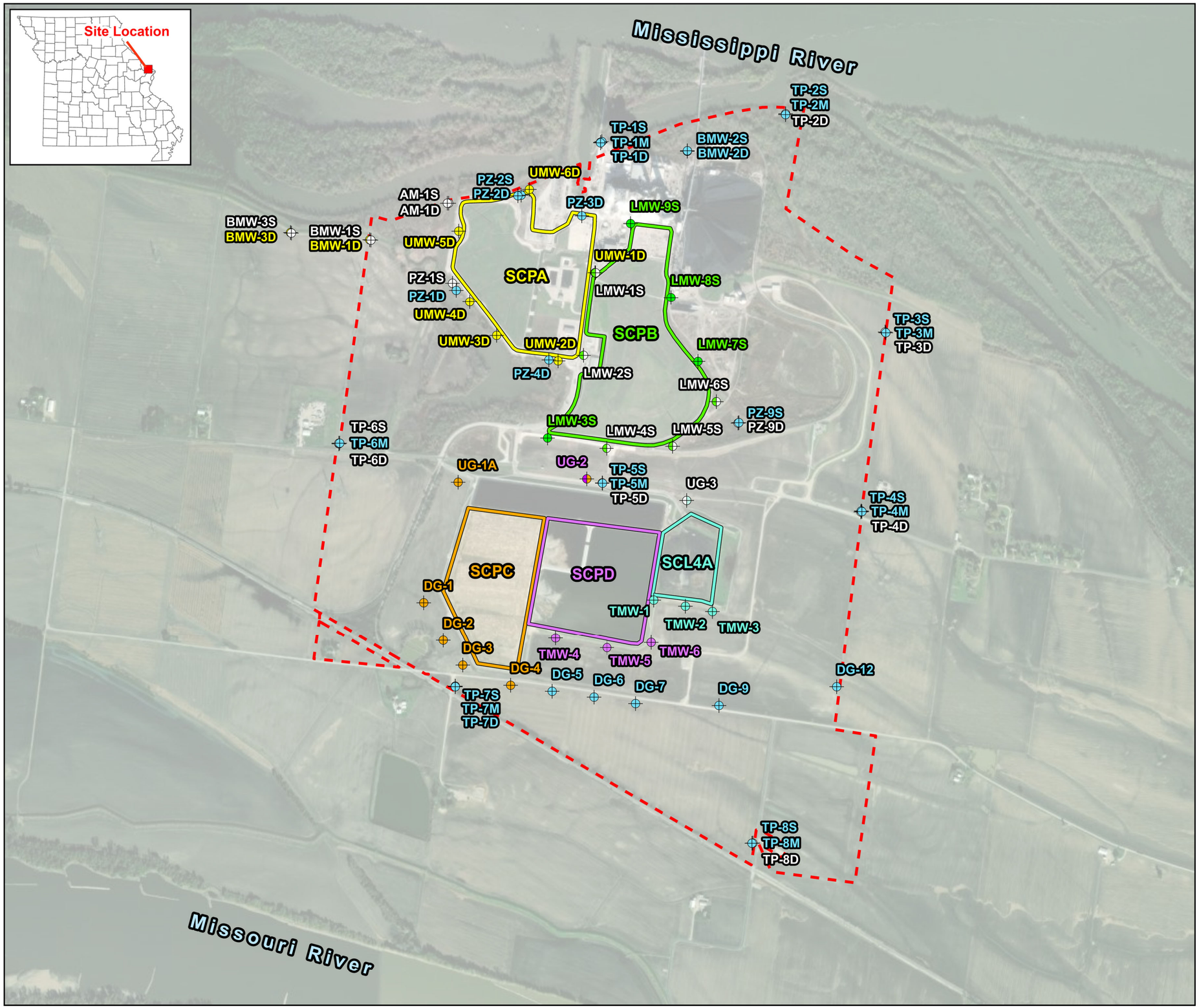
Table 14
October 2025 Corrective Action Monitoring Results
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

ANALYTE	UNITS	BMW-1S	BMW-3S	LMW-1S	LMW-2S	LMW-4S	LMW-5S	LMW-6S	TP-6S	PZ-1S	UG-3	AM-1S	AM-1D	PZ-9D	TP-2D	TP-3D	TP-4D	TP-5D	TP-6D	TP-8D
FIELD PARAMETERS																				
DATE	NA	10/6/2025	10/6/2025	10/6/2025	10/7/2025	10/7/2025	10/3/2025	10/3/2025	10/9/2025	10/7/2025	10/7/2025	10/8/2025	10/8/2025	10/3/2025	10/8/2025	10/9/2025	10/8/2025	10/7/2025	10/9/2025	10/7/2025
DISSOLVED OXYGEN	mg/L	1.58	12.30	0.99	0.80	1.85	0.33	0.48	0.13	2.01	1.20	1.40	1.54	2.18	1.40	0.14	0.13	1.80	0.07	0.27
REDOX POTENTIAL	mV	-40.4	203.0	58.4	52.2	245.6	65.8	143.4	53.0	-113.0	230.6	-54.7	-107.8	-85.1	-92.9	-118.2	-114.1	-125.2	-143.0	-106.1
SPECIFIC CONDUCTIVITY	mS/cm	0.906	0.740	1.044	1.168	1.362	1.854	1.626	0.804	0.751	0.799	0.524	0.531	0.598	1.507	0.825	0.724	1.085	0.775	0.750
TURBIDITY	NTU	1.98	0.50	2.75	0.79	0.69	2.86	3.84	1.62	4.88	1.18	2.12	0.97	4.27	2.36	3.22	2.77	0.45	0.79	0.92
APPENDIX III PARAMETERS																				
BORON, TOTAL	µg/L	68.5 J	62.1 J	910	7,650	225	14,600	15,900	91.5 J	5,610	340	139	3,310	1,940	77.4 J	51.8 J	54.0 J	7,210	52.6 J	81.4 J
CALCIUM, TOTAL	µg/L	168,000	129,000	134,000	138,000	232,000	204,000	237,000	129,000 J	112,000	123,000	66,100	76,900	85,300	272,000	122,000	118,000	142,000 J	114,000	113,000
CHLORIDE, TOTAL	mg/L	11.4	9.6	123	86.0	4.0	21.3	4.3	8.3	19.1	13.9	25.8	28.5	4.0	64.1	8.4	9.0	35.9	14.6	12.2
pH	SU	6.68	6.85	7.20	7.02	6.83	6.96	6.70	7.12	6.99	7.21	7.23	7.36	7.18	6.84	7.02	7.11	7.20	7.18	7.12
SULFATE, TOTAL	mg/L	39.2	35.6	93.6	188	36.4	745	458	35.4	49.2	78.9	15.4	10.1	105	477	85.7	114	243	60.2	42.7
TOTAL DISSOLVED SOLIDS	mg/L	596	477	685	748	841	1,480	1,280	487	519	500	303	361	407	1,280	523	518	756	474	443
APPENDIX IV PARAMETERS																				
ARSENIC, TOTAL	µg/L	0.88 J	0.57 J	1.9	0.82 J	0.61 J	0.68 J	0.62 J	0.68 J	0.25 J	0.41 J	1.3	0.16 J	0.31 J	ND	ND	2.0	0.22 J	ND	1.2
BARIUM, TOTAL	µg/L	172	111	263	81.8	314	39.2	48.8	267	144	202	110	401	93.9	58.8	580	475	185	386	376
CADMIUM, TOTAL	µg/L	ND	0.089 J	0.067 J	0.55	0.18 J	0.54	0.90	ND	0.31 J	0.36 J	ND	ND	ND	ND	ND	ND	0.12 J	ND	ND
CHROMIUM, TOTAL	µg/L	ND	ND	0.42 J	ND	ND	0.35 J	0.41 J	ND	ND	ND	ND	0.35 J	ND	ND	ND	0.46 J	ND	ND	ND
COBALT, TOTAL	µg/L	2.1 J	ND	ND	1.3 J	1.1 J	1.3 J	8.6	ND	ND	2.4 J	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND
FLUORIDE, TOTAL	mg/L	0.27	0.30	0.26	0.37	0.14	0.48	0.15	0.29	0.42	0.28	0.48	0.61	0.35	0.13	0.20	0.19	0.31	0.24	0.26
LITHIUM, TOTAL	µg/L	6.6 J	10.9	28.6	25.5	31.6	39.3	21.7	36.1	21.5	25.6	18.9	30.9	21.2	48.0	33.8	31.7	35.6	27.2	35.2
MOLYBDENUM, TOTAL	µg/L	2.0 J	2.1 J	122	1,060	ND	1,310	ND	3.4 J	1,310	2.8 J	38.2	246	18.8 J	ND	ND	1.4 J	470	1.1 J	1.7 J
RADIUM [226 + 228]	pCi/L	1.146	ND	ND	1.863	1.831	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.106	1.277	1.360	2.402	ND
SELENIUM, TOTAL	µg/L	ND	0.36 J	2.5	ND	0.77 J	ND	ND	ND	ND	3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADDITIONAL PARAMETERS																				
ALKALINITY	mg/L	514	380	312	284	770	298 J	534 J	404	374	324	222	264	204 J	470	346	310	306 J	340	352
IRON, TOTAL	µg/L	35.5 J	ND	ND	127	17.4 J	80.4	75.3	241	9,370	ND	813	2,910	4,180	16,300	7,920	6,220	9,710	7,360	6,270
MAGNESIUM, TOTAL	µg/L	34,000	22,900	30,000	29,000	56,000	38,400	52,600	27,800	24,000	23,800	13,800	16,300	20,500	71,200	29,700	28,500	35,900	29,100	24,900
MANGANESE, TOTAL	µg/L	825	423	42.7	345	333	1,360	456	301	833	612	2,190	357	483	1,190	656	382	1,110	483	442
POTASSIUM, TOTAL	µg/L	516 J	516 J	11,200	4,570	5,990	4,790	4,460	2,530	2,260	4,240	6,800	6,990	3,310	5,960	4,000	3,210	5,170	3,610	4,000
SODIUM, TOTAL	mg/L	5.4	6.2	58.2	58.4	10.6	170	74.1	5.3	29.3	19.6	19.9	20.8	10.6	21.4	6.9	6.9	33.7	5.3	7.5

NOTES
1. Unit Abbreviations: µg/L - micrograms per liter, mg/L - milligrams per liter, SU - standard units, pCi/L - picocuries per liter, mV - millivolts, mS/cm - millisiemens per centimeter, and NTU - nephelometric turbidity units.
2. J - Result is an estimated value.
3. ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
4. Radium [226 + 228] is reported as the sum of the Radium 226 and the Radium 228 activity concentrations unless the sum of the Radium 226 and Radium 228 Minimum Detectable Concentrations (MDC) is higher in which case it is displayed as ND.
5. NA - Not Applicable.

Prepared By: GTM
Checked By: JDQ
Reviewed By: JSI

Figures



TITLE

SIOUX ENERGY CENTER GROUNDWATER MONITORING PROGRAMS AND SAMPLE LOCATION MAP

Legend

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)

Utility Waste Landfill Cells

- SCPC - FGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Monitoring Well Networks

- Corrective Action Monitoring Well
- SCPA Detection and Assessment Monitoring Well
- SCPB and Corrective Action Monitoring Well
- SCPB Detection Monitoring Well
- SCPC Detection Monitoring Well
- SCPD and SCPC Detection Monitoring Well
- SCPD Detection Monitoring Well
- SCL4A and Corrective Action Monitoring Well
- SCL4A Detection Monitoring Well
- Monitoring Well Used for Water Level Elevation Measurements Only

NOTES

1. All boundaries and locations are approximate.
2. FGD - Flue Gas Desulfurization.
3. CCR - Coal Combustion Residuals.

REFERENCES

1. St Charles County, Missouri Geo-Data & Mapping Hub, Parcel Dataset, Updated April 2025.

0 500 1,000 2,000 3,000 Feet

PROJECT
CCR RULE GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

ROCKSMITH GEOENGINEERING

DESIGN	JSI	YYYY-MM-DD	2025-12-04
PREPARED	JSI	PROJECT No.	23009-25
REVIEW	GTM		
APPROVED	MNH		

FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 1 in

Path: C:\Users\GrantMoney\Rocksmith Geoengineering LLC\23007 - Ameren GW - Documents\400 - Drawings_Figures\4.3-SEC\4.3.2 - Production\Other Maps\Figure 1- SEC Well Locations.aprx

Appendix A
Laboratory Analytical Data

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

February 21, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory on February 08, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60469216001	**S-UMW-1D**	Water	02/07/25 12:56	02/08/25 05:44
60469216002	**S-UMW-4D**	Water	02/06/25 09:30	02/08/25 05:44
60469216003	**S-UMW-DUP-1**	Water	02/06/25 08:00	02/08/25 05:44
60469216004	**S-UMW-FB-1**	Water	02/06/25 10:20	02/08/25 05:44

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60469216001	**S-UMW-1D**	SM 2540C	TML	1	PASI-K
		EPA 300.0	AAA	1	PASI-K
60469216002	**S-UMW-4D**	SM 2540C	TML	1	PASI-K
		EPA 300.0	AAA	1	PASI-K
60469216003	**S-UMW-DUP-1**	SM 2540C	TML	1	PASI-K
		EPA 300.0	AAA	1	PASI-K
60469216004	**S-UMW-FB-1**	SM 2540C	TML	1	PASI-K
		EPA 300.0	AAA	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Sample: S-UMW-1D **Lab ID: 60469216001** Collected: 02/07/25 12:56 Received: 02/08/25 05:44 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**674**	mg/L	20.0	20.0	1		02/14/25 14:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**0.24**	mg/L	0.20	0.12	1		02/13/25 20:40	16984-48-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Sample: S-UMW-4D **Lab ID: 60469216002** Collected: 02/06/25 09:30 Received: 02/08/25 05:44 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**656**	mg/L	13.3	13.3	1		02/14/25 14:44		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**0.84**	mg/L	0.20	0.12	1		02/13/25 18:12	16984-48-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Sample: S-UMW-DUP-1 **Lab ID: 60469216003** Collected: 02/06/25 08:00 Received: 02/08/25 05:44 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**631**	mg/L	13.3	13.3	1		02/14/25 14:44		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**0.83**	mg/L	0.20	0.12	1		02/13/25 18:27	16984-48-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Sample: S-UMW-FB-1 **Lab ID: 60469216004** Collected: 02/06/25 10:20 Received: 02/08/25 05:44 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**7.0**	mg/L	5.0	5.0	1		02/14/25 14:44		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**<0.12**	mg/L	0.20	0.12	1		02/13/25 18:42	16984-48-8	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

QC Batch: 925074
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60469216002, 60469216003, 60469216004

METHOD BLANK: 3663710 Matrix: Water
Associated Lab Samples: 60469216002, 60469216003, 60469216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	02/14/25 14:41	

LABORATORY CONTROL SAMPLE: 3663711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3663712

Parameter	Units	60469032001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	654	672	3	10	H1

SAMPLE DUPLICATE: 3663713

Parameter	Units	60469213004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	497	503	1	10	H1

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

QC Batch: 925077
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60469216001

METHOD BLANK: 3663721 Matrix: Water
Associated Lab Samples: 60469216001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	02/14/25 14:45	

LABORATORY CONTROL SAMPLE: 3663722

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1030	103	80-120	

SAMPLE DUPLICATE: 3663723

Parameter	Units	60469215002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	644	655	2	10	

SAMPLE DUPLICATE: 3663724

Parameter	Units	60469216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	674	744	10	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

QC Batch: 924822
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60469216001, 60469216002, 60469216003, 60469216004

METHOD BLANK: 3662520 Matrix: Water
Associated Lab Samples: 60469216001, 60469216002, 60469216003, 60469216004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	<0.12	0.20	0.12	02/13/25 04:37	

LABORATORY CONTROL SAMPLE: 3662521

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3662522 3662523

Parameter	Units	60469213004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.39	2.5	2.5	3.6	3.2	130	113	80-120	13	15	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3662525 3662526

Parameter	Units	60469215002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.32	2.5	2.5	2.8	3.1	101	110	80-120	8	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3662528 3662529

Parameter	Units	60469216001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.24	2.5	2.5	2.6	2.7	95	98	80-120	2	15	

SAMPLE DUPLICATE: 3662524

Parameter	Units	60469213004 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.39	0.37	5	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

SAMPLE DUPLICATE: 3662527

Parameter	Units	60469215002 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.32	0.31	3	15	

SAMPLE DUPLICATE: 3662530

Parameter	Units	60469216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.24	0.23	3	15	

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QUALIFIERS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60469216

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60469216001	**S-UMW-1D**	SM 2540C	925077		
60469216002	**S-UMW-4D**	SM 2540C	925074		
60469216003	**S-UMW-DUP-1**	SM 2540C	925074		
60469216004	**S-UMW-FB-1**	SM 2540C	925074		
60469216001	**S-UMW-1D**	EPA 300.0	924822		
60469216002	**S-UMW-4D**	EPA 300.0	924822		
60469216003	**S-UMW-DUP-1**	EPA 300.0	924822		
60469216004	**S-UMW-FB-1**	EPA 300.0	924822		

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Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Samp	WO# : 60469216
	Revision: 2	Effective Date: 01/12/20

60469216

Client Name: RockSmith Geoengineering, LLC

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☑ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ ZPLC

Thermometer Used: T301 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.9 **Corr. Factor** +0.1 **Corrected** 2.0

Date and initials of person examining contents: JA 7/8/25

Temperature should be above freezing to 6°C 1.7, 1.1 1.8, 1.2

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: W	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Qualtrax Document ID: 30468

Page 1 of 1

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Rocksmith Geoengineering, LLC
Address:	5233 Roanoke Drive
	St. Charles, MO 63304
Email To:	mark.haddock@rocksmithgeo.com
Phone: 314-974-5678	Fax:
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Mark Haddock
Copy To:	Jeffery Ingram, Grant Morey
Purchase Order No.:	COC #5
Project Name:	Ameren SCPA - Verification Sampling
Project Number:	COC#5

Section C Invoice Information:

Attention:	
Company Name:	Rocksmith
Address:	
Pace Quote Reference:	
Pace Project Manager:	Jamie Church
Pace Profile #:	15856, line 1

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MO

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Fluoride	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WP; AR; OT; TS																	Y/N	N	N		60469216
1	S-UMW-1D	WT	G			2-7-25	1254		1	1									X	X		
2	S-UMW-4D	WT	G			2-6-25	0930		1	1									X	X		
3	S-UMW-DUP-1	WT	G			2-6-25	—		1	1									X	X		
4	S-UMW-FB-1	WT	G			2-6-25	1020		1	1									X	X		
5	S-UMW-MS-1	WT	G			2-7-25	1256		1	1									X	X		Collected @ S-UMW-1D
6	S-UMW-MSD-1	WT	G			2-7-25	1256		1	1									X	X		
7		WT	G																			
8		WT	G																			
9		WT	G																			
10		WT	G																			
11		WT	G																			
12		WT	G																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Rocksmith	02/7/25	1350		2-8	0544	2.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Rasmussen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 02/07/25

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Memorandum

February 26, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-24
CC:	Mark Haddock, Jeffrey Ingram		
From:	Grant Morey	**Email:**	grant.morey@rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA Verification – Data Package 60469216**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- When a compound was analyzed outside of method hold time controls, the sample result was qualified as an estimate (J for detects, UJ for non-detects).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA Verification
Project Number: 23009-24
Reviewer: G. Morey
Validation Date: 2/26/2025

Laboratory: Pace Analytical
SDG #: 60469216
Analytical Method (type and no.): EPA 300.0 (Fluoride); SM 2540C (TDS)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐
Sample Names S-UMW-1D, S-UMW-4D, S-UMW-DUP-1, S-UMW-FB-1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			2/6/2025 - 2/7/2025
b) Sampling team indicated?	x			GTM/JTR
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?		x		See Notes
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?		x		
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☒	☐	☐	See Notes
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☐	☒	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☒	☐	☐	S-UMW-DUP-1 @ S-UMW-4D
b) Were field dup. precision criteria met (note RPD)?	☒	☐	☐	See Notes
c) Were lab duplicates analyzed (note original and duplicate samples)?	☒	☐	☐	See Notes
d) Were lab dup. precision criteria met (note RPD)?	☒	☐	☐	See Notes

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?	☐	☐	☒	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☐	☒	☐	See Notes

Comments/Notes:

General:

TDS analyzed outside of hold time controls in several samples, results qualified as estimate.

Field blank:

S-UMW-FB-1 @ S-UMW-4D: TDS (7.0). Result > RL and 10x blank, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Duplicates:

S-UMW-DUP-1 @ S-UMW-4D: All RPDs within control limit (20%), no qualification necessary.

Lab duplicate max RPD: 10%: TDS; 15%: fluoride. Lab duplicate RPDs within control limits.

MS/MSD:

3662522/3662523: MS recovery high for fluoride, MSD recovery and RPD within control limits, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-UMW-4D	TDS	656	J	Analyzed outside of hold time controls
S-UMW-DUP-1	"	631	J	"
S-UMW-FB-1	"	7.0	J	"

Signature: Grant Morey Date: 2/26/2025

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

September 22, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA
Pace Project No.: 60474802

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory between May 09, 2025 and May 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Greensburg

REV-1: Report revised to remove comment added by RAD lab regarding sampler's name that was reported in error.

(Greensburg, PA) - Revision #1 - This report replaces the June 16th, 2025, report. This project was revised on July 2nd, 2025, to remove an IRWO lab SCUR comment.

REV-2: Report revised to include reanalysis for Chloride/Fluoride/Sulfate out of hold for sample UMW-2D due to initial data not reflecting historial data.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
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Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA
Pace Project No.: 60474802

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
EPA Lab Code: KS00021
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 200030
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Oklahoma Certification #: 9205
Texas Certification #: T104704407
Utah Certification #: KS0002125-15
UDSA_CA : #KS-SC-DOM-25-01

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SAMPLE SUMMARY

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60474802001	**S-BMW-1D**	Water	05/07/25 15:58	05/09/25 07:41
60474802002	**S-BMW-3D**	Water	05/07/25 13:31	05/09/25 07:41
60474802003	**S-UMW-2D**	Water	05/08/25 13:23	05/10/25 06:51
60474802004	**S-UMW-3D**	Water	05/08/25 12:20	05/10/25 06:51
60474802005	**S-UMW-4D**	Water	05/08/25 11:25	05/10/25 06:51
60474802006	**S-UMW-5D**	Water	05/08/25 14:30	05/10/25 06:51
60474802007	**S-UMW-6D**	Water	05/08/25 15:50	05/10/25 06:51
60474802008	**S-UMW-DUP-1**	Water	05/08/25 00:00	05/10/25 06:51
60474802009	**S-UMW-MS-1**	Water	05/08/25 14:30	05/10/25 06:51
60474802010	**S-UMW-MSD-1**	Water	05/08/25 14:30	05/10/25 06:51
60474802011	**S-UMW-1D**	Water	05/12/25 16:08	05/14/25 06:45
60474802012	**S-UMW-FB-1**	Water	05/12/25 15:10	05/14/25 06:45

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60474802001	**S-BMW-1D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802002	**S-BMW-3D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802003	**S-UMW-2D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802004	**S-UMW-3D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802005	**S-UMW-4D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802006	**S-UMW-5D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802007	**S-UMW-6D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802008	**S-UMW-DUP-1**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802009	**S-UMW-MS-1**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
60474802010	**S-UMW-MSD-1**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
60474802011	**S-UMW-1D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474802012	**S-UMW-FB-1**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K

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Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City
PASI-PA = Pace Analytical Services - Greensburg

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Lenexa, KS 66219
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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-1D **Lab ID: 60474802001** Collected: 05/07/25 15:58 Received: 05/09/25 07:41 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**358**	ug/L	5.0	0.64	1	05/20/25 13:36	06/06/25 17:28	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/06/25 17:28	7440-41-7	
Boron	**103**	ug/L	100	6.4	1	05/20/25 13:36	06/06/25 17:28	7440-42-8	
Calcium	**116000**	ug/L	200	26.9	1	05/20/25 13:36	06/06/25 17:28	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/20/25 13:36	06/06/25 17:28	7440-48-4	
Iron	**10100**	ug/L	50.0	9.1	1	05/20/25 13:36	06/06/25 17:28	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/06/25 17:28	7439-92-1	
Lithium	**12.4**	ug/L	10.0	3.7	1	05/20/25 13:36	06/13/25 11:27	7439-93-2	
Magnesium	**24700**	ug/L	50.0	20.1	1	05/20/25 13:36	06/06/25 17:28	7439-95-4	
Manganese	**964**	ug/L	5.0	0.39	1	05/20/25 13:36	06/06/25 17:28	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/20/25 13:36	06/06/25 17:28	7439-98-7	
Potassium	**2570**	ug/L	500	69.7	1	05/20/25 13:36	06/06/25 17:28	7440-09-7	
Sodium	**6310**	ug/L	500	115	1	05/20/25 13:36	06/06/25 17:28	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:21	7440-36-0	
Arsenic	**0.27J**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:21	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:21	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:21	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:21	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:09	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**385**	mg/L	20.0	10.5	1		05/16/25 16:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**450**	mg/L	10.0	10.0	1		05/13/25 15:27		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/16/25 08:34	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**12.2**	mg/L	0.50	0.10	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-1D **Lab ID: 60474802001** Collected: 05/07/25 15:58 Received: 05/09/25 07:41 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**10.1**	mg/L	1.0	0.53	1		06/02/25 22:20	16887-00-6	
Fluoride	**0.27**	mg/L	0.20	0.12	1		06/02/25 22:20	16984-48-8	
Sulfate	**22.2**	mg/L	10.0	5.5	10		06/02/25 22:32	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-3D **Lab ID: 60474802002** Collected: 05/07/25 13:31 Received: 05/09/25 07:41 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**649**	ug/L	5.0	0.64	1	05/20/25 13:36	06/06/25 17:29	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/06/25 17:29	7440-41-7	
Boron	**61.8J**	ug/L	100	6.4	1	05/20/25 13:36	06/06/25 17:29	7440-42-8	
Calcium	**110000**	ug/L	200	26.9	1	05/20/25 13:36	06/06/25 17:29	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/20/25 13:36	06/06/25 17:29	7440-48-4	
Iron	**7900**	ug/L	50.0	9.1	1	05/20/25 13:36	06/06/25 17:29	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/06/25 17:29	7439-92-1	
Lithium	**22.2**	ug/L	10.0	3.7	1	05/20/25 13:36	06/06/25 17:29	7439-93-2	
Magnesium	**24800**	ug/L	50.0	20.1	1	05/20/25 13:36	06/06/25 17:29	7439-95-4	
Manganese	**577**	ug/L	5.0	0.39	1	05/20/25 13:36	06/06/25 17:29	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/20/25 13:36	06/06/25 17:29	7439-98-7	
Potassium	**3440**	ug/L	500	69.7	1	05/20/25 13:36	06/06/25 17:29	7440-09-7	
Sodium	**6450**	ug/L	500	115	1	05/20/25 13:36	06/06/25 17:29	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:33	7440-36-0	
Arsenic	**<0.13**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:33	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:33	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:33	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:33	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:11	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**372**	mg/L	20.0	10.5	1		05/16/25 16:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**470**	mg/L	10.0	10.0	1		05/13/25 15:27		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/10/25 14:29	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**11.1**	mg/L	0.50	0.10	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-3D **Lab ID: 60474802002** Collected: 05/07/25 13:31 Received: 05/09/25 07:41 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**10.6**	mg/L	1.0	0.53	1		06/02/25 23:07	16887-00-6	
Fluoride	**0.28**	mg/L	0.20	0.12	1		06/02/25 23:07	16984-48-8	
Sulfate	**17.4**	mg/L	1.0	0.55	1		06/02/25 23:07	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-2D **Lab ID: 60474802003** Collected: 05/08/25 13:23 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**59.1**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:05	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:05	7440-41-7	
Boron	**12500**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:05	7440-42-8	
Calcium	**159000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:05	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:05	7440-48-4	
Iron	**230**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:05	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:05	7439-92-1	
Lithium	**31.3**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:05	7439-93-2	
Magnesium	**3350**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:05	7439-95-4	
Manganese	**162**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:05	7439-96-5	
Molybdenum	**1390**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:05	7439-98-7	
Potassium	**25000**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:05	7440-09-7	
Sodium	**32500**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:05	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:03	7440-36-0	
Arsenic	**3.4**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:03	7440-38-2	
Cadmium	**0.41J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:03	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:03	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:03	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:50	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**213**	mg/L	20.0	10.5	1		05/17/25 00:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**723**	mg/L	13.3	13.3	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**0.20**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-2D **Lab ID: 60474802003** Collected: 05/08/25 13:23 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**116**	mg/L	50.0	26.4	50		06/05/25 18:21	16887-00-6	
Chloride	**23.2**	mg/L	10.0	7.7	10		09/11/25 05:00	16887-00-6	H1
Fluoride	**10.8**	mg/L	10.0	6.2	50		06/05/25 18:21	16984-48-8	
Fluoride	**1.0**	mg/L	0.20	0.16	1		09/11/25 04:46	16984-48-8	H1
Sulfate	**329**	mg/L	200	86.1	200		06/11/25 00:55	14808-79-8	H1
Sulfate	**298**	mg/L	100	43.1	100		09/11/25 05:13	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-3D **Lab ID: 60474802004** Collected: 05/08/25 12:20 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**59.7**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:07	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:07	7440-41-7	
Boron	**29900**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:07	7440-42-8	
Calcium	**214000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:07	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:07	7440-48-4	
Iron	**594**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:07	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:07	7439-92-1	
Lithium	**16.9**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:07	7439-93-2	
Magnesium	**6650**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:07	7439-95-4	
Manganese	**368**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:07	7439-96-5	
Molybdenum	**5200**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:07	7439-98-7	
Potassium	**17800**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:07	7440-09-7	
Sodium	**90100**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:07	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:06	7440-36-0	
Arsenic	**0.63J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:06	7440-38-2	
Cadmium	**1.6**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:06	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:06	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:06	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:52	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**154**	mg/L	20.0	10.5	1		05/17/25 01:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1230**	mg/L	20.0	20.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**0.79**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-3D **Lab ID: 60474802004** Collected: 05/08/25 12:20 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.037J**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**33.7**	mg/L	5.0	2.6	5		06/11/25 01:08	16887-00-6	H1
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/05/25 18:33	16984-48-8	
Sulfate	**650**	mg/L	100	55.0	100		06/11/25 01:22	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-4D **Lab ID: 60474802005** Collected: 05/08/25 11:25 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**43.1**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:09	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:09	7440-41-7	
Boron	**15600**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:09	7440-42-8	
Calcium	**98600**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:09	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:09	7440-48-4	
Iron	**4750**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:09	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:09	7439-92-1	
Lithium	**27.6**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:09	7439-93-2	
Magnesium	**14000**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:09	7439-95-4	
Manganese	**1120**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:09	7439-96-5	
Molybdenum	**4530**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:09	7439-98-7	
Potassium	**10900**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:09	7440-09-7	
Sodium	**41700**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:09	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:08	7440-36-0	
Arsenic	**0.30J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:08	7440-38-2	
Cadmium	**1.4**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:08	7440-43-9	
Chromium	**0.39J**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:08	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:08	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:55	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**225**	mg/L	20.0	10.5	1		05/17/25 01:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**589**	mg/L	10.0	10.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**6.3**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-4D **Lab ID: 60474802005** Collected: 05/08/25 11:25 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.016J**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**27.0**	mg/L	5.0	2.6	5		06/11/25 01:35	16887-00-6	B,H1
Fluoride	**0.71**	mg/L	0.20	0.12	1		06/05/25 18:45	16984-48-8	
Sulfate	**192**	mg/L	50.0	27.5	50		06/11/25 01:48	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-5D **Lab ID: 60474802006** Collected: 05/08/25 14:30 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**491**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:11	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:11	7440-41-7	
Boron	**5490**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:11	7440-42-8	
Calcium	**89600**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:11	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:11	7440-48-4	
Iron	**3880**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:11	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:11	7439-92-1	
Lithium	**23.3**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:11	7439-93-2	
Magnesium	**19500**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:11	7439-95-4	
Manganese	**459**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:11	7439-96-5	
Molybdenum	**167**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:11	7439-98-7	
Potassium	**10400**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:11	7440-09-7	
Sodium	**24300**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:11	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:15	7440-36-0	
Arsenic	**0.25J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:15	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:15	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:15	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:15	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 12:17	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**319**	mg/L	20.0	10.5	1		05/17/25 01:12		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**431**	mg/L	10.0	10.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**5.6**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-5D **Lab ID: 60474802006** Collected: 05/08/25 14:30 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.044J**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**46.6**	mg/L	5.0	2.6	5		06/11/25 02:01	16887-00-6	H1
Fluoride	**0.56**	mg/L	0.20	0.12	1		06/05/25 18:57	16984-48-8	D6,H1
Sulfate	**8.0**	mg/L	1.0	0.55	1		06/05/25 18:57	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-6D **Lab ID: 60474802007** Collected: 05/08/25 15:50 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**150**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:16	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:16	7440-41-7	
Boron	**187**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:16	7440-42-8	
Calcium	**107000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:16	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:16	7440-48-4	
Iron	**7640**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:16	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:16	7439-92-1	
Lithium	**19.4**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:16	7439-93-2	
Magnesium	**25000**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:16	7439-95-4	
Manganese	**607**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:16	7439-96-5	
Molybdenum	**33.1**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:16	7439-98-7	
Potassium	**3660**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:16	7440-09-7	
Sodium	**6310**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:16	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:26	7440-36-0	
Arsenic	**0.42J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:26	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:26	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:26	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:26	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 11:46	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**359**	mg/L	20.0	10.5	1		05/19/25 20:14		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**418**	mg/L	10.0	10.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**10.4**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-6D **Lab ID: 60474802007** Collected: 05/08/25 15:50 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**6.0**	mg/L	1.0	0.53	1		06/03/25 21:23	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/03/25 21:23	16984-48-8	
Sulfate	**33.2**	mg/L	10.0	5.5	10		06/03/25 22:05	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-DUP-1 **Lab ID: 60474802008** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**150**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:23	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:23	7440-41-7	
Boron	**169**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:23	7440-42-8	
Calcium	**108000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:23	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:23	7440-48-4	
Iron	**7670**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:23	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:23	7439-92-1	
Lithium	**18.4**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:23	7439-93-2	
Magnesium	**25000**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:23	7439-95-4	
Manganese	**602**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:23	7439-96-5	
Molybdenum	**28.3**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:23	7439-98-7	
Potassium	**3640**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:23	7440-09-7	
Sodium	**6270**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:23	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:29	7440-36-0	
Arsenic	**0.39J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:29	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:29	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:29	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:29	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 11:53	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**354**	mg/L	20.0	10.5	1		05/19/25 20:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**432**	mg/L	10.0	10.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**10.4**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-DUP-1 **Lab ID: 60474802008** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**6.1**	mg/L	1.0	0.53	1		06/03/25 20:55	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/03/25 20:55	16984-48-8	
Sulfate	**34.0**	mg/L	10.0	5.5	10		06/03/25 21:09	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-1D **Lab ID: 60474802011** Collected: 05/12/25 16:08 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**231**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 16:20	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 16:20	7440-41-7	
Boron	**598**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 16:20	7440-42-8	
Calcium	**114000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 16:20	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 16:20	7440-48-4	
Iron	**1210**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 16:20	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 16:20	7439-92-1	
Lithium	**22.5**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 16:20	7439-93-2	
Magnesium	**32200**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 16:20	7439-95-4	
Manganese	**217**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 16:20	7439-96-5	
Molybdenum	**77.0**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 16:20	7439-98-7	
Potassium	**6680**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 16:20	7440-09-7	
Sodium	**22100**	ug/L	500	115	1	05/22/25 06:12	06/03/25 16:20	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:28	7440-36-0	
Arsenic	**2.1**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:28	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:28	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:28	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:28	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 12:59	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**285**	mg/L	20.0	10.5	1		05/20/25 16:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**523**	mg/L	13.3	13.3	1		05/19/25 15:00		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/09/25 08:48	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**1.5**	mg/L	0.20	0.041	1		05/22/25 14:16	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-1D **Lab ID: 60474802011** Collected: 05/12/25 16:08 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**98.1**	mg/L	10.0	5.3	10		06/07/25 11:21	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 11:08	16984-48-8	
Sulfate	**62.0**	mg/L	10.0	5.5	10		06/07/25 11:21	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-FB-1 **Lab ID: 60474802012** Collected: 05/12/25 15:10 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**<0.64**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:31	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:31	7440-41-7	
Boron	**<6.4**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:31	7440-42-8	
Calcium	**111J**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:31	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:31	7440-48-4	
Iron	**<9.1**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:31	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:31	7439-92-1	
Lithium	**<3.7**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:31	7439-93-2	
Magnesium	**<20.1**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:31	7439-95-4	
Manganese	**<0.39**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:31	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:31	7439-98-7	
Potassium	**<69.7**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:31	7440-09-7	
Sodium	**<115**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:31	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:30	7440-36-0	
Arsenic	**<0.13**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:30	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:30	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:30	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:30	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:30	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:01	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		05/20/25 16:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		05/19/25 15:01		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/22/25 14:16	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-FB-1 **Lab ID: 60474802012** Collected: 05/12/25 15:10 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**0.53J**	mg/L	1.0	0.53	1		06/07/25 11:34	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 11:34	16984-48-8	
Sulfate	**<0.55**	mg/L	1.0	0.55	1		06/07/25 11:34	14808-79-8	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935966
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3710066 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/22/25 11:28	

LABORATORY CONTROL SAMPLE: 3710067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710068 3710069

Parameter	Units	60474705003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.7	94	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935967
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005

METHOD BLANK: 3710070 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/22/25 12:34	

LABORATORY CONTROL SAMPLE: 3710071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710072 3710073

Parameter	Units	60475296001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.7	94	94	75-125	0	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936500
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802006, 60474802011, 60474802012

METHOD BLANK: 3712559 Matrix: Water
Associated Lab Samples: 60474802006, 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/28/25 12:13	

LABORATORY CONTROL SAMPLE: 3712560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712561 3712562

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	4.9	5.1	98	101	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712563 3712564

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	5.1	5.2	102	104	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712565 3712566

Parameter	Units	60475407009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.2	4.3	85	85	75-125	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936973
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802007, 60474802008

METHOD BLANK: 3714518 Matrix: Water
Associated Lab Samples: 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	06/02/25 11:37	

LABORATORY CONTROL SAMPLE: 3714519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3714520 3714521

Parameter	Units	60474802007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	4.5	4.7	91	93	75-125	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935770
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3709216 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	1.1J	5.0	0.64	06/06/25 17:00	
Beryllium	ug/L	<0.12	1.0	0.12	06/06/25 17:00	
Boron	ug/L	<6.4	100	6.4	06/06/25 17:00	
Calcium	ug/L	<26.9	200	26.9	06/06/25 17:00	
Cobalt	ug/L	<1.2	5.0	1.2	06/06/25 17:00	
Iron	ug/L	<9.1	50.0	9.1	06/06/25 17:00	
Lead	ug/L	<3.8	10.0	3.8	06/06/25 17:00	
Lithium	ug/L	<3.7	10.0	3.7	06/06/25 17:00	
Magnesium	ug/L	<20.1	50.0	20.1	06/06/25 17:00	
Manganese	ug/L	<0.39	5.0	0.39	06/06/25 17:00	
Molybdenum	ug/L	<1.0	20.0	1.0	06/06/25 17:00	
Potassium	ug/L	118J	500	69.7	06/06/25 17:00	
Sodium	ug/L	138J	500	115	06/06/25 17:00	

LABORATORY CONTROL SAMPLE: 3709217

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1800	1680	93	85-115	
Beryllium	ug/L	1800	1660	92	85-115	
Boron	ug/L	1800	1600	89	85-115	
Calcium	ug/L	18000	16900	94	85-115	
Cobalt	ug/L	1800	1730	96	85-115	
Iron	ug/L	18000	16600	92	85-115	
Lead	ug/L	1800	1680	93	85-115	
Lithium	ug/L	1800	1680	94	85-115	
Magnesium	ug/L	18000	16500	92	85-115	
Manganese	ug/L	1800	1700	94	85-115	
Molybdenum	ug/L	1800	1690	94	85-115	
Potassium	ug/L	18000	16800	93	85-115	
Sodium	ug/L	18000	16700	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709218 3709219

Parameter	Units	60474407003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	53.4	1000	1000	1020	994	96	94	70-130	2	20	
Beryllium	ug/L	ND	1000	1000	979	1030	98	103	70-130	6	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709218 3709219

Parameter	Units	60474407003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1010	1000	92	92	70-130	1	20	
Calcium	ug/L	59200	10000	10000	70000	68500	108	93	70-130	2	20	
Cobalt	ug/L	ND	1000	1000	967	1020	97	102	70-130	6	20	
Iron	ug/L	ND	10000	10000	9730	9520	97	95	70-130	2	20	
Lead	ug/L	ND	1000	1000	945	968	94	97	70-130	2	20	
Lithium	ug/L	12.2	1000	1000	957	936	94	92	70-130	2	20	
Magnesium	ug/L	19300	10000	10000	29200	28600	99	92	70-130	2	20	
Manganese	ug/L	10.5	1000	1000	980	1030	97	102	70-130	5	20	
Molybdenum	ug/L	ND	1000	1000	973	1030	97	102	70-130	5	20	
Potassium	ug/L	8290	10000	10000	17900	18000	96	97	70-130	0	20	
Sodium	ug/L	63700	10000	10000	74300	72900	106	92	70-130	2	20	

MATRIX SPIKE SAMPLE: 3709222

Parameter	Units	60474805003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	99.5	2000	1970	94	70-130	
Beryllium	ug/L	<0.12	2000	2000	100	70-130	
Boron	ug/L	8970	2000	10500	77	70-130	
Calcium	ug/L	169000	20000	180000	56	70-130	M1
Cobalt	ug/L	2.9J	2000	2000	100	70-130	
Iron	ug/L	35.1J	20000	18900	94	70-130	
Lead	ug/L	<3.8	2000	1910	95	70-130	
Lithium	ug/L	29.5	2000	1900	94	70-130	
Magnesium	ug/L	30800	20000	47900	85	70-130	
Manganese	ug/L	376	2000	2390	101	70-130	
Molybdenum	ug/L	920	2000	2990	103	70-130	
Potassium	ug/L	6060	20000	25300	96	70-130	
Sodium	ug/L	69800	20000	86500	84	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936017
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

METHOD BLANK: 3710285 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/05/25 11:02	
Beryllium	ug/L	<0.12	1.0	0.12	06/05/25 11:02	
Boron	ug/L	<6.4	100	6.4	06/05/25 11:02	
Calcium	ug/L	<26.9	200	26.9	06/05/25 11:02	
Cobalt	ug/L	<1.2	5.0	1.2	06/05/25 11:02	
Iron	ug/L	<9.1	50.0	9.1	06/05/25 11:02	
Lead	ug/L	<3.8	10.0	3.8	06/05/25 11:02	
Lithium	ug/L	<3.7	10.0	3.7	06/05/25 11:02	
Magnesium	ug/L	<20.1	50.0	20.1	06/05/25 11:02	
Manganese	ug/L	<0.39	5.0	0.39	06/05/25 11:02	
Molybdenum	ug/L	<1.0	20.0	1.0	06/05/25 11:02	
Potassium	ug/L	<69.7	500	69.7	06/05/25 11:02	
Sodium	ug/L	<115	500	115	06/05/25 11:02	

LABORATORY CONTROL SAMPLE: 3710286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	988	99	85-115	
Beryllium	ug/L	1000	987	99	85-115	
Boron	ug/L	1000	942	94	85-115	
Calcium	ug/L	10000	10100	101	85-115	
Cobalt	ug/L	1000	1020	102	85-115	
Iron	ug/L	10000	10100	101	85-115	
Lead	ug/L	1000	1010	101	85-115	
Lithium	ug/L	1000	974	97	85-115	
Magnesium	ug/L	10000	9860	99	85-115	
Manganese	ug/L	1000	1010	101	85-115	
Molybdenum	ug/L	1000	1020	102	85-115	
Potassium	ug/L	10000	9870	99	85-115	
Sodium	ug/L	10000	9980	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710287 3710288

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	491	1000	1000	1460	1470	97	98	70-130	0	20	
Beryllium	ug/L	<0.12	1000	1000	1010	992	101	99	70-130	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710287 3710288

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5490	1000	1000	6490	6520	100	102	70-130	0	20	
Calcium	ug/L	89600	10000	10000	99800	101000	103	110	70-130	1	20	
Cobalt	ug/L	<1.2	1000	1000	991	981	99	98	70-130	1	20	
Iron	ug/L	3880	10000	10000	13800	13900	99	100	70-130	1	20	
Lead	ug/L	<3.8	1000	1000	968	965	97	96	70-130	0	20	
Lithium	ug/L	23.3	1000	1000	983	978	96	95	70-130	1	20	
Magnesium	ug/L	19500	10000	10000	29200	29300	96	97	70-130	0	20	
Manganese	ug/L	459	1000	1000	1450	1440	99	98	70-130	1	20	
Molybdenum	ug/L	167	1000	1000	1180	1170	101	100	70-130	1	20	
Potassium	ug/L	10400	10000	10000	20500	20400	101	99	70-130	1	20	
Sodium	ug/L	24300	10000	10000	34200	34200	99	99	70-130	0	20	

MATRIX SPIKE SAMPLE: 3710289

Parameter	Units	60474805010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	581	1000	1570	99	70-130	
Beryllium	ug/L	<0.12	1000	1000	100	70-130	
Boron	ug/L	57.5J	1000	1000	95	70-130	
Calcium	ug/L	122000	10000	133000	114	70-130	
Cobalt	ug/L	<1.2	1000	987	99	70-130	
Iron	ug/L	8100	10000	18300	102	70-130	
Lead	ug/L	<3.8	1000	971	97	70-130	
Lithium	ug/L	36.0	1000	1000	96	70-130	
Magnesium	ug/L	29600	10000	39500	99	70-130	
Manganese	ug/L	682	1000	1660	98	70-130	
Molybdenum	ug/L	1.7J	1000	1020	102	70-130	
Potassium	ug/L	4160	10000	14100	99	70-130	
Sodium	ug/L	6970	10000	16900	99	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936019
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60474802011

METHOD BLANK: 3710296 Matrix: Water
Associated Lab Samples: 60474802011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/03/25 15:27	
Beryllium	ug/L	<0.12	1.0	0.12	06/03/25 15:27	
Boron	ug/L	14.5J	100	6.4	06/03/25 15:27	
Calcium	ug/L	<26.9	200	26.9	06/03/25 15:27	
Cobalt	ug/L	<1.2	5.0	1.2	06/03/25 15:27	
Iron	ug/L	9.5J	50.0	9.1	06/03/25 15:27	
Lead	ug/L	<3.8	10.0	3.8	06/03/25 15:27	
Lithium	ug/L	<3.7	10.0	3.7	06/03/25 15:27	
Magnesium	ug/L	<20.1	50.0	20.1	06/03/25 15:27	
Manganese	ug/L	<0.39	5.0	0.39	06/03/25 15:27	
Molybdenum	ug/L	<1.0	20.0	1.0	06/03/25 15:27	
Potassium	ug/L	<69.7	500	69.7	06/03/25 15:27	
Sodium	ug/L	<115	500	115	06/03/25 15:27	

LABORATORY CONTROL SAMPLE: 3710297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	970	97	85-115	
Beryllium	ug/L	1000	1010	101	85-115	
Boron	ug/L	1000	954	95	85-115	
Calcium	ug/L	10000	10100	101	85-115	
Cobalt	ug/L	1000	1020	102	85-115	
Iron	ug/L	10000	10100	101	85-115	
Lead	ug/L	1000	1010	101	85-115	
Lithium	ug/L	1000	912	91	85-115	
Magnesium	ug/L	10000	9970	100	85-115	
Manganese	ug/L	1000	1010	101	85-115	
Molybdenum	ug/L	1000	1020	102	85-115	
Potassium	ug/L	10000	9850	99	85-115	
Sodium	ug/L	10000	10300	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710298 3710299

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	196	1000	1000	1130	1170	93	97	70-130	3	20	
Beryllium	ug/L	<0.12	1000	1000	972	948	97	95	70-130	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710298 3710299

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	7270	1000	1000	8000	8370	73	110	70-130	5	20	
Calcium	ug/L	147000	10000	10000	152000	160000	43	123	70-130	5	20	M1
Cobalt	ug/L	<1.2	1000	1000	959	934	96	93	70-130	3	20	
Iron	ug/L	10100	10000	10000	19400	20200	94	101	70-130	4	20	
Lead	ug/L	<3.8	1000	1000	951	954	95	95	70-130	0	20	
Lithium	ug/L	29.1	1000	1000	913	937	88	91	70-130	3	20	
Magnesium	ug/L	36800	10000	10000	45100	47400	82	106	70-130	5	20	
Manganese	ug/L	1060	1000	1000	2040	2020	98	96	70-130	1	20	
Molybdenum	ug/L	450	1000	1000	1460	1450	101	100	70-130	1	20	
Potassium	ug/L	5090	10000	10000	14600	14900	95	98	70-130	2	20	
Sodium	ug/L	35100	10000	10000	43500	45600	84	105	70-130	5	20	

MATRIX SPIKE SAMPLE: 3710300

Parameter	Units	60475410001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	ND	1000	904	58	70-130	M1
Beryllium	ug/L	ND	1000	972	97	70-130	
Boron	ug/L	ND	1000	1200J	97	70-130	
Calcium	ug/L	276000	10000	283000	69	70-130	M1
Cobalt	ug/L	ND	1000	882	88	70-130	
Iron	ug/L	8080	10000	11800	37	70-130	M1
Lead	ug/L	ND	1000	1060	91	70-130	
Lithium	ug/L	ND	1000	1070	107	70-130	
Magnesium	ug/L	46800	10000	55700	89	70-130	
Manganese	ug/L	ND	1000	1020	91	70-130	
Molybdenum	ug/L	ND	1000	1010J	95	70-130	
Potassium	ug/L	ND	10000	40800J	4	70-130	M1
Sodium	ug/L	9190000	10000	9140000	-459	70-130	M1

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936256
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60474802012

METHOD BLANK: 3711403 Matrix: Water
Associated Lab Samples: 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/02/25 14:28	
Beryllium	ug/L	<0.12	1.0	0.12	06/02/25 14:28	
Boron	ug/L	<6.4	100	6.4	06/02/25 14:28	
Calcium	ug/L	<26.9	200	26.9	06/02/25 14:28	
Cobalt	ug/L	<1.2	5.0	1.2	06/02/25 14:28	
Iron	ug/L	10.7J	50.0	9.1	06/02/25 14:28	
Lead	ug/L	<3.8	10.0	3.8	06/02/25 14:28	
Lithium	ug/L	<3.7	10.0	3.7	06/02/25 14:28	
Magnesium	ug/L	<20.1	50.0	20.1	06/02/25 14:28	
Manganese	ug/L	<0.39	5.0	0.39	06/02/25 14:28	
Molybdenum	ug/L	<1.0	20.0	1.0	06/02/25 14:28	
Potassium	ug/L	<69.7	500	69.7	06/02/25 14:28	
Sodium	ug/L	<115	500	115	06/02/25 14:28	

LABORATORY CONTROL SAMPLE: 3711404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1020	102	85-115	
Beryllium	ug/L	1000	1020	102	85-115	
Boron	ug/L	1000	974	97	85-115	
Calcium	ug/L	10000	10600	106	85-115	
Cobalt	ug/L	1000	1060	106	85-115	
Iron	ug/L	10000	10700	107	85-115	
Lead	ug/L	1000	1040	104	85-115	
Lithium	ug/L	1000	971	97	85-115	
Magnesium	ug/L	10000	10400	104	85-115	
Manganese	ug/L	1000	1040	104	85-115	
Molybdenum	ug/L	1000	1050	105	85-115	
Potassium	ug/L	10000	10300	103	85-115	
Sodium	ug/L	10000	10700	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3711405 3711406

Parameter	Units	60474802012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	<0.64	1000	1000	1010	974	101	97	70-130	4	20	
Beryllium	ug/L	<0.12	1000	1000	1020	974	102	97	70-130	5	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3711405 3711406

Parameter	Units	60474802012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<6.4	1000	1000	963	929	96	93	70-130	4	20	
Calcium	ug/L	111J	10000	10000	10500	10000	104	99	70-130	5	20	
Cobalt	ug/L	<1.2	1000	1000	1070	1010	106	100	70-130	6	20	
Iron	ug/L	<9.1	10000	10000	10600	10100	106	101	70-130	5	20	
Lead	ug/L	<3.8	1000	1000	1040	985	104	98	70-130	6	20	
Lithium	ug/L	<3.7	1000	1000	973	930	97	93	70-130	5	20	
Magnesium	ug/L	<20.1	10000	10000	10300	9890	103	99	70-130	4	20	
Manganese	ug/L	<0.39	1000	1000	1050	994	105	99	70-130	5	20	
Molybdenum	ug/L	<1.0	1000	1000	1060	1000	106	100	70-130	5	20	
Potassium	ug/L	<69.7	10000	10000	10200	9700	102	97	70-130	5	20	
Sodium	ug/L	<115	10000	10000	10700	10200	106	102	70-130	4	20	

MATRIX SPIKE SAMPLE: 3711407

Parameter	Units	60475671001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	52.3	1000	1110	106	70-130	
Beryllium	ug/L	<0.12	1000	1080	108	70-130	
Boron	ug/L	8.3J	1000	1020	102	70-130	
Calcium	ug/L	25300	10000	35200	99	70-130	
Cobalt	ug/L	<1.2	1000	1110	111	70-130	
Iron	ug/L	<9.1	10000	11100	111	70-130	
Lead	ug/L	<3.8	1000	1090	109	70-130	
Lithium	ug/L	5.2J	1000	1010	101	70-130	
Magnesium	ug/L	5210	10000	15700	105	70-130	
Manganese	ug/L	0.66J	1000	1100	110	70-130	
Molybdenum	ug/L	11.0J	1000	1120	111	70-130	
Potassium	ug/L	1440	10000	12200	108	70-130	
Sodium	ug/L	17100	10000	27400	103	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935877
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3709544 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 15:16	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 15:16	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 15:16	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 15:16	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 15:16	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 15:16	

LABORATORY CONTROL SAMPLE: 3709545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	39.7	99	85-115	
Arsenic	ug/L	40	40.4	101	85-115	
Cadmium	ug/L	40	40.8	102	85-115	
Chromium	ug/L	40	40.7	102	85-115	
Selenium	ug/L	40	41.0	102	85-115	
Thallium	ug/L	40	39.1	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709546 3709547

Parameter	Units	60474802001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	39.5	38.5	99	96	70-130	3	20	
Arsenic	ug/L	0.27J	40	40	41.6	40.7	103	101	70-130	2	20	
Cadmium	ug/L	<0.050	40	40	39.8	38.8	99	97	70-130	2	20	
Chromium	ug/L	<0.30	40	40	42.1	41.0	105	102	70-130	3	20	
Selenium	ug/L	<0.18	40	40	40.1	39.4	100	98	70-130	2	20	
Thallium	ug/L	<0.14	40	40	41.1	40.0	103	100	70-130	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936079
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

METHOD BLANK: 3710610 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 15:58	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 15:58	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 15:58	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 15:58	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 15:58	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 15:58	

LABORATORY CONTROL SAMPLE: 3710611

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.0	100	85-115	
Arsenic	ug/L	40	40.9	102	85-115	
Cadmium	ug/L	40	41.4	104	85-115	
Chromium	ug/L	40	41.4	104	85-115	
Selenium	ug/L	40	41.4	104	85-115	
Thallium	ug/L	40	40.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710612 3710613

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	39.8	40.0	99	100	70-130	1	20	
Arsenic	ug/L	0.25J	40	40	40.9	41.6	102	103	70-130	2	20	
Cadmium	ug/L	<0.050	40	40	39.6	40.1	99	100	70-130	1	20	
Chromium	ug/L	<0.30	40	40	39.9	40.9	99	102	70-130	2	20	
Selenium	ug/L	<0.18	40	40	39.7	40.2	99	100	70-130	1	20	
Thallium	ug/L	<0.14	40	40	41.0	41.3	102	103	70-130	1	20	

MATRIX SPIKE SAMPLE: 3710614

Parameter	Units	60474805011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.12	40	40.3	101	70-130	
Arsenic	ug/L	1.9	40	43.3	103	70-130	
Cadmium	ug/L	<0.050	40	40.1	100	70-130	
Chromium	ug/L	<0.30	40	42.4	106	70-130	
Selenium	ug/L	<0.18	40	40.4	101	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE SAMPLE: 3710614

Parameter	Units	60474805011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	<0.14	40	42.1	105	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 936085
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3710639 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 16:54	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 16:54	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 16:54	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 16:54	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 16:54	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 16:54	

LABORATORY CONTROL SAMPLE: 3710640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.9	102	85-115	
Arsenic	ug/L	40	41.0	103	85-115	
Cadmium	ug/L	40	41.7	104	85-115	
Chromium	ug/L	40	42.0	105	85-115	
Selenium	ug/L	40	42.2	106	85-115	
Thallium	ug/L	40	39.9	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710641 3710642

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	40.9	39.8	102	100	70-130	3	20	
Arsenic	ug/L	0.27J	40	40	42.2	41.8	105	104	70-130	1	20	
Cadmium	ug/L	0.16J	40	40	40.2	39.3	100	98	70-130	2	20	
Chromium	ug/L	<0.30	40	40	41.5	40.8	104	102	70-130	2	20	
Selenium	ug/L	<0.18	40	40	41.0	39.9	102	100	70-130	3	20	
Thallium	ug/L	<0.14	40	40	42.0	41.6	105	104	70-130	1	20	

MATRIX SPIKE SAMPLE: 3710643

Parameter	Units	60474805023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	0.21J	40	40.9	102	70-130	
Arsenic	ug/L	0.73J	40	42.2	104	70-130	
Cadmium	ug/L	0.63	40	39.7	98	70-130	
Chromium	ug/L	<0.30	40	42.4	106	70-130	
Selenium	ug/L	<0.18	40	39.6	99	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

MATRIX SPIKE SAMPLE: 3710643

Parameter	Units	60474805023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	<0.14	40	43.1	108	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935400
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3707605 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/16/25 14:53	

LABORATORY CONTROL SAMPLE: 3707606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	540	108	90-110	

SAMPLE DUPLICATE: 3707607

Parameter	Units	60474665010 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	468	456	3	10	

SAMPLE DUPLICATE: 3707608

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	293	301	3	10	

SAMPLE DUPLICATE: 3707609

Parameter	Units	60474805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	555	538	3	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935488
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006

METHOD BLANK: 3708147 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/16/25 22:17	

LABORATORY CONTROL SAMPLE: 3708148

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	538	108	90-110	

SAMPLE DUPLICATE: 3708149

Parameter	Units	60474882003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	328	322	2	10	

SAMPLE DUPLICATE: 3708150

Parameter	Units	60474941004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	465	460	1	10	

SAMPLE DUPLICATE: 3708151

Parameter	Units	60474941008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	289	299	3	10	

SAMPLE DUPLICATE: 3708152

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	319	309	3	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935651
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802007, 60474802008

METHOD BLANK: 3708733 Matrix: Water
Associated Lab Samples: 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/19/25 19:51	

LABORATORY CONTROL SAMPLE: 3708734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	505	101	90-110	

SAMPLE DUPLICATE: 3708735

Parameter	Units	60474940004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	<10.5		10	

SAMPLE DUPLICATE: 3708736

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	305	302	1	10	

SAMPLE DUPLICATE: 3708737

Parameter	Units	60474899001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	584	607	4	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935733
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3709029 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/20/25 15:12	

LABORATORY CONTROL SAMPLE: 3709030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	495	99	90-110	

SAMPLE DUPLICATE: 3709031

Parameter	Units	60475110002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	843	864	2	10	

SAMPLE DUPLICATE: 3709032

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	387	382	1	10	

SAMPLE DUPLICATE: 3709033

Parameter	Units	60474805022 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	317	305	4	10	

SAMPLE DUPLICATE: 3709034

Parameter	Units	60475118003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	424	424	0	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 934870
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3704941 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/13/25 15:26	

LABORATORY CONTROL SAMPLE: 3704942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3704943

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3330	3320	0	10	

SAMPLE DUPLICATE: 3704944

Parameter	Units	60474832004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	443	449	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935019
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

METHOD BLANK: 3705708 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/14/25 16:07	

LABORATORY CONTROL SAMPLE: 3705709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 3705710

Parameter	Units	60474942001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	466	477	2	10	

SAMPLE DUPLICATE: 3705711

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	431	423	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935357
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3707336 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/19/25 15:00	

LABORATORY CONTROL SAMPLE: 3707337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	981	98	80-120	

SAMPLE DUPLICATE: 3707338

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1770	1790	1	10	

SAMPLE DUPLICATE: 3707339

Parameter	Units	60475118003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	553	544	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 934563
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3703359 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/13/25 09:40	H6

LABORATORY CONTROL SAMPLE: 3703360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	2.0	102	90-110	H6

SAMPLE DUPLICATE: 3703361

Parameter	Units	60474665008 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	0.22	0.20	7	20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935356
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

METHOD BLANK: 3707331 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/16/25 13:45	H6

LABORATORY CONTROL SAMPLE: 3707332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	2.0	99	90-110	H6

SAMPLE DUPLICATE: 3707333

Parameter	Units	60474802008 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	10.4	10.3	0	20	H6

SAMPLE DUPLICATE: 3707334

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	13.4	13.5	1	20	H6

SAMPLE DUPLICATE: 3707335

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	5.6	5.6	1	20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935706
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3708879 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/22/25 14:16	H6

LABORATORY CONTROL SAMPLE: 3708880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	1.9	94	90-110	H6

SAMPLE DUPLICATE: 3708881

Parameter	Units	60475099009 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	<0.20	0.058J		20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 934926
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3705367 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/14/25 14:11	

LABORATORY CONTROL SAMPLE: 3705368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.48	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3705370 3705371

Parameter	Units	60474802001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.45	0.45	89	89	75-125	0	20	

SAMPLE DUPLICATE: 3705369

Parameter	Units	60474802001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

SAMPLE DUPLICATE: 3705372

Parameter	Units	60474802002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935182
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

METHOD BLANK: 3706332 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/15/25 14:02	

LABORATORY CONTROL SAMPLE: 3706333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.46	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706335 3706336

Parameter	Units	60474802003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.47	0.46	93	92	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706339 3706340

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	0.044J	0.5	0.5	0.47	0.47	86	85	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706342 3706343

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.46	0.46	92	91	75-125	1	20	

SAMPLE DUPLICATE: 3706334

Parameter	Units	60474802003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

SAMPLE DUPLICATE: 3706337

Parameter	Units	60474802004 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.037J	0.037J		20	

SAMPLE DUPLICATE: 3706338

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.044J	0.045J		20	

SAMPLE DUPLICATE: 3706341

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 935502
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3708277 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/17/25 13:35	

LABORATORY CONTROL SAMPLE: 3708278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.54	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3708280 3708281

Parameter	Units	60475099001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.050	0.5	0.5	0.38	0.38	75	74	75-125	1	20	M1

SAMPLE DUPLICATE: 3708279

Parameter	Units	60475099001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.050	<0.016		20	

SAMPLE DUPLICATE: 3708282

Parameter	Units	60475099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.050	0.019J		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 937191
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802001, 60474802002

METHOD BLANK: 3715440 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.53	1.0	0.53	06/02/25 17:48	
Fluoride	mg/L	<0.12	0.20	0.12	06/02/25 17:48	
Sulfate	mg/L	<0.55	1.0	0.55	06/02/25 17:48	

LABORATORY CONTROL SAMPLE: 3715441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	
Fluoride	mg/L	2.5	2.4	94	90-110	
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715442 3715443

Parameter	Units	60474796004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	50.1	50	50	96.0	89.8	92	79	80-120	7	15	M1
Fluoride	mg/L	ND	25	25	21.9	20.4	85	79	80-120	7	15	M1
Sulfate	mg/L	1780	1000	1000	3010	2870	123	109	80-120	5	15	M1

SAMPLE DUPLICATE: 3715470

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	50.1	43.6	14	15	
Fluoride	mg/L	ND	<1.2		15	
Sulfate	mg/L	1780	1880	6	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 937211
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802007, 60474802008

METHOD BLANK: 3715496 Matrix: Water
Associated Lab Samples: 60474802007, 60474802008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.59J	1.0	0.53	06/03/25 20:28	
Fluoride	mg/L	<0.12	0.20	0.12	06/03/25 20:28	
Sulfate	mg/L	<0.55	1.0	0.55	06/03/25 20:28	

LABORATORY CONTROL SAMPLE: 3715497

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	5	4.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715498 3715499

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	42.4	100	100	132	132	90	90	80-120	0	15	
Fluoride	mg/L	0.16J	2.5	2.5	2.4	2.4	90	91	80-120	1	15	
Sulfate	mg/L	237	100	100	330	336	93	99	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715501 3715502

Parameter	Units	60474895008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.1	5	5	19.5	19.5	106	107	80-120	0	15	
Fluoride	mg/L	0.14J	2.5	2.5	2.7	2.7	104	104	80-120	0	15	
Sulfate	mg/L	10.7	5	5	15.7	15.7	101	101	80-120	0	15	

SAMPLE DUPLICATE: 3715500

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	42.4	42.5	0	15	
Fluoride	mg/L	0.16J	0.17J		15	
Sulfate	mg/L	237	236	0	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

SAMPLE DUPLICATE: 3715503

Parameter	Units	60474895008 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	14.1	14.3	1	15	
Fluoride	mg/L	0.14J	0.14J		15	
Sulfate	mg/L	10.7	10.8	1	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 937354
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006

METHOD BLANK: 3716100 Matrix: Water
Associated Lab Samples: 60474802003, 60474802004, 60474802005, 60474802006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.54J	1.0	0.53	06/11/25 00:29	
Fluoride	mg/L	<0.12	0.20	0.12	06/11/25 00:29	
Sulfate	mg/L	<0.43	1.0	0.43	06/11/25 00:29	

LABORATORY CONTROL SAMPLE: 3716101

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3716102 3716103

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.6	25	25	68.6	68.0	88	86	80-120	1	15	H1
Fluoride	mg/L	0.56	2.5	2.5	2.7	2.7	85	85	80-120	0	15	H1
Sulfate	mg/L	8.0	5	5	13.2	13.2	103	103	80-120	0	15	H1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3716105 3716106

Parameter	Units	60474942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.8	5	5	15.9	16.0	103	105	80-120	1	15	H1
Fluoride	mg/L	0.34	2.5	2.5	2.5	2.6	87	90	80-120	3	15	H1
Sulfate	mg/L	57.3	50	50	106	105	98	96	80-120	1	15	H1

SAMPLE DUPLICATE: 3716104

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	46.6	45.6	2	15	H1
Fluoride	mg/L	0.56	0.26	72	15	D6,H1
Sulfate	mg/L	8.0	8.1	1	15	H1

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

SAMPLE DUPLICATE: 3716107

Parameter	Units	60474942001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	10.8	11.5	6	15	H1
Fluoride	mg/L	0.34	0.14J		15	H1
Sulfate	mg/L	57.3	56.3	2	15	H1

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 937709
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3717638 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.53	1.0	0.53	06/07/25 10:42	
Fluoride	mg/L	<0.12	0.20	0.12	06/07/25 10:42	
Sulfate	mg/L	<0.55	1.0	0.55	06/07/25 10:42	

LABORATORY CONTROL SAMPLE: 3717639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	5.0	99	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3717640 3717641

Parameter	Units	60474940006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	194	250	250	262	263	27	28	80-120	0	15	H1,M1
Fluoride	mg/L	<0.12	2.5	2.5	1.5	1.5	60	60	80-120	0	15	H1,M1
Sulfate	mg/L	660	250	250	309	309	-141	-141	80-120	0	15	H1,M1

SAMPLE DUPLICATE: 3717642

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	194	188	3	15	
Fluoride	mg/L	<0.12	<0.12		15	
Sulfate	mg/L	660	639	3	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 948694
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60474802003

METHOD BLANK: 3760040 Matrix: Water
Associated Lab Samples: 60474802003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.77	1.0	0.77	09/10/25 20:15	
Fluoride	mg/L	<0.16	0.20	0.16	09/10/25 20:15	
Sulfate	mg/L	<0.43	1.0	0.43	09/10/25 20:15	

LABORATORY CONTROL SAMPLE: 3760041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	94	90-110	
Fluoride	mg/L	2.5	2.3	94	90-110	
Sulfate	mg/L	5	4.5	91	90-110	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-1D **Lab ID: 60474802001** Collected: 05/07/25 15:58 Received: 05/09/25 07:41 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.124 ± 0.707 (1.32) C:NA T:96%**	pCi/L	05/22/25 13:54	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**2.51 ± 0.736 (0.927) C:75% T:90%**	pCi/L	05/21/25 11:47	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-BMW-3D **Lab ID: 60474802002** Collected: 05/07/25 13:31 Received: 05/09/25 07:41 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.402 ± 0.696 (1.21) C:NA T:91%**	pCi/L	05/22/25 13:54	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.61 ± 0.541 (0.758) C:79% T:88%**	pCi/L	05/21/25 11:47	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-2D **Lab ID: 60474802003** Collected: 05/08/25 13:23 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.411 ± 0.530 (0.883) C:NA T:97%**	pCi/L	05/22/25 13:54	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.66 ± 0.543 (0.744) C:77% T:91%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-3D **Lab ID: 60474802004** Collected: 05/08/25 12:20 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.234 ± 0.431 (0.976) C:NA T:100%**	pCi/L	05/22/25 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.769 ± 0.445 (0.819) C:75% T:84%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-4D **Lab ID: 60474802005** Collected: 05/08/25 11:25 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.000 ± 0.780 (1.50) C:NA T:96%**	pCi/L	05/22/25 13:54	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.04 ± 0.454 (0.755) C:78% T:90%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-5D **Lab ID: 60474802006** Collected: 05/08/25 14:30 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.200 ± 0.554 (1.00) C:NA T:95%**	pCi/L	05/22/25 13:54	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.08 ± 0.472 (0.785) C:74% T:88%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-6D **Lab ID: 60474802007** Collected: 05/08/25 15:50 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0574 ± 0.665 (1.29) C:NA T:94%**	pCi/L	05/22/25 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.480 ± 0.336 (0.645) C:76% T:93%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-DUP-1 **Lab ID: 60474802008** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.181 ± 0.699 (1.28) C:NA T:99%**	pCi/L	05/22/25 13:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.11 ± 0.479 (0.779) C:72% T:85%**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-MS-1 **Lab ID: 60474802009** Collected: 05/08/25 14:30 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**92.62 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/22/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**100.56 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-MSD-1 **Lab ID: 60474802010** Collected: 05/08/25 14:30 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**121.59 %REC 27.04RPD ± NA (NA) C:NA T:NA**	pCi/L	05/22/25 14:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**78.05 %REC 25.20RPD ± NA (NA) C:NA T:NA**	pCi/L	05/21/25 11:48	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-1D **Lab ID: 60474802011** Collected: 05/12/25 16:08 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.126 ± 0.697 (1.38) C:NA T:91%**	pCi/L	06/12/25 16:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.441 ± 0.474 (0.994) C:74% T:90%**	pCi/L	06/12/25 14:43	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

Sample: S-UMW-FB-1 **Lab ID: 60474802012** Collected: 05/12/25 15:10 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**-0.226 ± 0.495 (1.06) C:NA T:94%**	pCi/L	06/12/25 16:43	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**0.697 ± 0.523 (1.04) C:70% T:87%**	pCi/L	06/12/25 14:43	15262-20-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 745801
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474802001, 60474802002, 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008, 60474802009, 60474802010

METHOD BLANK: 3631584 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002, 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008, 60474802009, 60474802010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.313 ± 0.356 (0.561) C:NA T:92%	pCi/L	05/22/25 13:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 747644
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3641379 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.153 ± 0.265 (0.473) C:NA T:87%	pCi/L	06/12/25 16:43	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 745803
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474802001, 60474802002, 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008, 60474802009, 60474802010

METHOD BLANK: 3631586 Matrix: Water
Associated Lab Samples: 60474802001, 60474802002, 60474802003, 60474802004, 60474802005, 60474802006, 60474802007, 60474802008, 60474802009, 60474802010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.332 ± 0.300 (0.605) C:79% T:93%	pCi/L	05/21/25 11:46	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60474802

QC Batch: 747645
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474802011, 60474802012

METHOD BLANK: 3641380 Matrix: Water
Associated Lab Samples: 60474802011, 60474802012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.406 ± 0.368 (0.741) C:77% T:83%	pCi/L	06/12/25 14:43	

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QUALIFIERS

Project: AMEREN SCPA
Pace Project No.: 60474802

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474802001	**S-BMW-1D**	EPA 200.7	935770	EPA 200.7	935797
60474802002	**S-BMW-3D**	EPA 200.7	935770	EPA 200.7	935797
60474802003	**S-UMW-2D**	EPA 200.7	936017	EPA 200.7	936124
60474802004	**S-UMW-3D**	EPA 200.7	936017	EPA 200.7	936124
60474802005	**S-UMW-4D**	EPA 200.7	936017	EPA 200.7	936124
60474802006	**S-UMW-5D**	EPA 200.7	936017	EPA 200.7	936124
60474802007	**S-UMW-6D**	EPA 200.7	936017	EPA 200.7	936124
60474802008	**S-UMW-DUP-1**	EPA 200.7	936017	EPA 200.7	936124
60474802011	**S-UMW-1D**	EPA 200.7	936019	EPA 200.7	936101
60474802012	**S-UMW-FB-1**	EPA 200.7	936256	EPA 200.7	936304
60474802001	**S-BMW-1D**	EPA 200.8	935877	EPA 200.8	936014
60474802002	**S-BMW-3D**	EPA 200.8	935877	EPA 200.8	936014
60474802003	**S-UMW-2D**	EPA 200.8	936079	EPA 200.8	936187
60474802004	**S-UMW-3D**	EPA 200.8	936079	EPA 200.8	936187
60474802005	**S-UMW-4D**	EPA 200.8	936079	EPA 200.8	936187
60474802006	**S-UMW-5D**	EPA 200.8	936079	EPA 200.8	936187
60474802007	**S-UMW-6D**	EPA 200.8	936079	EPA 200.8	936187
60474802008	**S-UMW-DUP-1**	EPA 200.8	936079	EPA 200.8	936187
60474802011	**S-UMW-1D**	EPA 200.8	936085	EPA 200.8	936188
60474802012	**S-UMW-FB-1**	EPA 200.8	936085	EPA 200.8	936188
60474802001	**S-BMW-1D**	EPA 7470	935966	EPA 7470	935996
60474802002	**S-BMW-3D**	EPA 7470	935966	EPA 7470	935996
60474802003	**S-UMW-2D**	EPA 7470	935967	EPA 7470	935997
60474802004	**S-UMW-3D**	EPA 7470	935967	EPA 7470	935997
60474802005	**S-UMW-4D**	EPA 7470	935967	EPA 7470	935997
60474802006	**S-UMW-5D**	EPA 7470	936500	EPA 7470	936546
60474802007	**S-UMW-6D**	EPA 7470	936973	EPA 7470	937001
60474802008	**S-UMW-DUP-1**	EPA 7470	936973	EPA 7470	937001
60474802011	**S-UMW-1D**	EPA 7470	936500	EPA 7470	936546
60474802012	**S-UMW-FB-1**	EPA 7470	936500	EPA 7470	936546
60474802001	**S-BMW-1D**	EPA 903.1	745801		
60474802002	**S-BMW-3D**	EPA 903.1	745801		
60474802003	**S-UMW-2D**	EPA 903.1	745801		
60474802004	**S-UMW-3D**	EPA 903.1	745801		
60474802005	**S-UMW-4D**	EPA 903.1	745801		
60474802006	**S-UMW-5D**	EPA 903.1	745801		
60474802007	**S-UMW-6D**	EPA 903.1	745801		
60474802008	**S-UMW-DUP-1**	EPA 903.1	745801		
60474802009	**S-UMW-MS-1**	EPA 903.1	745801		
60474802010	**S-UMW-MSD-1**	EPA 903.1	745801		
60474802011	**S-UMW-1D**	EPA 903.1	747644		
60474802012	**S-UMW-FB-1**	EPA 903.1	747644		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474802001	**S-BMW-1D**	EPA 904.0	745803		
60474802002	**S-BMW-3D**	EPA 904.0	745803		
60474802003	**S-UMW-2D**	EPA 904.0	745803		
60474802004	**S-UMW-3D**	EPA 904.0	745803		
60474802005	**S-UMW-4D**	EPA 904.0	745803		
60474802006	**S-UMW-5D**	EPA 904.0	745803		
60474802007	**S-UMW-6D**	EPA 904.0	745803		
60474802008	**S-UMW-DUP-1**	EPA 904.0	745803		
60474802009	**S-UMW-MS-1**	EPA 904.0	745803		
60474802010	**S-UMW-MSD-1**	EPA 904.0	745803		
60474802011	**S-UMW-1D**	EPA 904.0	747645		
60474802012	**S-UMW-FB-1**	EPA 904.0	747645		
60474802001	**S-BMW-1D**	SM 2320B	935400		
60474802002	**S-BMW-3D**	SM 2320B	935400		
60474802003	**S-UMW-2D**	SM 2320B	935488		
60474802004	**S-UMW-3D**	SM 2320B	935488		
60474802005	**S-UMW-4D**	SM 2320B	935488		
60474802006	**S-UMW-5D**	SM 2320B	935488		
60474802007	**S-UMW-6D**	SM 2320B	935651		
60474802008	**S-UMW-DUP-1**	SM 2320B	935651		
60474802011	**S-UMW-1D**	SM 2320B	935733		
60474802012	**S-UMW-FB-1**	SM 2320B	935733		
60474802001	**S-BMW-1D**	SM 2540C	934870		
60474802002	**S-BMW-3D**	SM 2540C	934870		
60474802003	**S-UMW-2D**	SM 2540C	935019		
60474802004	**S-UMW-3D**	SM 2540C	935019		
60474802005	**S-UMW-4D**	SM 2540C	935019		
60474802006	**S-UMW-5D**	SM 2540C	935019		
60474802007	**S-UMW-6D**	SM 2540C	935019		
60474802008	**S-UMW-DUP-1**	SM 2540C	935019		
60474802011	**S-UMW-1D**	SM 2540C	935357		
60474802012	**S-UMW-FB-1**	SM 2540C	935357		
60474802001	**S-BMW-1D**	SM 3500-Fe B#4	938631		
60474802002	**S-BMW-3D**	SM 3500-Fe B#4	938198		
60474802003	**S-UMW-2D**	SM 3500-Fe B#4	937799		
60474802004	**S-UMW-3D**	SM 3500-Fe B#4	937799		
60474802005	**S-UMW-4D**	SM 3500-Fe B#4	937799		
60474802006	**S-UMW-5D**	SM 3500-Fe B#4	937799		
60474802007	**S-UMW-6D**	SM 3500-Fe B#4	937799		
60474802008	**S-UMW-DUP-1**	SM 3500-Fe B#4	937799		
60474802011	**S-UMW-1D**	SM 3500-Fe B#4	937862		
60474802012	**S-UMW-FB-1**	SM 3500-Fe B#4	937982		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA
Pace Project No.: 60474802

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474802001	**S-BMW-1D**	SM 3500-Fe B#4	934563		
60474802002	**S-BMW-3D**	SM 3500-Fe B#4	934563		
60474802003	**S-UMW-2D**	SM 3500-Fe B#4	935356		
60474802004	**S-UMW-3D**	SM 3500-Fe B#4	935356		
60474802005	**S-UMW-4D**	SM 3500-Fe B#4	935356		
60474802006	**S-UMW-5D**	SM 3500-Fe B#4	935356		
60474802007	**S-UMW-6D**	SM 3500-Fe B#4	935356		
60474802008	**S-UMW-DUP-1**	SM 3500-Fe B#4	935356		
60474802011	**S-UMW-1D**	SM 3500-Fe B#4	935706		
60474802012	**S-UMW-FB-1**	SM 3500-Fe B#4	935706		
60474802001	**S-BMW-1D**	SM 4500-S-2 D	934926		
60474802002	**S-BMW-3D**	SM 4500-S-2 D	934926		
60474802003	**S-UMW-2D**	SM 4500-S-2 D	935182		
60474802004	**S-UMW-3D**	SM 4500-S-2 D	935182		
60474802005	**S-UMW-4D**	SM 4500-S-2 D	935182		
60474802006	**S-UMW-5D**	SM 4500-S-2 D	935182		
60474802007	**S-UMW-6D**	SM 4500-S-2 D	935182		
60474802008	**S-UMW-DUP-1**	SM 4500-S-2 D	935182		
60474802011	**S-UMW-1D**	SM 4500-S-2 D	935502		
60474802012	**S-UMW-FB-1**	SM 4500-S-2 D	935502		
60474802001	**S-BMW-1D**	EPA 300.0	937191		
60474802002	**S-BMW-3D**	EPA 300.0	937191		
60474802003	**S-UMW-2D**	EPA 300.0	937354		
60474802003	**S-UMW-2D**	EPA 300.0	948694		
60474802004	**S-UMW-3D**	EPA 300.0	937354		
60474802005	**S-UMW-4D**	EPA 300.0	937354		
60474802006	**S-UMW-5D**	EPA 300.0	937354		
60474802007	**S-UMW-6D**	EPA 300.0	937211		
60474802008	**S-UMW-DUP-1**	EPA 300.0	937211		
60474802011	**S-UMW-1D**	EPA 300.0	937709		
60474802012	**S-UMW-FB-1**	EPA 300.0	937709		

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WO# : 60474802

60474802

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample	
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: T-301 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.8/15.0 **Corr. Factor** +0.1 **Corrected** 1.9/15.1

Date and initials of person examining contents: JN 5/9/25

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 96988/88728	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

6a74802

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7		
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)*	Radium 226 & Radium 228	Sample Comment	Preservation non-conformance identified for sample.
S-UMW-1D	WT																	
S-UMW-2D	WT																	
S-UMW-3D	WT																	
S-UMW-4D	WT																	
S-UMW-5D	WT																	
S-UMW-6D	WT																	
S-BMW-1D	WT	G			5-7-25	1558	7			✓	✓	✓	✓	✓	✓	✓		
S-BMW-3D	WT	G			1	1331	7			✓	✓	✓	✓	✓	✓	✓		
S-UMW-DUP-1	WT																	
S-UMW-FB-1	WT																	

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Additional Instructions from Pace®:
***App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B**
****App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg**

Collected By:
(Printed Name) Grant Morey
Signature: Grant Morey

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
2	T-301	+0.1	1.8/15.0	1.9/15.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Grant Morey / Rocksmith	5-8-25/0800	[signature] ASC	5/9/25 0712
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier
[ ] FedEx [ ] UPS [ ] Other

Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Client: Rocksmith Geoeng Profile/EZ #: 3244560

Site: Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2																																
3																																
4																																
5																																
6																			.													
7	WT		3																1			2	1				1					
8	↓		2																1			2	1				1					
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6cu7480r

WO# : 60474802

60474802

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Co		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 0-3/1.1 **Corr. Factor** +0.1 **Corrected** 0.4/1.2/21.2

Date and initials of person examining contents: JN 5/12/25

Temperature should be above freezing to 6°C 21.1

Chain of Custody present:	☐Yes ☐No ☐N/A	
Chain of Custody relinquished:	☐Yes ☐No ☐N/A	
Samples arrived within holding time:	☐Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☐No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☐No ☐N/A	
Sufficient volume:	☐Yes ☐No ☐N/A	
Correct containers used:	☐Yes ☐No ☐N/A	
Pace containers used:	☐Yes ☐No ☐N/A	
Containers intact:	☐Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☐N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	☐Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☐No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 96888/88728	☐Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☐N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☐N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

604748C2

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7		
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***: 1 1 4 6 2 2 2

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228
S-UMW-1D	WT															
S-UMW-2D	WT	G			5-8-25	1323	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-3D	WT	G				1220	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-4D	WT	G				1125	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-5D	WT	G				1430	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-6D	WT	G				1550	7			✓	✓	✓	✓	✓	✓	✓
S-BMW-1D	WT															
S-BMW-3D	WT															
S-UMW-DUP-1	WT	G			5-8-25	—	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-FB-1	WT															

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
App III and Cat/An Metals - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B
**App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg

Collected By: (Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1-1/0-3/21.3	1-2/0.4/21.2	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5/9/25 1600		5/10/25 0651	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

6041748C2

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7	Invoice To:	Mark Haddock
Project Name:	AMEREN SCPA	Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228	Sample Comment
S-UMW-MS-1	WT	G			5-8-25	1430	7			✓	✓	✓	✓	✓	✓	✓	Collected @ S-UMW-SD 1
S-UMW-MSD-1	WT	G			1	1430	7			✓	✓	✓	✓	✓	✓	✓	

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
***App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B**
****App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg**

Collected By: (Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1.1/0.3/2.1-1	1.2/0.4/2.1-2	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5-9-25 1600		5/10/25 0651	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

1/2

Client: Rocksmith Geoeng

Profile/EZ # Only Print what you log.

Site:

Notes Attach to 60474802

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2	WT		3																1			2	1				1					
3	↓		↓																↓			↓	↓				↓					
4																																
5			9									(MS/MSD)							3				3				3					
6	↓		3																1			↓	1				1					
7																																
8																																
9	WT		3																1			↓	1				1					
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474802

2/2

Client: Rocksmith Geoeng

Profile/EZ #

Site:

Notes Append to 60474802

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																					2	(Only Log RAD)									
2	↓																					2										
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474802

WO# : 60474802

60474802

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Conc		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T-301 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.4/15.0 **Corr. Factor** +0.1 **Corrected** 1.5/15.1

Date and initials of person examining contents: PM 5/14/25

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 96888/88728	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes (☑)No ☐N/A PM 5/14/25	
Headspace in VOA vials (>6mm):	☐Yes (☑)No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7	Invoice To:	Mark Haddock
Project Name:	AMEREN SCPA	Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228	Sample Comment
S-UMW-1D	WT	G			5-12-25	1608	8			✓	✓	✓	✓	✓	✓	✓	
S-UMW-2D	WT																
S-UMW-3D	WT																
S-UMW-4D	WT																
S-UMW-5D	WT																
S-UMW-6D	WT																
S-BMW-1D	WT																
S-BMW-3D	WT																
S-UMW-DUP-1	WT																
S-UMW-FB-1	WT	G			5-12-25	1510	8			✓	✓	✓	✓	✓	✓	✓	

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
**App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B
***App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg

Collected By: (Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
2	T-301	+0.1	1.4 / 15.0	1.5 / 15.1	

Relinquished by/Company: (Signature) Rocksmith	Date/Time: 5/13/2 / 1420	Received by/Company: (Signature)	Date/Time: 5/14/25 0645	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Client: Rocksmith Greeng

Profile/EZ # only Print what you log.

Site:

Notes Append to 6047480z

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT		3																1			2	1				1					
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10	WT		3																1			2	1				1					
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6047480z

Internal Transfer Chain of Custody

Page 98 of 101

☐ Rush Multiplier____X
☒ Samples Pre-Logged into eCOC

State Of Origin: MO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 5/9/2025 **Results Requested By:** 6/3/2025

Workorder: 60474802 **Workorder Name:** AMEREN SCPA

Report To	Subcontract To
Jamie Church Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 314-838-7223	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3						Requested Analysis Radium 226	Radium 228											LAB USE ONLY
1	S-BMW-1D	PS	5/7/2025 15:58	60474802001	Water	2						X	X											001
2	S-BMW-3D	PS	5/7/2025 13:31	60474802002	Water	2						X	X											002
3	S-UMW-2D	PS	5/8/2025 13:23	60474802003	Water	2						X	X											003
4	S-UMW-3D	PS	5/8/2025 12:20	60474802004	Water	2						X	X											004
5	S-UMW-4D	PS	5/8/2025 11:25	60474802005	Water	2						X	X											005
6	S-UMW-5D	RQS	5/8/2025 14:30	60474802006	Water	2						X	X											006
7	S-UMW-6D	PS	5/8/2025 15:50	60474802007	Water	2						X	X											007
8	S-UMW-DUP-1	PS	5/8/2025 00:00	60474802008	Water	2						X	X											008
9	S-UMW-MS-1	PS	5/8/2025 14:30	60474802009	Water	2						X	X											009
10	S-UMW-MSD-1	PS	5/8/2025 14:30	60474802010	Water	2						X	X											010

Transfers	Released By	Date/Time	Received By	Date/Time
1	JAPace	5/13/25 9700	BKell	5/14/25 0940
2				
3				

Comments

******Note: Parent sample for MS/MSD 009/010 is sample 006

Cooler Temperature on Receipt ~ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO# : 30779054

30779054

DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-Greensburg

Effective Date: 01/04/2024

WO# : 30779054

PM: CMC Due Date: 05/27/25

CLIENT: PACE_60_LEKS

Client Name: Pace KS

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 4453 8931 5776

Initial / Date

Examined By: MS 5/15/25

Labeled By: MS 5/15/25

Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☑ No

Thermometer Used: — Type of Ice: Wet Blue (None)

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10043241 / D.P.D. Residual Chlorine Lot # —
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓	✓		MS 5/15/25
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used	✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dichlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	✓			16. pH <2
All containers meet method preservation requirements:	✓			Initial when completed: MS Date/Time of Preservation: Lot# of added Preservative:
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed: BJR Date: 5.14.25 Survey Meter SN: 25044330

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Internal Transfer Chain of Custody

☐ Rush Multiplier_____X
☐ Samples Pre-Logged into eCOC

State Of Origin: MO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 5/9/2025 Results Requested By: 6/5/2025

Workorder: 60474802 **Workorder Name:** AMEREN SCPA

Report To	Subcontract To
Jamie Church Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 314-838-7223	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Radium 226	Radium 228	LAB USE ONLY
1	S-UMW-1D	PS	5/12/2025 16:08	60474802011	Water	2	X	X	011
2	S-UMW-FB-1	PS	5/12/2025 15:10	60474802012	Water	2	X	X	012
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

Transfers	Released By	Date/Time	Received By	Date/Time
1	JAPace	5/14/25 1720	BKell	5.15.25 0950
2				
3				

Comments

Cooler Temperature on Receipt ___ °C | Custody Seal Y or (N) | Received on Ice Y or (N) | Samples Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

WO#: 30779587

DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-Greensburg

Effective Date: 01/04/2024

WO# : 30779587

PM: CMC Due Date: 06/13/25

CLIENT: PACE_60_LEKS

Client Name: Pace Analytical Kansas Proj

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 4453 8931 6588

Initial / Date

Examined By: MS 5/16/25

Labeled By: MS 5/16/25

Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals Intact:** ☐ Yes ☑ No

Thermometer Used: — **Type of Ice:** Wet Blue (None)

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10043241 / D.P.D. Residual Chlorine Lot # —
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓			2.
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID				
Matrix:	WT			
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dichlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation:	✓			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				pH <2
All containers meet method preservation requirements:	✓			Initial when completed MS / Date/Time of Preservation / Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed BK / Date: 5.15.25 / Survey Meter SN: 2sam380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Memorandum

July 30, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Jack Rasmussen	**Email:**	Jack.Rasmussen@Rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA – Data Package 60474802**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- When a compound was analyzed outside of hold time, the sample result was qualified as an estimate (J for detects, UJ for non-detects).
- When a compound was detected in a blank (i.e. method, field), and the blank comparison criterion was not met, associated sample results were qualified as estimates (J) or non-detects (U).
- When a compound was detected in a sample result between the Method Detection Limit (MDL) and Practical Quantification Limit (PQL), the results were recorded at the detection value and qualified as estimates (J).
- When a duplicate criterion was not met, the associated sample result was qualified as an estimate (J for detects, UJ for non-detects).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA
Project Number: 23009-25
Reviewer: J. Rasmussen
Validation Date: 07/30/2025

Laboratory: Pace Analytical
SDG #: 60474802
Analytical Method (type and no.): EPA 200.7/200.8/7470 (Total Metals); SM 2320B (Alkalinity); SM 2540C (TDS); EPA 300.0 (Anions);
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐ SM 3500-FE (Ferric Iron); SM 4500-S-2 (Sulfide); EPA 903.1/904.0 (Radium 226+228)
Sample Names S-BMW-1D, S-BMW-3D, S-UMW-2D, S-UMW-3D, S-UMW-4D, S-UMW-5D, S-UMW-6D, S-UMW-DUP-1, S-UMW-MS-1, S-UMW-MSD-1, S-UMW-1D, S-UMW-FB-1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			5/07/2025-5/12/2025
b) Sampling team indicated?	x			JTR/GTM
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?		x		See Notes
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	x			See Notes
b) Were analytes detected in the field blank(s)?	x			See Notes
c) Were analytes detected in the equipment blank(s)?			x	
d) Were analytes detected in the trip blank(s)?			x	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	x			
b) Were the proper analytes included in the LCS?	x			
c) Was the LCS accuracy criteria met?	x			

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	x			S-UMW-DUP-1 collected @ S-UMW-6D
b) Were field dup. precision criteria met (note RPD)?		x		See Notes
c) Were lab duplicates analyzed (note original and duplicate samples)?	x			See Notes
d) Were lab dup. precision criteria met (note RPD)?		x		See Notes

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?			x	
b) Was the %D within control limits?			x	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
b) Was MSD accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
c) Were MS/MSD precision criteria met?		x		See Notes

Comments/Notes:

General:

Ferrous iron samples were all analyzed outside of hold time. Results qualified as estimates. Chloride, fluoride and/or sulfate analyzed outside of hold time. Results qualified as estimates.

Chloride, and/or sulfate were diluted in several samples; no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Method blanks:

3709216: Barium (1.1J), potassium (118J), sodium (138J), associated with samples -001 and -002. All results > RL and 10x blank, no qualification necessary.

3710296: Boron (14.5J), iron (9.5J), associated with sample -011. Results > RL and 10x blank, no qualification necessary.

3711403: Iron (10.7J), associated with sample -012. Sample -012 iron result is non-detect, no qualification necessary.

3715496: Chloride (0.59J), associated with samples -007 and -008. Sample -007 result > RL and 10x blank, no qualification necessary. Sample -008 result > RL and 10x blank, no qualification necessary.

3716100: Chloride (0.54J), associated with samples -003, -004, -005, -006. All results > RL and 10x blank, no qualification necessary.

Field blanks:

S-UMW-FB-1 @ S-UMW-1D: calcium (111J), chloride (0.53J), results > RL and 10x blank. No qualification necessary.

Duplicate:

S-UMW-DUP-1 @ S-UMW-6D: radium-228 detected in sample duplicate and not detected in parent sample. Results qualified as estimates.

Lab duplicates: max RPD: 10%; alkalinity, TDS; 15%; chloride, fluoride, sulfate; 20%; ferrous iron, sulfide, other metals.

3716104: Lab duplicate exceeds max RPD for fluoride, associated with sample -006. Result qualified as estimate.

MS/MSD:

3709222: MS recovery low for calcium, associated with unrelated sample. No qualification necessary.

3710298/3710299: MS recovery low for calcium, MSD and RPD within control limits. No qualification necessary.

3710300: MS recovery low for barium, calcium, iron, potassium, sodium. Associated with unrelated sample, no qualification necessary.

3708280/3708281: MS recovery low for sulfide, MSD and RPD within control limits. No qualification necessary.

3715442/3715443: MS recovery low for chloride and fluoride, MSD and RPD within control limits. No qualification necessary.

MSD recovery high for sulfate, MS and RPD within control limits, no qualification necessary.

3717640/3717641: MS and MSD recovery low for chloride, fluoride and sulfate. Associated with unrelated sample, no qualifications necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-BMW-1D	Ferrous Iron	12.2	J	Analyzed outside of hole time
S-BMW-3D	"	11.1	J	"
S-UMW-2D	"	0.20	J	"
"	Sulfate	329	J	"
S-UMW-3D	Ferrous Iron	0.79	J	"
"	Chloride	33.7	J	"
"	Sulfate	650	J	"
S-UMW-4D	Ferrous Iron	6.3	J	"
"	Chloride	27.0	J	"
"	Sulfate	192	J	"
S-UMW-5D	Ferrous Iron	5.6	J	"
"	Chloride	46.6	J	"
"	Sulfate	8.0	J	"
S-UMW-6D	Ferrous Iron	10.4	J	"
S-UMW-DUP-1	"	10.4	J	"
S-UMW-1D	"	1.5	J	"
S-UMW-FB-1	"	0.041	UJ	"
S-UMW-DUP-1	Radium-228	1.11	J	Detected in field duplicate, non-detect in parent sample
S-UMW-6D	"	0.645	UJ	"
S-UMW-5D	Fluoride	0.56	J	Lab DUP exceeds max RPD
S-UMW-5D	"	0.56	J	Analyzed outside of hold time

Signature: _____ Date: 07/30/2025

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

July 07, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory between May 09, 2025 and May 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Greensburg

(Greensburg, PA) - Revision #1 - This report replaces the June 17th, 2025, report. This project was revised on July 2nd, 2025, to remove an IRWO lab SCUR comment.

REV-1: Report revised to remove comment added by RAD lab regarding sampler's name that was reported in error.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

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SAMPLE SUMMARY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60474805004	**S-AM-1S**	Water	05/07/25 14:09	05/09/25 02:07
60474805005	**S-AM-1D**	Water	05/07/25 14:49	05/09/25 02:07
60474805006	**S-CA-DUP-1**	Water	05/07/25 08:00	05/09/25 02:07
60474805008	**S-PZ-1S**	Water	05/08/25 10:33	05/10/25 06:51
60474805009	**S-TP-2D**	Water	05/09/25 09:31	05/10/25 06:51
60474805010	**S-TP-3D**	Water	05/09/25 12:35	05/10/25 06:51
60474805011	**S-TP-4D**	Water	05/09/25 13:40	05/10/25 06:51
60474805012	**S-TP-5D**	Water	05/08/25 10:36	05/10/25 06:51
60474805013	**S-TP-6S**	Water	05/08/25 09:32	05/10/25 06:51
60474805014	**S-TP-6D**	Water	05/08/25 08:45	05/10/25 06:51
60474805017	**S-CA-DUP-2**	Water	05/08/25 00:00	05/10/25 06:51
60474805018	**S-CA-FB-1**	Water	05/08/25 08:50	05/10/25 06:51
60474805019	**S-CA-MS-1**	Water	05/08/25 10:36	05/10/25 06:51
60474805020	**S-CA-MSD-1**	Water	05/08/25 10:36	05/10/25 06:51
60474805024	**S-PZ-9D**	Water	05/12/25 12:30	05/14/25 06:45
60474805025	**S-TP-8D**	Water	05/12/25 12:30	05/14/25 06:45
60474805026	**S-CA-FB-2**	Water	05/12/25 13:00	05/14/25 06:45
60474805021	**S-LMW-1S**	Water	05/12/25 15:22	05/14/25 06:45
60474805003	**S-LMW-2S**	Water	05/07/25 16:17	05/09/25 02:07
60474805007	**S-LMW-4S**	Water	05/09/25 14:41	05/10/25 06:51
60474805022	**S-LMW-5S**	Water	05/12/25 10:45	05/14/25 06:45
60474805023	**S-LMW-6S**	Water	05/12/25 13:35	05/14/25 06:45
60474805016	**S-UG-3**	Water	05/08/25 12:10	05/10/25 06:51
60474805001	**S-BMW-1S**	Water	05/07/25 15:05	05/09/25 02:07
60474805002	**S-BMW-3S**	Water	05/07/25 14:10	05/09/25 02:07

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60474805004	**S-AM-1S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805005	**S-AM-1D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805006	**S-CA-DUP-1**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805008	**S-PZ-1S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805009	**S-TP-2D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805010	**S-TP-3D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805011	**S-TP-4D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805012	**S-TP-5D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805013	**S-TP-6S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805014	**S-TP-6D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805017	**S-CA-DUP-2**	EPA 200.7	ARMN	13	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805018	**S-CA-FB-1**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805019	**S-CA-MS-1**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
60474805020	**S-CA-MSD-1**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
60474805024	**S-PZ-9D**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805025	**S-TP-8D**	EPA 200.7	ARMN	13	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805026	**S-CA-FB-2**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805021	**S-LMW-1S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805003	**S-LMW-2S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805007	**S-LMW-4S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805022	**S-LMW-5S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805023	**S-LMW-6S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	BMT	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805016	**S-UG-3**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805001	**S-BMW-1S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60474805002	**S-BMW-3S**	EPA 200.7	ARMN	13	PASI-K
		EPA 200.8	JGP	6	PASI-K
		EPA 7470	MNG	1	PASI-K
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		SM 2320B	EFM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 3500-Fe B#4	DLJ	1	PASI-K
		SM 4500-S-2 D	DLJ	1	PASI-K
		EPA 300.0	MLD	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City
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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1S **Lab ID: 60474805004** Collected: 05/07/25 14:09 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**225**	ug/L	5.0	0.64	1	05/20/25 13:36	06/06/25 17:35	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/06/25 17:35	7440-41-7	
Boron	**440**	ug/L	100	6.4	1	05/20/25 13:36	06/06/25 17:35	7440-42-8	
Calcium	**111000**	ug/L	200	26.9	1	05/20/25 13:36	06/06/25 17:35	7440-70-2	
Cobalt	**7.4**	ug/L	5.0	1.2	1	05/20/25 13:36	06/06/25 17:35	7440-48-4	
Iron	**2230**	ug/L	50.0	9.1	1	05/20/25 13:36	06/06/25 17:35	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/06/25 17:35	7439-92-1	
Lithium	**25.7**	ug/L	10.0	3.7	1	05/20/25 13:36	06/06/25 17:35	7439-93-2	
Magnesium	**23000**	ug/L	50.0	20.1	1	05/20/25 13:36	06/06/25 17:35	7439-95-4	
Manganese	**3670**	ug/L	5.0	0.39	1	05/20/25 13:36	06/06/25 17:35	7439-96-5	
Molybdenum	**34.9**	ug/L	20.0	1.0	1	05/20/25 13:36	06/06/25 17:35	7439-98-7	
Potassium	**8850**	ug/L	500	69.7	1	05/20/25 13:36	06/06/25 17:35	7440-09-7	
Sodium	**22000**	ug/L	500	115	1	05/20/25 13:36	06/06/25 17:35	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:47	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:47	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:47	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:47	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:47	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:20	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**333**	mg/L	20.0	10.5	1		05/16/25 17:16		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**526**	mg/L	10.0	10.0	1		05/13/25 15:28		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**1.2**	mg/L	0.050	0.041	1		06/10/25 14:29	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**1.0**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1S **Lab ID: 60474805004** Collected: 05/07/25 14:09 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**41.9**	mg/L	10.0	5.3	10		06/03/25 08:39	16887-00-6	
Fluoride	**0.34**	mg/L	0.20	0.12	1		06/03/25 08:27	16984-48-8	
Sulfate	**74.0**	mg/L	10.0	5.5	10		06/03/25 08:39	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1D **Lab ID: 60474805005** Collected: 05/07/25 14:49 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**365**	ug/L	5.0	0.64	1	05/20/25 13:36	06/06/25 17:37	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/06/25 17:37	7440-41-7	
Boron	**2180**	ug/L	100	6.4	1	05/20/25 13:36	06/06/25 17:37	7440-42-8	
Calcium	**74200**	ug/L	200	26.9	1	05/20/25 13:36	06/06/25 17:37	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/20/25 13:36	06/06/25 17:37	7440-48-4	
Iron	**2740**	ug/L	50.0	9.1	1	05/20/25 13:36	06/06/25 17:37	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/06/25 17:37	7439-92-1	
Lithium	**30.8**	ug/L	10.0	3.7	1	05/20/25 13:36	06/06/25 17:37	7439-93-2	
Magnesium	**16000**	ug/L	50.0	20.1	1	05/20/25 13:36	06/06/25 17:37	7439-95-4	
Manganese	**352**	ug/L	5.0	0.39	1	05/20/25 13:36	06/06/25 17:37	7439-96-5	
Molybdenum	**174**	ug/L	20.0	1.0	1	05/20/25 13:36	06/06/25 17:37	7439-98-7	
Potassium	**6170**	ug/L	500	69.7	1	05/20/25 13:36	06/06/25 17:37	7440-09-7	
Sodium	**19400**	ug/L	500	115	1	05/20/25 13:36	06/06/25 17:37	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:49	7440-36-0	
Arsenic	**0.15J**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:49	7440-38-2	
Cadmium	**0.053J**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:49	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:49	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:49	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:23	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**283**	mg/L	20.0	10.5	1		05/16/25 17:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**361**	mg/L	10.0	10.0	1		05/13/25 15:28		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/10/25 14:29	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**4.3**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1D **Lab ID: 60474805005** Collected: 05/07/25 14:49 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.016J**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**29.3**	mg/L	10.0	5.3	10		06/03/25 11:27	16887-00-6	
Fluoride	**0.56**	mg/L	0.20	0.12	1		06/03/25 10:29	16984-48-8	
Sulfate	**3.5**	mg/L	1.0	0.55	1		06/03/25 10:29	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-1 **Lab ID: 60474805006** Collected: 05/07/25 08:00 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**384**	ug/L	5.0	0.64	1	05/20/25 13:36	06/13/25 11:29	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/13/25 11:29	7440-41-7	
Boron	**2300**	ug/L	100	6.4	1	05/20/25 13:36	06/13/25 11:29	7440-42-8	
Calcium	**80300**	ug/L	200	26.9	1	05/20/25 13:36	06/13/25 11:29	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/20/25 13:36	06/13/25 11:29	7440-48-4	
Iron	**2980**	ug/L	50.0	9.1	1	05/20/25 13:36	06/13/25 11:29	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/13/25 11:29	7439-92-1	
Lithium	**25.6**	ug/L	10.0	3.7	1	05/20/25 13:36	06/13/25 11:29	7439-93-2	
Magnesium	**17300**	ug/L	50.0	20.1	1	05/20/25 13:36	06/13/25 11:29	7439-95-4	
Manganese	**347**	ug/L	5.0	0.39	1	05/20/25 13:36	06/13/25 11:29	7439-96-5	
Molybdenum	**174**	ug/L	20.0	1.0	1	05/20/25 13:36	06/13/25 11:29	7439-98-7	
Potassium	**6090**	ug/L	500	69.7	1	05/20/25 13:36	06/13/25 11:29	7440-09-7	
Sodium	**20400**	ug/L	500	115	1	05/20/25 13:36	06/13/25 11:29	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:52	7440-36-0	
Arsenic	**0.14J**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:52	7440-38-2	
Cadmium	**0.052J**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:52	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:52	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:52	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:25	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**281**	mg/L	20.0	10.5	1		05/16/25 17:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**355**	mg/L	10.0	10.0	1		05/13/25 15:28		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/16/25 08:34	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**4.3**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-1 **Lab ID: 60474805006** Collected: 05/07/25 08:00 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.018J**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**35.5**	mg/L	20.0	10.5	20		06/03/25 11:50	16887-00-6	
Fluoride	**0.53**	mg/L	0.20	0.12	1		06/03/25 11:39	16984-48-8	
Sulfate	**3.4**	mg/L	1.0	0.55	1		06/03/25 11:39	14808-79-8	

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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-1S **Lab ID: 60474805008** Collected: 05/08/25 10:33 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**117**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:27	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:27	7440-41-7	
Boron	**5660**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:27	7440-42-8	
Calcium	**104000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:27	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:27	7440-48-4	
Iron	**6730**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:27	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:27	7439-92-1	
Lithium	**22.6**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:27	7439-93-2	
Magnesium	**22200**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:27	7439-95-4	
Manganese	**768**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:27	7439-96-5	
Molybdenum	**1440**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:27	7439-98-7	
Potassium	**2120**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:27	7440-09-7	
Sodium	**29400**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:27	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:34	7440-36-0	
Arsenic	**0.29J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:34	7440-38-2	
Cadmium	**0.45J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:34	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:34	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:34	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 11:57	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**358**	mg/L	20.0	10.5	1		05/19/25 20:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**482**	mg/L	10.0	10.0	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**9.3**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-1S **Lab ID: 60474805008** Collected: 05/08/25 10:33 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**17.2**	mg/L	1.0	0.53	1		06/05/25 19:08	16887-00-6	
Fluoride	**0.45**	mg/L	0.20	0.12	1		06/05/25 19:08	16984-48-8	
Sulfate	**50.1**	mg/L	5.0	2.8	5		06/11/25 03:59	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-2D **Lab ID: 60474805009** Collected: 05/09/25 09:31 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**61.6**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:29	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:29	7440-41-7	
Boron	**95.4J**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:29	7440-42-8	
Calcium	**282000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:29	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:29	7440-48-4	
Iron	**17300**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:29	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:29	7439-92-1	
Lithium	**48.0**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:29	7439-93-2	
Magnesium	**72500**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:29	7439-95-4	
Manganese	**1240**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:29	7439-96-5	
Molybdenum	**2.5J**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:29	7439-98-7	
Potassium	**6290**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:29	7440-09-7	
Sodium	**21700**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:29	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:40	7440-36-0	
Arsenic	**0.17J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:40	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:40	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:40	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:40	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:00	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**483**	mg/L	20.0	10.5	1		05/20/25 00:16		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1320**	mg/L	20.0	20.0	1		05/15/25 16:59		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**22.6**	mg/L	1.0	0.20	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-2D **Lab ID: 60474805009** Collected: 05/09/25 09:31 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**72.1**	mg/L	20.0	10.5	20		06/11/25 08:07	16887-00-6	B,H1
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/11/25 07:54	16984-48-8	H1
Sulfate	**486**	mg/L	50.0	27.5	50		06/12/25 05:40	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-3D **Lab ID: 60474805010** Collected: 05/09/25 12:35 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**581**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:31	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:31	7440-41-7	
Boron	**57.5J**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:31	7440-42-8	
Calcium	**122000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:31	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:31	7440-48-4	
Iron	**8100**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:31	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:31	7439-92-1	
Lithium	**36.0**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:31	7439-93-2	
Magnesium	**29600**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:31	7439-95-4	
Manganese	**682**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:31	7439-96-5	
Molybdenum	**1.7J**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:31	7439-98-7	
Potassium	**4160**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:31	7440-09-7	
Sodium	**6970**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:31	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:43	7440-36-0	
Arsenic	**0.14J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:43	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:43	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:43	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:43	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:43	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:02	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**379**	mg/L	20.0	10.5	1		05/20/25 00:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**527**	mg/L	10.0	10.0	1		05/15/25 16:59		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**11.2**	mg/L	0.50	0.10	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-3D **Lab ID: 60474805010** Collected: 05/09/25 12:35 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**7.6**	mg/L	1.0	0.53	1		06/11/25 08:21	16887-00-6	H1
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/11/25 08:21	16984-48-8	H1
Sulfate	**83.8**	mg/L	20.0	11.0	20		06/11/25 08:35	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-4D **Lab ID: 60474805011** Collected: 05/09/25 13:40 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**484**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:34	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:34	7440-41-7	
Boron	**62.5J**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:34	7440-42-8	
Calcium	**121000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:34	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:34	7440-48-4	
Iron	**6820**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:34	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:34	7439-92-1	
Lithium	**35.3**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:34	7439-93-2	
Magnesium	**28500**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:34	7439-95-4	
Manganese	**455**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:34	7439-96-5	
Molybdenum	**4.0J**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:34	7439-98-7	
Potassium	**3520**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:34	7440-09-7	
Sodium	**7140**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:34	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:45	7440-36-0	
Arsenic	**1.9**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:45	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:45	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:45	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:45	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:04	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**323**	mg/L	20.0	10.5	1		05/20/25 00:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**569**	mg/L	10.0	10.0	1		05/15/25 16:59		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**9.5**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-4D **Lab ID: 60474805011** Collected: 05/09/25 13:40 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**0.018J**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**9.1**	mg/L	1.0	0.53	1		06/11/25 08:48	16887-00-6	H1
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/11/25 08:48	16984-48-8	H1
Sulfate	**120**	mg/L	20.0	11.0	20		06/11/25 09:02	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-5D **Lab ID: 60474805012** Collected: 05/08/25 10:36 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**196**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:31	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:31	7440-41-7	
Boron	**7270**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:31	7440-42-8	
Calcium	**147000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:31	7440-70-2	M1,P6
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:31	7440-48-4	
Iron	**10100**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:31	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:31	7439-92-1	
Lithium	**29.1**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:31	7439-93-2	
Magnesium	**36800**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:31	7439-95-4	
Manganese	**1060**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:31	7439-96-5	
Molybdenum	**450**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:31	7439-98-7	
Potassium	**5090**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:31	7440-09-7	
Sodium	**35100**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:31	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:00	7440-36-0	
Arsenic	**0.27J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:00	7440-38-2	
Cadmium	**0.16J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:00	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:00	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:00	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 12:29	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**305**	mg/L	20.0	10.5	1		05/19/25 20:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**749**	mg/L	13.3	13.3	1		05/14/25 16:09		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**13.4**	mg/L	0.50	0.10	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-5D **Lab ID: 60474805012** Collected: 05/08/25 10:36 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**42.4**	mg/L	20.0	10.5	20		06/03/25 23:14	16887-00-6	B
Fluoride	**0.16J**	mg/L	0.20	0.12	1		06/03/25 22:19	16984-48-8	
Sulfate	**237**	mg/L	20.0	11.0	20		06/03/25 23:14	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6S **Lab ID: 60474805013** Collected: 05/08/25 09:32 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**270**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:36	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:36	7440-41-7	
Boron	**112**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:36	7440-42-8	B
Calcium	**133000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:36	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:36	7440-48-4	
Iron	**205**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:36	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:36	7439-92-1	
Lithium	**33.3**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:36	7439-93-2	
Magnesium	**28400**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:36	7439-95-4	
Manganese	**273**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:36	7439-96-5	
Molybdenum	**8.0J**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:36	7439-98-7	
Potassium	**2290**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:36	7440-09-7	
Sodium	**5470**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:36	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:11	7440-36-0	
Arsenic	**0.64J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:11	7440-38-2	
Cadmium	**0.066J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:11	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:11	7440-47-3	
Selenium	**0.18J**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:11	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:11	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**436**	mg/L	20.0	10.5	1		05/19/25 20:46		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**498**	mg/L	10.0	10.0	1		05/14/25 16:10		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**0.059**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**0.15J**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6S **Lab ID: 60474805013** Collected: 05/08/25 09:32 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**8.1**	mg/L	1.0	0.53	1		06/04/25 00:10	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/04/25 00:10	16984-48-8	
Sulfate	**35.3**	mg/L	10.0	5.5	10		06/04/25 00:51	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6D **Lab ID: 60474805014** Collected: 05/08/25 08:45 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**395**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:38	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:38	7440-41-7	
Boron	**68.9J**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:38	7440-42-8	B
Calcium	**122000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:38	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:38	7440-48-4	
Iron	**7660**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:38	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:38	7439-92-1	
Lithium	**22.8**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:38	7439-93-2	
Magnesium	**30500**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:38	7439-95-4	
Manganese	**482**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:38	7439-96-5	
Molybdenum	**2.8J**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:38	7439-98-7	
Potassium	**3620**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:38	7440-09-7	
Sodium	**5160**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:38	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:14	7440-36-0	
Arsenic	**<0.13**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:14	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:14	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:14	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:14	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:14	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**365**	mg/L	20.0	10.5	1		05/19/25 21:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**471**	mg/L	10.0	10.0	1		05/14/25 16:10		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**9.6**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6D **Lab ID: 60474805014** Collected: 05/08/25 08:45 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**13.6**	mg/L	1.0	0.53	1		06/04/25 01:05	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/04/25 01:05	16984-48-8	
Sulfate	**56.7**	mg/L	10.0	5.5	10		06/04/25 01:19	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-2 **Lab ID: 60474805017** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**284**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:42	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:42	7440-41-7	
Boron	**103**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:42	7440-42-8	B
Calcium	**140000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:42	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:42	7440-48-4	
Iron	**231**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:42	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:42	7439-92-1	
Lithium	**31.7**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:42	7439-93-2	
Magnesium	**29900**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:42	7439-95-4	
Manganese	**274**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:42	7439-96-5	
Molybdenum	**4.1J**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:42	7439-98-7	
Potassium	**2310**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:42	7440-09-7	
Sodium	**5700**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:42	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:19	7440-36-0	
Arsenic	**0.64J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:19	7440-38-2	
Cadmium	**0.064J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:19	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:19	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:19	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:18	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**435**	mg/L	20.0	10.5	1		05/19/25 21:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**501**	mg/L	10.0	10.0	1		05/14/25 16:10		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**0.22**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-2 **Lab ID: 60474805017** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**8.0**	mg/L	1.0	0.53	1		06/04/25 02:00	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/04/25 02:00	16984-48-8	
Sulfate	**35.5**	mg/L	10.0	5.5	10		06/04/25 02:14	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-1 **Lab ID: 60474805018** Collected: 05/08/25 08:50 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**<0.64**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:49	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:49	7440-41-7	
Boron	**<6.4**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:49	7440-42-8	
Calcium	**<26.9**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:49	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:49	7440-48-4	
Iron	**<9.1**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:49	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:49	7439-92-1	
Lithium	**<3.7**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:49	7439-93-2	
Magnesium	**<20.1**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:49	7439-95-4	
Manganese	**<0.39**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:49	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:49	7439-98-7	
Potassium	**<69.7**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:49	7440-09-7	
Sodium	**<115**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:49	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:25	7440-36-0	
Arsenic	**<0.13**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:25	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:25	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:25	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:25	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 13:31	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		05/19/25 21:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		05/14/25 16:10		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-1 **Lab ID: 60474805018** Collected: 05/08/25 08:50 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**0.62J**	mg/L	1.0	0.53	1		06/04/25 02:28	16887-00-6	B
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/04/25 02:28	16984-48-8	
Sulfate	**<0.55**	mg/L	1.0	0.55	1		06/04/25 02:28	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-9D **Lab ID: 60474805024** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**85.0**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:42	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:42	7440-41-7	
Boron	**1800**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:42	7440-42-8	
Calcium	**86900**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:42	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:42	7440-48-4	
Iron	**4950**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:42	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:42	7439-92-1	
Lithium	**16.7**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:42	7439-93-2	
Magnesium	**21400**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:42	7439-95-4	
Manganese	**554**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:42	7439-96-5	
Molybdenum	**19.9J**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:42	7439-98-7	
Potassium	**3180**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:42	7440-09-7	
Sodium	**10500**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:42	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:51	7440-36-0	
Arsenic	**0.41J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:51	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:51	7440-43-9	
Chromium	**0.35J**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:51	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:51	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:51	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:10	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**231**	mg/L	20.0	10.5	1		05/20/25 17:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**404**	mg/L	10.0	10.0	1		05/19/25 15:04		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**6.5**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-9D **Lab ID: 60474805024** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**4.2**	mg/L	1.0	0.53	1		06/07/25 13:32	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 13:32	16984-48-8	
Sulfate	**107**	mg/L	20.0	11.0	20		06/07/25 13:45	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-8D **Lab ID: 60474805025** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**376**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:49	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:49	7440-41-7	
Boron	**77.2J**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:49	7440-42-8	
Calcium	**118000**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:49	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:49	7440-48-4	
Iron	**6350**	ug/L	50.0	15.4	1	05/23/25 09:30	06/23/25 13:53	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:49	7439-92-1	
Lithium	**28.3**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:49	7439-93-2	
Magnesium	**25900**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:49	7439-95-4	
Manganese	**458**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:49	7439-96-5	
Molybdenum	**1.6J**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:49	7439-98-7	
Potassium	**3550**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:49	7440-09-7	
Sodium	**6300**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:49	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:53	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:53	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:53	7440-43-9	
Chromium	**0.39J**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:53	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:53	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:15	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**350**	mg/L	20.0	10.5	1		05/20/25 17:28		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**441**	mg/L	10.0	10.0	1		05/19/25 15:04		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/24/25 09:30	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**8.7**	mg/L	0.40	0.082	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-8D **Lab ID: 60474805025** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**14.3**	mg/L	1.0	0.53	1		06/07/25 13:58	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 13:58	16984-48-8	
Sulfate	**42.1**	mg/L	10.0	5.5	10		06/07/25 14:11	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-2 **Lab ID: 60474805026** Collected: 05/12/25 13:00 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**<0.64**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:51	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:51	7440-41-7	
Boron	**<6.4**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:51	7440-42-8	
Calcium	**<26.9**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:51	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:51	7440-48-4	
Iron	**<9.1**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:51	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:51	7439-92-1	
Lithium	**<3.7**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:51	7439-93-2	
Magnesium	**<20.1**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:51	7439-95-4	
Manganese	**<0.39**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:51	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:51	7439-98-7	
Potassium	**<69.7**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:51	7440-09-7	
Sodium	**<115**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:51	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:56	7440-36-0	
Arsenic	**<0.13**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:56	7440-38-2	
Cadmium	**<0.050**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:56	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:56	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:56	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:20	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		05/20/25 17:31		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		05/19/25 15:04		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/22/25 14:16	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-2 **Lab ID: 60474805026** Collected: 05/12/25 13:00 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**0.55J**	mg/L	1.0	0.53	1		06/07/25 14:24	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 14:24	16984-48-8	
Sulfate	**<0.55**	mg/L	1.0	0.55	1		06/07/25 14:24	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-1S **Lab ID: 60474805021** Collected: 05/12/25 15:22 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**259**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:37	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:37	7440-41-7	
Boron	**900**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:37	7440-42-8	
Calcium	**130000**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:37	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:37	7440-48-4	
Iron	**84.0**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:37	7439-89-6	B
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:37	7439-92-1	
Lithium	**24.0**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:37	7439-93-2	
Magnesium	**29300**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:37	7439-95-4	
Manganese	**66.4**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:37	7439-96-5	
Molybdenum	**120**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:37	7439-98-7	
Potassium	**11000**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:37	7440-09-7	
Sodium	**60400**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:37	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.38J**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:33	7440-36-0	
Arsenic	**2.0**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:33	7440-38-2	
Cadmium	**0.083J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:33	7440-43-9	
Chromium	**1.2**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:33	7440-47-3	
Selenium	**4.0**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:33	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:03	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**325**	mg/L	20.0	10.5	1		05/20/25 16:44		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**691**	mg/L	13.3	13.3	1		05/19/25 15:03		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**0.068**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/22/25 14:16	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-1S **Lab ID: 60474805021** Collected: 05/12/25 15:22 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**130**	mg/L	20.0	10.5	20		06/07/25 12:00	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 11:47	16984-48-8	
Sulfate	**93.6**	mg/L	20.0	11.0	20		06/07/25 12:00	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-2S **Lab ID: 60474805003** Collected: 05/07/25 16:17 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**99.5**	ug/L	5.0	0.64	1	05/20/25 13:36	06/06/25 17:31	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/20/25 13:36	06/06/25 17:31	7440-41-7	
Boron	**8970**	ug/L	100	6.4	1	05/20/25 13:36	06/06/25 17:31	7440-42-8	
Calcium	**169000**	ug/L	200	26.9	1	05/20/25 13:36	06/06/25 17:31	7440-70-2	M1,P6
Cobalt	**2.9J**	ug/L	5.0	1.2	1	05/20/25 13:36	06/06/25 17:31	7440-48-4	
Iron	**35.1J**	ug/L	50.0	9.1	1	05/20/25 13:36	06/06/25 17:31	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/20/25 13:36	06/06/25 17:31	7439-92-1	
Lithium	**29.5**	ug/L	10.0	3.7	1	05/20/25 13:36	06/06/25 17:31	7439-93-2	
Magnesium	**30800**	ug/L	50.0	20.1	1	05/20/25 13:36	06/06/25 17:31	7439-95-4	
Manganese	**376**	ug/L	5.0	0.39	1	05/20/25 13:36	06/06/25 17:31	7439-96-5	
Molybdenum	**920**	ug/L	20.0	1.0	1	05/20/25 13:36	06/06/25 17:31	7439-98-7	
Potassium	**6060**	ug/L	500	69.7	1	05/20/25 13:36	06/06/25 17:31	7440-09-7	
Sodium	**69800**	ug/L	500	115	1	05/20/25 13:36	06/06/25 17:31	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.17J**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:44	7440-36-0	
Arsenic	**0.85J**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:44	7440-38-2	
Cadmium	**0.61**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:44	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:44	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:44	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:18	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**333**	mg/L	20.0	10.5	1		05/16/25 17:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**946**	mg/L	20.0	20.0	1		05/13/25 15:28		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/10/25 14:29	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**0.044J**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-2S **Lab ID: 60474805003** Collected: 05/07/25 16:17 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**128**	mg/L	20.0	10.5	20		06/03/25 08:16	16887-00-6	
Fluoride	**0.17J**	mg/L	0.20	0.12	1		06/03/25 00:18	16984-48-8	
Sulfate	**219**	mg/L	20.0	11.0	20		06/03/25 08:16	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-4S **Lab ID: 60474805007** Collected: 05/09/25 14:41 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**299**	ug/L	5.0	0.64	1	05/22/25 11:08	06/05/25 11:25	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 11:08	06/05/25 11:25	7440-41-7	
Boron	**216**	ug/L	100	6.4	1	05/22/25 11:08	06/05/25 11:25	7440-42-8	
Calcium	**230000**	ug/L	200	26.9	1	05/22/25 11:08	06/05/25 11:25	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/22/25 11:08	06/05/25 11:25	7440-48-4	
Iron	**13.7J**	ug/L	50.0	9.1	1	05/22/25 11:08	06/05/25 11:25	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 11:08	06/05/25 11:25	7439-92-1	
Lithium	**30.7**	ug/L	10.0	3.7	1	05/22/25 11:08	06/05/25 11:25	7439-93-2	
Magnesium	**54900**	ug/L	50.0	20.1	1	05/22/25 11:08	06/05/25 11:25	7439-95-4	
Manganese	**131**	ug/L	5.0	0.39	1	05/22/25 11:08	06/05/25 11:25	7439-96-5	
Molybdenum	**<1.0**	ug/L	20.0	1.0	1	05/22/25 11:08	06/05/25 11:25	7439-98-7	
Potassium	**5600**	ug/L	500	69.7	1	05/22/25 11:08	06/05/25 11:25	7440-09-7	
Sodium	**10300**	ug/L	500	115	1	05/22/25 11:08	06/05/25 11:25	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 16:31	7440-36-0	
Arsenic	**0.61J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 16:31	7440-38-2	
Cadmium	**0.085J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 16:31	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 16:31	7440-47-3	
Selenium	**0.43J**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 16:31	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 16:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 11:55	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**800**	mg/L	20.0	10.5	1		05/20/25 00:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**878**	mg/L	20.0	20.0	1		05/15/25 16:59		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-4S **Lab ID: 60474805007** Collected: 05/09/25 14:41 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**2.6**	mg/L	1.0	0.53	1		06/11/25 07:02	16887-00-6	B,H1
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/11/25 07:02	16984-48-8	H1
Sulfate	**31.2**	mg/L	10.0	5.5	10		06/11/25 07:15	14808-79-8	H1

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-5S **Lab ID: 60474805022** Collected: 05/12/25 10:45 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**36.1**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:39	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:39	7440-41-7	
Boron	**18000**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:39	7440-42-8	
Calcium	**221000**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:39	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:39	7440-48-4	
Iron	**26.5J**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:39	7439-89-6	B
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:39	7439-92-1	
Lithium	**34.1**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:39	7439-93-2	
Magnesium	**39200**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:39	7439-95-4	
Manganese	**1570**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:39	7439-96-5	
Molybdenum	**1670**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:39	7439-98-7	
Potassium	**4020**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:39	7440-09-7	
Sodium	**204000**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:39	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.15J**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:39	7440-36-0	
Arsenic	**0.79J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:39	7440-38-2	
Cadmium	**0.84**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:39	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:39	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:39	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:05	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**317**	mg/L	20.0	10.5	1		05/20/25 16:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1700**	mg/L	40.0	40.0	1		05/19/25 15:04		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-5S **Lab ID: 60474805022** Collected: 05/12/25 10:45 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**9.7**	mg/L	1.0	0.53	1		06/07/25 12:13	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 12:13	16984-48-8	
Sulfate	**113**	mg/L	100	55.0	100		06/07/25 12:26	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-6S **Lab ID: 60474805023** Collected: 05/12/25 13:35 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**45.5**	ug/L	5.0	0.64	1	05/23/25 09:30	06/02/25 14:40	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/23/25 09:30	06/02/25 14:40	7440-41-7	
Boron	**16700**	ug/L	100	6.4	1	05/23/25 09:30	06/02/25 14:40	7440-42-8	
Calcium	**248000**	ug/L	200	26.9	1	05/23/25 09:30	06/02/25 14:40	7440-70-2	
Cobalt	**7.9**	ug/L	5.0	1.2	1	05/23/25 09:30	06/02/25 14:40	7440-48-4	
Iron	**14.4J**	ug/L	50.0	9.1	1	05/23/25 09:30	06/02/25 14:40	7439-89-6	B
Lead	**<3.8**	ug/L	10.0	3.8	1	05/23/25 09:30	06/02/25 14:40	7439-92-1	
Lithium	**17.0**	ug/L	10.0	3.7	1	05/23/25 09:30	06/02/25 14:40	7439-93-2	
Magnesium	**54000**	ug/L	50.0	20.1	1	05/23/25 09:30	06/02/25 14:40	7439-95-4	
Manganese	**431**	ug/L	5.0	0.39	1	05/23/25 09:30	06/02/25 14:40	7439-96-5	
Molybdenum	**6.7J**	ug/L	20.0	1.0	1	05/23/25 09:30	06/02/25 14:40	7439-98-7	
Potassium	**4280**	ug/L	500	69.7	1	05/23/25 09:30	06/02/25 14:40	7440-09-7	
Sodium	**71200**	ug/L	500	115	1	05/23/25 09:30	06/02/25 14:40	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.21J**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:42	7440-36-0	
Arsenic	**0.73J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:42	7440-38-2	
Cadmium	**0.63**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:42	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:42	7440-47-3	
Selenium	**<0.18**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:42	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/27/25 14:41	05/28/25 13:08	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**526**	mg/L	20.0	10.5	1		05/20/25 17:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1310**	mg/L	20.0	20.0	1		05/19/25 15:04		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/07/25 11:32	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/22/25 14:16	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-6S **Lab ID: 60474805023** Collected: 05/12/25 13:35 Received: 05/14/25 06:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/17/25 13:35	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**3.5**	mg/L	1.0	0.53	1		06/07/25 12:39	16887-00-6	
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/07/25 12:39	16984-48-8	
Sulfate	**684**	mg/L	500	275	500		06/07/25 13:19	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-UG-3 **Lab ID: 60474805016** Collected: 05/08/25 12:10 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**211**	ug/L	5.0	0.64	1	05/22/25 06:12	06/03/25 15:40	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/22/25 06:12	06/03/25 15:40	7440-41-7	
Boron	**282**	ug/L	100	6.4	1	05/22/25 06:12	06/03/25 15:40	7440-42-8	
Calcium	**137000**	ug/L	200	26.9	1	05/22/25 06:12	06/03/25 15:40	7440-70-2	
Cobalt	**1.8J**	ug/L	5.0	1.2	1	05/22/25 06:12	06/03/25 15:40	7440-48-4	
Iron	**<9.1**	ug/L	50.0	9.1	1	05/22/25 06:12	06/03/25 15:40	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/22/25 06:12	06/03/25 15:40	7439-92-1	
Lithium	**22.6**	ug/L	10.0	3.7	1	05/22/25 06:12	06/03/25 15:40	7439-93-2	
Magnesium	**26600**	ug/L	50.0	20.1	1	05/22/25 06:12	06/03/25 15:40	7439-95-4	
Manganese	**414**	ug/L	5.0	0.39	1	05/22/25 06:12	06/03/25 15:40	7439-96-5	
Molybdenum	**4.2J**	ug/L	20.0	1.0	1	05/22/25 06:12	06/03/25 15:40	7439-98-7	
Potassium	**4020**	ug/L	500	69.7	1	05/22/25 06:12	06/03/25 15:40	7440-09-7	
Sodium	**18500**	ug/L	500	115	1	05/22/25 06:12	06/03/25 15:40	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.15J**	ug/L	1.0	0.12	1	05/22/25 14:25	06/02/25 17:16	7440-36-0	
Arsenic	**0.40J**	ug/L	1.0	0.13	1	05/22/25 14:25	06/02/25 17:16	7440-38-2	
Cadmium	**0.21J**	ug/L	0.50	0.050	1	05/22/25 14:25	06/02/25 17:16	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/22/25 14:25	06/02/25 17:16	7440-47-3	
Selenium	**2.6**	ug/L	1.0	0.18	1	05/22/25 14:25	06/02/25 17:16	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/22/25 14:25	06/02/25 17:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/30/25 14:57	06/02/25 12:16	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**379**	mg/L	20.0	10.5	1		05/19/25 21:11		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**576**	mg/L	10.0	10.0	1		05/14/25 16:10		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/05/25 09:33	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/16/25 13:45	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-UG-3 **Lab ID: 60474805016** Collected: 05/08/25 12:10 Received: 05/10/25 06:51 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/15/25 14:02	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**24.8**	mg/L	10.0	5.3	10		06/04/25 01:47	16887-00-6	B
Fluoride	**<0.12**	mg/L	0.20	0.12	1		06/04/25 01:33	16984-48-8	
Sulfate	**89.7**	mg/L	10.0	5.5	10		06/04/25 01:47	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-1S **Lab ID: 60474805001** Collected: 05/07/25 15:05 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**178**	ug/L	5.0	0.64	1	05/21/25 10:30	06/03/25 17:57	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/21/25 10:30	06/03/25 17:57	7440-41-7	
Boron	**56.5J**	ug/L	100	6.4	1	05/21/25 10:30	06/03/25 17:57	7440-42-8	
Calcium	**177000**	ug/L	200	26.9	1	05/21/25 10:30	06/03/25 17:57	7440-70-2	M1,P6
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/21/25 10:30	06/03/25 17:57	7440-48-4	
Iron	**38.1J**	ug/L	50.0	9.1	1	05/21/25 10:30	06/03/25 17:57	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/21/25 10:30	06/03/25 17:57	7439-92-1	
Lithium	**6.2J**	ug/L	10.0	3.7	1	05/21/25 10:30	06/03/25 17:57	7439-93-2	
Magnesium	**35100**	ug/L	50.0	20.1	1	05/21/25 10:30	06/03/25 17:57	7439-95-4	
Manganese	**749**	ug/L	5.0	0.39	1	05/21/25 10:30	06/03/25 17:57	7439-96-5	
Molybdenum	**5.2J**	ug/L	20.0	1.0	1	05/21/25 10:30	06/03/25 17:57	7439-98-7	
Potassium	**479J**	ug/L	500	69.7	1	05/21/25 10:30	06/03/25 17:57	7440-09-7	
Sodium	**5540**	ug/L	500	115	1	05/21/25 10:30	06/03/25 17:57	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**0.13J**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:35	7440-36-0	
Arsenic	**1.0**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:35	7440-38-2	
Cadmium	**0.062J**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:35	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:35	7440-47-3	
Selenium	**0.22J**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:35	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:35	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:13	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**555**	mg/L	20.0	10.5	1		05/16/25 16:37		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**615**	mg/L	13.3	13.3	1		05/13/25 15:27		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-1S **Lab ID: 60474805001** Collected: 05/07/25 15:05 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**11.4**	mg/L	1.0	0.53	1		06/02/25 23:31	16887-00-6	
Fluoride	**0.26**	mg/L	0.20	0.12	1		06/02/25 23:31	16984-48-8	
Sulfate	**35.1**	mg/L	10.0	5.5	10		06/02/25 23:43	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-3S **Lab ID: 60474805002** Collected: 05/07/25 14:10 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**111**	ug/L	5.0	0.64	1	05/21/25 10:30	06/03/25 18:03	7440-39-3	
Beryllium	**<0.12**	ug/L	1.0	0.12	1	05/21/25 10:30	06/03/25 18:03	7440-41-7	
Boron	**55.1J**	ug/L	100	6.4	1	05/21/25 10:30	06/03/25 18:03	7440-42-8	
Calcium	**129000**	ug/L	200	26.9	1	05/21/25 10:30	06/03/25 18:03	7440-70-2	
Cobalt	**<1.2**	ug/L	5.0	1.2	1	05/21/25 10:30	06/03/25 18:03	7440-48-4	
Iron	**<9.1**	ug/L	50.0	9.1	1	05/21/25 10:30	06/03/25 18:03	7439-89-6	
Lead	**<3.8**	ug/L	10.0	3.8	1	05/21/25 10:30	06/03/25 18:03	7439-92-1	
Lithium	**8.7J**	ug/L	10.0	3.7	1	05/21/25 10:30	06/03/25 18:03	7439-93-2	
Magnesium	**22700**	ug/L	50.0	20.1	1	05/21/25 10:30	06/03/25 18:03	7439-95-4	
Manganese	**249**	ug/L	5.0	0.39	1	05/21/25 10:30	06/03/25 18:03	7439-96-5	
Molybdenum	**5.2J**	ug/L	20.0	1.0	1	05/21/25 10:30	06/03/25 18:03	7439-98-7	
Potassium	**436J**	ug/L	500	69.7	1	05/21/25 10:30	06/03/25 18:03	7440-09-7	
Sodium	**6420**	ug/L	500	115	1	05/21/25 10:30	06/03/25 18:03	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Antimony	**<0.12**	ug/L	1.0	0.12	1	05/21/25 14:27	06/02/25 15:38	7440-36-0	
Arsenic	**0.64J**	ug/L	1.0	0.13	1	05/21/25 14:27	06/02/25 15:38	7440-38-2	
Cadmium	**0.065J**	ug/L	0.50	0.050	1	05/21/25 14:27	06/02/25 15:38	7440-43-9	
Chromium	**<0.30**	ug/L	1.0	0.30	1	05/21/25 14:27	06/02/25 15:38	7440-47-3	
Selenium	**0.28J**	ug/L	1.0	0.18	1	05/21/25 14:27	06/02/25 15:38	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	05/21/25 14:27	06/02/25 15:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Kansas City								
Mercury	**<0.096**	ug/L	0.20	0.096	1	05/21/25 14:19	05/22/25 12:16	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**375**	mg/L	20.0	10.5	1		05/16/25 17:04		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**449**	mg/L	10.0	10.0	1		05/13/25 15:28		
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferric	**<0.041**	mg/L	0.050	0.041	1		06/06/25 16:22	20074-52-6	
Iron, Ferrous	Analytical Method: SM 3500-Fe B#4 Pace Analytical Services - Kansas City								
Iron, Ferrous	**<0.041**	mg/L	0.20	0.041	1		05/13/25 09:40	15438-31-0	H6

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-3S **Lab ID: 60474805002** Collected: 05/07/25 14:10 Received: 05/09/25 02:07 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total	Analytical Method: SM 4500-S-2 D Pace Analytical Services - Kansas City								
Sulfide, Total	**<0.016**	mg/L	0.050	0.016	1		05/14/25 14:11	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**10.6**	mg/L	1.0	0.53	1		06/02/25 23:55	16887-00-6	
Fluoride	**0.30**	mg/L	0.20	0.12	1		06/02/25 23:55	16984-48-8	
Sulfate	**24.5**	mg/L	10.0	5.5	10		06/03/25 00:07	14808-79-8	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935966
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3710066 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/22/25 11:28	

LABORATORY CONTROL SAMPLE: 3710067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710068 3710069

Parameter	Units	60474705003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.7	94	95	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935967
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805018

METHOD BLANK: 3710070 Matrix: Water
Associated Lab Samples: 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/22/25 12:34	

LABORATORY CONTROL SAMPLE: 3710071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710072 3710073

Parameter	Units	60475296001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.7	94	94	75-125	0	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936500
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805012, 60474805021, 60474805022, 60474805023, 60474805024, 60474805025

METHOD BLANK: 3712559 Matrix: Water
Associated Lab Samples: 60474805012, 60474805021, 60474805022, 60474805023, 60474805024, 60474805025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	05/28/25 12:13	

LABORATORY CONTROL SAMPLE: 3712560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712561 3712562

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	4.9	5.1	98	101	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712563 3712564

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	5.1	5.2	102	104	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3712565 3712566

Parameter	Units	60475407009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.2	4.3	85	85	75-125	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936973
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805013, 60474805014, 60474805016, 60474805017, 60474805026

METHOD BLANK: 3714518 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805013, 60474805014, 60474805016, 60474805017, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.096	0.20	0.096	06/02/25 11:37	

LABORATORY CONTROL SAMPLE: 3714519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3714520 3714521

Parameter	Units	60474802007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.096	5	5	4.5	4.7	91	93	75-125	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935770
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3709216 Matrix: Water
Associated Lab Samples: 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	1.1J	5.0	0.64	06/06/25 17:00	
Beryllium	ug/L	<0.12	1.0	0.12	06/06/25 17:00	
Boron	ug/L	<6.4	100	6.4	06/06/25 17:00	
Calcium	ug/L	<26.9	200	26.9	06/06/25 17:00	
Cobalt	ug/L	<1.2	5.0	1.2	06/06/25 17:00	
Iron	ug/L	<9.1	50.0	9.1	06/06/25 17:00	
Lead	ug/L	<3.8	10.0	3.8	06/06/25 17:00	
Lithium	ug/L	<3.7	10.0	3.7	06/06/25 17:00	
Magnesium	ug/L	<20.1	50.0	20.1	06/06/25 17:00	
Manganese	ug/L	<0.39	5.0	0.39	06/06/25 17:00	
Molybdenum	ug/L	<1.0	20.0	1.0	06/06/25 17:00	
Potassium	ug/L	118J	500	69.7	06/06/25 17:00	
Sodium	ug/L	138J	500	115	06/06/25 17:00	

LABORATORY CONTROL SAMPLE: 3709217

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1800	1680	93	85-115	
Beryllium	ug/L	1800	1660	92	85-115	
Boron	ug/L	1800	1600	89	85-115	
Calcium	ug/L	18000	16900	94	85-115	
Cobalt	ug/L	1800	1730	96	85-115	
Iron	ug/L	18000	16600	92	85-115	
Lead	ug/L	1800	1680	93	85-115	
Lithium	ug/L	1800	1680	94	85-115	
Magnesium	ug/L	18000	16500	92	85-115	
Manganese	ug/L	1800	1700	94	85-115	
Molybdenum	ug/L	1800	1690	94	85-115	
Potassium	ug/L	18000	16800	93	85-115	
Sodium	ug/L	18000	16700	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709218 3709219

Parameter	Units	60474407003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	53.4	1000	1000	1020	994	96	94	70-130	2	20	
Beryllium	ug/L	ND	1000	1000	979	1030	98	103	70-130	6	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709218 3709219

Parameter	Units	60474407003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	ND	1000	1000	1010	1000	92	92	70-130	1	20	
Calcium	ug/L	59200	10000	10000	70000	68500	108	93	70-130	2	20	
Cobalt	ug/L	ND	1000	1000	967	1020	97	102	70-130	6	20	
Iron	ug/L	ND	10000	10000	9730	9520	97	95	70-130	2	20	
Lead	ug/L	ND	1000	1000	945	968	94	97	70-130	2	20	
Lithium	ug/L	12.2	1000	1000	957	936	94	92	70-130	2	20	
Magnesium	ug/L	19300	10000	10000	29200	28600	99	92	70-130	2	20	
Manganese	ug/L	10.5	1000	1000	980	1030	97	102	70-130	5	20	
Molybdenum	ug/L	ND	1000	1000	973	1030	97	102	70-130	5	20	
Potassium	ug/L	8290	10000	10000	17900	18000	96	97	70-130	0	20	
Sodium	ug/L	63700	10000	10000	74300	72900	106	92	70-130	2	20	

MATRIX SPIKE SAMPLE: 3709222

Parameter	Units	60474805003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	99.5	2000	1970	94	70-130	
Beryllium	ug/L	<0.12	2000	2000	100	70-130	
Boron	ug/L	8970	2000	10500	77	70-130	
Calcium	ug/L	169000	20000	180000	56	70-130	M1
Cobalt	ug/L	2.9J	2000	2000	100	70-130	
Iron	ug/L	35.1J	20000	18900	94	70-130	
Lead	ug/L	<3.8	2000	1910	95	70-130	
Lithium	ug/L	29.5	2000	1900	94	70-130	
Magnesium	ug/L	30800	20000	47900	85	70-130	
Manganese	ug/L	376	2000	2390	101	70-130	
Molybdenum	ug/L	920	2000	2990	103	70-130	
Potassium	ug/L	6060	20000	25300	96	70-130	
Sodium	ug/L	69800	20000	86500	84	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935894
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002

METHOD BLANK: 3709607 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/03/25 17:53	
Beryllium	ug/L	<0.12	1.0	0.12	06/03/25 17:53	
Boron	ug/L	<6.4	100	6.4	06/03/25 17:53	
Calcium	ug/L	<26.9	200	26.9	06/03/25 17:53	
Cobalt	ug/L	<1.2	5.0	1.2	06/03/25 17:53	
Iron	ug/L	<9.1	50.0	9.1	06/03/25 17:53	
Lead	ug/L	<3.8	10.0	3.8	06/03/25 17:53	
Lithium	ug/L	<3.7	10.0	3.7	06/03/25 17:53	
Magnesium	ug/L	<20.1	50.0	20.1	06/03/25 17:53	
Manganese	ug/L	<0.39	5.0	0.39	06/03/25 17:53	
Molybdenum	ug/L	<1.0	20.0	1.0	06/03/25 17:53	
Potassium	ug/L	<69.7	500	69.7	06/03/25 17:53	
Sodium	ug/L	<115	500	115	06/03/25 17:53	

LABORATORY CONTROL SAMPLE: 3709608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	977	98	85-115	
Beryllium	ug/L	1000	925	93	85-115	
Boron	ug/L	1000	915	92	85-115	
Calcium	ug/L	10000	10000	100	85-115	
Cobalt	ug/L	1000	959	96	85-115	
Iron	ug/L	10000	10100	101	85-115	
Lead	ug/L	1000	964	96	85-115	
Lithium	ug/L	1000	932	93	85-115	
Magnesium	ug/L	10000	9660	97	85-115	
Manganese	ug/L	1000	954	95	85-115	
Molybdenum	ug/L	1000	943	94	85-115	
Potassium	ug/L	10000	9540	95	85-115	
Sodium	ug/L	10000	9900	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709609 3709610

Parameter	Units	60474805001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	178	1000	1000	1200	1130	102	95	70-130	6	20	
Beryllium	ug/L	<0.12	1000	1000	1000	976	100	98	70-130	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709609 3709610

Parameter	Units	60474805001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	56.5J	1000	1000	1030	980	97	92	70-130	5	20	
Calcium	ug/L	177000	10000	10000	186000	176000	93	-8	70-130	6	20	M1
Cobalt	ug/L	<1.2	1000	1000	994	970	99	97	70-130	2	20	
Iron	ug/L	38.1J	10000	10000	10700	9930	106	99	70-130	7	20	
Lead	ug/L	<3.8	1000	1000	989	950	99	95	70-130	4	20	
Lithium	ug/L	6.2J	1000	1000	986	949	98	94	70-130	4	20	
Magnesium	ug/L	35100	10000	10000	44900	42400	98	73	70-130	6	20	
Manganese	ug/L	749	1000	1000	1720	1680	97	93	70-130	2	20	
Molybdenum	ug/L	5.2J	1000	1000	1030	999	102	99	70-130	3	20	
Potassium	ug/L	479J	10000	10000	10600	10300	102	98	70-130	3	20	
Sodium	ug/L	5540	10000	10000	15900	15100	104	96	70-130	5	20	

MATRIX SPIKE SAMPLE: 3709611

Parameter	Units	60475280007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	200	1000	1210	101	70-130	
Beryllium	ug/L	ND	1000	987	99	70-130	
Boron	ug/L	126	1000	1090	96	70-130	
Calcium	ug/L	128000	10000	143000	152	70-130	M1
Cobalt	ug/L	ND	1000	978	98	70-130	
Iron	ug/L	777	10000	11400	106	70-130	
Lead	ug/L	ND	1000	966	97	70-130	
Lithium	ug/L	33.6	1000	994	96	70-130	
Magnesium	ug/L	15900	10000	26200	103	70-130	
Manganese	ug/L	13.0	1000	995	98	70-130	
Molybdenum	ug/L	ND	1000	998	100	70-130	
Potassium	ug/L	6090	10000	16200	101	70-130	
Sodium	ug/L	61300	10000	72800	114	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936017
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

METHOD BLANK: 3710285 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/05/25 11:02	
Beryllium	ug/L	<0.12	1.0	0.12	06/05/25 11:02	
Boron	ug/L	<6.4	100	6.4	06/05/25 11:02	
Calcium	ug/L	<26.9	200	26.9	06/05/25 11:02	
Cobalt	ug/L	<1.2	5.0	1.2	06/05/25 11:02	
Iron	ug/L	<9.1	50.0	9.1	06/05/25 11:02	
Lead	ug/L	<3.8	10.0	3.8	06/05/25 11:02	
Lithium	ug/L	<3.7	10.0	3.7	06/05/25 11:02	
Magnesium	ug/L	<20.1	50.0	20.1	06/05/25 11:02	
Manganese	ug/L	<0.39	5.0	0.39	06/05/25 11:02	
Molybdenum	ug/L	<1.0	20.0	1.0	06/05/25 11:02	
Potassium	ug/L	<69.7	500	69.7	06/05/25 11:02	
Sodium	ug/L	<115	500	115	06/05/25 11:02	

LABORATORY CONTROL SAMPLE: 3710286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	988	99	85-115	
Beryllium	ug/L	1000	987	99	85-115	
Boron	ug/L	1000	942	94	85-115	
Calcium	ug/L	10000	10100	101	85-115	
Cobalt	ug/L	1000	1020	102	85-115	
Iron	ug/L	10000	10100	101	85-115	
Lead	ug/L	1000	1010	101	85-115	
Lithium	ug/L	1000	974	97	85-115	
Magnesium	ug/L	10000	9860	99	85-115	
Manganese	ug/L	1000	1010	101	85-115	
Molybdenum	ug/L	1000	1020	102	85-115	
Potassium	ug/L	10000	9870	99	85-115	
Sodium	ug/L	10000	9980	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710287 3710288

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	491	1000	1000	1460	1470	97	98	70-130	0	20	
Beryllium	ug/L	<0.12	1000	1000	1010	992	101	99	70-130	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710287 3710288

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	5490	1000	1000	6490	6520	100	102	70-130	0	20	
Calcium	ug/L	89600	10000	10000	99800	101000	103	110	70-130	1	20	
Cobalt	ug/L	<1.2	1000	1000	991	981	99	98	70-130	1	20	
Iron	ug/L	3880	10000	10000	13800	13900	99	100	70-130	1	20	
Lead	ug/L	<3.8	1000	1000	968	965	97	96	70-130	0	20	
Lithium	ug/L	23.3	1000	1000	983	978	96	95	70-130	1	20	
Magnesium	ug/L	19500	10000	10000	29200	29300	96	97	70-130	0	20	
Manganese	ug/L	459	1000	1000	1450	1440	99	98	70-130	1	20	
Molybdenum	ug/L	167	1000	1000	1180	1170	101	100	70-130	1	20	
Potassium	ug/L	10400	10000	10000	20500	20400	101	99	70-130	1	20	
Sodium	ug/L	24300	10000	10000	34200	34200	99	99	70-130	0	20	

MATRIX SPIKE SAMPLE: 3710289

Parameter	Units	60474805010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	581	1000	1570	99	70-130	
Beryllium	ug/L	<0.12	1000	1000	100	70-130	
Boron	ug/L	57.5J	1000	1000	95	70-130	
Calcium	ug/L	122000	10000	133000	114	70-130	
Cobalt	ug/L	<1.2	1000	987	99	70-130	
Iron	ug/L	8100	10000	18300	102	70-130	
Lead	ug/L	<3.8	1000	971	97	70-130	
Lithium	ug/L	36.0	1000	1000	96	70-130	
Magnesium	ug/L	29600	10000	39500	99	70-130	
Manganese	ug/L	682	1000	1660	98	70-130	
Molybdenum	ug/L	1.7J	1000	1020	102	70-130	
Potassium	ug/L	4160	10000	14100	99	70-130	
Sodium	ug/L	6970	10000	16900	99	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936019
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

METHOD BLANK: 3710296 Matrix: Water
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/03/25 15:27	
Beryllium	ug/L	<0.12	1.0	0.12	06/03/25 15:27	
Boron	ug/L	14.5J	100	6.4	06/03/25 15:27	
Calcium	ug/L	<26.9	200	26.9	06/03/25 15:27	
Cobalt	ug/L	<1.2	5.0	1.2	06/03/25 15:27	
Iron	ug/L	9.5J	50.0	9.1	06/03/25 15:27	
Lead	ug/L	<3.8	10.0	3.8	06/03/25 15:27	
Lithium	ug/L	<3.7	10.0	3.7	06/03/25 15:27	
Magnesium	ug/L	<20.1	50.0	20.1	06/03/25 15:27	
Manganese	ug/L	<0.39	5.0	0.39	06/03/25 15:27	
Molybdenum	ug/L	<1.0	20.0	1.0	06/03/25 15:27	
Potassium	ug/L	<69.7	500	69.7	06/03/25 15:27	
Sodium	ug/L	<115	500	115	06/03/25 15:27	

LABORATORY CONTROL SAMPLE: 3710297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	970	97	85-115	
Beryllium	ug/L	1000	1010	101	85-115	
Boron	ug/L	1000	954	95	85-115	
Calcium	ug/L	10000	10100	101	85-115	
Cobalt	ug/L	1000	1020	102	85-115	
Iron	ug/L	10000	10100	101	85-115	
Lead	ug/L	1000	1010	101	85-115	
Lithium	ug/L	1000	912	91	85-115	
Magnesium	ug/L	10000	9970	100	85-115	
Manganese	ug/L	1000	1010	101	85-115	
Molybdenum	ug/L	1000	1020	102	85-115	
Potassium	ug/L	10000	9850	99	85-115	
Sodium	ug/L	10000	10300	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710298 3710299

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	196	1000	1000	1130	1170	93	97	70-130	3	20	
Beryllium	ug/L	<0.12	1000	1000	972	948	97	95	70-130	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710298 3710299

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	7270	1000	1000	8000	8370	73	110	70-130	5	20	
Calcium	ug/L	147000	10000	10000	152000	160000	43	123	70-130	5	20	M1
Cobalt	ug/L	<1.2	1000	1000	959	934	96	93	70-130	3	20	
Iron	ug/L	10100	10000	10000	19400	20200	94	101	70-130	4	20	
Lead	ug/L	<3.8	1000	1000	951	954	95	95	70-130	0	20	
Lithium	ug/L	29.1	1000	1000	913	937	88	91	70-130	3	20	
Magnesium	ug/L	36800	10000	10000	45100	47400	82	106	70-130	5	20	
Manganese	ug/L	1060	1000	1000	2040	2020	98	96	70-130	1	20	
Molybdenum	ug/L	450	1000	1000	1460	1450	101	100	70-130	1	20	
Potassium	ug/L	5090	10000	10000	14600	14900	95	98	70-130	2	20	
Sodium	ug/L	35100	10000	10000	43500	45600	84	105	70-130	5	20	

MATRIX SPIKE SAMPLE: 3710300

Parameter	Units	60475410001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	ND	1000	904	58	70-130	M1
Beryllium	ug/L	ND	1000	972	97	70-130	
Boron	ug/L	ND	1000	1200J	97	70-130	
Calcium	ug/L	276000	10000	283000	69	70-130	M1
Cobalt	ug/L	ND	1000	882	88	70-130	
Iron	ug/L	8080	10000	11800	37	70-130	M1
Lead	ug/L	ND	1000	1060	91	70-130	
Lithium	ug/L	ND	1000	1070	107	70-130	
Magnesium	ug/L	46800	10000	55700	89	70-130	
Manganese	ug/L	ND	1000	1020	91	70-130	
Molybdenum	ug/L	ND	1000	1010J	95	70-130	
Potassium	ug/L	ND	10000	40800J	4	70-130	M1
Sodium	ug/L	9190000	10000	9140000	-459	70-130	M1

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936256
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3711403 Matrix: Water
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	06/02/25 14:28	
Beryllium	ug/L	<0.12	1.0	0.12	06/02/25 14:28	
Boron	ug/L	<6.4	100	6.4	06/02/25 14:28	
Calcium	ug/L	<26.9	200	26.9	06/02/25 14:28	
Cobalt	ug/L	<1.2	5.0	1.2	06/02/25 14:28	
Iron	ug/L	10.7J	50.0	9.1	06/02/25 14:28	
Lead	ug/L	<3.8	10.0	3.8	06/02/25 14:28	
Lithium	ug/L	<3.7	10.0	3.7	06/02/25 14:28	
Magnesium	ug/L	<20.1	50.0	20.1	06/02/25 14:28	
Manganese	ug/L	<0.39	5.0	0.39	06/02/25 14:28	
Molybdenum	ug/L	<1.0	20.0	1.0	06/02/25 14:28	
Potassium	ug/L	<69.7	500	69.7	06/02/25 14:28	
Sodium	ug/L	<115	500	115	06/02/25 14:28	

LABORATORY CONTROL SAMPLE: 3711404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1020	102	85-115	
Beryllium	ug/L	1000	1020	102	85-115	
Boron	ug/L	1000	974	97	85-115	
Calcium	ug/L	10000	10600	106	85-115	
Cobalt	ug/L	1000	1060	106	85-115	
Iron	ug/L	10000	10700	107	85-115	
Lead	ug/L	1000	1040	104	85-115	
Lithium	ug/L	1000	971	97	85-115	
Magnesium	ug/L	10000	10400	104	85-115	
Manganese	ug/L	1000	1040	104	85-115	
Molybdenum	ug/L	1000	1050	105	85-115	
Potassium	ug/L	10000	10300	103	85-115	
Sodium	ug/L	10000	10700	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3711405 3711406

Parameter	Units	60474802012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	<0.64	1000	1000	1010	974	101	97	70-130	4	20	
Beryllium	ug/L	<0.12	1000	1000	1020	974	102	97	70-130	5	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3711405 3711406

Parameter	Units	60474802012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	<6.4	1000	1000	963	929	96	93	70-130	4	20	
Calcium	ug/L	111J	10000	10000	10500	10000	104	99	70-130	5	20	
Cobalt	ug/L	<1.2	1000	1000	1070	1010	106	100	70-130	6	20	
Iron	ug/L	<9.1	10000	10000	10600	10100	106	101	70-130	5	20	
Lead	ug/L	<3.8	1000	1000	1040	985	104	98	70-130	6	20	
Lithium	ug/L	<3.7	1000	1000	973	930	97	93	70-130	5	20	
Magnesium	ug/L	<20.1	10000	10000	10300	9890	103	99	70-130	4	20	
Manganese	ug/L	<0.39	1000	1000	1050	994	105	99	70-130	5	20	
Molybdenum	ug/L	<1.0	1000	1000	1060	1000	106	100	70-130	5	20	
Potassium	ug/L	<69.7	10000	10000	10200	9700	102	97	70-130	5	20	
Sodium	ug/L	<115	10000	10000	10700	10200	106	102	70-130	4	20	

MATRIX SPIKE SAMPLE: 3711407

Parameter	Units	60475671001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	52.3	1000	1110	106	70-130	
Beryllium	ug/L	<0.12	1000	1080	108	70-130	
Boron	ug/L	8.3J	1000	1020	102	70-130	
Calcium	ug/L	25300	10000	35200	99	70-130	
Cobalt	ug/L	<1.2	1000	1110	111	70-130	
Iron	ug/L	<9.1	10000	11100	111	70-130	
Lead	ug/L	<3.8	1000	1090	109	70-130	
Lithium	ug/L	5.2J	1000	1010	101	70-130	
Magnesium	ug/L	5210	10000	15700	105	70-130	
Manganese	ug/L	0.66J	1000	1100	110	70-130	
Molybdenum	ug/L	11.0J	1000	1120	111	70-130	
Potassium	ug/L	1440	10000	12200	108	70-130	
Sodium	ug/L	17100	10000	27400	103	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935877
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3709544 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 15:16	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 15:16	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 15:16	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 15:16	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 15:16	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 15:16	

LABORATORY CONTROL SAMPLE: 3709545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	39.7	99	85-115	
Arsenic	ug/L	40	40.4	101	85-115	
Cadmium	ug/L	40	40.8	102	85-115	
Chromium	ug/L	40	40.7	102	85-115	
Selenium	ug/L	40	41.0	102	85-115	
Thallium	ug/L	40	39.1	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709546 3709547

Parameter	Units	60474802001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	39.5	38.5	99	96	70-130	3	20	
Arsenic	ug/L	0.27J	40	40	41.6	40.7	103	101	70-130	2	20	
Cadmium	ug/L	<0.050	40	40	39.8	38.8	99	97	70-130	2	20	
Chromium	ug/L	<0.30	40	40	42.1	41.0	105	102	70-130	3	20	
Selenium	ug/L	<0.18	40	40	40.1	39.4	100	98	70-130	2	20	
Thallium	ug/L	<0.14	40	40	41.1	40.0	103	100	70-130	3	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936079
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

METHOD BLANK: 3710610 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 15:58	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 15:58	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 15:58	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 15:58	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 15:58	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 15:58	

LABORATORY CONTROL SAMPLE: 3710611

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.0	100	85-115	
Arsenic	ug/L	40	40.9	102	85-115	
Cadmium	ug/L	40	41.4	104	85-115	
Chromium	ug/L	40	41.4	104	85-115	
Selenium	ug/L	40	41.4	104	85-115	
Thallium	ug/L	40	40.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710612 3710613

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	39.8	40.0	99	100	70-130	1	20	
Arsenic	ug/L	0.25J	40	40	40.9	41.6	102	103	70-130	2	20	
Cadmium	ug/L	<0.050	40	40	39.6	40.1	99	100	70-130	1	20	
Chromium	ug/L	<0.30	40	40	39.9	40.9	99	102	70-130	2	20	
Selenium	ug/L	<0.18	40	40	39.7	40.2	99	100	70-130	1	20	
Thallium	ug/L	<0.14	40	40	41.0	41.3	102	103	70-130	1	20	

MATRIX SPIKE SAMPLE: 3710614

Parameter	Units	60474805011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.12	40	40.3	101	70-130	
Arsenic	ug/L	1.9	40	43.3	103	70-130	
Cadmium	ug/L	<0.050	40	40.1	100	70-130	
Chromium	ug/L	<0.30	40	42.4	106	70-130	
Selenium	ug/L	<0.18	40	40.4	101	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE SAMPLE: 3710614

Parameter	Units	60474805011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	<0.14	40	42.1	105	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 936085
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3710639 Matrix: Water
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.12	1.0	0.12	06/02/25 16:54	
Arsenic	ug/L	<0.13	1.0	0.13	06/02/25 16:54	
Cadmium	ug/L	<0.050	0.50	0.050	06/02/25 16:54	
Chromium	ug/L	<0.30	1.0	0.30	06/02/25 16:54	
Selenium	ug/L	<0.18	1.0	0.18	06/02/25 16:54	
Thallium	ug/L	<0.14	1.0	0.14	06/02/25 16:54	

LABORATORY CONTROL SAMPLE: 3710640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	40	40.9	102	85-115	
Arsenic	ug/L	40	41.0	103	85-115	
Cadmium	ug/L	40	41.7	104	85-115	
Chromium	ug/L	40	42.0	105	85-115	
Selenium	ug/L	40	42.2	106	85-115	
Thallium	ug/L	40	39.9	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3710641 3710642

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.12	40	40	40.9	39.8	102	100	70-130	3	20	
Arsenic	ug/L	0.27J	40	40	42.2	41.8	105	104	70-130	1	20	
Cadmium	ug/L	0.16J	40	40	40.2	39.3	100	98	70-130	2	20	
Chromium	ug/L	<0.30	40	40	41.5	40.8	104	102	70-130	2	20	
Selenium	ug/L	<0.18	40	40	41.0	39.9	102	100	70-130	3	20	
Thallium	ug/L	<0.14	40	40	42.0	41.6	105	104	70-130	1	20	

MATRIX SPIKE SAMPLE: 3710643

Parameter	Units	60474805023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	0.21J	40	40.9	102	70-130	
Arsenic	ug/L	0.73J	40	42.2	104	70-130	
Cadmium	ug/L	0.63	40	39.7	98	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

MATRIX SPIKE SAMPLE: 3710643

Parameter	Units	60474805023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	<0.30	40	42.4	106	70-130	
Selenium	ug/L	<0.18	40	39.6	99	70-130	
Thallium	ug/L	<0.14	40	43.1	108	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935400
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3707605 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/16/25 14:53	

LABORATORY CONTROL SAMPLE: 3707606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	540	108	90-110	

SAMPLE DUPLICATE: 3707607

Parameter	Units	60474665010 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	468	456	3	10	

SAMPLE DUPLICATE: 3707608

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	293	301	3	10	

SAMPLE DUPLICATE: 3707609

Parameter	Units	60474805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	555	538	3	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935651 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805008, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

METHOD BLANK: 3708733 Matrix: Water
Associated Lab Samples: 60474805008, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/19/25 19:51	

LABORATORY CONTROL SAMPLE: 3708734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	505	101	90-110	

SAMPLE DUPLICATE: 3708735

Parameter	Units	60474940004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	<10.5		10	

SAMPLE DUPLICATE: 3708736

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	305	302	1	10	

SAMPLE DUPLICATE: 3708737

Parameter	Units	60474899001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	584	607	4	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935652 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805009, 60474805010, 60474805011

METHOD BLANK: 3708738 Matrix: Water
Associated Lab Samples: 60474805007, 60474805009, 60474805010, 60474805011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/19/25 22:48	

LABORATORY CONTROL SAMPLE: 3708739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	507	101	90-110	

SAMPLE DUPLICATE: 3708740

Parameter	Units	60474899012 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	485	490	1	10	

SAMPLE DUPLICATE: 3708741

Parameter	Units	60474805011 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	323	331	3	10	

SAMPLE DUPLICATE: 3708742

Parameter	Units	60475025002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	481	490	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935733
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3709029 Matrix: Water
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	05/20/25 15:12	

LABORATORY CONTROL SAMPLE: 3709030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	495	99	90-110	

SAMPLE DUPLICATE: 3709031

Parameter	Units	60475110002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	843	864	2	10	

SAMPLE DUPLICATE: 3709032

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	387	382	1	10	

SAMPLE DUPLICATE: 3709033

Parameter	Units	60474805022 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	317	305	4	10	

SAMPLE DUPLICATE: 3709034

Parameter	Units	60475118003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	424	424	0	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 934870
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3704941 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/13/25 15:26	

LABORATORY CONTROL SAMPLE: 3704942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3704943

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3330	3320	0	10	

SAMPLE DUPLICATE: 3704944

Parameter	Units	60474832004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	443	449	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935020
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805008, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

METHOD BLANK: 3705712 Matrix: Water
Associated Lab Samples: 60474805008, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/14/25 16:09	

LABORATORY CONTROL SAMPLE: 3705713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 3705714

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	749	741	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935176
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805009, 60474805010, 60474805011

METHOD BLANK: 3706328 Matrix: Water
Associated Lab Samples: 60474805007, 60474805009, 60474805010, 60474805011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/15/25 16:54	

LABORATORY CONTROL SAMPLE: 3706329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3706330

Parameter	Units	60474940002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	747	737	1	10	

SAMPLE DUPLICATE: 3706331

Parameter	Units	60474941004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	619	623	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935357 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3707336 Matrix: Water
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	05/19/25 15:00	

LABORATORY CONTROL SAMPLE: 3707337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	981	98	80-120	

SAMPLE DUPLICATE: 3707338

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1770	1790	1	10	

SAMPLE DUPLICATE: 3707339

Parameter	Units	60475118003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	553	544	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 934563
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3703359 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/13/25 09:40	H6

LABORATORY CONTROL SAMPLE: 3703360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	2.0	102	90-110	H6

SAMPLE DUPLICATE: 3703361

Parameter	Units	60474665008 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	0.22	0.20	7	20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935356
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805022, 60474805024, 60474805025

METHOD BLANK: 3707331 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805022, 60474805024, 60474805025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/16/25 13:45	H6

LABORATORY CONTROL SAMPLE: 3707332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	2.0	99	90-110	H6

SAMPLE DUPLICATE: 3707333

Parameter	Units	60474802008 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	10.4	10.3	0	20	H6

SAMPLE DUPLICATE: 3707334

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	13.4	13.5	1	20	H6

SAMPLE DUPLICATE: 3707335

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	5.6	5.6	1	20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935706
QC Batch Method: SM 3500-Fe B#4
Analysis Method: SM 3500-Fe B#4
Analysis Description: Iron, Ferrous
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805023, 60474805026

METHOD BLANK: 3708879 Matrix: Water
Associated Lab Samples: 60474805021, 60474805023, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.041	0.20	0.041	05/22/25 14:16	H6

LABORATORY CONTROL SAMPLE: 3708880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	1.9	94	90-110	H6

SAMPLE DUPLICATE: 3708881

Parameter	Units	60475099009 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	<0.20	0.058J		20	H6

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 934926
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3705367 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/14/25 14:11	

LABORATORY CONTROL SAMPLE: 3705368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.48	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3705370 3705371

Parameter	Units	60474802001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.45	0.45	89	89	75-125	0	20	

SAMPLE DUPLICATE: 3705369

Parameter	Units	60474802001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

SAMPLE DUPLICATE: 3705372

Parameter	Units	60474802002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935182
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

METHOD BLANK: 3706332 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/15/25 14:02	

LABORATORY CONTROL SAMPLE: 3706333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.46	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706335 3706336

Parameter	Units	60474802003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.47	0.46	93	92	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706339 3706340

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	0.044J	0.5	0.5	0.47	0.47	86	85	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706342 3706343

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.016	0.5	0.5	0.46	0.46	92	91	75-125	1	20	

SAMPLE DUPLICATE: 3706334

Parameter	Units	60474802003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

SAMPLE DUPLICATE: 3706337

Parameter	Units	60474802004 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.037J	0.037J		20	

SAMPLE DUPLICATE: 3706338

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.044J	0.045J		20	

SAMPLE DUPLICATE: 3706341

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.016	<0.016		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 935502
QC Batch Method: SM 4500-S-2 D
Analysis Method: SM 4500-S-2 D
Analysis Description: 4500S2D Sulfide, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3708277 Matrix: Water
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	<0.016	0.050	0.016	05/17/25 13:35	

LABORATORY CONTROL SAMPLE: 3708278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.5	0.54	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3708280 3708281

Parameter	Units	60475099001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide, Total	mg/L	<0.050	0.5	0.5	0.38	0.38	75	74	75-125	1	20	M1

SAMPLE DUPLICATE: 3708279

Parameter	Units	60475099001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.050	<0.016		20	

SAMPLE DUPLICATE: 3708282

Parameter	Units	60475099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.050	0.019J		20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 937191
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

METHOD BLANK: 3715440 Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.53	1.0	0.53	06/02/25 17:48	
Fluoride	mg/L	<0.12	0.20	0.12	06/02/25 17:48	
Sulfate	mg/L	<0.55	1.0	0.55	06/02/25 17:48	

LABORATORY CONTROL SAMPLE: 3715441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	
Fluoride	mg/L	2.5	2.4	94	90-110	
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715442 3715443

Parameter	Units	60474796004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	50.1	50	50	96.0	89.8	92	79	80-120	7	15	M1
Fluoride	mg/L	ND	25	25	21.9	20.4	85	79	80-120	7	15	M1
Sulfate	mg/L	1780	1000	1000	3010	2870	123	109	80-120	5	15	M1

SAMPLE DUPLICATE: 3715470

Parameter	Units	60474796004 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	50.1	43.6	14	15	
Fluoride	mg/L	ND	<1.2		15	
Sulfate	mg/L	1780	1880	6	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 937211
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

METHOD BLANK: 3715496 Matrix: Water
Associated Lab Samples: 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.59J	1.0	0.53	06/03/25 20:28	
Fluoride	mg/L	<0.12	0.20	0.12	06/03/25 20:28	
Sulfate	mg/L	<0.55	1.0	0.55	06/03/25 20:28	

LABORATORY CONTROL SAMPLE: 3715497

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	5	4.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715498 3715499

Parameter	Units	60474805012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	42.4	100	100	132	132	90	90	80-120	0	15	
Fluoride	mg/L	0.16J	2.5	2.5	2.4	2.4	90	91	80-120	1	15	
Sulfate	mg/L	237	100	100	330	336	93	99	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3715501 3715502

Parameter	Units	60474895008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.1	5	5	19.5	19.5	106	107	80-120	0	15	
Fluoride	mg/L	0.14J	2.5	2.5	2.7	2.7	104	104	80-120	0	15	
Sulfate	mg/L	10.7	5	5	15.7	15.7	101	101	80-120	0	15	

SAMPLE DUPLICATE: 3715500

Parameter	Units	60474805012 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	42.4	42.5	0	15	
Fluoride	mg/L	0.16J	0.17J		15	
Sulfate	mg/L	237	236	0	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

SAMPLE DUPLICATE: 3715503

Parameter	Units	60474895008 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	14.1	14.3	1	15	
Fluoride	mg/L	0.14J	0.14J		15	
Sulfate	mg/L	10.7	10.8	1	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 937354
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

METHOD BLANK: 3716100 Matrix: Water
Associated Lab Samples: 60474805007, 60474805008, 60474805009, 60474805010, 60474805011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.54J	1.0	0.53	06/11/25 00:29	
Fluoride	mg/L	<0.12	0.20	0.12	06/11/25 00:29	
Sulfate	mg/L	<0.55	1.0	0.55	06/11/25 00:29	

LABORATORY CONTROL SAMPLE: 3716101

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3716102 3716103

Parameter	Units	60474802006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.6	25	25	68.6	68.0	88	86	80-120	1	15	H1
Fluoride	mg/L	0.56	2.5	2.5	2.7	2.7	85	85	80-120	0	15	H1
Sulfate	mg/L	8.0	5	5	13.2	13.2	103	103	80-120	0	15	H1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3716105 3716106

Parameter	Units	60474942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.8	5	5	15.9	16.0	103	105	80-120	1	15	H1
Fluoride	mg/L	0.34	2.5	2.5	2.5	2.6	87	90	80-120	3	15	H1
Sulfate	mg/L	57.3	50	50	106	105	98	96	80-120	1	15	H1

SAMPLE DUPLICATE: 3716104

Parameter	Units	60474802006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	46.6	45.6	2	15	H1
Fluoride	mg/L	0.56	0.26	72	15	D6,H1
Sulfate	mg/L	8.0	8.1	1	15	H1

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

SAMPLE DUPLICATE: 3716107

Parameter	Units	60474942001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	10.8	11.5	6	15	H1
Fluoride	mg/L	0.34	0.14J		15	H1
Sulfate	mg/L	57.3	56.3	2	15	H1

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 937709
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3717638 Matrix: Water
Associated Lab Samples: 60474805021, 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.53	1.0	0.53	06/07/25 10:42	
Fluoride	mg/L	<0.12	0.20	0.12	06/07/25 10:42	
Sulfate	mg/L	<0.55	1.0	0.55	06/07/25 10:42	

LABORATORY CONTROL SAMPLE: 3717639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	5.0	99	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3717640 3717641

Parameter	Units	60474940006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	194	250	250	262	263	27	28	80-120	0	15	H1,M1
Fluoride	mg/L	<0.12	2.5	2.5	1.5	1.5	60	60	80-120	0	15	H1,M1
Sulfate	mg/L	660	250	250	309	309	-141	-141	80-120	0	15	H1,M1

SAMPLE DUPLICATE: 3717642

Parameter	Units	60474940006 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	194	188	3	15	
Fluoride	mg/L	<0.12	<0.12		15	
Sulfate	mg/L	660	639	3	15	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1S **Lab ID: 60474805004** Collected: 05/07/25 14:09 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**1.01 ± 0.680 (0.968) C:NA T:93%**	pCi/L	06/13/25 15:49	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.41 ± 0.554 (0.885) C:83% T:78%**	pCi/L	06/12/25 11:18	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-AM-1D **Lab ID: 60474805005** Collected: 05/07/25 14:49 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.456 ± 0.653 (1.11) C:NA T:92%**	pCi/L	06/13/25 15:49	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.47 ± 0.541 (0.821) C:83% T:86%**	pCi/L	06/12/25 11:18	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-1 **Lab ID: 60474805006** Collected: 05/07/25 08:00 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.575 ± 0.776 (1.31) C:NA T:93%**	pCi/L	06/13/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.803 ± 0.449 (0.829) C:85% T:90%**	pCi/L	06/12/25 11:18	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-1S **Lab ID: 60474805008** Collected: 05/08/25 10:33 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0506 ± 0.552 (1.08) C:NA T:94%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.06 ± 0.464 (0.770) C:85% T:84%**	pCi/L	06/12/25 11:44	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-2D **Lab ID: 60474805009** Collected: 05/09/25 09:31 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**-0.165 ± 0.541 (1.11) C:NA T:89%**	pCi/L	06/13/25 16:01	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.06 ± 0.474 (0.804) C:84% T:90%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-3D **Lab ID: 60474805010** Collected: 05/09/25 12:35 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.295 ± 0.742 (1.32) C:NA T:95%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.89 ± 0.605 (0.825) C:82% T:83%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-4D **Lab ID: 60474805011** Collected: 05/09/25 13:40 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.325 ± 0.521 (0.902) C:NA T:93%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.722 ± 0.413 (0.764) C:86% T:83%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-5D **Lab ID: 60474805012** Collected: 05/08/25 10:36 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0801 ± 0.400 (0.754) C:NA T:90%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.47 ± 0.560 (0.856) C:78% T:76%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6S **Lab ID: 60474805013** Collected: 05/08/25 09:32 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0505 ± 0.533 (1.02) C:NA T:98%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.189 ± 0.335 (0.731) C:83% T:90%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-6D **Lab ID: 60474805014** Collected: 05/08/25 08:45 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.106 ± 0.639 (1.24) C:NA T:95%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.41 ± 0.508 (0.750) C:81% T:88%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-DUP-2 **Lab ID: 60474805017** Collected: 05/08/25 00:00 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.268 ± 0.674 (1.34) C:NA T:95%**	pCi/L	06/13/25 16:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.734 ± 0.423 (0.768) C:83% T:85%**	pCi/L	06/12/25 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-1 **Lab ID: 60474805018** Collected: 05/08/25 08:50 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.469 ± 0.604 (1.35) C:NA T:91%**	pCi/L	06/13/25 16:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.363 ± 0.326 (0.658) C:80% T:87%**	pCi/L	06/12/25 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-MS-1 **Lab ID: 60474805019** Collected: 05/08/25 10:36 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**113.71 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/13/25 16:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**73.12 %REC ± NA (NA) C:NA T:NA**	pCi/L	06/12/25 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-MSD-1 **Lab ID: 60474805020** Collected: 05/08/25 10:36 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**103.92 %REC 8.99RPD ± NA (NA) C:NA T:NA**	pCi/L	06/13/25 16:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**77.45 %REC 5.74RPD ± NA (NA) C:NA T:NA**	pCi/L	06/12/25 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-PZ-9D **Lab ID: 60474805024** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.000 ± 0.524 (1.03) C:NA T:96%**	pCi/L	06/16/25 15:21	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.16 ± 0.469 (0.731) C:78% T:88%**	pCi/L	06/13/25 14:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-TP-8D **Lab ID: 60474805025** Collected: 05/12/25 12:30 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.730 ± 0.566 (0.827) C:NA T:101%**	pCi/L	06/16/25 15:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.66 ± 0.565 (0.777) C:76% T:90%**	pCi/L	06/13/25 14:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-CA-FB-2 **Lab ID: 60474805026** Collected: 05/12/25 13:00 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.494 (0.990) C:NA T:94%**	pCi/L	06/16/25 15:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.45 ± 0.517 (0.734) C:80% T:89%**	pCi/L	06/13/25 14:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-1S **Lab ID: 60474805021** Collected: 05/12/25 15:22 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.324 ± 0.686 (1.21) C:NA T:88%**	pCi/L	06/13/25 16:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0506 ± 0.502 (1.19) C:77% T:84%**	pCi/L	06/12/25 14:44	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-2S **Lab ID: 60474805003** Collected: 05/07/25 16:17 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**-0.231 ± 0.531 (1.12) C:NA T:85%**	pCi/L	06/13/25 15:49	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**2.07 ± 0.662 (0.924) C:84% T:79%**	pCi/L	06/12/25 11:18	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-4S **Lab ID: 60474805007** Collected: 05/09/25 14:41 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.236 ± 0.543 (0.983) C:NA T:95%**	pCi/L	06/13/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.21 ± 0.474 (0.746) C:88% T:86%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-5S **Lab ID: 60474805022** Collected: 05/12/25 10:45 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.515 (1.02) C:NA T:95%**	pCi/L	06/16/25 15:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.06 ± 0.536 (0.944) C:77% T:87%**	pCi/L	06/13/25 14:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-LMW-6S **Lab ID: 60474805023** Collected: 05/12/25 13:35 Received: 05/14/25 06:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.121 ± 0.475 (1.01) C:NA T:89%**	pCi/L	06/16/25 15:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.427 ± 0.398 (0.811) C:82% T:80%**	pCi/L	06/13/25 14:13	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-UG-3 **Lab ID: 60474805016** Collected: 05/08/25 12:10 Received: 05/10/25 06:51 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.807 ± 0.789 (1.26) C:NA T:92%**	pCi/L	06/13/25 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.74 ± 0.567 (0.748) C:81% T:85%**	pCi/L	06/12/25 11:19	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-1S **Lab ID: 60474805001** Collected: 05/07/25 15:05 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.226 ± 0.606 (1.10) C:NA T:93%**	pCi/L	06/13/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.491 ± 0.321 (0.603) C:82% T:90%**	pCi/L	06/12/25 11:18	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Sample: S-BMW-3S **Lab ID: 60474805002** Collected: 05/07/25 14:10 Received: 05/09/25 02:07 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0566 ± 0.508 (0.985) C:NA T:93%**	pCi/L	06/13/25 15:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.449 ± 0.342 (0.671) C:84% T:85%**	pCi/L	06/12/25 11:18	15262-20-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 748063
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3643708 Matrix: Water
Associated Lab Samples: 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.182 ± 0.358 (0.642) C:NA T:92%	pCi/L	06/16/25 15:08	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 747662
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006, 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805019, 60474805020, 60474805021

METHOD BLANK: 3641499
Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006, 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805019, 60474805020, 60474805021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0903 ± 0.354 (0.678) C:NA T:92%	pCi/L	06/13/25 15:49	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 748064
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

METHOD BLANK: 3643709 Matrix: Water
Associated Lab Samples: 60474805022, 60474805023, 60474805024, 60474805025, 60474805026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.532 ± 0.320 (0.579) C:85% T:89%	pCi/L	06/13/25 14:12	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

QC Batch: 747664
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006, 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805019, 60474805020, 60474805021

METHOD BLANK: 3641511
Matrix: Water
Associated Lab Samples: 60474805001, 60474805002, 60474805003, 60474805004, 60474805005, 60474805006, 60474805007, 60474805008, 60474805009, 60474805010, 60474805011, 60474805012, 60474805013, 60474805014, 60474805016, 60474805017, 60474805018, 60474805019, 60474805020, 60474805021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.123 ± 0.242 (0.603) C:86% T:82%	pCi/L	06/12/25 11:18	

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QUALIFIERS

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805001	**S-BMW-1S**	EPA 200.7	935894	EPA 200.7	935991
60474805002	**S-BMW-3S**	EPA 200.7	935894	EPA 200.7	935991
60474805003	**S-LMW-2S**	EPA 200.7	935770	EPA 200.7	935797
60474805004	**S-AM-1S**	EPA 200.7	935770	EPA 200.7	935797
60474805005	**S-AM-1D**	EPA 200.7	935770	EPA 200.7	935797
60474805006	**S-CA-DUP-1**	EPA 200.7	935770	EPA 200.7	935797
60474805007	**S-LMW-4S**	EPA 200.7	936017	EPA 200.7	936124
60474805008	**S-PZ-1S**	EPA 200.7	936017	EPA 200.7	936124
60474805009	**S-TP-2D**	EPA 200.7	936017	EPA 200.7	936124
60474805010	**S-TP-3D**	EPA 200.7	936017	EPA 200.7	936124
60474805011	**S-TP-4D**	EPA 200.7	936017	EPA 200.7	936124
60474805012	**S-TP-5D**	EPA 200.7	936019	EPA 200.7	936101
60474805013	**S-TP-6S**	EPA 200.7	936019	EPA 200.7	936101
60474805014	**S-TP-6D**	EPA 200.7	936019	EPA 200.7	936101
60474805016	**S-UG-3**	EPA 200.7	936019	EPA 200.7	936101
60474805017	**S-CA-DUP-2**	EPA 200.7	936019	EPA 200.7	936101
60474805018	**S-CA-FB-1**	EPA 200.7	936019	EPA 200.7	936101
60474805021	**S-LMW-1S**	EPA 200.7	936256	EPA 200.7	936304
60474805022	**S-LMW-5S**	EPA 200.7	936256	EPA 200.7	936304
60474805023	**S-LMW-6S**	EPA 200.7	936256	EPA 200.7	936304
60474805024	**S-PZ-9D**	EPA 200.7	936256	EPA 200.7	936304
60474805025	**S-TP-8D**	EPA 200.7	936256	EPA 200.7	936304
60474805026	**S-CA-FB-2**	EPA 200.7	936256	EPA 200.7	936304
60474805001	**S-BMW-1S**	EPA 200.8	935877	EPA 200.8	936014
60474805002	**S-BMW-3S**	EPA 200.8	935877	EPA 200.8	936014
60474805003	**S-LMW-2S**	EPA 200.8	935877	EPA 200.8	936014
60474805004	**S-AM-1S**	EPA 200.8	935877	EPA 200.8	936014
60474805005	**S-AM-1D**	EPA 200.8	935877	EPA 200.8	936014
60474805006	**S-CA-DUP-1**	EPA 200.8	935877	EPA 200.8	936014
60474805007	**S-LMW-4S**	EPA 200.8	936079	EPA 200.8	936187
60474805008	**S-PZ-1S**	EPA 200.8	936079	EPA 200.8	936187
60474805009	**S-TP-2D**	EPA 200.8	936079	EPA 200.8	936187
60474805010	**S-TP-3D**	EPA 200.8	936079	EPA 200.8	936187
60474805011	**S-TP-4D**	EPA 200.8	936079	EPA 200.8	936187
60474805012	**S-TP-5D**	EPA 200.8	936085	EPA 200.8	936188
60474805013	**S-TP-6S**	EPA 200.8	936085	EPA 200.8	936188
60474805014	**S-TP-6D**	EPA 200.8	936085	EPA 200.8	936188
60474805016	**S-UG-3**	EPA 200.8	936085	EPA 200.8	936188
60474805017	**S-CA-DUP-2**	EPA 200.8	936085	EPA 200.8	936188
60474805018	**S-CA-FB-1**	EPA 200.8	936085	EPA 200.8	936188
60474805021	**S-LMW-1S**	EPA 200.8	936085	EPA 200.8	936188
60474805022	**S-LMW-5S**	EPA 200.8	936085	EPA 200.8	936188
60474805023	**S-LMW-6S**	EPA 200.8	936085	EPA 200.8	936188
60474805024	**S-PZ-9D**	EPA 200.8	936085	EPA 200.8	936188
60474805025	**S-TP-8D**	EPA 200.8	936085	EPA 200.8	936188

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805026	**S-CA-FB-2**	EPA 200.8	936085	EPA 200.8	936188
60474805001	**S-BMW-1S**	EPA 7470	935966	EPA 7470	935996
60474805002	**S-BMW-3S**	EPA 7470	935966	EPA 7470	935996
60474805003	**S-LMW-2S**	EPA 7470	935966	EPA 7470	935996
60474805004	**S-AM-1S**	EPA 7470	935966	EPA 7470	935996
60474805005	**S-AM-1D**	EPA 7470	935966	EPA 7470	935996
60474805006	**S-CA-DUP-1**	EPA 7470	935966	EPA 7470	935996
60474805007	**S-LMW-4S**	EPA 7470	936973	EPA 7470	937001
60474805008	**S-PZ-1S**	EPA 7470	936973	EPA 7470	937001
60474805009	**S-TP-2D**	EPA 7470	936973	EPA 7470	937001
60474805010	**S-TP-3D**	EPA 7470	936973	EPA 7470	937001
60474805011	**S-TP-4D**	EPA 7470	936973	EPA 7470	937001
60474805012	**S-TP-5D**	EPA 7470	936500	EPA 7470	936546
60474805013	**S-TP-6S**	EPA 7470	936973	EPA 7470	937001
60474805014	**S-TP-6D**	EPA 7470	936973	EPA 7470	937001
60474805016	**S-UG-3**	EPA 7470	936973	EPA 7470	937001
60474805017	**S-CA-DUP-2**	EPA 7470	936973	EPA 7470	937001
60474805018	**S-CA-FB-1**	EPA 7470	935967	EPA 7470	935997
60474805021	**S-LMW-1S**	EPA 7470	936500	EPA 7470	936546
60474805022	**S-LMW-5S**	EPA 7470	936500	EPA 7470	936546
60474805023	**S-LMW-6S**	EPA 7470	936500	EPA 7470	936546
60474805024	**S-PZ-9D**	EPA 7470	936500	EPA 7470	936546
60474805025	**S-TP-8D**	EPA 7470	936500	EPA 7470	936546
60474805026	**S-CA-FB-2**	EPA 7470	936973	EPA 7470	937001
60474805001	**S-BMW-1S**	EPA 903.1	747662		
60474805002	**S-BMW-3S**	EPA 903.1	747662		
60474805003	**S-LMW-2S**	EPA 903.1	747662		
60474805004	**S-AM-1S**	EPA 903.1	747662		
60474805005	**S-AM-1D**	EPA 903.1	747662		
60474805006	**S-CA-DUP-1**	EPA 903.1	747662		
60474805007	**S-LMW-4S**	EPA 903.1	747662		
60474805008	**S-PZ-1S**	EPA 903.1	747662		
60474805009	**S-TP-2D**	EPA 903.1	747662		
60474805010	**S-TP-3D**	EPA 903.1	747662		
60474805011	**S-TP-4D**	EPA 903.1	747662		
60474805012	**S-TP-5D**	EPA 903.1	747662		
60474805013	**S-TP-6S**	EPA 903.1	747662		
60474805014	**S-TP-6D**	EPA 903.1	747662		
60474805016	**S-UG-3**	EPA 903.1	747662		
60474805017	**S-CA-DUP-2**	EPA 903.1	747662		
60474805018	**S-CA-FB-1**	EPA 903.1	747662		
60474805019	**S-CA-MS-1**	EPA 903.1	747662		
60474805020	**S-CA-MSD-1**	EPA 903.1	747662		
60474805021	**S-LMW-1S**	EPA 903.1	747662		

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(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805022	**S-LMW-5S**	EPA 903.1	748063		
60474805023	**S-LMW-6S**	EPA 903.1	748063		
60474805024	**S-PZ-9D**	EPA 903.1	748063		
60474805025	**S-TP-8D**	EPA 903.1	748063		
60474805026	**S-CA-FB-2**	EPA 903.1	748063		
60474805001	**S-BMW-1S**	EPA 904.0	747664		
60474805002	**S-BMW-3S**	EPA 904.0	747664		
60474805003	**S-LMW-2S**	EPA 904.0	747664		
60474805004	**S-AM-1S**	EPA 904.0	747664		
60474805005	**S-AM-1D**	EPA 904.0	747664		
60474805006	**S-CA-DUP-1**	EPA 904.0	747664		
60474805007	**S-LMW-4S**	EPA 904.0	747664		
60474805008	**S-PZ-1S**	EPA 904.0	747664		
60474805009	**S-TP-2D**	EPA 904.0	747664		
60474805010	**S-TP-3D**	EPA 904.0	747664		
60474805011	**S-TP-4D**	EPA 904.0	747664		
60474805012	**S-TP-5D**	EPA 904.0	747664		
60474805013	**S-TP-6S**	EPA 904.0	747664		
60474805014	**S-TP-6D**	EPA 904.0	747664		
60474805016	**S-UG-3**	EPA 904.0	747664		
60474805017	**S-CA-DUP-2**	EPA 904.0	747664		
60474805018	**S-CA-FB-1**	EPA 904.0	747664		
60474805019	**S-CA-MS-1**	EPA 904.0	747664		
60474805020	**S-CA-MSD-1**	EPA 904.0	747664		
60474805021	**S-LMW-1S**	EPA 904.0	747664		
60474805022	**S-LMW-5S**	EPA 904.0	748064		
60474805023	**S-LMW-6S**	EPA 904.0	748064		
60474805024	**S-PZ-9D**	EPA 904.0	748064		
60474805025	**S-TP-8D**	EPA 904.0	748064		
60474805026	**S-CA-FB-2**	EPA 904.0	748064		
60474805001	**S-BMW-1S**	SM 2320B	935400		
60474805002	**S-BMW-3S**	SM 2320B	935400		
60474805003	**S-LMW-2S**	SM 2320B	935400		
60474805004	**S-AM-1S**	SM 2320B	935400		
60474805005	**S-AM-1D**	SM 2320B	935400		
60474805006	**S-CA-DUP-1**	SM 2320B	935400		
60474805007	**S-LMW-4S**	SM 2320B	935652		
60474805008	**S-PZ-1S**	SM 2320B	935651		
60474805009	**S-TP-2D**	SM 2320B	935652		
60474805010	**S-TP-3D**	SM 2320B	935652		
60474805011	**S-TP-4D**	SM 2320B	935652		
60474805012	**S-TP-5D**	SM 2320B	935651		
60474805013	**S-TP-6S**	SM 2320B	935651		
60474805014	**S-TP-6D**	SM 2320B	935651		
60474805016	**S-UG-3**	SM 2320B	935651		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805017	**S-CA-DUP-2**	SM 2320B	935651		
60474805018	**S-CA-FB-1**	SM 2320B	935651		
60474805021	**S-LMW-1S**	SM 2320B	935733		
60474805022	**S-LMW-5S**	SM 2320B	935733		
60474805023	**S-LMW-6S**	SM 2320B	935733		
60474805024	**S-PZ-9D**	SM 2320B	935733		
60474805025	**S-TP-8D**	SM 2320B	935733		
60474805026	**S-CA-FB-2**	SM 2320B	935733		
60474805001	**S-BMW-1S**	SM 2540C	934870		
60474805002	**S-BMW-3S**	SM 2540C	934870		
60474805003	**S-LMW-2S**	SM 2540C	934870		
60474805004	**S-AM-1S**	SM 2540C	934870		
60474805005	**S-AM-1D**	SM 2540C	934870		
60474805006	**S-CA-DUP-1**	SM 2540C	934870		
60474805007	**S-LMW-4S**	SM 2540C	935176		
60474805008	**S-PZ-1S**	SM 2540C	935020		
60474805009	**S-TP-2D**	SM 2540C	935176		
60474805010	**S-TP-3D**	SM 2540C	935176		
60474805011	**S-TP-4D**	SM 2540C	935176		
60474805012	**S-TP-5D**	SM 2540C	935020		
60474805013	**S-TP-6S**	SM 2540C	935020		
60474805014	**S-TP-6D**	SM 2540C	935020		
60474805016	**S-UG-3**	SM 2540C	935020		
60474805017	**S-CA-DUP-2**	SM 2540C	935020		
60474805018	**S-CA-FB-1**	SM 2540C	935020		
60474805021	**S-LMW-1S**	SM 2540C	935357		
60474805022	**S-LMW-5S**	SM 2540C	935357		
60474805023	**S-LMW-6S**	SM 2540C	935357		
60474805024	**S-PZ-9D**	SM 2540C	935357		
60474805025	**S-TP-8D**	SM 2540C	935357		
60474805026	**S-CA-FB-2**	SM 2540C	935357		
60474805001	**S-BMW-1S**	SM 3500-Fe B#4	937799		
60474805002	**S-BMW-3S**	SM 3500-Fe B#4	937799		
60474805003	**S-LMW-2S**	SM 3500-Fe B#4	938198		
60474805004	**S-AM-1S**	SM 3500-Fe B#4	938198		
60474805005	**S-AM-1D**	SM 3500-Fe B#4	938198		
60474805006	**S-CA-DUP-1**	SM 3500-Fe B#4	938631		
60474805007	**S-LMW-4S**	SM 3500-Fe B#4	937799		
60474805008	**S-PZ-1S**	SM 3500-Fe B#4	937799		
60474805009	**S-TP-2D**	SM 3500-Fe B#4	937799		
60474805010	**S-TP-3D**	SM 3500-Fe B#4	937799		
60474805011	**S-TP-4D**	SM 3500-Fe B#4	937799		
60474805012	**S-TP-5D**	SM 3500-Fe B#4	937556		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805013	**S-TP-6S**	SM 3500-Fe B#4	937556		
60474805014	**S-TP-6D**	SM 3500-Fe B#4	937556		
60474805016	**S-UG-3**	SM 3500-Fe B#4	937556		
60474805017	**S-CA-DUP-2**	SM 3500-Fe B#4	937556		
60474805018	**S-CA-FB-1**	SM 3500-Fe B#4	937556		
60474805021	**S-LMW-1S**	SM 3500-Fe B#4	937982		
60474805022	**S-LMW-5S**	SM 3500-Fe B#4	937982		
60474805023	**S-LMW-6S**	SM 3500-Fe B#4	937982		
60474805024	**S-PZ-9D**	SM 3500-Fe B#4	937982		
60474805025	**S-TP-8D**	SM 3500-Fe B#4	939700		
60474805026	**S-CA-FB-2**	SM 3500-Fe B#4	937982		
60474805001	**S-BMW-1S**	SM 3500-Fe B#4	934563		
60474805002	**S-BMW-3S**	SM 3500-Fe B#4	934563		
60474805003	**S-LMW-2S**	SM 3500-Fe B#4	934563		
60474805004	**S-AM-1S**	SM 3500-Fe B#4	934563		
60474805005	**S-AM-1D**	SM 3500-Fe B#4	934563		
60474805006	**S-CA-DUP-1**	SM 3500-Fe B#4	934563		
60474805007	**S-LMW-4S**	SM 3500-Fe B#4	935356		
60474805008	**S-PZ-1S**	SM 3500-Fe B#4	935356		
60474805009	**S-TP-2D**	SM 3500-Fe B#4	935356		
60474805010	**S-TP-3D**	SM 3500-Fe B#4	935356		
60474805011	**S-TP-4D**	SM 3500-Fe B#4	935356		
60474805012	**S-TP-5D**	SM 3500-Fe B#4	935356		
60474805013	**S-TP-6S**	SM 3500-Fe B#4	935356		
60474805014	**S-TP-6D**	SM 3500-Fe B#4	935356		
60474805016	**S-UG-3**	SM 3500-Fe B#4	935356		
60474805017	**S-CA-DUP-2**	SM 3500-Fe B#4	935356		
60474805018	**S-CA-FB-1**	SM 3500-Fe B#4	935356		
60474805021	**S-LMW-1S**	SM 3500-Fe B#4	935706		
60474805022	**S-LMW-5S**	SM 3500-Fe B#4	935356		
60474805023	**S-LMW-6S**	SM 3500-Fe B#4	935706		
60474805024	**S-PZ-9D**	SM 3500-Fe B#4	935356		
60474805025	**S-TP-8D**	SM 3500-Fe B#4	935356		
60474805026	**S-CA-FB-2**	SM 3500-Fe B#4	935706		
60474805001	**S-BMW-1S**	SM 4500-S-2 D	934926		
60474805002	**S-BMW-3S**	SM 4500-S-2 D	934926		
60474805003	**S-LMW-2S**	SM 4500-S-2 D	934926		
60474805004	**S-AM-1S**	SM 4500-S-2 D	934926		
60474805005	**S-AM-1D**	SM 4500-S-2 D	934926		
60474805006	**S-CA-DUP-1**	SM 4500-S-2 D	934926		
60474805007	**S-LMW-4S**	SM 4500-S-2 D	935182		
60474805008	**S-PZ-1S**	SM 4500-S-2 D	935182		
60474805009	**S-TP-2D**	SM 4500-S-2 D	935182		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60474805

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474805010	**S-TP-3D**	SM 4500-S-2 D	935182		
60474805011	**S-TP-4D**	SM 4500-S-2 D	935182		
60474805012	**S-TP-5D**	SM 4500-S-2 D	935182		
60474805013	**S-TP-6S**	SM 4500-S-2 D	935182		
60474805014	**S-TP-6D**	SM 4500-S-2 D	935182		
60474805016	**S-UG-3**	SM 4500-S-2 D	935182		
60474805017	**S-CA-DUP-2**	SM 4500-S-2 D	935182		
60474805018	**S-CA-FB-1**	SM 4500-S-2 D	935182		
60474805021	**S-LMW-1S**	SM 4500-S-2 D	935502		
60474805022	**S-LMW-5S**	SM 4500-S-2 D	935502		
60474805023	**S-LMW-6S**	SM 4500-S-2 D	935502		
60474805024	**S-PZ-9D**	SM 4500-S-2 D	935502		
60474805025	**S-TP-8D**	SM 4500-S-2 D	935502		
60474805026	**S-CA-FB-2**	SM 4500-S-2 D	935502		
60474805001	**S-BMW-1S**	EPA 300.0	937191		
60474805002	**S-BMW-3S**	EPA 300.0	937191		
60474805003	**S-LMW-2S**	EPA 300.0	937191		
60474805004	**S-AM-1S**	EPA 300.0	937191		
60474805005	**S-AM-1D**	EPA 300.0	937191		
60474805006	**S-CA-DUP-1**	EPA 300.0	937191		
60474805007	**S-LMW-4S**	EPA 300.0	937354		
60474805008	**S-PZ-1S**	EPA 300.0	937354		
60474805009	**S-TP-2D**	EPA 300.0	937354		
60474805010	**S-TP-3D**	EPA 300.0	937354		
60474805011	**S-TP-4D**	EPA 300.0	937354		
60474805012	**S-TP-5D**	EPA 300.0	937211		
60474805013	**S-TP-6S**	EPA 300.0	937211		
60474805014	**S-TP-6D**	EPA 300.0	937211		
60474805016	**S-UG-3**	EPA 300.0	937211		
60474805017	**S-CA-DUP-2**	EPA 300.0	937211		
60474805018	**S-CA-FB-1**	EPA 300.0	937211		
60474805021	**S-LMW-1S**	EPA 300.0	937709		
60474805022	**S-LMW-5S**	EPA 300.0	937709		
60474805023	**S-LMW-6S**	EPA 300.0	937709		
60474805024	**S-PZ-9D**	EPA 300.0	937709		
60474805025	**S-TP-8D**	EPA 300.0	937709		
60474805026	**S-CA-FB-2**	EPA 300.0	937709		

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WO# : 60474805

60474805

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Cond		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): As-read 1.8/1.3/15.6 **Corr. Factor** +0.3 **Corrected** 1.9/1.4/15.1

Date and initials of person examining contents: PVS 9/25

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 96888/88728	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

6a174805

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 8		
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***: 1 1 4 6 2 2 2

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228	Sample Comment
S-BMW-1S	WT	G			5-7-25	1505	7			✓	✓	✓	✓	✓	✓	✓	
S-BMW-3S	WT	G			"	1410	7			✓	✓	✓	✓	✓	✓	✓	
S-LMW-1S	WT																
S-LMW-2S	WT	G			5-7-25	1617	7			✓	✓	✓	✓	✓	✓	✓	
S-LMW-4S	WT																
S-LMW-5S	WT																
S-LMW-6S	WT																
S-AM-1S	WT	G			5-7-25	1409	7			✓	✓	✓	✓	✓	✓	✓	
S-AM-1D	WT	G			"	1449	7			✓	✓	✓	✓	✓	✓	✓	
~~S-PZ-1S~~ S-CA-DUP-1	WT	G			5-7-25	-	7			✓	✓	✓	✓	✓	✓	✓	

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244561

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
***App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B**
****App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg**

Collected By:
(Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1.0/1.3/15.0	1.9/1.4/15.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5-8-25/0800		5/9/25 07:12	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Client: Rocksmith Geoeng Profile/EZ # 3244561

Site: Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT		3																1			2	1				1					
2	↓		2																1			2	1				1					
3																																
4	↓		3																1			2	1				1					
5																																
6																																
7																																
8	↓		3																1			2	1				1					
9			3																1			2	1				1					
10	↓		3																1			2	1				1					
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6047805

WO# : 60474802

60474802

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Co		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: T-301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 0.3/1.1 **Corr. Factor** +0.1 **Corrected** 0.4/1.2/21.2

Date and initials of person examining contents: JN 5/12/25

Temperature should be above freezing to 6°C 21.1

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 96888/88728	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

604748C2

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7		
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***: 1 1 4 6 2 2 2

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228
S-UMW-1D	WT															
S-UMW-2D	WT	G			5-8-25	1323	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-3D	WT	G				1220	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-4D	WT	G				1125	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-5D	WT	G				1430	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-6D	WT	G				1550	7			✓	✓	✓	✓	✓	✓	✓
S-BMW-1D	WT															
S-BMW-3D	WT															
S-UMW-DUP-1	WT	G			5-8-25	—	7			✓	✓	✓	✓	✓	✓	✓
S-UMW-FB-1	WT															

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
App III and Cat/An Metals - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B
**App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg

Collected By: (Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1-1/0-3/21.3	1-2/0.4/21.2	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5/9/25 1600		5/10/25 0651	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

6041748C2

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 7	Invoice To:	Mark Haddock
Project Name:	AMEREN SCPA	Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228	Sample Comment
S-UMW-MS-1	WT	G			5-8-25	1430	7			✓	✓	✓	✓	✓	✓	✓	Collected @ S-UMW-SD 1
S-UMW-MSD-1	WT	G			1	1430	7			✓	✓	✓	✓	✓	✓	✓	

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244560

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
***App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B**
****App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg**

Collected By: (Printed Name) Grant Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1.1/0.3/2.1-1	1.2/0.4/2.1-2	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5-9-25 1600		5/10/25 0651	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

1/2

Client: Rocksmith Geoeng

Profile/EZ # Only Print what you log.

Site:

Notes Attach to 60474802

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2	WT		3																1			2	1				1					
3	↓		↓																↓			↓	↓				↓					
4																																
5			9									(MS/MSD)							3				3				3					
6	↓		3																1			↓	1				1					
7																																
8																																
9	WT		3																1			↓	1				1					
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474802

2/2

Client: Rocksmith Geoeng

Profile/EZ #

Site:

Notes Append to 60474802

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																					2	(Only Log RAD)									
2	↓																					2										
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474802

WO# : 60474805

60474805

DC#_Title: ENV-FRM-LENE-0009_Sample Con		
Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: T-361 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 1.0/0.8 Corr. Factor +0.1 Corrected 1.1/0.9/15.1 15.0

Temperature should be above freezing to 6°C

Date and initials of person examining contents: PV 5/14/25

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#: 96888/88728	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60474805

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 8		
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Chloride/Fluoride/Sulfate	TDS / Alkalinity	Ferrous Iron / Ferric Iron	Sulfide	App III and Cat/An Metals (200.7)*	Appendix IV Metals (200.7/200.8/7470)**	Radium 226 & Radium 228	Sample Comment
S-BMW-1S	WT																
S-BMW-3S	WT																
S-LMW-1S	WT	G			5-12-25	1522	8			✓	✓	✓	✓	✓	✓	✓	
S-LMW-2S	WT																
S-LMW-4S	WT																
S-LMW-5S	WT	G			5-12-25	1045	8			✓	✓	✓	✓	✓	✓	✓	
S-LMW-6S	WT	G			1	1335	8			✓	✓	✓	✓	✓	✓	✓	
S-AM-1S	WT																
S-AM-1D	WT																
S-PZ-1S	WT																

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3244561

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
**App III and Cat/An Metals* - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B
***App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg

Collected By: (Printed Name) Grant Mercy
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1.0/0.8/15.0	1.1/0.9/15.1	

Relinquished by/Company: (Signature) Rocksmith	Date/Time: 5/13/25 / 1420	Received by/Company: (Signature)	Date/Time: 5/14 06:45	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Page 142 of 148

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60474805

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road, Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:	COC# 8		
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No
			Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1 6 3 3 3 1

Identify Container Preservative Type***: 1 1 4 6 2 2 2

Analysis Requested: Chloride/Fluoride/Sulfate; TDS / Alkalinity; Ferrous Iron / Ferric Iron; Sulfide; App III and Cat/An Metals (200.7)*; Appendix IV Metals (200.7/200.8/7470)**; Radium 226 & Radium 228

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: Jamie Church; AcctNum / Client ID:; Table #:; Profile / Template: 15856; Prelog / Bottle Ord. ID: EZ 3244561

Preservation non-conformance identified for sample.

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Sample Comment
S-PZ-9D	WT	G			5-12-25	1230	8			
SP-TP-2D	WT									
SP-TP-3D	WT									
SP-TP-4D	WT									
SP-TP-5D	WT									
SP-TP-6S	WT									
SP-TP-6D	WT									
~~SP-TP-8D~~ S-TP-8D	WT	G			5-12-25	1230	8			
S-UG-3	WT									
~~S-CA-DUP-1~~ S-CA-FB-2	WT	G			5-12-25	1300	8			

Additional Instructions from Pace®:
App III and Cat/An Metals - EPA 200.7: Fe, Mg, Mn, K, Na, Ca, B
**App IV Metals - EPA 200.7 -Ba,Be,Co,Pb,Li,Mo & 200.8 Metals - Sb,As,Cd,Cr,Se,Tl +7470 Hg

Collected By: (Printed Name) Grayt Morey
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	+0.1	1.0/0.8/15.0	1.1/0.9/15.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	5/13/25/1420			
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

DC#_Title: ENV-FRM-LENE-0001 v07_Sample Container Count
Effective Date: 7/12/2024

1/2

Client: Rocksmith Geoeng

Profile/EZ # Only print what you log.

Site:

Notes Append to 60474805

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2																																
3	WT		3																1			2	1				1					
4																																
5																																
6	WT		3																1			2	1				1					
7	↓		3																1			2	1				1					
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474805

2/2

Client: Rocksmith Geoeng

Profile/EZ #

Site:

Notes Append to 60474805

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT		3																1			2	1				1					
2																																
3																																
4																																
5																																
6																																
7																																
8	WT		3																1			2	1				1					
9																																
10	WT		3																1			2	1				1					
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60474805

Internal Transfer Chain of Custody

☐ Rush Multiplier_____X

☒ Samples Pre-Logged into eCOC

State Of Origin: MO

Cert. Needed: ☐ Yes ☒ No

Workorder: 60474805 **Workorder Name:** AMEREN SCPA-CA

Owner Received Date: 5/9/2025 **Results Requested By:** 6/3/2025

Report To	Subcontract To
Jamie Church Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 314-838-7223	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3						Requested Analysis Radium 226	Radium 228											LAB USE ONLY
1	S-BMW-1S	PS	5/7/2025 15:05	60474805001	Water	2						X	X											001
2	S-BMW-3S	PS	5/7/2025 14:10	60474805002	Water	2						X	X											002
3	S-LMW-2S	PS	5/7/2025 16:17	60474805003	Water	2						X	X											003
4	S-AM-1S	PS	5/7/2025 14:09	60474805004	Water	2						X	X											004
5	S-AM-1D	PS	5/7/2025 14:49	60474805005	Water	2						X	X											005
6	S-CA-DUP-1	PS	5/7/2025 08:00	60474805006	Water	2						X	X											006
7	S-LMW-4S	PS	5/9/2025 14:41	60474805007	Water	2						X	X											007
8	S-PZ-1S	PS	5/8/2025 10:33	60474805008	Water	2						X	X											008
9	S-TP-2D	PS	5/9/2025 09:31	60474805009	Water	2						X	X											009
10	S-TP-3D	PS	5/9/2025 12:35	60474805010	Water	2						X	X											010
11	S-TP-4D	PS	5/9/2025 13:40	60474805011	Water	2						X	X											011
12	S-TP-5D	RQS	5/8/2025 10:36	60474805012	Water	2						X	X											012
13	S-TP-6S	PS	5/8/2025 09:32	60474805013	Water	2						X	X											013
14	S-TP-6D	PS	5/8/2025 08:45	60474805014	Water	2						X	X											014
15	S-UG-03	PS	5/8/2025 12:10	60474805016	Water	2						X	X											015
16	S-CA-DUP-2	PS	5/8/2025 00:00	60474805017	Water	2						X	X											016
17	S-CA-FB-1	PS	5/8/2025 08:50	60474805018	Water	2						X	X											017
18	S-CA-MS-1	PS	5/8/2025 10:36	60474805019	Water	2						X	X											018
19	S-CA-MSD-1	PS	5/8/2025 10:36	60474805020	Water	2						X	X											019

WO# : 30779614

30779614

Transfers	Released By	Date/Time	Received By	Date/Time
1	JAPACE	5/13/25 1100	[signature]	5.15.25 0950
2				
3				

Comments

***Note: Parent sample for MS/MSD 019/020 is sample 012.

Cooler Temperature on Receipt ___ °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Samples Intact (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO#: 30779614

PM: CMC Due Date: 06/13/25

CLIENT: PACE_GO_LEKS

DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-Greensburg

Effective Date: 01/04/2024

WO#: 30779614

PM: CMC Due Date: 06/13/25

CLIENT: PACE_60_LEKS

Client Name: Pace Analytical Kansas Proje

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 4453 8931 5798

Initial / Date

Examined By: MS 5/16/25

Labeled By: MS 5/16/25

Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals Intact:** ☐ Yes ☑ No

Thermometer Used: — **Type of Ice:** Wet Blue (None)

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

pH paper Lot# 10D3241 | D.P.D. Residual Chlorine Lot # —

Comments:	Yes	No	NA	
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓	~~✓~~	MS 5/16/25	2.
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix:	WT			
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dichlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation:	✓			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				pH<2
All containers meet method preservation requirements:	✓			Initial when completed MS; Date/Time of Preservation; Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed BJC; Date: 5.15.25; Survey Meter SN: 2501880

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Memorandum

July 29, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Jack Rasmussen	**Email:**	Jack.Rasmussen@Rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA-CA – Data Package 60474805**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- When a compound was analyzed outside of hold time, the sample result was qualified as an estimate (J for detects, UJ for non-detects).
- When a compound was detected in a blank (i.e. method, field), and the blank comparison criterion was not met, associated sample results were qualified as estimates (J) or non-detects (U).
- When a compound was detected in a sample result between the Method Detection Limit (MDL) and Practical Quantification Limit (PQL), the results were recorded at the detection value and qualified as estimates (J).
- When a duplicate criterion was not met, the associated sample result was qualified as an estimate (J for detects, UJ for non-detects).
- When a matrix spike/matrix spike duplicate (MS/MSD) criterion was not met, the associated sample result was qualified as an estimate (J, J+ for estimates based high, and J- for estimates based low).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA-CA
Project Number: 23009-25
Reviewer: J. Rasmussen
Validation Date: 7/29/2025

Laboratory: Pace Analytical
SDG #: 60474805
Analytical Method (type and no.): EPA 200.7/200.8 (Total Metals); SM 2320B (Alkalinity); SM 2540C (TDS); EPA 300.0 (Anions); EPA 7470 (Mercury); SM 4500-S-2 D (Sulfide)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐ SM 3500-Fe B#4(Ferrous and Ferric iron); EPA 903.1/904.0 (Radium 226+228)
Sample Names S-AM-1S, S-AM-1D, S-CA-DUP-1, S-PZ-1S, S-TP-2D, S-TP-3D, S-TP-4D, S-TP-5D, S-TP-6S, S-TP-6D, S-CA-DUP-2, S-CA-FB-1, S-CA-MS-1, S-CA-MSD-1, S-PZ-9D, S-TP-8D, S-CA-FB-2, S-LMW-1S, S-LMW-2S, S-LMW-4S, S-LMW-5S, S-LMW-6S, S-UG-3, S-BMW-1S, S-BMW-3S

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			05/07/2025-05/12/2025
b) Sampling team indicated?	x			GTM/JTR
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?		x		See Notes
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	x			See Notes
b) Were analytes detected in the field blank(s)?	x			See Notes
c) Were analytes detected in the equipment blank(s)?			x	
d) Were analytes detected in the trip blank(s)?			x	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	x			
b) Were the proper analytes included in the LCS?	x			
c) Was the LCS accuracy criteria met?	x			

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?				See Notes
	x			See Notes
b) Were field dup. precision criteria met (note RPD)?		x		See Notes
c) Were lab duplicates analyzed (note original and duplicate samples)?				
	x			See Notes
d) Were lab dup. precision criteria met (note RPD)?		x		See Notes

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name,			x	
analytes included and concentrations)?				
b) Was the %D within control limits?			x	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
b) Was MSD accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
c) Were MS/MSD precision criteria met?		x		See Notes

Comments/Notes:

General:

Ferrous iron samples were all analyzed outside of hold time. Some chloride, fluoride, and sulfate analyzed outside of hold time.

Results qualified as estimates.

Chloride and/or sulfate were diluted in several samples; no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Method Blanks:

3709216: Barium (1.1J), potassium (118J), sodium (138J), associated with samples -003, -004, -005, -006. All sample results > RL and 10x blank, no qualifications necessary.

3710296: Boron (14.5J), iron (9.5J), associated with samples -012, -013, -014, -016, -017, -018. Sample -013 boron result > RL and < 10x blank, result qualified as estimate. Sample -014 result < RL, report at reporting limit and qualified as non-detect (U). Sample -016 iron result reported as non-detect, no qualification necessary. Sample -017 boron result > RL and <10x blank, result qualified as estimate. Sample -018 results reported as non-detect, no qualification necessary.

3711403: Iron (10.7J), associated with samples -021, -022, -023, -024, -025, -026. Sample -021 result > RL and < 10x blank, result qualified as estimate. Sample -022 result < reporting limit, report at reporting limit and qualify as non-detect (U). Sample -023 result < RL, report at reporting limit and qualify as non-detect (U). Sample -026 result qualified as non-detect, no qualification necessary.

3715496: Chloride (0.59J), associated with samples -012, -013, -014, -016, -017, -018. Sample -018 result < RL, report at reporting limit and qualify as non-detect.

3716100: Chloride (0.54J), associated with samples -007, -008, -009, -010, -011. Sample -007 result > RL and < 10x blank, result qualified as estimate. All other sample results >RL and 10x blank, no qualification necessary.

Field Blanks:

S-CA-FB-1 @ S-TP-6D

Chloride (0.62J), result > RL and 10x blank, no qualification necessary.

S-CA-FB-2 @ S-TP-8D

Chloride (0.55J), result > RL and 10x blank, no qualification necessary.

Duplicates:

S-CA-DUP-1 @ S-AM-1D: radium-228 detected in parent sample, not detected in duplicate. Results qualified as estimates.

S-CA-DUP-2 @ S-TP-6S: ferric Iron detected in parent sample, not detected in duplicate. Results qualified as estimates.

RPD exceeds control limit (20%) for molybdenum (32.2%), and ferrous iron (38%), results qualified as estimates.

Selenium detected in parent sample, not detected in duplicate. Results qualified as estimates.

Lab duplicate RPD: 10%: alkalinity, TDS; 15%: chloride, fluoride, sulfate; 20%: ferrous iron, sulfide, other metals.

3716104: RPD exceeds control for fluoride, associated with unrelated sample. No qualification necessary.

MS/MSD:

3709222: MS recovery low for calcium, associated with sample -003. Result qualified as estimate.

3709609/3709610: MSD recovery below 10%, associated with sample -001. Result qualified as estimate.

3709611: MS recovery high for calcium, associated with unrelated sample.

3710298/3710299: MS recovery low for calcium, MSD recovery within percent recovery and RPD within control limits. No qualification necessary.

3710300: MS recovery low for barium, calcium, iron, potassium, sodium. Associated with unrelated sample, no qualification necessary.

3708280/3708281: MSD recovery low for sulfide, MS recovery and RPD within limits. No qualification necessary.

3715442/3715443: MSD recovery low for chloride and fluoride, MS recovery and RPD within control limits. No qualification necessary.

MS recovery high for sulfate, MSD and RPD within control limits. No qualification necessary.

3717640/3717641: MS and MSD recovery low for chloride, fluoride and sulfate. Associated with unrelated sample, no qualification necessary.

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-AM-1S	Iron, ferrous	1.0	J	Analyzed outside of hold time
S-AM-1D	"	4.3	J	"
S-CA-DUP-1	"	4.3	J	"
S-PZ-1S	"	9.3	J	"
S-TP-2D	"	22.6	J	"
S-TP-3D	"	11.2	J	"
S-TP-4D	"	9.5	J	"
S-TP-5D	"	13.4	J	"
S-TP-6S	"	0.15	J	"
S-TP-6D	"	9.6	J	"
S-CA-DUP-2	"	0.22	J	"
S-CA-FB-1	"	0.041	UJ	"
S-PZ-9D	"	6.5	J	"
S-TP-8D	"	8.7	J	"
S-CA-FB-2	"	0.041	UJ	"
S-LMW-1S	"	0.041	UJ	"
S-LMW-2S	"	0.044	J	"
S-LMW-4S	"	0.041	UJ	"
S-LMW-5S	"	0.041	UJ	"
S-LMW-6S	"	0.041	UJ	"
S-UG-3	"	0.041	UJ	"
S-BMW-1S	"	0.041	UJ	"
S-BMW-3S	"	0.041	UJ	"
S-TP-6S	Boron	112	J	Detected in method blank, result >RL and <10x blank
S-TP-6D	"	100	U	Detected in method blank, result < RL
S-CA-DUP-2	"	103	J	Detected in method blank, result >RL and <10x blank
S-LMW-1S	Iron	84	J	"
S-LMW-5S	"	50	U	Detected in method blank, result < RL
S-LMW-6S	"	50	U	"
S-CA-FB-1	Chloride	1.0	U	"
S-LMW-4S	"	2.6	J	Detected in method blank, result >RL and <10x blank
"	"	2.6	J	Analyzed outside of hold time
"	Fluoride	0.12	UJ	"
"	Sulfate	31.2	J	"

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-TP-4D	Chloride	9.1	J	Analyzed outside of hold time
"	Fluoride	0.12	UJ	"
"	Sulfate	120	J	"
S-TP-3D	Chloride	7.6	J	'
"	Fluoride	0.12	UJ	'
"	Sulfate	83.8	J	"
S-TP-2D	Chloride	72.1	J	"
"	Fluoride	0.12	UJ	"
"	Sulfate	486	J	"
S-PZ-1S	"	50.1	J	"
S-AM-1D	Radium-228	1.47	J	Detected in parent sample, not detected in duplicate
S-CA-DUP-1	"	0.829	UJ	"
S-TP-6S	Iron, ferric	0.059	J	"
S-CA-DUP-2	"	0.041	UJ	"
S-TP-6S	Molybdenum	8.0	J	Field DUP RPD exceeds control limit
S-CA-DUP-2	"	4.1	J	"
S-TP-6S	Selenium	0.18	J	Detected in parent sample, not detected in duplicate
S-CA-DUP-2	"	0.18	UJ	"
S-LMW-2S	Calcium	169,000	J-	MS recovery low
S-BMW-1S	"	177,000	J-	MS recovery lower than 10%
S-CA-DUP-2	Iron, ferrous	0.22	J	Field DUP RPD exceeds control limit
S-TP-6S	"	0.15	J	"

Signature: _____ Date: 07/29/2025

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

July 23, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
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SAMPLE SUMMARY

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60478803001	**S-UMW-2D**	Water	07/09/25 15:15	07/11/25 07:09
60478803002	**S-UMW-5D**	Water	07/09/25 14:20	07/11/25 07:09
60478803003	**S-UMW-DUP-1**	Water	07/09/25 00:00	07/11/25 07:09
60478803004	**S-UMW-FB-1**	Water	07/09/25 14:12	07/11/25 07:09

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60478803001	**S-UMW-2D**	EPA 300.0	MLD	1	PASI-K
60478803002	**S-UMW-5D**	EPA 300.0	MLD	1	PASI-K
60478803003	**S-UMW-DUP-1**	EPA 300.0	MLD	1	PASI-K
60478803004	**S-UMW-FB-1**	EPA 300.0	MLD	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Sample: S-UMW-2D **Lab ID: 60478803001** Collected: 07/09/25 15:15 Received: 07/11/25 07:09 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**1.0**	mg/L	0.20	0.12	1		07/19/25 23:40	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Sample: S-UMW-5D **Lab ID: 60478803002** Collected: 07/09/25 14:20 Received: 07/11/25 07:09 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**0.51**	mg/L	0.20	0.12	1		07/20/25 01:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Sample: S-UMW-DUP-1 **Lab ID: 60478803003** Collected: 07/09/25 00:00 Received: 07/11/25 07:09 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**0.49**	mg/L	0.20	0.12	1		07/20/25 01:20	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Sample: S-UMW-FB-1 **Lab ID: 60478803004** Collected: 07/09/25 14:12 Received: 07/11/25 07:09 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Fluoride	**<0.12**	mg/L	0.20	0.12	1		07/20/25 01:53	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

QC Batch: 942249
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60478803001, 60478803002, 60478803003, 60478803004

METHOD BLANK: 3735306 Matrix: Water
Associated Lab Samples: 60478803001, 60478803002, 60478803003, 60478803004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	<0.12	0.20	0.12	07/19/25 19:05	

LABORATORY CONTROL SAMPLE: 3735307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3735308 3735309

Parameter	Units	60478698001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.19J	2.5	2.5	2.6	2.6	95	97	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3735311 3735312

Parameter	Units	60478803001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.0	2.5	2.5	3.5	3.5	98	99	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3735314 3735315

Parameter	Units	60478805001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.25	2.5	2.5	2.6	2.7	93	99	80-120	5	15	

SAMPLE DUPLICATE: 3735310

Parameter	Units	60478698001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.19J	0.18J		15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

SAMPLE DUPLICATE: 3735313

Parameter	Units	60478803001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	1.0	1.0	3	15	

SAMPLE DUPLICATE: 3735316

Parameter	Units	60478805001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.25	0.28	12	15	

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Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60478803

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60478803001	**S-UMW-2D**	EPA 300.0	942249		
60478803002	**S-UMW-5D**	EPA 300.0	942249		
60478803003	**S-UMW-DUP-1**	EPA 300.0	942249		
60478803004	**S-UMW-FB-1**	EPA 300.0	942249		

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WO# : 60478803

60478803

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Co		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 1.9 **Corr. Factor** 0.0 **Corrected** 1.9

Date and initials of person examining contents: RT 7/11/25

Temperature should be above freezing to 6°C

Chain of Custody present:	☐Yes ☐No ☐N/A	
Chain of Custody relinquished:	☐Yes ☐No ☐N/A	
Samples arrived within holding time:	☐Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☐No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☐No ☐N/A	
Sufficient volume:	☐Yes ☐No ☐N/A	
Correct containers used:	☐Yes ☐No ☐N/A	
Pace containers used:	☐Yes ☐No ☐N/A	
Containers intact:	☐Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☐N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	☐Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☐No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☐N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☐N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Rocksmith Geoengineering, LLC	Report To:	Mark Haddock	Attention:	
Address:	5233 Roanoke Drive	Copy To:	Jeffery Ingram, Grant Morey	Company Name:	Rocksmith
	St. Charles, MO 63304			Address:	
Email To:	mark.haddock@rocksmithgeo.com	Purchase Order No.:	COC #1	Pace Quote Reference:	
Phone:	314-974-5678 Fax:	Project Name:	Ameren SCPA - Verification Sampling	Pace Project Manager:	Jamie Church
Requested Due Date/TAT:	Standard	Project Number:	COC#	Pace Profile #:	15856, line 1

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MO

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
	WP
	AR
	OT
	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Fluoride										Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N	N	N	N	N	N		
1	S-UMW-2D	WT	G			7-9-25	1515		1	X									X										6004788O3
2	S-UMW-5D	WT	G				1420		1	X									X										
3	S-UMW-DUP-1	WT	G				—		1	X									X										
4	S-UMW-FB-1	WT	G				1412		1	X									X										
5	S-UMW-MS-1	WT	G				1515		1	X									X										
6	S-UMW-MSD-1	WT	G				1515		1	X									X										
7		WT	G																										
8		WT	G																										
9		WT	G																										
10		WT	G																										
11		WT	G																										
12		WT	G																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	John Rasmussen / Rocksmith	7-10-25	1545		7/11	0709	1.9	+	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Rasmussen

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 07/10/2025

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Client: Rocksmith Geoeng Profile/EZ # 15856-1

Site: Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																			3		MS/MSD										
2	↓																			1												
3																				1												
4																				1												
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60478803

Memorandum

August 15, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Emy Ludwig	**Email:**	emy.ludwig@rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA – Data Package 60453803**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- None identified.

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA- Verification
Project Number: 23009-25
Reviewer: E. Ludwig
Validation Date: 8/15/2025

Laboratory: Pace Analytical
SDG #: 60478803
Analytical Method (type and no.): SM 2540C (TDS); EPA 300.0 (Anions)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐
Sample Names S-UMW-2D, S-UMW-5D, S-UMW-DUP-1, S-UMW-FB-1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			7/09/2025
b) Sampling team indicated?	x			JTR/JDQ/CLJ
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?		x		
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☒	☐	
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☐	☒	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☒	☐	☐	S-UMW-DUP-1 is associated with S-UMW-5D
b) Were field dup. precision criteria met (note RPD)?	☒	☐	☐	All RPD's within control limits
c) Were lab duplicates analyzed (note original and duplicate samples)?	☒	☐	☐	See Notes
d) Were lab dup. precision criteria met (note RPD)?	☒	☐	☐	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?	☐	☐	☒	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☒	☐	☐	

Comments/Notes:

Field QC:

S-UMW-DUP-1 is associated with S-UMW-5D

S-UMW-FB-1 is associated with S-UMW-5D

S-UMW-MS-1 and S-UMW-MSD-1 is associated with S-UMW-2D

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

Signature: Emma Ludwig Digitally signed by Emma Ludwig Date: 2025.08.22 15:04:27 -05'00'

Date: 08/22/2025

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

November 03, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA
Pace Project No.: 60483711

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory between October 08, 2025 and October 10, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Greensburg
- Pace Analytical Services - Salina

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA
Pace Project No.: 60483711

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
EPA Lab Code: KS00021
Arkansas Certification #: 88-00679
Illinois Certification #: 200030
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Oklahoma Certification #: 9205
Texas Certification #: T104704407
Utah Certification #: KS0002125-15
UDSA_CA : #KS-SC-DOM-25-01

Pace Analytical Services Salina
528 N 9th Street, Salina, KS 67401
EPA Lab Code: KS00013
Kansas/NELAP Certification: # E-10146
Oklahoma Certification: #2405
Texas Certification: T104704246-23-15

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60483711001	**S-UMW-1D**	Water	10/06/25 14:13	10/08/25 08:20
60483711002	**S-UMW-2D**	Water	10/07/25 10:27	10/08/25 08:20
60483711003	**S-UMW-3D**	Water	10/07/25 11:23	10/08/25 08:20
60483711004	**S-UMW-4D**	Water	10/07/25 12:20	10/08/25 08:20
60483711005	**S-BMW-1D**	Water	10/06/25 10:55	10/08/25 08:20
60483711006	**S-BMW-3D**	Water	10/06/25 11:45	10/08/25 08:20
60483711007	**S-UMW-FB-1**	Water	10/06/25 13:53	10/08/25 08:20
60483711008	**S-UMW-MS-1**	Water	10/08/25 13:23	10/10/25 07:30
60483711009	**S-UMW-MSD-1**	Water	10/08/25 13:23	10/10/25 07:30
60483711010	**S-UMW-5D**	Water	10/08/25 14:12	10/10/25 07:30
60483711011	**S-UMW-DUP-1**	Water	10/08/25 00:00	10/10/25 07:30
60483711012	**S-UMW-6D**	Water	10/08/25 13:23	10/10/25 07:30

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(913)599-5665

SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60483711001	**S-UMW-1D**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711002	**S-UMW-2D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711003	**S-UMW-3D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711004	**S-UMW-4D**	EPA 200.7	CJM	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711005	**S-BMW-1D**	EPA 200.7	CJM	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711006	**S-BMW-3D**	EPA 200.7	CJM	11	PASI-K
		EPA 200.8	CJM	4	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711007	**S-UMW-FB-1**	EPA 200.7	CJM	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483711008	**S-UMW-MS-1**	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
60483711009	**S-UMW-MSD-1**	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
60483711010	**S-UMW-5D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483711011	**S-UMW-DUP-1**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483711012	**S-UMW-6D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	DLJ	1	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory

PASI-K = Pace Analytical Services - Kansas City
PASI-PA = Pace Analytical Services - Greensburg
PASI-SA = Pace Analytical Services - Salina

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-1D **Lab ID: 60483711001** Collected: 10/06/25 14:13 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**189**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:36	7440-39-3	
Boron	**826**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:36	7440-42-8	
Calcium	**91600**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:36	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:36	7440-48-4	
Iron	**935**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:36	7439-89-6	
Lithium	**23.1**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:36	7439-93-2	
Magnesium	**26300**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:36	7439-95-4	
Manganese	**182**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:36	7439-96-5	
Molybdenum	**89.1**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:36	7439-98-7	
Potassium	**6060**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:36	7440-09-7	
Sodium	**19600**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:36	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**1.9**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:38	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:38	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:38	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:38	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**55.9**	mg/L	5.0	0.90	5		10/27/25 13:08	16887-00-6	
Fluoride	**0.34**	mg/L	0.10	0.040	1		10/27/25 09:14	16984-48-8	
Sulfate	**58.0**	mg/L	5.0	0.48	5		10/27/25 13:08	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**250**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**448**	mg/L	10.0	10.0	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-2D **Lab ID: 60483711002** Collected: 10/07/25 10:27 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**56.2**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 14:34	7440-39-3	
Boron	**15800**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 14:34	7440-42-8	
Calcium	**149000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 14:34	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 14:34	7440-48-4	
Iron	**148**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 14:34	7439-89-6	
Lithium	**28.2**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 14:34	7439-93-2	
Magnesium	**3100**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 14:34	7439-95-4	
Manganese	**143**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 14:34	7439-96-5	
Molybdenum	**1470**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 14:34	7439-98-7	
Potassium	**23900**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 14:34	7440-09-7	
Sodium	**33700**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 14:34	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**3.0**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:41	7440-38-2	
Cadmium	**0.33J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:41	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:41	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:41	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**23.1**	mg/L	2.0	0.36	2		10/27/25 14:10	16887-00-6	
Fluoride	**1.3**	mg/L	0.10	0.040	1		10/27/25 09:51	16984-48-8	
Sulfate	**289**	mg/L	20.0	1.9	20		10/27/25 14:22	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**160**	mg/L	20.0	10.5	1		10/21/25 17:33		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**708**	mg/L	10.0	10.0	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-3D **Lab ID: 60483711003** Collected: 10/07/25 11:23 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**67.3**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 14:36	7440-39-3	
Boron	**34900**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 14:36	7440-42-8	
Calcium	**240000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 14:36	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 14:36	7440-48-4	
Iron	**682**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 14:36	7439-89-6	
Lithium	**19.0**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 14:36	7439-93-2	
Magnesium	**10600**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 14:36	7439-95-4	
Manganese	**406**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 14:36	7439-96-5	
Molybdenum	**5180**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 14:36	7439-98-7	
Potassium	**20400**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 14:36	7440-09-7	
Sodium	**95300**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 14:36	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.96J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:43	7440-38-2	
Cadmium	**1.2**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:43	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:43	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:43	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**31.4**	mg/L	5.0	0.90	5		10/27/25 14:34	16887-00-6	
Fluoride	**0.56**	mg/L	0.10	0.040	1		10/27/25 10:03	16984-48-8	
Sulfate	**685**	mg/L	100	9.6	100		10/27/25 14:47	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**152**	mg/L	20.0	10.5	1		10/21/25 17:33		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1370**	mg/L	20.0	20.0	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-4D **Lab ID: 60483711004** Collected: 10/07/25 12:20 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**45.6**	ug/L	5.0	0.64	1	10/09/25 09:07	10/24/25 14:42	7440-39-3	
Boron	**18200**	ug/L	100	7.3	1	10/09/25 09:07	10/24/25 14:42	7440-42-8	
Calcium	**103000**	ug/L	200	12.1	1	10/09/25 09:07	10/24/25 14:42	7440-70-2	
Cobalt	**<1.4**	ug/L	5.0	1.4	1	10/09/25 09:07	10/24/25 14:42	7440-48-4	
Iron	**4650**	ug/L	50.0	8.7	1	10/09/25 09:07	10/24/25 14:42	7439-89-6	
Lithium	**27.1**	ug/L	10.0	2.8	1	10/09/25 09:07	10/24/25 14:42	7439-93-2	
Magnesium	**14500**	ug/L	50.0	16.0	1	10/09/25 09:07	10/24/25 14:42	7439-95-4	
Manganese	**1080**	ug/L	5.0	0.52	1	10/09/25 09:07	10/24/25 14:42	7439-96-5	
Molybdenum	**5070**	ug/L	20.0	2.1	1	10/09/25 09:07	10/24/25 14:42	7439-98-7	
Potassium	**11000**	ug/L	500	66.6	1	10/09/25 09:07	10/24/25 14:42	7440-09-7	
Sodium	**45800**	ug/L	500	46.9	1	10/09/25 09:07	10/24/25 14:42	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.28J**	ug/L	1.0	0.13	1	10/09/25 09:07	10/10/25 09:38	7440-38-2	
Cadmium	**1.3**	ug/L	0.50	0.062	1	10/09/25 09:07	10/10/25 09:38	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/09/25 09:07	10/10/25 09:38	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/09/25 09:07	10/10/25 09:38	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**26.5**	mg/L	2.0	0.36	2		10/27/25 14:59	16887-00-6	
Fluoride	**0.85**	mg/L	0.10	0.040	1		10/27/25 10:15	16984-48-8	
Sulfate	**219**	mg/L	20.0	1.9	20		10/27/25 15:11	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**204**	mg/L	20.0	10.5	1		10/21/25 17:33		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**637**	mg/L	10.0	10.0	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-BMW-1D **Lab ID: 60483711005** Collected: 10/06/25 10:55 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**340**	ug/L	5.0	0.64	1	10/09/25 09:07	10/24/25 14:48	7440-39-3	
Boron	**151**	ug/L	100	7.3	1	10/09/25 09:07	10/24/25 14:48	7440-42-8	
Calcium	**118000**	ug/L	200	12.1	1	10/09/25 09:07	10/24/25 14:48	7440-70-2	
Cobalt	**<1.4**	ug/L	5.0	1.4	1	10/09/25 09:07	10/24/25 14:48	7440-48-4	
Iron	**8860**	ug/L	50.0	8.7	1	10/09/25 09:07	10/24/25 14:48	7439-89-6	
Lithium	**13.9**	ug/L	10.0	2.8	1	10/09/25 09:07	10/24/25 14:48	7439-93-2	
Magnesium	**25800**	ug/L	50.0	16.0	1	10/09/25 09:07	10/24/25 14:48	7439-95-4	
Manganese	**844**	ug/L	5.0	0.52	1	10/09/25 09:07	10/24/25 14:48	7439-96-5	
Molybdenum	**<2.1**	ug/L	20.0	2.1	1	10/09/25 09:07	10/24/25 14:48	7439-98-7	
Potassium	**2430**	ug/L	500	66.6	1	10/09/25 09:07	10/24/25 14:48	7440-09-7	
Sodium	**6200**	ug/L	500	46.9	1	10/09/25 09:07	10/24/25 14:48	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.20J**	ug/L	1.0	0.13	1	10/09/25 09:07	10/10/25 09:41	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/09/25 09:07	10/10/25 09:41	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/09/25 09:07	10/10/25 09:41	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/09/25 09:07	10/10/25 09:41	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**9.0**	mg/L	1.0	0.18	1		10/27/25 10:28	16887-00-6	
Fluoride	**0.27**	mg/L	0.10	0.040	1		10/27/25 10:28	16984-48-8	
Sulfate	**25.5**	mg/L	2.0	0.19	2		10/27/25 15:24	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**390**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**451**	mg/L	10.0	10.0	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-BMW-3D **Lab ID: 60483711006** Collected: 10/06/25 11:45 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**640**	ug/L	5.0	0.64	1	10/09/25 09:07	10/24/25 14:49	7440-39-3	
Boron	**76.3J**	ug/L	100	7.3	1	10/09/25 09:07	10/24/25 14:49	7440-42-8	
Calcium	**108000**	ug/L	200	12.1	1	10/09/25 09:07	10/24/25 14:49	7440-70-2	
Cobalt	**<1.4**	ug/L	5.0	1.4	1	10/09/25 09:07	10/24/25 14:49	7440-48-4	
Iron	**7610**	ug/L	50.0	8.7	1	10/09/25 09:07	10/24/25 14:49	7439-89-6	
Lithium	**19.8**	ug/L	10.0	2.8	1	10/09/25 09:07	10/24/25 14:49	7439-93-2	
Magnesium	**24700**	ug/L	50.0	16.0	1	10/09/25 09:07	10/24/25 14:49	7439-95-4	
Manganese	**522**	ug/L	5.0	0.52	1	10/09/25 09:07	10/24/25 14:49	7439-96-5	
Molybdenum	**<2.1**	ug/L	20.0	2.1	1	10/09/25 09:07	10/24/25 14:49	7439-98-7	
Potassium	**3290**	ug/L	500	66.6	1	10/09/25 09:07	10/24/25 14:49	7440-09-7	
Sodium	**6120**	ug/L	500	46.9	1	10/09/25 09:07	10/24/25 14:49	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/09/25 09:07	10/10/25 09:55	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/09/25 09:07	10/10/25 09:55	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/09/25 09:07	10/10/25 09:55	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/09/25 09:07	10/10/25 09:55	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**11.9**	mg/L	1.0	0.18	1		10/27/25 10:40	16887-00-6	
Fluoride	**0.28**	mg/L	0.10	0.040	1		10/27/25 10:40	16984-48-8	
Sulfate	**16.5**	mg/L	1.0	0.096	1		10/27/25 10:40	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**360**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**434**	mg/L	10.0	10.0	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-FB-1 **Lab ID: 60483711007** Collected: 10/06/25 13:53 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**<0.64**	ug/L	5.0	0.64	1	10/09/25 09:07	10/24/25 14:51	7440-39-3	
Boron	**9.4J**	ug/L	100	7.3	1	10/09/25 09:07	10/24/25 14:51	7440-42-8	
Calcium	**18.2J**	ug/L	200	12.1	1	10/09/25 09:07	10/24/25 14:51	7440-70-2	
Cobalt	**<1.4**	ug/L	5.0	1.4	1	10/09/25 09:07	10/24/25 14:51	7440-48-4	
Iron	**<8.7**	ug/L	50.0	8.7	1	10/09/25 09:07	10/24/25 14:51	7439-89-6	
Lithium	**<2.8**	ug/L	10.0	2.8	1	10/09/25 09:07	10/24/25 14:51	7439-93-2	
Magnesium	**<16.0**	ug/L	50.0	16.0	1	10/09/25 09:07	10/24/25 14:51	7439-95-4	
Manganese	**<0.52**	ug/L	5.0	0.52	1	10/09/25 09:07	10/24/25 14:51	7439-96-5	
Molybdenum	**<2.1**	ug/L	20.0	2.1	1	10/09/25 09:07	10/24/25 14:51	7439-98-7	
Potassium	**<66.6**	ug/L	500	66.6	1	10/09/25 09:07	10/24/25 14:51	7440-09-7	
Sodium	**<46.9**	ug/L	500	46.9	1	10/09/25 09:07	10/24/25 14:51	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/09/25 09:07	10/10/25 09:58	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/09/25 09:07	10/10/25 09:58	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/09/25 09:07	10/10/25 09:58	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/09/25 09:07	10/10/25 09:58	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**<0.18**	mg/L	1.0	0.18	1		10/27/25 11:17	16887-00-6	
Fluoride	**<0.040**	mg/L	0.10	0.040	1		10/27/25 11:17	16984-48-8	
Sulfate	**<0.096**	mg/L	1.0	0.096	1		10/27/25 11:17	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-5D **Lab ID: 60483711010** Collected: 10/08/25 14:12 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**652**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 13:01	7440-39-3	
Boron	**5150**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 13:01	7440-42-8	
Calcium	**131000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 13:01	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 13:01	7440-48-4	
Iron	**4720**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 13:01	7439-89-6	
Lithium	**29.0**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 13:01	7439-93-2	
Magnesium	**26400**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 13:01	7439-95-4	
Manganese	**512**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 13:01	7439-96-5	
Molybdenum	**427**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 13:01	7439-98-7	
Potassium	**13500**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 13:01	7440-09-7	
Sodium	**69600**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 13:01	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.31J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:44	7440-38-2	
Cadmium	**0.11J**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:44	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:44	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:44	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**242**	mg/L	20.0	3.6	20		10/27/25 16:13	16887-00-6	
Fluoride	**0.61**	mg/L	0.10	0.040	1		10/27/25 11:29	16984-48-8	
Sulfate	**95.2**	mg/L	10.0	0.96	10		10/27/25 15:36	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**174**	mg/L	20.0	10.5	1		10/22/25 18:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**820**	mg/L	13.3	13.3	1		10/15/25 13:01		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-DUP-1 **Lab ID: 60483711011** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**647**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:12	7440-39-3	
Boron	**4980**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:12	7440-42-8	
Calcium	**130000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:12	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:12	7440-48-4	
Iron	**4680**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:12	7439-89-6	
Lithium	**31.3**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:12	7439-93-2	
Magnesium	**26400**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:12	7439-95-4	
Manganese	**520**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:12	7439-96-5	
Molybdenum	**416**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:12	7439-98-7	
Potassium	**13900**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:12	7440-09-7	
Sodium	**73400**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:12	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.32J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:46	7440-38-2	
Cadmium	**0.10J**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:46	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:46	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:46	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**260**	mg/L	20.0	3.6	20		10/27/25 16:38	16887-00-6	
Fluoride	**0.62**	mg/L	0.10	0.040	1		10/27/25 11:42	16984-48-8	
Sulfate	**96.9**	mg/L	10.0	0.96	10		10/27/25 16:25	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**168**	mg/L	20.0	10.5	1		10/22/25 18:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**824**	mg/L	13.3	13.3	1		10/15/25 13:01		

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ANALYTICAL RESULTS

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-6D **Lab ID: 60483711012** Collected: 10/08/25 13:23 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**155**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:23	7440-39-3	
Boron	**158**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:23	7440-42-8	
Calcium	**112000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:23	7440-70-2	M1,P6
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:23	7440-48-4	
Iron	**8030**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:23	7439-89-6	
Lithium	**17.1**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:23	7439-93-2	
Magnesium	**26500**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:23	7439-95-4	
Manganese	**596**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:23	7439-96-5	
Molybdenum	**25.7**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:23	7439-98-7	
Potassium	**3560**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:23	7440-09-7	
Sodium	**6740**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:23	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.38J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 13:53	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 13:53	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 13:53	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 13:53	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**12.3**	mg/L	1.0	0.18	1		10/27/25 11:54	16887-00-6	
Fluoride	**0.23**	mg/L	0.10	0.040	1		10/27/25 11:54	16984-48-8	
Sulfate	**45.5**	mg/L	5.0	0.48	5		10/27/25 16:50	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**324**	mg/L	20.0	10.5	1		10/22/25 18:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**451**	mg/L	10.0	10.0	1		10/15/25 13:02		D6

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 950940
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711001, 60483711002, 60483711003

METHOD BLANK: 3768607 Matrix: Water
Associated Lab Samples: 60483711001, 60483711002, 60483711003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.75	5.0	0.75	10/17/25 15:00	
Boron	ug/L	<33.2	100	33.2	10/17/25 15:00	
Calcium	ug/L	<45.3	200	45.3	10/17/25 15:00	
Cobalt	ug/L	<0.97	5.0	0.97	10/17/25 15:00	
Iron	ug/L	<15.4	50.0	15.4	10/17/25 15:00	
Lithium	ug/L	<1.8	10.0	1.8	10/17/25 15:00	
Magnesium	ug/L	<21.1	50.0	21.1	10/17/25 15:00	
Manganese	ug/L	<0.42	5.0	0.42	10/17/25 15:00	
Molybdenum	ug/L	<0.78	20.0	0.78	10/17/25 15:00	
Potassium	ug/L	60.5J	500	45.2	10/17/25 15:00	
Sodium	ug/L	<31.8	500	31.8	10/17/25 15:00	

LABORATORY CONTROL SAMPLE: 3768608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	985	98	85-115	
Calcium	ug/L	10000	10300	103	85-115	
Cobalt	ug/L	1000	1030	103	85-115	
Iron	ug/L	10000	10300	103	85-115	
Lithium	ug/L	1000	1040	104	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Manganese	ug/L	1000	1020	102	85-115	
Molybdenum	ug/L	1000	1030	103	85-115	
Potassium	ug/L	10000	10200	102	85-115	
Sodium	ug/L	10000	10100	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768609 3768610

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	185	1000	1000	1210	1220	103	103	70-130	0	20	
Boron	ug/L	7210	1000	1000	8410	8400	119	119	70-130	0	20	
Calcium	ug/L	142000	10000	10000	155000	155000	131	130	70-130	0	20	M1
Cobalt	ug/L	<0.97	1000	1000	1000	997	100	100	70-130	0	20	
Iron	ug/L	9710	10000	10000	20100	20100	104	104	70-130	0	20	
Lithium	ug/L	35.6	1000	1000	1090	1080	105	104	70-130	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768609 3768610

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	35900	10000	10000	46700	46700	108	108	70-130	0	20	
Manganese	ug/L	1110	1000	1000	2150	2150	104	104	70-130	0	20	
Molybdenum	ug/L	470	1000	1000	1530	1520	106	105	70-130	0	20	
Potassium	ug/L	5170	10000	10000	15700	15500	105	104	70-130	1	20	
Sodium	ug/L	33700	10000	10000	44700	44700	110	110	70-130	0	20	

MATRIX SPIKE SAMPLE: 3768611

Parameter	Units	60483592009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	144	1000	1150	101	70-130	
Boron	ug/L	5610	1000	6520	92	70-130	
Calcium	ug/L	112000	10000	121000	83	70-130	
Cobalt	ug/L	<0.97	1000	1010	101	70-130	
Iron	ug/L	9370	10000	19700	103	70-130	
Lithium	ug/L	21.5	1000	1050	103	70-130	
Magnesium	ug/L	24000	10000	33500	94	70-130	
Manganese	ug/L	833	1000	1840	101	70-130	
Molybdenum	ug/L	1310	1000	2350	103	70-130	
Potassium	ug/L	2260	10000	12300	101	70-130	
Sodium	ug/L	29300	10000	38900	96	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951024
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711004, 60483711005, 60483711006, 60483711007

METHOD BLANK: 3768904 Matrix: Water
Associated Lab Samples: 60483711004, 60483711005, 60483711006, 60483711007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.64	5.0	0.64	10/24/25 14:39	
Boron	ug/L	<7.3	100	7.3	10/24/25 14:39	
Calcium	ug/L	<12.1	200	12.1	10/24/25 14:39	
Cobalt	ug/L	<1.4	5.0	1.4	10/24/25 14:39	
Iron	ug/L	12.3J	50.0	8.7	10/24/25 14:39	
Lithium	ug/L	<2.8	10.0	2.8	10/24/25 14:39	
Magnesium	ug/L	17.1J	50.0	16.0	10/24/25 14:39	
Manganese	ug/L	<0.52	5.0	0.52	10/24/25 14:39	
Molybdenum	ug/L	<2.1	20.0	2.1	10/24/25 14:39	
Potassium	ug/L	<66.6	500	66.6	10/24/25 14:39	
Sodium	ug/L	<46.9	500	46.9	10/24/25 14:39	

LABORATORY CONTROL SAMPLE: 3768905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	978	98	85-115	
Boron	ug/L	1000	936	94	85-115	
Calcium	ug/L	10000	9940	99	85-115	
Cobalt	ug/L	1000	978	98	85-115	
Iron	ug/L	10000	9940	99	85-115	
Lithium	ug/L	1000	953	95	85-115	
Magnesium	ug/L	10000	9570	96	85-115	
Manganese	ug/L	1000	965	96	85-115	
Molybdenum	ug/L	1000	978	98	85-115	
Potassium	ug/L	10000	9510	95	85-115	
Sodium	ug/L	10000	9700	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768906 3768907

Parameter	Units	60483711004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	45.6	1000	1000	1020	1020	98	97	70-130	1	20	
Boron	ug/L	18200	1000	1000	19400	19100	111	86	70-130	1	20	
Calcium	ug/L	103000	10000	10000	113000	112000	100	86	70-130	1	20	
Cobalt	ug/L	<1.4	1000	1000	966	957	97	96	70-130	1	20	
Iron	ug/L	4650	10000	10000	14700	14600	100	100	70-130	1	20	
Lithium	ug/L	27.1	1000	1000	1000	1000	97	97	70-130	0	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768906 3768907

Parameter	Units	60483711004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	14500	10000	10000	24200	23900	97	94	70-130	1	20	
Manganese	ug/L	1080	1000	1000	2030	2010	96	94	70-130	1	20	
Molybdenum	ug/L	5070	1000	1000	6080	5990	101	92	70-130	2	20	
Potassium	ug/L	11000	10000	10000	20900	20900	98	98	70-130	0	20	
Sodium	ug/L	45800	10000	10000	55900	55200	101	95	70-130	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951395
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711010, 60483711011, 60483711012

METHOD BLANK: 3770596 Matrix: Water
Associated Lab Samples: 60483711010, 60483711011, 60483711012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.75	5.0	0.75	10/21/25 12:19	
Boron	ug/L	<33.2	100	33.2	10/21/25 12:19	
Calcium	ug/L	<45.3	200	45.3	10/21/25 12:19	
Cobalt	ug/L	<0.97	5.0	0.97	10/21/25 12:19	
Iron	ug/L	<15.4	50.0	15.4	10/21/25 12:19	
Lithium	ug/L	<1.8	10.0	1.8	10/21/25 12:19	
Magnesium	ug/L	<21.1	50.0	21.1	10/21/25 12:19	
Manganese	ug/L	<0.42	5.0	0.42	10/21/25 12:19	
Molybdenum	ug/L	<0.78	20.0	0.78	10/21/25 12:19	
Potassium	ug/L	<45.2	500	45.2	10/21/25 12:19	
Sodium	ug/L	207J	500	31.8	10/21/25 12:19	

LABORATORY CONTROL SAMPLE: 3770597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1000	100	85-115	
Boron	ug/L	1000	957	96	85-115	
Calcium	ug/L	10000	10300	103	85-115	
Cobalt	ug/L	1000	1010	101	85-115	
Iron	ug/L	10000	10200	102	85-115	
Lithium	ug/L	1000	1010	101	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Manganese	ug/L	1000	995	100	85-115	
Molybdenum	ug/L	1000	999	100	85-115	
Potassium	ug/L	10000	9810	98	85-115	
Sodium	ug/L	10000	10100	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770598 3770599

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	155	1000	1000	1140	1120	98	97	70-130	1	20	
Boron	ug/L	158	1000	1000	1110	1100	96	95	70-130	1	20	
Calcium	ug/L	112000	10000	10000	120000	118000	81	55	70-130	2	20	M1
Cobalt	ug/L	<0.97	1000	1000	972	969	97	97	70-130	0	20	
Iron	ug/L	8030	10000	10000	17800	17600	98	95	70-130	2	20	
Lithium	ug/L	17.1	1000	1000	1010	1010	99	99	70-130	0	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770598 3770599

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	ug/L	26500	10000	10000	36000	35300	94	88	70-130	2	20	
Manganese	ug/L	596	1000	1000	1550	1550	95	95	70-130	0	20	
Molybdenum	ug/L	25.7	1000	1000	1020	1020	99	99	70-130	0	20	
Potassium	ug/L	3560	10000	10000	13200	13300	97	98	70-130	0	20	
Sodium	ug/L	6740	10000	10000	16400	16300	97	96	70-130	0	20	

MATRIX SPIKE SAMPLE: 3770610

Parameter	Units	60483592020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	267	1000	1240	97	70-130	
Boron	ug/L	91.5J	1000	1040	95	70-130	
Calcium	ug/L	129000	10000	135000	63	70-130	M1
Cobalt	ug/L	<0.97	1000	970	97	70-130	
Iron	ug/L	241	10000	10200	100	70-130	
Lithium	ug/L	36.1	1000	1030	99	70-130	
Magnesium	ug/L	27800	10000	36900	91	70-130	
Manganese	ug/L	301	1000	1260	96	70-130	
Molybdenum	ug/L	3.4J	1000	996	99	70-130	
Potassium	ug/L	2530	10000	12200	97	70-130	
Sodium	ug/L	5300	10000	15000	97	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 950939
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711001, 60483711002, 60483711003

METHOD BLANK: 3768602 Matrix: Water
Associated Lab Samples: 60483711001, 60483711002, 60483711003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	<0.13	1.0	0.13	10/09/25 08:39	
Cadmium	ug/L	<0.062	0.50	0.062	10/09/25 08:39	
Chromium	ug/L	<0.34	1.0	0.34	10/09/25 08:39	
Selenium	ug/L	<0.19	1.0	0.19	10/09/25 08:39	

LABORATORY CONTROL SAMPLE: 3768603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.1	95	85-115	
Cadmium	ug/L	40	39.6	99	85-115	
Chromium	ug/L	40	40.0	100	85-115	
Selenium	ug/L	40	39.0	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768604 3768605

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.22J	40	40	38.9	38.1	97	95	70-130	2	20	
Cadmium	ug/L	0.12J	40	40	38.0	37.4	95	93	70-130	2	20	
Chromium	ug/L	<0.34	40	40	39.6	38.9	98	97	70-130	2	20	
Selenium	ug/L	<0.19	40	40	37.9	38.0	95	95	70-130	0	20	

MATRIX SPIKE SAMPLE: 3768606

Parameter	Units	60483592011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1.2	40	38.6	94	70-130	
Cadmium	ug/L	<0.062	40	38.2	95	70-130	
Chromium	ug/L	<0.34	40	38.6	96	70-130	
Selenium	ug/L	<0.19	40	37.5	94	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951027
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711004, 60483711005, 60483711006, 60483711007

METHOD BLANK: 3768920 Matrix: Water
Associated Lab Samples: 60483711004, 60483711005, 60483711006, 60483711007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	<0.13	1.0	0.13	10/10/25 09:32	
Cadmium	ug/L	<0.062	0.50	0.062	10/10/25 09:32	
Chromium	ug/L	<0.34	1.0	0.34	10/10/25 09:32	
Selenium	ug/L	<0.19	1.0	0.19	10/10/25 09:32	

LABORATORY CONTROL SAMPLE: 3768921

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	37.2	93	85-115	
Cadmium	ug/L	40	39.5	99	85-115	
Chromium	ug/L	40	37.6	94	85-115	
Selenium	ug/L	40	38.7	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768922 3768923

Parameter	Units	60483711005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.20J	40	40	36.5	36.8	91	92	70-130	1	20	
Cadmium	ug/L	<0.062	40	40	37.3	37.4	93	94	70-130	0	20	
Chromium	ug/L	<0.34	40	40	37.0	37.2	92	93	70-130	1	20	
Selenium	ug/L	<0.19	40	40	36.8	36.3	92	91	70-130	1	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951396
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711010, 60483711011, 60483711012

METHOD BLANK: 3770601 Matrix: Water
Associated Lab Samples: 60483711010, 60483711011, 60483711012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	<0.13	1.0	0.13	10/15/25 13:49	
Cadmium	ug/L	<0.062	0.50	0.062	10/15/25 13:49	
Chromium	ug/L	<0.34	1.0	0.34	10/15/25 13:49	
Selenium	ug/L	<0.19	1.0	0.19	10/15/25 13:49	

LABORATORY CONTROL SAMPLE: 3770602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.1	95	85-115	
Cadmium	ug/L	40	39.3	98	85-115	
Chromium	ug/L	40	39.3	98	85-115	
Selenium	ug/L	40	37.6	94	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770603 3770604

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.38J	40	40	39.8	39.5	99	98	70-130	1	20	
Cadmium	ug/L	<0.062	40	40	38.6	38.7	96	97	70-130	0	20	
Chromium	ug/L	<0.34	40	40	40.9	41.0	101	102	70-130	0	20	
Selenium	ug/L	<0.19	40	40	38.4	38.6	96	97	70-130	1	20	

MATRIX SPIKE SAMPLE: 3770605

Parameter	Units	60483592021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	<0.13	40	38.8	97	70-130	
Cadmium	ug/L	<0.062	40	38.7	97	70-130	
Chromium	ug/L	<0.34	40	41.0	102	70-130	
Selenium	ug/L	<0.19	40	38.0	95	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 952782
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Salina
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711010, 60483711011, 60483711012

METHOD BLANK: 3776302 Matrix: Water
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711010, 60483711011, 60483711012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.18	1.0	0.18	10/27/25 08:49	
Fluoride	mg/L	<0.040	0.10	0.040	10/27/25 08:49	
Sulfate	mg/L	<0.096	1.0	0.096	10/27/25 08:49	

LABORATORY CONTROL SAMPLE: 3776303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.6	92	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776304 3776305

Parameter	Units	60483711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	55.9	25	25	79.6	77.6	95	87	80-120	3	15	
Fluoride	mg/L	0.34	2.5	2.5	2.9	2.9	103	101	80-120	2	15	
Sulfate	mg/L	58.0	25	25	82.0	80.1	96	88	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776306 3776307

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.3	5	5	16.9	17.0	92	94	80-120	1	15	
Fluoride	mg/L	0.23	2.5	2.5	2.7	2.7	99	101	80-120	2	15	
Sulfate	mg/L	45.5	25	25	69.0	68.7	94	93	80-120	0	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 952195 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711001, 60483711005, 60483711006, 60483711007

METHOD BLANK: 3773924 Matrix: Water
Associated Lab Samples: 60483711001, 60483711005, 60483711006, 60483711007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/20/25 15:57	

LABORATORY CONTROL SAMPLE: 3773925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	486	97	90-110	

SAMPLE DUPLICATE: 3773926

Parameter	Units	60483723002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	362	368	2	10	

SAMPLE DUPLICATE: 3773927

Parameter	Units	60483723004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	<10.5		10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 952197
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711002, 60483711003, 60483711004

METHOD BLANK: 3773930 Matrix: Water
Associated Lab Samples: 60483711002, 60483711003, 60483711004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/21/25 17:31	

LABORATORY CONTROL SAMPLE: 3773931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	492	98	90-110	L1

SAMPLE DUPLICATE: 3773932

Parameter	Units	60483730001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	368	368	0	10	

SAMPLE DUPLICATE: 3773933

Parameter	Units	60483592010 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	306	376	21	10	D6

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 952482
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711010, 60483711011, 60483711012

METHOD BLANK: 3774885 Matrix: Water
Associated Lab Samples: 60483711010, 60483711011, 60483711012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/22/25 18:19	

LABORATORY CONTROL SAMPLE: 3774886

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	508	102	90-110	

SAMPLE DUPLICATE: 3774887

Parameter	Units	60483727006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	358	368	3	10	

SAMPLE DUPLICATE: 3774888

Parameter	Units	60483711012 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	324	330	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951058
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711001, 60483711005, 60483711006, 60483711007

METHOD BLANK: 3769111 Matrix: Water
Associated Lab Samples: 60483711001, 60483711005, 60483711006, 60483711007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/09/25 15:28	

LABORATORY CONTROL SAMPLE: 3769112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 3769113

Parameter	Units	60483638001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	12200	10600	15	10	D6

SAMPLE DUPLICATE: 3769114

Parameter	Units	60483592004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	596	601	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951336
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711002, 60483711003, 60483711004

METHOD BLANK: 3770463 Matrix: Water
Associated Lab Samples: 60483711002, 60483711003, 60483711004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/13/25 16:32	

LABORATORY CONTROL SAMPLE: 3770464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	996	100	80-120	

SAMPLE DUPLICATE: 3770465

Parameter	Units	60483592010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	756	759	0	10	

SAMPLE DUPLICATE: 3770466

Parameter	Units	60483755001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6880	7050	3	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 951634
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483711010, 60483711011, 60483711012

METHOD BLANK: 3771424 Matrix: Water
Associated Lab Samples: 60483711010, 60483711011, 60483711012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/15/25 13:00	

LABORATORY CONTROL SAMPLE: 3771425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3771426

Parameter	Units	60483711012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	451	534	17	10	D6

SAMPLE DUPLICATE: 3771427

Parameter	Units	60483728006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	651	647	1	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-1D **Lab ID: 60483711001** Collected: 10/06/25 14:13 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.106 ± 0.329 (0.636) C:NA T:102%**	pCi/L	10/30/25 13:46	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**0.506 ± 0.478 (0.987) C:71% T:84%**	pCi/L	10/28/25 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-2D **Lab ID: 60483711002** Collected: 10/07/25 10:27 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.252 ± 0.329 (0.543) C:NA T:101%**	pCi/L	10/30/25 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0900 ± 0.367 (0.827) C:80% T:90%**	pCi/L	10/28/25 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-3D **Lab ID: 60483711003** Collected: 10/07/25 11:23 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.150 ± 0.428 (0.793) C:NA T:106%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.746 ± 0.449 (0.846) C:80% T:91%**	pCi/L	10/28/25 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-4D **Lab ID: 60483711004** Collected: 10/07/25 12:20 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.289 ± 0.501 (0.873) C:NA T:103%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.08 ± 0.588 (1.07) C:65% T:78%**	pCi/L	10/31/25 11:42	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-BMW-1D **Lab ID: 60483711005** Collected: 10/06/25 10:55 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0500 ± 0.353 (0.750) C:NA T:100%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.966 ± 0.532 (0.948) C:62% T:79%**	pCi/L	10/31/25 11:42	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-BMW-3D **Lab ID: 60483711006** Collected: 10/06/25 11:45 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.669 ± 0.752 (1.24) C:NA T:96%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.182 ± 0.431 (0.961) C:59% T:83%**	pCi/L	10/31/25 11:42	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-FB-1 **Lab ID: 60483711007** Collected: 10/06/25 13:53 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.319 ± 0.499 (0.859) C:NA T:108%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.652 ± 0.391 (0.711) C:74% T:82%**	pCi/L	10/28/25 14:30	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-MS-1 **Lab ID: 60483711008** Collected: 10/08/25 13:23 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**91.07 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**83.81 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/28/25 14:30	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-MSD-1 **Lab ID: 60483711009** Collected: 10/08/25 13:23 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**83.17 %REC 9.07RPD ± NA (NA) C:NA T:NA**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**84.58 %REC 0.92RPD ± NA (NA) C:NA T:NA**	pCi/L	10/28/25 14:30	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-5D **Lab ID: 60483711010** Collected: 10/08/25 14:12 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.158 ± 0.401 (0.745) C:NA T:100%**	pCi/L	10/30/25 14:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.461 ± 0.454 (0.931) C:58% T:88%**	pCi/L	10/28/25 14:30	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-DUP-1 **Lab ID: 60483711011** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.552 ± 0.437 (0.594) C:NA T:94%**	pCi/L	10/30/25 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.40 ± 0.601 (0.985) C:70% T:77%**	pCi/L	10/31/25 11:42	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

Sample: S-UMW-6D **Lab ID: 60483711012** Collected: 10/08/25 13:23 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0866 ± 0.294 (0.568) C:NA T:94%**	pCi/L	10/30/25 14:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.631 ± 0.390 (0.728) C:83% T:84%**	pCi/L	10/28/25 14:31	15262-20-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 778391
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711008, 60483711009, 60483711010, 60483711011, 60483711012

METHOD BLANK: 3796335 Matrix: Water
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711008, 60483711009, 60483711010, 60483711011, 60483711012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.236 ± 0.220 (0.289) C:NA T:98%	pCi/L	10/30/25 13:46	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA
Pace Project No.: 60483711

QC Batch: 778393
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711008, 60483711009, 60483711010, 60483711011, 60483711012

METHOD BLANK: 3796338 Matrix: Water
Associated Lab Samples: 60483711001, 60483711002, 60483711003, 60483711004, 60483711005, 60483711006, 60483711007, 60483711008, 60483711009, 60483711010, 60483711011, 60483711012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.825 ± 0.433 (0.750) C:74% T:81%	pCi/L	10/31/25 11:41	

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QUALIFIERS

Project: AMEREN SCPA
Pace Project No.: 60483711

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483711001	**S-UMW-1D**	EPA 200.7	950940	EPA 200.7	950995
60483711002	**S-UMW-2D**	EPA 200.7	950940	EPA 200.7	950995
60483711003	**S-UMW-3D**	EPA 200.7	950940	EPA 200.7	950995
60483711004	**S-UMW-4D**	EPA 200.7	951024	EPA 200.7	951044
60483711005	**S-BMW-1D**	EPA 200.7	951024	EPA 200.7	951044
60483711006	**S-BMW-3D**	EPA 200.7	951024	EPA 200.7	951044
60483711007	**S-UMW-FB-1**	EPA 200.7	951024	EPA 200.7	951044
60483711010	**S-UMW-5D**	EPA 200.7	951395	EPA 200.7	951435
60483711011	**S-UMW-DUP-1**	EPA 200.7	951395	EPA 200.7	951435
60483711012	**S-UMW-6D**	EPA 200.7	951395	EPA 200.7	951435
60483711001	**S-UMW-1D**	EPA 200.8	950939	EPA 200.8	950994
60483711002	**S-UMW-2D**	EPA 200.8	950939	EPA 200.8	950994
60483711003	**S-UMW-3D**	EPA 200.8	950939	EPA 200.8	950994
60483711004	**S-UMW-4D**	EPA 200.8	951027	EPA 200.8	951045
60483711005	**S-BMW-1D**	EPA 200.8	951027	EPA 200.8	951045
60483711006	**S-BMW-3D**	EPA 200.8	951027	EPA 200.8	951045
60483711007	**S-UMW-FB-1**	EPA 200.8	951027	EPA 200.8	951045
60483711010	**S-UMW-5D**	EPA 200.8	951396	EPA 200.8	951436
60483711011	**S-UMW-DUP-1**	EPA 200.8	951396	EPA 200.8	951436
60483711012	**S-UMW-6D**	EPA 200.8	951396	EPA 200.8	951436
60483711001	**S-UMW-1D**	EPA 903.1	778391		
60483711002	**S-UMW-2D**	EPA 903.1	778391		
60483711003	**S-UMW-3D**	EPA 903.1	778391		
60483711004	**S-UMW-4D**	EPA 903.1	778391		
60483711005	**S-BMW-1D**	EPA 903.1	778391		
60483711006	**S-BMW-3D**	EPA 903.1	778391		
60483711007	**S-UMW-FB-1**	EPA 903.1	778391		
60483711008	**S-UMW-MS-1**	EPA 903.1	778391		
60483711009	**S-UMW-MSD-1**	EPA 903.1	778391		
60483711010	**S-UMW-5D**	EPA 903.1	778391		
60483711011	**S-UMW-DUP-1**	EPA 903.1	778391		
60483711012	**S-UMW-6D**	EPA 903.1	778391		
60483711001	**S-UMW-1D**	EPA 904.0	778393		
60483711002	**S-UMW-2D**	EPA 904.0	778393		
60483711003	**S-UMW-3D**	EPA 904.0	778393		
60483711004	**S-UMW-4D**	EPA 904.0	778393		
60483711005	**S-BMW-1D**	EPA 904.0	778393		
60483711006	**S-BMW-3D**	EPA 904.0	778393		
60483711007	**S-UMW-FB-1**	EPA 904.0	778393		
60483711008	**S-UMW-MS-1**	EPA 904.0	778393		
60483711009	**S-UMW-MSD-1**	EPA 904.0	778393		
60483711010	**S-UMW-5D**	EPA 904.0	778393		
60483711011	**S-UMW-DUP-1**	EPA 904.0	778393		
60483711012	**S-UMW-6D**	EPA 904.0	778393		
60483711001	**S-UMW-1D**	EPA 300.0	952782		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA
Pace Project No.: 60483711

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483711002	**S-UMW-2D**	EPA 300.0	952782		
60483711003	**S-UMW-3D**	EPA 300.0	952782		
60483711004	**S-UMW-4D**	EPA 300.0	952782		
60483711005	**S-BMW-1D**	EPA 300.0	952782		
60483711006	**S-BMW-3D**	EPA 300.0	952782		
60483711007	**S-UMW-FB-1**	EPA 300.0	952782		
60483711010	**S-UMW-5D**	EPA 300.0	952782		
60483711011	**S-UMW-DUP-1**	EPA 300.0	952782		
60483711012	**S-UMW-6D**	EPA 300.0	952782		
60483711001	**S-UMW-1D**	SM 2320B	952195		
60483711002	**S-UMW-2D**	SM 2320B	952197		
60483711003	**S-UMW-3D**	SM 2320B	952197		
60483711004	**S-UMW-4D**	SM 2320B	952197		
60483711005	**S-BMW-1D**	SM 2320B	952195		
60483711006	**S-BMW-3D**	SM 2320B	952195		
60483711007	**S-UMW-FB-1**	SM 2320B	952195		
60483711010	**S-UMW-5D**	SM 2320B	952482		
60483711011	**S-UMW-DUP-1**	SM 2320B	952482		
60483711012	**S-UMW-6D**	SM 2320B	952482		
60483711001	**S-UMW-1D**	SM 2540C	951058		
60483711002	**S-UMW-2D**	SM 2540C	951336		
60483711003	**S-UMW-3D**	SM 2540C	951336		
60483711004	**S-UMW-4D**	SM 2540C	951336		
60483711005	**S-BMW-1D**	SM 2540C	951058		
60483711006	**S-BMW-3D**	SM 2540C	951058		
60483711007	**S-UMW-FB-1**	SM 2540C	951058		
60483711010	**S-UMW-5D**	SM 2540C	951634		
60483711011	**S-UMW-DUP-1**	SM 2540C	951634		
60483711012	**S-UMW-6D**	SM 2540C	951634		

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WO#: 60483711

60483711

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Cor		
	Revision: 3	Effective Date: 09/22/2025	Issued By: Lenexa

Client Name: RECRSmith Gcoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐ Cooling process has begun ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T-301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): As-read 1.3 Corr. Factor 0.0 Corrected 1.3

Temperature should be above freezing to 6°C 18.4/15.3 18.4/15.3

Date and initials of person examining contents: JW 10/8/25

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	Extra samples not mark on CoC.
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	S-UMW-3D - 10/7/25 11:23
Pace containers used:	☑Yes ☐No ☐N/A	S-UMW-4D - ↓ 12:20
Containers intact:	☑Yes ☐No ☐N/A	S-BMW-1D - 10/6/25 10:55
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	S-BMW-3D - ↓ 11:45
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) LOT#: 96888	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483711

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____ Date Results Requested:	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:	

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment	Preservation non-conformance identified for sample.
S-UMW-1D	WT	G			10/6/25	1413	4			✓	✓	✓	✓		
S-UMW-2D	WT	G			10/7/25	1027	4			✓	✓	✓	✓		
S-UMW-3D	WT														
S-UMW-4D	WT														
S-UMW-5D	WT														
S-UMW-6D	WT														
S-BMW-1D	WT														
S-BMW-3D	WT														
S-UMW-DUP-1	WT														
S-UMW-FB-1	WT	G			10/6/25	1353	4			✓	✓	✓	✓		

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Jamie Church

AcctNum / Client ID:

Table #:

Profile / Template: 15856

Prelog / Bottle Ord. ID: EZ 3303392

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: B, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) John Rasmussen

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C) 1.3	Corrected Temp. (°C) 1.3	On Ice:
3	T-301	0.0	18.4/15.3	18.4/15.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Rocksmith	10/7/25/1540		10/8/25 0820
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Page: 1 of 1

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Client: Rocksmith Geoeng Profile/EZ #: 3303392

Site: Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																		1			2	1									
2	↓																		↓			↓	↓									
3							(S-UMW-3D					10/7/25				11:23	)							(Log same Tests)								
4	↓						S-UMW-4D)					↓				12:20			↓			↓	↓				↓					
5																																
6																pu 10/8																
7	WT						(S-BMW-1D					10/6/25				~~10:15~~	10:55	)	↓			↓	↓				↓					
8	↓						S-BMW-3D)					↓				11:45			↓			↓	↓				↓					
9																																
10	WT																		↓			↓	↓									
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6048371 1

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60487511

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228
S-UMW-1D	WT	G			10/6/25	1413	4			✓	✓	✓	✓
S-UMW-2D	WT	G			10/7/25	1027	4			✓	✓	✓	✓
S-UMW-3D	WT	G			10/6/25	[redacted]1234				✓	✓	✓	✓
S-UMW-4D	WT	G			10/7/25	1220	4			✓	✓	✓	✓
S-UMW-5D	WT												
S-UMW-6D	WT												
S-BMW-1D	WT	G			10/6/25	1055	4			✓	✓	✓	✓
S-BMW-3D	WT	G			10/6/25	1145	4			✓	✓	✓	✓
S-UMW-DUP-1	WT												
S-UMW-FB-1	WT	G			10/6/25	1353	4			✓	✓	✓	✓

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Jamie Church

AcctNum / Client ID:

Table #:

Profile / Template: 15856

Prelog / Bottle Ord. ID: EZ 3303392

Sample Comment

Preservation non-conformance identified for sample:

Additional Instructions from Pace*:
* - App III and Cat/An Metals* - EPA 200.7: B, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) John Rasmussen

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	0.0	1.3 / 18.4 / 15.3	1.3 / 18.4 / 15.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Rocksmith	10/7/25 1540		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 10/8/25 0820
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Page: 1 of 1

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WO# : 60483711

60483711

DC#_Title: ENV-FRM-LENE-0009_Sample		
Revision: 3	Effective Date: 09/22/2025	Issued By: Lenexa

Client Name: Rocksmith Geovens

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐ Cooling process has begun ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T-701 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 17.9/16.3 Corr. Factor 0.0 Corrected 17.9/16.3
Temperature should be above freezing to 6°C 1.5/2.1 1.5/2.1

Date and initials of person examining contents: 10/10/25

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) LOT#: 96888	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483711

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment	Preservation non-conformance identified for sample.
S-UMW-MS-1	WT	G			10/8/25	1323	4			✓	✓	✓	✓	Taken@ UMW-6D	
S-UMW-MSD-1	WT	G			10/8/25	1323	4			✓	✓	✓	✓		
S-UMW-5D	WT	G			10/8/25	1412	4			✓	✓	✓	✓		
S-UMW-DUP-1	WT	G			10/8/25	—	4			✓	✓	✓	✓		
S-UMW-6D	WT	G			10/8/25	1323	4			✓	✓	✓	✓		

Specify Container Size **
Identify Container Preservative Type***
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303392

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: B, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) David Rever
Signature:

Customer Remarks / Special Conditions / Possible Hazards:
17.9/16.3 17.4/16.3

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
4	T301	0.0	1.5/2.1	1.5/2.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	1335 10-9-25		10/10/25 0730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Client: Rocksmith Geoeng

Profile/EZ # only print what you log.

Site:

Notes Append to 60483711

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																					2										
2	↓																					↓										
3																			1				1										
4																			1				1										
5																			3				3										
6																																
7																																
8																																
9																																
10																																
11																																
12																																

(Only Log RAD)

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60483711

Internal Transfer Chain of Custody

☐ Rush Multiplier____X
☐ Samples Pre-Logged into eCOC

State Of Origin: MO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 10/8/2025 Results Requested By: 10/31/2025

Workorder: 60483711 Workorder Name: AMEREN SCPA

Report To

Jamie Church
Pace Analytical Kansas
9608 Loiret Blvd.
Lenexa, KS 66219
Phone 314-838-7223

Subcontract To

Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone (724)850-5600

WO# : 30819147

30819147

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3						Requested Analysis Radium 226	Radium 228	LAB USE ONLY
1	S-UMW-1D	PS	10/6/2025 14:13	60483711001	Water	2						X	X	001
2	S-UMW-2D	PS	10/7/2025 10:27	60483711002	Water	2						X	X	002
3	S-UMW-3D	PS	10/7/2025 11:23	60483711003	Water	2						X	X	003
4	S-UMW-4D	PS	10/7/2025 12:20	60483711004	Water	2						X	X	004
5	S-BMW-1D	PS	10/6/2025 10:55	60483711005	Water	2						X	X	005
6	S-BMW-3D	PS	10/6/2025 11:45	60483711006	Water	2						X	X	006
7	S-UMW-FB-1	PS	10/6/2025 13:53	60483711007	Water	2						X	X	007
8	S-UMW-MS-1	PS	10/8/2025 13:23	60483711008	Water	2						X	X	008
9	S-UMW-MSD-1	PS	10/8/2025 13:23	60483711009	Water	2						X	X	009
10	S-UMW-5D	PS	10/8/2025 14:12	60483711010	Water	2						X	X	010
11	S-UMW-DUP-1	PS	10/8/2025 00:00	60483711011	Water	2						X	X	011
12	S-UMW-6D	RQS	10/8/2025 13:23	60483711012	Water	2						X	X	012

Transfers	Released By	Date/Time	Received By	Date/Time
1	DF Pace	10/16 1706	Emily Sill	10-17-25 10:10
2				
3				

Comments

Parent sample for MS/MSD (008/009) is S-UMW-6D (012)

Location: (2) BP1N 60-R01-S4A / 60-R01-S3B

Cooler Temperature on Receipt ___ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO#: 30819147

PM: CMC Due Date: 11/07/25
CLIENT: PACE_60_LEKS

DC#_Title: ENV-FRM-GBUR-0088 v09_Sample Cond
Greensburg

Effective Date: 06/24/2025

Client Name: Pace KS **Project #:**

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 4453 8938 7352

Initial / Date

Examined By: ES 10-17-25
Labeled By: ES 10-17-25
Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals Intact:** ☐ Yes ☐ No

Therm. Used: — **Type of Ice:** Wet Blue (None)

Cooler Temp: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10043241 / D.P.D. Residual Chlorine Lot # —
Chain of Custody Present	/			1.
Chain of Custody Filled Out:	/			2.
-Were client corrections present on COC		/		
Chain of Custody Relinquished	/			3.
Sampler Name & Signature on COC:		/		4.
Sample Labels match COC:	/			5.
-Includes date/time/ID Matrix:	WT			
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):		/		7.
Rush Turn Around Time Requested:		/		8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used	/			
Containers Intact:	/			11.
Orthophosphate field filtered:			/	12.
Hex Cr Aqueous samples field filtered:			/	13.
Organic Samples checked for dechlorination			/	14:
Filtered volume received for dissolved tests: **Cr6+, Orthophosphate, DOC, Metals**			/	15:
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix	/			16. pH<2
All containers meet method preservation requirements:	/			Initial when completed ES / Date/Time of Preservation / Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			/	17.
624.1: Headspace in VOA Vials (0mm)			/	18.
Radon: Headspace in RAD Vials (0mm)			/	19.
Trip Blank Present:			/	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed ES / Date: 10-17-25 / Survey Meter SN:2S014380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Memorandum

November 3, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Valerie Hurt	**Email:**	valerie.hurt@rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA – Data Package 60483711**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- When a duplicate criterion was not met, the associated sample result was qualified as an estimate (J for detects, UJ for non-detects).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA
Project Number: 23009-25
Reviewer: V. Hurt
Validation Date: 11/3/2025

Laboratory: Pace Analytical
SDG #: 60483711
Analytical Method (type and no.): EPA 200.7/200.8 (Total Metals); SM 2320B (Alkalinity); SM 2540C (TDS); EPA 300.0 (Anions);
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐ EPA 903.1/904.0 (Radium 226+228)
Sample Names S-UMW-1D,S-UMW-FB-1, S-UMW-2D, S-UMW-3D, S-UMW-4D, S-UMW-5D, S-UMW-6D, S-UMW-DUP-1, S-UMW-MSD-1
S-BMW-1D, S-BMW-3D

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			10/6/2025-10/8/2025
b) Sampling team indicated?	x			JTR & JDQ
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	x			See Notes
b) Were analytes detected in the field blank(s)?	x			See Notes
c) Were analytes detected in the equipment blank(s)?			x	S-UMW-FB-1 @ S-UMW-1D
d) Were analytes detected in the trip blank(s)?			x	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	x			
b) Were the proper analytes included in the LCS?	x			
c) Was the LCS accuracy criteria met?		x		See Notes

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	x			S-UMW-DUP-1 @ S-UMW-5D
b) Were field dup. precision criteria met (note RPD)?		x		See Notes
c) Were lab duplicates analyzed (note original and duplicate samples)?	x			
d) Were lab dup. precision criteria met (note RPD)?		x		See Notes

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?			x	
b) Was the %D within control limits?			x	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
b) Was MSD accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
c) Were MS/MSD precision criteria met?		x		See Notes

Comments/Notes:

General:

Chloride and sulfate were diluted in several samples; no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Method Blanks:

3770596: sodium (207J) Associated with samples -010 through -012. Results were > 10x the method blank results, no qualification necessary.

3768607: potassium (60.5J) Associated with samples -01 through -03. Results were > 10x the method blank results, no qualification necessary.

3768904: magnesium (17.1J) and iron (12.3J). Associated with samples -04 through -07. Results were ND or > 10x the method blank results, no qualification necessary.

Field Blanks:

S-UMW-FB-1 @ S-UMW-1D: calcium (27.5J) and boron (9.4J) results > RL and 10x blank, no qualification necessary.

Field Duplicate:

S-UMW-DUP-1 @ S-UMW-5D: RPD exceeded control (20%) for Radium-228 detected in duplicate and not in the parent sample, results qualified as estimates.

Lab Duplicate:

3771426: RPD control limit (10) was exceeded for TDS (17), associated with sample -012, result qualified as estimate.

3769113: RPD control limit (10) was exceeded for TDS (15), associated with unrelated sample, no qualification necessary.

3773933: RPD control limit (10) was exceeded for Alkalinity (21), associated with unrelated sample, no qualification necessary.

MS/MSD:

3770610: MS recovery low for calcium. Associated with unrelated sample, no qualification necessary.

3770598/3770599: MSD recovery low for calcium, RPD/MS are within control limits. Associated with unrelated sample, no qualification necessary.

3768609/3768610: MS/MSD recovery high for calcium RPD within control limits. Associated with unrelated sample, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-UMW-5D	Radium-228	0.931	UJ	Detected in the duplicate and not in parent sample
S-UMW-DUP-1	"	1.40	J	"
S-UMW-6D	TDS	451	J+	Lab duplicate RPD higher than control limit (10)

Signature: _____ Date: 11/3/2025

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

November 03, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory between October 06, 2025 and October 10, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Greensburg
- Pace Analytical Services - Salina

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
EPA Lab Code: KS00021
Arkansas Certification #: 88-00679
Illinois Certification #: 200030
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Oklahoma Certification #: 9205
Texas Certification #: T104704407
Utah Certification #: KS0002125-15
UDSA_CA : #KS-SC-DOM-25-01

Pace Analytical Services Salina
528 N 9th Street, Salina, KS 67401
EPA Lab Code: KS00013
Kansas/NELAP Certification: # E-10146
Oklahoma Certification: #2405
Texas Certification: T104704246-23-15

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SAMPLE SUMMARY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60483592001	**S-LMW-5S**	Water	10/03/25 13:10	10/06/25 12:57
60483592002	**S-LMW-6S**	Water	10/03/25 10:39	10/06/25 12:57
60483592003	**S-PZ-9D**	Water	10/03/25 11:41	10/06/25 12:57
60483592004	**S-BMW-1S**	Water	10/06/25 10:16	10/08/25 08:20
60483592005	**S-BMW-3S**	Water	10/06/25 11:57	10/08/25 08:20
60483592006	**S-LMW-1S**	Water	10/06/25 13:27	10/08/25 08:20
60483592007	**S-LMW-2S**	Water	10/07/25 14:20	10/08/25 08:20
60483592008	**S-LMW-4S**	Water	10/07/25 09:58	10/08/25 08:20
60483592009	**S-PZ-1S**	Water	10/07/25 13:13	10/08/25 08:20
60483592010	**S-TP-5D**	Water	10/07/25 12:27	10/08/25 08:20
60483592011	**S-TP-8D**	Water	10/07/25 13:05	10/08/25 08:20
60483592012	**S-UG-3**	Water	10/07/25 11:05	10/08/25 08:20
60483592013	**S-CA-MS-1**	Water	10/07/25 12:27	10/08/25 08:20
60483592014	**S-CA-MSD-1**	Water	10/07/25 12:27	10/08/25 08:20
60483592015	**S-AM-1S**	Water	10/08/25 10:32	10/10/25 07:30
60483592016	**S-AM-1D**	Water	10/08/25 10:33	10/10/25 07:30
60483592017	**S-TP-2D**	Water	10/08/25 09:05	10/10/25 07:30
60483592018	**S-TP-3D**	Water	10/09/25 10:06	10/10/25 07:30
60483592019	**S-TP-4D**	Water	10/08/25 14:17	10/10/25 07:30
60483592020	**S-TP-6S**	Water	10/09/25 11:11	10/10/25 07:30
60483592021	**S-TP-6D**	Water	10/09/25 12:22	10/10/25 07:30
60483592022	**S-CA-DUP-1**	Water	10/08/25 00:00	10/10/25 07:30
60483592023	**S-CA-DUP-2**	Water	10/08/25 00:00	10/10/25 07:30
60483592024	**S-CA-FB-1**	Water	10/09/25 11:02	10/10/25 07:30
60483592025	**S-CA-FB-2**	Water	10/09/25 11:48	10/10/25 07:30

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60483592001	**S-LMW-5S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592002	**S-LMW-6S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592003	**S-PZ-9D**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592004	**S-BMW-1S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592005	**S-BMW-3S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592006	**S-LMW-1S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592007	**S-LMW-2S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592008	**S-LMW-4S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592009	**S-PZ-1S**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592010	**S-TP-5D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592011	**S-TP-8D**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592012	**S-UG-3**	EPA 200.7	JGP	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592013	**S-CA-MS-1**	EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
60483592014	**S-CA-MSD-1**	EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
60483592015	**S-AM-1S**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592016	**S-AM-1D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592017	**S-TP-2D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592018	**S-TP-3D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483592019	**S-TP-4D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592020	**S-TP-6S**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	JML1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483592021	**S-TP-6D**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483592022	**S-CA-DUP-1**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592023	**S-CA-DUP-2**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	AJWM	1	PASI-K
		SM 2540C	CAR	1	PASI-K
60483592024	**S-CA-FB-1**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	DLJ	1	PASI-K
60483592025	**S-CA-FB-2**	EPA 200.7	ARMN	11	PASI-K
		EPA 200.8	CJM	4	PASI-K
		EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 300.0	MLL	3	PASI-SA
		SM 2320B	EMB	1	PASI-K
		SM 2540C	DLJ	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City
PASI-PA = Pace Analytical Services - Greensburg
PASI-SA = Pace Analytical Services - Salina

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-5S **Lab ID: 60483592001** Collected: 10/03/25 13:10 Received: 10/06/25 12:57 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**39.2**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:53	7440-39-3	
Boron	**14600**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:53	7440-42-8	
Calcium	**204000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:53	7440-70-2	
Cobalt	**1.3J**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:53	7440-48-4	
Iron	**80.4**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:53	7439-89-6	
Lithium	**39.3**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:53	7439-93-2	
Magnesium	**38400**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:53	7439-95-4	
Manganese	**1360**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:53	7439-96-5	
Molybdenum	**1310**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:53	7439-98-7	
Potassium	**4790**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:53	7440-09-7	
Sodium	**170000**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:53	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.68J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 08:54	7440-38-2	
Cadmium	**0.54**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 08:54	7440-43-9	
Chromium	**0.35J**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 08:54	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 08:54	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**21.3**	mg/L	2.0	0.36	2		10/26/25 16:23	16887-00-6	
Fluoride	**0.48**	mg/L	0.10	0.040	1		10/26/25 09:43	16984-48-8	
Sulfate	**745**	mg/L	100	9.6	100		10/26/25 16:35	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**298**	mg/L	20.0	10.5	1		10/17/25 14:20		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1480**	mg/L	20.0	20.0	1		10/07/25 14:31		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-6S **Lab ID: 60483592002** Collected: 10/03/25 10:39 Received: 10/06/25 12:57 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**48.8**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:55	7440-39-3	
Boron	**15900**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:55	7440-42-8	
Calcium	**237000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:55	7440-70-2	
Cobalt	**8.6**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:55	7440-48-4	
Iron	**75.3**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:55	7439-89-6	
Lithium	**21.7**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:55	7439-93-2	
Magnesium	**52600**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:55	7439-95-4	
Manganese	**456**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:55	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:55	7439-98-7	
Potassium	**4460**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:55	7440-09-7	
Sodium	**74100**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:55	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.62J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 08:57	7440-38-2	
Cadmium	**0.90**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 08:57	7440-43-9	
Chromium	**0.41J**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 08:57	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 08:57	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**4.3**	mg/L	1.0	0.18	1		10/26/25 09:55	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.040	1		10/26/25 09:55	16984-48-8	
Sulfate	**458**	mg/L	50.0	4.8	50		10/26/25 16:48	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**534**	mg/L	20.0	10.5	1		10/17/25 14:20		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1280**	mg/L	20.0	20.0	1		10/07/25 14:31		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-PZ-9D **Lab ID: 60483592003** Collected: 10/03/25 11:41 Received: 10/06/25 12:57 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**93.9**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:57	7440-39-3	
Boron	**1940**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:57	7440-42-8	
Calcium	**85300**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:57	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:57	7440-48-4	
Iron	**4180**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:57	7439-89-6	
Lithium	**21.2**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:57	7439-93-2	
Magnesium	**20500**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:57	7439-95-4	
Manganese	**483**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:57	7439-96-5	
Molybdenum	**18.8J**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:57	7439-98-7	
Potassium	**3310**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:57	7440-09-7	
Sodium	**10600**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:57	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.31J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 08:59	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 08:59	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 08:59	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 08:59	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**4.0**	mg/L	1.0	0.18	1		10/26/25 10:07	16887-00-6	
Fluoride	**0.35**	mg/L	0.10	0.040	1		10/26/25 10:07	16984-48-8	
Sulfate	**105**	mg/L	10.0	0.96	10		10/26/25 17:00	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**204**	mg/L	20.0	10.5	1		10/17/25 14:20		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**407**	mg/L	10.0	10.0	1		10/07/25 14:31		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-BMW-1S **Lab ID: 60483592004** Collected: 10/06/25 10:16 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**172**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:59	7440-39-3	
Boron	**68.5J**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:59	7440-42-8	
Calcium	**168000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:59	7440-70-2	
Cobalt	**2.1J**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:59	7440-48-4	
Iron	**35.5J**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:59	7439-89-6	
Lithium	**6.6J**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:59	7439-93-2	
Magnesium	**34000**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:59	7439-95-4	
Manganese	**825**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:59	7439-96-5	
Molybdenum	**2.0J**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:59	7439-98-7	
Potassium	**516**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:59	7440-09-7	B
Sodium	**5400**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:59	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.88J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:05	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:05	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:05	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:05	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**11.4**	mg/L	1.0	0.18	1		10/26/25 10:20	16887-00-6	
Fluoride	**0.27**	mg/L	0.10	0.040	1		10/26/25 10:20	16984-48-8	
Sulfate	**39.2**	mg/L	5.0	0.48	5		10/26/25 17:12	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**514**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**596**	mg/L	13.3	13.3	1		10/09/25 15:29		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-BMW-3S **Lab ID: 60483592005** Collected: 10/06/25 11:57 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**111**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:22	7440-39-3	
Boron	**62.1J**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:22	7440-42-8	
Calcium	**129000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:22	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:22	7440-48-4	
Iron	**<15.4**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:22	7439-89-6	
Lithium	**10.9**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:22	7439-93-2	
Magnesium	**22900**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:22	7439-95-4	
Manganese	**423**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:22	7439-96-5	
Molybdenum	**2.1J**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:22	7439-98-7	
Potassium	**516**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:22	7440-09-7	B
Sodium	**6200**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:22	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.57J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:08	7440-38-2	
Cadmium	**0.089J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:08	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:08	7440-47-3	
Selenium	**0.36J**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:08	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**9.6**	mg/L	1.0	0.18	1		10/26/25 10:32	16887-00-6	
Fluoride	**0.30**	mg/L	0.10	0.040	1		10/26/25 10:32	16984-48-8	
Sulfate	**35.6**	mg/L	2.0	0.19	2		10/26/25 17:25	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**380**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**477**	mg/L	10.0	10.0	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-1S **Lab ID: 60483592006** Collected: 10/06/25 13:27 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**263**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:24	7440-39-3	
Boron	**910**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:24	7440-42-8	
Calcium	**134000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:24	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:24	7440-48-4	
Iron	**<15.4**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:24	7439-89-6	
Lithium	**28.6**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:24	7439-93-2	
Magnesium	**30000**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:24	7439-95-4	
Manganese	**42.7**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:24	7439-96-5	
Molybdenum	**122**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:24	7439-98-7	
Potassium	**11200**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:24	7440-09-7	
Sodium	**58200**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:24	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**1.9**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:10	7440-38-2	
Cadmium	**0.067J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:10	7440-43-9	
Chromium	**0.42J**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:10	7440-47-3	
Selenium	**2.5**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:10	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**123**	mg/L	10.0	1.8	10		10/26/25 17:37	16887-00-6	
Fluoride	**0.26**	mg/L	0.10	0.040	1		10/26/25 10:44	16984-48-8	
Sulfate	**93.6**	mg/L	10.0	0.96	10		10/26/25 17:37	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**312**	mg/L	20.0	10.5	1		10/20/25 15:57		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**685**	mg/L	13.3	13.3	1		10/09/25 15:30		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-2S **Lab ID: 60483592007** Collected: 10/07/25 14:20 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**81.8**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:25	7440-39-3	
Boron	**7650**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:25	7440-42-8	
Calcium	**138000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:25	7440-70-2	
Cobalt	**1.3J**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:25	7440-48-4	
Iron	**127**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:25	7439-89-6	
Lithium	**25.5**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:25	7439-93-2	
Magnesium	**29000**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:25	7439-95-4	
Manganese	**345**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:25	7439-96-5	
Molybdenum	**1060**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:25	7439-98-7	
Potassium	**4570**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:25	7440-09-7	
Sodium	**58400**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:25	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.82J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:16	7440-38-2	
Cadmium	**0.55**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:16	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:16	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:16	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**86.0**	mg/L	10.0	1.8	10		10/26/25 17:49	16887-00-6	
Fluoride	**0.37**	mg/L	0.10	0.040	1		10/26/25 10:57	16984-48-8	
Sulfate	**188**	mg/L	10.0	0.96	10		10/26/25 17:49	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**284**	mg/L	20.0	10.5	1		10/21/25 17:32		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**748**	mg/L	13.3	13.3	1		10/13/25 16:32		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-4S **Lab ID: 60483592008** Collected: 10/07/25 09:58 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**314**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:27	7440-39-3	
Boron	**225**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:27	7440-42-8	
Calcium	**232000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:27	7440-70-2	
Cobalt	**1.1J**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:27	7440-48-4	
Iron	**17.4J**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:27	7439-89-6	
Lithium	**31.6**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:27	7439-93-2	
Magnesium	**56000**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:27	7439-95-4	
Manganese	**333**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:27	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:27	7439-98-7	
Potassium	**5990**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:27	7440-09-7	
Sodium	**10600**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:27	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.61J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:19	7440-38-2	
Cadmium	**0.18J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:19	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:19	7440-47-3	
Selenium	**0.77J**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:19	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**4.0**	mg/L	1.0	0.18	1		10/26/25 11:09	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.040	1		10/26/25 11:09	16984-48-8	
Sulfate	**36.4**	mg/L	5.0	0.48	5		10/26/25 18:14	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**770**	mg/L	20.0	10.5	1		10/21/25 17:32		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**841**	mg/L	13.3	13.3	1		10/13/25 16:32		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-PZ-1S **Lab ID: 60483592009** Collected: 10/07/25 13:13 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**144**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:29	7440-39-3	
Boron	**5610**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:29	7440-42-8	
Calcium	**112000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:29	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:29	7440-48-4	
Iron	**9370**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:29	7439-89-6	
Lithium	**21.5**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:29	7439-93-2	
Magnesium	**24000**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:29	7439-95-4	
Manganese	**833**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:29	7439-96-5	
Molybdenum	**1310**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:29	7439-98-7	
Potassium	**2260**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:29	7440-09-7	
Sodium	**29300**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:29	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.25J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:21	7440-38-2	
Cadmium	**0.31J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:21	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:21	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:21	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**19.1**	mg/L	1.0	0.18	1		10/26/25 11:46	16887-00-6	
Fluoride	**0.42**	mg/L	0.10	0.040	1		10/26/25 11:46	16984-48-8	
Sulfate	**49.2**	mg/L	5.0	0.48	5		10/26/25 18:51	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**374**	mg/L	20.0	10.5	1		10/21/25 17:32		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**519**	mg/L	10.0	10.0	1		10/13/25 16:32		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-5D **Lab ID: 60483592010** Collected: 10/07/25 12:27 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**185**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:03	7440-39-3	
Boron	**7210**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:03	7440-42-8	
Calcium	**142000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:03	7440-70-2	M1
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:03	7440-48-4	
Iron	**9710**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:03	7439-89-6	
Lithium	**35.6**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:03	7439-93-2	
Magnesium	**35900**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:03	7439-95-4	
Manganese	**1110**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:03	7439-96-5	
Molybdenum	**470**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:03	7439-98-7	
Potassium	**5170**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:03	7440-09-7	
Sodium	**33700**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:03	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.22J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 08:43	7440-38-2	
Cadmium	**0.12J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 08:43	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 08:43	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 08:43	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**35.9**	mg/L	5.0	0.90	5		10/26/25 19:03	16887-00-6	
Fluoride	**0.31**	mg/L	0.10	0.040	1		10/26/25 11:58	16984-48-8	
Sulfate	**243**	mg/L	50.0	4.8	50		10/26/25 19:40	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**306**	mg/L	20.0	10.5	1		10/21/25 17:32		D6,L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**756**	mg/L	13.3	13.3	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-8D **Lab ID: 60483592011** Collected: 10/07/25 13:05 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**376**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:33	7440-39-3	
Boron	**81.4J**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:33	7440-42-8	
Calcium	**113000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:33	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:33	7440-48-4	
Iron	**6270**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:33	7439-89-6	
Lithium	**35.2**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:33	7439-93-2	
Magnesium	**24900**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:33	7439-95-4	
Manganese	**442**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:33	7439-96-5	
Molybdenum	**1.7J**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:33	7439-98-7	
Potassium	**4000**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:33	7440-09-7	
Sodium	**7460**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:33	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**1.2**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:27	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:27	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:27	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:27	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**12.2**	mg/L	1.0	0.18	1		10/26/25 12:35	16887-00-6	
Fluoride	**0.26**	mg/L	0.10	0.040	1		10/26/25 12:35	16984-48-8	
Sulfate	**42.7**	mg/L	5.0	0.48	5		10/26/25 20:17	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**352**	mg/L	20.0	10.5	1		10/21/25 17:33		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**443**	mg/L	10.0	10.0	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-UG-3 **Lab ID: 60483592012** Collected: 10/07/25 11:05 Received: 10/08/25 08:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Kansas City								
Barium	**202**	ug/L	5.0	0.75	1	10/08/25 15:11	10/17/25 15:34	7440-39-3	
Boron	**340**	ug/L	100	33.2	1	10/08/25 15:11	10/17/25 15:34	7440-42-8	
Calcium	**123000**	ug/L	200	45.3	1	10/08/25 15:11	10/17/25 15:34	7440-70-2	
Cobalt	**2.4J**	ug/L	5.0	0.97	1	10/08/25 15:11	10/17/25 15:34	7440-48-4	
Iron	**<15.4**	ug/L	50.0	15.4	1	10/08/25 15:11	10/17/25 15:34	7439-89-6	
Lithium	**25.6**	ug/L	10.0	1.8	1	10/08/25 15:11	10/17/25 15:34	7439-93-2	
Magnesium	**23800**	ug/L	50.0	21.1	1	10/08/25 15:11	10/17/25 15:34	7439-95-4	
Manganese	**612**	ug/L	5.0	0.42	1	10/08/25 15:11	10/17/25 15:34	7439-96-5	
Molybdenum	**2.8J**	ug/L	20.0	0.78	1	10/08/25 15:11	10/17/25 15:34	7439-98-7	
Potassium	**4240**	ug/L	500	45.2	1	10/08/25 15:11	10/17/25 15:34	7440-09-7	
Sodium	**19600**	ug/L	500	31.8	1	10/08/25 15:11	10/17/25 15:34	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Kansas City								
Arsenic	**0.41J**	ug/L	1.0	0.13	1	10/08/25 15:11	10/09/25 09:32	7440-38-2	
Cadmium	**0.36J**	ug/L	0.50	0.062	1	10/08/25 15:11	10/09/25 09:32	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/08/25 15:11	10/09/25 09:32	7440-47-3	
Selenium	**3.0**	ug/L	1.0	0.19	1	10/08/25 15:11	10/09/25 09:32	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
	Pace Analytical Services - Salina								
Chloride	**13.9**	mg/L	1.0	0.18	1		10/26/25 12:48	16887-00-6	
Fluoride	**0.28**	mg/L	0.10	0.040	1		10/26/25 12:48	16984-48-8	
Sulfate	**78.9**	mg/L	10.0	0.96	10		10/26/25 20:30	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B								
	Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**324**	mg/L	20.0	10.5	1		10/21/25 17:33		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
	Pace Analytical Services - Kansas City								
Total Dissolved Solids	**500**	mg/L	10.0	10.0	1		10/13/25 16:33		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-AM-1S **Lab ID: 60483592015** Collected: 10/08/25 10:32 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**110**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:28	7440-39-3	
Boron	**139**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:28	7440-42-8	
Calcium	**66100**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:28	7440-70-2	
Cobalt	**1.8J**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:28	7440-48-4	
Iron	**813**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:28	7439-89-6	
Lithium	**18.9**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:28	7439-93-2	
Magnesium	**13800**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:28	7439-95-4	
Manganese	**2190**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:28	7439-96-5	
Molybdenum	**38.2**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:28	7439-98-7	
Potassium	**6800**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:28	7440-09-7	
Sodium	**19900**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:28	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**1.3**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:03	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:03	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:03	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:03	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**25.8**	mg/L	2.0	0.36	2		10/26/25 20:42	16887-00-6	
Fluoride	**0.48**	mg/L	0.10	0.040	1		10/26/25 13:00	16984-48-8	
Sulfate	**15.4**	mg/L	1.0	0.096	1		10/26/25 13:00	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**222**	mg/L	20.0	10.5	1		10/21/25 17:34		L1
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**303**	mg/L	10.0	10.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-AM-1D **Lab ID: 60483592016** Collected: 10/08/25 10:33 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**401**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:30	7440-39-3	
Boron	**3310**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:30	7440-42-8	
Calcium	**76900**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:30	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:30	7440-48-4	
Iron	**2910**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:30	7439-89-6	
Lithium	**30.9**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:30	7439-93-2	
Magnesium	**16300**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:30	7439-95-4	
Manganese	**357**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:30	7439-96-5	
Molybdenum	**246**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:30	7439-98-7	
Potassium	**6990**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:30	7440-09-7	
Sodium	**20800**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:30	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.16J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:06	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:06	7440-43-9	
Chromium	**0.35J**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:06	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:06	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**28.5**	mg/L	2.0	0.36	2		10/26/25 21:19	16887-00-6	
Fluoride	**0.61**	mg/L	0.10	0.040	1		10/26/25 13:12	16984-48-8	
Sulfate	**10.1**	mg/L	1.0	0.096	1		10/26/25 13:12	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**264**	mg/L	20.0	10.5	1		10/22/25 18:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**361**	mg/L	10.0	10.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-2D **Lab ID: 60483592017** Collected: 10/08/25 09:05 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**58.8**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:32	7440-39-3	
Boron	**77.4J**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:32	7440-42-8	
Calcium	**272000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:32	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:32	7440-48-4	
Iron	**16300**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:32	7439-89-6	
Lithium	**48.0**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:32	7439-93-2	
Magnesium	**71200**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:32	7439-95-4	
Manganese	**1190**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:32	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:32	7439-98-7	
Potassium	**5960**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:32	7440-09-7	
Sodium	**21400**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:32	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:08	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:08	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:08	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:08	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**64.1**	mg/L	5.0	0.90	5		10/26/25 21:32	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.040	1		10/26/25 13:25	16984-48-8	
Sulfate	**477**	mg/L	50.0	4.8	50		10/26/25 21:44	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**470**	mg/L	20.0	10.5	1		10/22/25 18:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1280**	mg/L	20.0	20.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-3D **Lab ID: 60483592018** Collected: 10/09/25 10:06 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**580**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:33	7440-39-3	
Boron	**51.8J**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:33	7440-42-8	
Calcium	**122000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:33	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:33	7440-48-4	
Iron	**7920**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:33	7439-89-6	
Lithium	**33.8**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:33	7439-93-2	
Magnesium	**29700**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:33	7439-95-4	
Manganese	**656**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:33	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:33	7439-98-7	
Potassium	**4000**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:33	7440-09-7	
Sodium	**6870**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:33	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:13	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:13	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:13	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:13	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**8.4**	mg/L	1.0	0.18	1		10/26/25 13:37	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.040	1		10/26/25 13:37	16984-48-8	
Sulfate	**85.7**	mg/L	10.0	0.96	10		10/26/25 21:56	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**346**	mg/L	20.0	10.5	1		10/23/25 05:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**523**	mg/L	10.0	10.0	1		10/15/25 13:04		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-4D **Lab ID: 60483592019** Collected: 10/08/25 14:17 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**475**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:46	7440-39-3	
Boron	**54.0J**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:46	7440-42-8	
Calcium	**118000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:46	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:46	7440-48-4	
Iron	**6220**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:46	7439-89-6	
Lithium	**31.7**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:46	7439-93-2	
Magnesium	**28500**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:46	7439-95-4	
Manganese	**382**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:46	7439-96-5	
Molybdenum	**1.4J**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:46	7439-98-7	
Potassium	**3210**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:46	7440-09-7	
Sodium	**6910**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:46	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**2.0**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:16	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:16	7440-43-9	
Chromium	**0.46J**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:16	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:16	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**9.0**	mg/L	1.0	0.18	1		10/26/25 14:14	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.040	1		10/26/25 14:14	16984-48-8	
Sulfate	**114**	mg/L	10.0	0.96	10		10/26/25 22:09	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**310**	mg/L	20.0	10.5	1		10/22/25 18:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**518**	mg/L	10.0	10.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-6S **Lab ID: 60483592020** Collected: 10/09/25 11:11 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**267**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:48	7440-39-3	
Boron	**91.5J**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:48	7440-42-8	
Calcium	**129000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:48	7440-70-2	M1
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:48	7440-48-4	
Iron	**241**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:48	7439-89-6	
Lithium	**36.1**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:48	7439-93-2	
Magnesium	**27800**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:48	7439-95-4	
Manganese	**301**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:48	7439-96-5	
Molybdenum	**3.4J**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:48	7439-98-7	
Potassium	**2530**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:48	7440-09-7	
Sodium	**5300**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:48	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.68J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:18	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:18	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:18	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:18	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**8.3**	mg/L	1.0	0.18	1		10/26/25 14:26	16887-00-6	
Fluoride	**0.29**	mg/L	0.10	0.040	1		10/26/25 14:26	16984-48-8	
Sulfate	**35.4**	mg/L	5.0	0.48	5		10/26/25 22:21	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**404**	mg/L	20.0	10.5	1		10/23/25 05:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**487**	mg/L	10.0	10.0	1		10/15/25 13:04		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-6D **Lab ID: 60483592021** Collected: 10/09/25 12:22 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**386**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:52	7440-39-3	
Boron	**52.6J**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:52	7440-42-8	
Calcium	**114000**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:52	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:52	7440-48-4	
Iron	**7360**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:52	7439-89-6	
Lithium	**27.2**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:52	7439-93-2	
Magnesium	**29100**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:52	7439-95-4	
Manganese	**483**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:52	7439-96-5	
Molybdenum	**1.1J**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:52	7439-98-7	
Potassium	**3610**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:52	7440-09-7	
Sodium	**5270**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:52	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:24	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:24	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:24	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:24	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**14.6**	mg/L	1.0	0.18	1		10/26/25 14:39	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.040	1		10/26/25 14:39	16984-48-8	
Sulfate	**60.2**	mg/L	10.0	0.96	10		10/26/25 22:33	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**340**	mg/L	20.0	10.5	1		10/23/25 05:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**474**	mg/L	10.0	10.0	1		10/15/25 13:05		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-DUP-1 **Lab ID: 60483592022** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**396**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:54	7440-39-3	
Boron	**3290**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:54	7440-42-8	
Calcium	**76200**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:54	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:54	7440-48-4	
Iron	**2740**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:54	7439-89-6	
Lithium	**30.3**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:54	7439-93-2	
Magnesium	**16000**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:54	7439-95-4	
Manganese	**343**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:54	7439-96-5	
Molybdenum	**238**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:54	7439-98-7	
Potassium	**6740**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:54	7440-09-7	
Sodium	**20400**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:54	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**0.14J**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:28	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:28	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:28	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:28	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**28.9**	mg/L	2.0	0.36	2		10/26/25 23:10	16887-00-6	
Fluoride	**0.61**	mg/L	0.10	0.040	1		10/26/25 15:16	16984-48-8	
Sulfate	**10.1**	mg/L	1.0	0.096	1		10/26/25 15:16	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**262**	mg/L	20.0	10.5	1		10/22/25 18:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**363**	mg/L	10.0	10.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-DUP-2 **Lab ID: 60483592023** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**109**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:56	7440-39-3	
Boron	**136**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:56	7440-42-8	
Calcium	**64300**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:56	7440-70-2	
Cobalt	**2.3J**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:56	7440-48-4	
Iron	**823**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:56	7439-89-6	
Lithium	**18.6**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:56	7439-93-2	
Magnesium	**13300**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:56	7439-95-4	
Manganese	**2210**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:56	7439-96-5	
Molybdenum	**39.0**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:56	7439-98-7	
Potassium	**6680**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:56	7440-09-7	
Sodium	**19600**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:56	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**1.3**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:34	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:34	7440-43-9	
Chromium	**0.35J**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:34	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:34	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**26.0**	mg/L	2.0	0.36	2		10/27/25 17:27	16887-00-6	
Fluoride	**0.51**	mg/L	0.10	0.040	1		10/27/25 12:31	16984-48-8	
Sulfate	**15.4**	mg/L	1.0	0.096	1		10/27/25 12:31	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**218**	mg/L	20.0	10.5	1		10/22/25 18:19		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**306**	mg/L	10.0	10.0	1		10/14/25 09:14		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-FB-1 **Lab ID: 60483592024** Collected: 10/09/25 11:02 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**1.4J**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:57	7440-39-3	
Boron	**<33.2**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:57	7440-42-8	
Calcium	**<45.3**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:57	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:57	7440-48-4	
Iron	**<15.4**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:57	7439-89-6	
Lithium	**<1.8**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:57	7439-93-2	
Magnesium	**<21.1**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:57	7439-95-4	
Manganese	**<0.42**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:57	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:57	7439-98-7	
Potassium	**<45.2**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:57	7440-09-7	
Sodium	**<31.8**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:57	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:36	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:36	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:36	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:36	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**<0.18**	mg/L	1.0	0.18	1		10/27/25 12:43	16887-00-6	
Fluoride	**<0.040**	mg/L	0.10	0.040	1		10/27/25 12:43	16984-48-8	
Sulfate	**<0.096**	mg/L	1.0	0.096	1		10/27/25 12:43	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		10/23/25 05:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		10/15/25 13:05		

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ANALYTICAL RESULTS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-FB-2 **Lab ID: 60483592025** Collected: 10/09/25 11:48 Received: 10/10/25 07:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City								
Barium	**<0.75**	ug/L	5.0	0.75	1	10/13/25 14:37	10/21/25 12:59	7440-39-3	
Boron	**<33.2**	ug/L	100	33.2	1	10/13/25 14:37	10/21/25 12:59	7440-42-8	
Calcium	**<45.3**	ug/L	200	45.3	1	10/13/25 14:37	10/21/25 12:59	7440-70-2	
Cobalt	**<0.97**	ug/L	5.0	0.97	1	10/13/25 14:37	10/21/25 12:59	7440-48-4	
Iron	**<15.4**	ug/L	50.0	15.4	1	10/13/25 14:37	10/21/25 12:59	7439-89-6	
Lithium	**<1.8**	ug/L	10.0	1.8	1	10/13/25 14:37	10/21/25 12:59	7439-93-2	
Magnesium	**<21.1**	ug/L	50.0	21.1	1	10/13/25 14:37	10/21/25 12:59	7439-95-4	
Manganese	**<0.42**	ug/L	5.0	0.42	1	10/13/25 14:37	10/21/25 12:59	7439-96-5	
Molybdenum	**<0.78**	ug/L	20.0	0.78	1	10/13/25 14:37	10/21/25 12:59	7439-98-7	
Potassium	**<45.2**	ug/L	500	45.2	1	10/13/25 14:37	10/21/25 12:59	7440-09-7	
Sodium	**<31.8**	ug/L	500	31.8	1	10/13/25 14:37	10/21/25 12:59	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City								
Arsenic	**<0.13**	ug/L	1.0	0.13	1	10/13/25 14:37	10/15/25 14:38	7440-38-2	
Cadmium	**<0.062**	ug/L	0.50	0.062	1	10/13/25 14:37	10/15/25 14:38	7440-43-9	
Chromium	**<0.34**	ug/L	1.0	0.34	1	10/13/25 14:37	10/15/25 14:38	7440-47-3	
Selenium	**<0.19**	ug/L	1.0	0.19	1	10/13/25 14:37	10/15/25 14:38	7782-49-2	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina								
Chloride	**<0.18**	mg/L	1.0	0.18	1		10/27/25 12:56	16887-00-6	
Fluoride	**<0.040**	mg/L	0.10	0.040	1		10/27/25 12:56	16984-48-8	
Sulfate	**<0.096**	mg/L	1.0	0.096	1		10/27/25 12:56	14808-79-8	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Kansas City								
Alkalinity, Total as CaCO3	**<10.5**	mg/L	20.0	10.5	1		10/23/25 05:09		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		10/15/25 13:05		

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 950940
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

METHOD BLANK: 3768607 Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.75	5.0	0.75	10/17/25 15:00	
Boron	ug/L	<33.2	100	33.2	10/17/25 15:00	
Calcium	ug/L	<45.3	200	45.3	10/17/25 15:00	
Cobalt	ug/L	<0.97	5.0	0.97	10/17/25 15:00	
Iron	ug/L	<15.4	50.0	15.4	10/17/25 15:00	
Lithium	ug/L	<1.8	10.0	1.8	10/17/25 15:00	
Magnesium	ug/L	<21.1	50.0	21.1	10/17/25 15:00	
Manganese	ug/L	<0.42	5.0	0.42	10/17/25 15:00	
Molybdenum	ug/L	<0.78	20.0	0.78	10/17/25 15:00	
Potassium	ug/L	60.5J	500	45.2	10/17/25 15:00	
Sodium	ug/L	<31.8	500	31.8	10/17/25 15:00	

LABORATORY CONTROL SAMPLE: 3768608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	985	98	85-115	
Calcium	ug/L	10000	10300	103	85-115	
Cobalt	ug/L	1000	1030	103	85-115	
Iron	ug/L	10000	10300	103	85-115	
Lithium	ug/L	1000	1040	104	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Manganese	ug/L	1000	1020	102	85-115	
Molybdenum	ug/L	1000	1030	103	85-115	
Potassium	ug/L	10000	10200	102	85-115	
Sodium	ug/L	10000	10100	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768609 3768610

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	185	1000	1000	1210	1220	103	103	70-130	0	20	
Boron	ug/L	7210	1000	1000	8410	8400	119	119	70-130	0	20	
Calcium	ug/L	142000	10000	10000	155000	155000	131	130	70-130	0	20	M1
Cobalt	ug/L	<0.97	1000	1000	1000	997	100	100	70-130	0	20	
Iron	ug/L	9710	10000	10000	20100	20100	104	104	70-130	0	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768609 3768610

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	35.6	1000	1000	1090	1080	105	104	70-130	0	20	
Magnesium	ug/L	35900	10000	10000	46700	46700	108	108	70-130	0	20	
Manganese	ug/L	1110	1000	1000	2150	2150	104	104	70-130	0	20	
Molybdenum	ug/L	470	1000	1000	1530	1520	106	105	70-130	0	20	
Potassium	ug/L	5170	10000	10000	15700	15500	105	104	70-130	1	20	
Sodium	ug/L	33700	10000	10000	44700	44700	110	110	70-130	0	20	

MATRIX SPIKE SAMPLE: 3768611

Parameter	Units	60483592009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	144	1000	1150	101	70-130	
Boron	ug/L	5610	1000	6520	92	70-130	
Calcium	ug/L	112000	10000	121000	83	70-130	
Cobalt	ug/L	<0.97	1000	1010	101	70-130	
Iron	ug/L	9370	10000	19700	103	70-130	
Lithium	ug/L	21.5	1000	1050	103	70-130	
Magnesium	ug/L	24000	10000	33500	94	70-130	
Manganese	ug/L	833	1000	1840	101	70-130	
Molybdenum	ug/L	1310	1000	2350	103	70-130	
Potassium	ug/L	2260	10000	12300	101	70-130	
Sodium	ug/L	29300	10000	38900	96	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951395
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

METHOD BLANK: 3770596 Matrix: Water
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	ug/L	<0.75	5.0	0.75	10/21/25 12:19	
Boron	ug/L	<33.2	100	33.2	10/21/25 12:19	
Calcium	ug/L	<45.3	200	45.3	10/21/25 12:19	
Cobalt	ug/L	<0.97	5.0	0.97	10/21/25 12:19	
Iron	ug/L	<15.4	50.0	15.4	10/21/25 12:19	
Lithium	ug/L	<1.8	10.0	1.8	10/21/25 12:19	
Magnesium	ug/L	<21.1	50.0	21.1	10/21/25 12:19	
Manganese	ug/L	<0.42	5.0	0.42	10/21/25 12:19	
Molybdenum	ug/L	<0.78	20.0	0.78	10/21/25 12:19	
Potassium	ug/L	<45.2	500	45.2	10/21/25 12:19	
Sodium	ug/L	207J	500	31.8	10/21/25 12:19	

LABORATORY CONTROL SAMPLE: 3770597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1000	100	85-115	
Boron	ug/L	1000	957	96	85-115	
Calcium	ug/L	10000	10300	103	85-115	
Cobalt	ug/L	1000	1010	101	85-115	
Iron	ug/L	10000	10200	102	85-115	
Lithium	ug/L	1000	1010	101	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Manganese	ug/L	1000	995	100	85-115	
Molybdenum	ug/L	1000	999	100	85-115	
Potassium	ug/L	10000	9810	98	85-115	
Sodium	ug/L	10000	10100	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770598 3770599

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	155	1000	1000	1140	1120	98	97	70-130	1	20	
Boron	ug/L	158	1000	1000	1110	1100	96	95	70-130	1	20	
Calcium	ug/L	112000	10000	10000	120000	118000	81	55	70-130	2	20	M1
Cobalt	ug/L	<0.97	1000	1000	972	969	97	97	70-130	0	20	
Iron	ug/L	8030	10000	10000	17800	17600	98	95	70-130	2	20	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770598 3770599

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	ug/L	17.1	1000	1000	1010	1010	99	99	70-130	0	20	
Magnesium	ug/L	26500	10000	10000	36000	35300	94	88	70-130	2	20	
Manganese	ug/L	596	1000	1000	1550	1550	95	95	70-130	0	20	
Molybdenum	ug/L	25.7	1000	1000	1020	1020	99	99	70-130	0	20	
Potassium	ug/L	3560	10000	10000	13200	13300	97	98	70-130	0	20	
Sodium	ug/L	6740	10000	10000	16400	16300	97	96	70-130	0	20	

MATRIX SPIKE SAMPLE: 3770610

Parameter	Units	60483592020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	267	1000	1240	97	70-130	
Boron	ug/L	91.5J	1000	1040	95	70-130	
Calcium	ug/L	129000	10000	135000	63	70-130	M1
Cobalt	ug/L	<0.97	1000	970	97	70-130	
Iron	ug/L	241	10000	10200	100	70-130	
Lithium	ug/L	36.1	1000	1030	99	70-130	
Magnesium	ug/L	27800	10000	36900	91	70-130	
Manganese	ug/L	301	1000	1260	96	70-130	
Molybdenum	ug/L	3.4J	1000	996	99	70-130	
Potassium	ug/L	2530	10000	12200	97	70-130	
Sodium	ug/L	5300	10000	15000	97	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 950939
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

METHOD BLANK: 3768602 Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	<0.13	1.0	0.13	10/09/25 08:39	
Cadmium	ug/L	<0.062	0.50	0.062	10/09/25 08:39	
Chromium	ug/L	<0.34	1.0	0.34	10/09/25 08:39	
Selenium	ug/L	<0.19	1.0	0.19	10/09/25 08:39	

LABORATORY CONTROL SAMPLE: 3768603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.1	95	85-115	
Cadmium	ug/L	40	39.6	99	85-115	
Chromium	ug/L	40	40.0	100	85-115	
Selenium	ug/L	40	39.0	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3768604 3768605

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.22J	40	40	38.9	38.1	97	95	70-130	2	20	
Cadmium	ug/L	0.12J	40	40	38.0	37.4	95	93	70-130	2	20	
Chromium	ug/L	<0.34	40	40	39.6	38.9	98	97	70-130	2	20	
Selenium	ug/L	<0.19	40	40	37.9	38.0	95	95	70-130	0	20	

MATRIX SPIKE SAMPLE: 3768606

Parameter	Units	60483592011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1.2	40	38.6	94	70-130	
Cadmium	ug/L	<0.062	40	38.2	95	70-130	
Chromium	ug/L	<0.34	40	38.6	96	70-130	
Selenium	ug/L	<0.19	40	37.5	94	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951396
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

METHOD BLANK: 3770601 Matrix: Water
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	<0.13	1.0	0.13	10/15/25 13:49	
Cadmium	ug/L	<0.062	0.50	0.062	10/15/25 13:49	
Chromium	ug/L	<0.34	1.0	0.34	10/15/25 13:49	
Selenium	ug/L	<0.19	1.0	0.19	10/15/25 13:49	

LABORATORY CONTROL SAMPLE: 3770602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	38.1	95	85-115	
Cadmium	ug/L	40	39.3	98	85-115	
Chromium	ug/L	40	39.3	98	85-115	
Selenium	ug/L	40	37.6	94	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770603 3770604

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.38J	40	40	39.8	39.5	99	98	70-130	1	20	
Cadmium	ug/L	<0.062	40	40	38.6	38.7	96	97	70-130	0	20	
Chromium	ug/L	<0.34	40	40	40.9	41.0	101	102	70-130	0	20	
Selenium	ug/L	<0.19	40	40	38.4	38.6	96	97	70-130	1	20	

MATRIX SPIKE SAMPLE: 3770605

Parameter	Units	60483592021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	<0.13	40	38.8	97	70-130	
Cadmium	ug/L	<0.062	40	38.7	97	70-130	
Chromium	ug/L	<0.34	40	41.0	102	70-130	
Selenium	ug/L	<0.19	40	38.0	95	70-130	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952778
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Salina
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022

METHOD BLANK: 3776285
Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020, 60483592021, 60483592022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.18	1.0	0.18	10/26/25 09:18	
Fluoride	mg/L	<0.040	0.10	0.040	10/26/25 09:18	
Sulfate	mg/L	<0.096	1.0	0.096	10/26/25 09:18	

LABORATORY CONTROL SAMPLE: 3776286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	93	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776287 3776288

Parameter	Units	60483592010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	35.9	25	25	60.6	58.6	99	91	80-120	3	15	
Fluoride	mg/L	0.31	2.5	2.5	2.7	2.7	96	95	80-120	1	15	
Sulfate	mg/L	243	250	250	473	469	92	90	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776289 3776290

Parameter	Units	60483592021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.6	5	5	19.4	19.3	95	93	80-120	0	15	
Fluoride	mg/L	0.24	2.5	2.5	2.7	2.7	99	97	80-120	1	15	
Sulfate	mg/L	60.2	50	50	111	109	102	97	80-120	2	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952782
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Salina
Associated Lab Samples: 60483592023, 60483592024, 60483592025

METHOD BLANK: 3776302 Matrix: Water
Associated Lab Samples: 60483592023, 60483592024, 60483592025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.18	1.0	0.18	10/27/25 08:49	
Fluoride	mg/L	<0.040	0.10	0.040	10/27/25 08:49	
Sulfate	mg/L	<0.096	1.0	0.096	10/27/25 08:49	

LABORATORY CONTROL SAMPLE: 3776303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.6	92	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776304 3776305

Parameter	Units	60483711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	55.9	25	25	79.6	77.6	95	87	80-120	3	15	
Fluoride	mg/L	0.34	2.5	2.5	2.9	2.9	103	101	80-120	2	15	
Sulfate	mg/L	58.0	25	25	82.0	80.1	96	88	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3776306 3776307

Parameter	Units	60483711012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.3	5	5	16.9	17.0	92	94	80-120	1	15	
Fluoride	mg/L	0.23	2.5	2.5	2.7	2.7	99	101	80-120	2	15	
Sulfate	mg/L	45.5	25	25	69.0	68.7	94	93	80-120	0	15	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951915
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592001, 60483592002, 60483592003

METHOD BLANK: 3772675 Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/17/25 14:19	

LABORATORY CONTROL SAMPLE: 3772676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	300	490	163	90-110	L1

SAMPLE DUPLICATE: 3772677

Parameter	Units	60483592001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	298	302	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952195
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592004, 60483592005, 60483592006

METHOD BLANK: 3773924 Matrix: Water
Associated Lab Samples: 60483592004, 60483592005, 60483592006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/20/25 15:57	

LABORATORY CONTROL SAMPLE: 3773925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	486	97	90-110	

SAMPLE DUPLICATE: 3773926

Parameter	Units	60483723002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	362	368	2	10	

SAMPLE DUPLICATE: 3773927

Parameter	Units	60483723004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	<10.5		10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952197 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592015

METHOD BLANK: 3773930 Matrix: Water
Associated Lab Samples: 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/21/25 17:31	

LABORATORY CONTROL SAMPLE: 3773931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	492	98	90-110	L1

SAMPLE DUPLICATE: 3773932

Parameter	Units	60483730001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	368	368	0	10	

SAMPLE DUPLICATE: 3773933

Parameter	Units	60483592010 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	306	376	21	10	D6

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952482 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592016, 60483592017, 60483592019, 60483592022, 60483592023

METHOD BLANK: 3774885 Matrix: Water
Associated Lab Samples: 60483592016, 60483592017, 60483592019, 60483592022, 60483592023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/22/25 18:19	

LABORATORY CONTROL SAMPLE: 3774886

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	508	102	90-110	

SAMPLE DUPLICATE: 3774887

Parameter	Units	60483727006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	358	368	3	10	

SAMPLE DUPLICATE: 3774888

Parameter	Units	60483711012 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	324	330	2	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 952565 | Analysis Method: SM 2320B
QC Batch Method: SM 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592018, 60483592020, 60483592021, 60483592024, 60483592025

METHOD BLANK: 3775332 Matrix: Water
Associated Lab Samples: 60483592018, 60483592020, 60483592021, 60483592024, 60483592025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<10.5	20.0	10.5	10/23/25 05:09	

LABORATORY CONTROL SAMPLE: 3775333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	544	109	90-110	

SAMPLE DUPLICATE: 3775334

Parameter	Units	60484021001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	412	418	1	10	

SAMPLE DUPLICATE: 3775335

Parameter	Units	60484023002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	446	444	0	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 950736
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592001, 60483592002, 60483592003

METHOD BLANK: 3767736 Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/07/25 14:30	

LABORATORY CONTROL SAMPLE: 3767737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3767738

Parameter	Units	60483528001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1020	1020	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951058
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592004, 60483592005, 60483592006

METHOD BLANK: 3769111 Matrix: Water
Associated Lab Samples: 60483592004, 60483592005, 60483592006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/09/25 15:28	

LABORATORY CONTROL SAMPLE: 3769112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 3769113

Parameter	Units	60483638001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	12200	10600	15	10	D6

SAMPLE DUPLICATE: 3769114

Parameter	Units	60483592004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	596	601	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951336 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

METHOD BLANK: 3770463 Matrix: Water
Associated Lab Samples: 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/13/25 16:32	

LABORATORY CONTROL SAMPLE: 3770464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	996	100	80-120	

SAMPLE DUPLICATE: 3770465

Parameter	Units	60483592010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	756	759	0	10	

SAMPLE DUPLICATE: 3770466

Parameter	Units	60483755001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6880	7050	3	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951460
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592019, 60483592022, 60483592023

METHOD BLANK: 3770737 Matrix: Water
Associated Lab Samples: 60483592015, 60483592016, 60483592017, 60483592019, 60483592022, 60483592023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/14/25 09:13	

LABORATORY CONTROL SAMPLE: 3770738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	996	100	80-120	

SAMPLE DUPLICATE: 3770739

Parameter	Units	60483730001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	568	558	2	10	

SAMPLE DUPLICATE: 3770740

Parameter	Units	60483727006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1560	1560	0	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 951634
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60483592018, 60483592020, 60483592021, 60483592024, 60483592025

METHOD BLANK: 3771424 Matrix: Water
Associated Lab Samples: 60483592018, 60483592020, 60483592021, 60483592024, 60483592025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	10/15/25 13:00	

LABORATORY CONTROL SAMPLE: 3771425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3771426

Parameter	Units	60483711012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	451	534	17	10	D6

SAMPLE DUPLICATE: 3771427

Parameter	Units	60483728006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	651	647	1	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-5S **Lab ID: 60483592001** Collected: 10/03/25 13:10 Received: 10/06/25 12:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.146 ± 0.223 (0.132) C:NA T:101%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.820 ± 0.567 (1.11) C:73% T:76%**	pCi/L	10/27/25 15:07	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-6S **Lab ID: 60483592002** Collected: 10/03/25 10:39 Received: 10/06/25 12:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.484 ± 0.384 (0.499) C:NA T:97%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.906 ± 0.501 (0.918) C:72% T:84%**	pCi/L	10/27/25 15:07	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-PZ-9D **Lab ID: 60483592003** Collected: 10/03/25 11:41 Received: 10/06/25 12:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.106 ± 0.360 (0.695) C:NA T:95%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.843 ± 0.515 (0.980) C:74% T:83%**	pCi/L	10/27/25 15:07	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-BMW-1S **Lab ID: 60483592004** Collected: 10/06/25 10:16 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.367 ± 0.275 (0.142) C:NA T:92%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.779 ± 0.523 (0.997) C:58% T:85%**	pCi/L	10/27/25 15:07	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-BMW-3S **Lab ID: 60483592005** Collected: 10/06/25 11:57 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0949 ± 0.294 (0.570) C:NA T:105%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.286 ± 0.434 (0.937) C:76% T:81%**	pCi/L	10/27/25 15:07	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-1S **Lab ID: 60483592006** Collected: 10/06/25 13:27 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.677 ± 0.428 (0.484) C:NA T:97%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.295 ± 0.393 (0.839) C:66% T:91%**	pCi/L	10/27/25 15:08	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-2S **Lab ID: 60483592007** Collected: 10/07/25 14:20 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.327 ± 0.429 (0.988) C:NA T:98%**	pCi/L	10/30/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.19 ± 0.660 (0.791) C:70% T:84%**	pCi/L	10/27/25 15:08	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-LMW-4S **Lab ID: 60483592008** Collected: 10/07/25 09:58 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.351 ± 0.460 (0.767) C:NA T:95%**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.48 ± 0.533 (0.757) C:74% T:84%**	pCi/L	10/27/25 15:08	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-PZ-1S **Lab ID: 60483592009** Collected: 10/07/25 13:13 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.283 ± 0.229 (0.128) C:NA T:101%**	pCi/L	10/30/25 14:35	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**0.427 ± 0.380 (0.766) C:84% T:77%**	pCi/L	10/27/25 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-5D **Lab ID: 60483592010** Collected: 10/07/25 12:27 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.525 ± 0.332 (0.375) C:NA T:95%**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.835 ± 0.456 (0.828) C:78% T:95%**	pCi/L	10/27/25 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-8D **Lab ID: 60483592011** Collected: 10/07/25 13:05 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.371 ± 0.487 (0.811) C:NA T:96%**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.966 ± 0.451 (0.756) C:74% T:88%**	pCi/L	10/27/25 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-UG-3 **Lab ID: 60483592012** Collected: 10/07/25 11:05 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.153 ± 0.437 (0.810) C:NA T:100%**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.776 ± 0.432 (0.775) C:74% T:88%**	pCi/L	10/27/25 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-MS-1 **Lab ID: 60483592013** Collected: 10/07/25 12:27 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**124.79 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**69.12 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-MSD-1 **Lab ID: 60483592014** Collected: 10/07/25 12:27 Received: 10/08/25 08:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**128.11 %REC 2.63RPD ± NA (NA) C:NA T:NA**	pCi/L	10/30/25 14:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**67.75 %REC 1.99RPD ± NA (NA) C:NA T:NA**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-AM-1S **Lab ID: 60483592015** Collected: 10/08/25 10:32 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**-0.0473 ± 0.216 (0.440) C:NA T:103%**	pCi/L	10/30/25 14:35	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**0.210 ± 0.336 (0.729) C:74% T:85%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-AM-1D **Lab ID: 60483592016** Collected: 10/08/25 10:33 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.100 ± 0.279 (0.540) C:NA T:101%**	pCi/L	10/30/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.587 ± 0.401 (0.761) C:72% T:84%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-2D **Lab ID: 60483592017** Collected: 10/08/25 09:05 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.152 ± 0.298 (0.545) C:NA T:105%**	pCi/L	10/30/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.828 ± 0.477 (0.873) C:70% T:85%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-3D **Lab ID: 60483592018** Collected: 10/09/25 10:06 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.966 ± 0.449 (0.138) C:NA T:98%**	pCi/L	10/30/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.14 ± 0.439 (0.652) C:76% T:91%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-4D **Lab ID: 60483592019** Collected: 10/08/25 14:17 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.197 ± 0.305 (0.529) C:NA T:98%**	pCi/L	10/30/25 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.08 ± 0.464 (0.727) C:73% T:84%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-6S **Lab ID: 60483592020** Collected: 10/09/25 11:11 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0546 ± 0.249 (0.402) C:NA T:97%**	pCi/L	10/30/25 14:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0824 ± 0.336 (0.763) C:78% T:87%**	pCi/L	10/27/25 15:10	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-TP-6D **Lab ID: 60483592021** Collected: 10/09/25 12:22 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.472 ± 0.615 (1.03) C:NA T:104%**	pCi/L	10/30/25 13:46	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**1.93 ± 0.623 (0.769) C:77% T:77%**	pCi/L	10/31/25 11:41	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-DUP-1 **Lab ID: 60483592022** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.296 ± 0.364 (0.860) C:NA T:103%**	pCi/L	10/30/25 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.433 ± 0.413 (0.855) C:82% T:91%**	pCi/L	10/28/25 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-DUP-2 **Lab ID: 60483592023** Collected: 10/08/25 00:00 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.542 (1.05) C:NA T:101%**	pCi/L	10/30/25 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.02 ± 0.511 (0.883) C:75% T:78%**	pCi/L	10/31/25 11:41	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-FB-1 **Lab ID: 60483592024** Collected: 10/09/25 11:02 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0506 ± 0.384 (0.803) C:NA T:102%**	pCi/L	10/30/25 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.145 ± 0.362 (0.803) C:82% T:95%**	pCi/L	10/28/25 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Sample: S-CA-FB-2 **Lab ID: 60483592025** Collected: 10/09/25 11:48 Received: 10/10/25 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.438 ± 0.396 (0.584) C:NA T:104%**	pCi/L	10/30/25 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0803 ± 0.417 (0.943) C:72% T:91%**	pCi/L	10/28/25 11:24	15262-20-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 778391
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

METHOD BLANK: 3796335 Matrix: Water
Associated Lab Samples: 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.236 ± 0.220 (0.289) C:NA T:98%	pCi/L	10/30/25 13:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 778393
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

METHOD BLANK: 3796338 Matrix: Water
Associated Lab Samples: 60483592021, 60483592022, 60483592023, 60483592024, 60483592025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.825 ± 0.433 (0.750) C:74% T:81%	pCi/L	10/31/25 11:41	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 778388
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592013, 60483592014, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020

METHOD BLANK: 3796332
Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592013, 60483592014, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0844 ± 0.193 (0.311) C:NA T:98%	pCi/L	10/30/25 14:23	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

QC Batch: 778390
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592013, 60483592014, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020

METHOD BLANK: 3796334
Matrix: Water
Associated Lab Samples: 60483592001, 60483592002, 60483592003, 60483592004, 60483592005, 60483592006, 60483592007, 60483592008, 60483592009, 60483592010, 60483592011, 60483592012, 60483592013, 60483592014, 60483592015, 60483592016, 60483592017, 60483592018, 60483592019, 60483592020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.871 ± 0.433 (0.740) C:73% T:84%	pCi/L	10/27/25 15:08	

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QUALIFIERS

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483592001	**S-LMW-5S**	EPA 200.7	950940	EPA 200.7	950995
60483592002	**S-LMW-6S**	EPA 200.7	950940	EPA 200.7	950995
60483592003	**S-PZ-9D**	EPA 200.7	950940	EPA 200.7	950995
60483592004	**S-BMW-1S**	EPA 200.7	950940	EPA 200.7	950995
60483592005	**S-BMW-3S**	EPA 200.7	950940	EPA 200.7	950995
60483592006	**S-LMW-1S**	EPA 200.7	950940	EPA 200.7	950995
60483592007	**S-LMW-2S**	EPA 200.7	950940	EPA 200.7	950995
60483592008	**S-LMW-4S**	EPA 200.7	950940	EPA 200.7	950995
60483592009	**S-PZ-1S**	EPA 200.7	950940	EPA 200.7	950995
60483592010	**S-TP-5D**	EPA 200.7	950940	EPA 200.7	950995
60483592011	**S-TP-8D**	EPA 200.7	950940	EPA 200.7	950995
60483592012	**S-UG-3**	EPA 200.7	950940	EPA 200.7	950995
60483592015	**S-AM-1S**	EPA 200.7	951395	EPA 200.7	951435
60483592016	**S-AM-1D**	EPA 200.7	951395	EPA 200.7	951435
60483592017	**S-TP-2D**	EPA 200.7	951395	EPA 200.7	951435
60483592018	**S-TP-3D**	EPA 200.7	951395	EPA 200.7	951435
60483592019	**S-TP-4D**	EPA 200.7	951395	EPA 200.7	951435
60483592020	**S-TP-6S**	EPA 200.7	951395	EPA 200.7	951435
60483592021	**S-TP-6D**	EPA 200.7	951395	EPA 200.7	951435
60483592022	**S-CA-DUP-1**	EPA 200.7	951395	EPA 200.7	951435
60483592023	**S-CA-DUP-2**	EPA 200.7	951395	EPA 200.7	951435
60483592024	**S-CA-FB-1**	EPA 200.7	951395	EPA 200.7	951435
60483592025	**S-CA-FB-2**	EPA 200.7	951395	EPA 200.7	951435
60483592001	**S-LMW-5S**	EPA 200.8	950939	EPA 200.8	950994
60483592002	**S-LMW-6S**	EPA 200.8	950939	EPA 200.8	950994
60483592003	**S-PZ-9D**	EPA 200.8	950939	EPA 200.8	950994
60483592004	**S-BMW-1S**	EPA 200.8	950939	EPA 200.8	950994
60483592005	**S-BMW-3S**	EPA 200.8	950939	EPA 200.8	950994
60483592006	**S-LMW-1S**	EPA 200.8	950939	EPA 200.8	950994
60483592007	**S-LMW-2S**	EPA 200.8	950939	EPA 200.8	950994
60483592008	**S-LMW-4S**	EPA 200.8	950939	EPA 200.8	950994
60483592009	**S-PZ-1S**	EPA 200.8	950939	EPA 200.8	950994
60483592010	**S-TP-5D**	EPA 200.8	950939	EPA 200.8	950994
60483592011	**S-TP-8D**	EPA 200.8	950939	EPA 200.8	950994
60483592012	**S-UG-3**	EPA 200.8	950939	EPA 200.8	950994
60483592015	**S-AM-1S**	EPA 200.8	951396	EPA 200.8	951436
60483592016	**S-AM-1D**	EPA 200.8	951396	EPA 200.8	951436
60483592017	**S-TP-2D**	EPA 200.8	951396	EPA 200.8	951436
60483592018	**S-TP-3D**	EPA 200.8	951396	EPA 200.8	951436
60483592019	**S-TP-4D**	EPA 200.8	951396	EPA 200.8	951436
60483592020	**S-TP-6S**	EPA 200.8	951396	EPA 200.8	951436
60483592021	**S-TP-6D**	EPA 200.8	951396	EPA 200.8	951436
60483592022	**S-CA-DUP-1**	EPA 200.8	951396	EPA 200.8	951436
60483592023	**S-CA-DUP-2**	EPA 200.8	951396	EPA 200.8	951436
60483592024	**S-CA-FB-1**	EPA 200.8	951396	EPA 200.8	951436
60483592025	**S-CA-FB-2**	EPA 200.8	951396	EPA 200.8	951436
60483592001	**S-LMW-5S**	EPA 903.1	778388		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483592002	**S-LMW-6S**	EPA 903.1	778388		
60483592003	**S-PZ-9D**	EPA 903.1	778388		
60483592004	**S-BMW-1S**	EPA 903.1	778388		
60483592005	**S-BMW-3S**	EPA 903.1	778388		
60483592006	**S-LMW-1S**	EPA 903.1	778388		
60483592007	**S-LMW-2S**	EPA 903.1	778388		
60483592008	**S-LMW-4S**	EPA 903.1	778388		
60483592009	**S-PZ-1S**	EPA 903.1	778388		
60483592010	**S-TP-5D**	EPA 903.1	778388		
60483592011	**S-TP-8D**	EPA 903.1	778388		
60483592012	**S-UG-3**	EPA 903.1	778388		
60483592013	**S-CA-MS-1**	EPA 903.1	778388		
60483592014	**S-CA-MSD-1**	EPA 903.1	778388		
60483592015	**S-AM-1S**	EPA 903.1	778388		
60483592016	**S-AM-1D**	EPA 903.1	778388		
60483592017	**S-TP-2D**	EPA 903.1	778388		
60483592018	**S-TP-3D**	EPA 903.1	778388		
60483592019	**S-TP-4D**	EPA 903.1	778388		
60483592020	**S-TP-6S**	EPA 903.1	778388		
60483592021	**S-TP-6D**	EPA 903.1	778391		
60483592022	**S-CA-DUP-1**	EPA 903.1	778391		
60483592023	**S-CA-DUP-2**	EPA 903.1	778391		
60483592024	**S-CA-FB-1**	EPA 903.1	778391		
60483592025	**S-CA-FB-2**	EPA 903.1	778391		
60483592001	**S-LMW-5S**	EPA 904.0	778390		
60483592002	**S-LMW-6S**	EPA 904.0	778390		
60483592003	**S-PZ-9D**	EPA 904.0	778390		
60483592004	**S-BMW-1S**	EPA 904.0	778390		
60483592005	**S-BMW-3S**	EPA 904.0	778390		
60483592006	**S-LMW-1S**	EPA 904.0	778390		
60483592007	**S-LMW-2S**	EPA 904.0	778390		
60483592008	**S-LMW-4S**	EPA 904.0	778390		
60483592009	**S-PZ-1S**	EPA 904.0	778390		
60483592010	**S-TP-5D**	EPA 904.0	778390		
60483592011	**S-TP-8D**	EPA 904.0	778390		
60483592012	**S-UG-3**	EPA 904.0	778390		
60483592013	**S-CA-MS-1**	EPA 904.0	778390		
60483592014	**S-CA-MSD-1**	EPA 904.0	778390		
60483592015	**S-AM-1S**	EPA 904.0	778390		
60483592016	**S-AM-1D**	EPA 904.0	778390		
60483592017	**S-TP-2D**	EPA 904.0	778390		
60483592018	**S-TP-3D**	EPA 904.0	778390		
60483592019	**S-TP-4D**	EPA 904.0	778390		
60483592020	**S-TP-6S**	EPA 904.0	778390		
60483592021	**S-TP-6D**	EPA 904.0	778393		
60483592022	**S-CA-DUP-1**	EPA 904.0	778393		
60483592023	**S-CA-DUP-2**	EPA 904.0	778393		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483592024	**S-CA-FB-1**	EPA 904.0	778393		
60483592025	**S-CA-FB-2**	EPA 904.0	778393		
60483592001	**S-LMW-5S**	EPA 300.0	952778		
60483592002	**S-LMW-6S**	EPA 300.0	952778		
60483592003	**S-PZ-9D**	EPA 300.0	952778		
60483592004	**S-BMW-1S**	EPA 300.0	952778		
60483592005	**S-BMW-3S**	EPA 300.0	952778		
60483592006	**S-LMW-1S**	EPA 300.0	952778		
60483592007	**S-LMW-2S**	EPA 300.0	952778		
60483592008	**S-LMW-4S**	EPA 300.0	952778		
60483592009	**S-PZ-1S**	EPA 300.0	952778		
60483592010	**S-TP-5D**	EPA 300.0	952778		
60483592011	**S-TP-8D**	EPA 300.0	952778		
60483592012	**S-UG-3**	EPA 300.0	952778		
60483592015	**S-AM-1S**	EPA 300.0	952778		
60483592016	**S-AM-1D**	EPA 300.0	952778		
60483592017	**S-TP-2D**	EPA 300.0	952778		
60483592018	**S-TP-3D**	EPA 300.0	952778		
60483592019	**S-TP-4D**	EPA 300.0	952778		
60483592020	**S-TP-6S**	EPA 300.0	952778		
60483592021	**S-TP-6D**	EPA 300.0	952778		
60483592022	**S-CA-DUP-1**	EPA 300.0	952778		
60483592023	**S-CA-DUP-2**	EPA 300.0	952782		
60483592024	**S-CA-FB-1**	EPA 300.0	952782		
60483592025	**S-CA-FB-2**	EPA 300.0	952782		
60483592001	**S-LMW-5S**	SM 2320B	951915		
60483592002	**S-LMW-6S**	SM 2320B	951915		
60483592003	**S-PZ-9D**	SM 2320B	951915		
60483592004	**S-BMW-1S**	SM 2320B	952195		
60483592005	**S-BMW-3S**	SM 2320B	952195		
60483592006	**S-LMW-1S**	SM 2320B	952195		
60483592007	**S-LMW-2S**	SM 2320B	952197		
60483592008	**S-LMW-4S**	SM 2320B	952197		
60483592009	**S-PZ-1S**	SM 2320B	952197		
60483592010	**S-TP-5D**	SM 2320B	952197		
60483592011	**S-TP-8D**	SM 2320B	952197		
60483592012	**S-UG-3**	SM 2320B	952197		
60483592015	**S-AM-1S**	SM 2320B	952197		
60483592016	**S-AM-1D**	SM 2320B	952482		
60483592017	**S-TP-2D**	SM 2320B	952482		
60483592018	**S-TP-3D**	SM 2320B	952565		
60483592019	**S-TP-4D**	SM 2320B	952482		
60483592020	**S-TP-6S**	SM 2320B	952565		
60483592021	**S-TP-6D**	SM 2320B	952565		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-CA
Pace Project No.: 60483592

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60483592022	**S-CA-DUP-1**	SM 2320B	952482		
60483592023	**S-CA-DUP-2**	SM 2320B	952482		
60483592024	**S-CA-FB-1**	SM 2320B	952565		
60483592025	**S-CA-FB-2**	SM 2320B	952565		
60483592001	**S-LMW-5S**	SM 2540C	950736		
60483592002	**S-LMW-6S**	SM 2540C	950736		
60483592003	**S-PZ-9D**	SM 2540C	950736		
60483592004	**S-BMW-1S**	SM 2540C	951058		
60483592005	**S-BMW-3S**	SM 2540C	951058		
60483592006	**S-LMW-1S**	SM 2540C	951058		
60483592007	**S-LMW-2S**	SM 2540C	951336		
60483592008	**S-LMW-4S**	SM 2540C	951336		
60483592009	**S-PZ-1S**	SM 2540C	951336		
60483592010	**S-TP-5D**	SM 2540C	951336		
60483592011	**S-TP-8D**	SM 2540C	951336		
60483592012	**S-UG-3**	SM 2540C	951336		
60483592015	**S-AM-1S**	SM 2540C	951460		
60483592016	**S-AM-1D**	SM 2540C	951460		
60483592017	**S-TP-2D**	SM 2540C	951460		
60483592018	**S-TP-3D**	SM 2540C	951634		
60483592019	**S-TP-4D**	SM 2540C	951460		
60483592020	**S-TP-6S**	SM 2540C	951634		
60483592021	**S-TP-6D**	SM 2540C	951634		
60483592022	**S-CA-DUP-1**	SM 2540C	951460		
60483592023	**S-CA-DUP-2**	SM 2540C	951460		
60483592024	**S-CA-FB-1**	SM 2540C	951634		
60483592025	**S-CA-FB-2**	SM 2540C	951634		

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WO# : 60483592

60483592

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_		
	Revision: 3	Effective Date: 09/22/2025	Issued By: Lenexa

Client Name: Rocksmith

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☑ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☐ No ☑ Cooling process has begun ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T301 **Type of Ice:** (Wet) Blue (None)

Cooler Temperature (°C): **As-read** 23.6 **Corr. Factor** — **Corrected** 23.6

Date and initials of person examining contents: DF 10/10

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	Cooler 2: 2.7 - BP1U's & BP3N's
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☐No ☑N/A	
Rush Turn Around Time requested:	☐Yes ☐No ☑N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) **LOT#:** 96888	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483592

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Specify Container Size **: 3 3 1 1

Identify Container Preservative Type***: 1 2 1 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303393

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment
S-BMW-1S	WT													
S-BMW-3S	WT													
S-LMW-1S	WT													
S-LMW-2S	WT													
S-LMW-4S	WT													
S-LMW-5S	WT	G			10-3-25	1310	4			X	X	X	Y	
S-LMW-6S	WT	G			10-3-25	1039	4			X	X	X	X	
S-AM-1S	WT													
S-AM-1D	WT													
S-PZ-1S	WT													

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
** - App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) Daniel Quick
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
			23.6/2.7 S-4	23.6/2.7	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Rocksmith	1430 10-3-25	Ameren/Pace	10/6 1145 1257
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

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Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [✓] CT [ ] ET

County / State origin of sample(s): Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **: 3 3 1 1

Identify Container Preservative Type***: 2 2 1 2

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303393

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment	Preservation non-conformance identified for sample.
S-PZ-9D	WT	G			10-3-25	1141	4			X	X	X	X		
SP-TP-2D	WT														
SP-TP-3D	WT														
SP-TP-4D	WT														
SP-TP-5D	WT														
SP-TP-6S	WT														
SP-TP-6D	WT														
SP-TP-8D	WT														
S-UG-3	WT														
S-CA-DUP-1	WT														

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) Daniel Quach
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	CJ 10/7		23.6/2.7 ~~8.4~~ CJ 10/7	23.6/2.7 ~~8.4~~ CJ 10/7	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	1430 10-3-25	Carmen Jure Pace	10/4 1140 1257	
				Delivered by: [ ] In- Person [ ] Courier
				[ ] FedEX [ ] UPS [ ] Other
				Page: of

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ENV-FRM-CORQ-0019_v02_110123 ©

Client: Rocksmith Profile/EZ # EZ3303393

Site: Amerin SCPA - CA Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																		1			2	1									
2																			1			2	1									
3																			1			2	1									
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number:

WO#: 60483592

PM: JLS Due Date: 10/20/25

CLIENT: Rocksmith

WO# : 60483592

60483592

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample C		
	Revision: 3	Effective Date: 09/22/2025	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐ Cooling process has begun ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): As-read 1.3/1.5 Corr. Factor 0.0 Corrected 1.3/1.5 18.4/15.3 18.4/15.3

Date and initials of person examining contents: JW 10/8/25

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) LOT#: 96888	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

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Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228
S-BMW-1S	WT	G			10/6/25	1016	4			✓	✓	✓	✓
S-BMW-3S	WT	G			"	1157	4			✓	✓	✓	✓
S-LMW-1S	WT	G			"	1327	4			✓	✓	✓	✓
S-LMW-2S	WT	G			10/7/25	1420	4			✓	✓	✓	✓
S-LMW-4S	WT	G			10/7/25	0958	4			✓	✓	✓	✓
S-LMW-5S	WT												
S-LMW-6S	WT												
S-AM-1S	WT												
S-AM-1D	WT												
S-PZ-1S	WT	G			10/7/25	1313	4			✓	✓	✓	✓

Specify Container Size **
Identify Container Preservative Type***
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303393

Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) John Rasmussen
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
4	T-301	0.0	1.3/1.5 / 10.4/15.3	1.3/1.5 / NB.4/15.3	

Relinquished by/Company: (Signature) Rocksmith	Date/Time: 10/7/25 1540	Received by/Company: (Signature) ASI	Date/Time: 10/8/25 0820	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 3

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		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No
			Analysis:

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

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SP-TP-3D	WT													
SP-TP-4D	WT													
SP-TP-5D	WT	G			10/7/25	1227	4			✓	✓	✓	✓	
SP-TP-6S	WT													
SP-TP-6D	WT													
SP-TP-8D	WT	G			10/7/25	1305	4			✓	✓	✓	✓	
S-UG-3	WT	G			10/7/25	1105	4			✓	✓	✓	✓	
S-CA-DUP-1	WT													

Lab Use Only: Proj. Mgr: Jamie Church; AcctNum / Client ID:; Table #:; Profile / Template: 15856; Prelog / Bottle Ord. ID: EZ 3303393

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) John Rasmussen

Signature:

Customer Remarks / Special Conditions / Possible Hazards: 1.3/1.5 1.3/1.5

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
4	T-301	0.0	16.4/15.3	16.4/15.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rasmussen	10/7/25 1540			
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 3

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		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment
S-CA-DUP-2	WT													
S-CA-FB-1	WT													
S-CA-FB-2	WT													
S-CA-MS-1	WT	G			10/7/25	1227	4			✓	✓	✓	✓	Taken @ TP-5D
S-CA-MSD-1	WT	G			10/7/25	1227	4			✓	✓	✓	✓	

Specify Container Size **
Identify Container Preservative Type***
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303393

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) John Rasmussen
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
4	T-301	0.0	1.3/1.5 18.4/15.3	1.3/1.5 18.4/15.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	10/7/25 1540			
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 3 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

1/3

Client: Rocksmith Geoeng

Profile/EZ #: only Print what you log.

Site:

Notes: Append to 6y483592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																		1			2	1									
2	↓																		↓			↓	↓									
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10	WT																		↓			↓	↓									
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6y483592

2/3

Client: Rocksmith Geoeng

Profile/EZ #

Site:

Notes Append to 6c483592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2																																
3																																
4																																
5	WT								(MS/MSD)										3			2	3									
6																																
7																																
8	WT																		1			2	1									
9	WT																		1			2	1									
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6c483592

3/3

Client: Rocksmith Geoeng

Profile/EZ #

Site:

Notes Attend to bcy83592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2																																
3																																
4	WT								(Only 1													2										
5	WT																					2										
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
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DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: bcy83592

WO# : 60483592

60483592

DC#_Title: ENV-FRM-LENE-0009_Sample Co		
Revision: 3	Effective Date: 09/22/2025	Issued By: Lenexa

Client Name: Rocksmith Geoeng

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐ Cooling process has begun ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T-301 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 17.9/16.3 Corr. Factor 0.0 Corrected 17.9/16.3

Temperature should be above freezing to 6°C 2.0/2.5/1.5 2.0/2.5/1.5

Date and initials of person examining contents: DV 10/10/25

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO3, H2SO4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) LOT#: 96880	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483592

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment
S-BMW-1S	WT													
S-BMW-3S	WT													
S-LMW-1S	WT													
S-LMW-2S	WT													
S-LMW-4S	WT													
S-LMW-5S	WT													
S-LMW-6S	WT													
S-AM-1S	WT	G			10/8/25	1032	4			✓	✓	✓	✓	
S-AM-1D	WT	G			10/8/25	1033	4			✓	✓	✓	✓	
S-PZ-1S	WT													

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Jamie Church

AcctNum / Client ID:

Table #:

Profile / Template: 15856

Prelog / Bottle Ord. ID: EZ 3303393

Preservation non-conformance identified for sample:

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) David Quick

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

17.9/16.3 17.9/16.3

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
5	T-301	0.0	2.0/2.5/1.5	2.0/2.5/1.5	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Rocksmith	10-9-25 1335		10/10/25 0730

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

Page: 1 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483592

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment
S-PZ-9D	WT													
SP-TP-2D	WT	G			10/8/25	0905	4			✓	✓	✓	✓	
SP-TP-3D	WT	G			10/9/25	1006	4			✓	✓	✓	✓	
SP-TP-4D	WT	G			10/8/25	1417	4			✓	✓	✓	✓	
SP-TP-5D	WT													
SP-TP-6S	WT	G			10/9/25	1111	4			✓	✓	✓	✓	
SP-TP-6D	WT	G			10/9/25	1222	4			✓	✓	✓	✓	
SP-TP-8D	WT													
S-UG-3	WT													
S-CA-DUP-1	WT	G			10/8/25	—	4			✓	✓	✓	✓	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Jamie Church

AcctNum / Client ID:

Table #:

Profile / Template: 15856

Prelog / Bottle Ord. ID: EZ 3303393

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) Daniel Qwek

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

17.9/16.3 17.9/16.3

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	T-301	0.0	2.0/2.5/1.5	2.0/2.5/1.5	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	1335 10-9-25		10/10/25 0730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 3

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60483592

Scan QR Code for instructions

Company Name:	Rocksmith Geoengineering, LLC.	Contact/Report To:	Mark Haddock
Street Address:	2320 Creve Coeur Mill Road Maryland Heights, MO 63043	Phone #:	314-974-6578
		E-Mail:	mark.haddock@rocksmithgeo.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	AMEREN SCPA-CA	Invoice To:	Mark Haddock
		Invoice E-Mail:	mark.haddock@rocksmithgeo.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Missouri
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:
		Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO_3, (3) H_2SO_4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) $NaHSO_4$, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	App III and Cat/An Metals*	App IV Metals**	Cl/F/SO4/TDS/Alkalinity	Radium 226/228	Sample Comment
S-CA-DUP-2	WT	G			10/8/25	—	4			✓	✓	✓	✓	
S-CA-FB-1	WT	G			10/9/25	1102	4			✓	✓	✓	✓	
S-CA-FB-2	WT	G			10/9/25	1148	4			✓	✓	✓	✓	
S-CA-MS-1	WT													
S-CA-MSD-1	WT													

Lab Use Only
Proj. Mgr: Jamie Church
AcctNum / Client ID:
Table #:
Profile / Template: 15856
Prelog / Bottle Ord. ID: EZ 3303393

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
* - App III and Cat/An Metals* - EPA 200.7: Ba, Ca, Fe, Mg, Mn, K, Na
**- App IV Metals - EPA 200.7 - Ba, Co, Li, Mo and 200.8 Metals - As, Cd, Cr, Se

Collected By: (Printed Name) David Quick
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

17.9/16.3 17.9/16.3

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
5	T-301	0.0	2.0/2.8/1.5	2.0/2.5/1.5	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Rocksmith	1335 10-9-25		10/10/25 0730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 3 of 3

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1/3

Client: Rocksmith Geoeng

Profile/EZ #: Only Print what you log,

Site:

Notes: Append to 60483592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8	WT																		1			2	1									
9	↓																		1			2	1									
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60483592

2/3

Client: Rocksmith Geoeng

Profile/EZ #:

Site:

Notes: Append to 60483592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																																
2	WT																		1			2	1									
3	↓																		↓			↓	↓									
4	↓																		↓			↓	↓									
5																																
6	↓																		↓			↓	↓									
7	↓																		↓			↓	↓									
8																																
9																																
10	WT																		↓			↓	↓									
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
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Plastic	
BP1B	1L NAOH plastic
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BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
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BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60483592

DC#_Title: ENV-FRM-LENE-0001 v07_Sample Container Count
Effective Date: 7/12/2024

3/3

Client: Rocksmith Grocery

Profile/EZ #

Site:

Notes Attach to 60483592

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																		1			2	1									
2	↓																		↓			↓	↓									
3																			↓			↓	↓									
4																																
5																																
6																																
7																																
8																																
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11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
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DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60483592

Internal Transfer Chain of Custody

☐ Rush Multiplier_____X
☐ Samples Pre-Logged into eCOC

State Of Origin: MO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 10/6/2025 **Results Requested By:** 10/31/2025

Workorder: 60483592 **Workorder Name:** AMEREN SCPA-CA

Report To

Jamie Church
Pace Analytical Kansas
9608 Loiret Blvd.
Lenexa, KS 66219
Phone 314-838-7223

Subcontract To

Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone (724)850-5600

WO# : 30819138
30819138

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226	Radium 228	LAB USE ONLY
1	S-LMW-5S	PS	10/3/2025 13:10	60483592001	Water	2	X	X	001
2	S-LMW-6S	PS	10/3/2025 10:39	60483592002	Water	2	X	X	002
3	S-PZ-9D	PS	10/3/2025 11:41	60483592003	Water	2	X	X	003
4	S-BMW-1S	PS	10/6/2025 10:16	60483592004	Water	2	X	X	004
5	S-BMW-3S	PS	10/6/2025 11:57	60483592005	Water	2	X	X	005
6	S-LMW-1S	PS	10/6/2025 13:27	60483592006	Water	2	X	X	006
7	S-LMW-2S	PS	10/7/2025 14:20	60483592007	Water	2	X	X	007
8	S-LMW-4S	PS	10/7/2025 09:58	60483592008	Water	2	X	X	008
9	S-PZ-1S	PS	10/7/2025 13:13	60483592009	Water	2	X	X	009
10	S-TP-5D	RQS	10/7/2025 12:27	60483592010	Water	2	X	X	010
11	S-TP-8D	PS	10/7/2025 13:05	60483592011	Water	2	X	X	011
12	S-UG-3	PS	10/7/2025 11:05	60483592012	Water	2	X	X	012
13	S-CA-MS-1	PS	10/7/2025 12:27	60483592013	Water	2	X	X	013
14	S-CA-MSD-1	PS	10/7/2025 12:27	60483592014	Water	2	X	X	014
15	S-AM-1S	PS	10/8/2025 10:32	60483592015	Water	2	X	X	015
16	S-AM-1D	PS	10/8/2025 10:33	60483592016	Water	2	X	X	016
17	S-TP-2D	PS	10/8/2025 09:05	60483592017	Water	2	X	X	017
18	S-TP-3D	PS	10/9/2025 10:06	60483592018	Water	2	X	X	018
19	S-TP-4D	PS	10/8/2025 14:17	60483592019	Water	2	X	X	019

Internal Transfer Chain of Custody

☐ Rush Multiplier____X
☐ Samples Pre-Logged into eCOC

Workorder: 60483592 **Workorder Name:** AMEREN SCPA-CA

State Of Origin: MO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 10/6/2025 **Results Requested By:** 10/31/2025

Pace

Report To	Subcontract To
Jamie Church Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 314-838-7223	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Radium 226	Radium 228	LAB USE ONLY
20	S-TP-6S	PS	10/9/2025 11:11	60483592020	Water	2	X	X	020
21	S-TP-6D	PS	10/9/2025 12:22	60483592021	Water	2	X	X	021
22	S-CA-DUP-1	PS	10/8/2025 00:00	60483592022	Water	2	X	X	022
23	S-CA-DUP-2	PS	10/8/2025 00:00	60483592023	Water	2	X	X	023
24	S-CA-FB-1	PS	10/9/2025 11:02	60483592024	Water	2	X	X	024
25	S-CA-FB-2	PS	10/9/2025 11:48	60483592025	Water	2	X	X	025

Transfers	Released By	Date/Time	Received By	Date/Time
1	DF Pace	10/16 1700	Krista Dill	10-17-25 10:10
2				
3				

Comments

Parent sample for MS/MSD (013/014) is S-TP-5D (010)

Location: (47) BP1N 60-R28-S1 / 60-R01-S4A

Cooler Temperature on Receipt ___ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO# : 30819138
PM: CMC Due Date: 11/07/25
CLIENT: PACE_60_LEKS

WO#: 30819138

PM: CMC Due Date: 11/07/25
CLIENT: PACE_60_LEKS

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-GBUR-0088 v09_Sample Conc
Greensburg

Effective Date: 06/24/2025

Client Name: Pace KS **Project #:**

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 4453 8938 7352

Initial / Date

Examined By: ES 10-17-25
Labeled By: ES 10-17-25
Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals Intact:** ☐ Yes ☐ No

Therm. Used: — **Type of Ice:** Wet Blue (None)

Cooler Temp: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10043241 / D.P.D. Residual Chlorine Lot # —
Chain of Custody Present	/			1.
Chain of Custody Filled Out:	/			2.
-Were client corrections present on COC		/		
Chain of Custody Relinquished	/			3.
Sampler Name & Signature on COC:		/		4.
Sample Labels match COC:	/			5.
-Includes date/time/ID Matrix: WT				
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):		/		7.
Rush Turn Around Time Requested:		/		8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used	/			
Containers Intact:	/			11.
Orthophosphate field filtered:			/	12.
Hex Cr Aqueous samples field filtered:			/	13.
Organic Samples checked for dechlorination			/	14:
Filtered volume received for dissolved tests: **Cr6+, Orthophosphate, DOC, Metals**			/	15:
All containers checked for preservation:	/			16.
exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix				pH <2
All containers meet method preservation requirements:	/			Initial when completed ES / Date/Time of Preservation
				Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			/	17.
624.1: Headspace in VOA Vials (0mm)			/	18.
Radon: Headspace in RAD Vials (0mm)			/	19.
Trip Blank Present:			/	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed ES / Date: 10-17-25 / Survey Meter SN:25014380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Memorandum

November 3, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Valerie Hurt	**Email:**	valerie.hurt@rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA-CA – Data Package 60483592**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met and data qualification was required:

- When a compound was detected in a blank (i.e. method, field), and the blank comparison criterion was not met, associated sample results were qualified as estimates (J) or non-detects (U).
- When a duplicate criterion was not met, the associated sample result was qualified as an estimate (J for detects, UJ for non-detects).
- When a laboratory control sample criterion was not met, the associated sample result was qualified as an estimate (J for detects, UJ for non-detects).
- When a matrix spike/matrix spike duplicate (MS/MSD) criterion was not met, the associated sample result was qualified as an estimate (J, J+ for estimates based high, and J- for estimates based low).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA-CA
Project Number: 23009-25
Reviewer: V. Hurt
Validation Date: 11/3/2025

Laboratory: Pace Analytical
SDG #: 60483592
Analytical Method (type and no.): EPA 200.7/200.8 (Total Metals); SM 2320B (Alkalinity); SM 2540C (TDS); EPA 300.0 (Anions);
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐ EPA 903.1/904.0 (Radium 226+228)
Sample Names S-LMW-5S, S-LMW-6S, S-PZ-9D, S-BMW-1S, S-BMW-3S, S-LMW-1S, S-LMW-2S, S-LMW-4S, S-PZ-1S, S-TP-5D, S-TP-8D, S-UG-3
S-CA-MS-1, S-CA-MSD-1, S-AM-1S, S-AM-1D, S-TP-2D, S-TP-3D, S-TP4D, S-TP-6S, S-TP-6D, S-CA-DUP-1, S-CA-DUP-2, S-CA-FB-1, S-CA-FB-2

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			10/3/2025-10/9/2025
b) Sampling team indicated?	x			JTR & JDQ
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	x			See Notes
b) Were analytes detected in the field blank(s)?	x			S-CA-FB-1 @ S-TP-6S, S-CA-FB-2 @ S-TP-6D
c) Were analytes detected in the equipment blank(s)?			x	
d) Were analytes detected in the trip blank(s)?			x	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	x			
b) Were the proper analytes included in the LCS?	x			
c) Was the LCS accuracy criteria met?		x		See Notes

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	x			S-CA-DUP1 @ S-AM-1D / S-CA-DUP2 @ S-AM-1S
b) Were field dup. precision criteria met (note RPD)?		x		See Notes
c) Were lab duplicates analyzed (note original and duplicate samples)?	x			
d) Were lab dup. precision criteria met (note RPD)?		x		See Notes

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?			x	
b) Was the %D within control limits?			x	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
b) Was MSD accuracy criteria met?		x		See Notes
Recovery could not be calculated since sample contained high concentration of analyte?			x	
c) Were MS/MSD precision criteria met?		x		See Notes

Comments/Notes:

General:

Chloride and/or sulfate were diluted in several samples; no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Method Blanks:

3768607: potassium (60.5J) Associated with samples -001 through -012. Results -001 through -003 and -006 through -012 were ND or > 10x the method blank results, no qualification necessary. Samples -004 and -005 were detected < 10x method blank, results qualified as estimates.

3770596: sodium (207J) Associated with samples -015 through -025. Results were ND or > 10x the method blank results, no qualification necessary.

Field Blanks:

S-UMW-FB-1 @ S-TP-6S: barium (1.4J), parent sample result > 10x blank result. No qualification necessary.

S-UMW-FB-2 @ S-TP-6D: No constituents were detected in this field blank.

Field Duplicates:

S-CA-DUP-2 @ S-AM-1S: chromium was detected in the DUP and not in the parent sample, results qualified as estimates.

S-CA-DUP-1 @ S-AM-1D: chromium was detected in the parent sample and not in the duplicate sample, results qualified as estimates.

Lab Duplicates:

3773933: RPD control (10) was exceeded for Alkalinity (21). Associated with sample -010, result qualified as estimate.

3769113: RPD control (10) was exceeded for TDS (15). Associated with unrelated sample, no qualification necessary.

3771426: RPD control (10) was exceeded for TDS (17). Associated with unrelated sample, no qualification necessary.

MS/MSD:

3768609/3768610: MS/MSD recovery high for calcium, RPD within control. Associated with -010, result qualified as estimate.

3770598/3770599: MSD recovery low for calcium, MS and RPD within control. Associated with unrelated sample, no qualification necessary.

3770610: MS recovery low for calcium. Associated with sample -020, result qualified as estimate.

Laboratory Control Sample:

3772676: LCS % recovery high for alkalinity, associated with -001 through -003. Results qualified as estimates.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-BMW-1S	Potassium	516	J	Detected < 10x method blank result
S-BMW-3S	"	516	J	"
S-CA-DUP-2	Chromium	0.35	J	Detected in the dup and not in the parent sample
S-AM-1S	"	0.34	UJ	"
S-TP-5D	Alkalinity	306	J+	Laboratory Duplicate RPD Exceeded Control
"	Calcium	142000	J+	MS/MSD recovery high, RPD OK
S-TP-6S	Calcium	129000	J-	MS recovery low
S-LMW-5S	Alkalinity	298	J+	LCS recovery high
S-LMW-6S	"	534	J+	"
S-PZ-9D	"	204	J+	"
S-CA-DUP-1	Chromium	0.34	UJ	Detected in parent sample and not in dup
S-AM-1D	"	0.35	J	"

Signature: _____ Date: 11/3/2025

Pace Analytical Services, LLC
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December 19, 2025

Mark Haddock
Rocksmith Geoengineering, LLC.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Dear Mark Haddock:

Enclosed are the analytical results for sample(s) received by the laboratory on December 05, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

cc: Jeffrey Ingram, Rocksmith Geoengineering, LLC.
Lisa Meyer, Ameren
Grant Morey, Rocksmith Geoengineering, LLC.
Austin Nieman, Ameren

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CERTIFICATIONS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
EPA Lab Code: KS00021
Arkansas Certification #: 88-00679
Illinois Certification #: 200030
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Oklahoma Certification #: 9205
Texas Certification #: T104704407
Utah Certification #: KS0002125-15
UDSA_CA : #KS-SC-DOM-25-01

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SAMPLE SUMMARY

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60487098001	**S-UMW-3D**	Water	12/03/25 13:05	12/05/25 07:39
60487098002	**S-UMW-5D**	Water	12/03/25 14:01	12/05/25 07:39
60487098003	**S-UMW-6D**	Water	12/03/25 15:01	12/05/25 07:39
60487098004	**S-UMW-DUP-1**	Water	12/03/25 00:00	12/05/25 07:39
60487098005	**S-UMW-FB-1**	Water	12/03/25 14:29	12/05/25 07:39

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SAMPLE ANALYTE COUNT

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60487098001	**S-UMW-3D**	SM 2540C	DLJ	1	PASI-K
		EPA 300.0	GTS	3	PASI-K
60487098002	**S-UMW-5D**	SM 2540C	DLJ	1	PASI-K
		EPA 300.0	GTS	3	PASI-K
60487098003	**S-UMW-6D**	SM 2540C	DLJ	1	PASI-K
		EPA 300.0	GTS	3	PASI-K
60487098004	**S-UMW-DUP-1**	SM 2540C	DLJ	1	PASI-K
		EPA 300.0	GTS	3	PASI-K
60487098005	**S-UMW-FB-1**	SM 2540C	DLJ	1	PASI-K
		EPA 300.0	GTS	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Sample: S-UMW-3D **Lab ID: 60487098001** Collected: 12/03/25 13:05 Received: 12/05/25 07:39 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**1230**	mg/L	20.0	20.0	1		12/10/25 10:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**55.8**	mg/L	10.0	7.7	10		12/19/25 09:32	16887-00-6	
Fluoride	**<0.16**	mg/L	0.20	0.16	1		12/18/25 20:35	16984-48-8	M1
Sulfate	**518**	mg/L	200	86.1	200		12/18/25 21:36	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Sample: S-UMW-5D **Lab ID: 60487098002** Collected: 12/03/25 14:01 Received: 12/05/25 07:39 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**501**	mg/L	10.0	10.0	1		12/10/25 10:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**61.9**	mg/L	10.0	7.7	10		12/19/25 10:05	16887-00-6	
Fluoride	**0.46**	mg/L	0.20	0.16	1		12/18/25 22:12	16984-48-8	
Sulfate	**21.9**	mg/L	10.0	4.3	10		12/18/25 22:24	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Sample: S-UMW-6D **Lab ID: 60487098003** Collected: 12/03/25 15:01 Received: 12/05/25 07:39 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**440**	mg/L	10.0	10.0	1		12/10/25 10:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**11.4**	mg/L	1.0	0.77	1		12/19/25 10:16	16887-00-6	
Fluoride	**<0.16**	mg/L	0.20	0.16	1		12/18/25 22:36	16984-48-8	
Sulfate	**38.5**	mg/L	10.0	4.3	10		12/18/25 22:48	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Sample: S-UMW-DUP-1 **Lab ID: 60487098004** Collected: 12/03/25 00:00 Received: 12/05/25 07:39 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**420**	mg/L	10.0	10.0	1		12/10/25 10:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**11.3**	mg/L	1.0	0.77	1		12/19/25 10:27	16887-00-6	
Fluoride	**<0.16**	mg/L	0.20	0.16	1		12/18/25 23:00	16984-48-8	
Sulfate	**40.1**	mg/L	20.0	8.6	20		12/18/25 23:12	14808-79-8	

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ANALYTICAL RESULTS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Sample: S-UMW-FB-1 **Lab ID: 60487098005** Collected: 12/03/25 14:29 Received: 12/05/25 07:39 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City								
Total Dissolved Solids	**<5.0**	mg/L	5.0	5.0	1		12/10/25 10:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**<0.77**	mg/L	1.0	0.77	1		12/19/25 10:39	16887-00-6	
Fluoride	**<0.16**	mg/L	0.20	0.16	1		12/18/25 23:24	16984-48-8	
Sulfate	**<0.43**	mg/L	1.0	0.43	1		12/18/25 23:24	14808-79-8	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

QC Batch: 958050
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

METHOD BLANK: 3796883 Matrix: Water
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	5.0	12/10/25 10:18	

LABORATORY CONTROL SAMPLE: 3796884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1070	107	80-120	

SAMPLE DUPLICATE: 3796885

Parameter	Units	60487098001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1230	1220	1	10	

SAMPLE DUPLICATE: 3796886

Parameter	Units	60487099002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	626	618	1	10	

SAMPLE DUPLICATE: 3796887

Parameter	Units	60487100002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	529	526	1	10	

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

QC Batch: 958951
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

METHOD BLANK: 3800453 Matrix: Water
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	<0.16	0.20	0.16	12/18/25 20:11	
Sulfate	mg/L	<0.43	1.0	0.43	12/18/25 20:11	

LABORATORY CONTROL SAMPLE: 3800454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.3	92	90-110	
Sulfate	mg/L	5	4.6	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3800455 3800456

Parameter	Units	60487098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	<0.16	2.5	2.5	3.8	3.8	152	152	80-120	1	15	M1
Sulfate	mg/L	518	1000	1000	1840	1840	132	132	80-120	0	15	M1

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QUALITY CONTROL DATA

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

QC Batch: 959201
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

METHOD BLANK: 3801446 Matrix: Water
Associated Lab Samples: 60487098001, 60487098002, 60487098003, 60487098004, 60487098005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	<0.77	1.0	0.77	12/19/25 09:06	

LABORATORY CONTROL SAMPLE: 3801447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.5	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3801448 3801449

Parameter	Units	60487098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	55.8	50	50	103	103	95	95	80-120	0	15	

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QUALIFIERS

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AMEREN SCPA-VERIFICATION
Pace Project No.: 60487098

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60487098001	**S-UMW-3D**	SM 2540C	958050		
60487098002	**S-UMW-5D**	SM 2540C	958050		
60487098003	**S-UMW-6D**	SM 2540C	958050		
60487098004	**S-UMW-DUP-1**	SM 2540C	958050		
60487098005	**S-UMW-FB-1**	SM 2540C	958050		
60487098001	**S-UMW-3D**	EPA 300.0	958951		
60487098001	**S-UMW-3D**	EPA 300.0	959201		
60487098002	**S-UMW-5D**	EPA 300.0	958951		
60487098002	**S-UMW-5D**	EPA 300.0	959201		
60487098003	**S-UMW-6D**	EPA 300.0	958951		
60487098003	**S-UMW-6D**	EPA 300.0	959201		
60487098004	**S-UMW-DUP-1**	EPA 300.0	958951		
60487098004	**S-UMW-DUP-1**	EPA 300.0	959201		
60487098005	**S-UMW-FB-1**	EPA 300.0	958951		
60487098005	**S-UMW-FB-1**	EPA 300.0	959201		

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Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample	
	Revision: 3	Effective Date: 09/22/2025

WO# : 60487098

60487098

Client Name: Rocksmith bio engineering

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☑ No ☐ Cooling process has begun ☐

Packing Material: Bubble Wrap ☑ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ ziplock

Thermometer Used: T301 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): As-read 1.0 Corr. Factor 0.0 Corrected 1.1

Date and initials of person examining contents: DP 12-5

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, Radium) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Client: Rocksmith bioengineering Profile/EZ # 15856, 1

Site: Ameren SCPC verification Sampling Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																			3												
2																				1												
3																				1												
4																				1												
5																				1												
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number:

WO#: 60487098
PM: JLS Due Date: 12/19/25
CLIENT: Rocksmith

60487098

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A — Required Client Information:

Company:	Rocksmith Geoengineering, LLC
Address:	5233 Roanoke Drive
	St. Charles, MO 63304
Email To:	mark.haddock@rocksmithgeo.com
Pho 314-974-5678	Fax
Requested Due Date/TAT:	Standard

Section B — Required Project Information:

Report To:	Mark Haddock
Copy To:	Jeffery Ingram, Grant Morey
Purchase Order No.:	COC #1
Project Name:	Ameren SCPA - Verification Sampling
Project Number:	COC#

Section C — Invoice Information:

Attention:	
Company Name:	Rocksmith
Address:	
Pace Quote Reference:	Jamie Church
Pace Project Manager:	
Pace Profile #:	15856, line 1

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA O _____

Site Location STATE: MO

Section D — Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
	WP
	AR
	OT
	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRA DATE	COLLECTED COMPOSITE END/GRA TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Fluoride	Sulfate	TDS	Chloride	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	S-UMW-3D	WT	G				12/3/25	1305	1	1								X	X	X	X			
2	S-UMW-5D	WT	G					1401	1	1								X	X	X	X			
3	S-UMW-6D	WT	G					1501	1	1								X	X	X	X			
4	S-UMW-DUP-1	WT	G					—	1	1								X	X	X	X			
5	S-UMW-FB-1	WT	G					1429	1	1								X	X	X	X			
6	S-UMW-MS-1	WT	G					1305	1	1								X	X	X	X			
7	S-UMW-MSD-1	WT	G					1305	1	1								X	X	X	X			Collected @ S-UMW-3D
8		WT	G																					
9		WT	G																					
10		WT	G																					
11		WT	G																					
12		WT	G																					

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	David Qwek RSG	12-4-25	1322	David Pace PACE	12-5	0739	1.1

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Qwek

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12-4-25

Temp in °C | Received on Custody Sealed Cooler | Samples Intact (Y/N)

XR

Memorandum

December 29, 2025

To:	Project File Rocksmith Geoengineering, LLC	**Project Number:**	23009-25
CC:	Mark Haddock, Jeffrey Ingram		
From:	Valerie Hurt	**Email:**	Valerie.Hurt@Rocksmithgeo.com
RE:	**Data Validation Summary, Sioux Energy Center – SCPA – Data Package 60487098**		

The following is a summary of instances where quality control criteria in the functional guidelines were not met, and data qualification was required:

- When a matrix spike/matrix spike duplicate (MS/MSD) criterion was not met, the associated sample result was qualified as an estimate (J, J+ for estimates based high, and J- for estimates based low).

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Rocksmith Geoengineering
Project Manager: J. Ingram
Project Name: Ameren SCPA - Verification Sampling
Project Number: 23009-25
Reviewer: V. Hurt
Validation Date: 12/29/2025

Laboratory: Pace Analytical
SDG #: 60487098
Analytical Method (type and no.): EPA 2540C (Total dissolved solids), EPA 300.0 (Anions)
Matrix: ☐ Air ☐ Soil/Sed. ■ Water ☐ Waste ☐ _____
Sample Names S-UMW-3D, S-UMW-5D, S-UMW-6D, S-UMW-DUP-1, and S-UMW-FB-1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	x			12/03/25
b) Sampling team indicated?	x			JTR/JDQ
c) Sample location noted?	x			
d) Sample depth indicated (Soils)?			x	
e) Sample type indicated (grab/composite)?	x			Grab
f) Field QC noted?	x			See Notes
g) Field parameters collected (note types)?	x			pH, Spec Cond, Turb, Temp, DO, ORP
h) Field Calibration within control limits?	x			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		x		
j) Does the laboratory narrative indicate deficiencies?			x	No lab narrative.

Note Deficiencies: _____

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	x			
b) Was the COC signed by both field and laboratory personnel?	x			
c) Were samples received in good condition?	x			

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	x			
b) Were hold times met for sample analysis?	x			
c) Were the correct preservatives used?	x			
d) Was the correct method used?	x			
e) Were appropriate reporting limits achieved?	x			
f) Were any sample dilutions noted?	x			See Notes
g) Were any matrix problems noted?		x		

QA LEVEL II - INORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Were analytes detected in the field blank(s)?	☐	☒	☐	S-UWW-FB-1 @ S-UMW-5D
c) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
d) Were analytes detected in the trip blank(s)?	☐	☐	☒	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☒	☐	☐	S-UMW-DUP-1 @ S-UMW-6D
b) Were field dup. precision criteria met (note RPD)?	☒	☐	☐	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☒	☐	☐	
d) Were lab dup. precision criteria met (note RPD)?	☒	☐	☐	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, analytes included and concentrations)?	☐	☐	☒	
b) Was the %D within control limits?	☐	☐	☒	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☒	☐	See Notes
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met?	☒	☐	☐	

Comments/Notes:

General:

Chloride and sulfate was diluted in several samples. No qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Comments/Notes:

Field Blanks:

S-UWW-FB-1 @ S-UMW-5D: No detections

MS/MSD:

3800455/3800456: MS/MSD % recovery high for fluoride and sulfate. Associated with sample -001, sulfate result qualified as estimates.

Fluoride result is non-detect, no qualification necessary.

QA LEVEL IV - INORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
S-UMW-3D	Sulfate	518	J+	MS/MSD % Recovery high, RPD OK

Signature: _____ Date: 12/29/2025

Appendix B

November 2024 Assessment Monitoring Statistical Evaluation

Memorandum

March 18, 2025

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-24
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., Jeff Ingram, R.G., Grant Morey, Amanda Derhake, PhD, P.E.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Assessment Monitoring Statistical Evaluation, SCPA Surface Impoundment Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Assessment Monitoring Statistical Evaluation for the November 2024 sampling event at the SCPA Surface Impoundment at the Sioux Energy Center located in St. Charles County, Missouri. Included in the memorandum is a summary of constituents that are present at a Statistically Significant Level (SSL), a list of site-specific Groundwater Protection Standards (**Table 1**), and the Sanitas TechnologiesTM (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A** and **Appendix B**).

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for SSLs using the methods and procedures outlined in the Statistical Analysis Plan (SAP). An outlier analysis was performed on all results within the SCPA monitoring network, inclusive of November 2024 data. No new outliers were removed for the November 2024 analysis.

An analysis of the outliers removed to date was completed and one statistical outlier that was previously removed was added back into the dataset prior to the calculation of confidence limits in **Appendix A** and trending confidence bands in **Appendix B**:

- Arsenic
  - S-UMW-3D at 1.8 J micrograms per liter (µg/L) on 5/14/2018: removed during the statistical evaluation for the August 2019 sampling event because the result was statistically higher than other arsenic values at the same monitoring well. Based on subsequent sampling results, the higher result was confirmed and is no longer an outlier.

Based on the results from the confidence interval and trend analysis, no new SSLs were noted. SSLs at the SCPA Surface Impoundment as of November 2024 continue to be:

- Molybdenum at S-UMW-2D, S-UMW-3D, S-UMW-4D, and S-UMW-5D

3.0 CLOSING

Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Amanda Derhake, PhD, P.E.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring[6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.6556
Barium	µg/L	2000	2000	699
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	27.91
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.537
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) 2012 Edition of the Drinking Water Standards and Health Advisories. Updated January 9, 2023 at http://water.epa.gov/drink/contaminants/index.cfm.
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2023 from monitoring wells BMW-1D and BMW-3D.

ROCKSMITH GEOENGINEERING

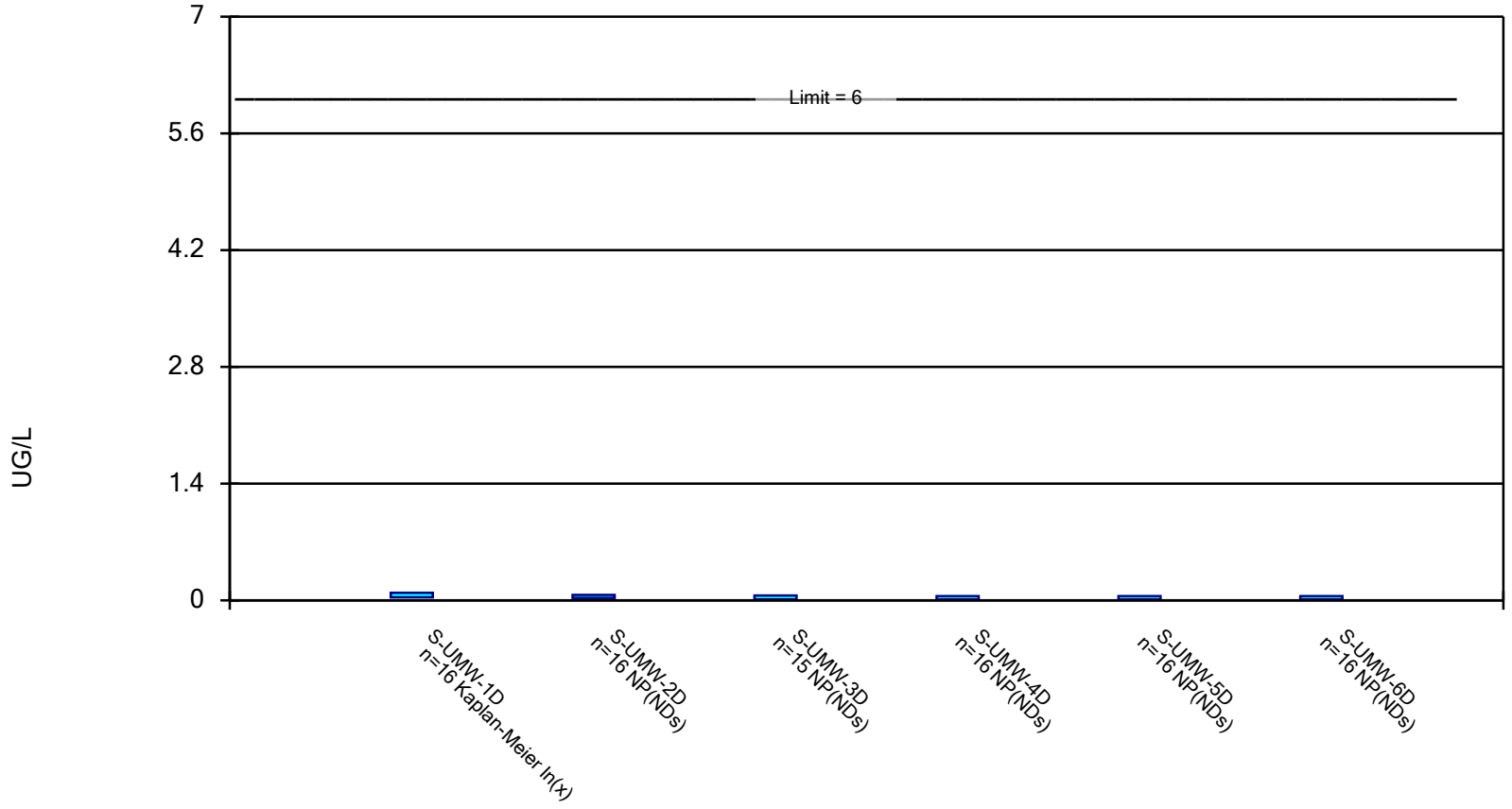
Prepared by: GTM
Checked by: JSI
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



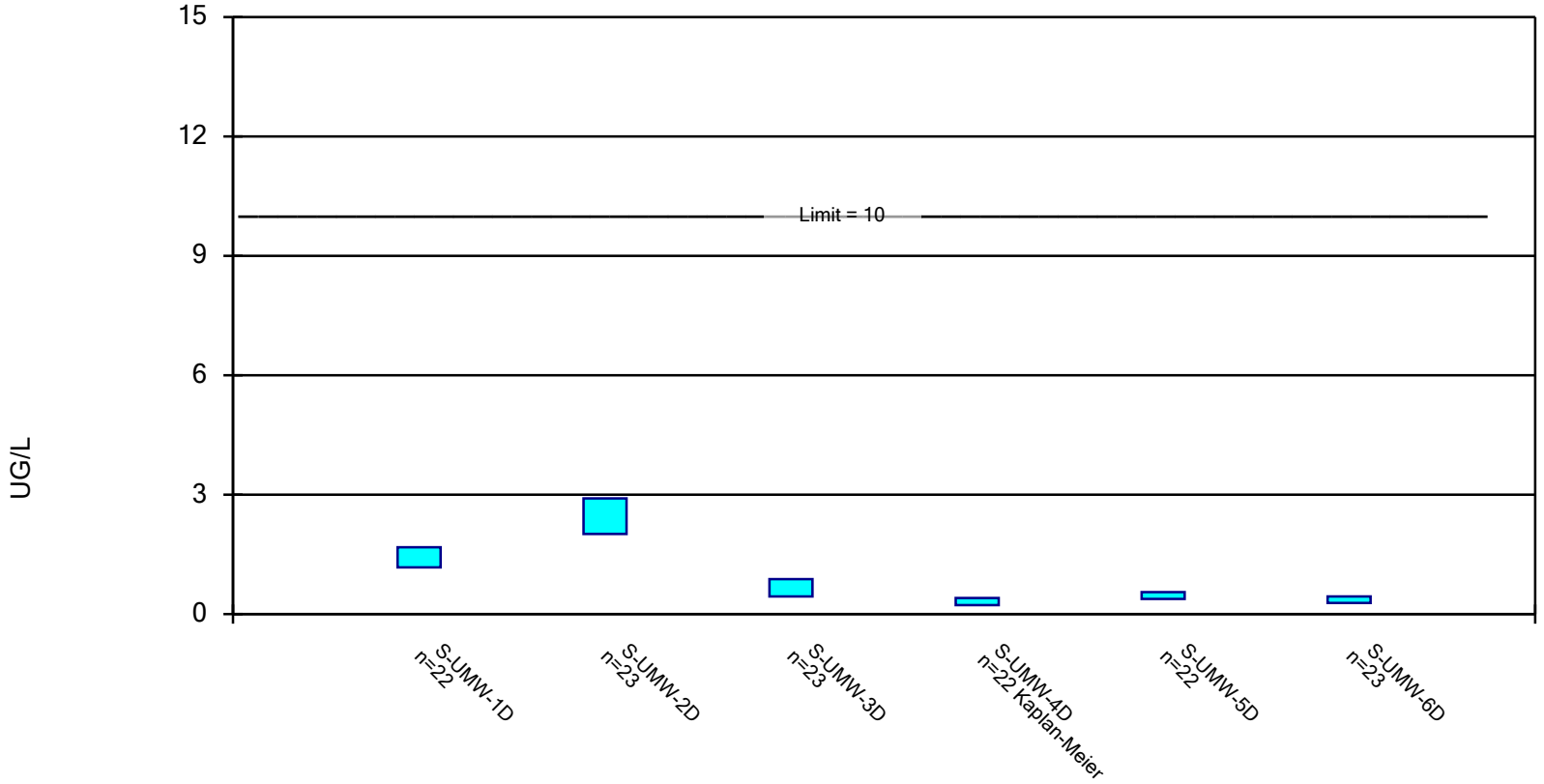
Constituent: ANTIMONY, TOTAL Analysis Run 3/10/2025 9:57 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



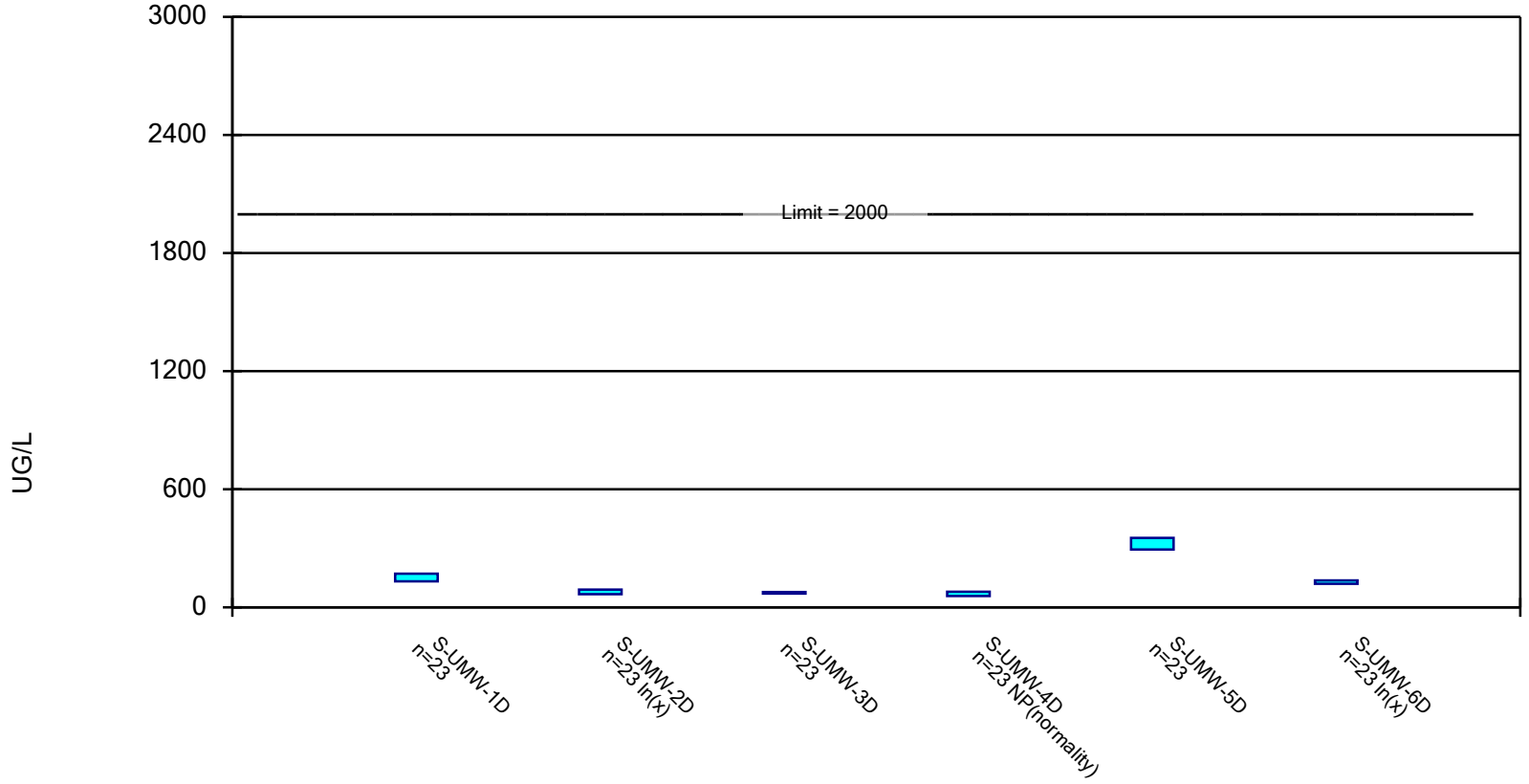
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



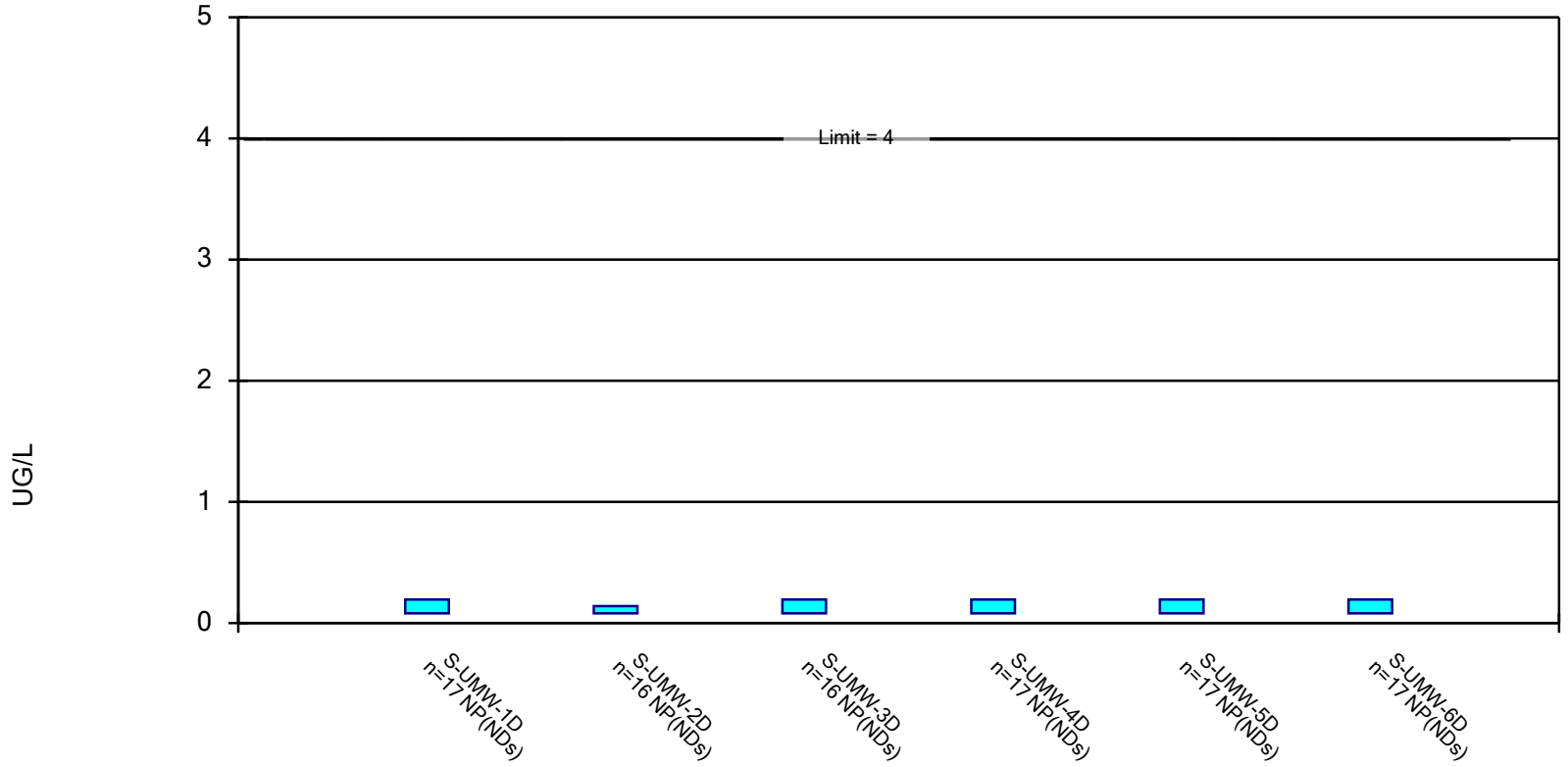
Constituent: BARIUM, TOTAL Analysis Run 3/10/2025 9:57 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



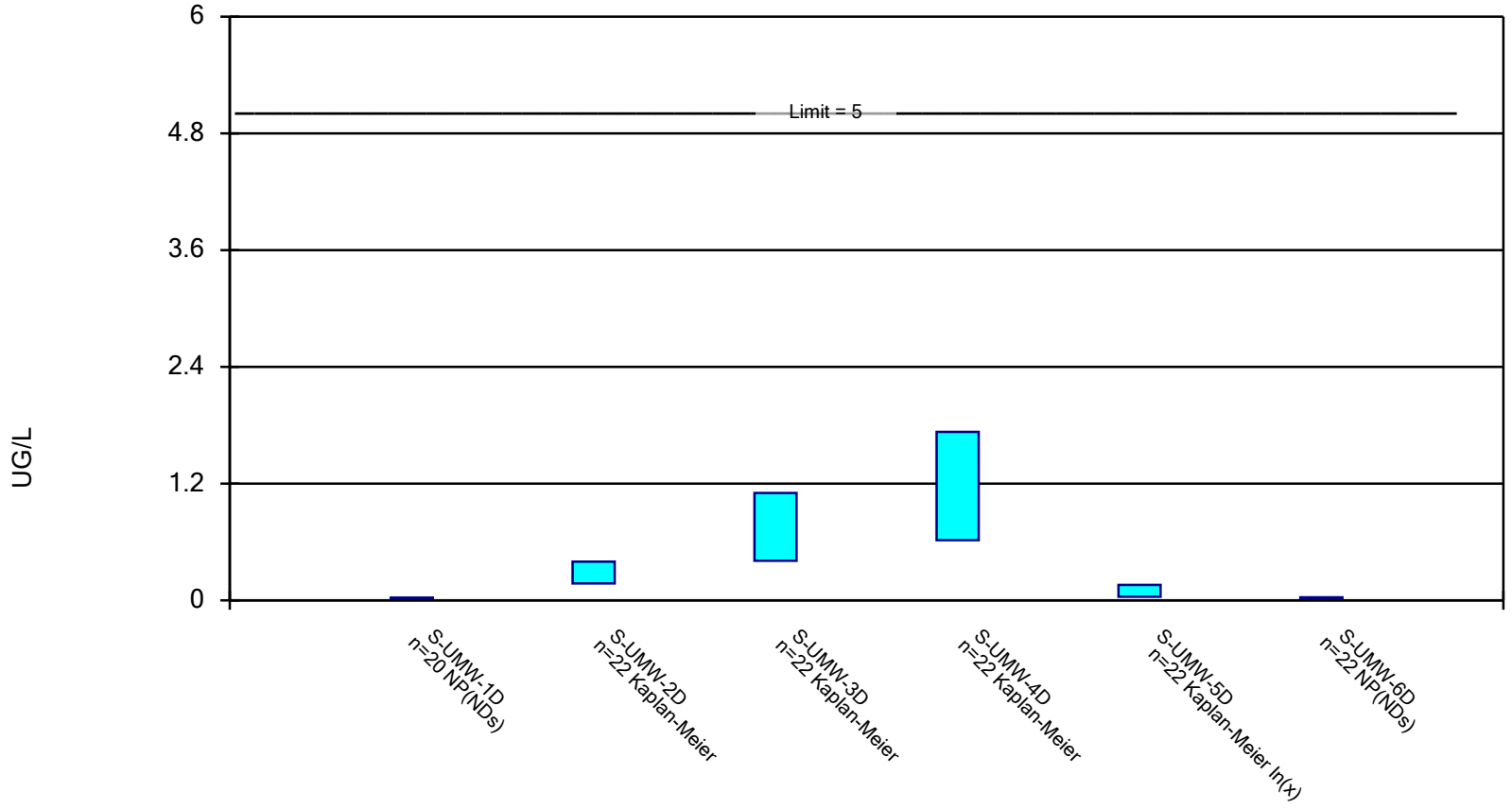
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



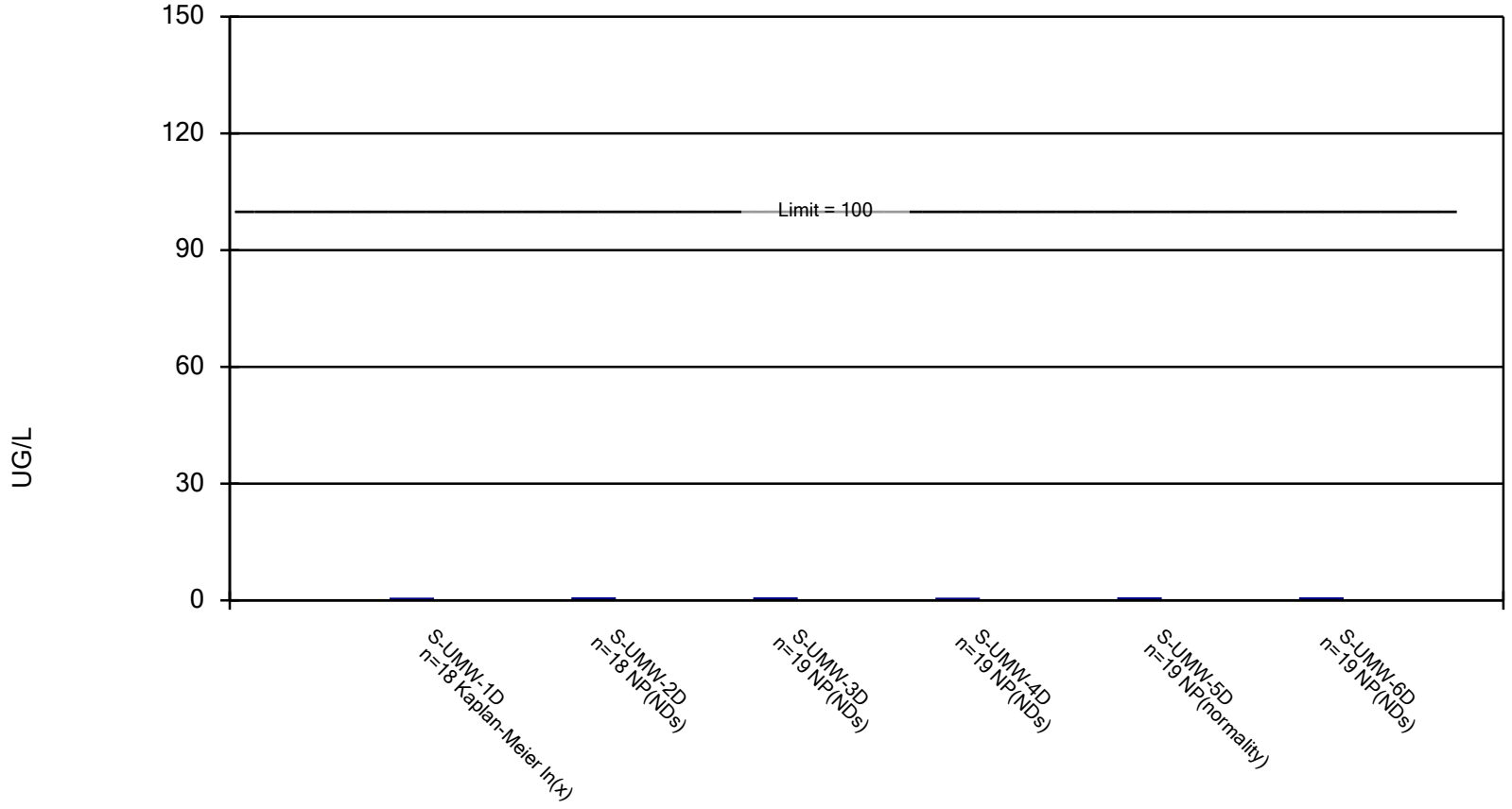
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

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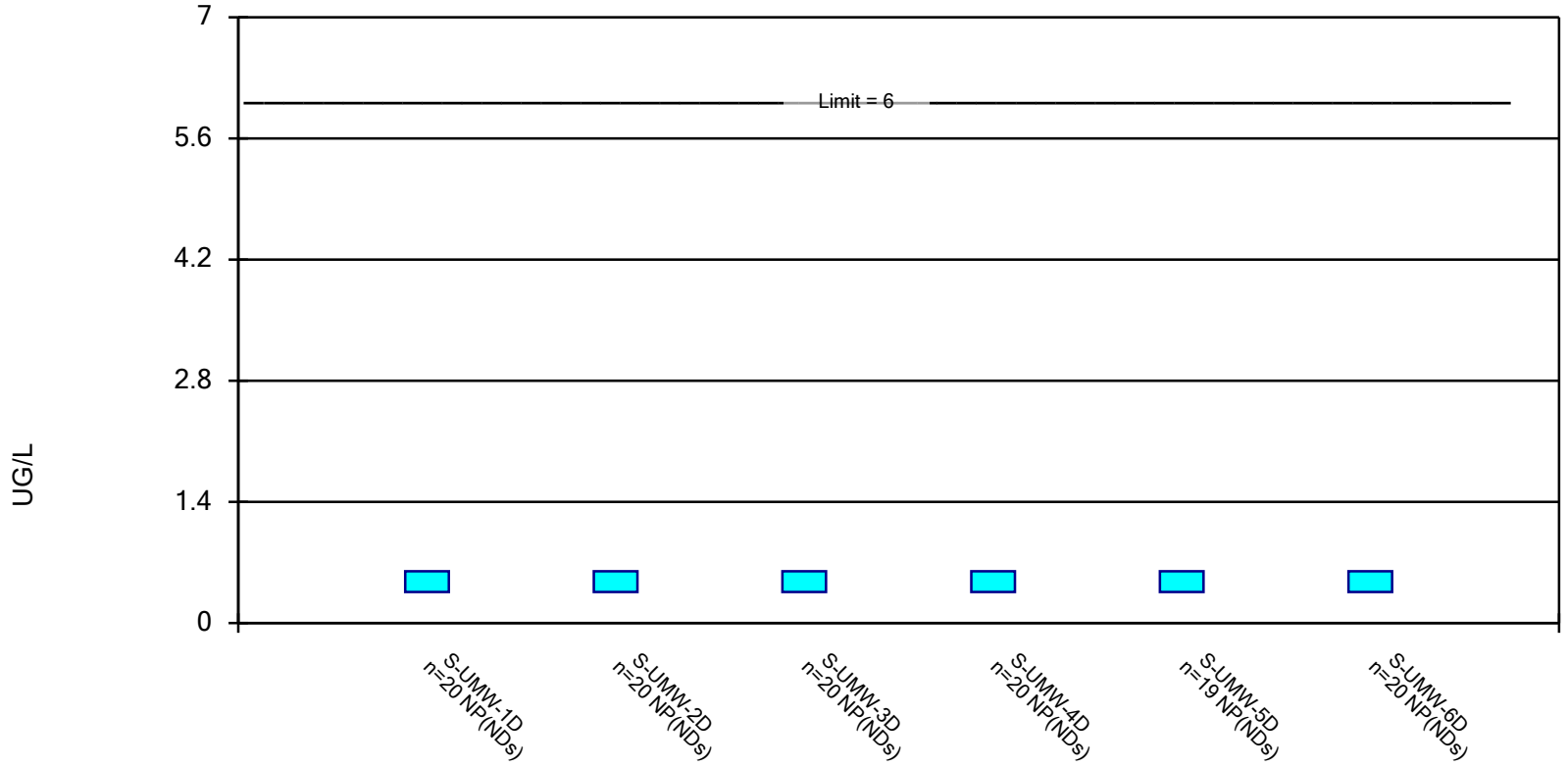
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



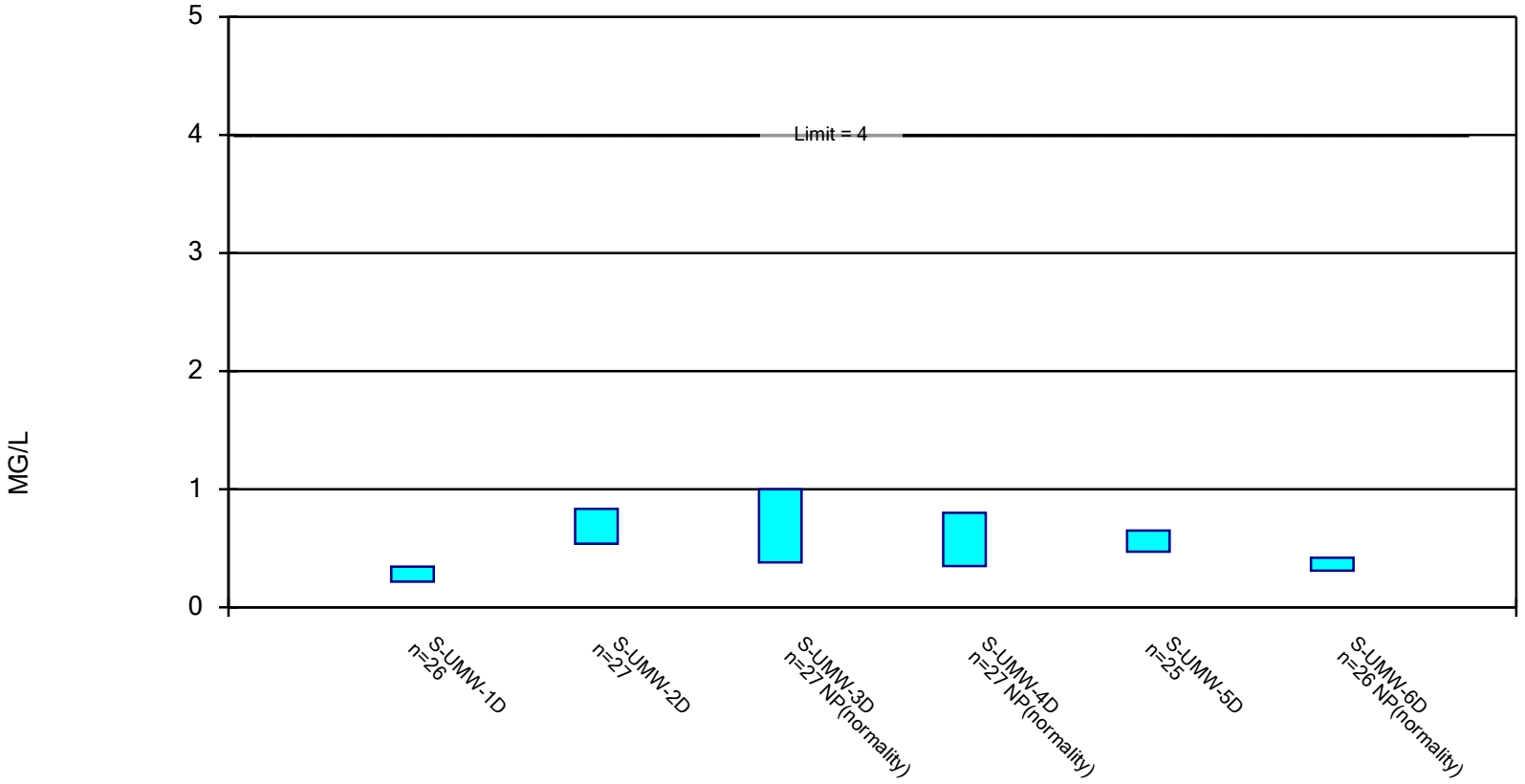
Constituent: COBALT, TOTAL Analysis Run 3/10/2025 9:58 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



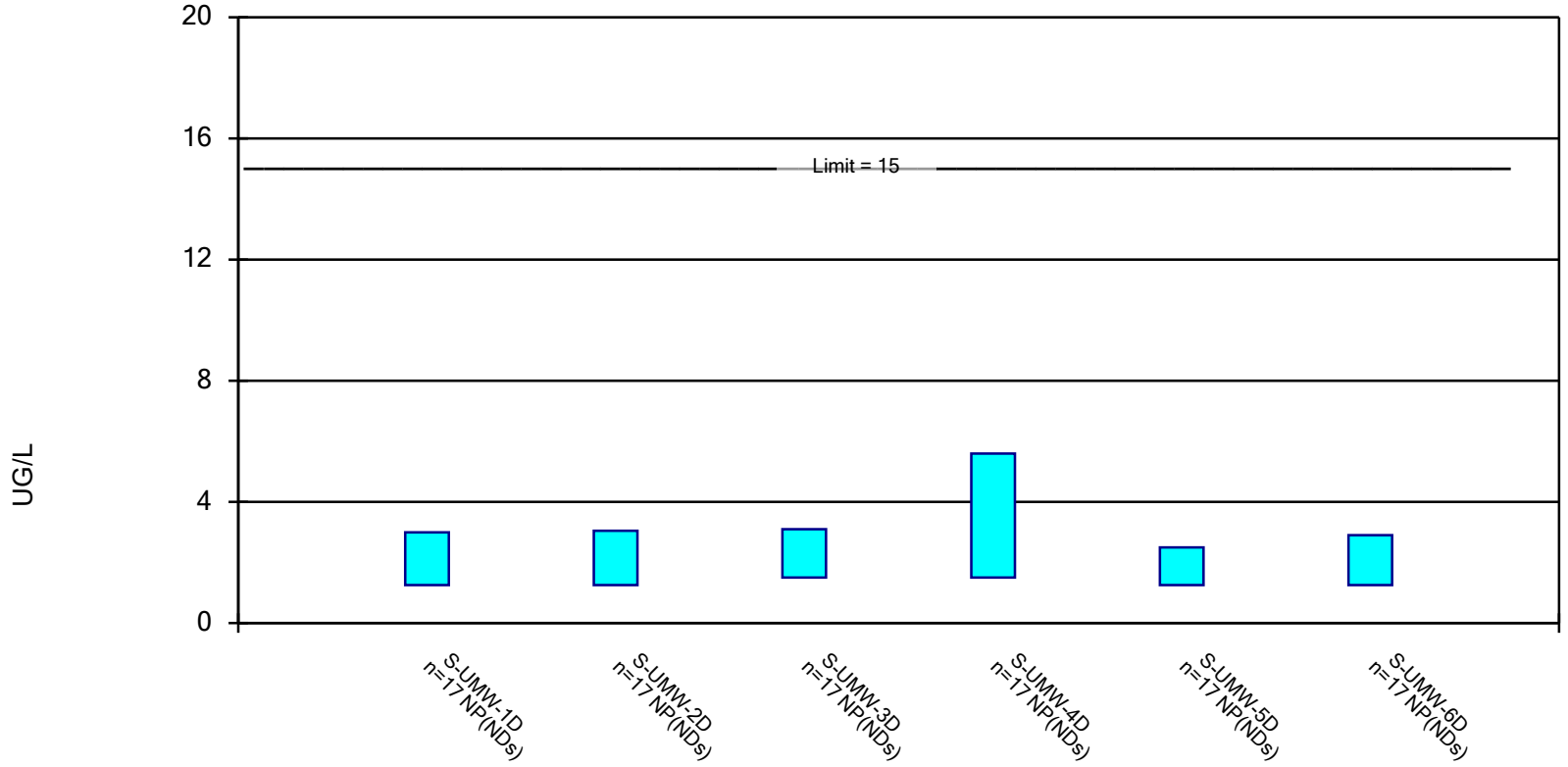
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



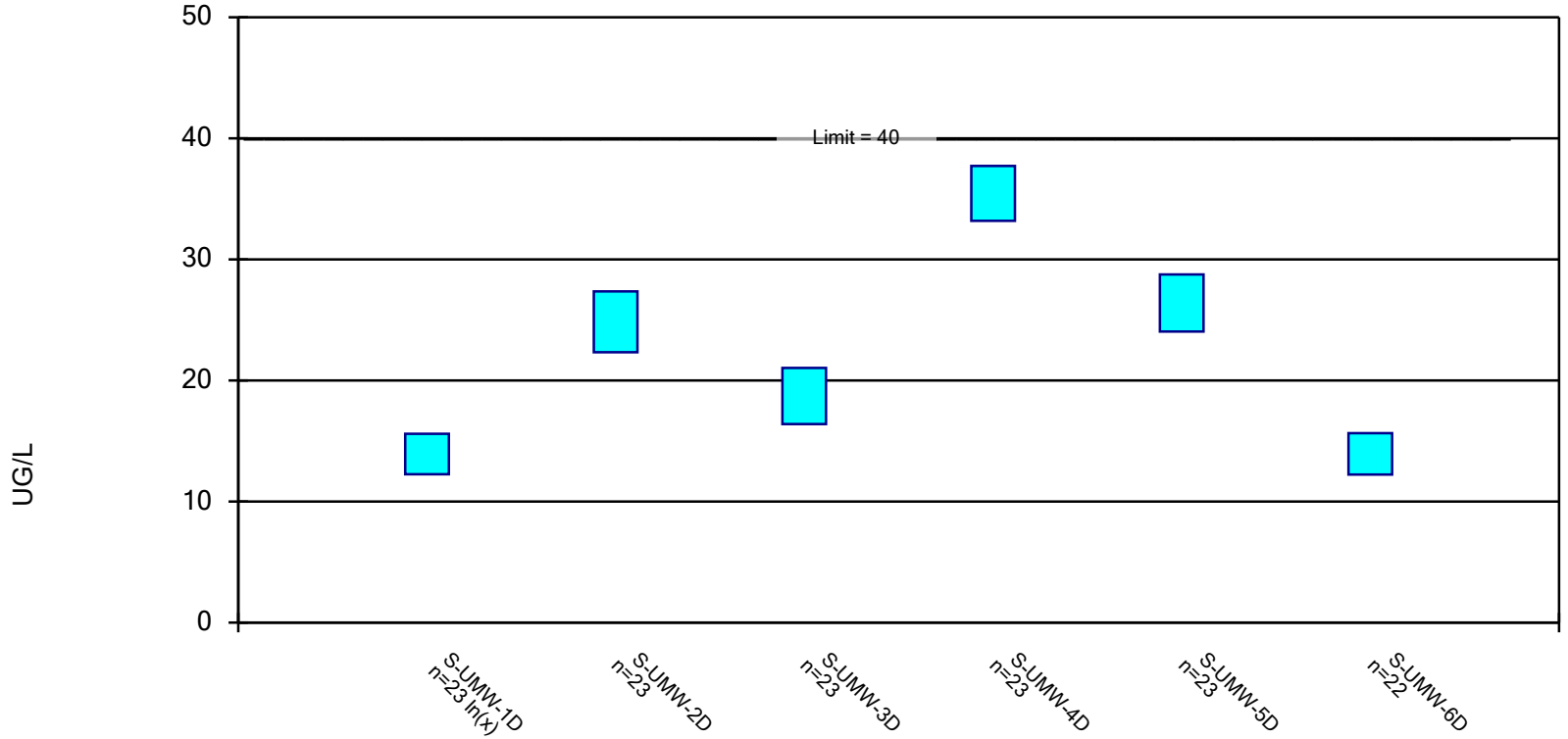
Constituent: LEAD, TOTAL Analysis Run 3/10/2025 9:58 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



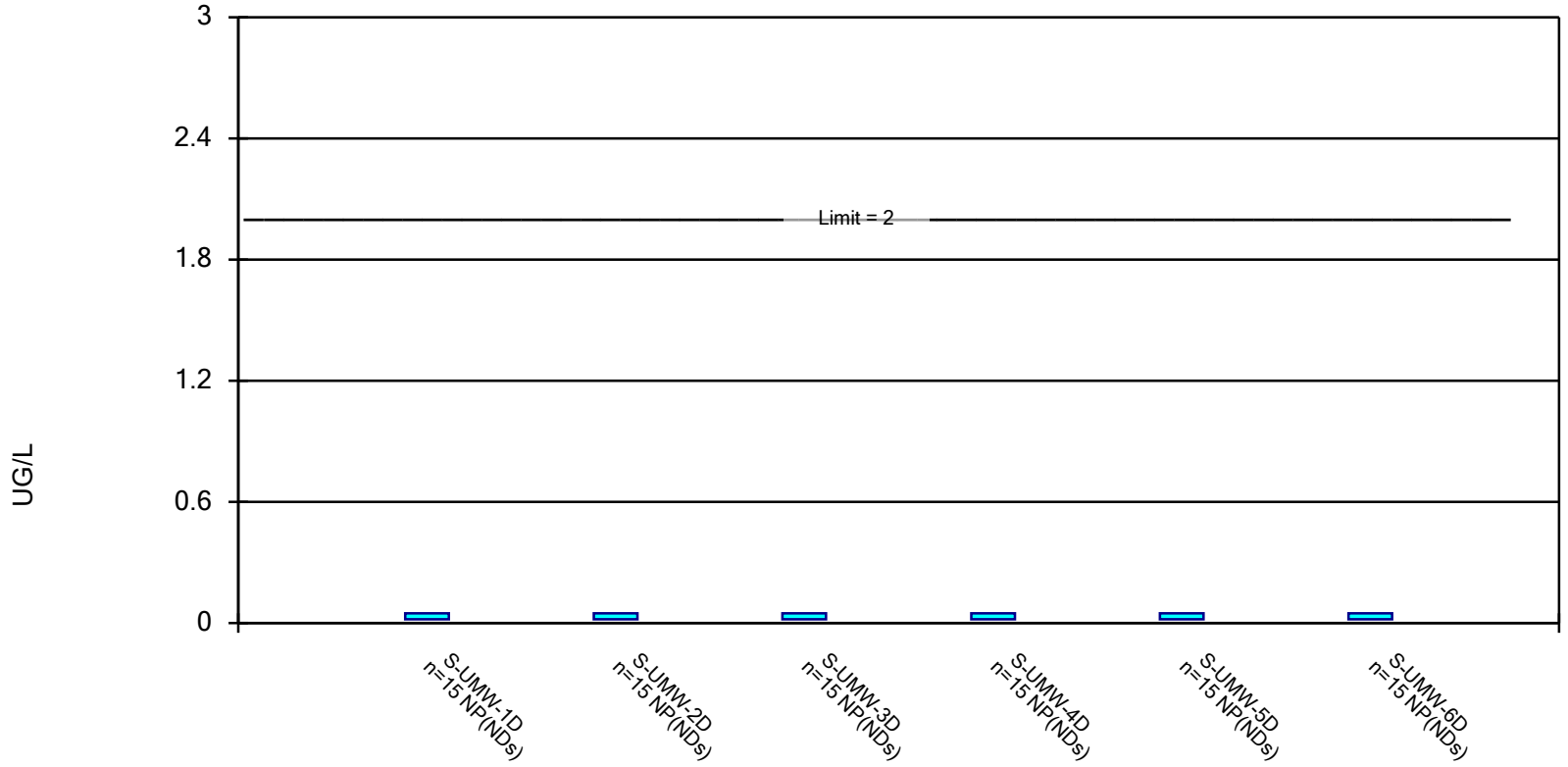
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



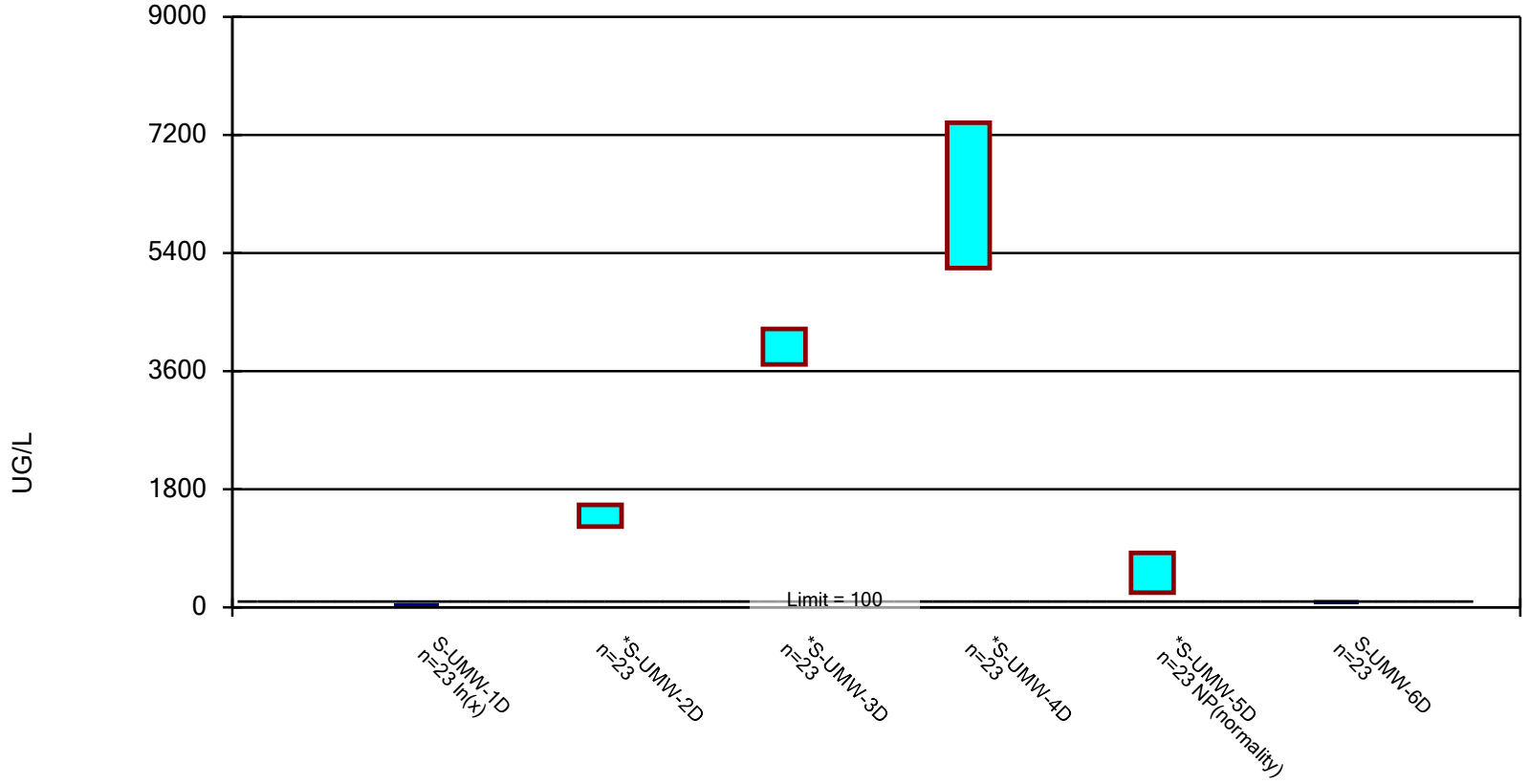
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:58 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



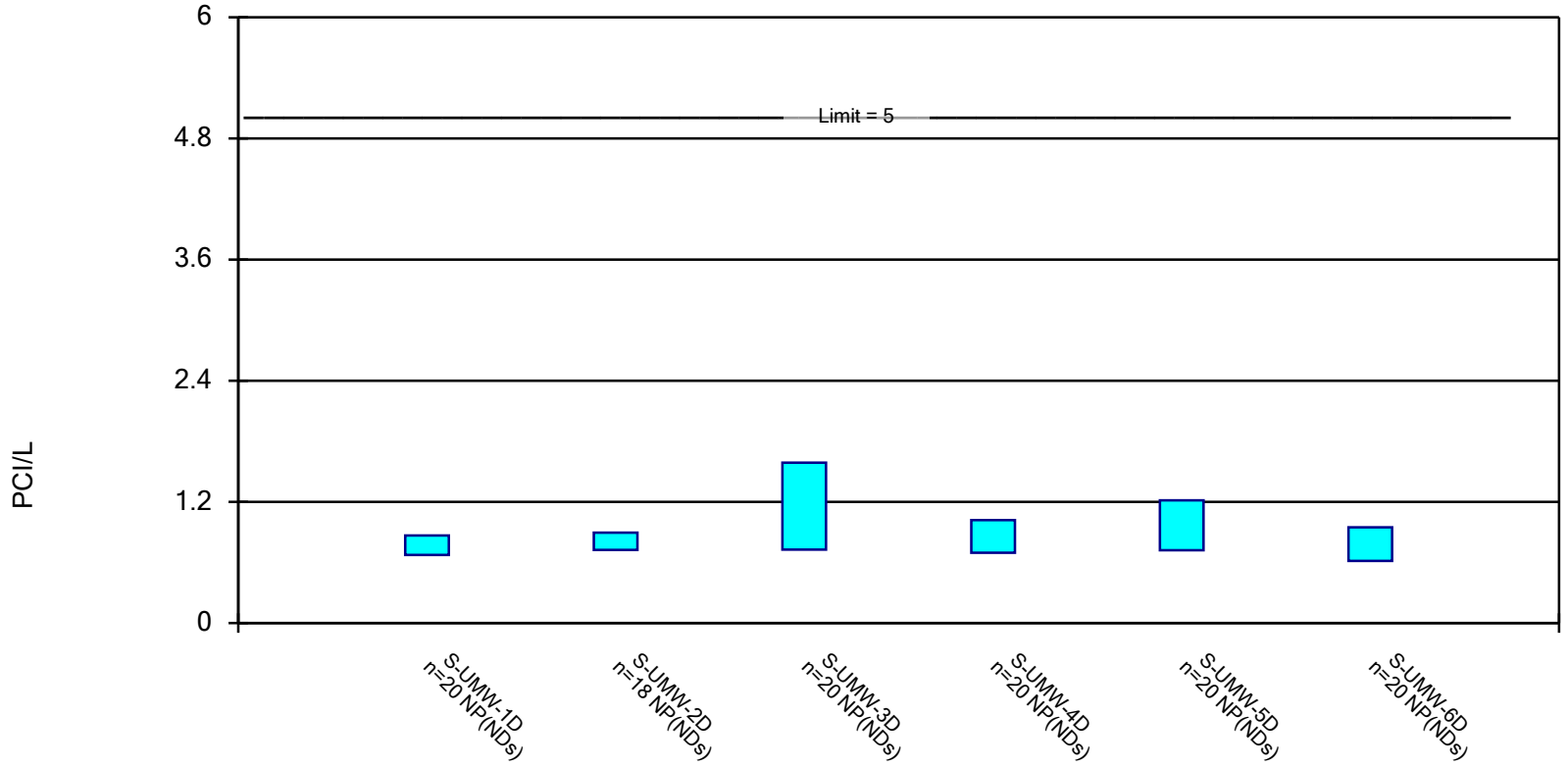
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



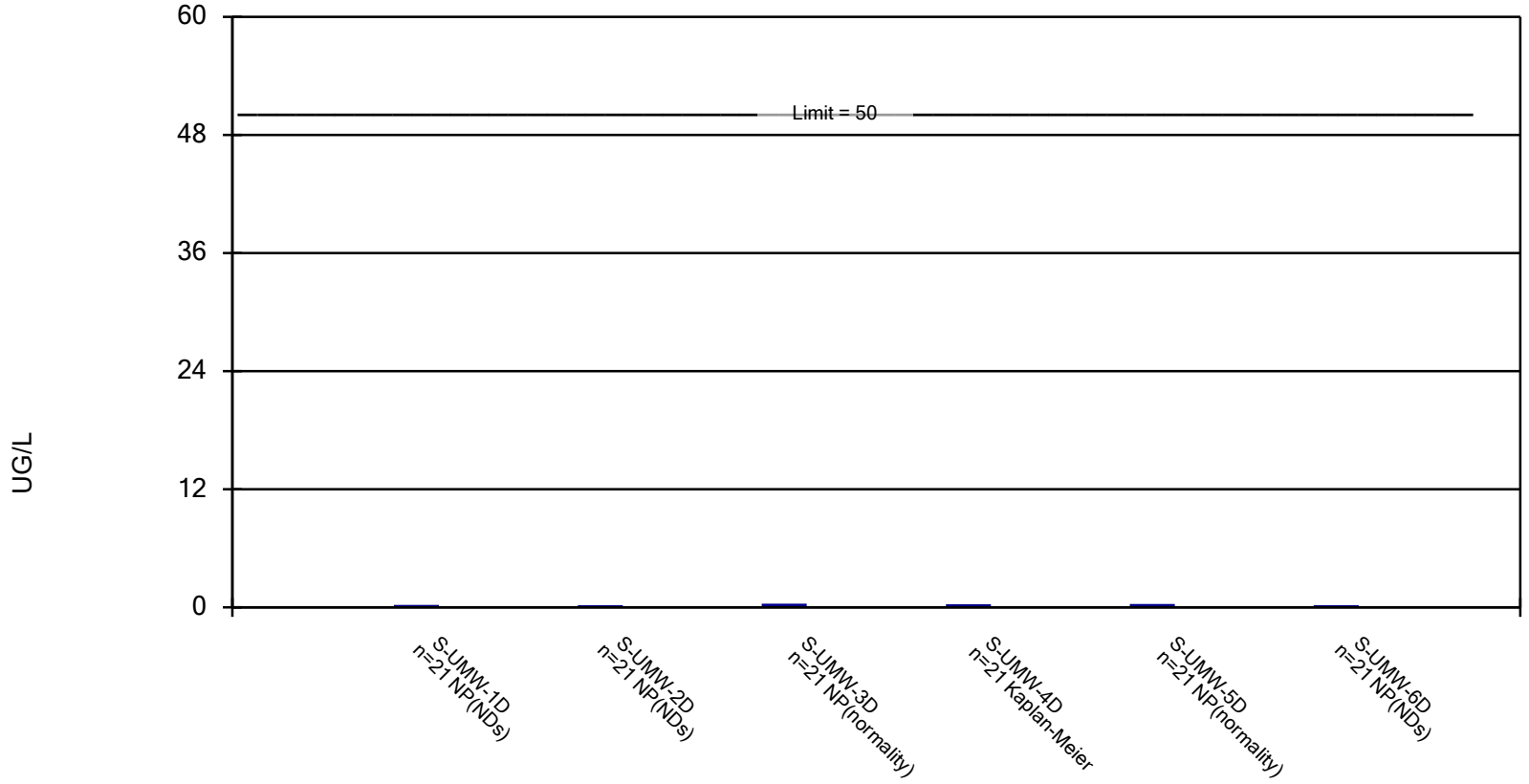
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



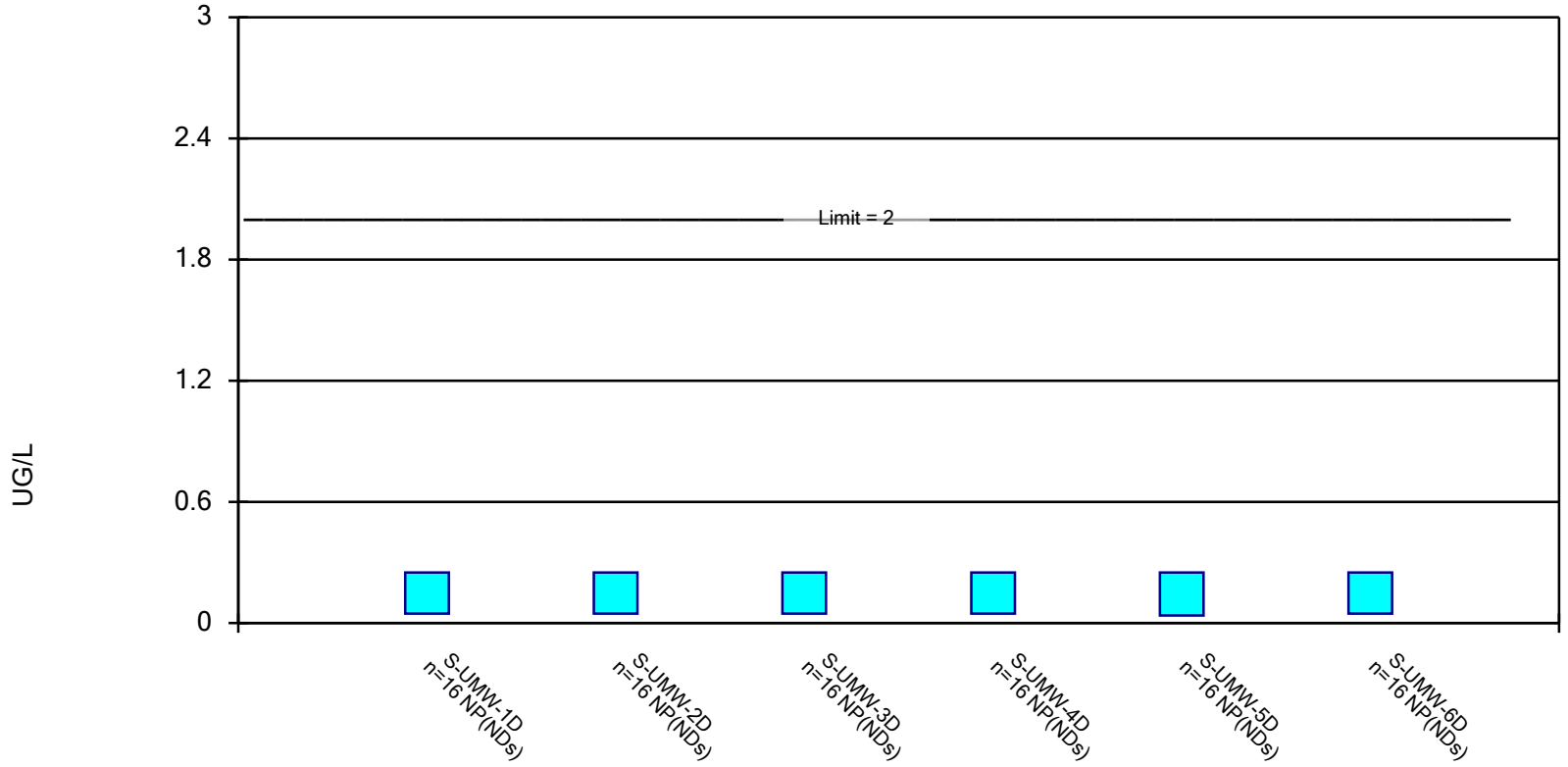
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: THALLIUM, TOTAL Analysis Run 3/10/2025 9:58 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/10/2025, 10:02 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	0.09137	0.03829	6	No	16	50	ln(x)	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.067	0.029	6	No	16	68.75	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-3D	0.06	0.013	6	No	15	86.67	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-4D	0.05	0.013	6	No	16	93.75	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-5D	0.05	0.013	6	No	16	100	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-6D	0.05	0.013	6	No	16	100	No	0.01	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-UMW-1D	1.683	1.175	10	No	22	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-2D	2.909	2.01	10	No	23	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-3D	0.8817	0.4449	10	No	23	8.696	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-4D	0.4029	0.2272	10	No	22	18.18	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-5D	0.556	0.3831	10	No	22	4.545	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-6D	0.4419	0.2839	10	No	23	8.696	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-1D	171.1	132.6	2000	No	23	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-2D	89.61	66.55	2000	No	23	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-3D	78.06	69.99	2000	No	23	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-4D	79.8	56.9	2000	No	23	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-UMW-5D	352.7	294.1	2000	No	23	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-6D	137.4	120.3	2000	No	23	0	ln(x)	0.01	Param.
BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-2D	0.14	0.08	4	No	16	93.75	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	0.195	0.08	4	No	16	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.028	0.0145	5	No	20	85	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-2D	0.3992	0.1752	5	No	22	31.82	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-3D	1.103	0.4071	5	No	22	22.73	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-4D	1.733	0.6193	5	No	22	18.18	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.1585	0.03868	5	No	22	36.36	ln(x)	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.03	0.0145	5	No	22	81.82	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-1D	0.3862	0.1113	100	No	18	50	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UMW-2D	0.5	0.12	100	No	18	55.56	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-3D	0.5	0.11	100	No	19	57.89	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-4D	0.4	0.08	100	No	19	52.63	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-5D	0.46	0.039	100	No	19	47.37	No	0.01	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-UMW-6D	0.5	0.1	100	No	19	52.63	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-1D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-2D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-3D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-4D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-5D	0.6	0.36	6	No	19	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-6D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	0.3459	0.218	4	No	26	7.692	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-2D	0.8343	0.5377	4	No	27	3.704	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-3D	1	0.38	4	No	27	14.81	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-4D	0.8	0.35	4	No	27	11.11	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	0.6509	0.4707	4	No	25	0	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	0.42	0.31	4	No	26	15.38	No	0.01	NP (normality)
LEAD, TOTAL (UG/L)	S-UMW-1D	3	1.25	15	No	17	88.24	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-2D	3.05	1.25	15	No	17	76.47	No	0.01	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/10/2025, 10:02 AM

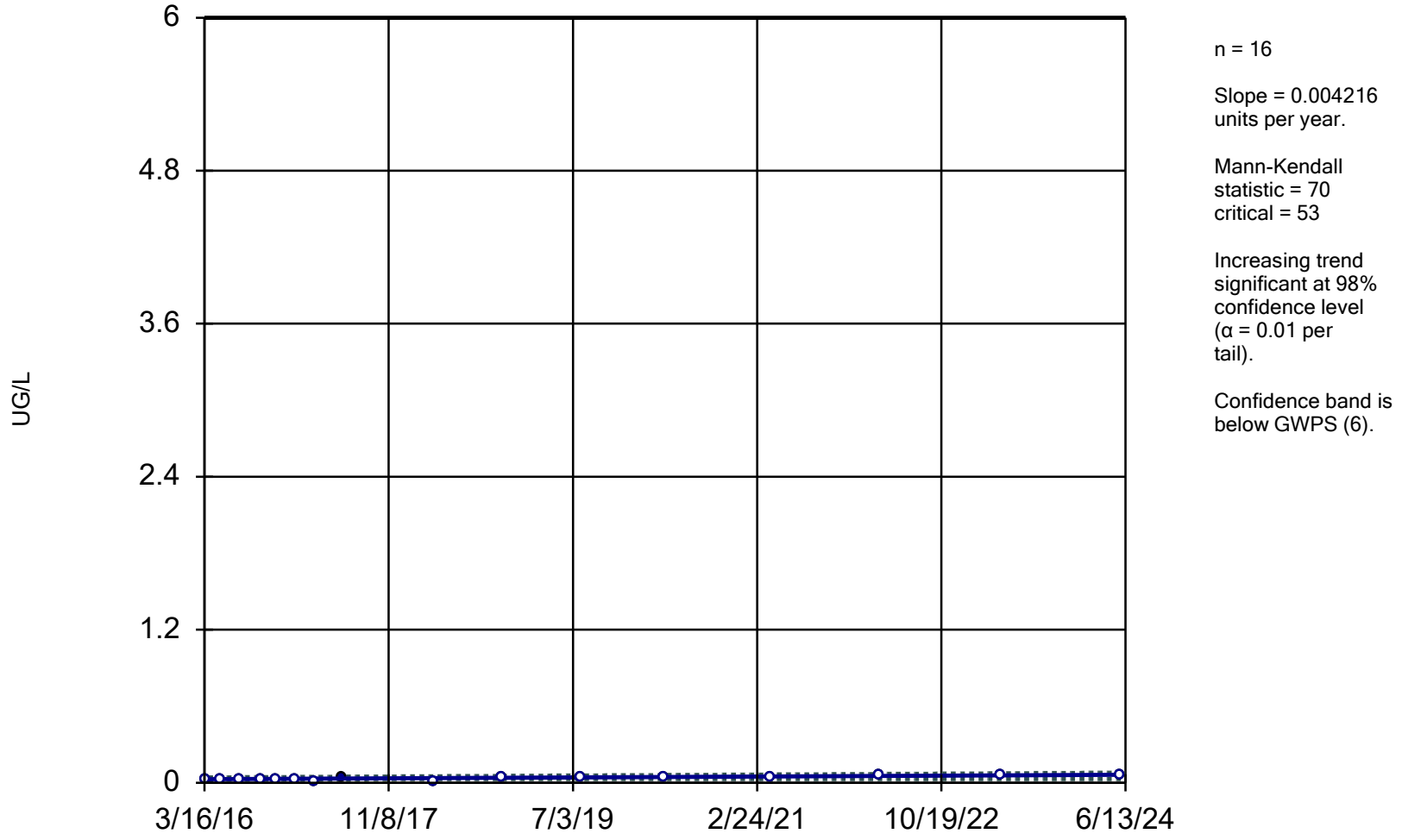
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LEAD, TOTAL (UG/L)	S-UMW-3D	3.1	1.5	15	No	17	64.71	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-4D	5.6	1.5	15	No	17	58.82	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-5D	2.5	1.25	15	No	17	82.35	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-6D	2.9	1.25	15	No	17	88.24	No	0.01	NP (NDs)
LITHIUM, TOTAL (UG/L)	S-UMW-1D	15.61	12.25	40	No	23	0	ln(x)	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-2D	27.35	22.33	40	No	23	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-3D	21.03	16.39	40	No	23	4.348	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-4D	37.72	33.17	40	No	23	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-5D	28.75	24.03	40	No	23	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-6D	15.64	12.23	40	No	22	0	No	0.01	Param.
MERCURY, TOTAL (UG/L)	S-UMW-1D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-2D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-3D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-4D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-5D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-6D	0.048	0.0195	2	No	15	100	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-UMW-1D	45.84	29.95	100	No	23	0	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-2D**	**1562**	**1230**	**100**	**Yes**	**23**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-3D**	**4242**	**3703**	**100**	**Yes**	**23**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-4D**	**7386**	**5171**	**100**	**Yes**	**23**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-5D**	**832**	**226**	**100**	**Yes**	**23**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-6D	94.24	64.67	100	No	23	0	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.8665	0.6755	5	No	20	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-2D	0.8955	0.723	5	No	18	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	1.59	0.7275	5	No	20	70	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	1.02	0.6975	5	No	20	85	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	1.216	0.7215	5	No	20	75	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.949	0.6145	5	No	20	95	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0.13	0.043	50	No	21	85.71	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-2D	0.094	0.043	50	No	21	80.95	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-3D	0.26	0.09	50	No	21	33.33	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-4D	0.1904	0.1433	50	No	21	33.33	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-UMW-5D	0.21	0.09	50	No	21	38.1	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0.09	0.043	50	No	21	100	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-1D	0.25	0.0465	2	No	16	93.75	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-2D	0.25	0.047	2	No	16	87.5	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-3D	0.25	0.047	2	No	16	87.5	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-4D	0.25	0.0465	2	No	16	87.5	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-5D	0.25	0.038	2	No	16	93.75	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-6D	0.25	0.0465	2	No	16	100	No	0.01	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 16

Slope = 0.004216 units per year.

Mann-Kendall statistic = 70
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

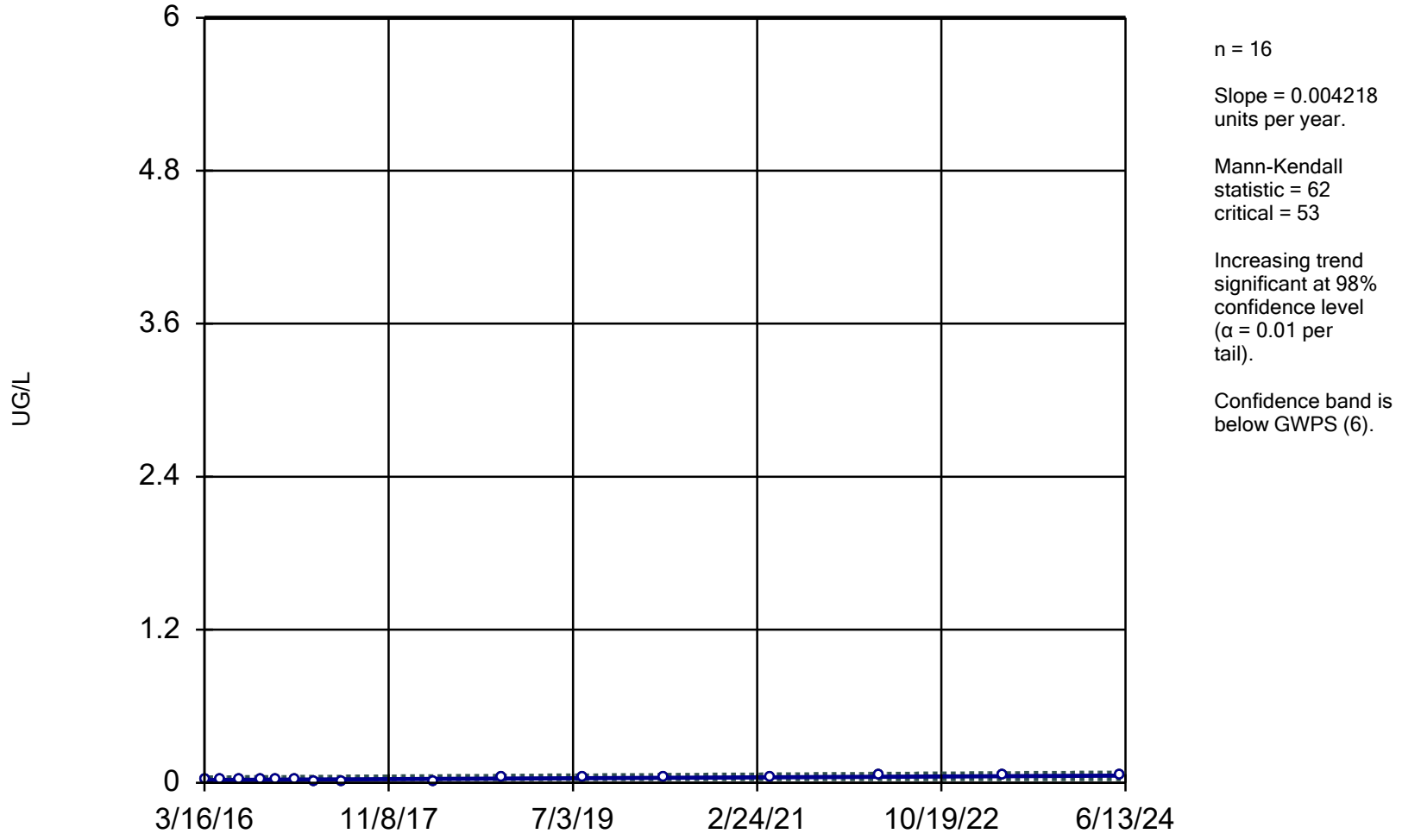
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 16

Slope = 0.004218 units per year.

Mann-Kendall statistic = 62
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

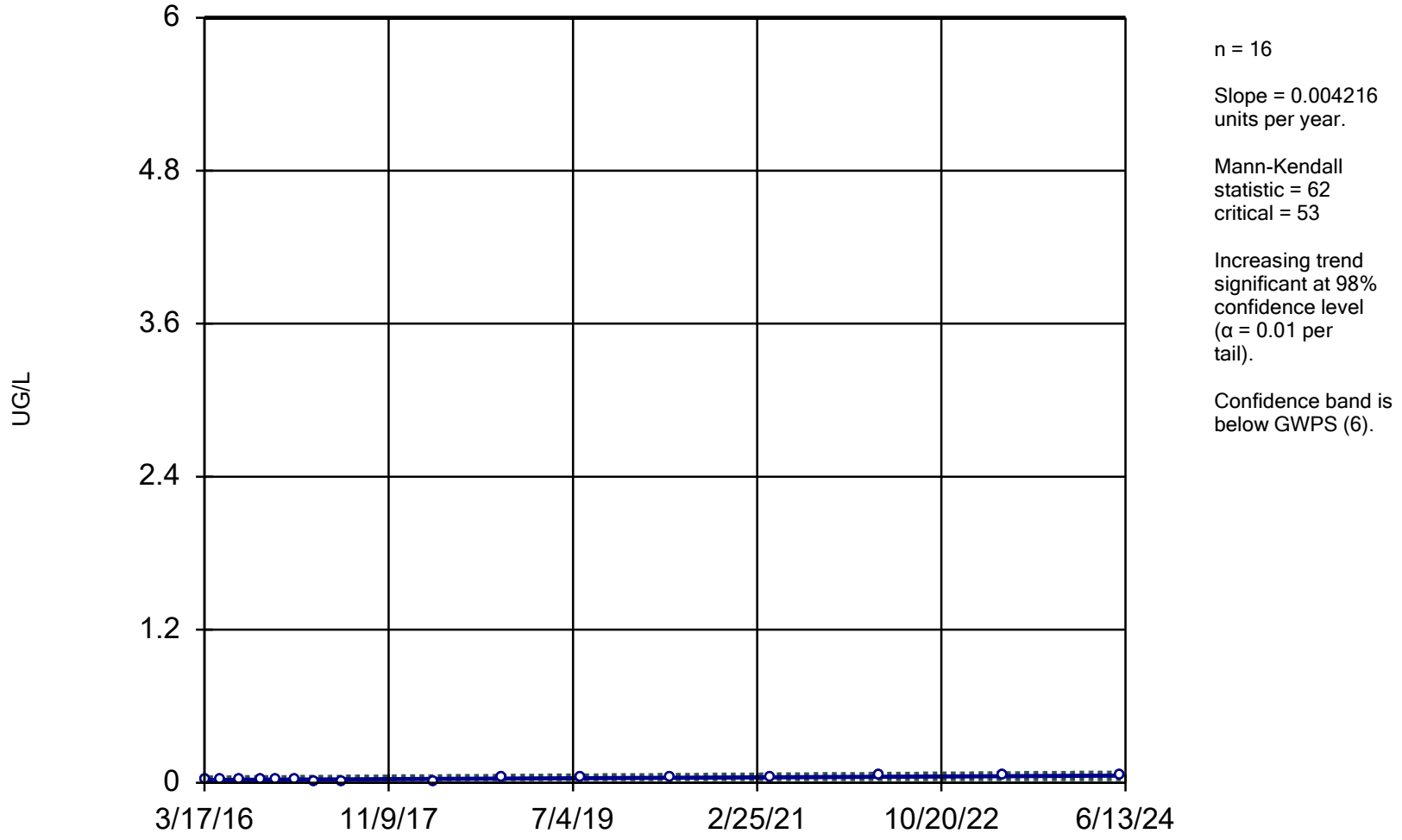
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 16

Slope = 0.004216 units per year.

Mann-Kendall statistic = 62
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

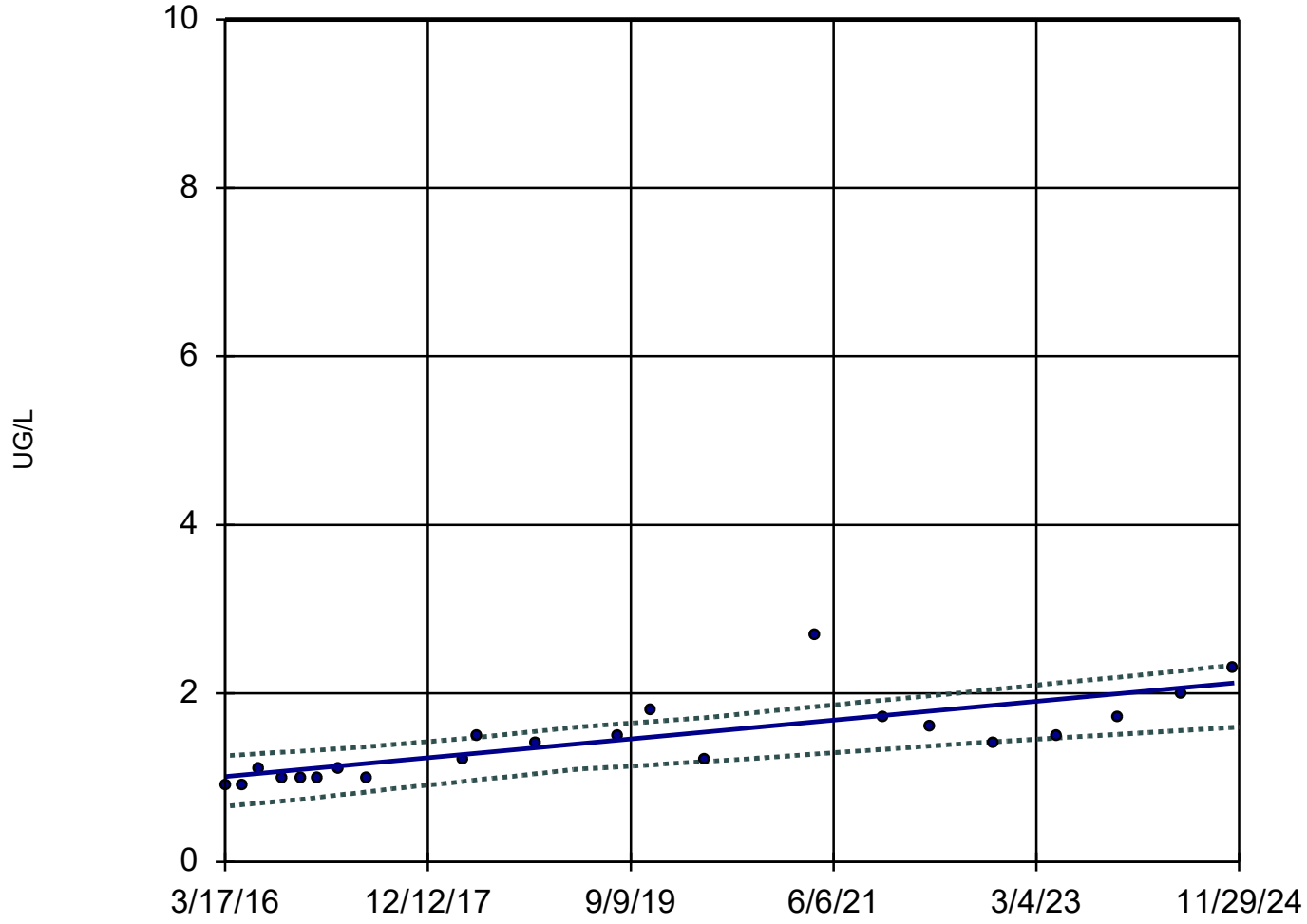
Constituent: ANTIMONY, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 22

Slope = 0.1282 units per year.

Mann-Kendall statistic = 158 critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

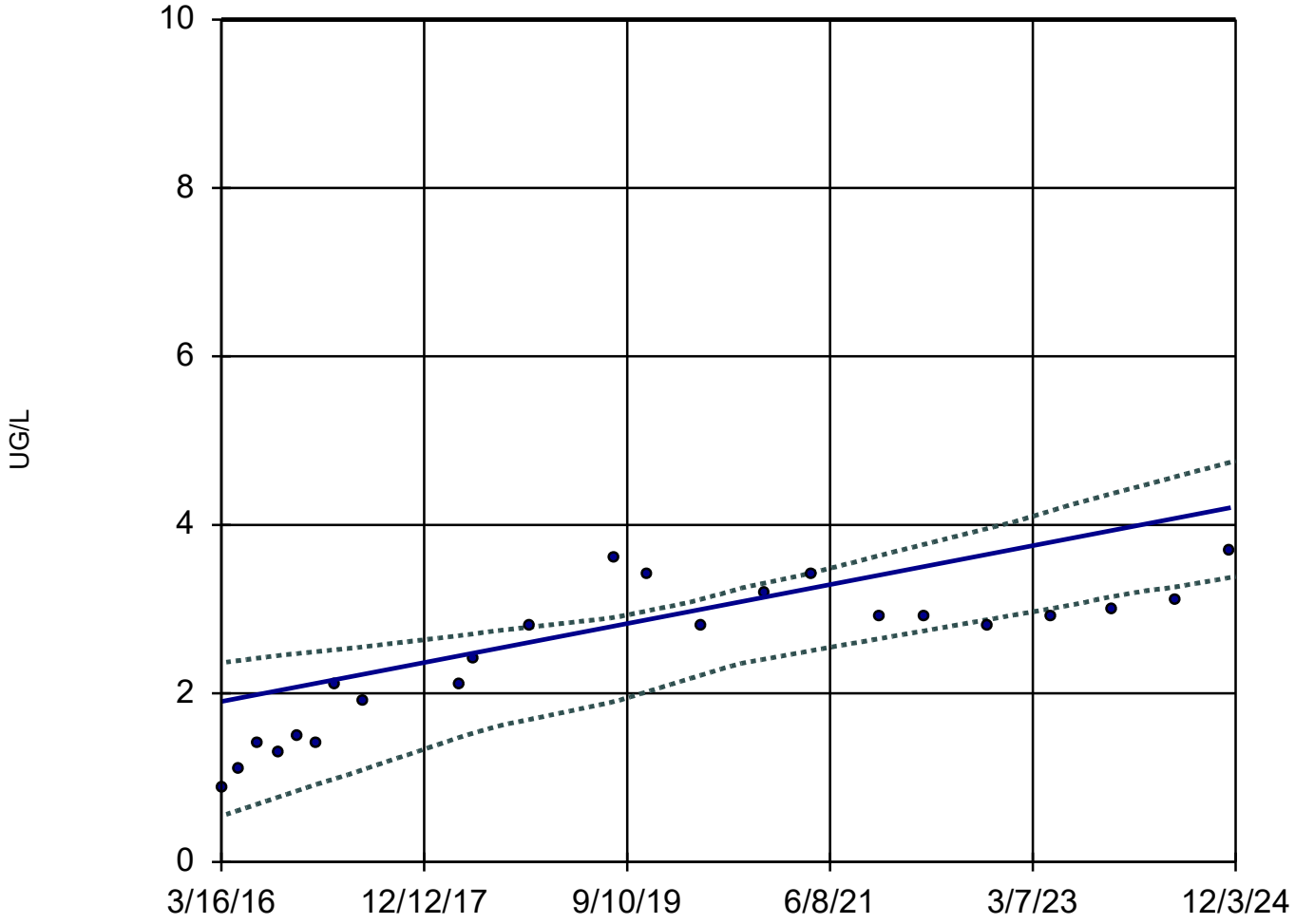
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Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 23

Slope = 0.2647 units per year.

Mann-Kendall statistic = 174 critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

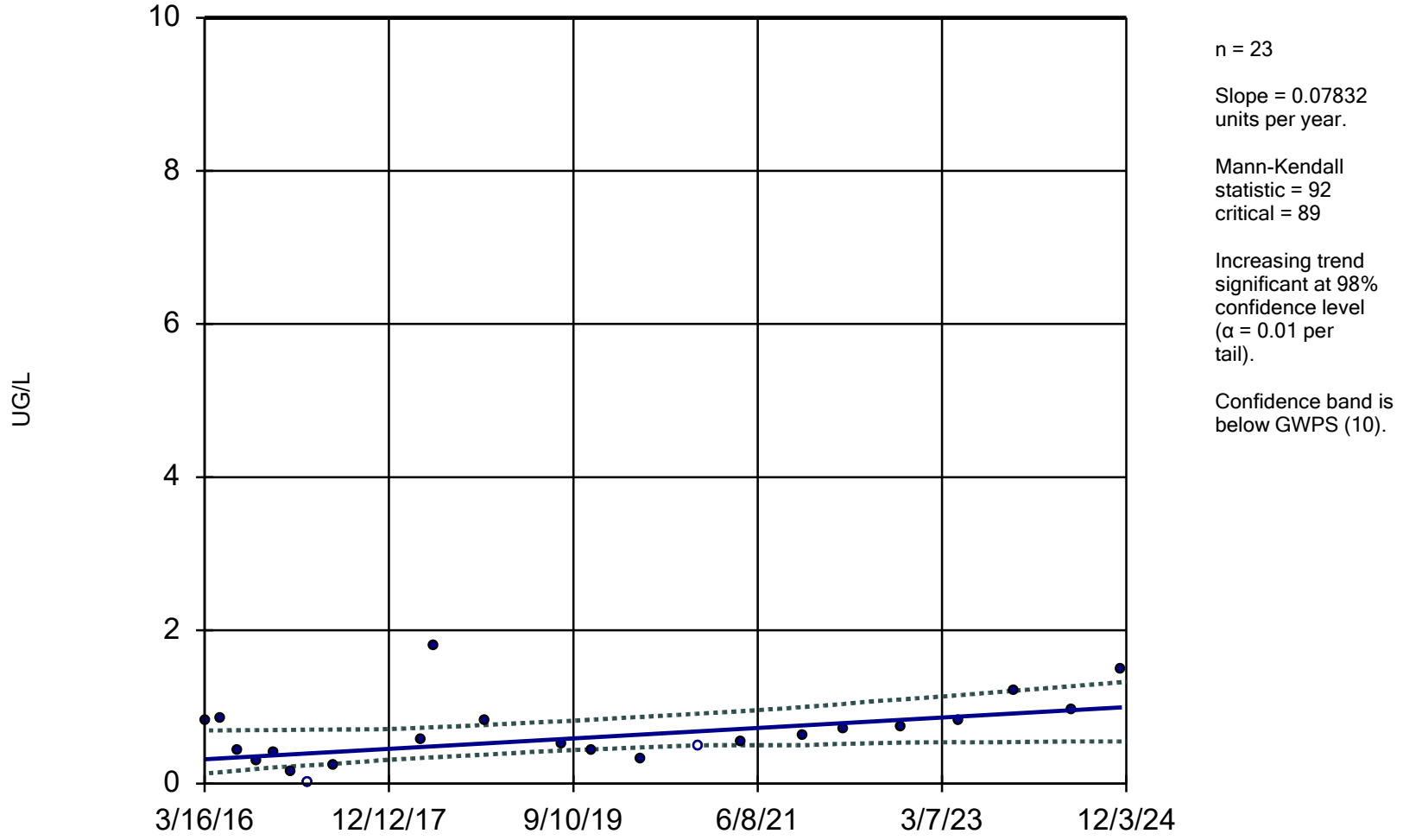
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 23

Slope = 0.07832 units per year.

Mann-Kendall statistic = 92
critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

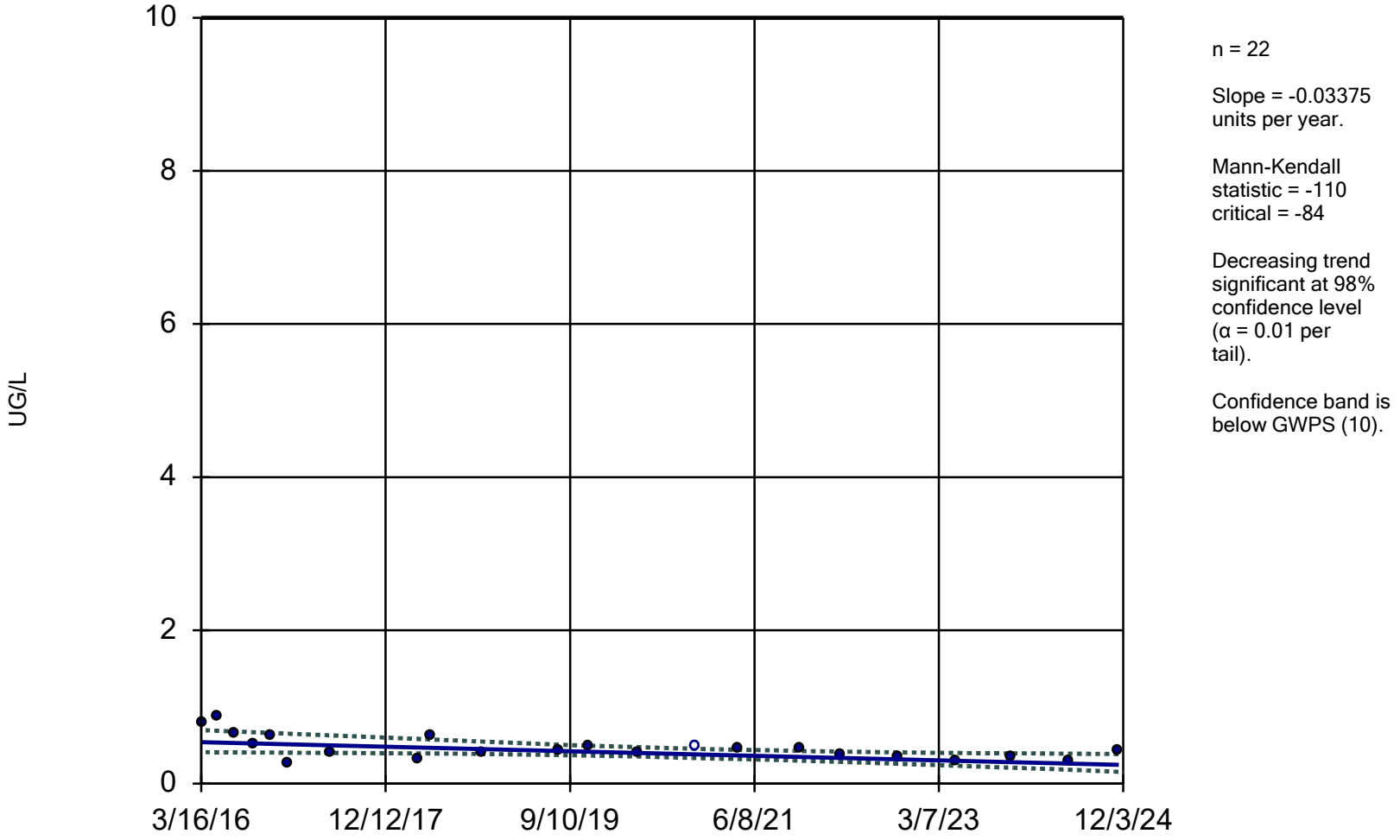
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 22

Slope = -0.03375 units per year.

Mann-Kendall statistic = -110
critical = -84

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

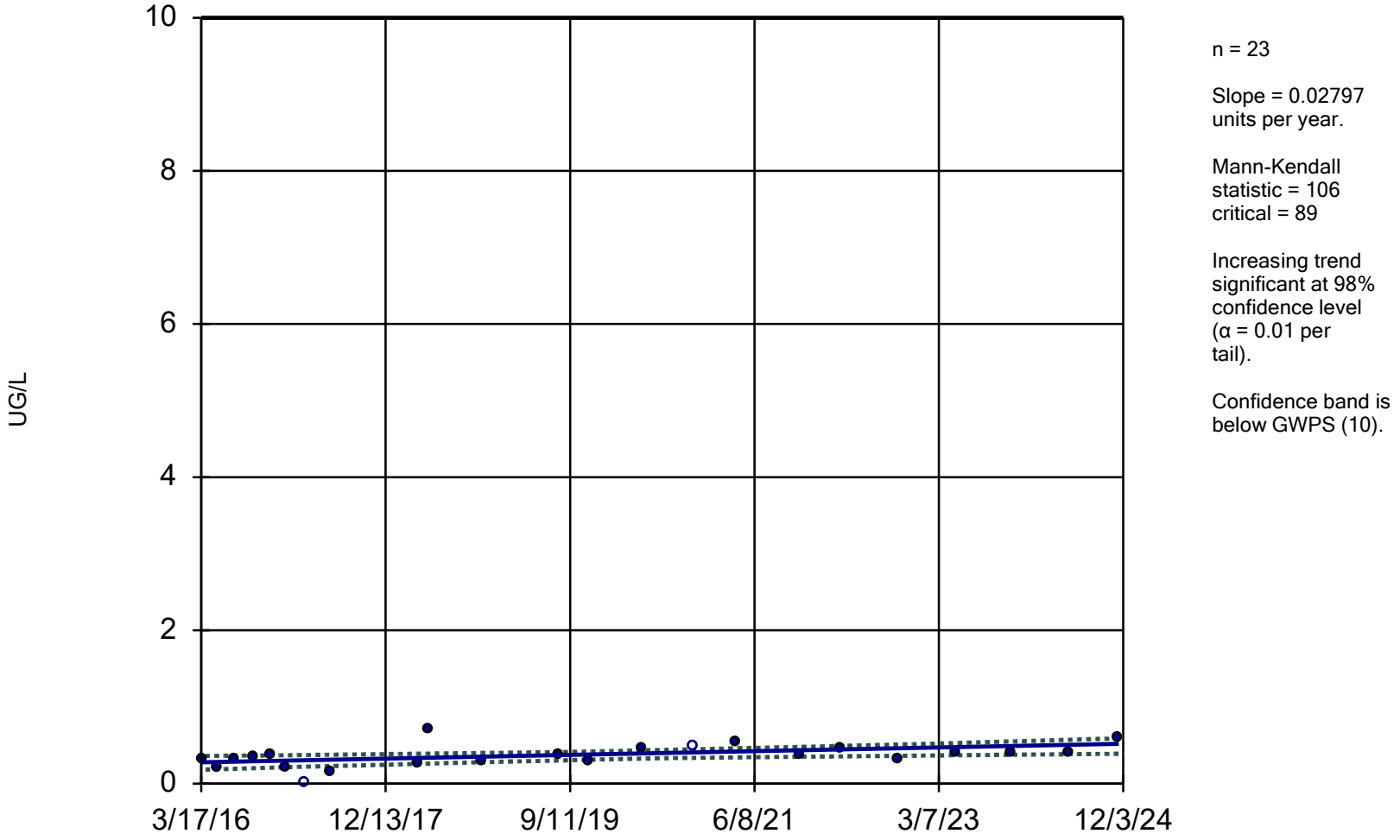
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 23

Slope = 0.02797 units per year.

Mann-Kendall statistic = 106
critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

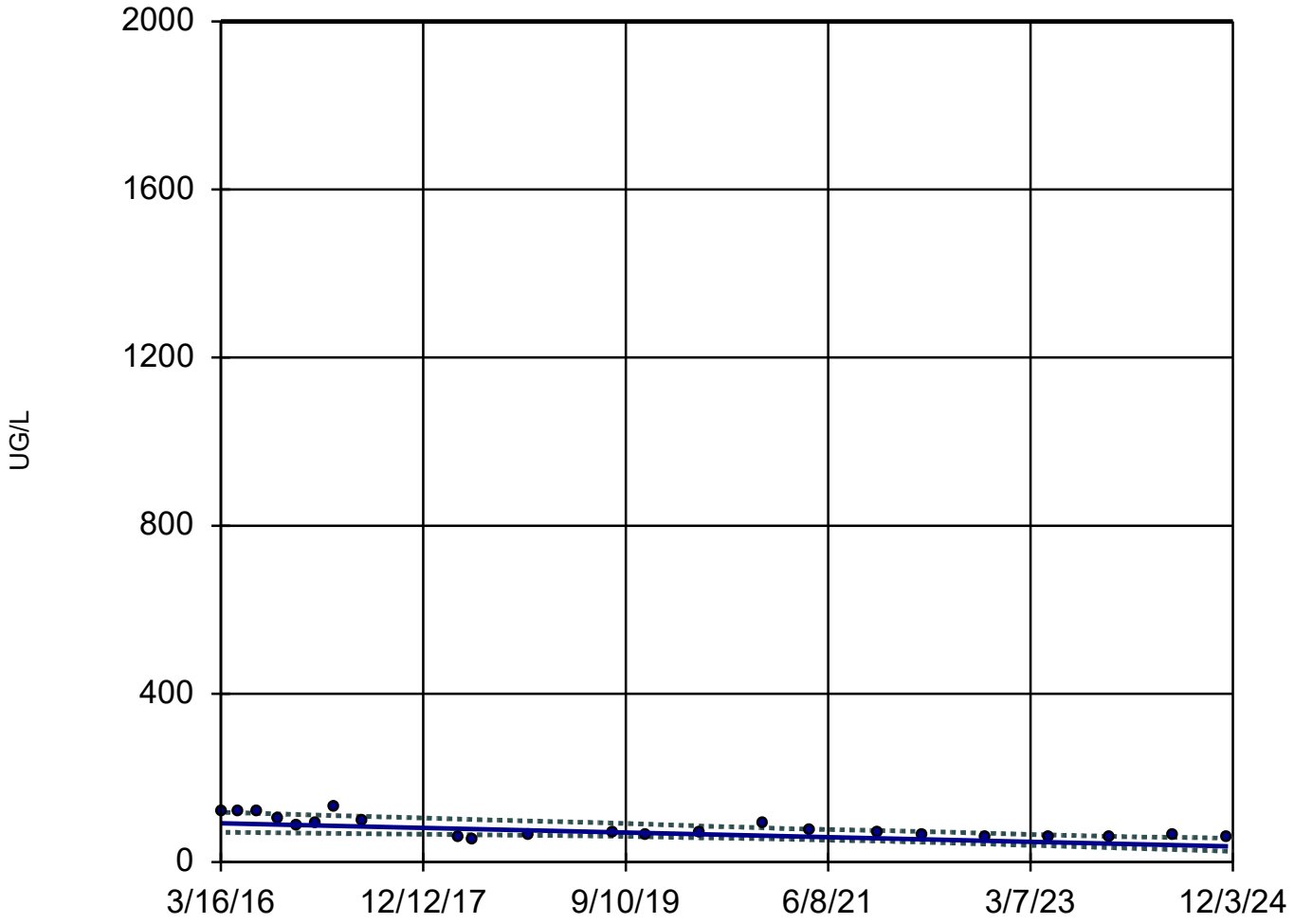
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Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 23

Slope = -6.32 units per year.

Mann-Kendall statistic = -149 critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

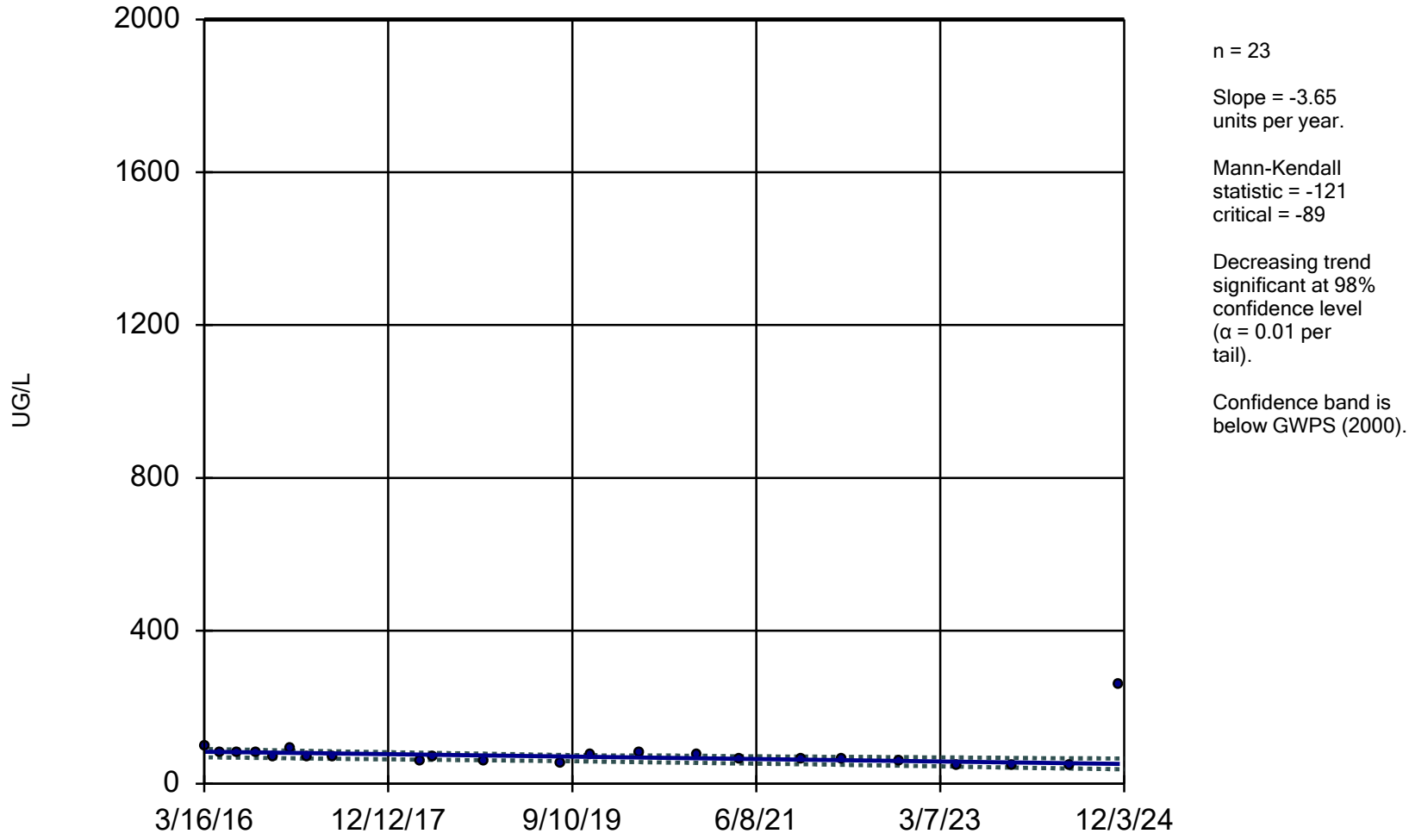
Constituent: BARIUM, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 23

Slope = -3.65 units per year.

Mann-Kendall statistic = -121 critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

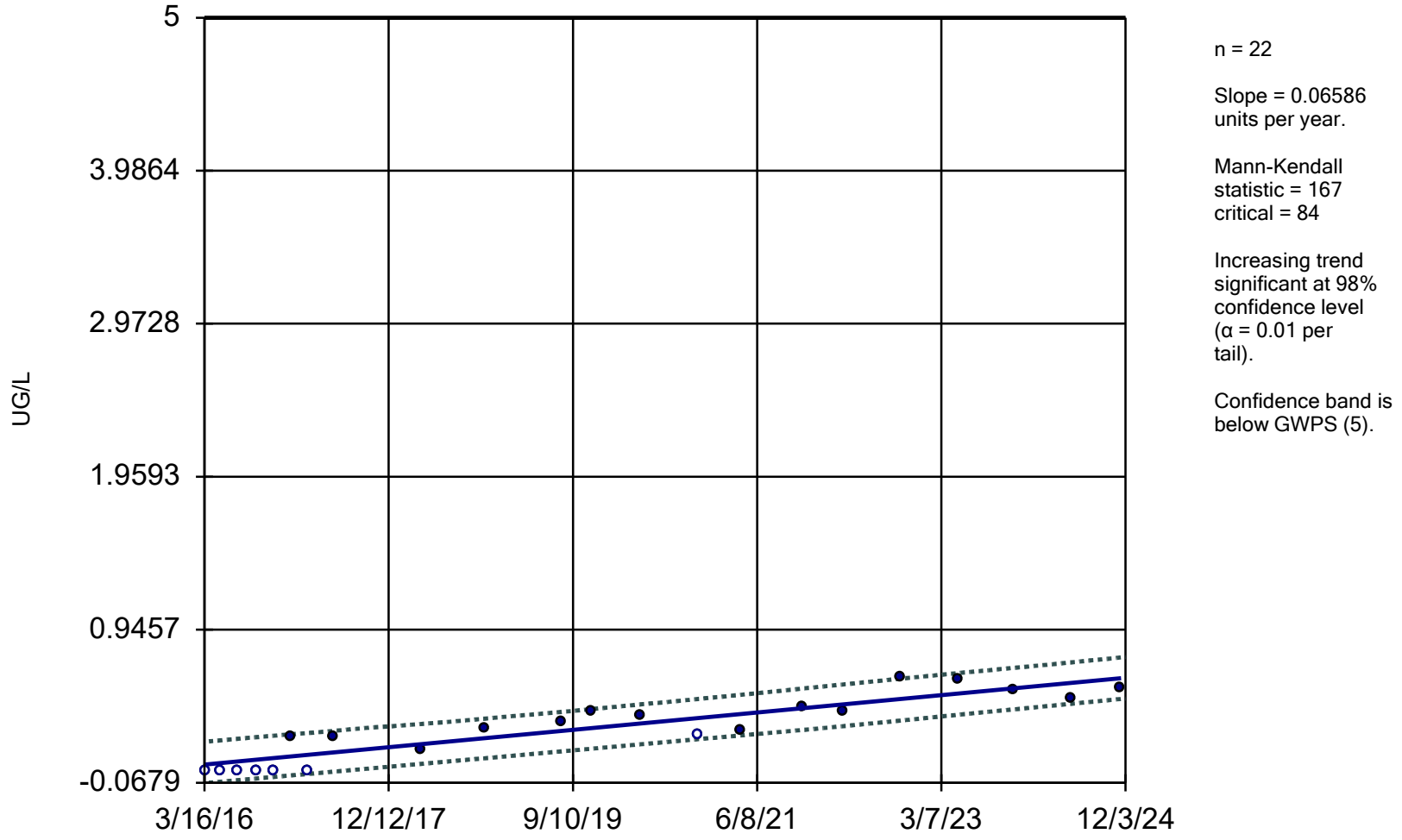
Constituent: BARIUM, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 22

Slope = 0.06586 units per year.

Mann-Kendall statistic = 167
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

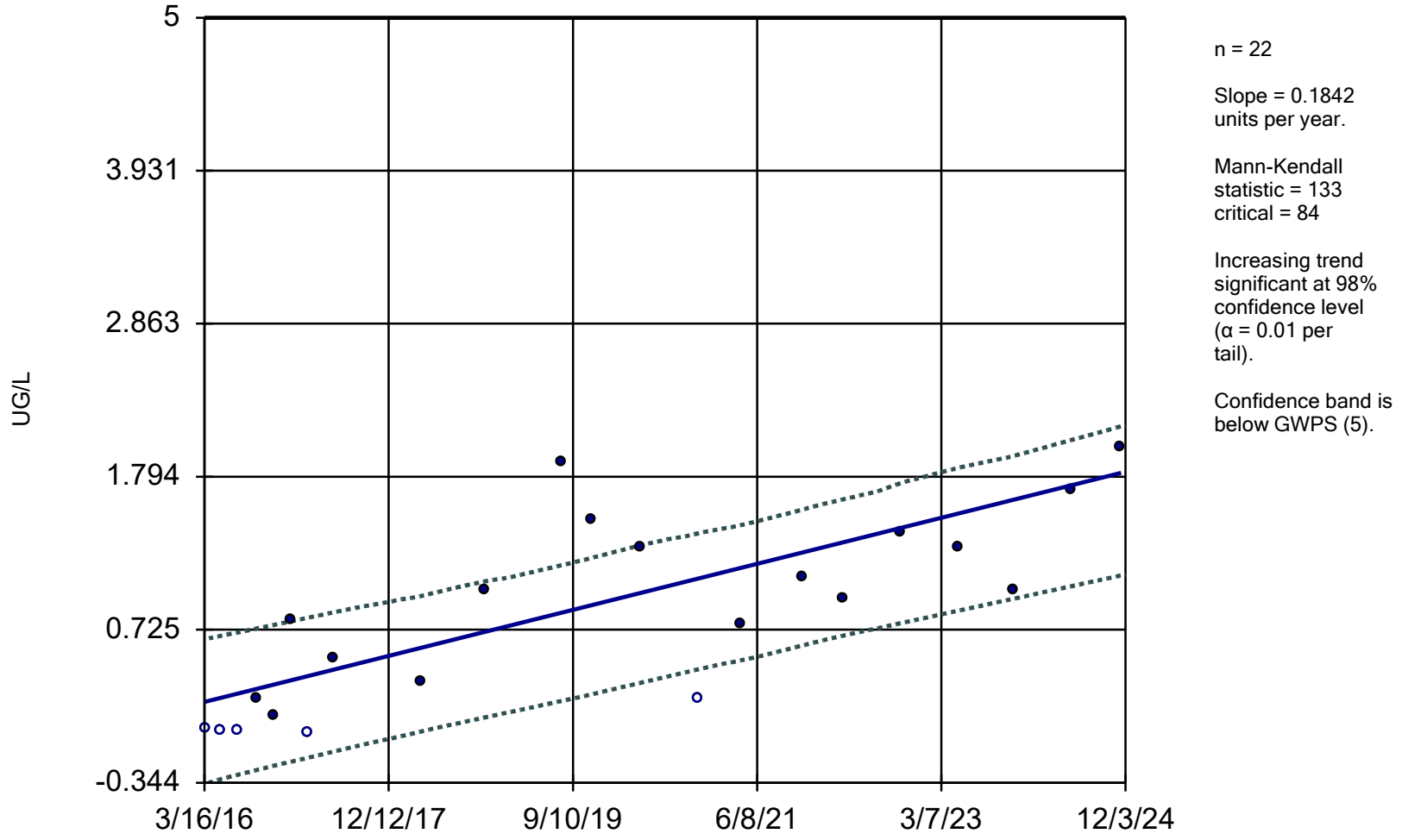
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 22

Slope = 0.1842 units per year.

Mann-Kendall statistic = 133
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

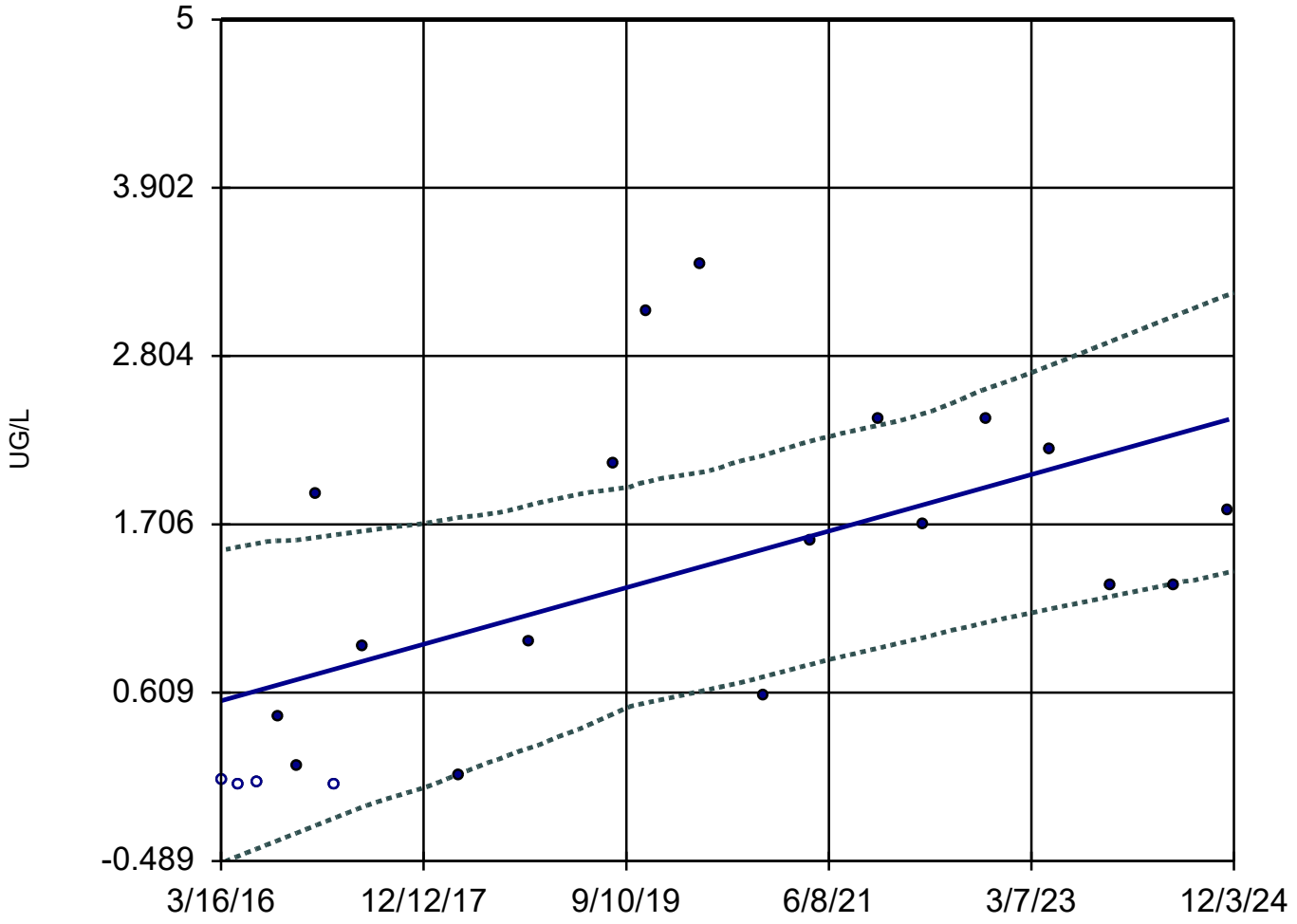
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Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 22

Slope = 0.2115 units per year.

Mann-Kendall statistic = 103 critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

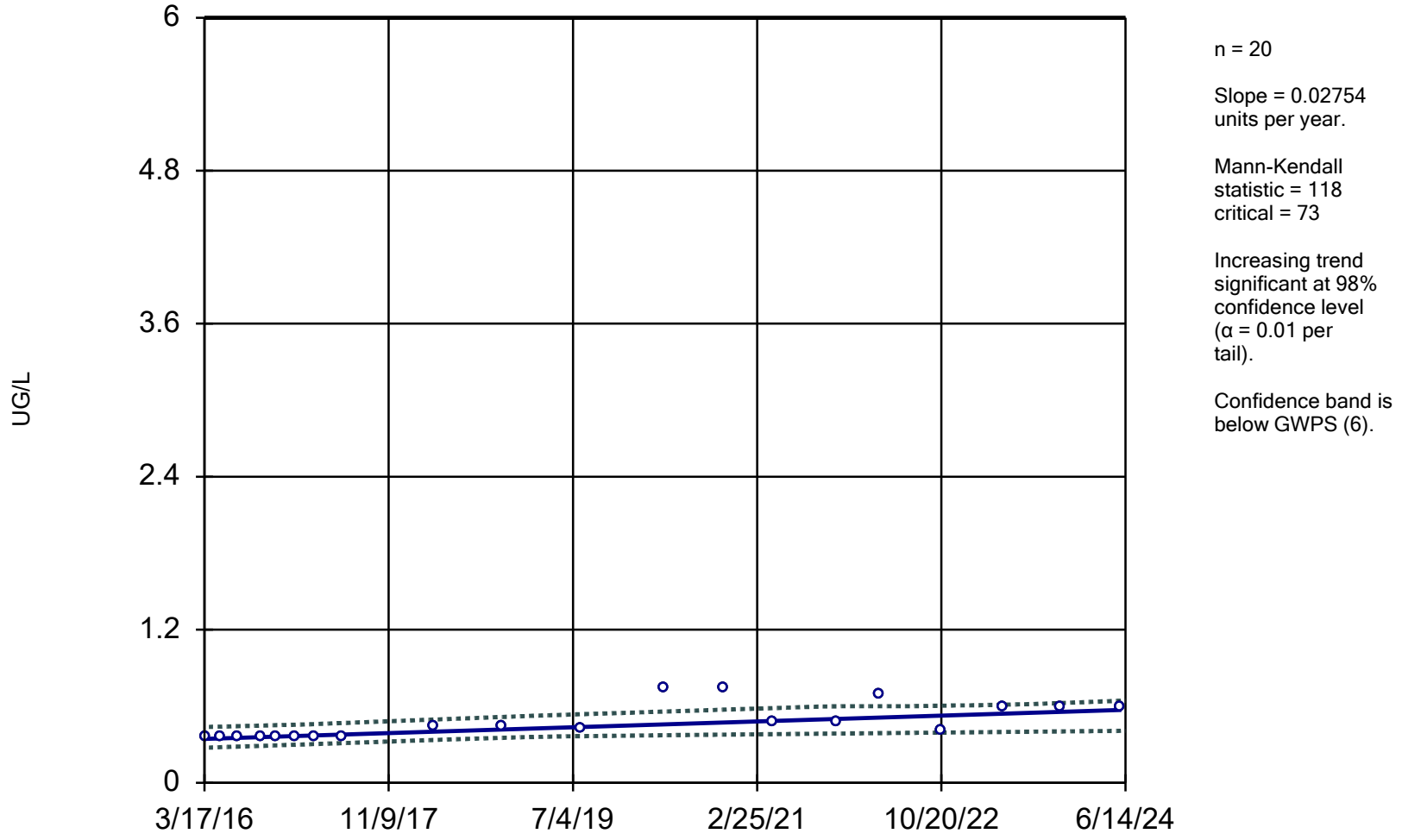
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 20

Slope = 0.02754 units per year.

Mann-Kendall statistic = 118
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

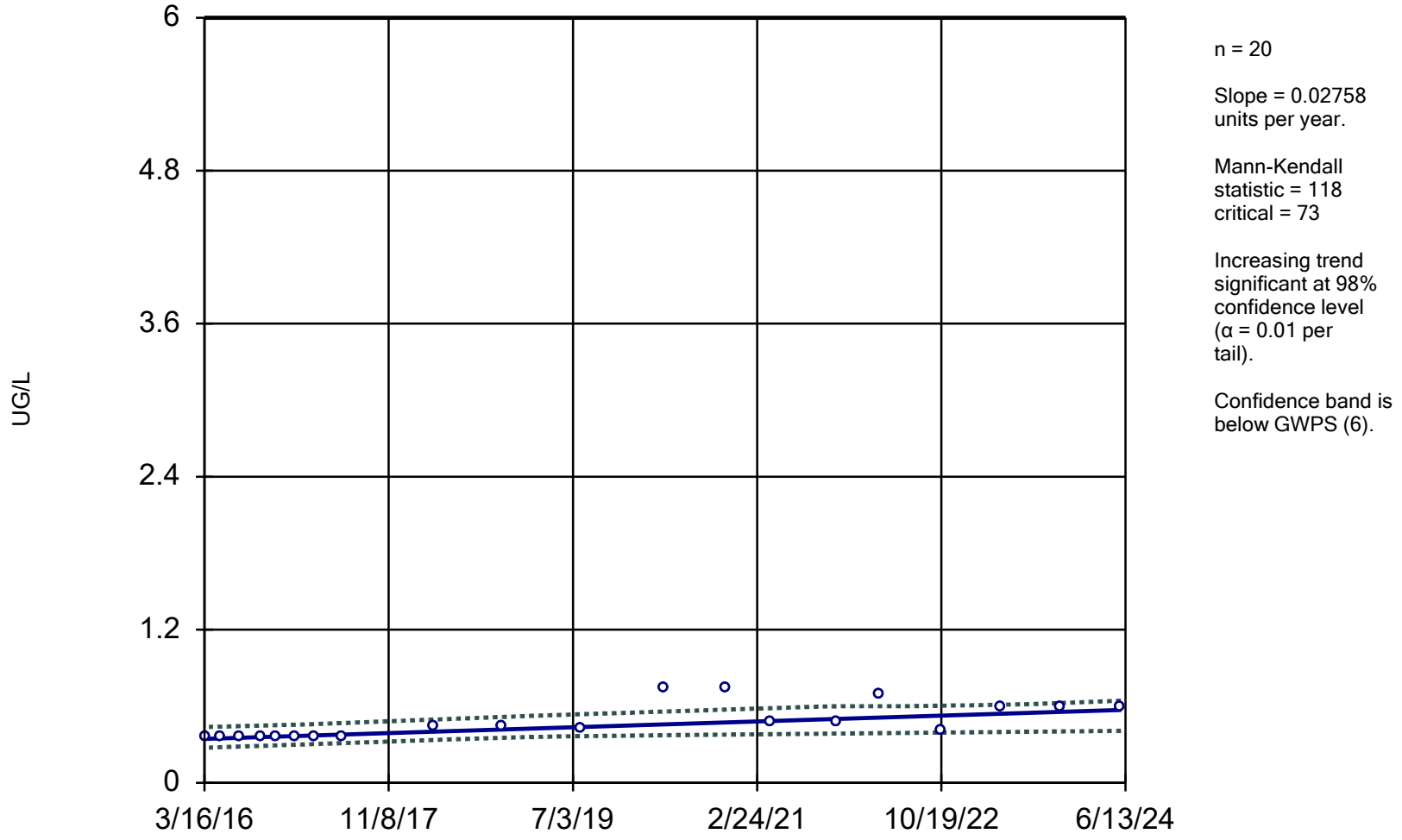
Constituent: COBALT, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 20

Slope = 0.02758 units per year.

Mann-Kendall statistic = 118
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

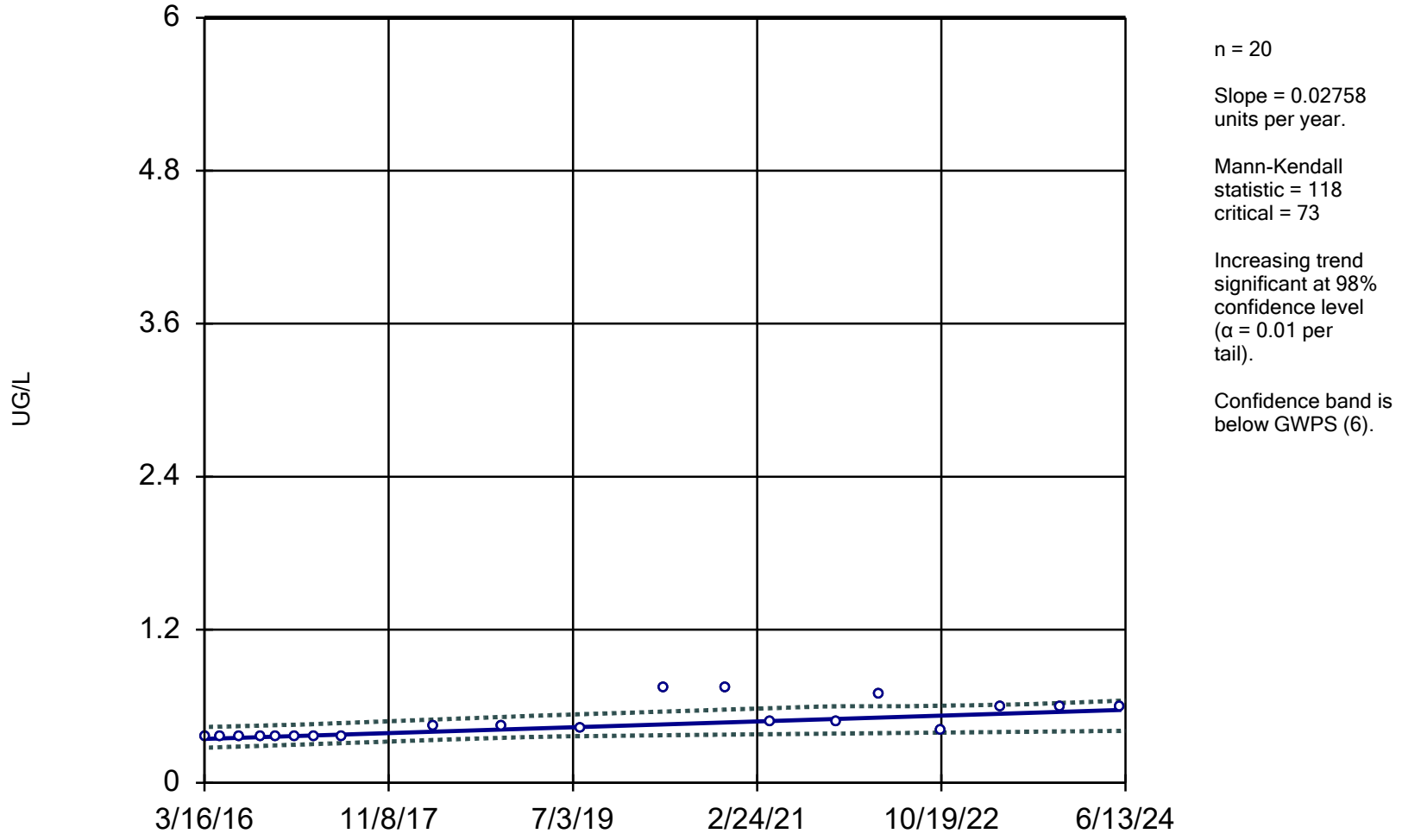
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 20

Slope = 0.02758 units per year.

Mann-Kendall statistic = 118
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

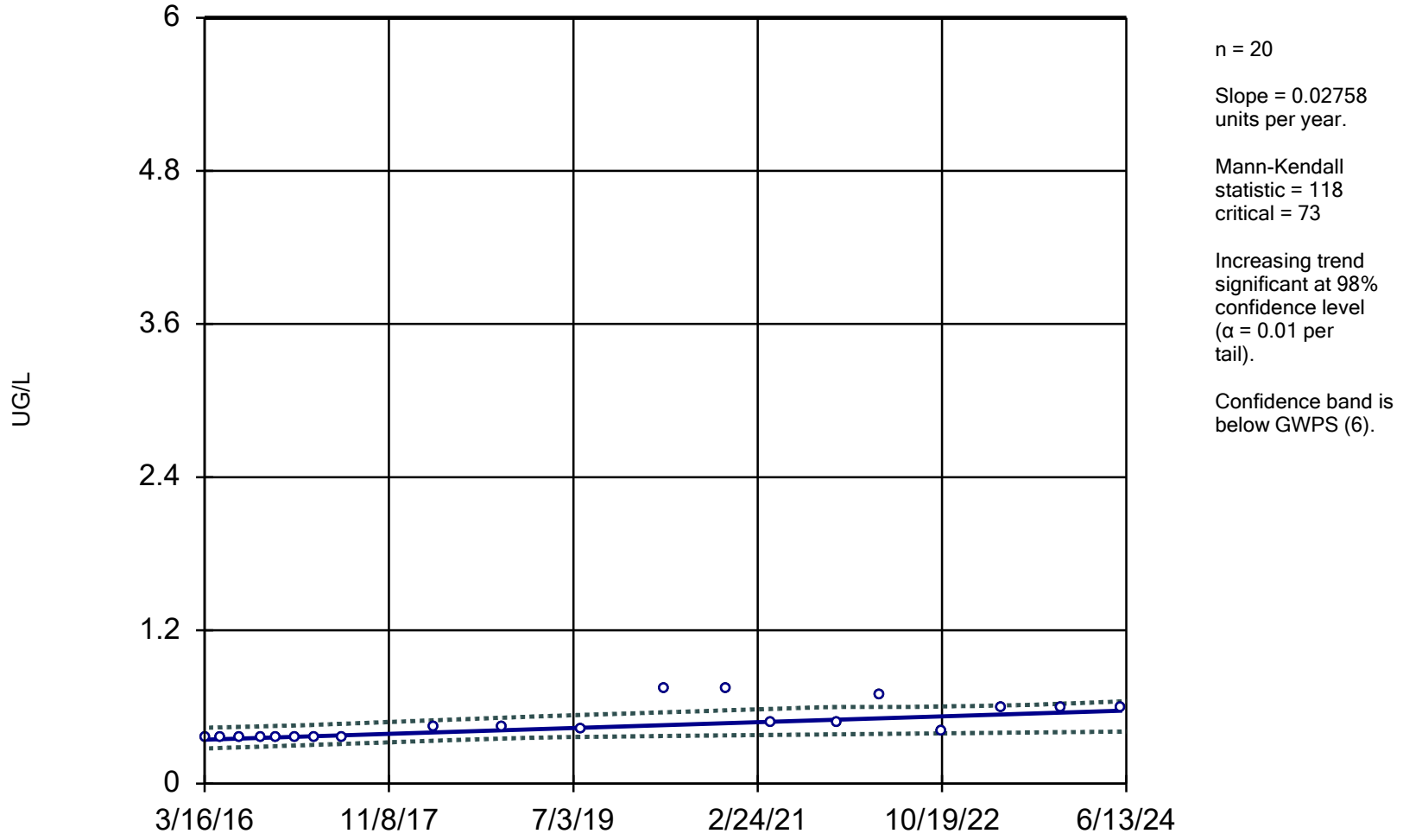
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Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 20

Slope = 0.02758 units per year.

Mann-Kendall statistic = 118
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

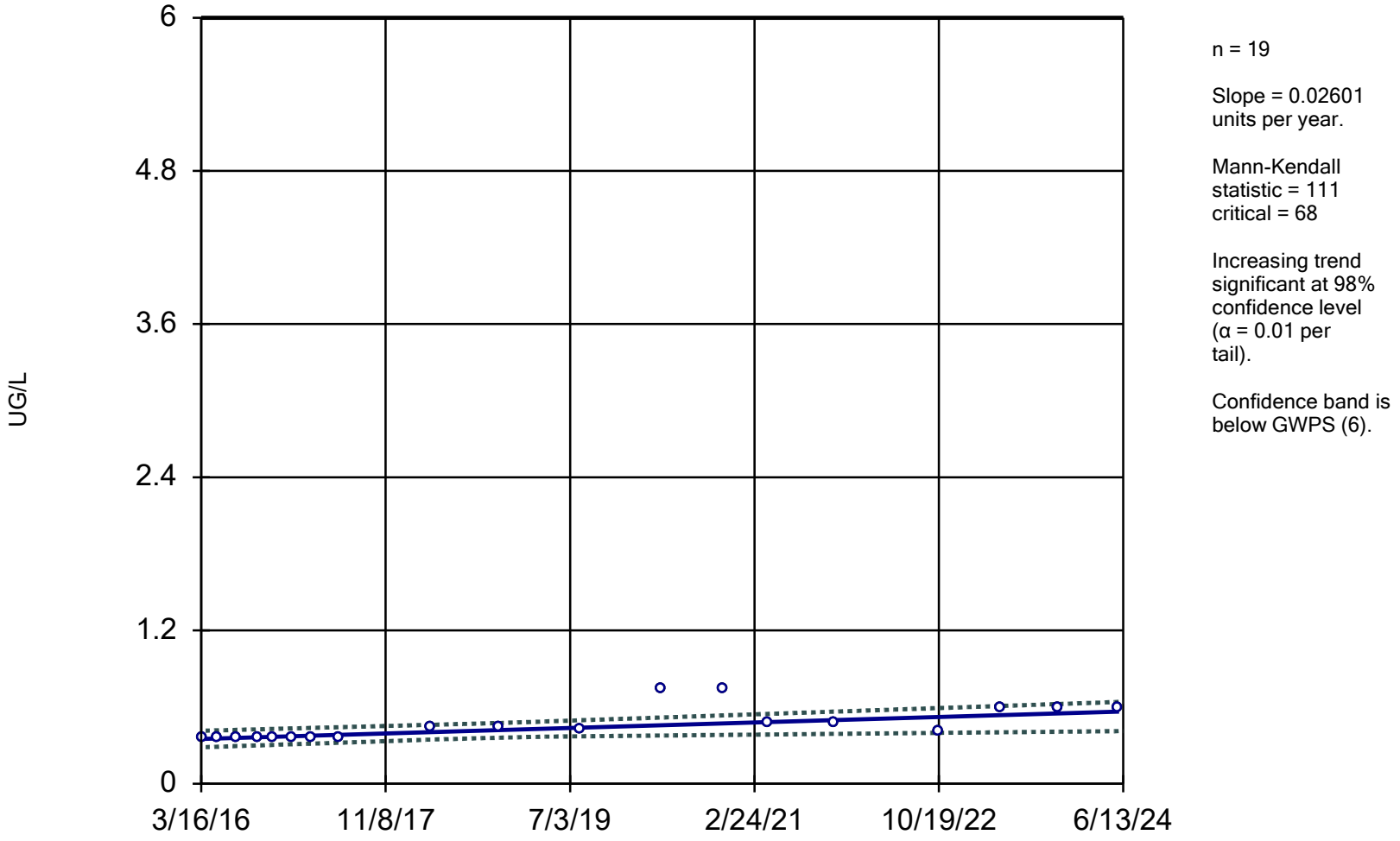
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Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 19

Slope = 0.02601 units per year.

Mann-Kendall statistic = 111
critical = 68

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

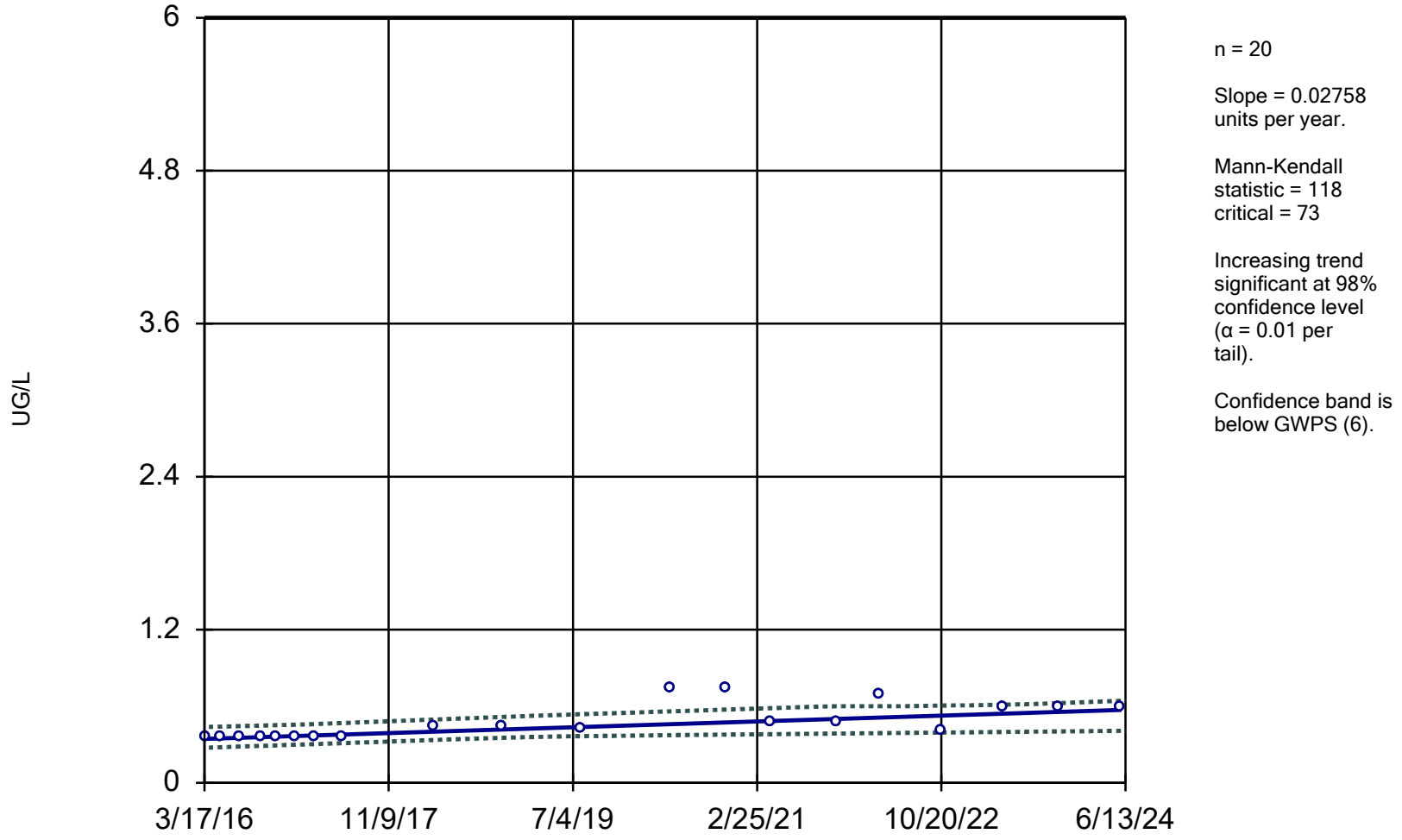
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Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 20

Slope = 0.02758 units per year.

Mann-Kendall statistic = 118
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

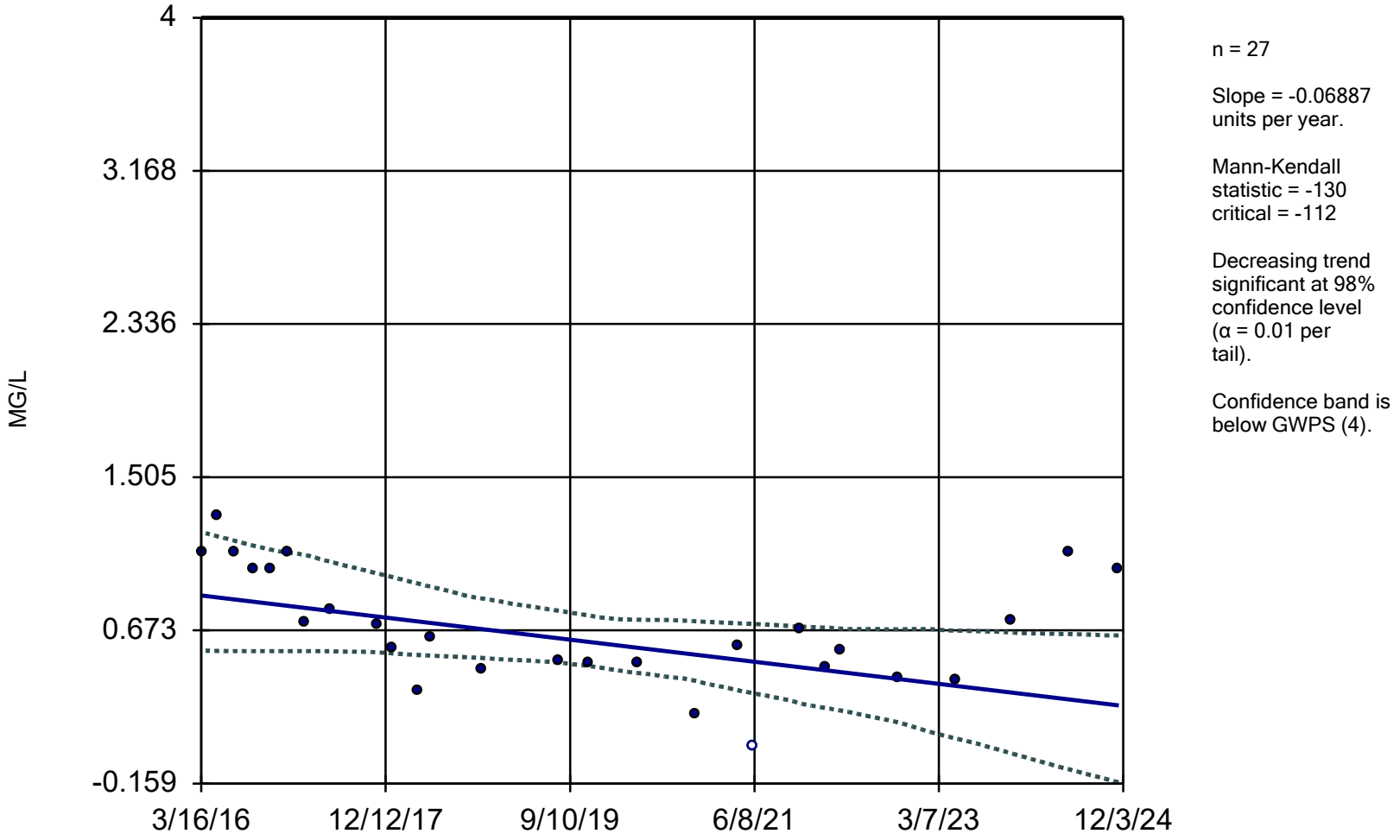
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 27

Slope = -0.06887 units per year.

Mann-Kendall statistic = -130 critical = -112

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

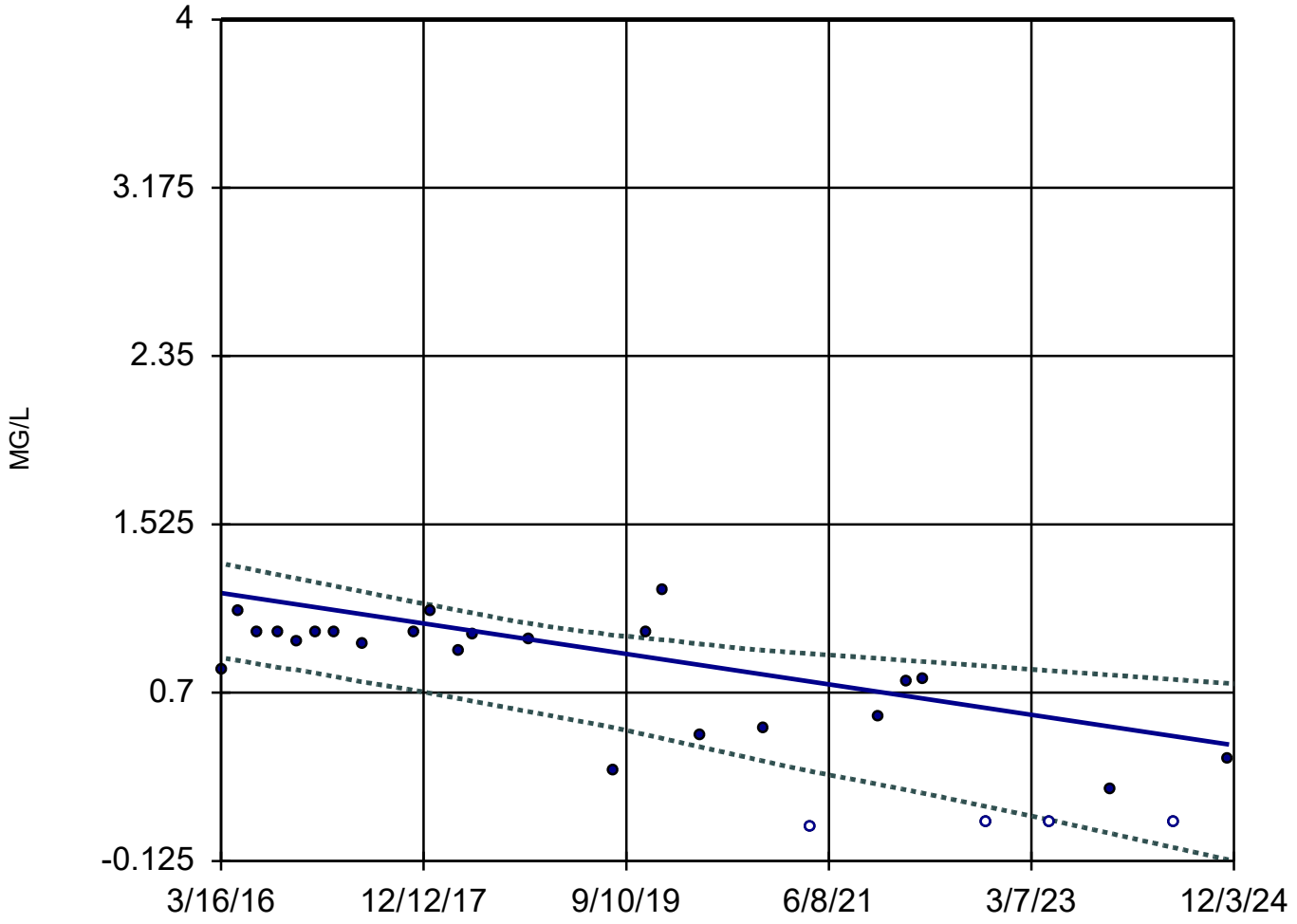
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 27

Slope = -0.08562 units per year.

Mann-Kendall statistic = -171
critical = -112

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

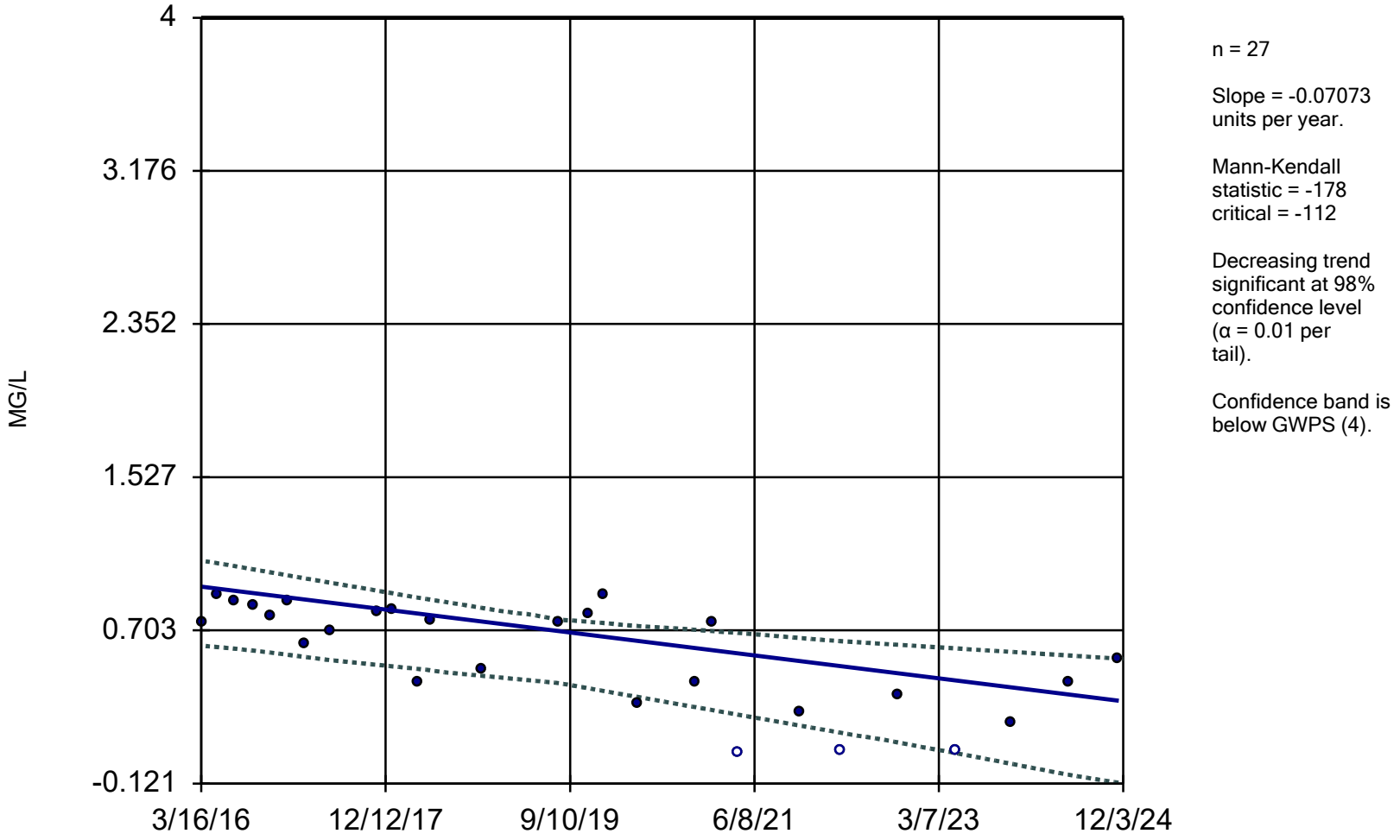
Constituent: FLUORIDE, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 27

Slope = -0.07073 units per year.

Mann-Kendall statistic = -178
critical = -112

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

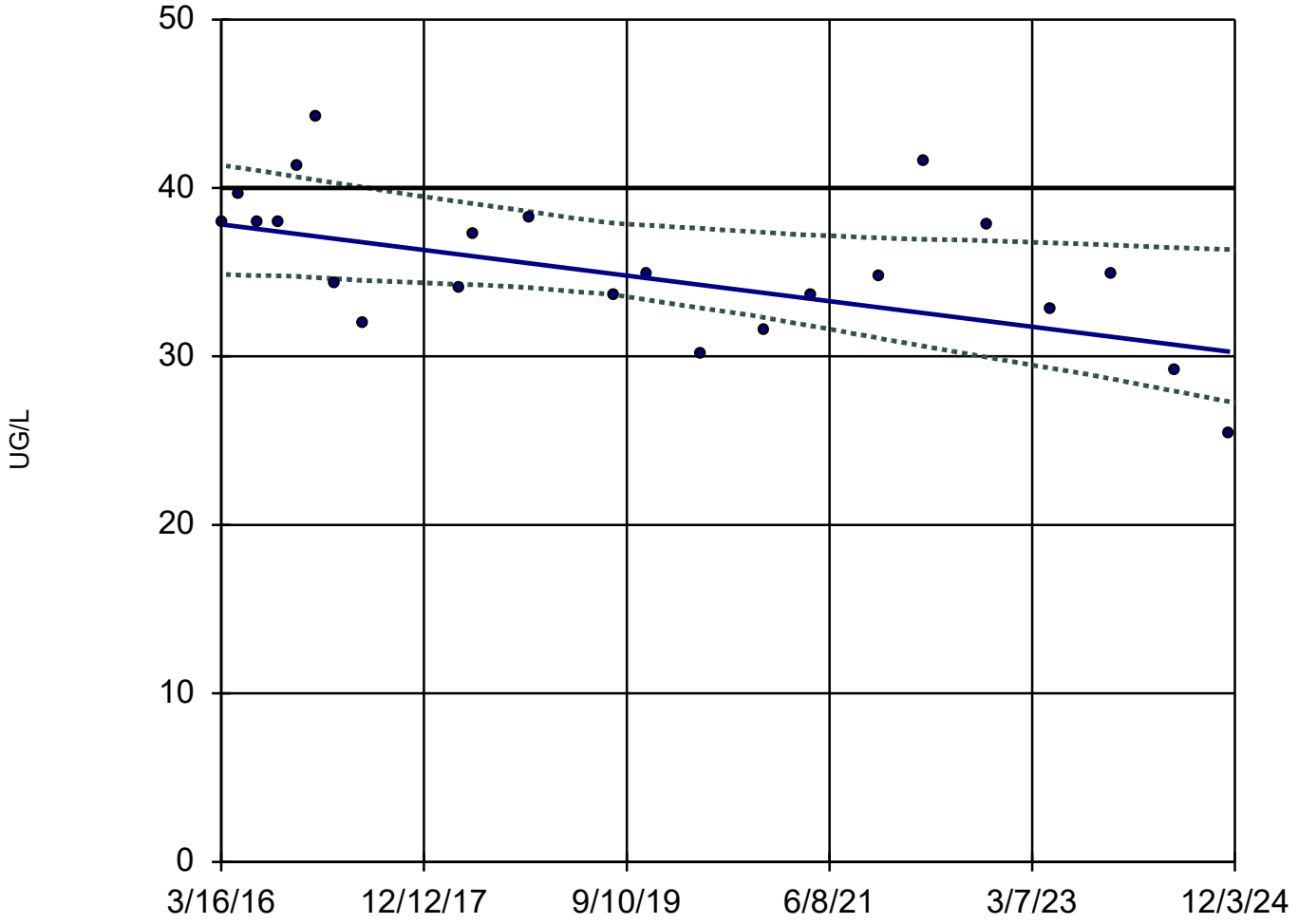
Constituent: FLUORIDE, TOTAL Analysis Run 3/10/2025 9:48 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 23

Slope = -0.8719 units per year.

Mann-Kendall statistic = -97
critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (40) on 07/20/17.

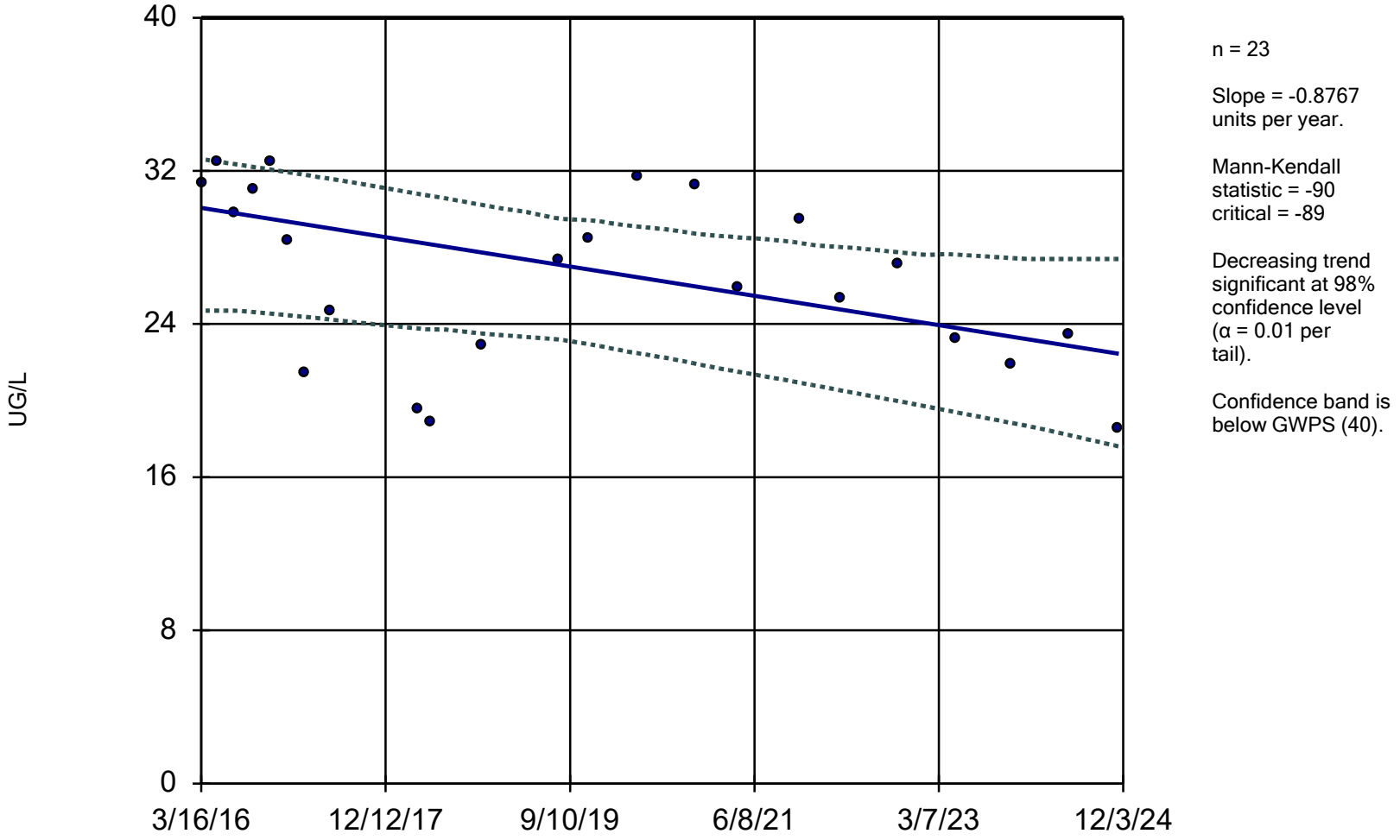
Constituent: LITHIUM, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 23

Slope = -0.8767 units per year.

Mann-Kendall statistic = -90
critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

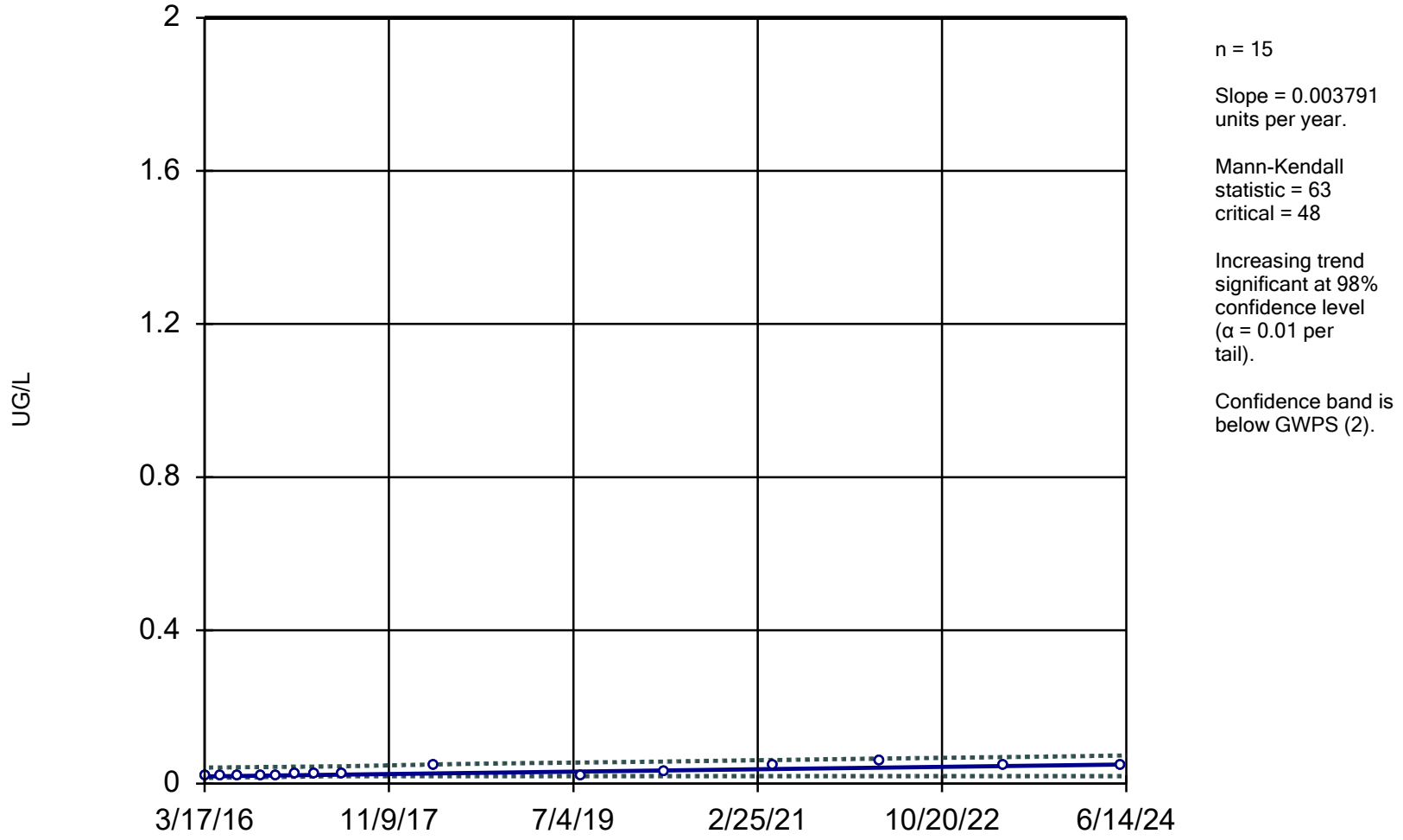
Constituent: LITHIUM, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 15

Slope = 0.003791 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

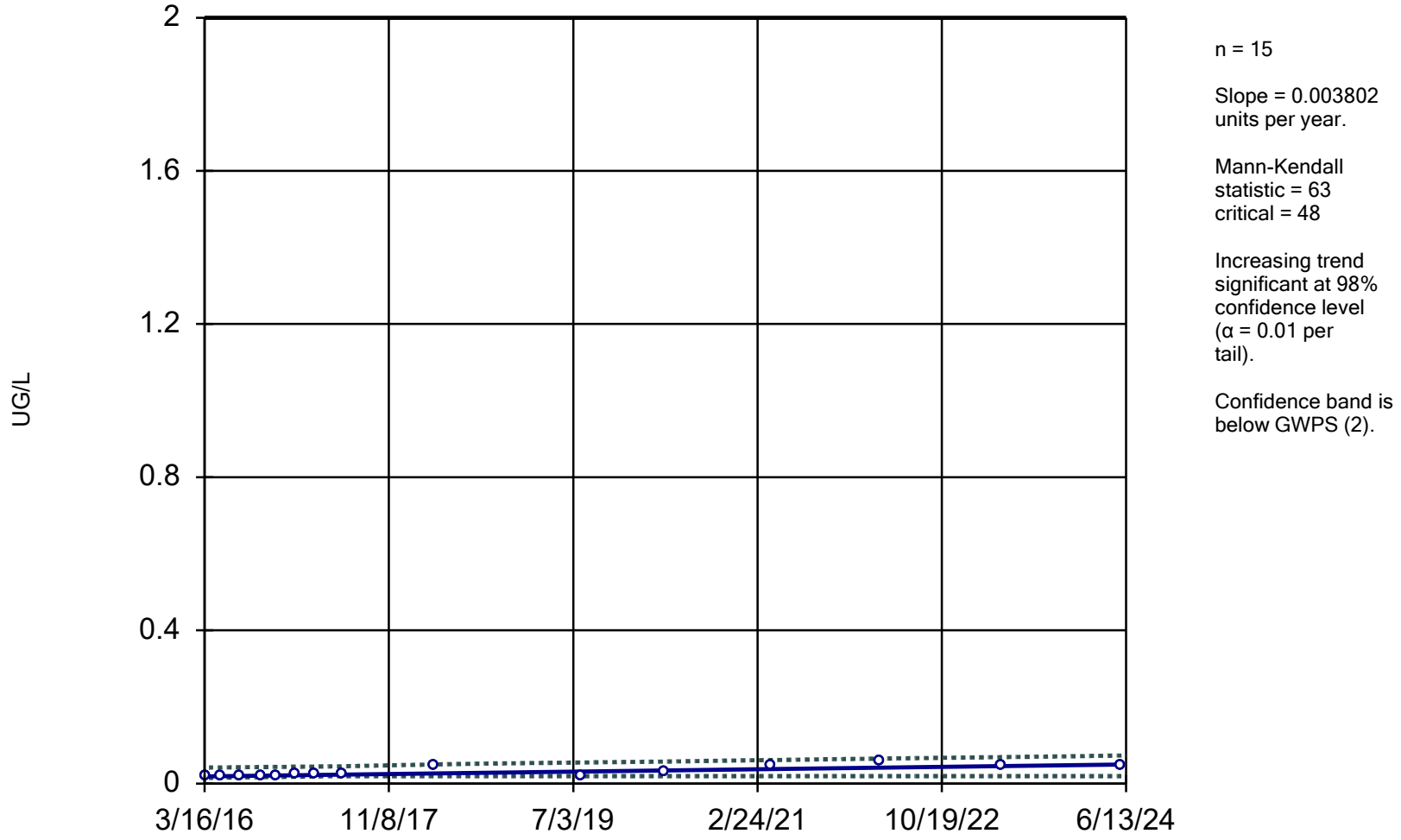
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 15

Slope = 0.003802 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

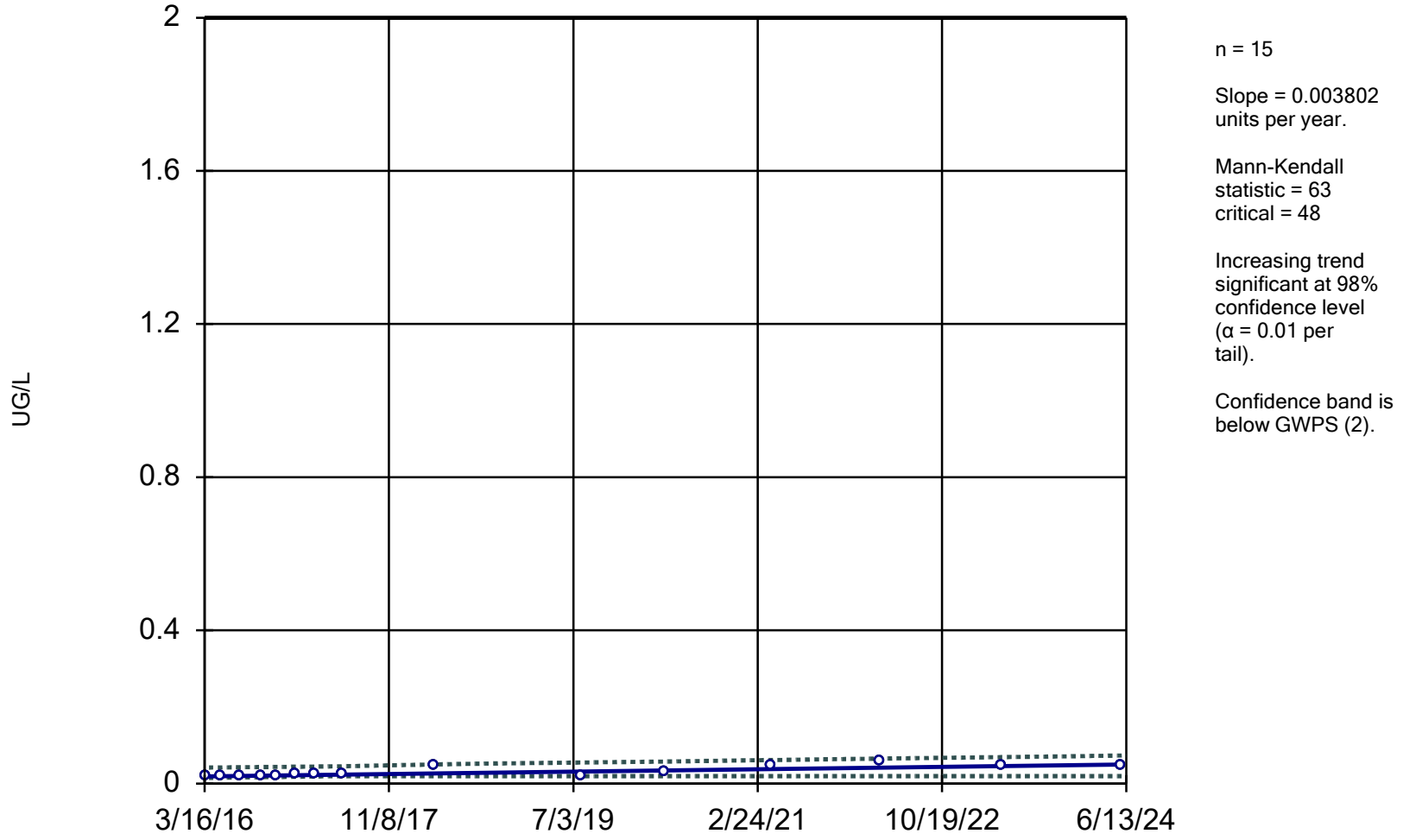
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 15

Slope = 0.003802 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

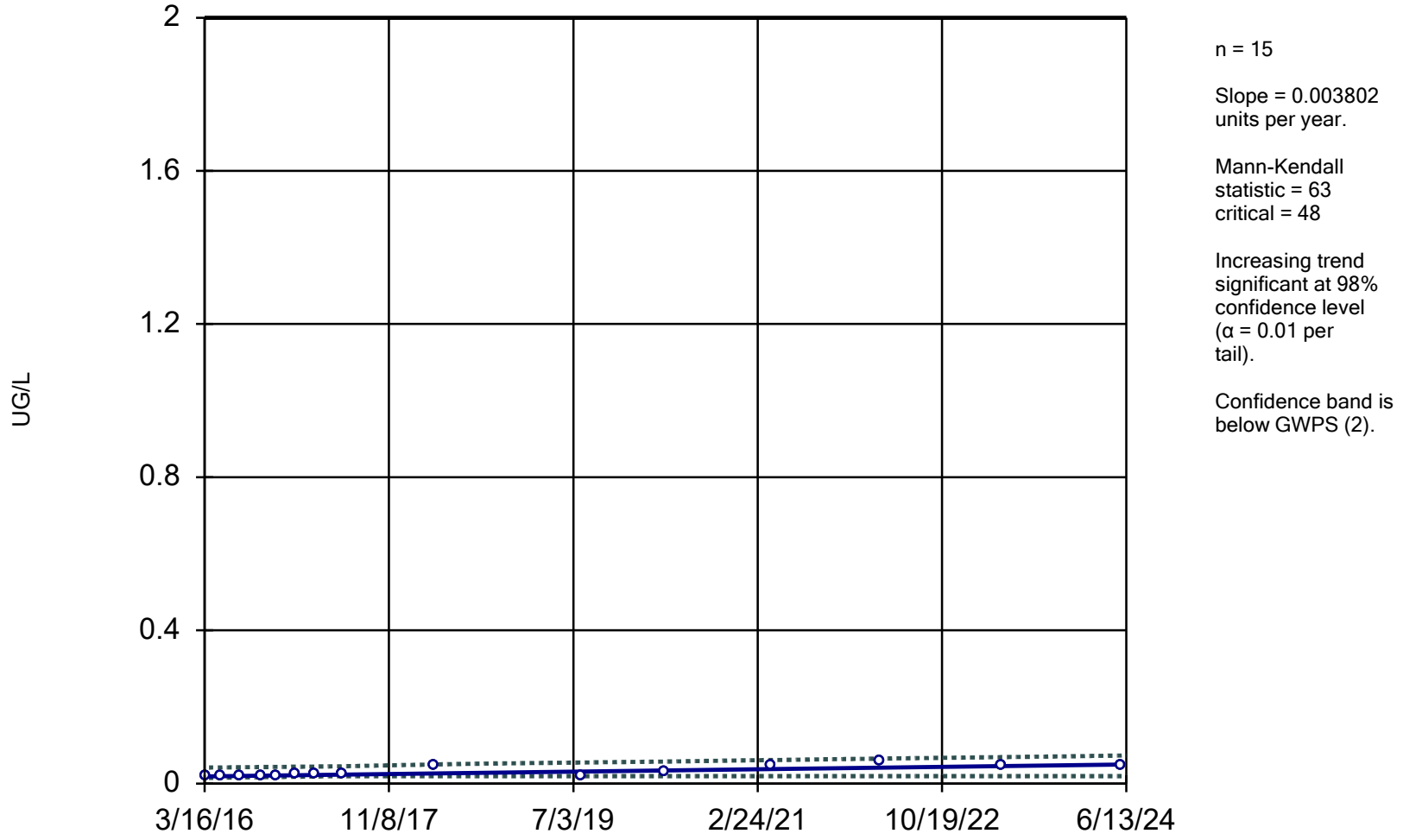
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 15

Slope = 0.003802 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

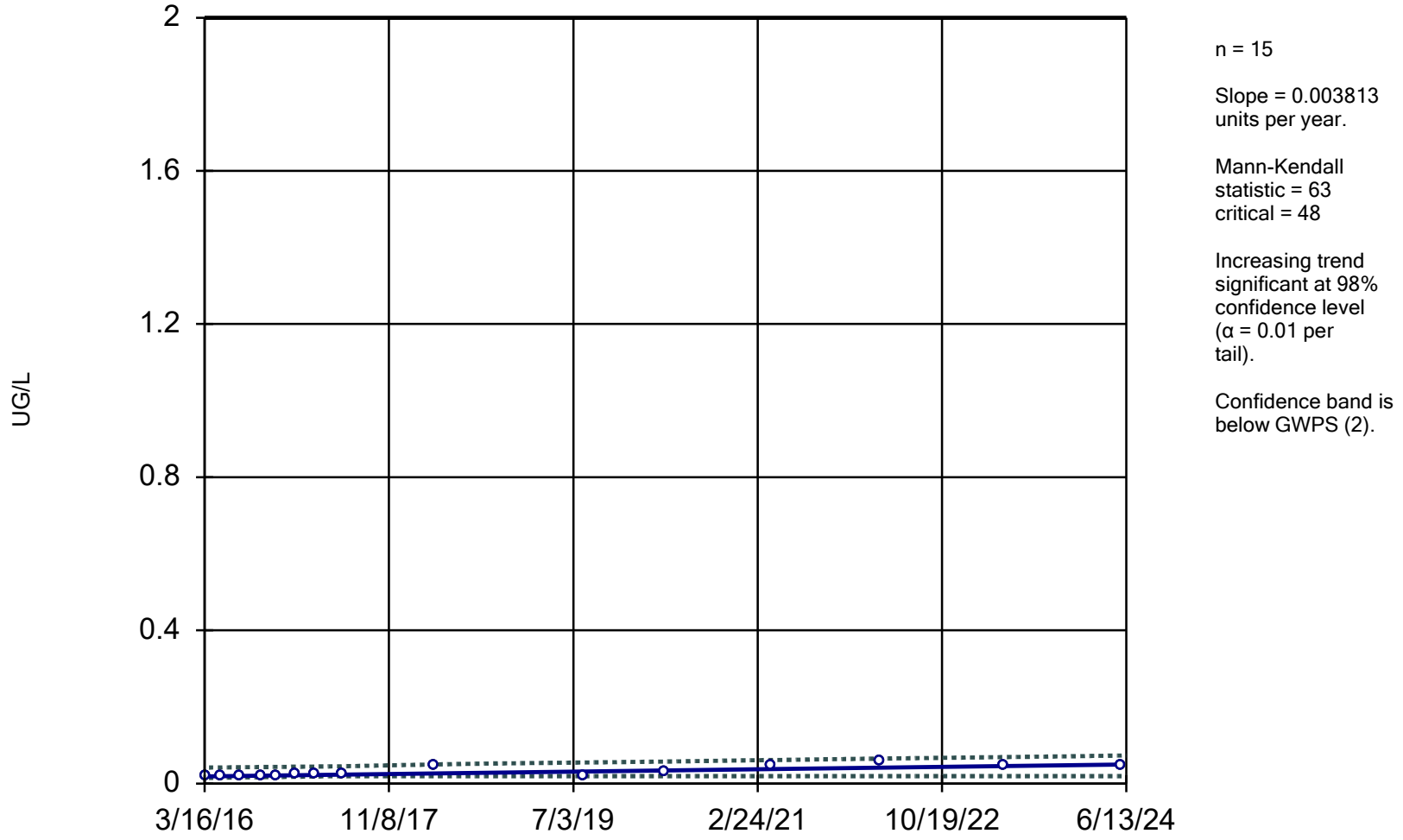
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 15

Slope = 0.003813 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

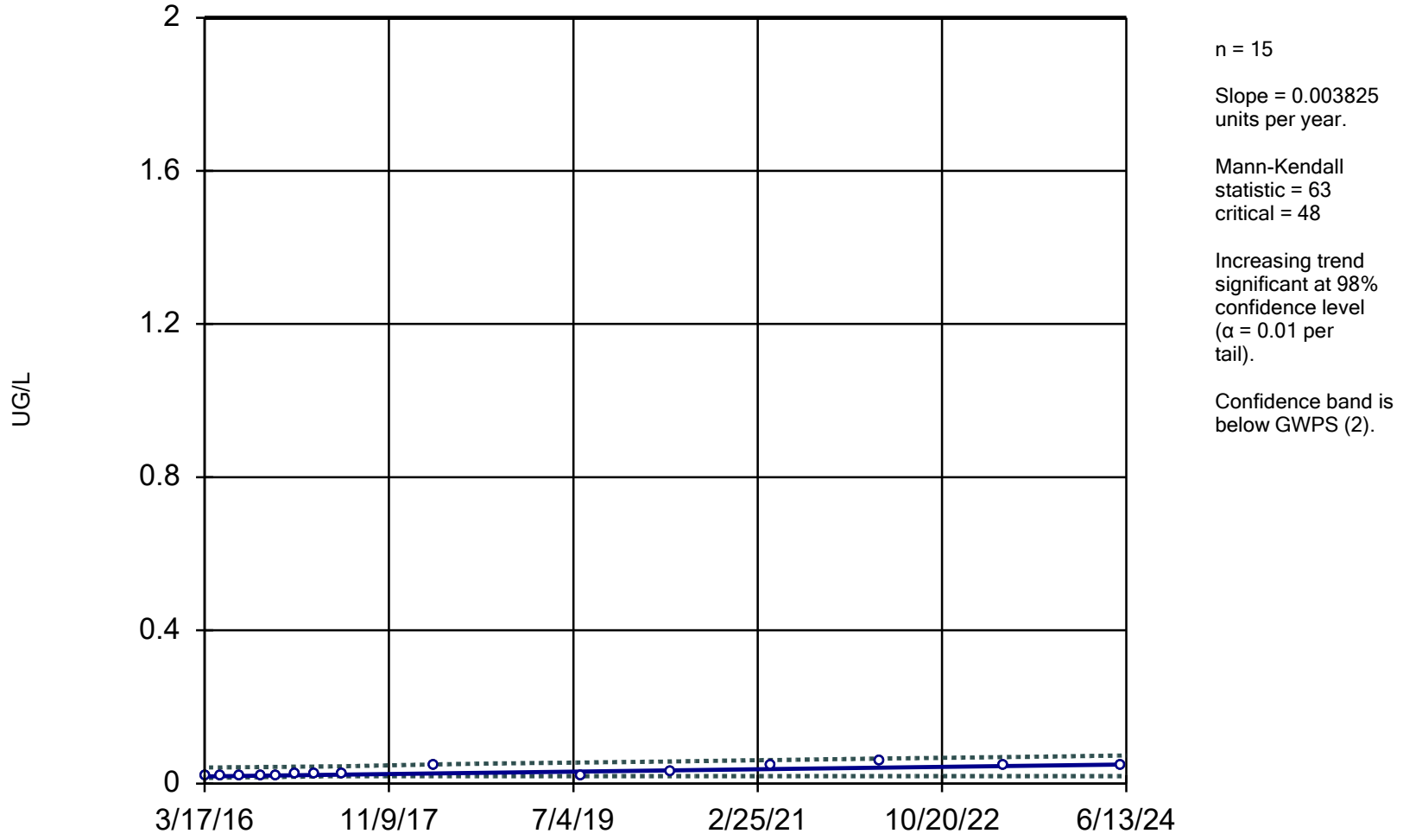
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 15

Slope = 0.003825 units per year.

Mann-Kendall statistic = 63
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

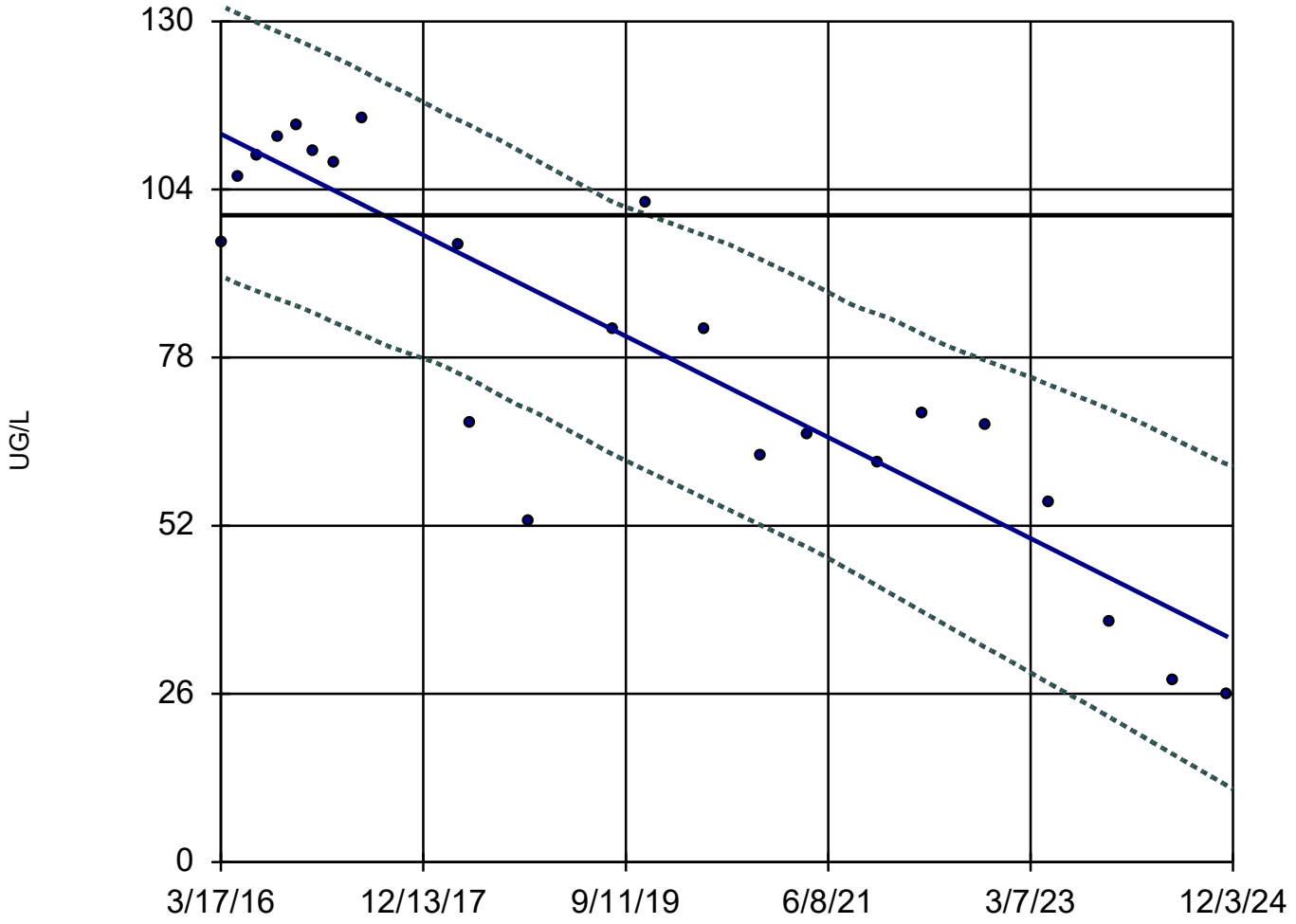
Constituent: MERCURY, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 23

Slope = -8.96
units per year.

Mann-Kendall
statistic = -161
critical = -89

Decreasing trend
significant at 98%
confidence level
(α = 0.01 per
tail).

Confidence band intersects
GWPS (100) on 11/23/19.

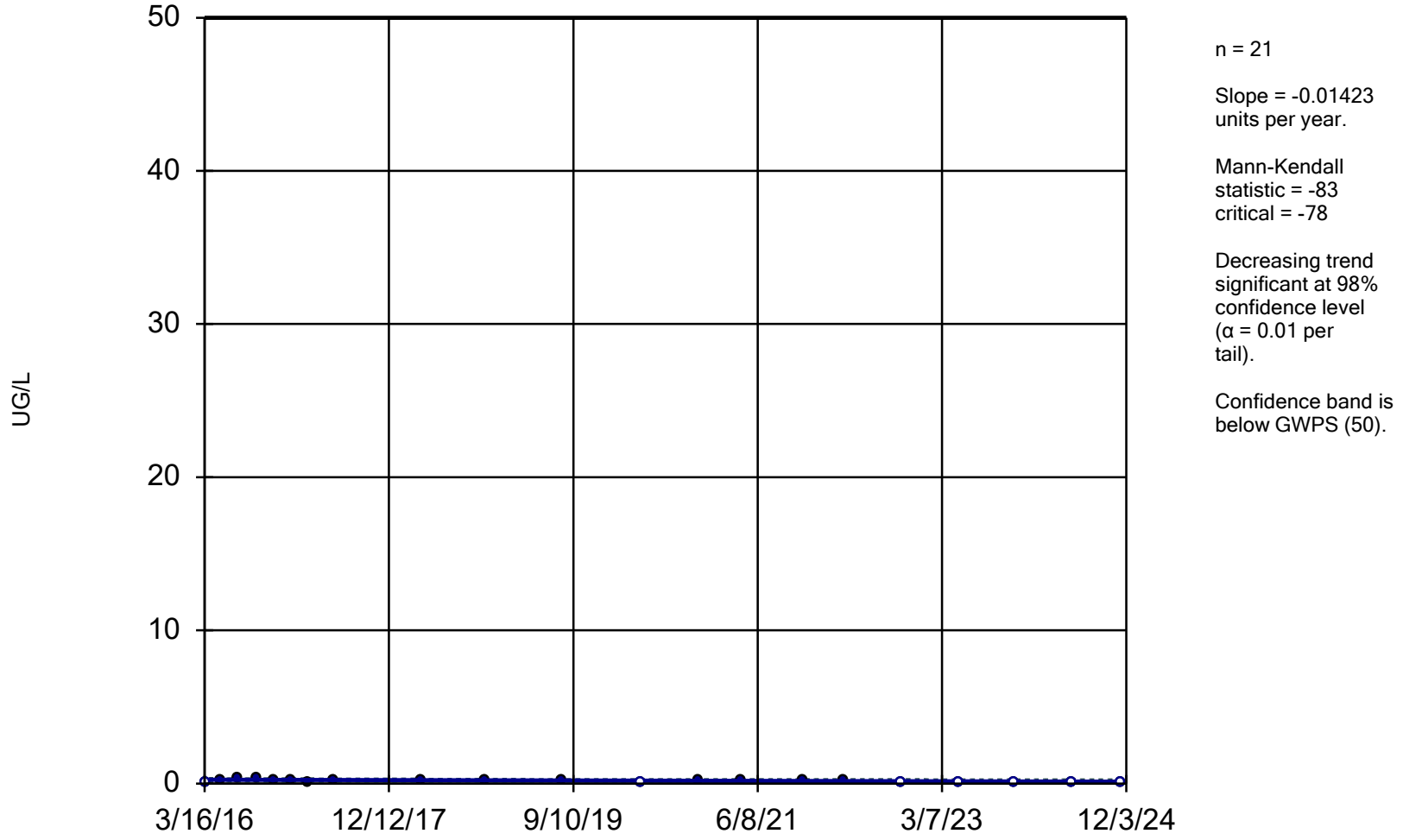
Constituent: MOLYBDENUM, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 21

Slope = -0.01423 units per year.

Mann-Kendall statistic = -83
critical = -78

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

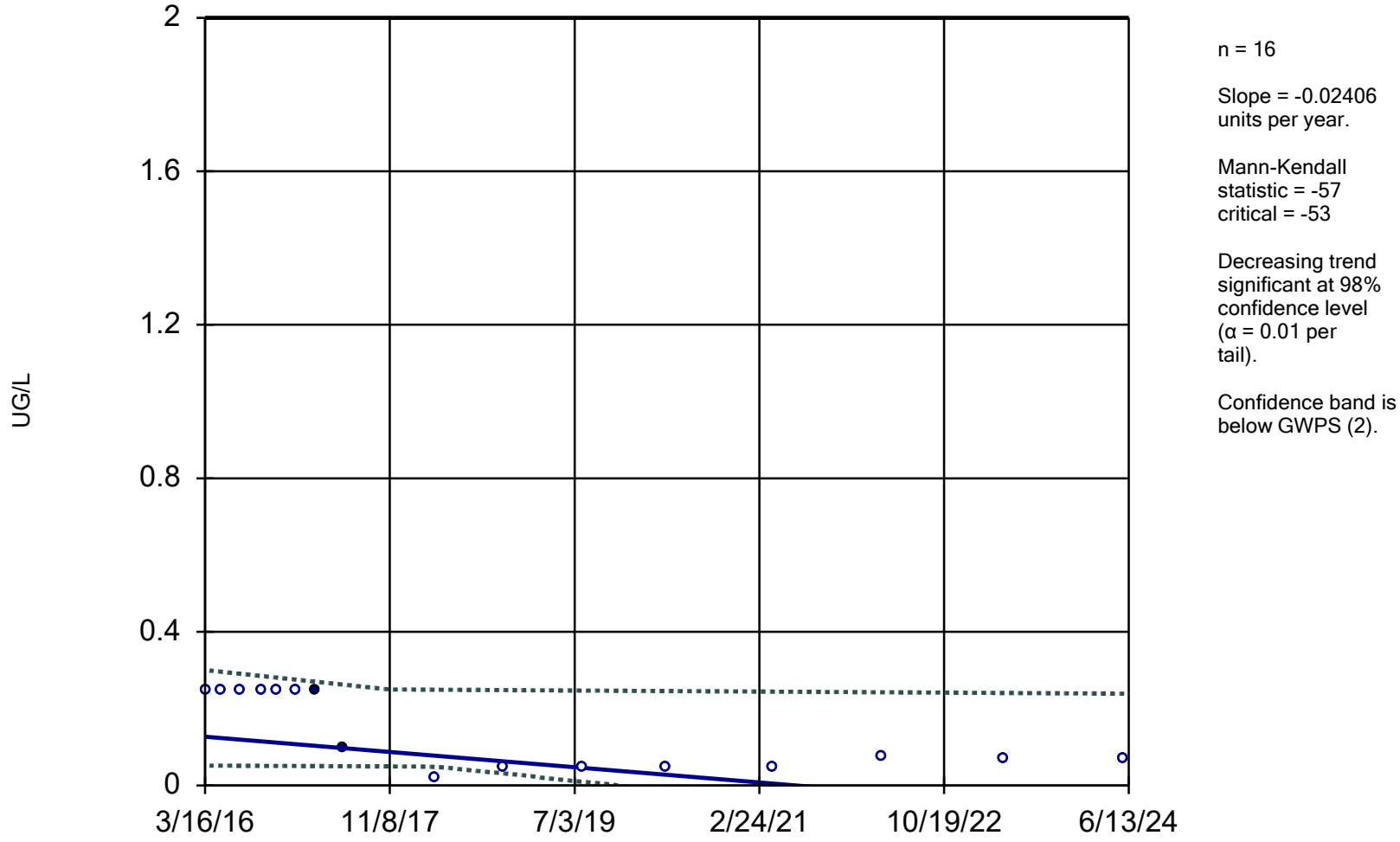
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 16

Slope = -0.02406 units per year.

Mann-Kendall statistic = -57
critical = -53

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

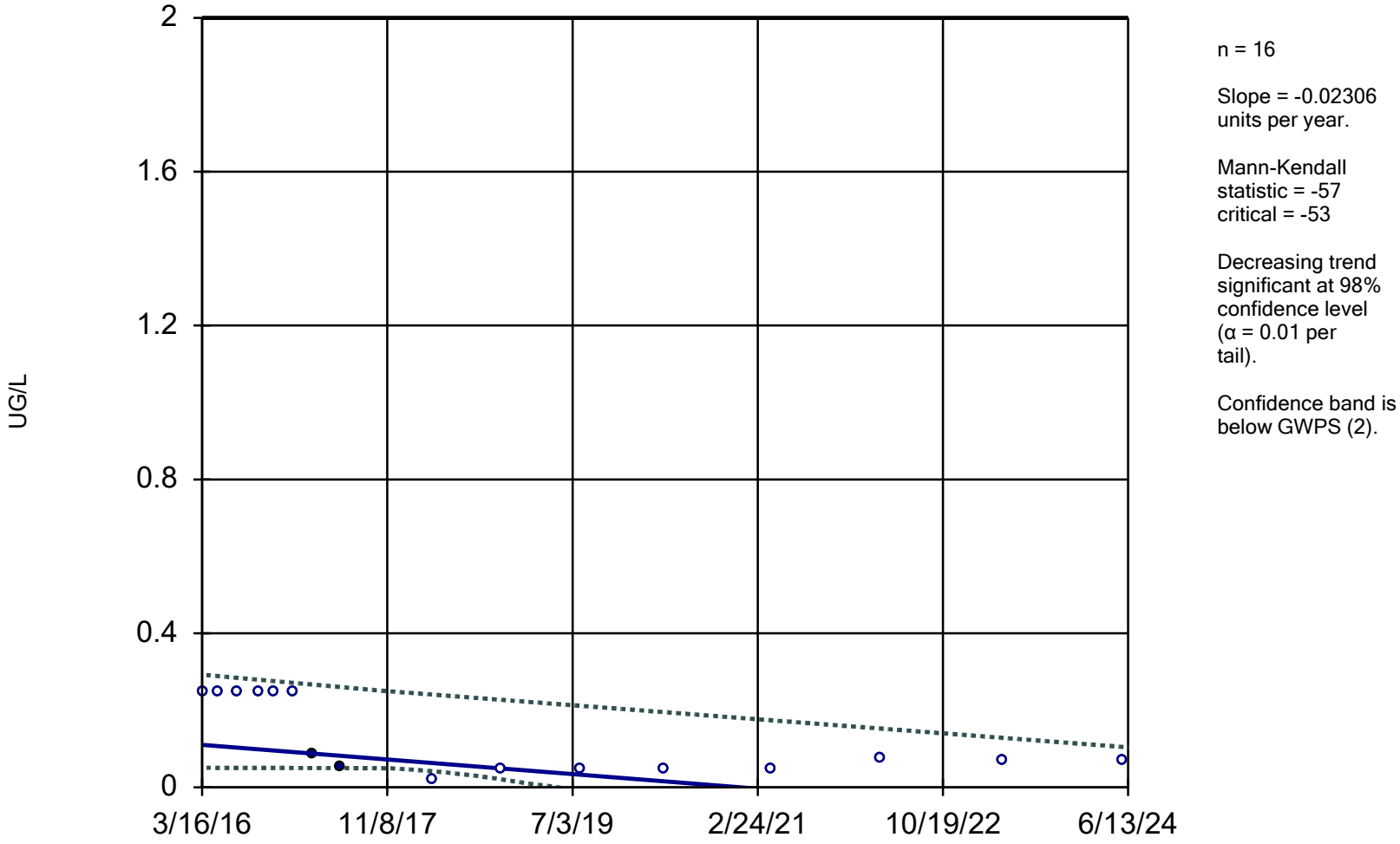
Constituent: THALLIUM, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 16

Slope = -0.02306 units per year.

Mann-Kendall statistic = -57
critical = -53

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

Constituent: THALLIUM, TOTAL Analysis Run 3/10/2025 9:49 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/10/2025, 9:50 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	-0.00...	-4	-53	No	16	50	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.002761	32	53	No	16	68.75	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	S-UMW-3D	0.004244	48	48	No	15	86.67	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	**S-UMW-4D**	**0.004216**	**70**	**53**	**Yes**	**16**	**93.75**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-5D**	**0.004218**	**62**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-6D**	**0.004216**	**62**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-1D**	**0.1282**	**158**	**84**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-2D**	**0.2647**	**174**	**89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-3D**	**0.07832**	**92**	**89**	**Yes**	**23**	**8.696**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-UMW-4D	0.01775	56	84	No	22	18.18	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-UMW-5D**	**-0.03375**	**-110**	**-84**	**Yes**	**22**	**4.545**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-6D**	**0.02797**	**106**	**89**	**Yes**	**23**	**8.696**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-1D	3.414	46	89	No	23	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-UMW-2D**	**-6.32**	**-149**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-3D	-1.007	-71	-89	No	23	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-UMW-4D**	**-3.65**	**-121**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-5D	9.562	76	89	No	23	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-UMW-6D	1.152	22	89	No	23	0	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	-0.00...	-31	-58	No	17	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-2D	0	-2	-53	No	16	93.75	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-28	-53	No	16	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-31	-58	No	17	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-31	-58	No	17	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	-0.00...	-31	-58	No	17	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.001636	69	73	No	20	85	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-UMW-2D**	**0.06586**	**167**	**84**	**Yes**	**22**	**31.82**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-3D**	**0.1842**	**133**	**84**	**Yes**	**22**	**22.73**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-4D**	**0.2115**	**103**	**84**	**Yes**	**22**	**18.18**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.011	76	84	No	22	36.36	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.001254	41	84	No	22	81.82	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-1D	0.01393	14	63	No	18	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-2D	-0.00...	-10	-63	No	18	55.56	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-32	-68	No	19	57.89	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-4D	0.00311	13	68	No	19	52.63	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-5D	0	-2	-68	No	19	47.37	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-6D	0.00711	12	68	No	19	52.63	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-UMW-1D**	**0.02754**	**118**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-2D**	**0.02758**	**118**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-3D**	**0.02758**	**118**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-4D**	**0.02758**	**118**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-5D**	**0.02601**	**111**	**68**	**Yes**	**19**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-6D**	**0.02758**	**118**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	-0.00...	-34	-106	No	26	7.692	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-UMW-2D**	**-0.06887**	**-130**	**-112**	**Yes**	**27**	**3.704**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-UMW-3D**	**-0.08562**	**-171**	**-112**	**Yes**	**27**	**14.81**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-UMW-4D**	**-0.07073**	**-178**	**-112**	**Yes**	**27**	**11.11**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	-0.02753	-73	-101	No	25	0	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	-0.01083	-55	-106	No	26	15.38	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-1D	0.1145	58	58	No	17	88.24	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-2D	0.1045	52	58	No	17	76.47	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/10/2025, 9:50 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
LEAD, TOTAL (UG/L)	S-UMW-3D	0	2	58	No	17	64.71	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-4D	0.06533	9	58	No	17	58.82	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-5D	0.05905	15	58	No	17	82.35	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-6D	0.1146	58	58	No	17	88.24	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-1D	0.4883	52	89	No	23	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-2D	-0.224	-22	-89	No	23	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-3D	-0.3116	-28	-89	No	23	4.348	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-UMW-4D**	**-0.8719**	**-97**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-UMW-5D**	**-0.8767**	**-90**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-UMW-6D	0.2401	25	84	No	22	0	n/a	n/a	0.02	NP
MERCURY, TOTAL (UG/L)	**S-UMW-1D**	**0.003791**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-2D**	**0.003802**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-3D**	**0.003802**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-4D**	**0.003802**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-5D**	**0.003813**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-6D**	**0.003825**	**63**	**48**	**Yes**	**15**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-1D	2.803	69	89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-2D	17.67	24	89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-3D	-95.23	-62	-89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-4D	-406.3	-85	-89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-5D	-2.212	-17	-89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-6D**	**-8.96**	**-161**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.01992	42	73	No	20	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-2D	0.02504	53	63	No	18	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	0.04504	48	73	No	20	70	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	0.02737	52	73	No	20	85	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	0.0189	26	73	No	20	75	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.02964	59	73	No	20	95	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0	19	78	No	21	85.71	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-2D	0	-12	-78	No	21	80.95	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.01423**	**-83**	**-78**	**Yes**	**21**	**33.33**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-31	-78	No	21	33.33	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-38	-78	No	21	38.1	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0	14	78	No	21	100	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-1D	-0.02475	-48	-53	No	16	93.75	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	**S-UMW-2D**	**-0.02406**	**-57**	**-53**	**Yes**	**16**	**87.5**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.02306**	**-57**	**-53**	**Yes**	**16**	**87.5**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	S-UMW-4D	-0.02305	-47	-53	No	16	87.5	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-5D	-0.02213	-32	-53	No	16	93.75	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-6D	-0.01323	-32	-53	No	16	100	n/a	n/a	0.02	NP

Appendix C

May 2025 Assessment Monitoring Statistical Evaluation

Memorandum

September 15, 2025

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-25
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., R.G., Jeff Ingram, R.G., Grant Morey, R.G.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Assessment Monitoring Statistical Evaluation, SCPA Surface Impoundment Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Assessment Monitoring Statistical Evaluation for the May 2025 sampling event at the SCPA Surface Impoundment at the Sioux Energy Center located in St. Charles County, Missouri. Included in the memorandum is a summary of constituents that are present at a Statistically Significant Level (SSL), a list of site-specific Groundwater Protection Standards (**Table 1**), and the Sanitas Technologies (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A** and **Appendix B**).

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for SSLs using the methods and procedures outlined in the Statistical Analysis Plan (SAP). An outlier analysis was performed on all results within the SCPA monitoring network, inclusive of May 2025 data. In addition to outliers noted in previous statistical evaluations, the following outliers were removed from the dataset prior to the calculation of confidence limits.

- Barium
    - S-UMW-4D at 260 micrograms per liter (µg/L) on 11/18/2024: result is statistically higher than other barium values at the same monitoring well. This higher result is not consistent with previous or subsequent barium results at the well and is an outlier.
- Cadmium
    - S-UMW-1D at 0.11 J µg/L on 11/14/2024: result is statically higher than other cadmium values at the same monitoring well. This higher result is not consistent with previous or subsequent cadmium results at the well and is an outlier.
- Molybdenum
    - S-UMW-4D at 85.4 µg/L on 11/18/2024: result is statistically lower than other molybdenum values at the same monitoring well. This higher result is not consistent with subsequent molybdenum results at the and is an outlier.

An analysis of the outliers removed to date was completed. No statistical outliers that were previously removed were added back into the dataset prior to the calculation of confidence intervals in **Appendix A** and trending confidence bands in **Appendix B**.

Based on the results from the confidence interval and trend analysis, no new SSLs were noted. SSLs at the SCPA Surface Impoundment as of May 2025 continue to be:

- Molybdenum at S-UMW-2D, S-UMW-3D, S-UMW-4D, and S-UMW-5D

3.0 CLOSING

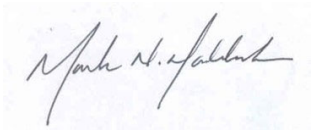
Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Mark Haddock, P.E., R.G.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring [6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.63424
Barium	µg/L	2000	2000	703
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	30.509
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.634
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) National Primary Drinking Water Regulations. Updated December 12, 2024 at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2025 from monitoring wells BMW-1D and BMW-3D.

ROCKSMITH GEOENGINEERING

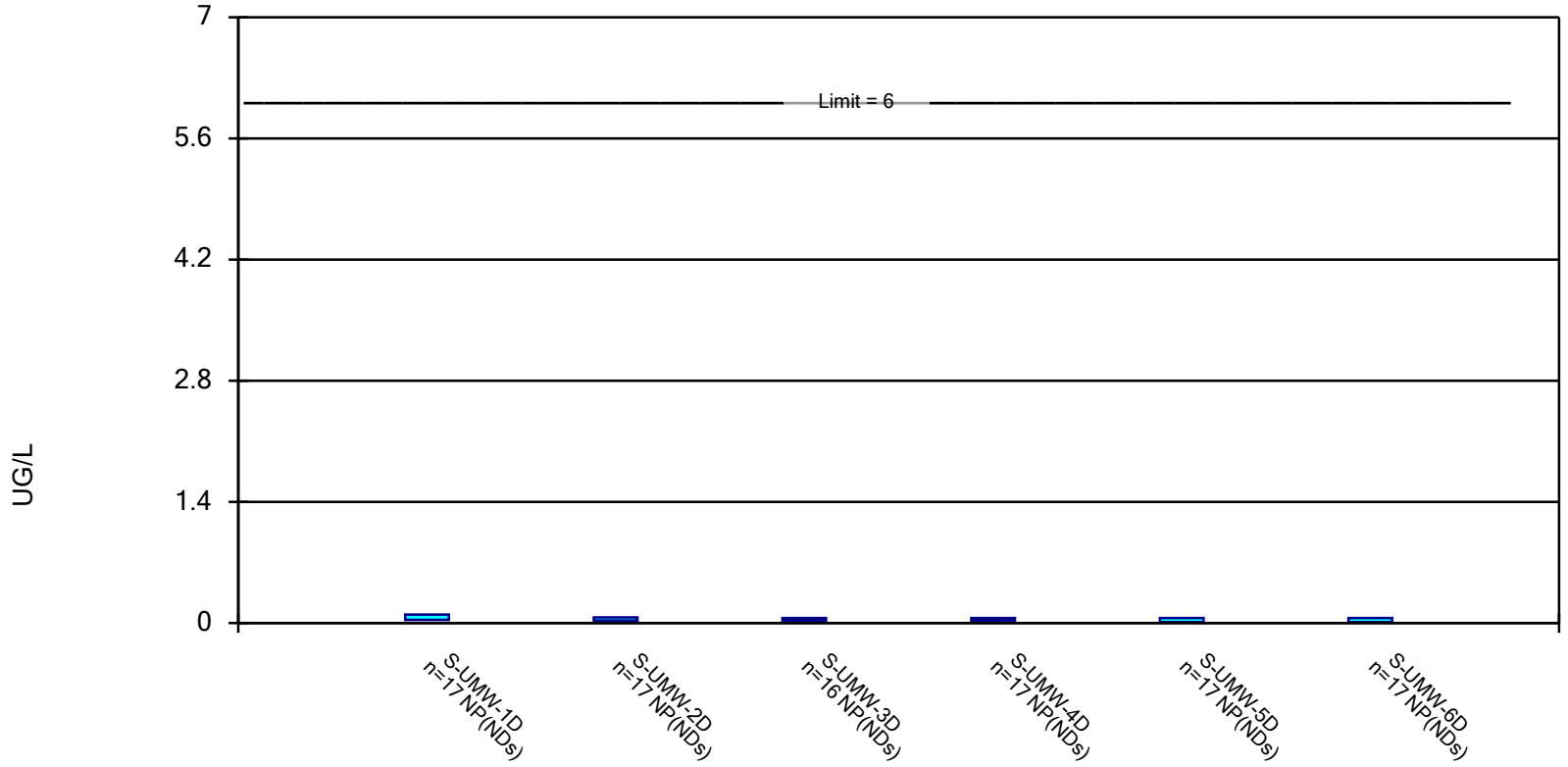
Prepared by: JTR
Checked by: GTM
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



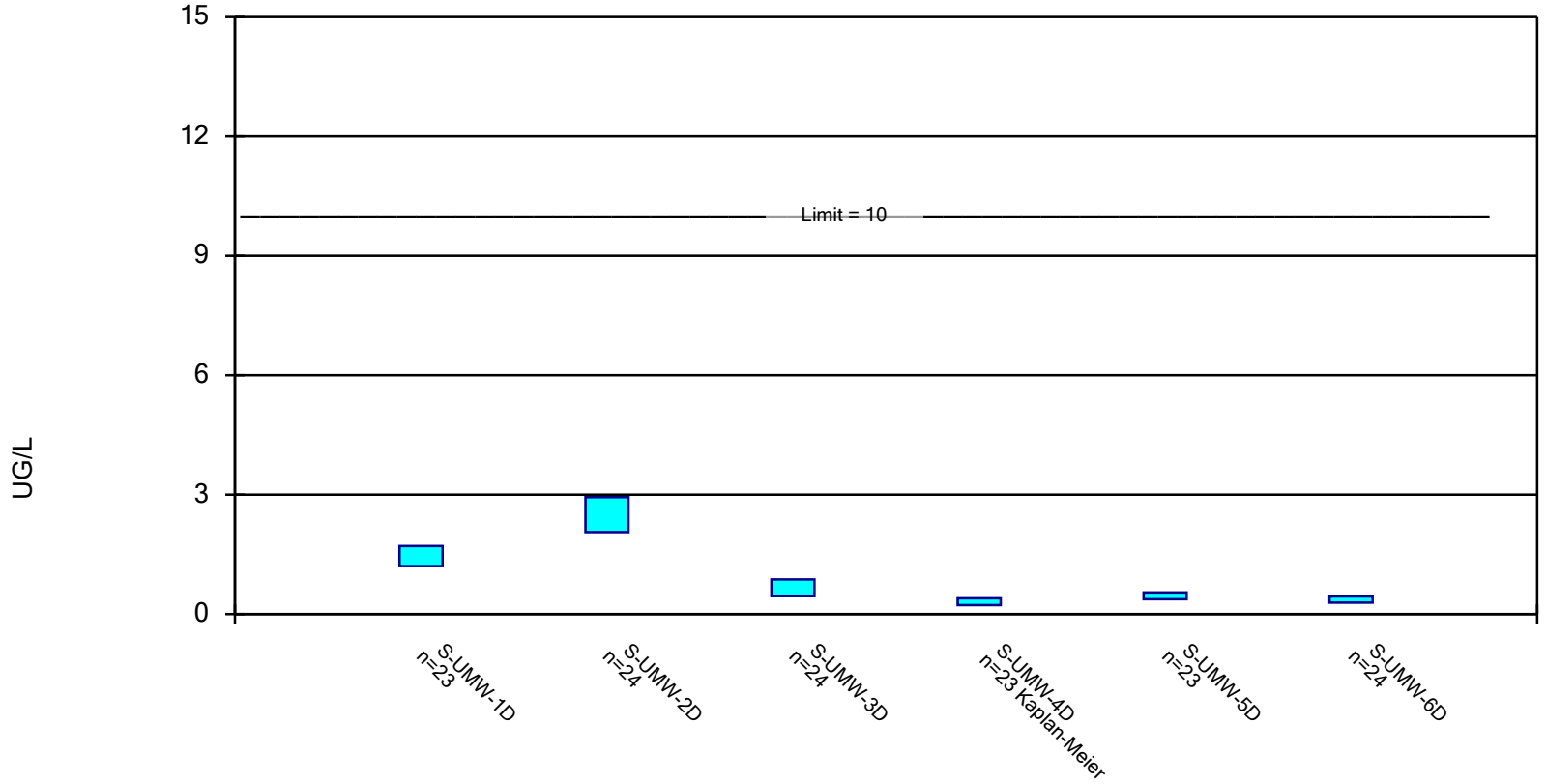
Constituent: ANTIMONY, TOTAL Analysis Run 9/11/2025 11:31 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



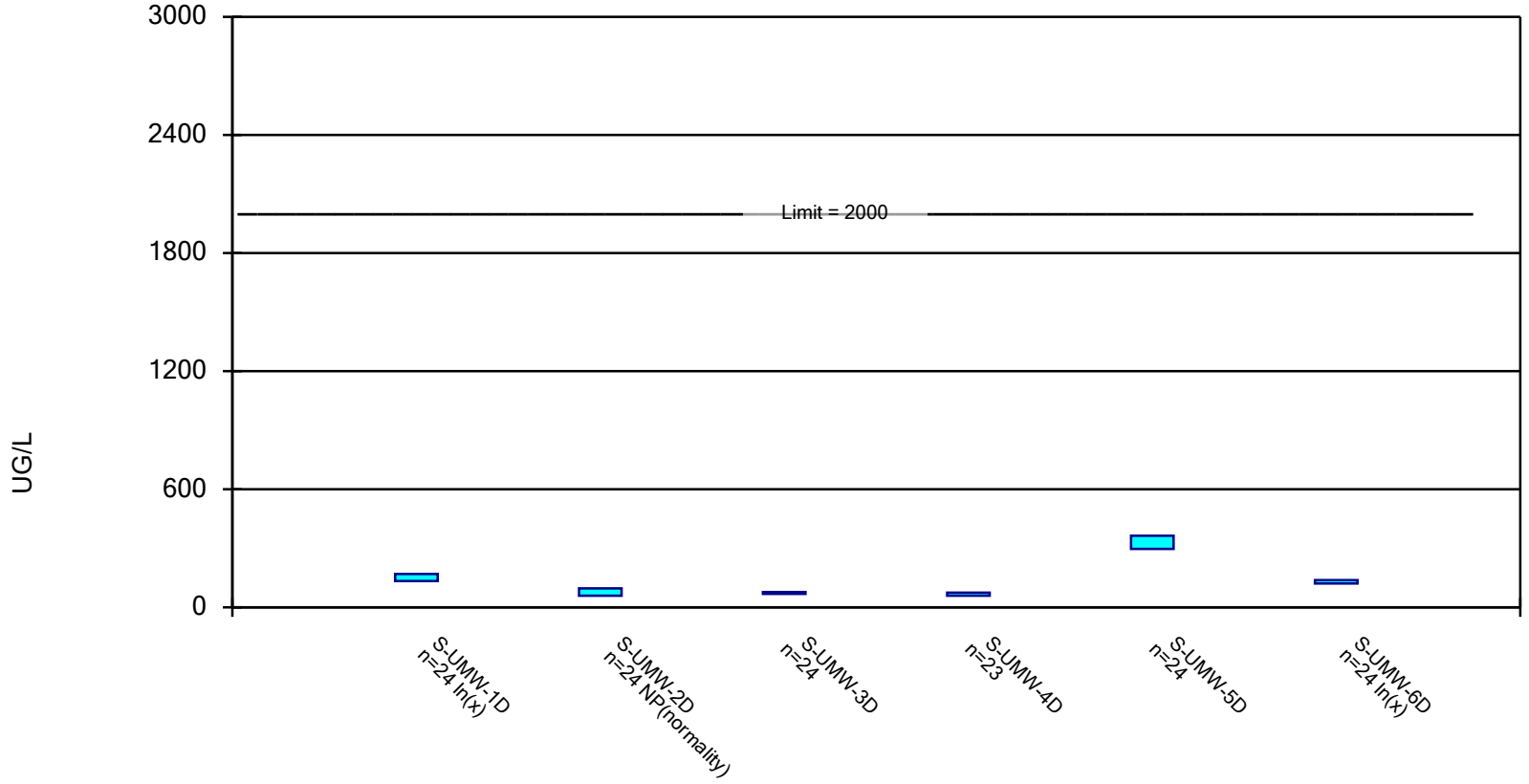
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



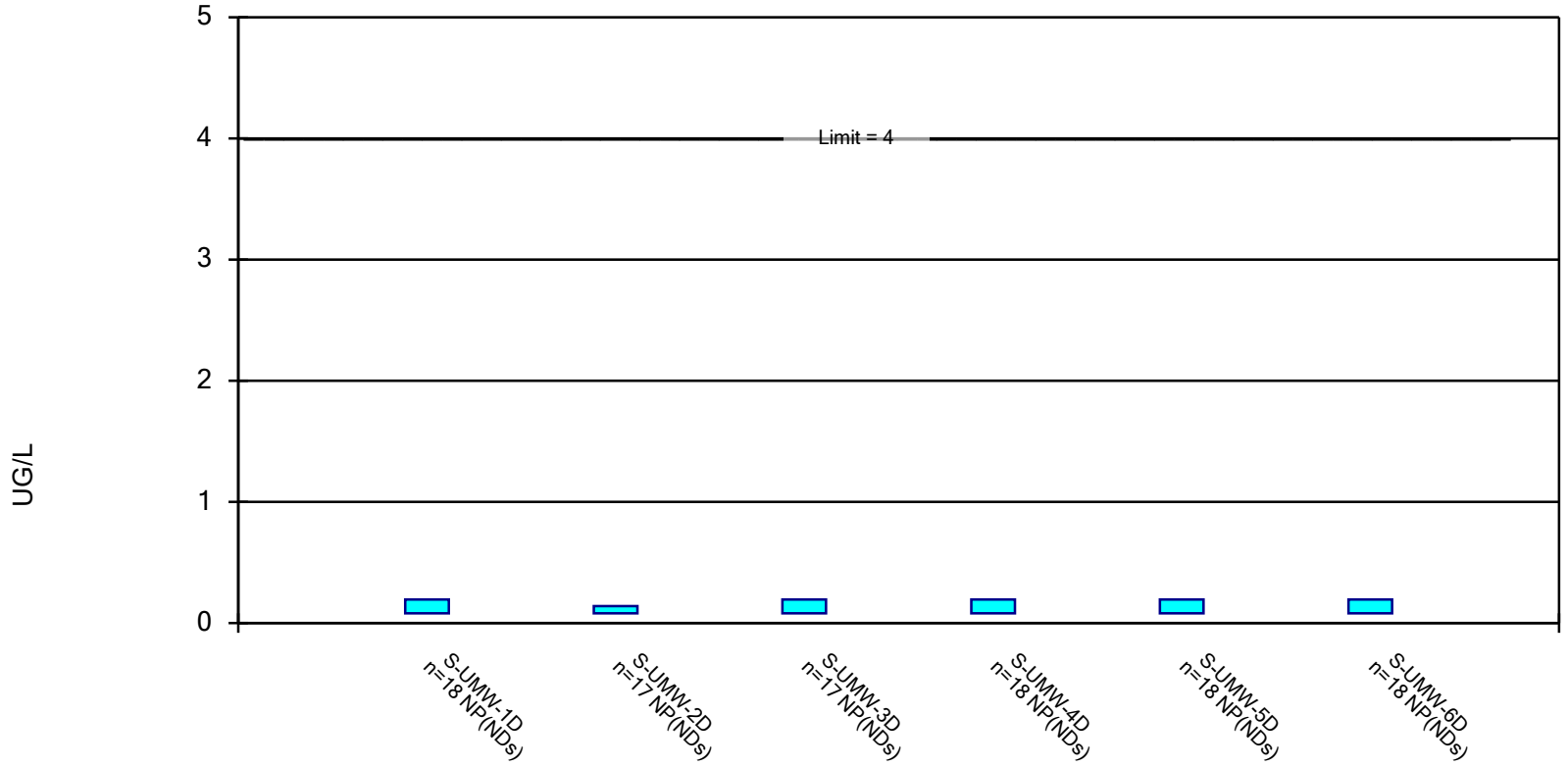
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



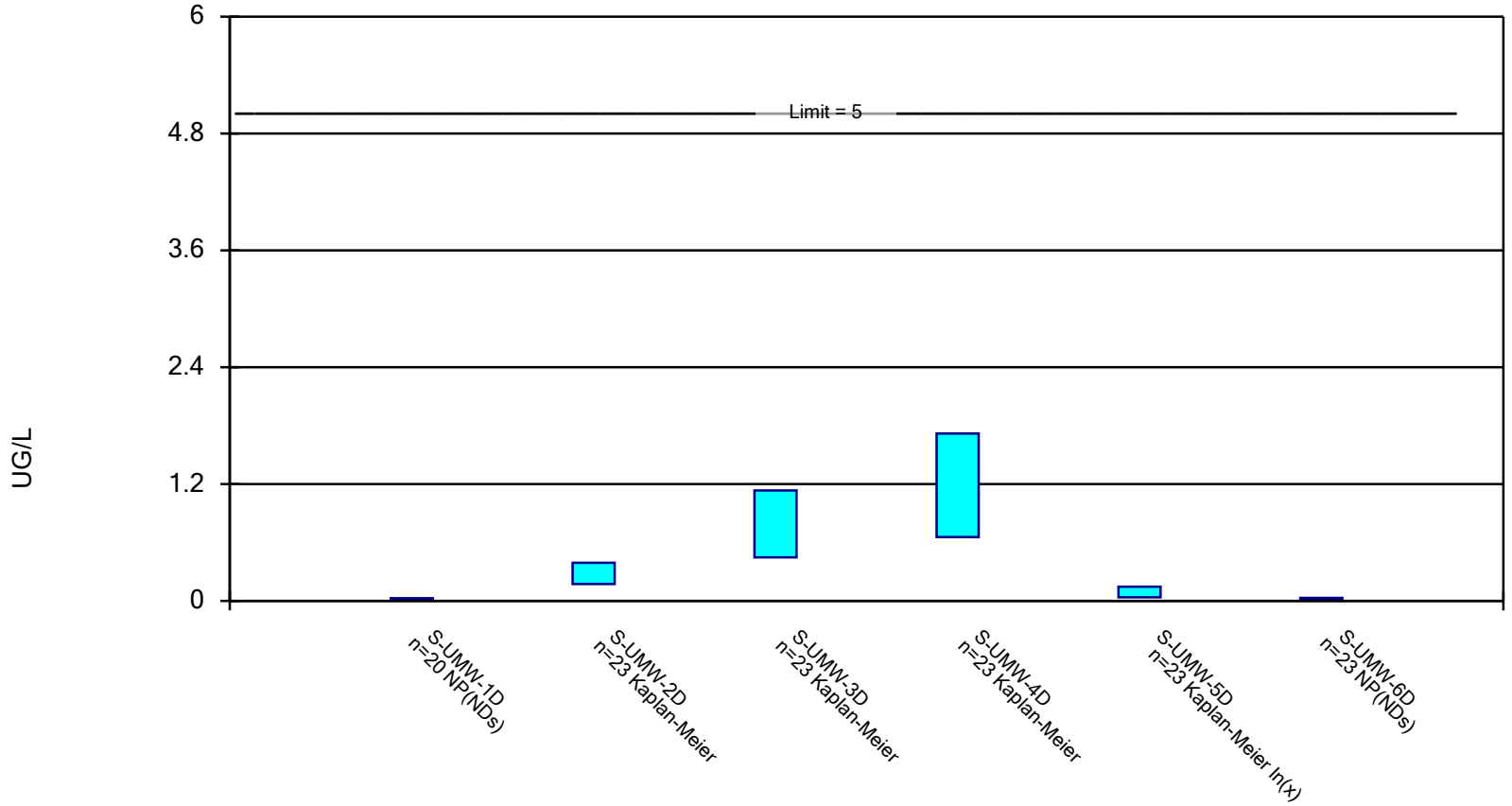
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



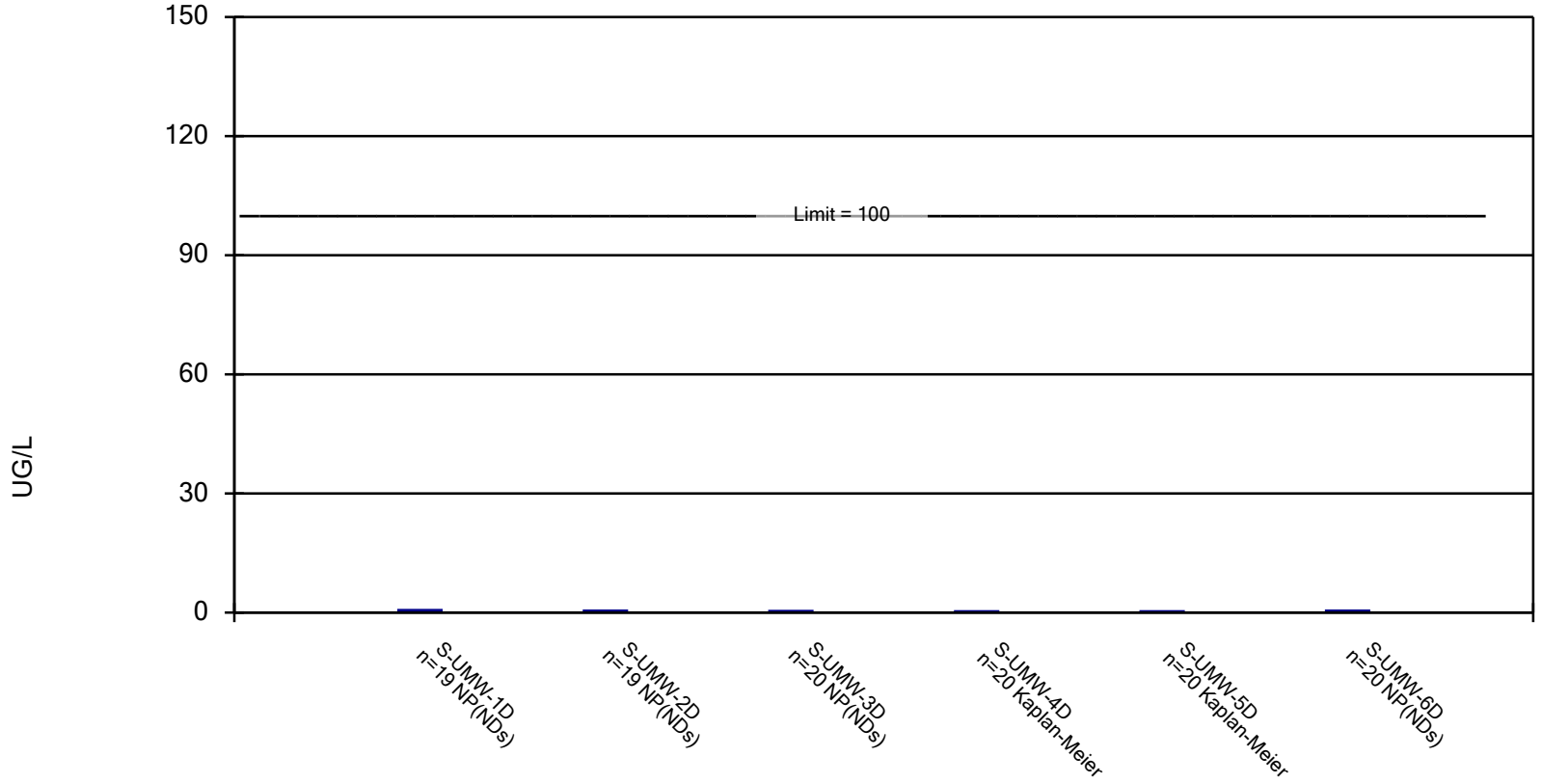
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



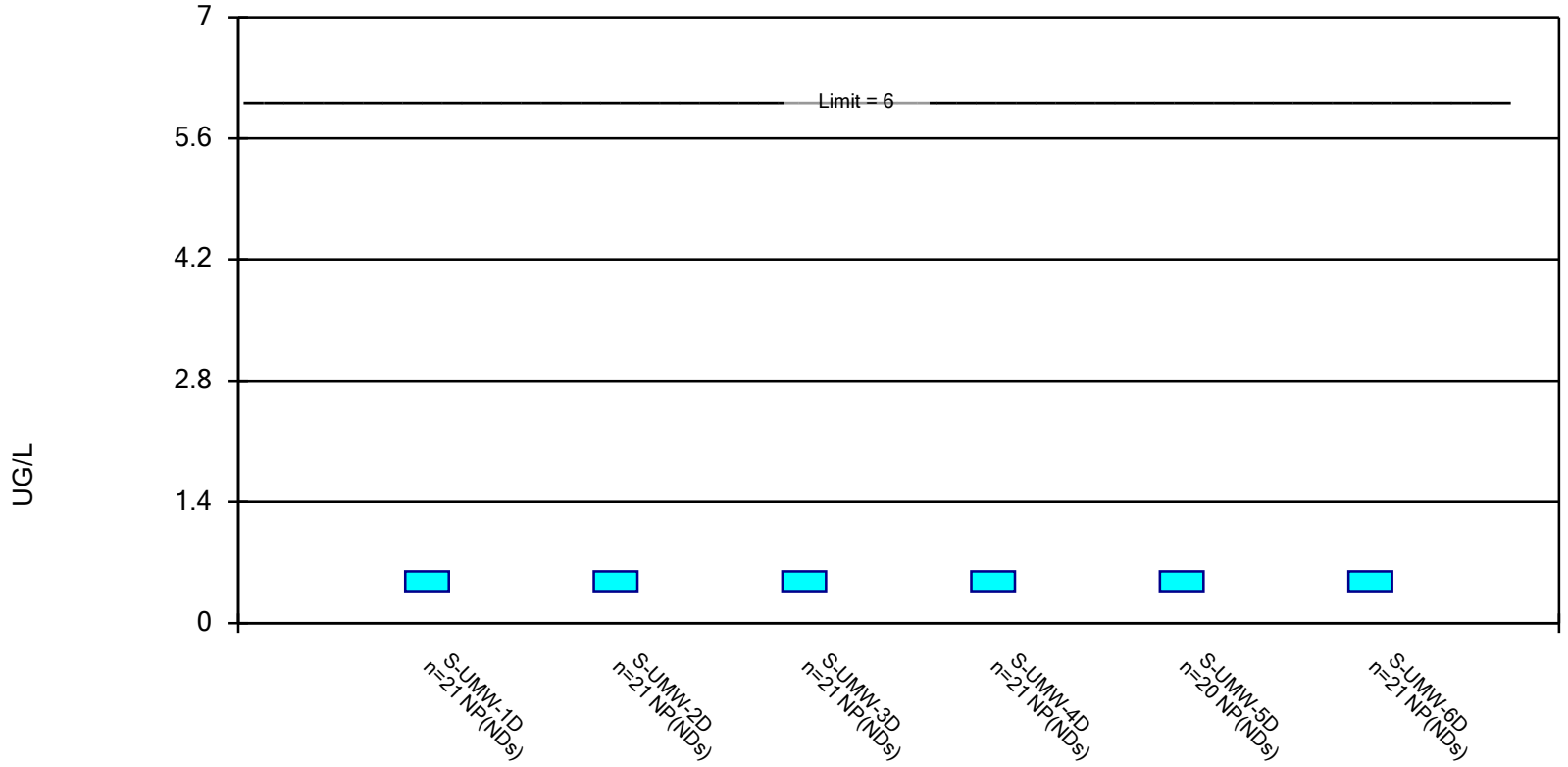
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



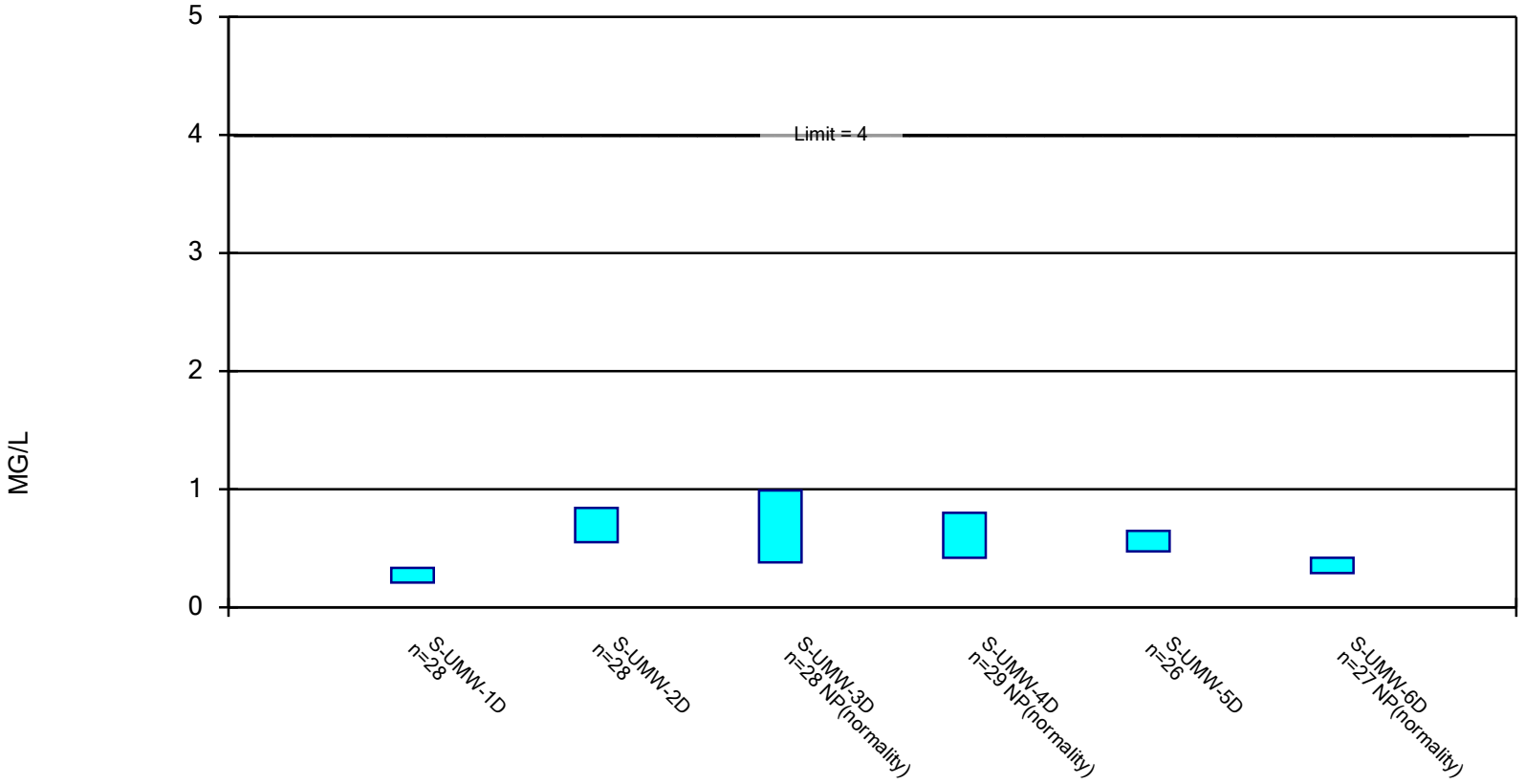
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



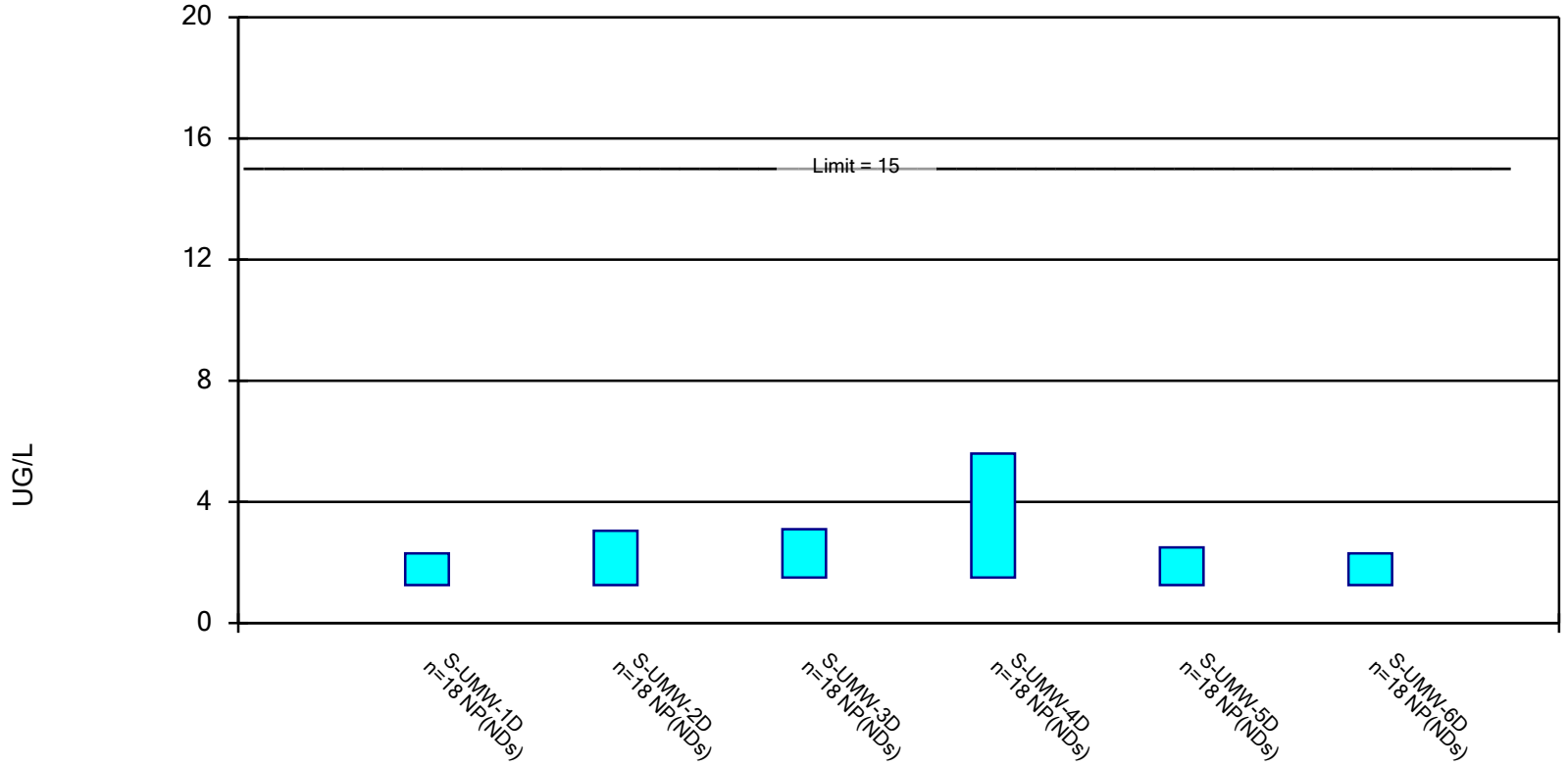
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



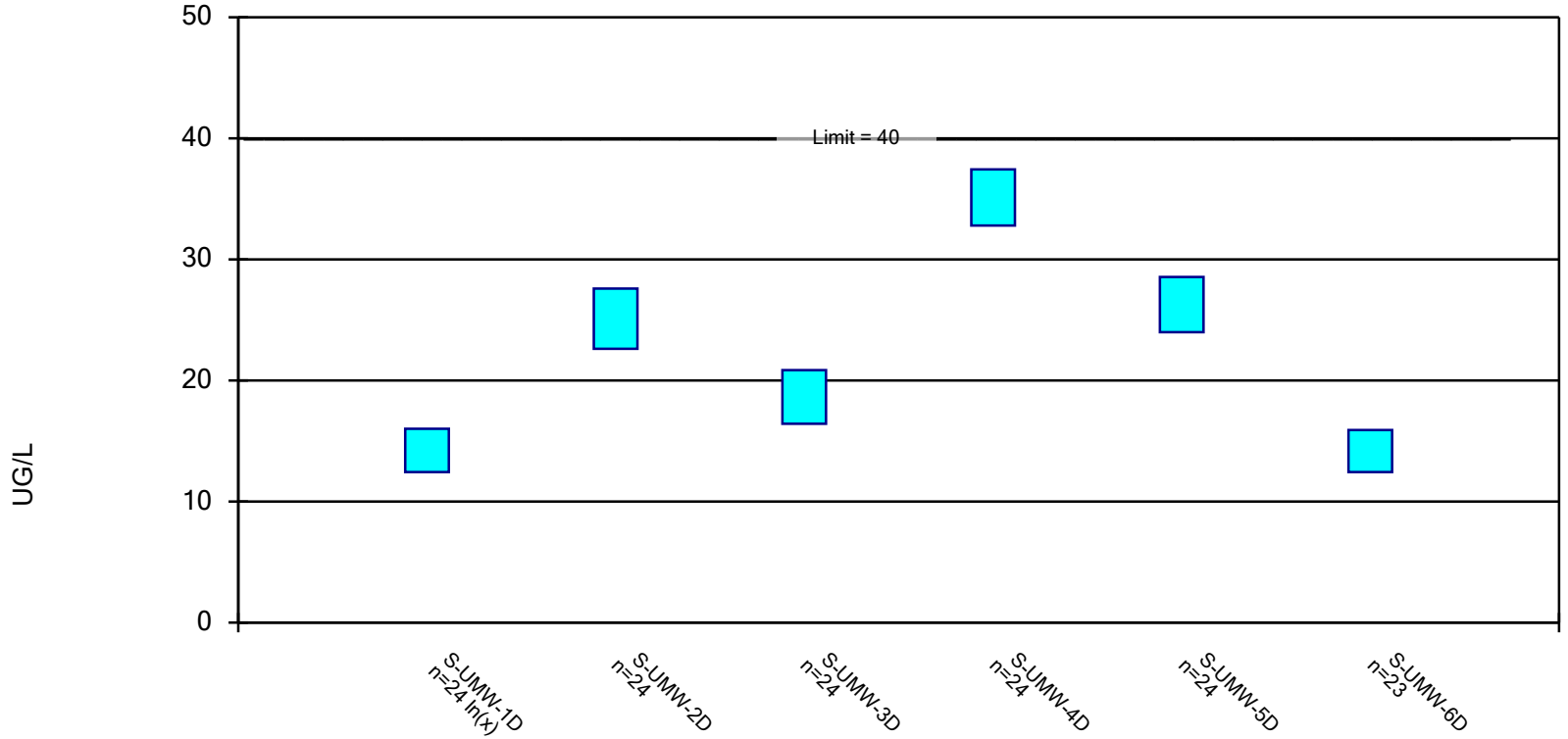
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



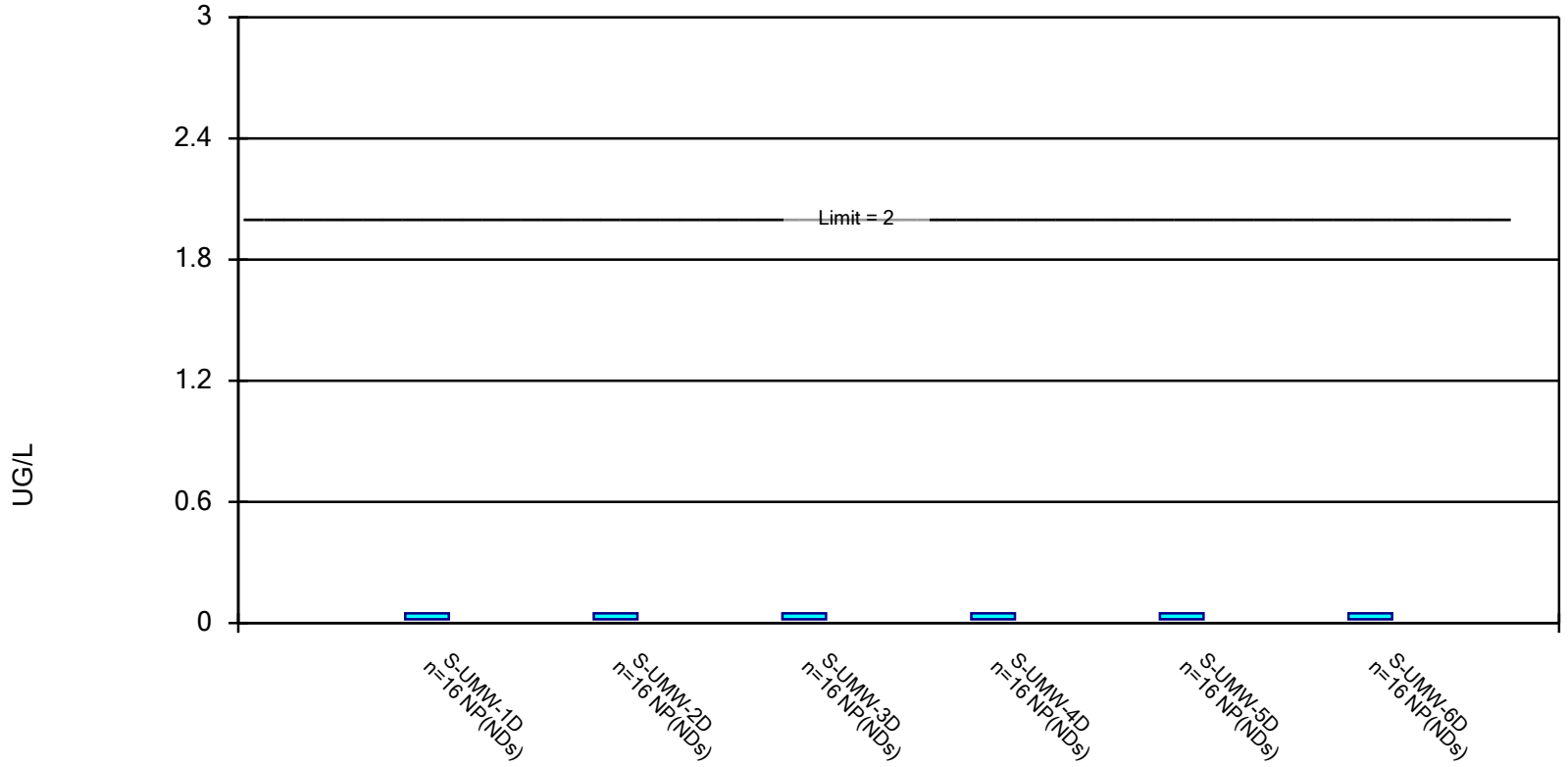
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



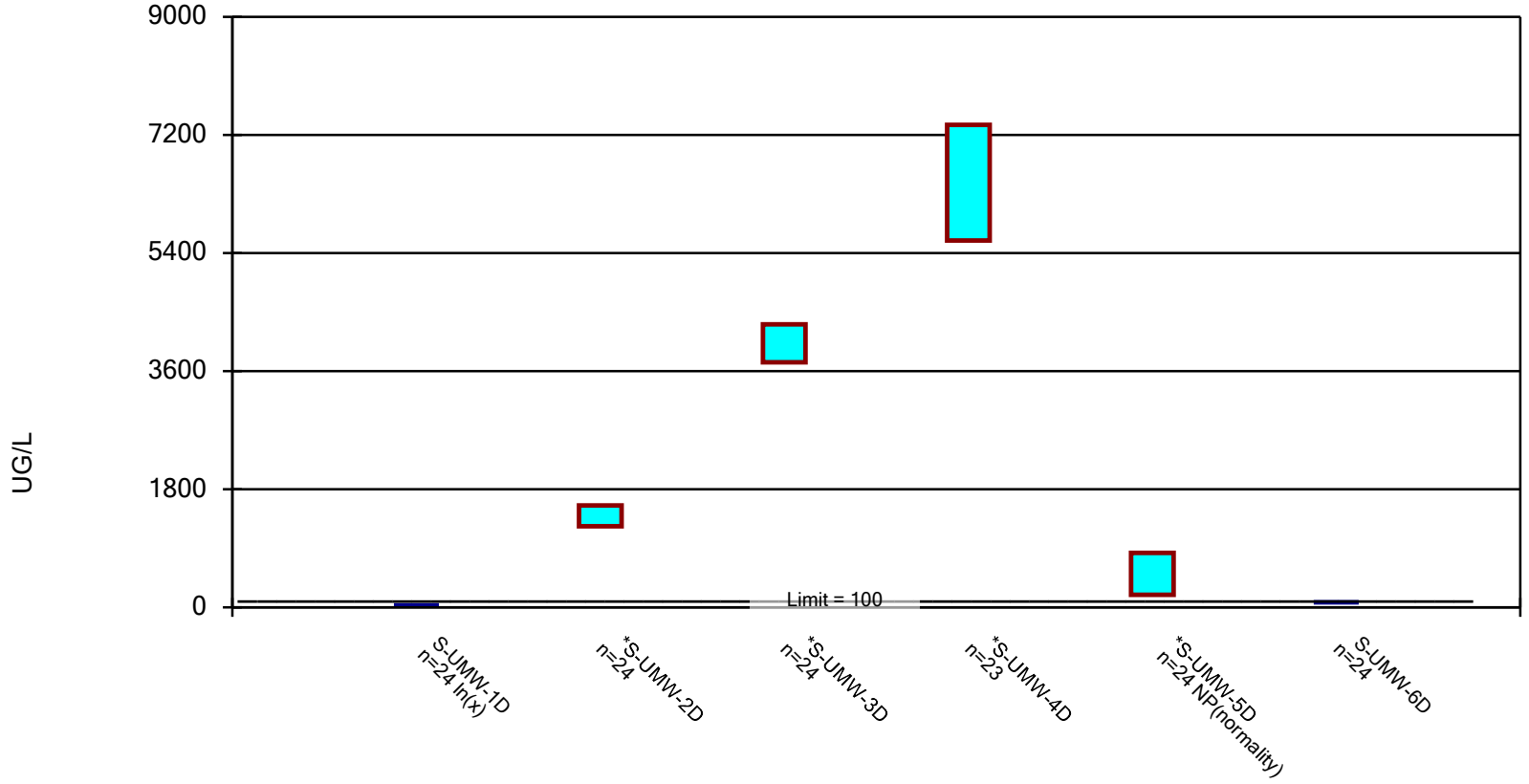
Constituent: MERCURY, TOTAL Analysis Run 9/11/2025 11:31 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



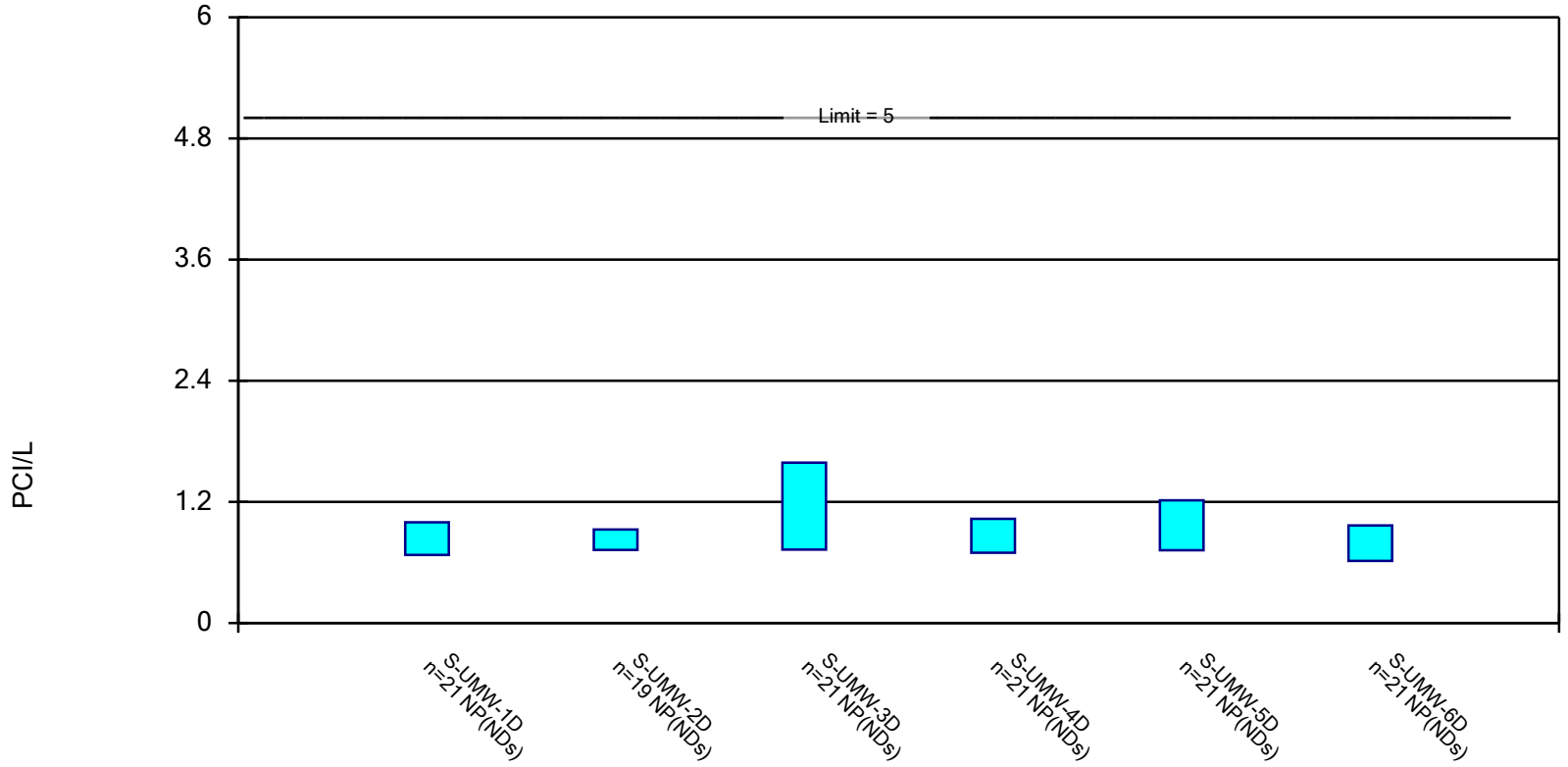
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



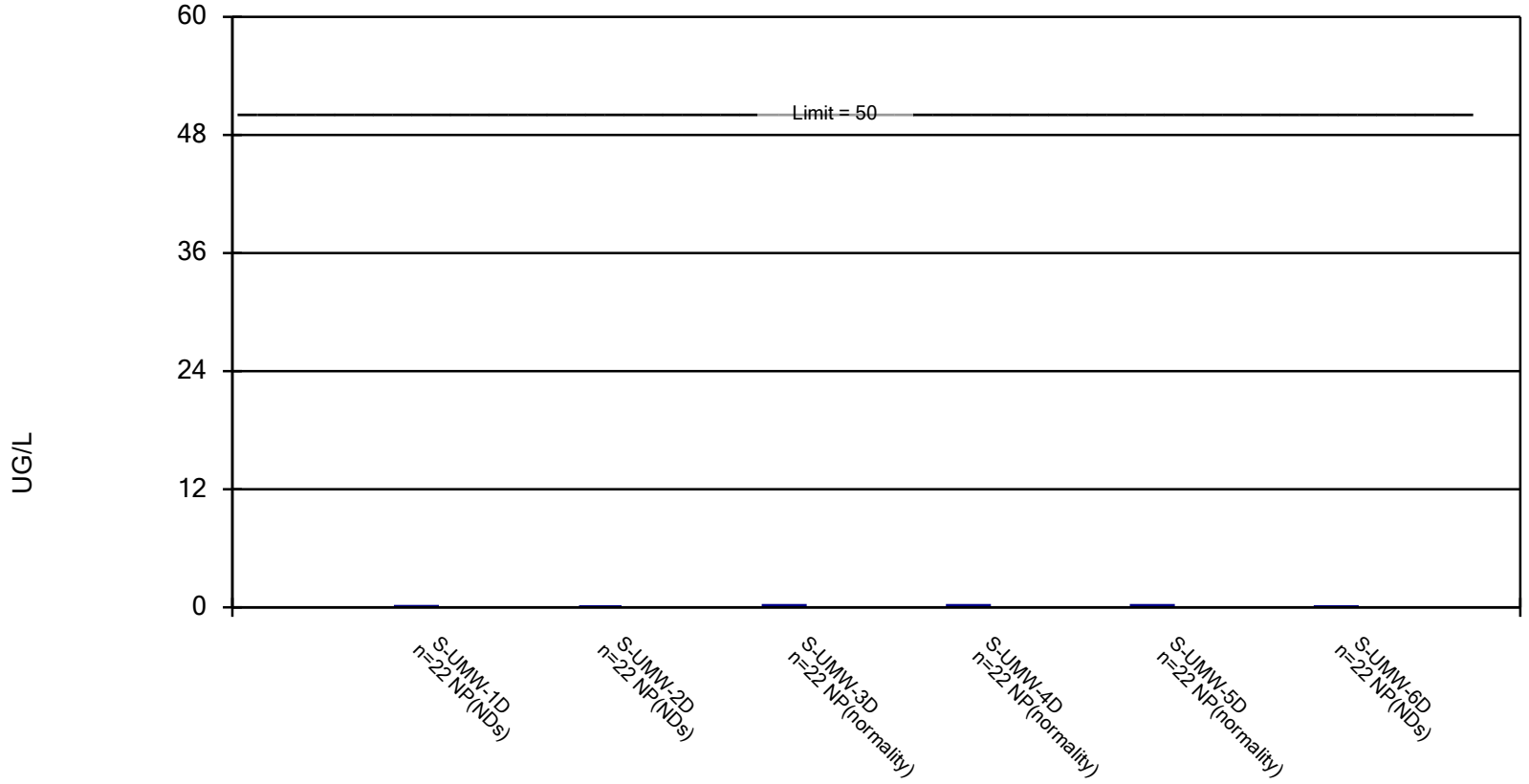
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



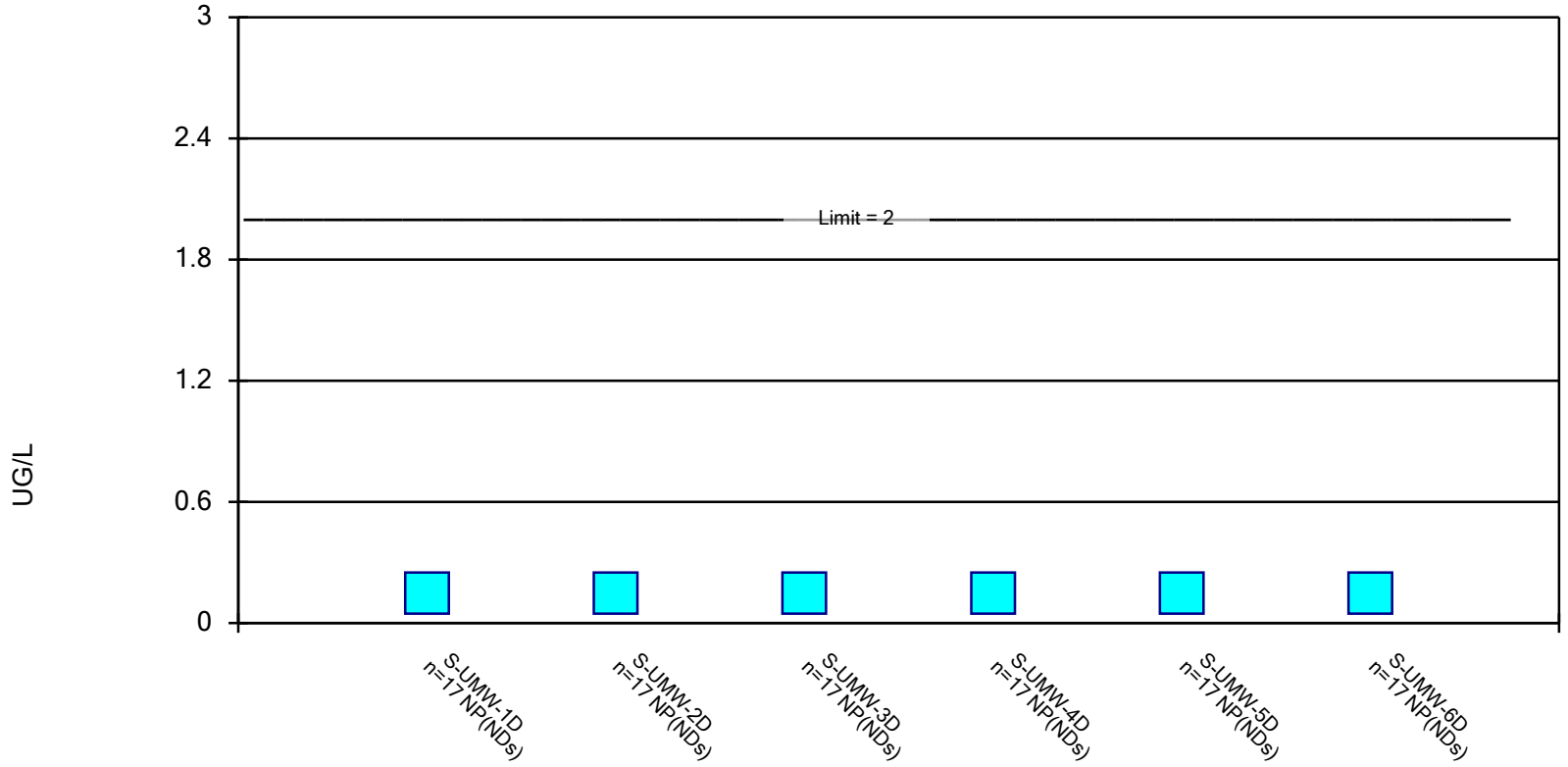
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: THALLIUM, TOTAL Analysis Run 9/11/2025 11:31 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/11/2025, 11:32 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	0.099	0.037	6	No	17	52.941	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.067	0.029	6	No	17	70.588	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-3D	0.06	0.029	6	No	16	87.5	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-4D	0.06	0.029	6	No	17	94.118	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-5D	0.06	0.013	6	No	17	100	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-6D	0.06	0.013	6	No	17	100	No	0.01	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-UMW-1D	1.7108	1.2057	10	No	23	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-2D	2.9387	2.0588	10	No	24	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-3D	0.87036	0.45348	10	No	24	8.3333	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-4D	0.39437	0.2232	10	No	23	17.391	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-5D	0.54574	0.37426	10	No	23	4.3478	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-6D	0.44088	0.28962	10	No	24	8.3333	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-1D	170.21	133.65	2000	No	24	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-2D	96.8	60	2000	No	24	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-UMW-3D	77.556	69.294	2000	No	24	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-4D	74.81	59.616	2000	No	23	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-5D	363.3	297.45	2000	No	24	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UMW-6D	138.1	121.17	2000	No	24	0	ln(x)	0.01	Param.
BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-2D	0.14	0.08	4	No	17	94.118	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.028	0.0145	5	No	20	90	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-2D	0.39073	0.17349	5	No	23	30.435	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-3D	1.1356	0.44817	5	No	23	21.739	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-4D	1.7179	0.65626	5	No	23	17.391	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.14699	0.037272	5	No	23	39.13	ln(x)	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.03	0.0145	5	No	23	82.609	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-1D	0.65	0.15	100	No	19	52.632	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-2D	0.5	0.12	100	No	19	57.895	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-3D	0.39	0.11	100	No	20	60	No	0.01	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-UMW-4D	0.2892	0.11861	100	No	20	50	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UMW-5D	0.35705	0.12526	100	No	20	50	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UMW-6D	0.5	0.1	100	No	20	55	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-1D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-2D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-3D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-4D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-5D	0.6	0.36	6	No	20	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-6D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	0.33474	0.21026	4	No	28	10.714	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-2D	0.84249	0.55201	4	No	28	3.5714	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-3D	0.99	0.38	4	No	28	17.857	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-4D	0.8	0.42	4	No	29	10.345	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	0.6471	0.47444	4	No	26	0	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	0.42	0.29	4	No	27	18.519	No	0.01	NP (normality)
LEAD, TOTAL (UG/L)	S-UMW-1D	2.3	1.25	15	No	18	88.889	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-2D	3.05	1.25	15	No	18	77.778	No	0.01	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/11/2025, 11:32 AM

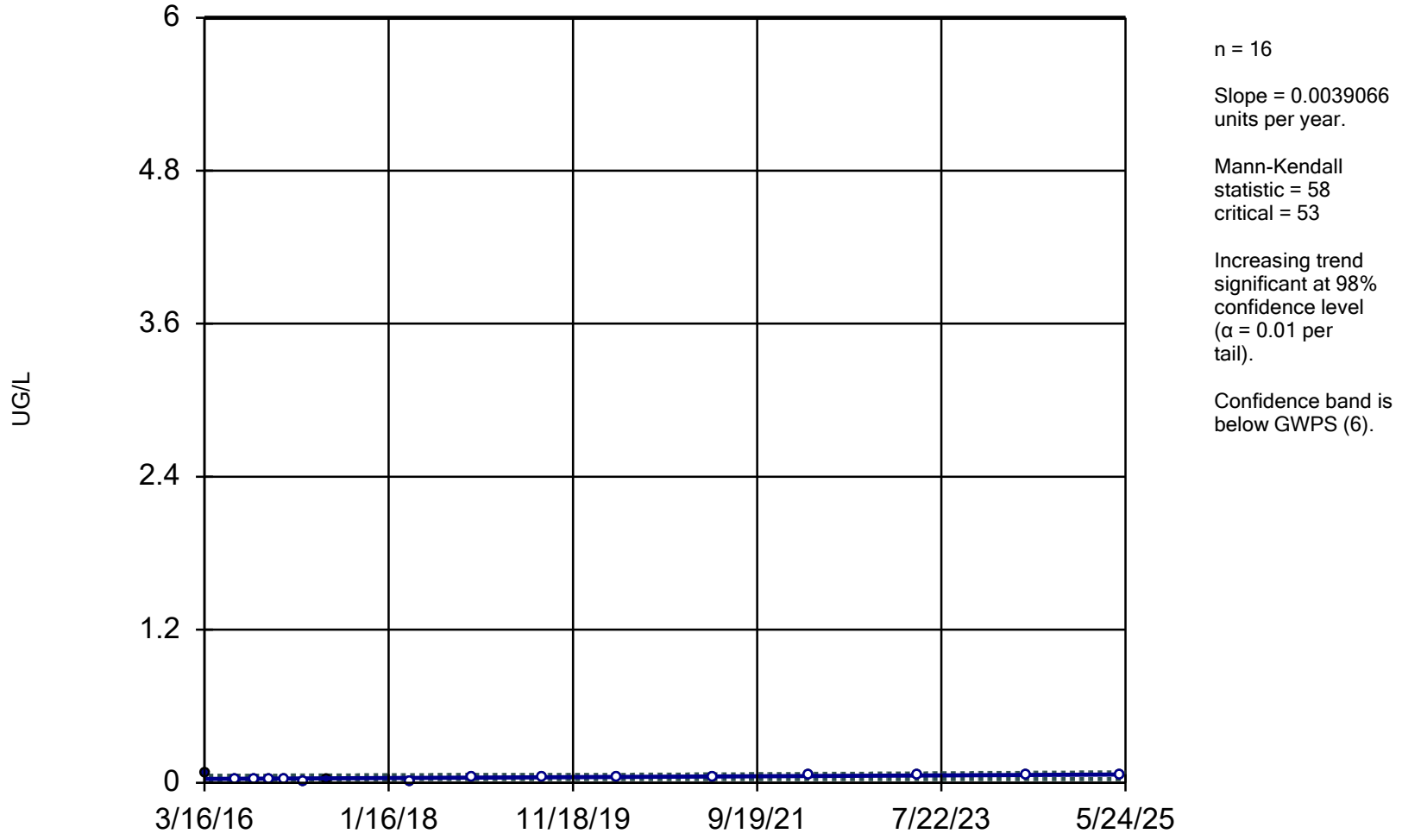
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
LEAD, TOTAL (UG/L)	S-UMW-3D	3.1	1.5	15	No	18	66.667	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-4D	5.6	1.5	15	No	18	61.111	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-5D	2.5	1.25	15	No	18	83.333	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-6D	2.3	1.25	15	No	18	88.889	No	0.01	NP (NDs)
LITHIUM, TOTAL (UG/L)	S-UMW-1D	16.008	12.441	40	No	24	0	ln(x)	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-2D	27.595	22.622	40	No	24	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-3D	20.861	16.414	40	No	24	4.1667	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-4D	37.433	32.8	40	No	24	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-5D	28.535	23.99	40	No	24	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-6D	15.9	12.448	40	No	23	0	No	0.01	Param.
MERCURY, TOTAL (UG/L)	S-UMW-1D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-2D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-3D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-4D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-5D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-6D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-UMW-1D	47.449	30.749	100	No	24	0	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-2D**	**1553.7**	**1237.3**	**100**	**Yes**	**24**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-3D**	**4310.9**	**3736.6**	**100**	**Yes**	**24**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-4D**	**7352.7**	**5590.8**	**100**	**Yes**	**23**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-5D**	**832**	**191**	**100**	**Yes**	**24**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-6D	92.433	62.609	100	No	24	0	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.999	0.6755	5	No	21	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-2D	0.9265	0.723	5	No	19	94.737	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	1.5895	0.7275	5	No	21	71.429	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	1.033	0.6975	5	No	21	85.714	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	1.216	0.7215	5	No	21	76.19	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.9675	0.6145	5	No	21	95.238	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0.13	0.043	50	No	22	86.364	No	0.01	NP (NDs)
SELENIUM, TOTAL (units)	S-UMW-2D	0.094	0.09	50	No	22	81.818	No	0.01	NP (NDs)
SELENIUM, TOTAL (units)	S-UMW-3D	0.23	0.09	50	No	22	36.364	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-4D	0.21	0.09	50	No	22	36.364	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-5D	0.21	0.09	50	No	22	40.909	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0.09	0.043	50	No	22	100	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-1D	0.25	0.047	2	No	17	94.118	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-2D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-3D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-4D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-5D	0.25	0.0465	2	No	17	94.118	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-6D	0.25	0.0465	2	No	17	100	No	0.01	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 16

Slope = 0.0039066 units per year.

Mann-Kendall statistic = 58
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

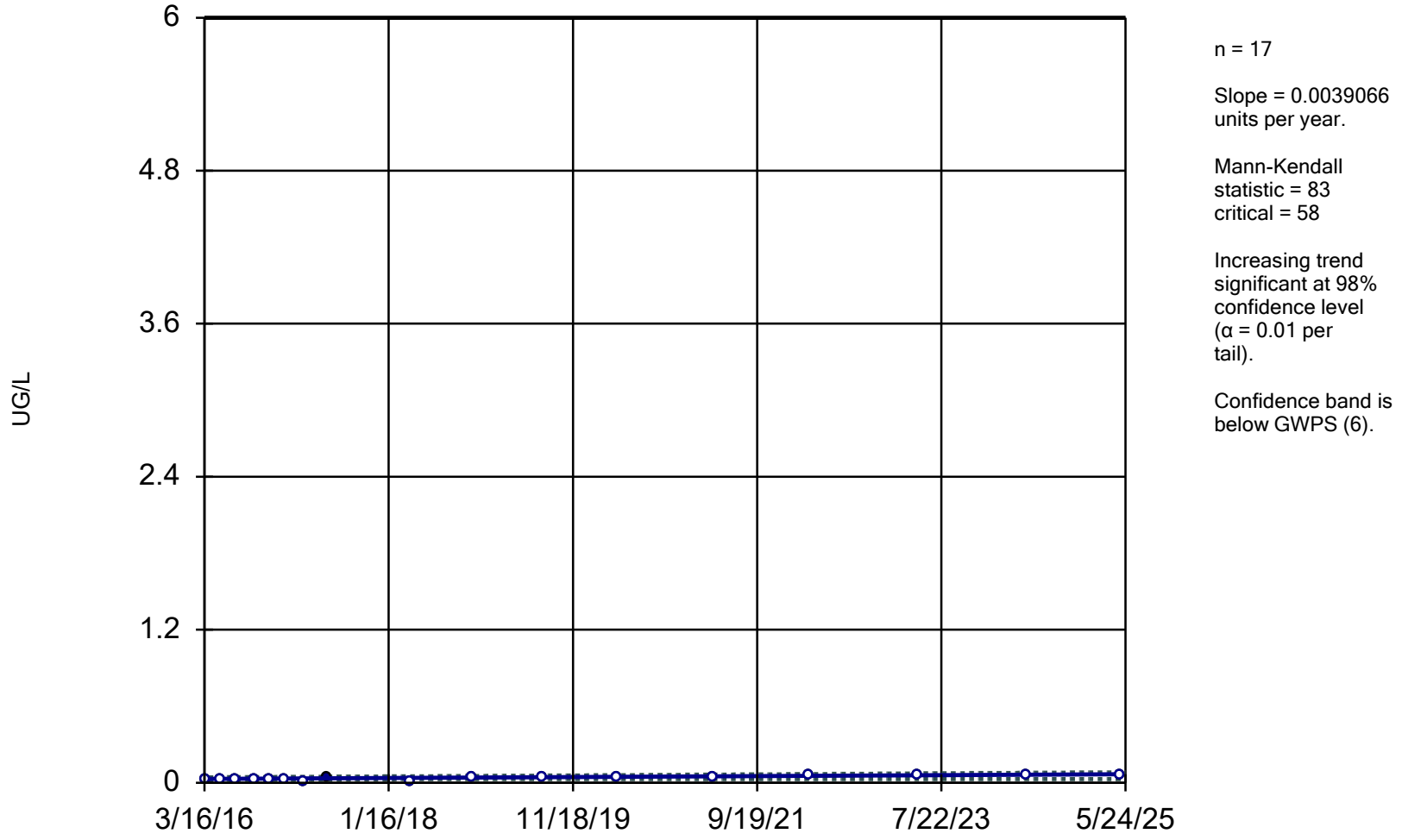
Constituent: ANTIMONY, TOTAL Analysis Run 9/11/2025 11:33 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 17

Slope = 0.0039066 units per year.

Mann-Kendall statistic = 83
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

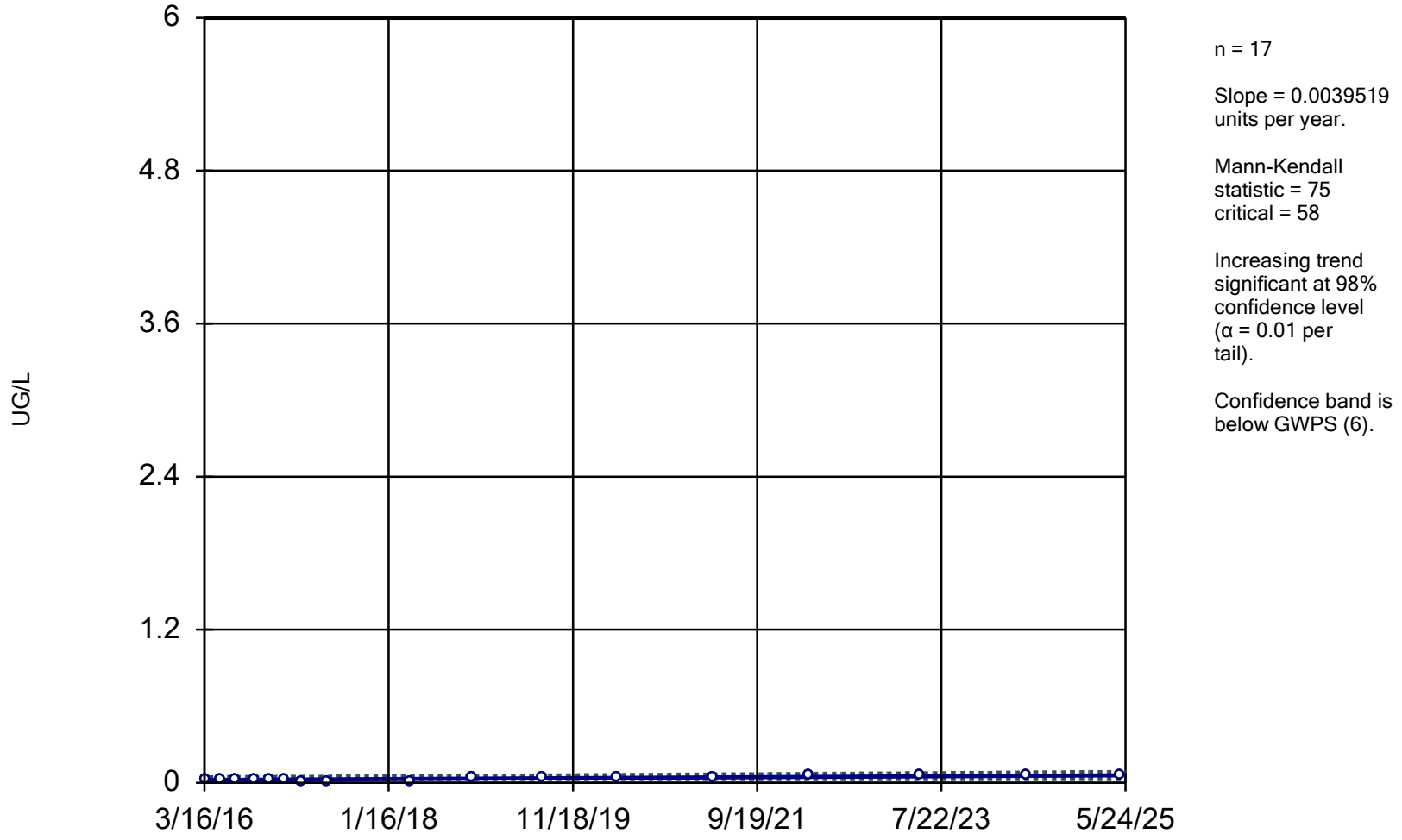
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 17

Slope = 0.0039519 units per year.

Mann-Kendall statistic = 75
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

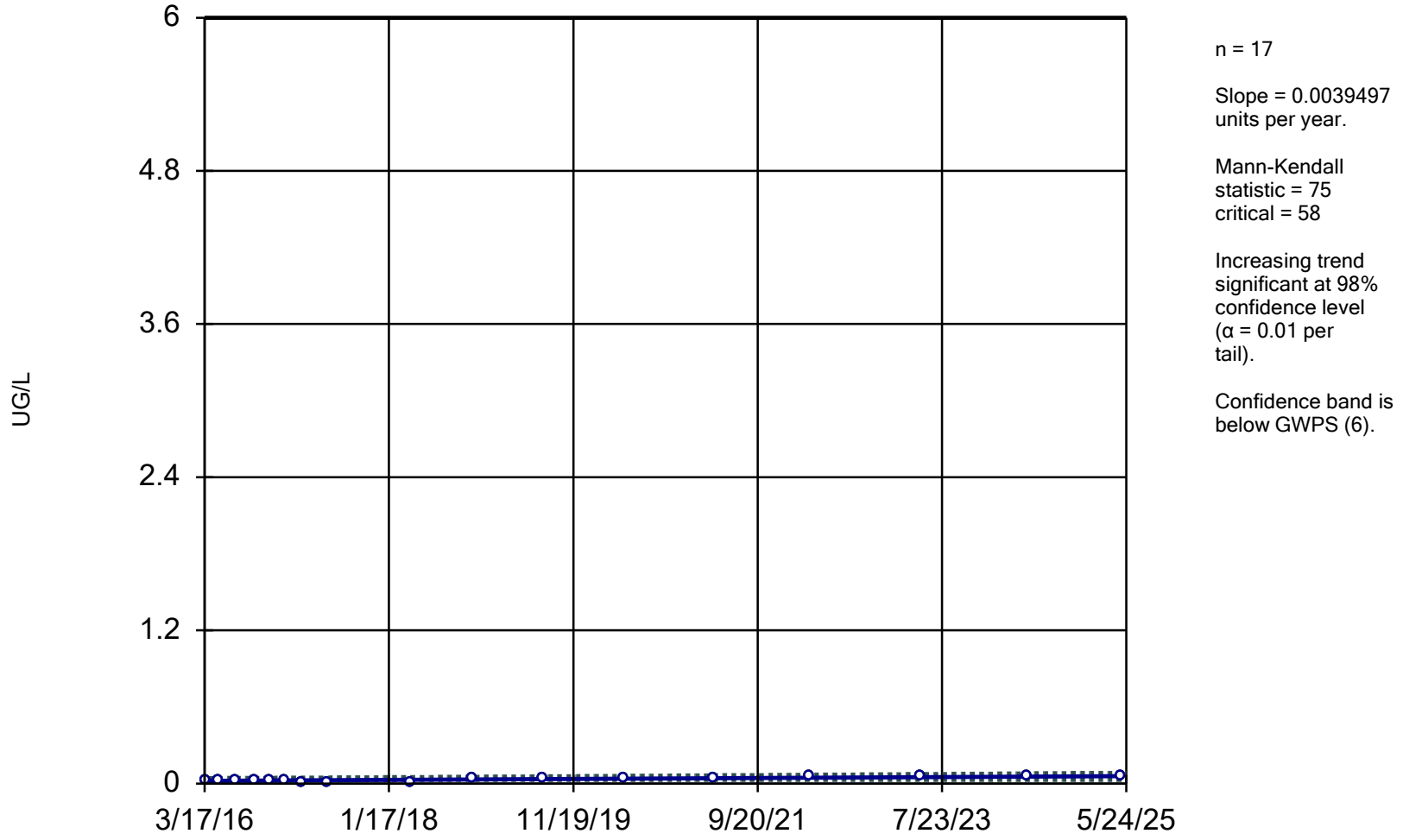
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 17

Slope = 0.0039497 units per year.

Mann-Kendall statistic = 75
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

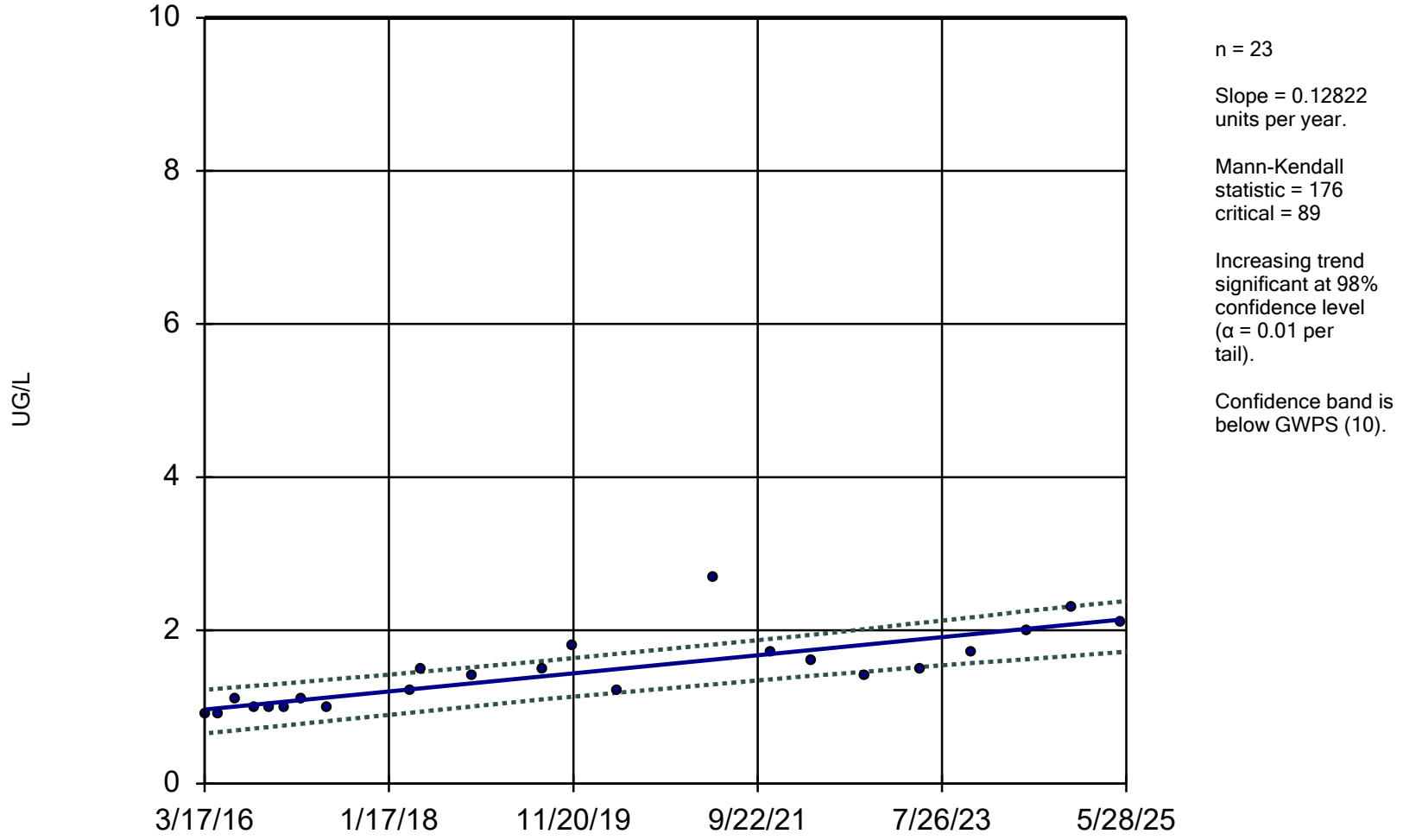
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 23

Slope = 0.12822 units per year.

Mann-Kendall statistic = 176
critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

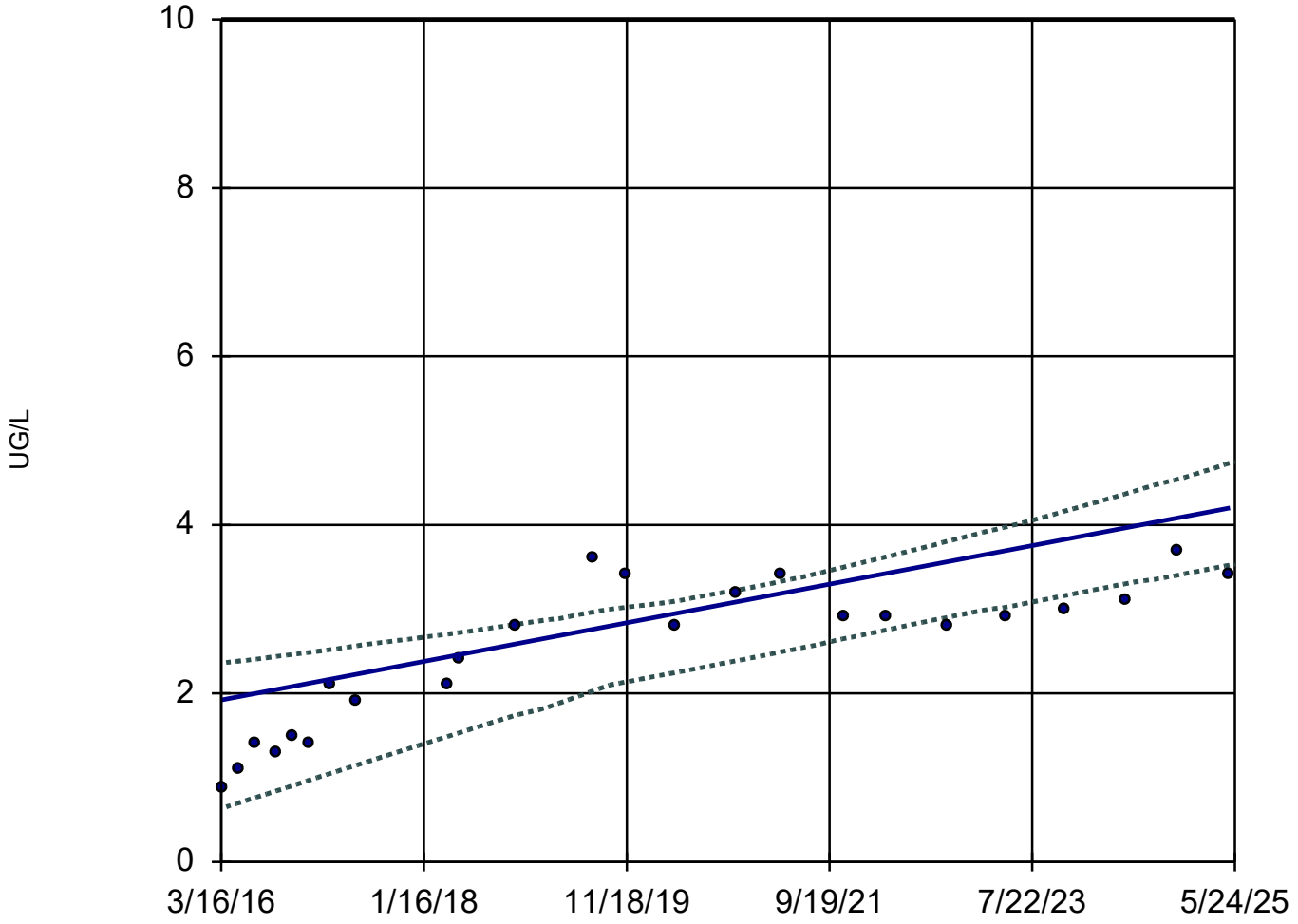
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 24

Slope = 0.24878 units per year.

Mann-Kendall statistic = 191
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

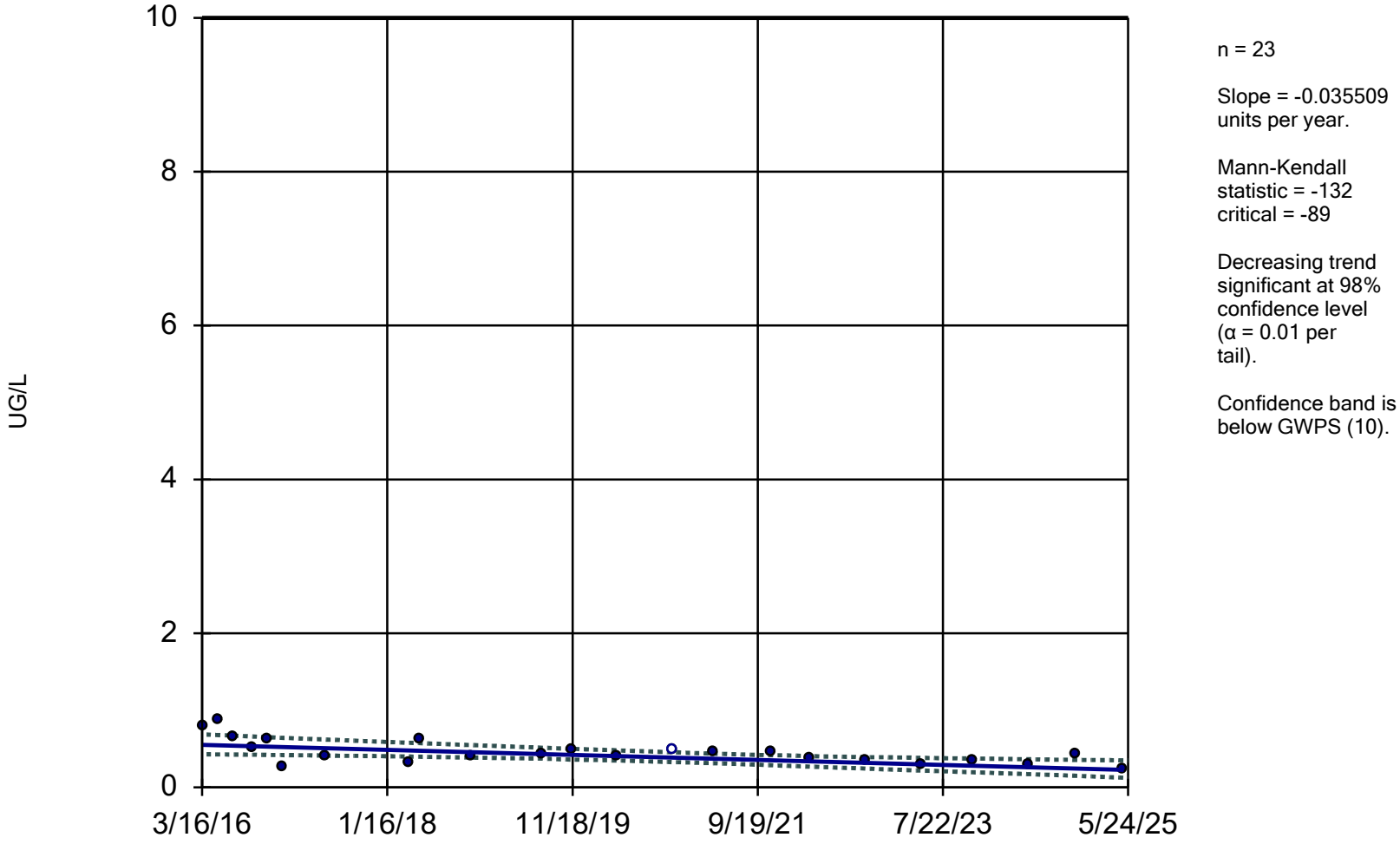
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 23

Slope = -0.035509 units per year.

Mann-Kendall statistic = -132
critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

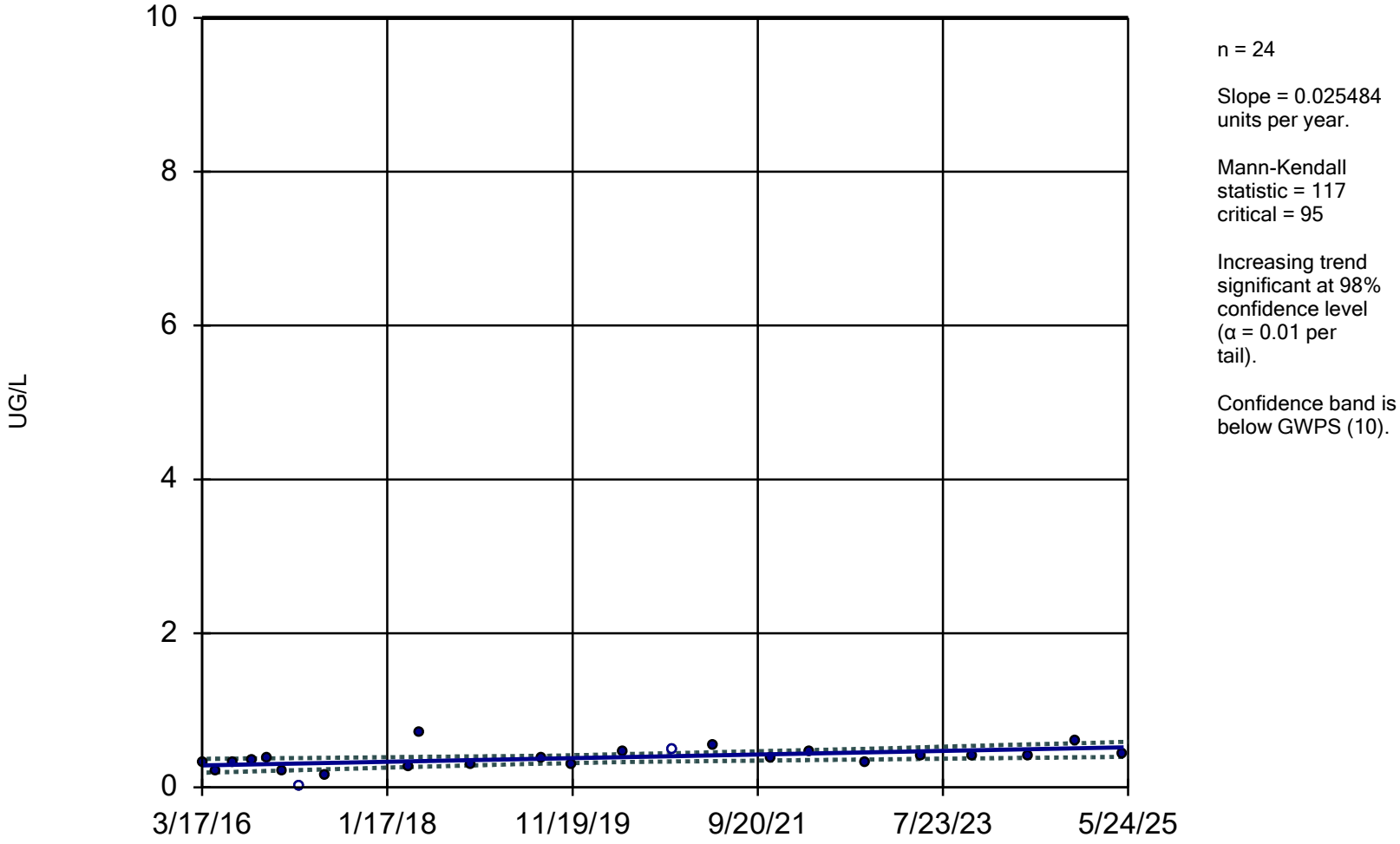
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 24

Slope = 0.025484 units per year.

Mann-Kendall statistic = 117
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

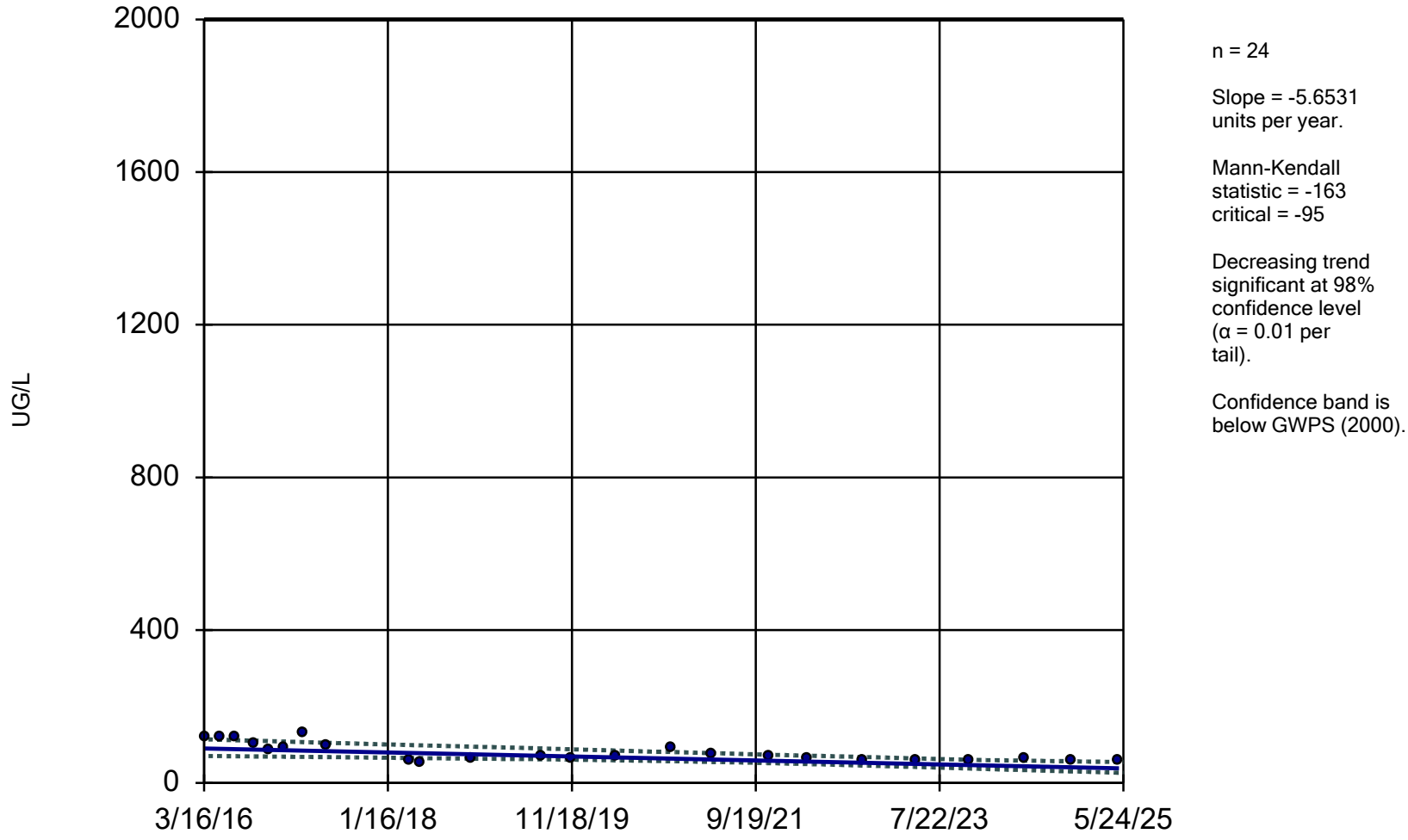
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 24

Slope = -5.6531 units per year.

Mann-Kendall statistic = -163
critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

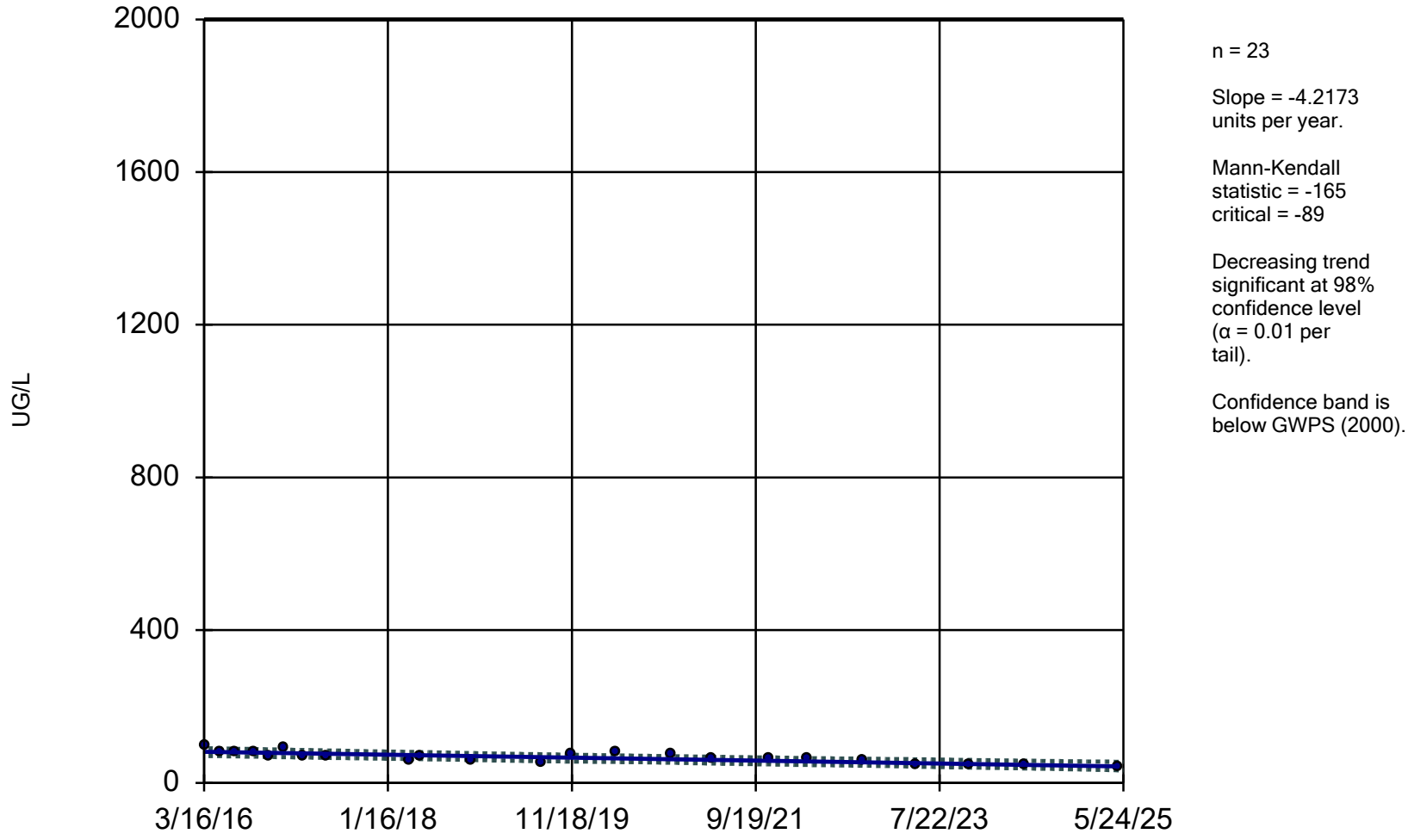
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 23

Slope = -4.2173 units per year.

Mann-Kendall statistic = -165 critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

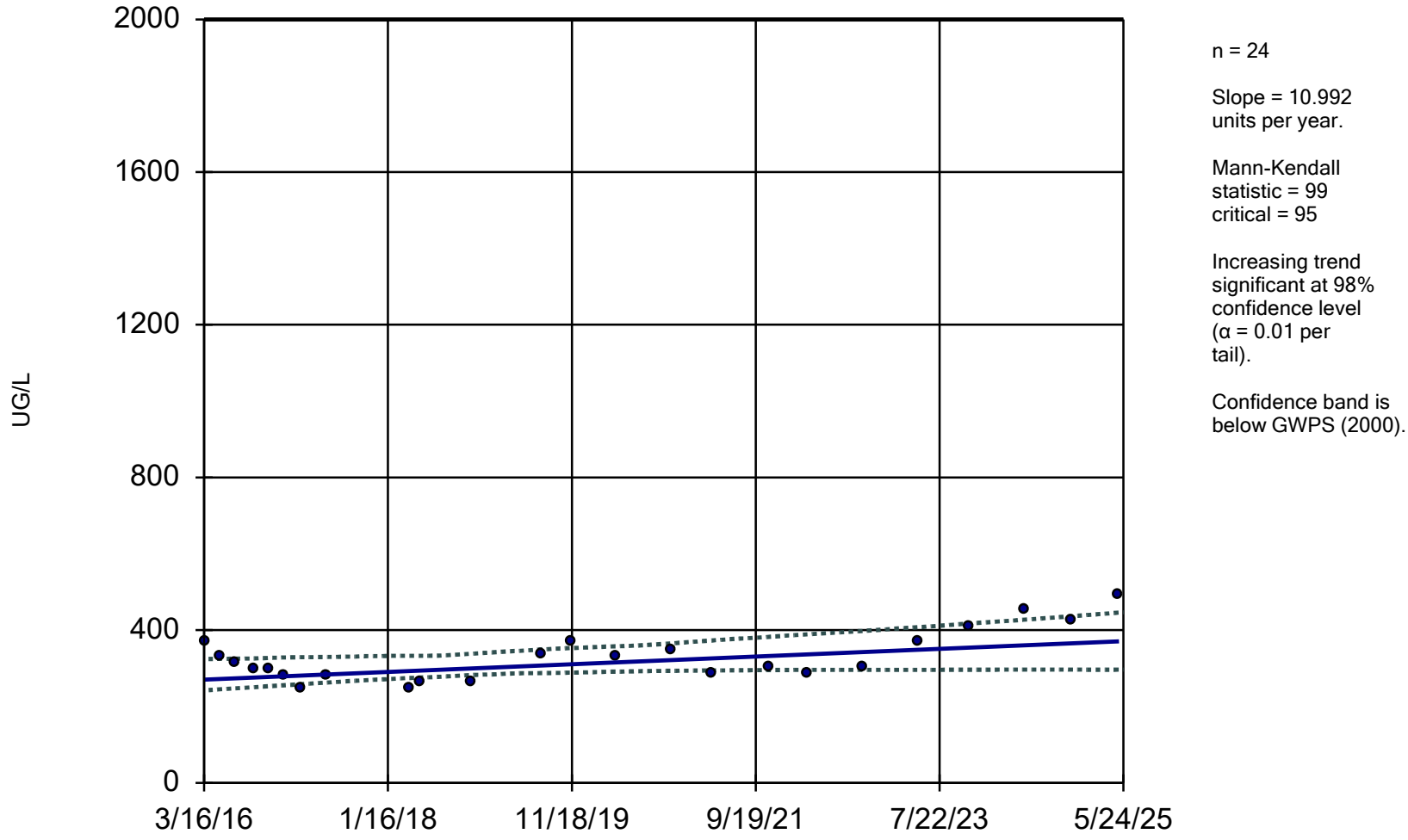
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 24

Slope = 10.992 units per year.

Mann-Kendall statistic = 99
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

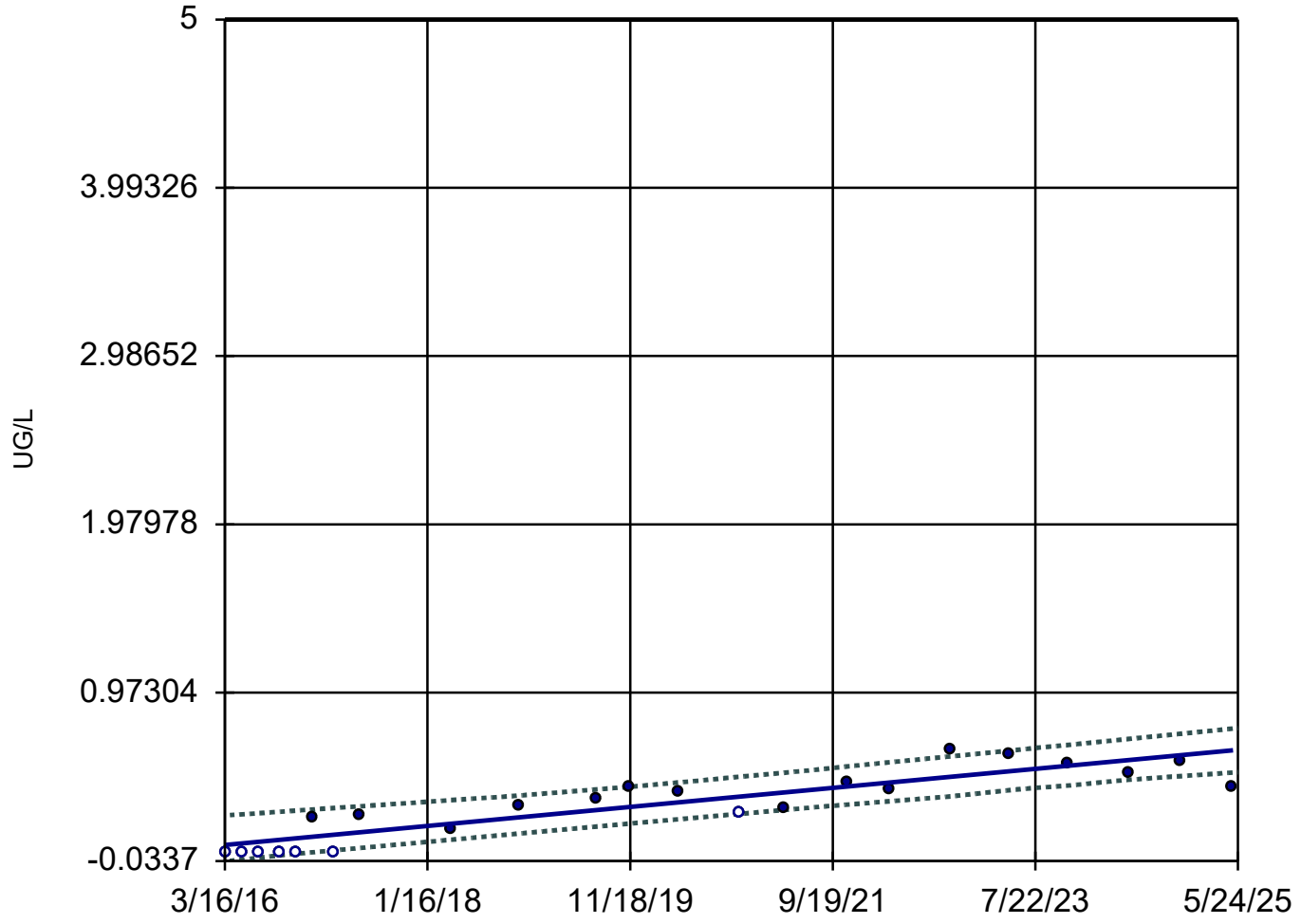
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 23

Slope = 0.06189 units per year.

Mann-Kendall statistic = 176 critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

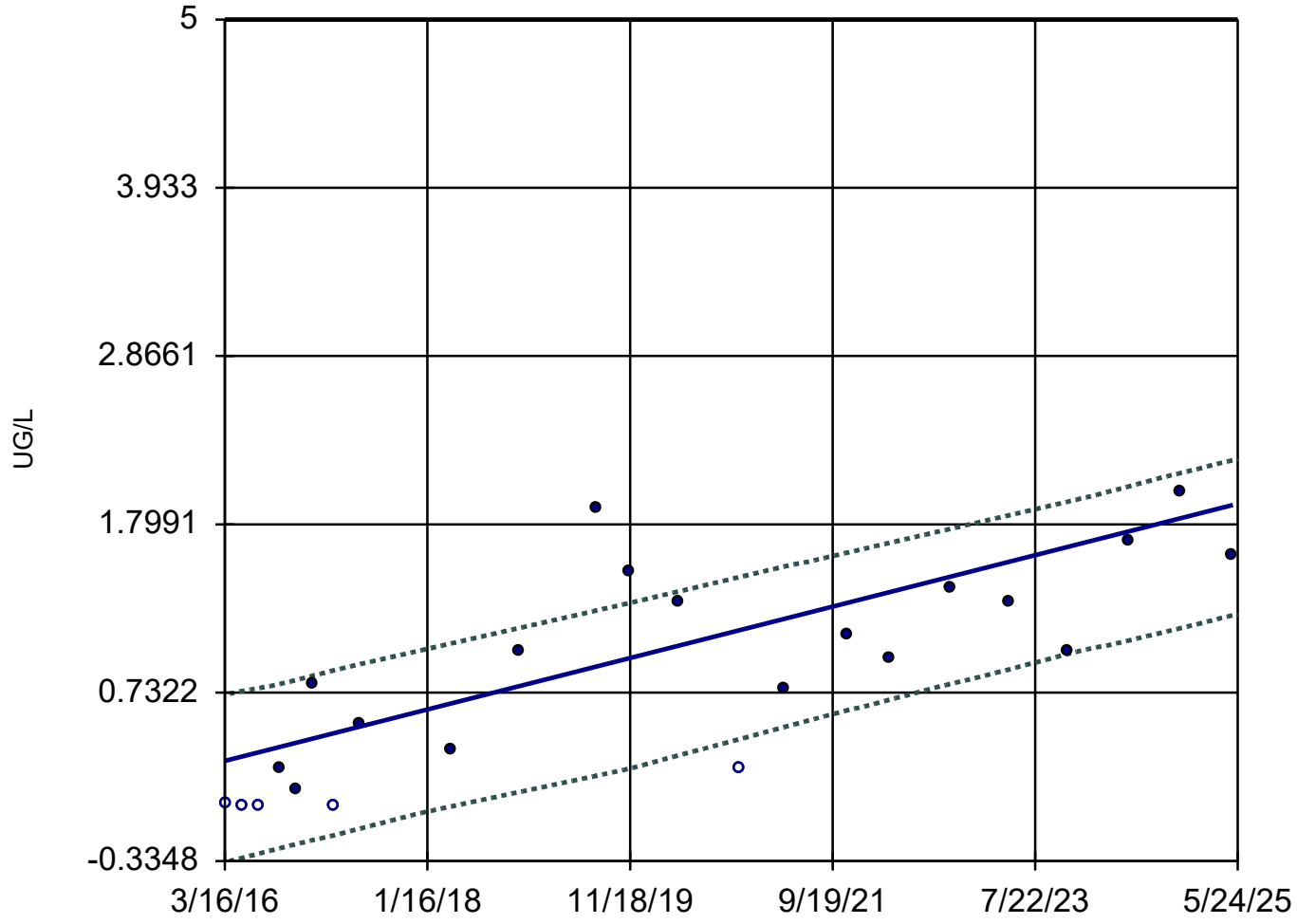
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 23

Slope = 0.17718 units per year.

Mann-Kendall statistic = 149
critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

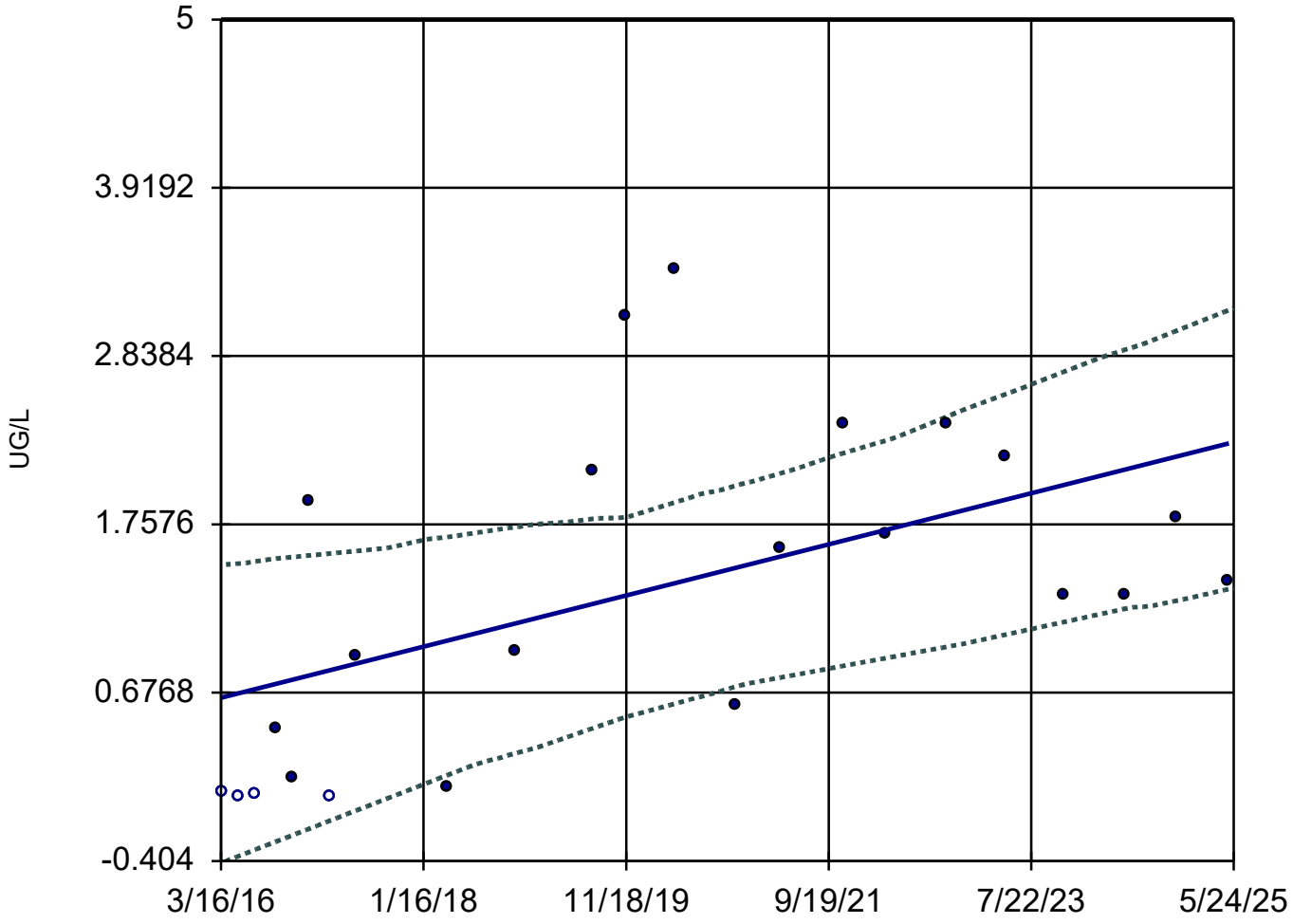
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 23

Slope = 0.17856 units per year.

Mann-Kendall statistic = 105 critical = 89

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

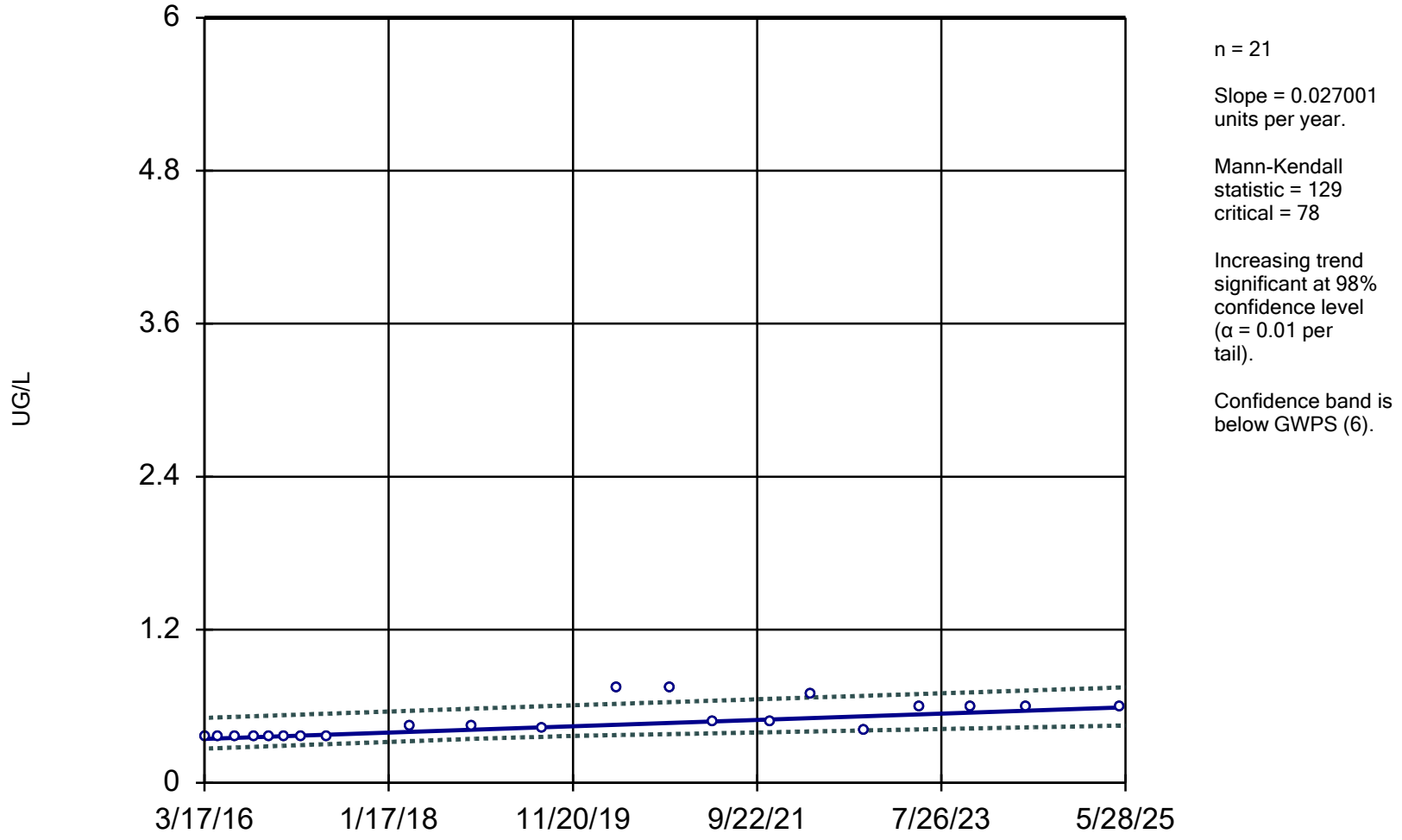
Constituent: CADMIUM, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 21

Slope = 0.027001 units per year.

Mann-Kendall statistic = 129
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

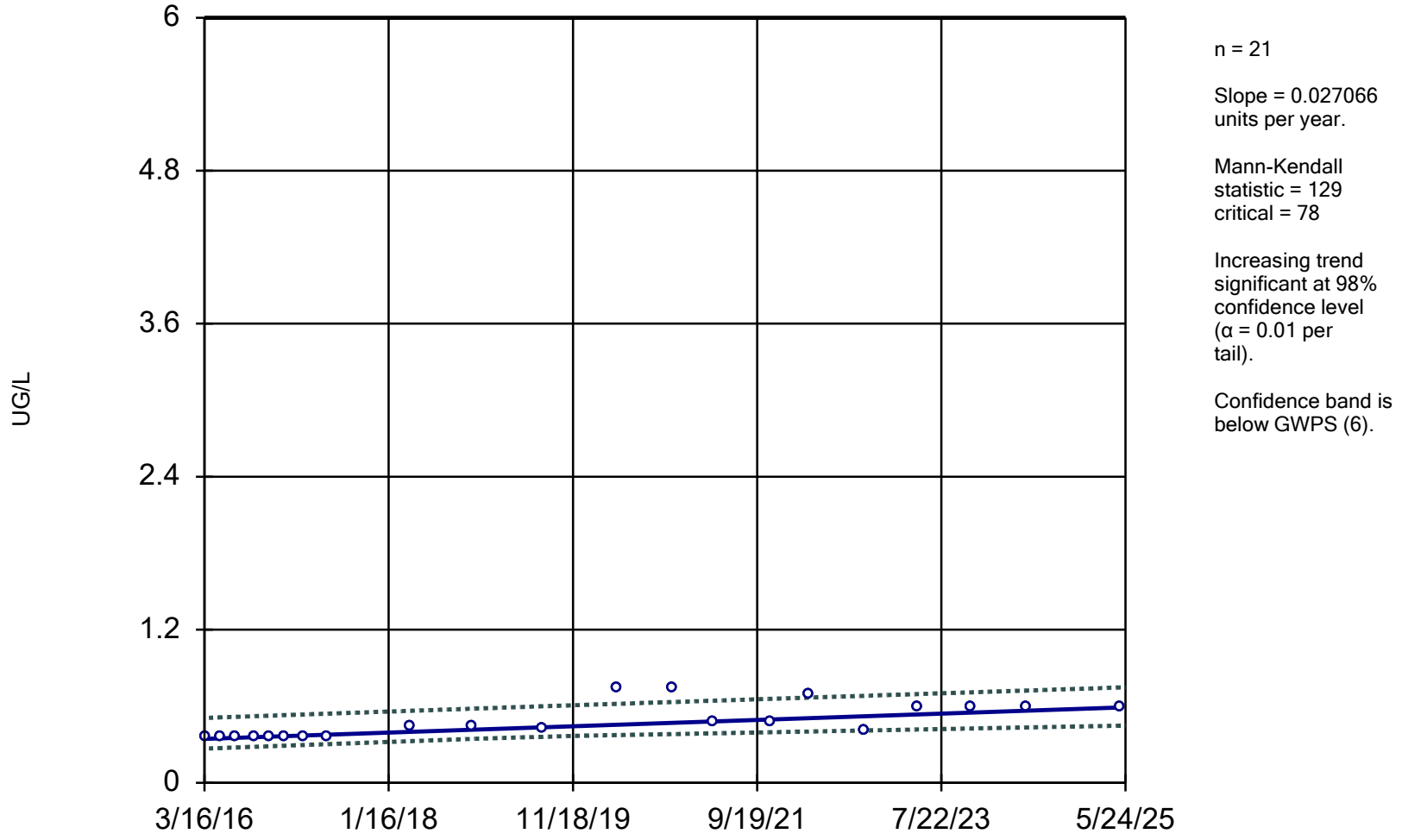
Constituent: COBALT, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 21

Slope = 0.027066 units per year.

Mann-Kendall statistic = 129
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

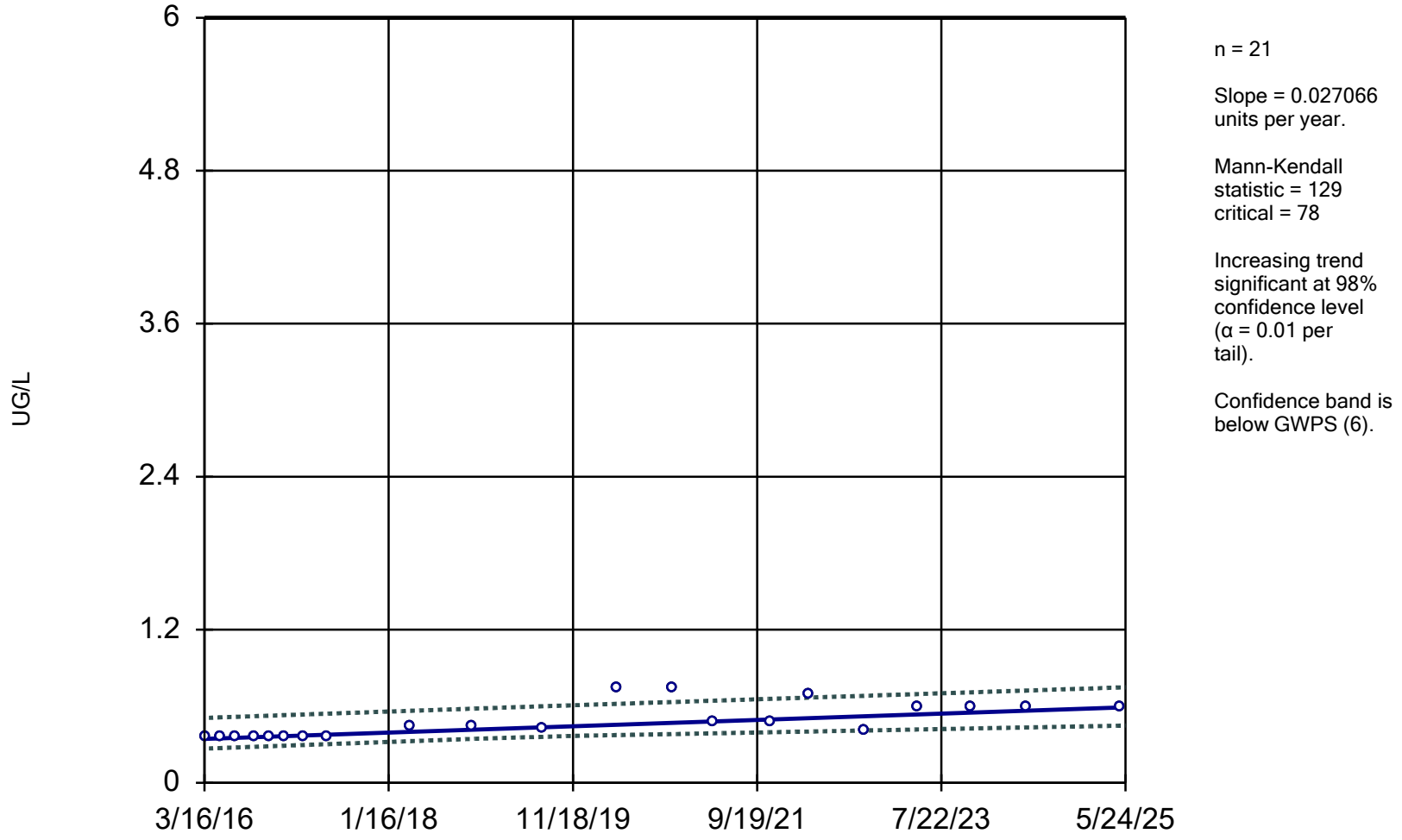
Constituent: COBALT, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 21

Slope = 0.027066 units per year.

Mann-Kendall statistic = 129
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

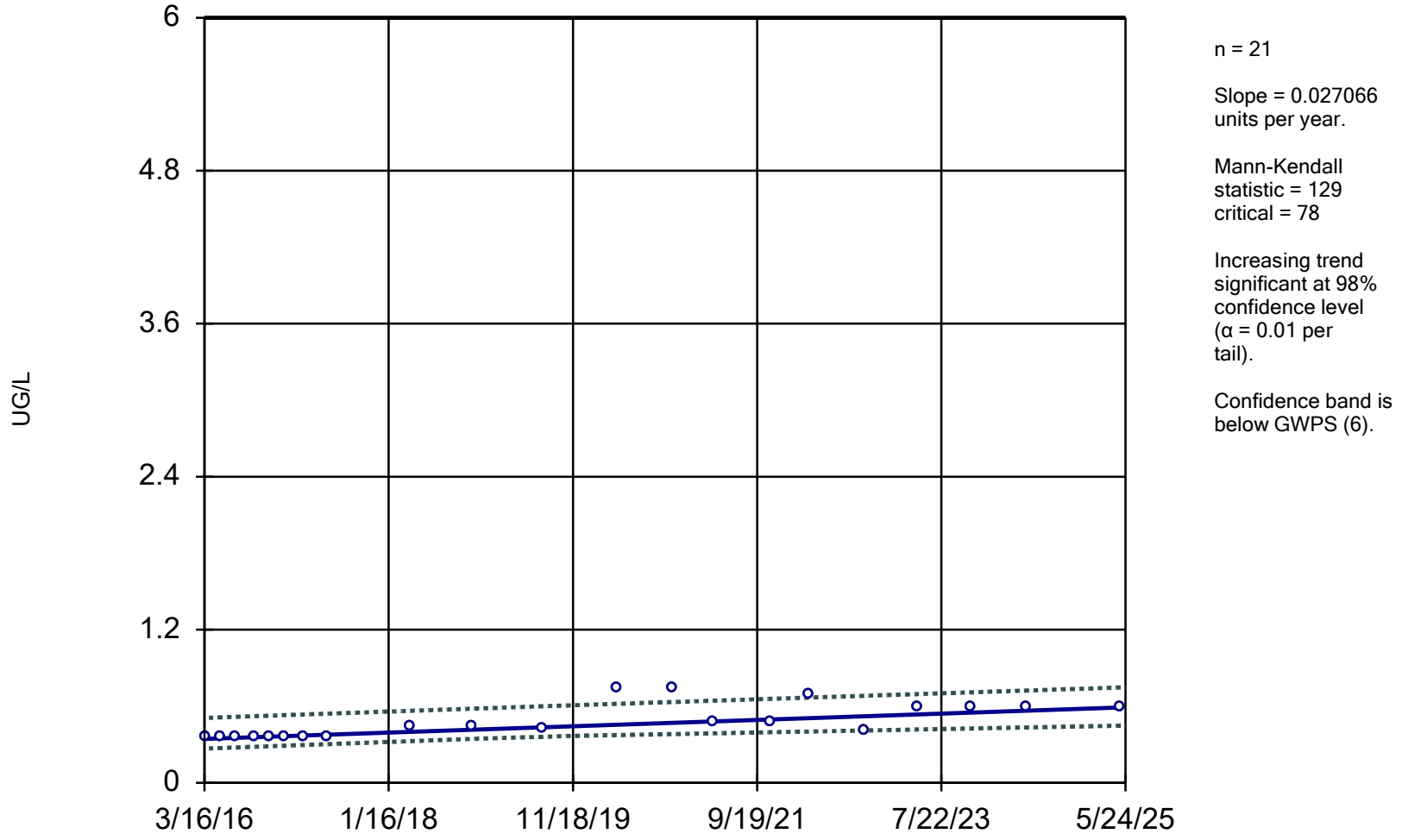
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 21

Slope = 0.027066 units per year.

Mann-Kendall statistic = 129
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

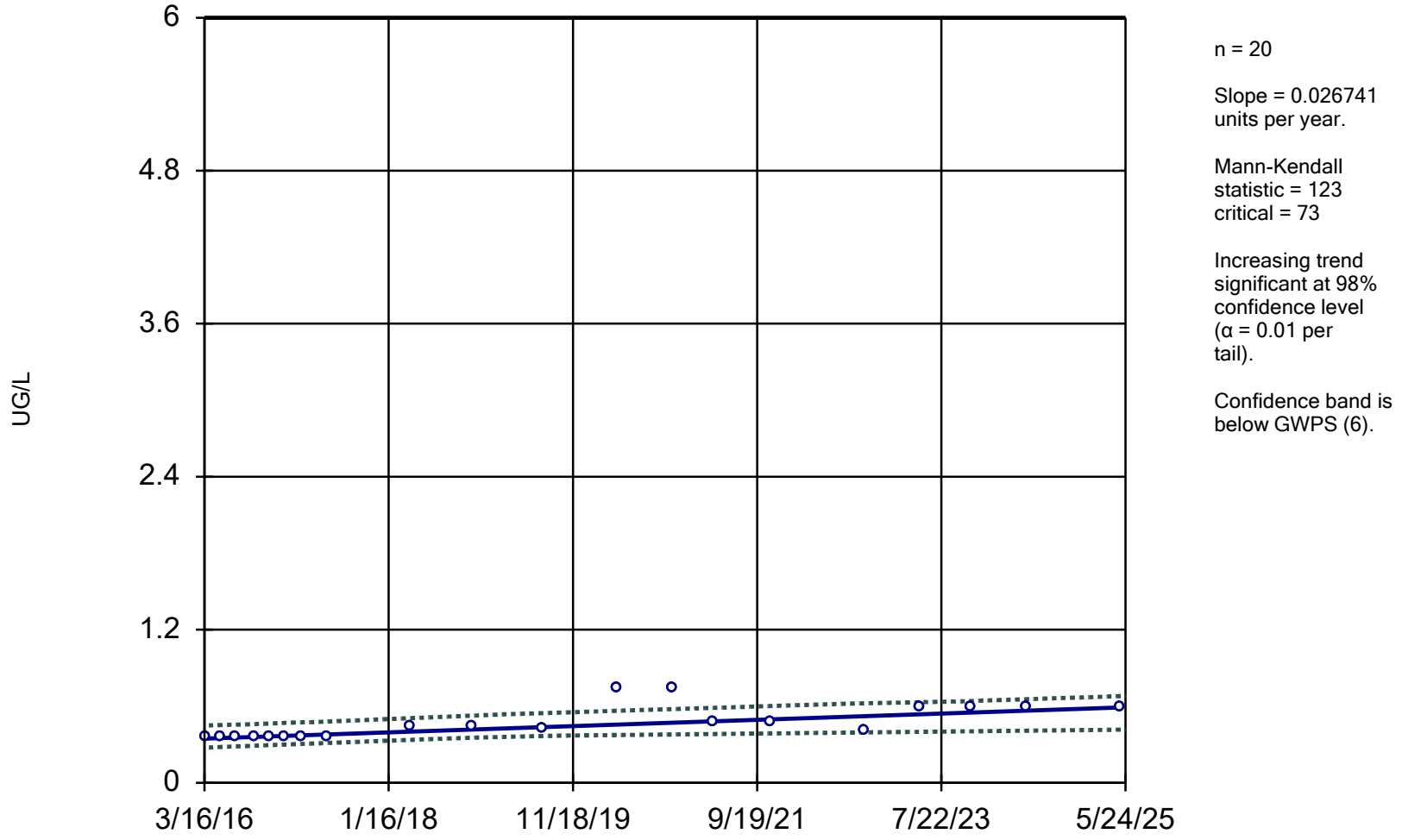
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 20

Slope = 0.026741 units per year.

Mann-Kendall statistic = 123
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

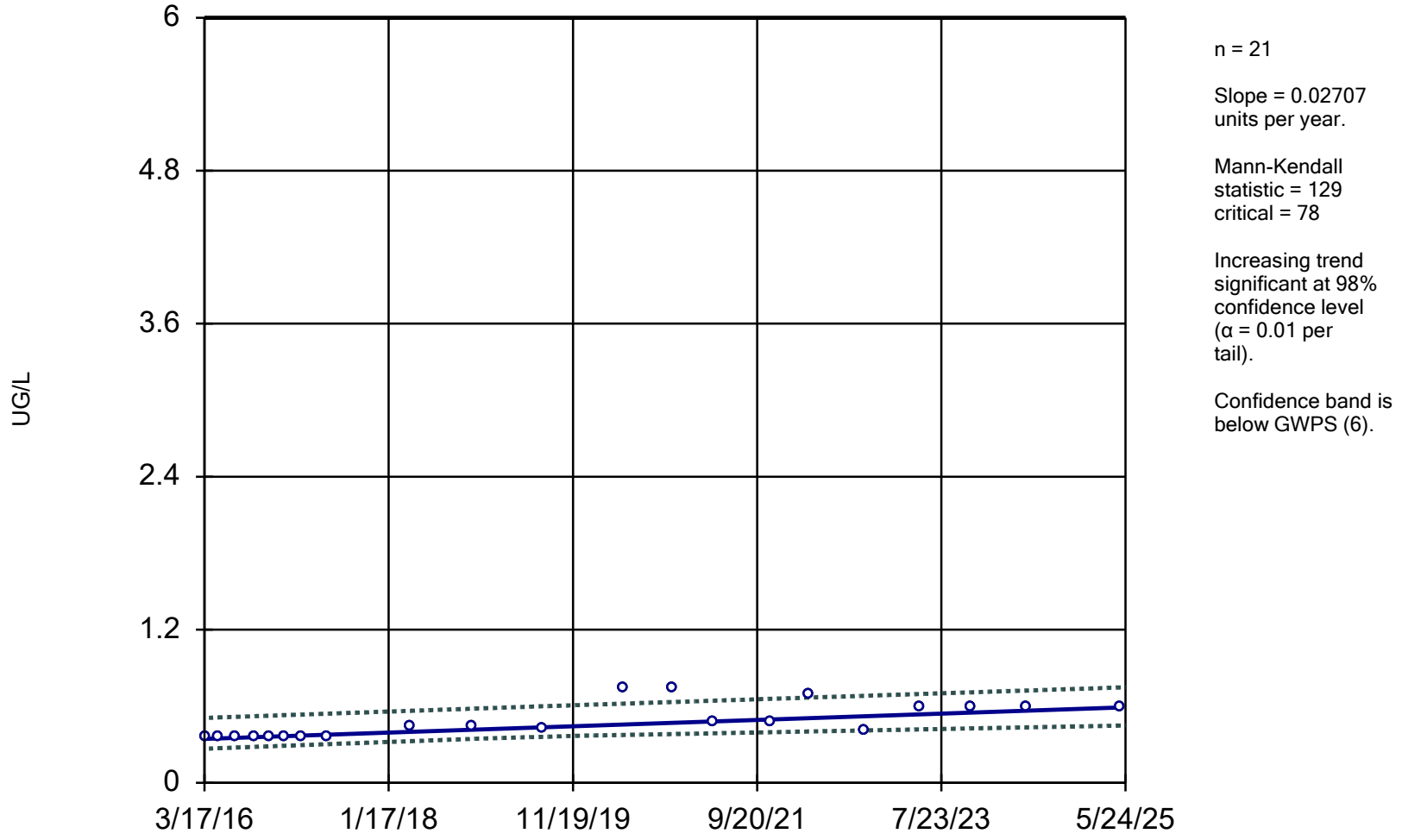
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 21

Slope = 0.02707 units per year.

Mann-Kendall statistic = 129
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

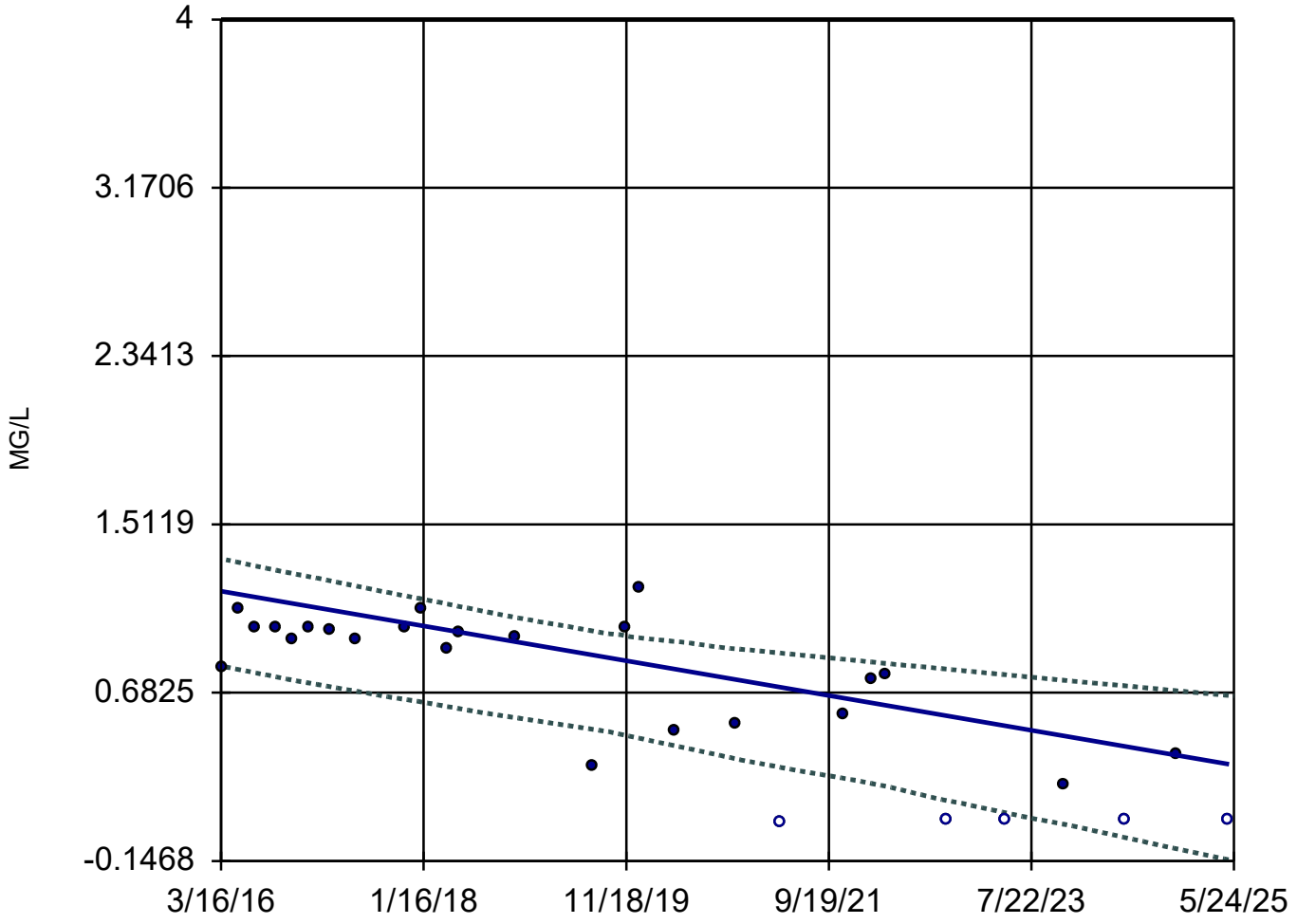
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 28

Slope = -0.093199 units per year.

Mann-Kendall statistic = -193
critical = -119

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

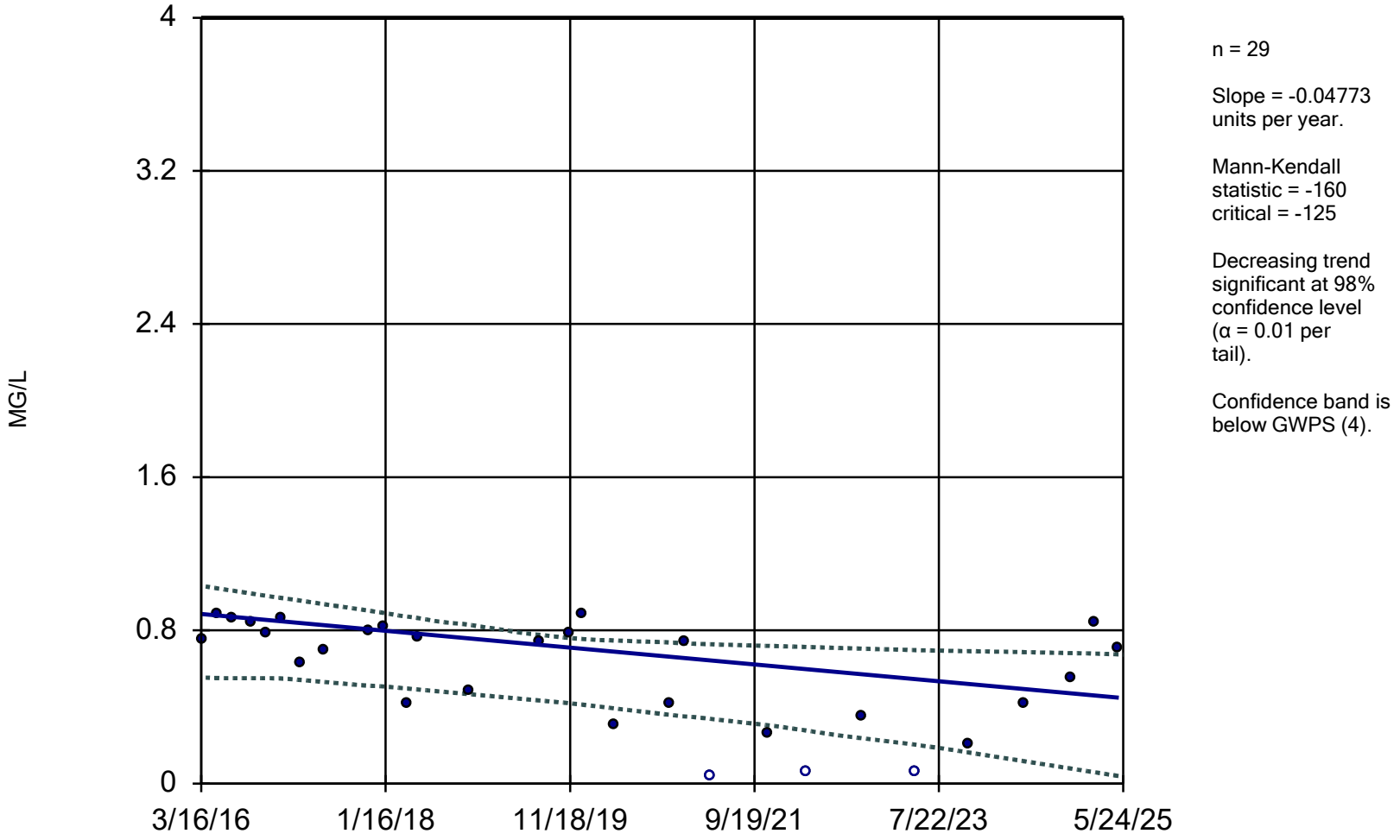
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 29

Slope = -0.04773 units per year.

Mann-Kendall statistic = -160 critical = -125

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

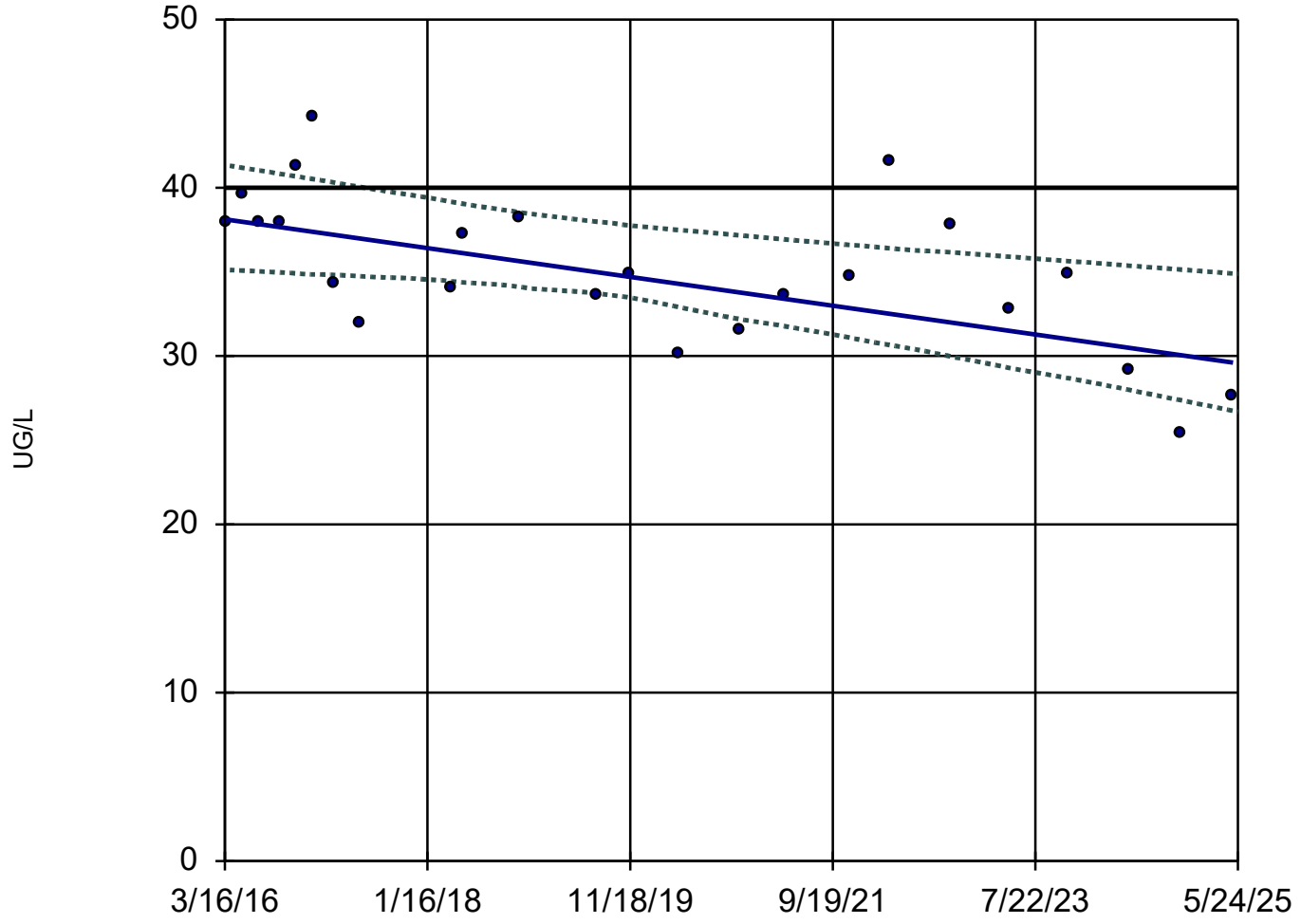
Constituent: FLUORIDE, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 24

Slope = -0.92985 units per year.

Mann-Kendall statistic = -118 critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (40) on 07/13/17.

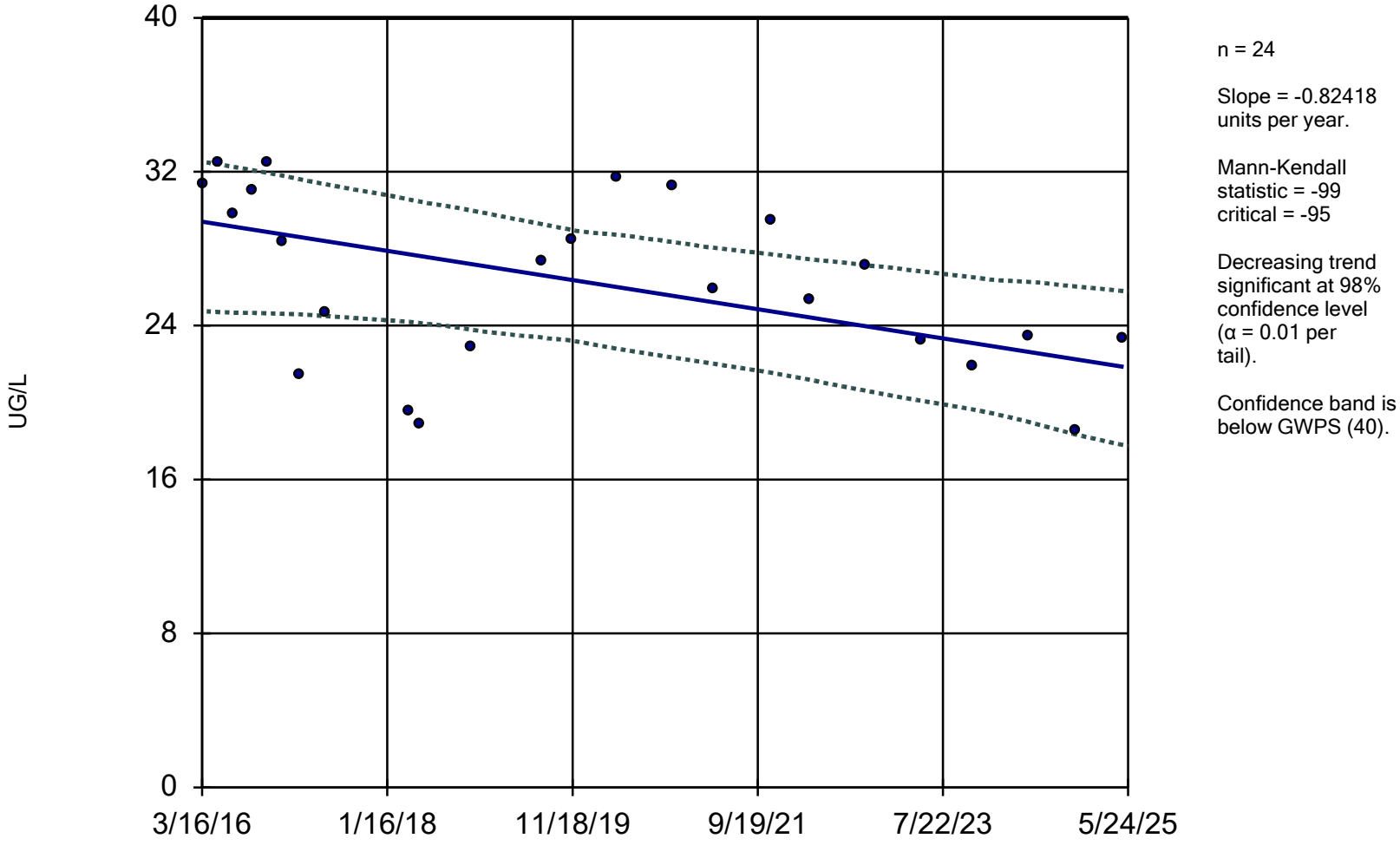
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 24

Slope = -0.82418 units per year.

Mann-Kendall statistic = -99
critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

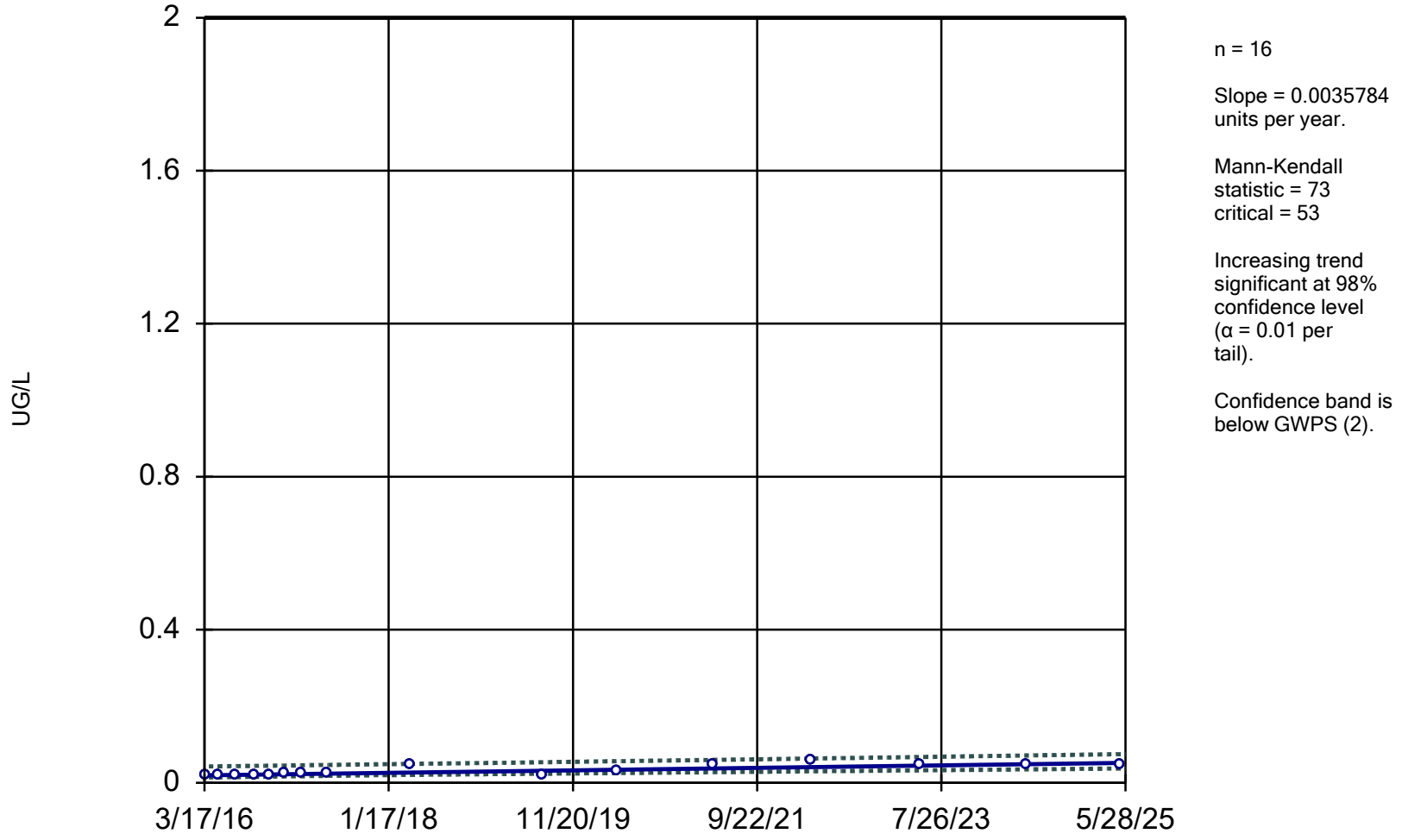
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 16

Slope = 0.0035784 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

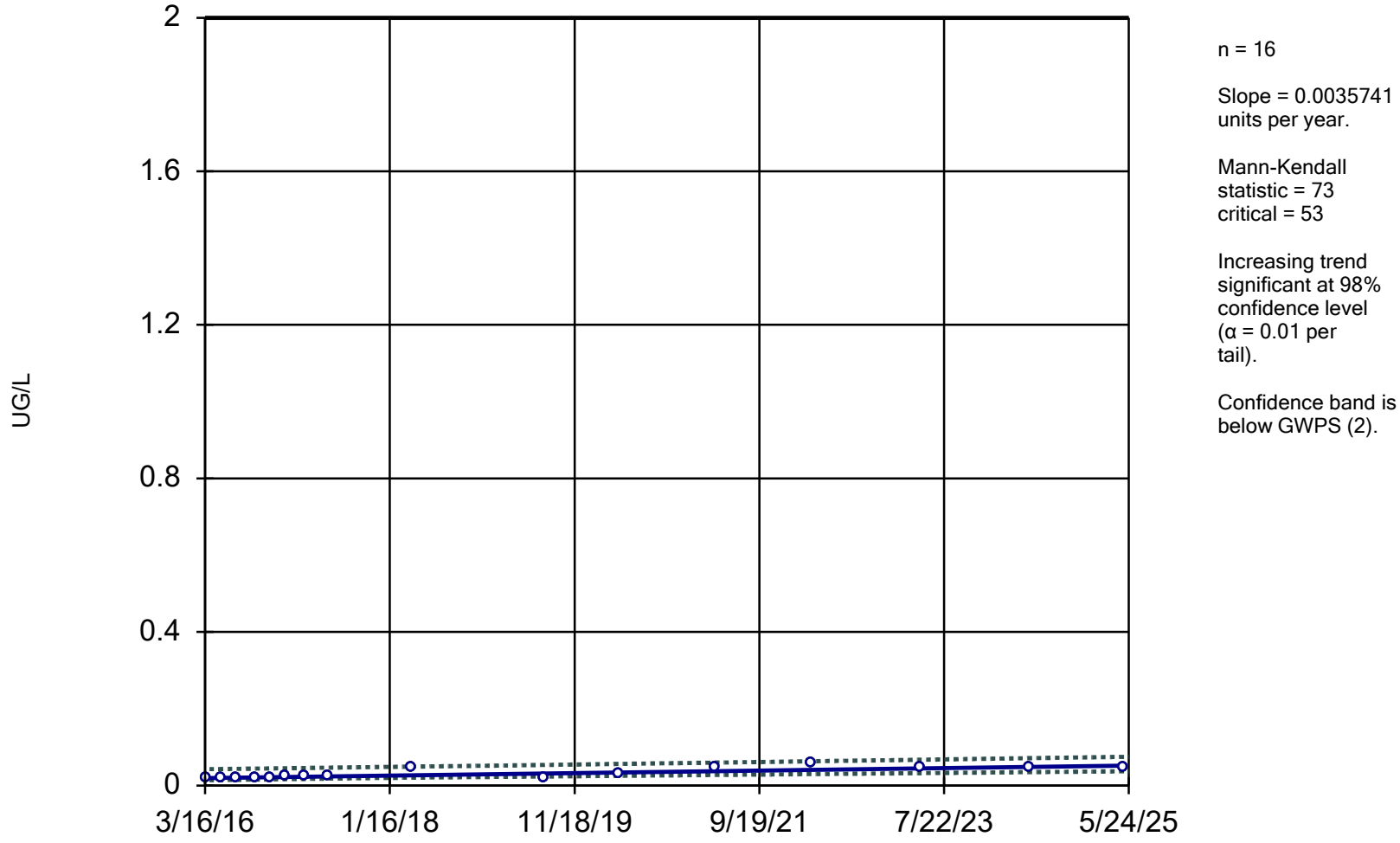
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

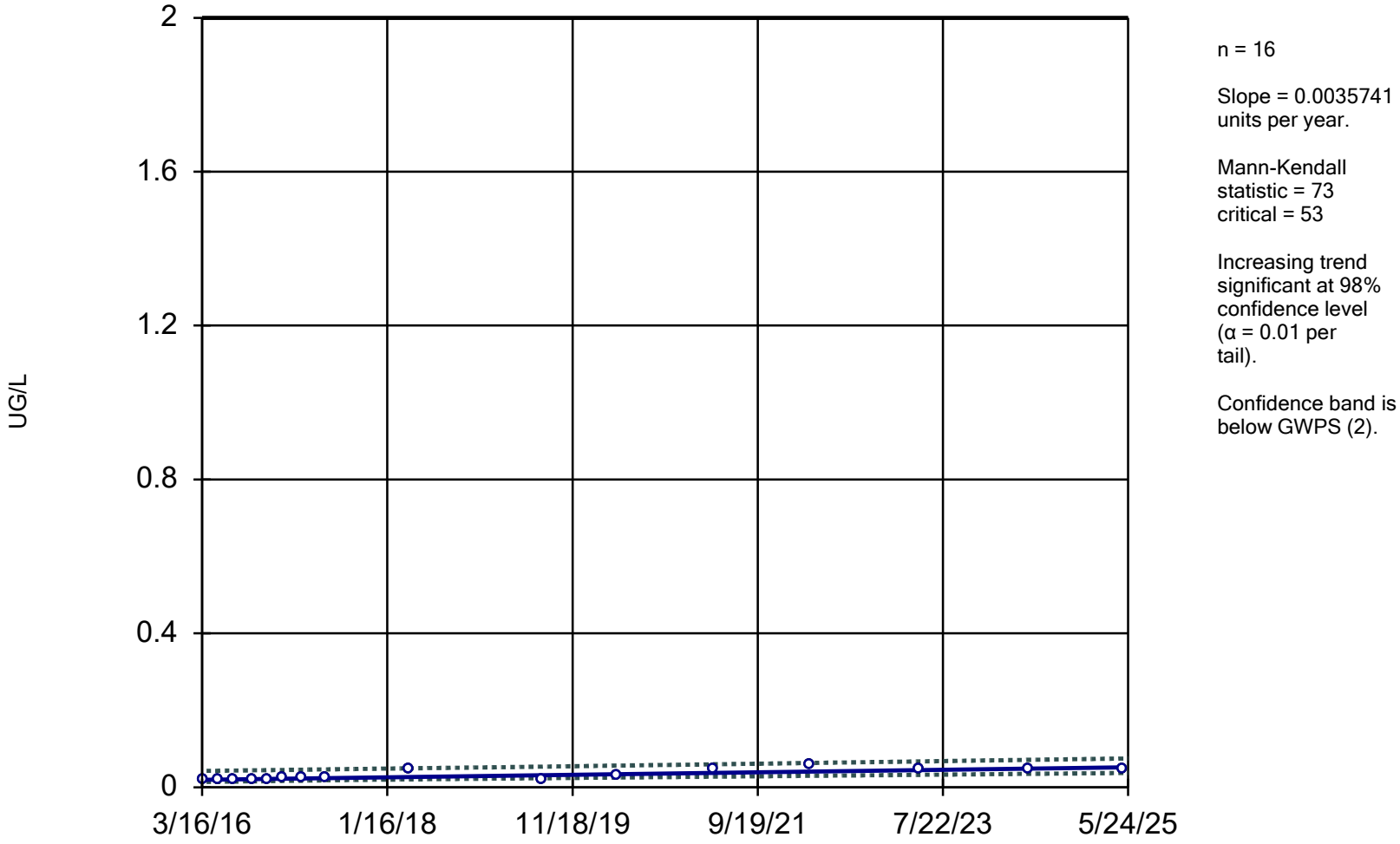
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

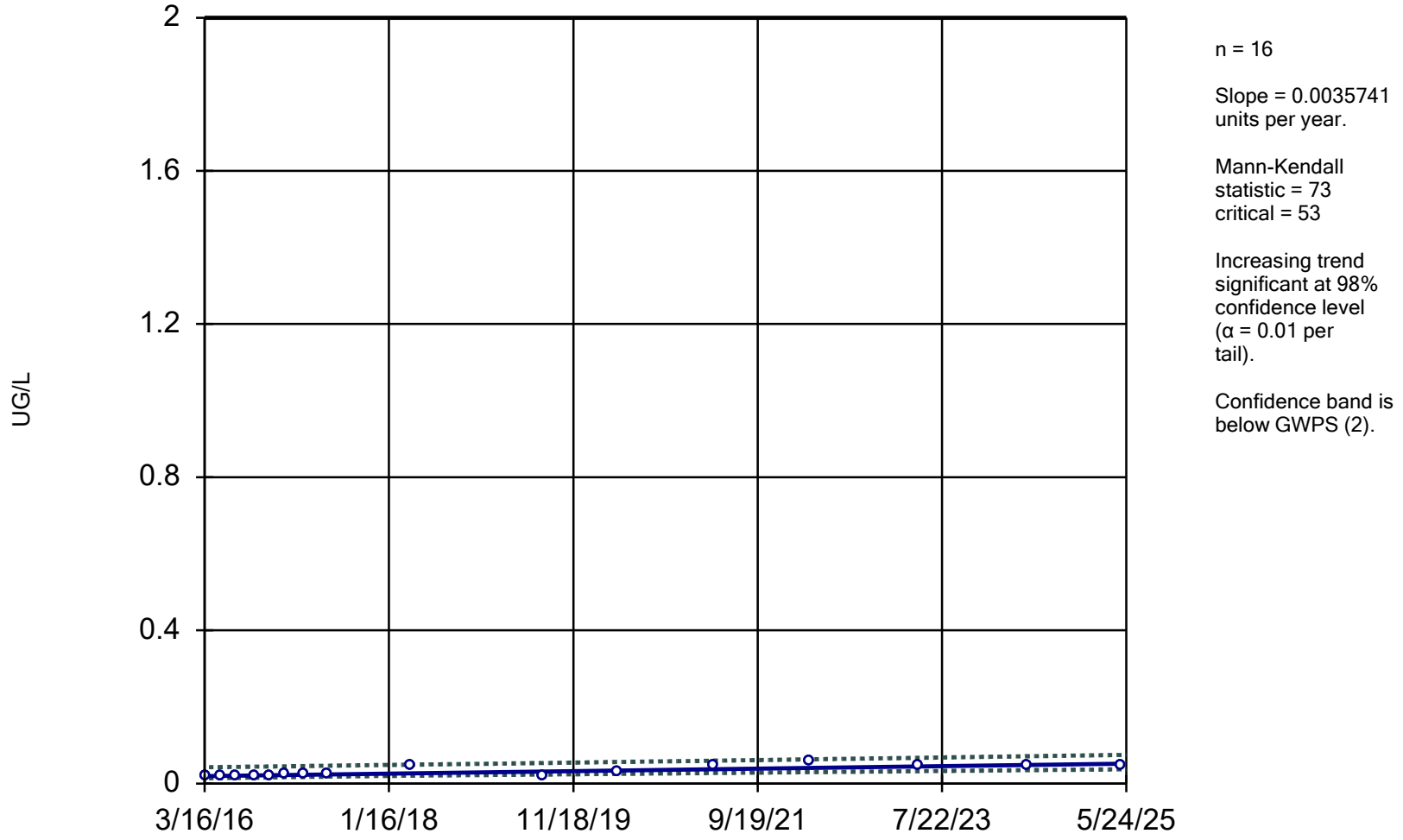
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

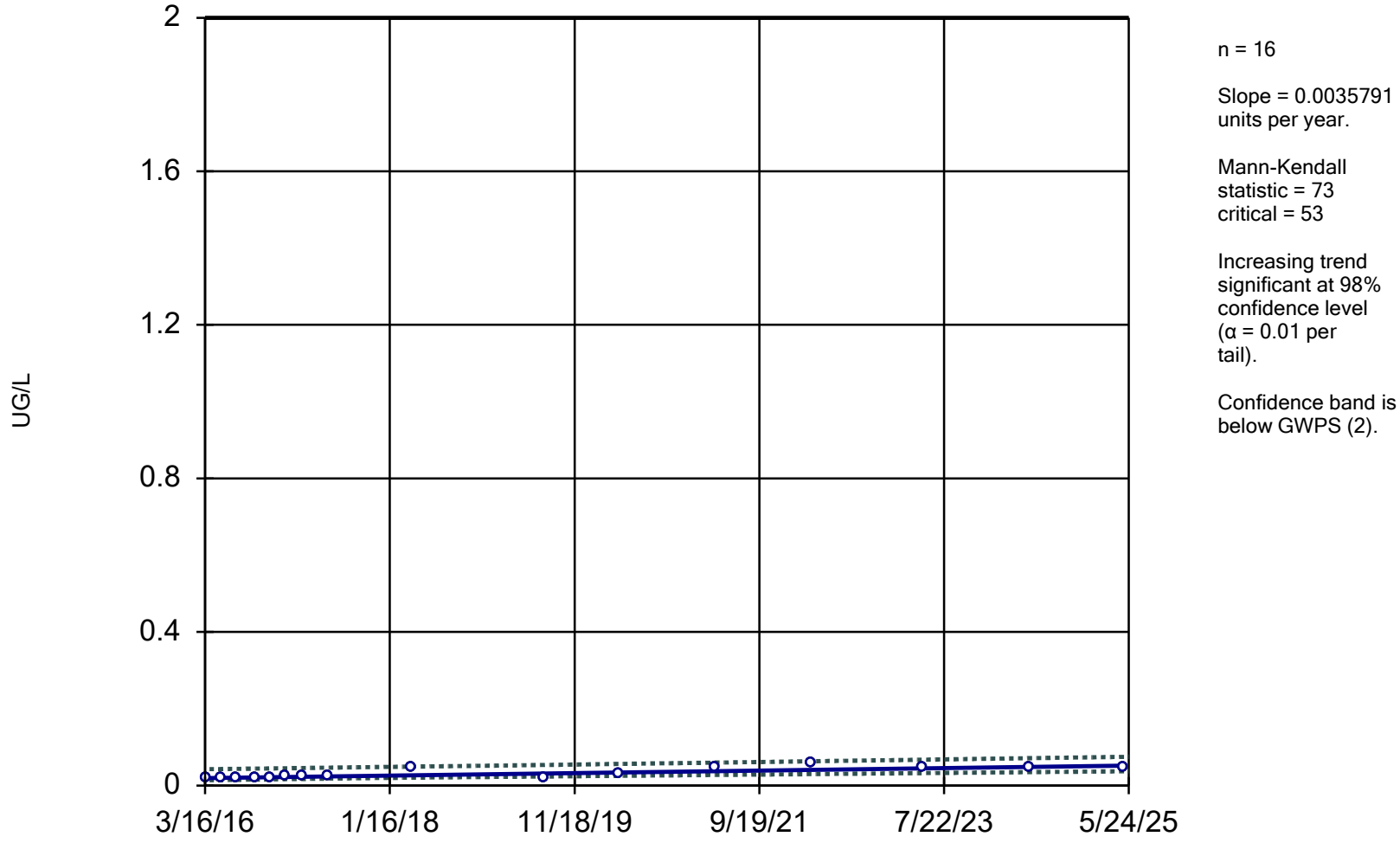
Constituent: MERCURY, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 16

Slope = 0.0035791 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

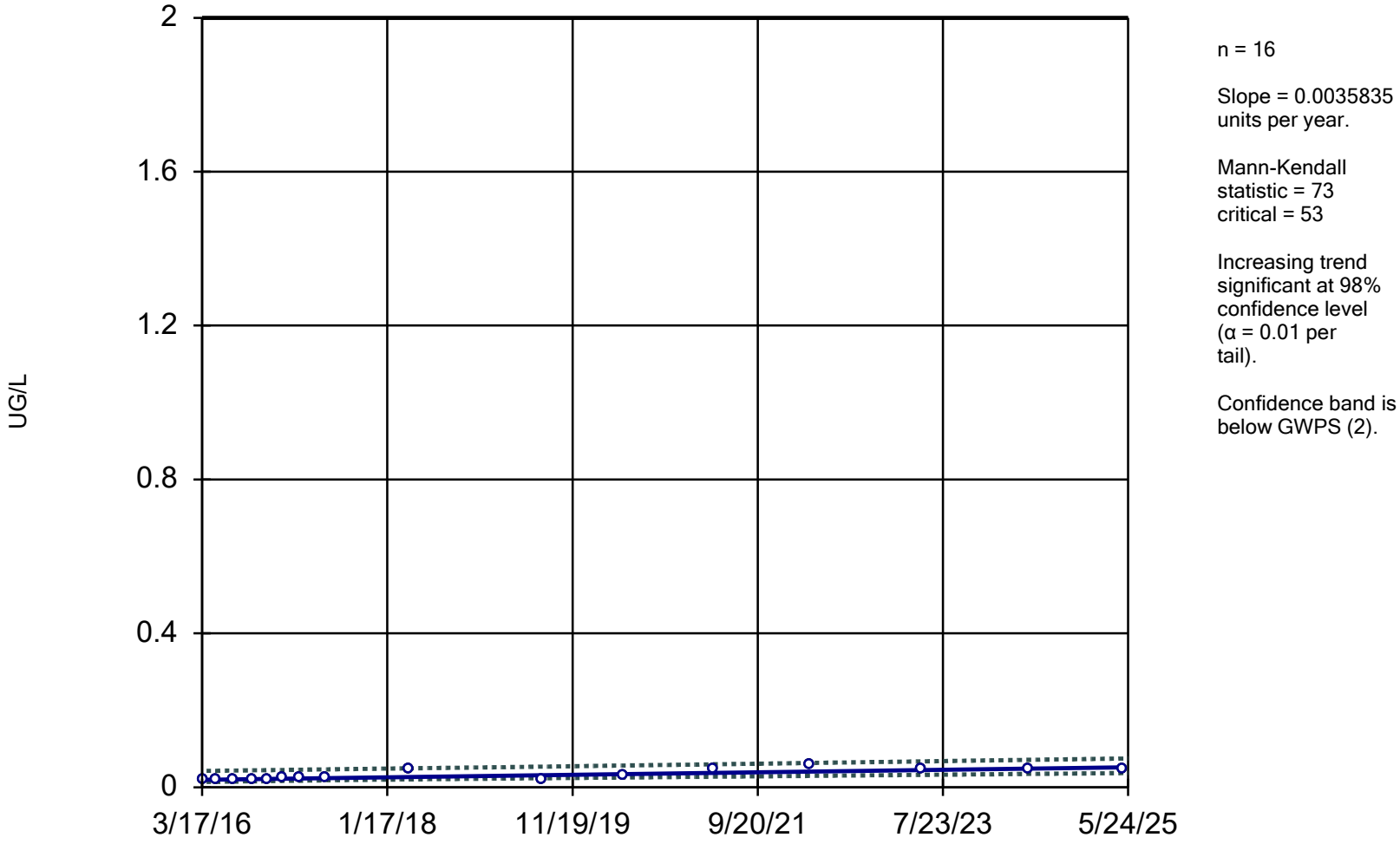
Constituent: MERCURY, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 16

Slope = 0.0035835 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

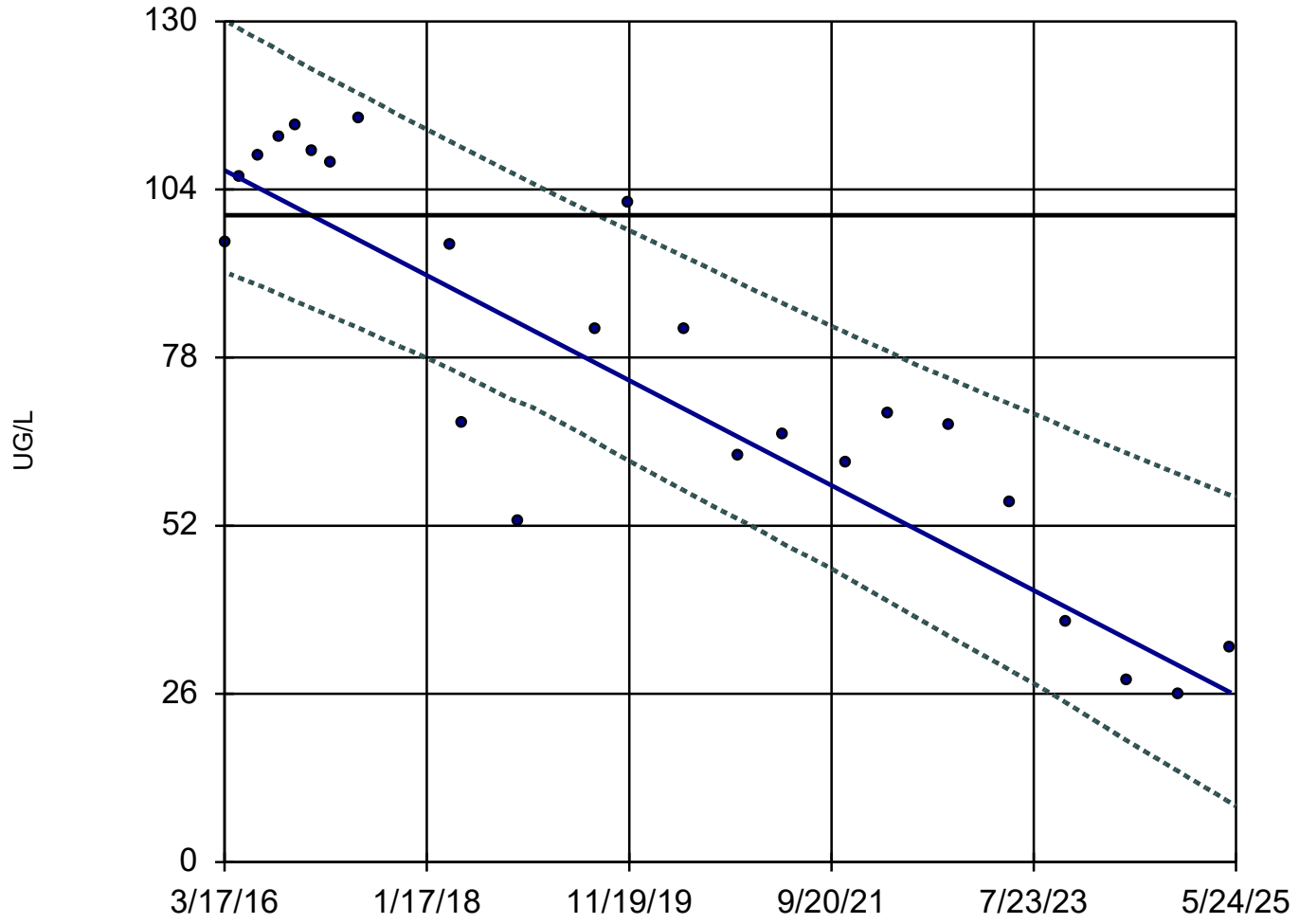
Constituent: MERCURY, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 24

Slope = -8.8334 units per year.

Mann-Kendall statistic = -180 critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 08/21/19.

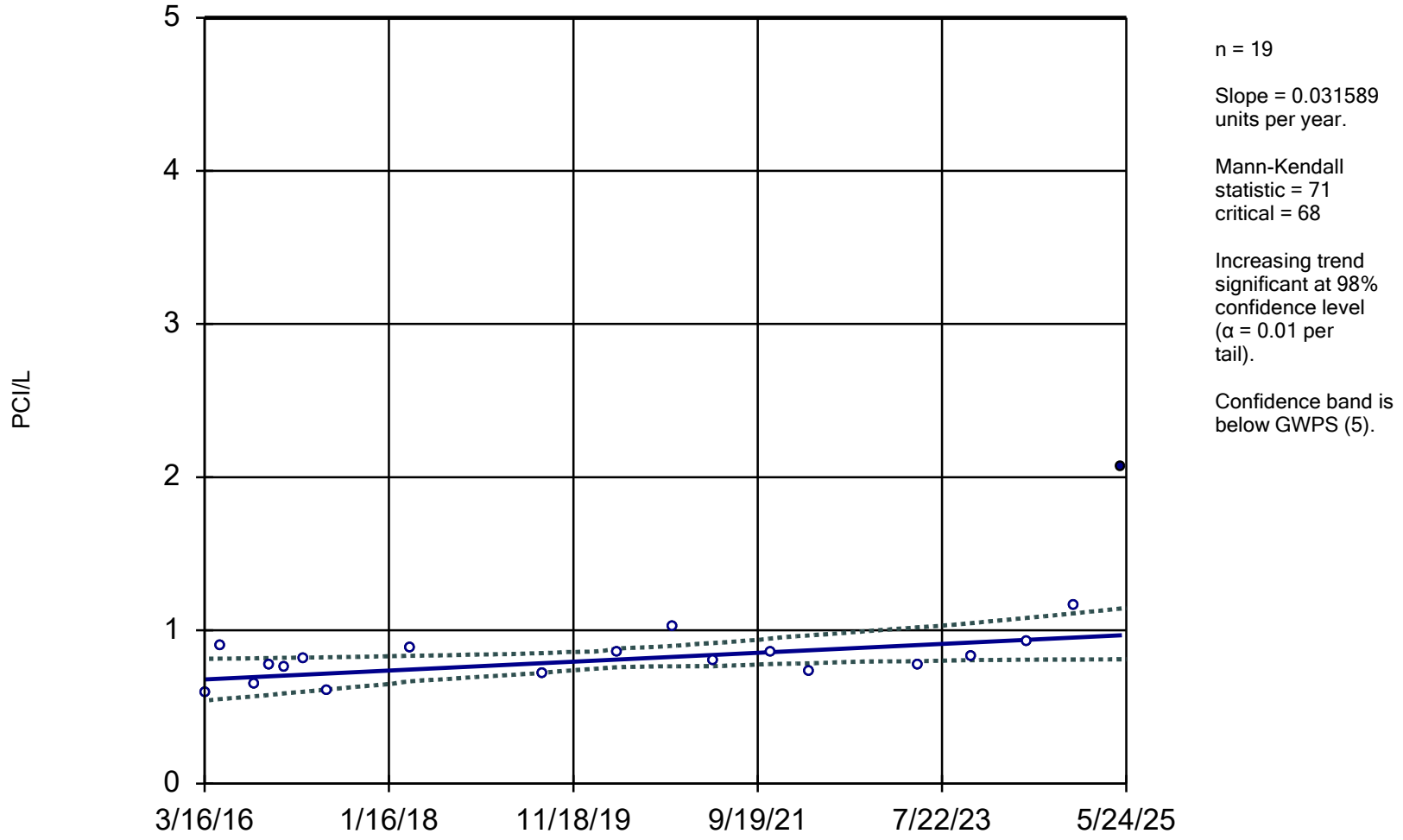
Constituent: MOLYBDENUM, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 19

Slope = 0.031589 units per year.

Mann-Kendall statistic = 71
critical = 68

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

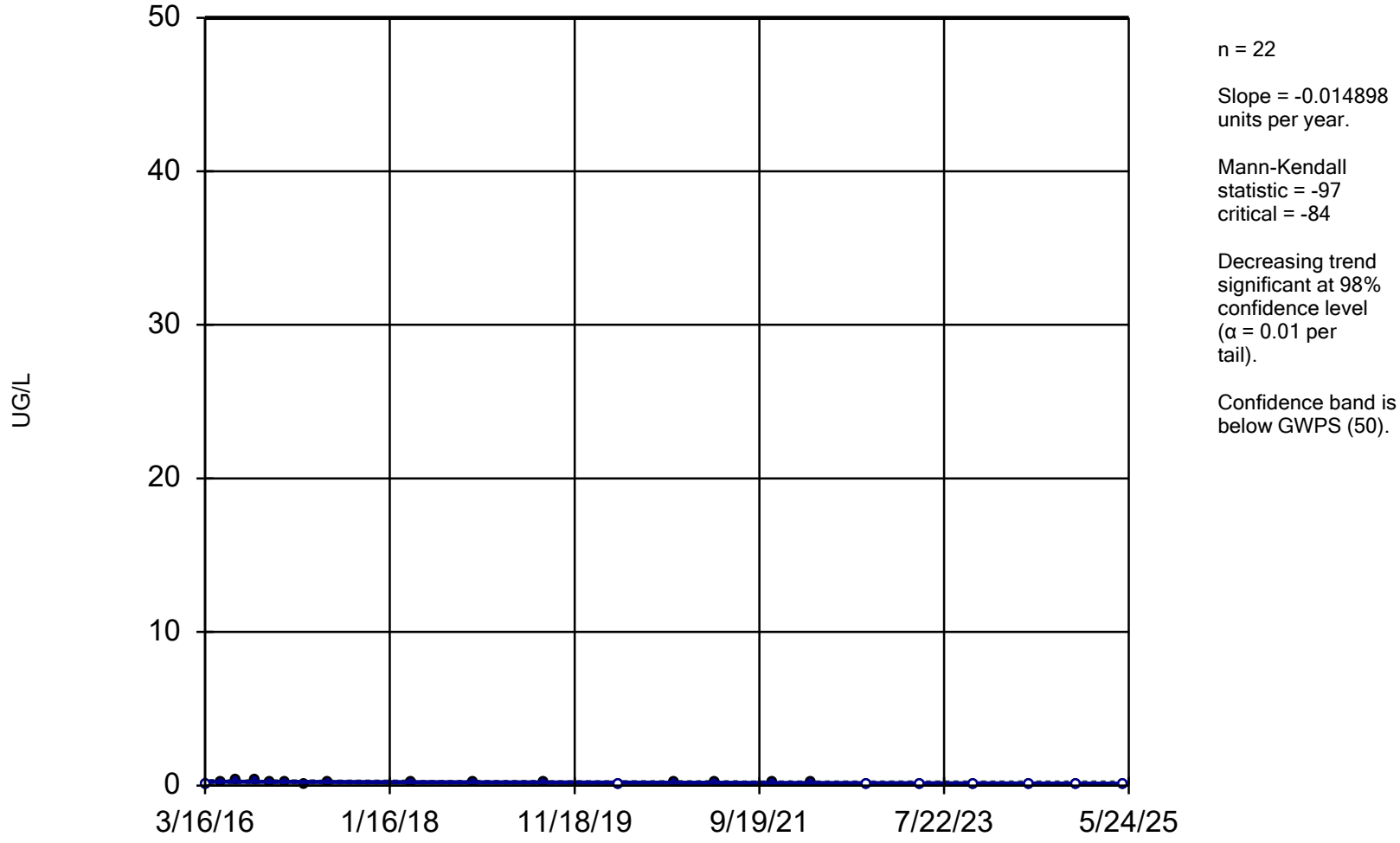
Constituent: RADIUM [226 + 228] Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 22

Slope = -0.014898 units per year.

Mann-Kendall statistic = -97
critical = -84

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

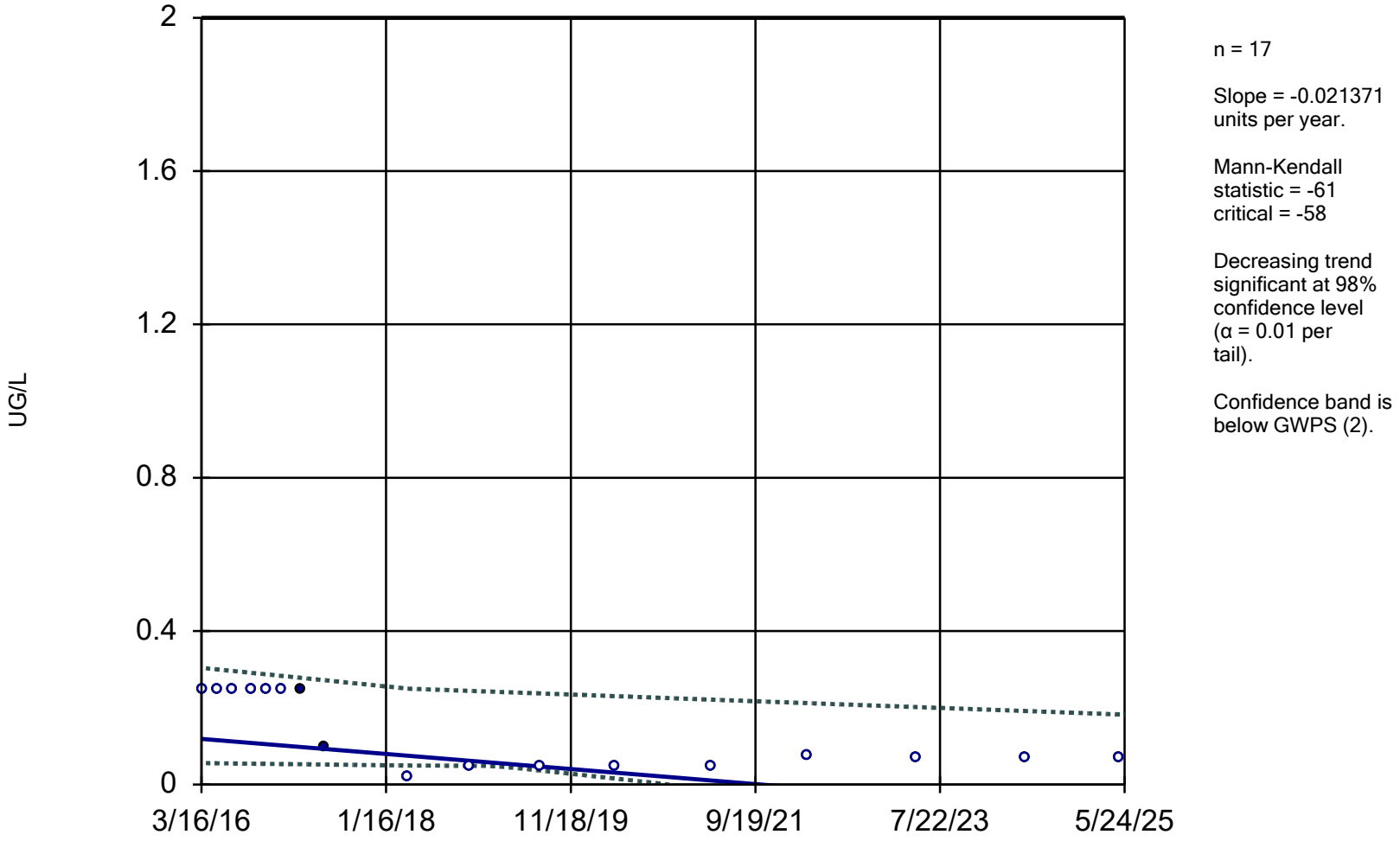
Constituent: SELENIUM, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 17

Slope = -0.021371 units per year.

Mann-Kendall statistic = -61
critical = -58

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

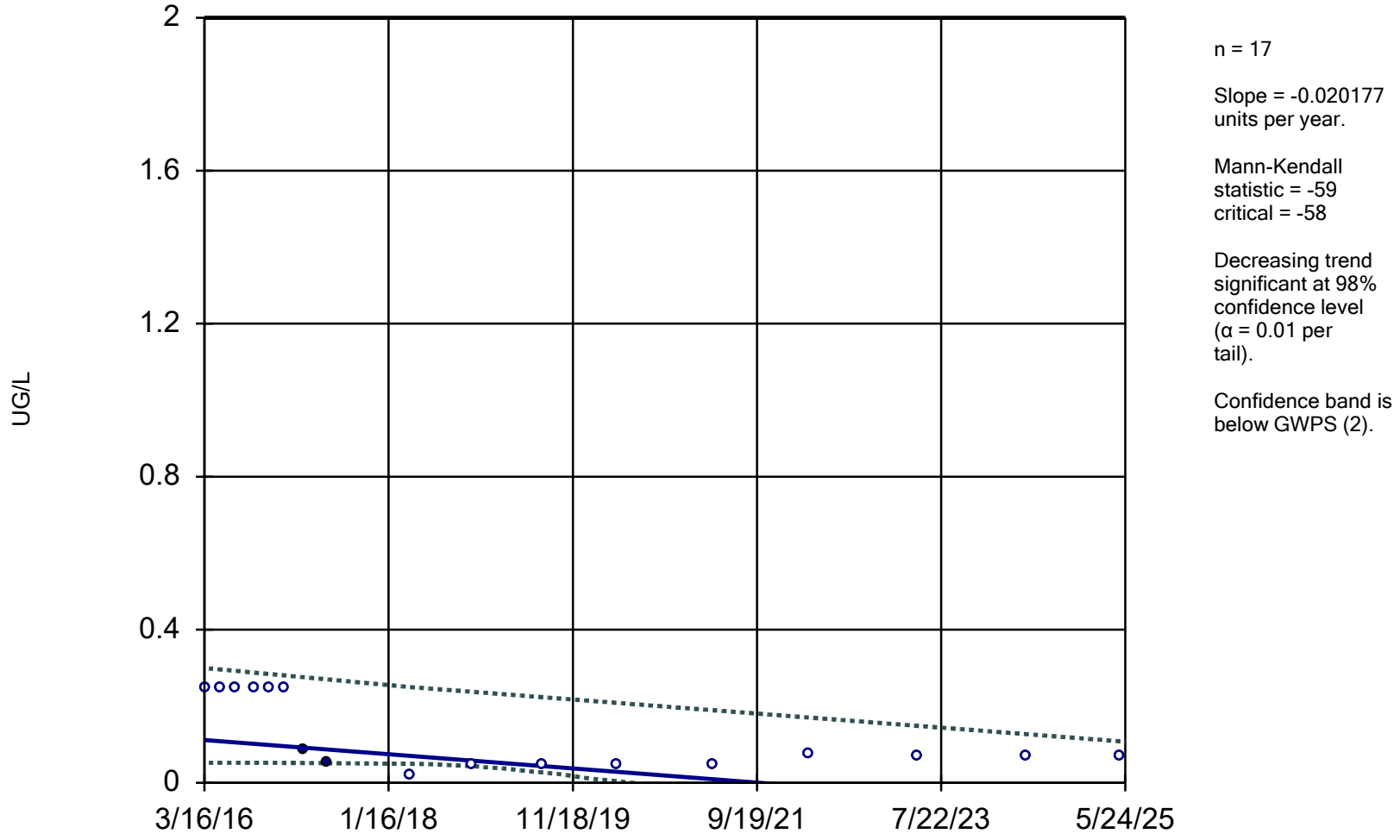
Constituent: THALLIUM, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 17

Slope = -0.020177 units per year.

Mann-Kendall statistic = -59
critical = -58

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

Constituent: THALLIUM, TOTAL Analysis Run 9/11/2025 11:34 AM View: Assessment Monitoring

Sioux E.C. Client: Ameren Data: SEC DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/11/2025, 11:35 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	0	-3	-58	No	17	52.941	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.002...	39	58	No	17	70.588	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	**S-UMW-3D**	**0.003...**	**58**	**53**	**Yes**	**16**	**87.5**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-4D**	**0.003...**	**83**	**58**	**Yes**	**17**	**94.118**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-5D**	**0.003...**	**75**	**58**	**Yes**	**17**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-6D**	**0.003...**	**75**	**58**	**Yes**	**17**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-1D**	**0.12822**	**176**	**89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-2D**	**0.24878**	**191**	**95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-UMW-3D	0.066697	94	95	No	24	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-UMW-4D	0.014944	53	89	No	23	17.391	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-UMW-5D**	**-0.03...**	**-132**	**-89**	**Yes**	**23**	**4.3478**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-6D**	**0.025484**	**117**	**95**	**Yes**	**24**	**8.3333**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-1D	4.3766	65	95	No	24	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-UMW-2D**	**-5.6531**	**-163**	**-95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-3D	-1.1957	-94	-95	No	24	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-UMW-4D**	**-4.2173**	**-165**	**-89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-UMW-5D**	**10.992**	**99**	**95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-6D	1.891	39	95	No	24	0	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-2D	0	-17	-58	No	17	94.118	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-42	-58	No	17	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.001...	52	73	No	20	90	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-UMW-2D**	**0.06189**	**176**	**89**	**Yes**	**23**	**30.435**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-3D**	**0.17718**	**149**	**89**	**Yes**	**23**	**21.739**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-4D**	**0.17856**	**105**	**89**	**Yes**	**23**	**17.391**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.009...	68	89	No	23	39.13	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.000...	39	89	No	23	82.609	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-1D	0	4	68	No	19	52.632	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-2D	-0.00...	-16	-68	No	19	57.895	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-39	-73	No	20	60	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-4D	0.010483	24	73	No	20	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-8	-73	No	20	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-6D	0	6	73	No	20	55	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-UMW-1D**	**0.027001**	**129**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-2D**	**0.027066**	**129**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-3D**	**0.027066**	**129**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-4D**	**0.027066**	**129**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-5D**	**0.026741**	**123**	**73**	**Yes**	**20**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-6D**	**0.02707**	**129**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	-0.00...	-69	-119	No	28	10.714	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UMW-2D	-0.05...	-116	-119	No	28	3.5714	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-UMW-3D**	**-0.09...**	**-193**	**-119**	**Yes**	**28**	**17.857**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-UMW-4D**	**-0.04773**	**-160**	**-125**	**Yes**	**29**	**10.345**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	-0.02286	-77	-106	No	26	0	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	-0.01...	-77	-112	No	27	18.519	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-1D	0.093879	63	63	No	18	88.889	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-2D	0.087805	55	63	No	18	77.778	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/11/2025, 11:35 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
LEAD, TOTAL (UG/L)	S-UMW-3D	0	-1	-63	No	18	66.667	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-4D	0.034646	6	63	No	18	61.111	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-5D	0.041407	17	63	No	18	83.333	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-6D	0.093879	63	63	No	18	88.889	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-1D	0.62156	71	95	No	24	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-2D	0	1	95	No	24	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-3D	-0.2896	-33	-95	No	24	4.1667	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-UMW-4D**	**-0.92985**	**-118**	**-95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-UMW-5D**	**-0.82418**	**-99**	**-95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-UMW-6D	0.41853	45	89	No	23	0	n/a	n/a	0.02	NP
MERCURY, TOTAL (UG/L)	**S-UMW-1D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-2D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-3D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-4D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-5D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-6D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-1D	3.6692	90	95	No	24	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-2D	12.169	25	95	No	24	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-3D	-55.812	-39	-95	No	24	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-4D	-298.89	-75	-89	No	23	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-5D	-5.9417	-40	-95	No	24	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-6D**	**-8.8334**	**-180**	**-95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.031279	62	78	No	21	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	**S-UMW-2D**	**0.031589**	**71**	**68**	**Yes**	**19**	**94.737**	**n/a**	**n/a**	**0.02**	**NP**
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	0.026204	52	78	No	21	71.429	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	0.030864	66	78	No	21	85.714	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	0.017201	28	78	No	21	76.19	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.030766	71	78	No	21	95.238	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0	19	84	No	22	86.364	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-2D	0	-15	-84	No	22	81.818	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.01...**	**-97**	**-84**	**Yes**	**22**	**36.364**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-45	-84	No	22	36.364	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-51	-84	No	22	40.909	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0	19	84	No	22	100	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-1D	-0.02...	-50	-58	No	17	94.118	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	**S-UMW-2D**	**-0.02...**	**-61**	**-58**	**Yes**	**17**	**88.235**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.02...**	**-59**	**-58**	**Yes**	**17**	**88.235**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	S-UMW-4D	-0.01...	-49	-58	No	17	88.235	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-32	-58	No	17	94.118	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-6D	-0.00...	-32	-58	No	17	100	n/a	n/a	0.02	NP

Appendix D

October 2025 Assessment Monitoring Statistical Evaluation

Memorandum
January 31, 2026

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-25
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., R.G., Jeff Ingram, R.G., Grant Morey, R.G.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Assessment Monitoring Statistical Evaluation, SCPA Surface Impoundment Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Assessment Monitoring Statistical Evaluation for the October 2025 sampling event at the SCPA Surface Impoundment at the Sioux Energy Center located in St. Charles County, Missouri. Included in the memorandum is a summary of constituents that are present at a Statistically Significant Level (SSL), a list of site-specific Groundwater Protection Standards (**Table 1**), and the Sanitas Technologies (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A** and **Appendix B**).

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for SSLs using the methods and procedures outlined in the Statistical Analysis Plan (SAP). An outlier analysis was performed on all results within the SCPA monitoring network, inclusive of October 2025 data. In addition to outliers noted in previous statistical evaluations, the following outliers were removed from the dataset prior to the calculation of confidence limits.

- Radium 226 + 228
    - S-UMW-2D at 2.071 picocuries per liter (pCi/L) on 5/8/2025: result is statistically higher than other radium values at the same monitoring well. This higher result is not consistent with previous or subsequent radium results at the well and is an outlier.

An analysis of the outliers removed to date was completed. No statistical outliers that were previously removed were added back into the dataset prior to the calculation of confidence intervals in **Appendix A** and trending confidence bands in **Appendix B**.

Based on the results from the confidence interval and trend analysis, no new SSLs were noted. SSLs at the SCPA Surface Impoundment as of October 2025 continue to be:

- Molybdenum at S-UMW-2D, S-UMW-3D, S-UMW-4D, and S-UMW-5D

3.0 CLOSING

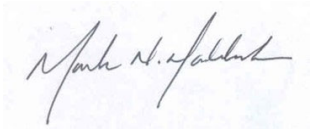
Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Mark Haddock, P.E., R.G.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring [6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.63424
Barium	µg/L	2000	2000	703
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	30.509
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.634
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) National Primary Drinking Water Regulations. Updated December 12, 2024 at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2025 from monitoring wells BMW-1D and BMW-3D.

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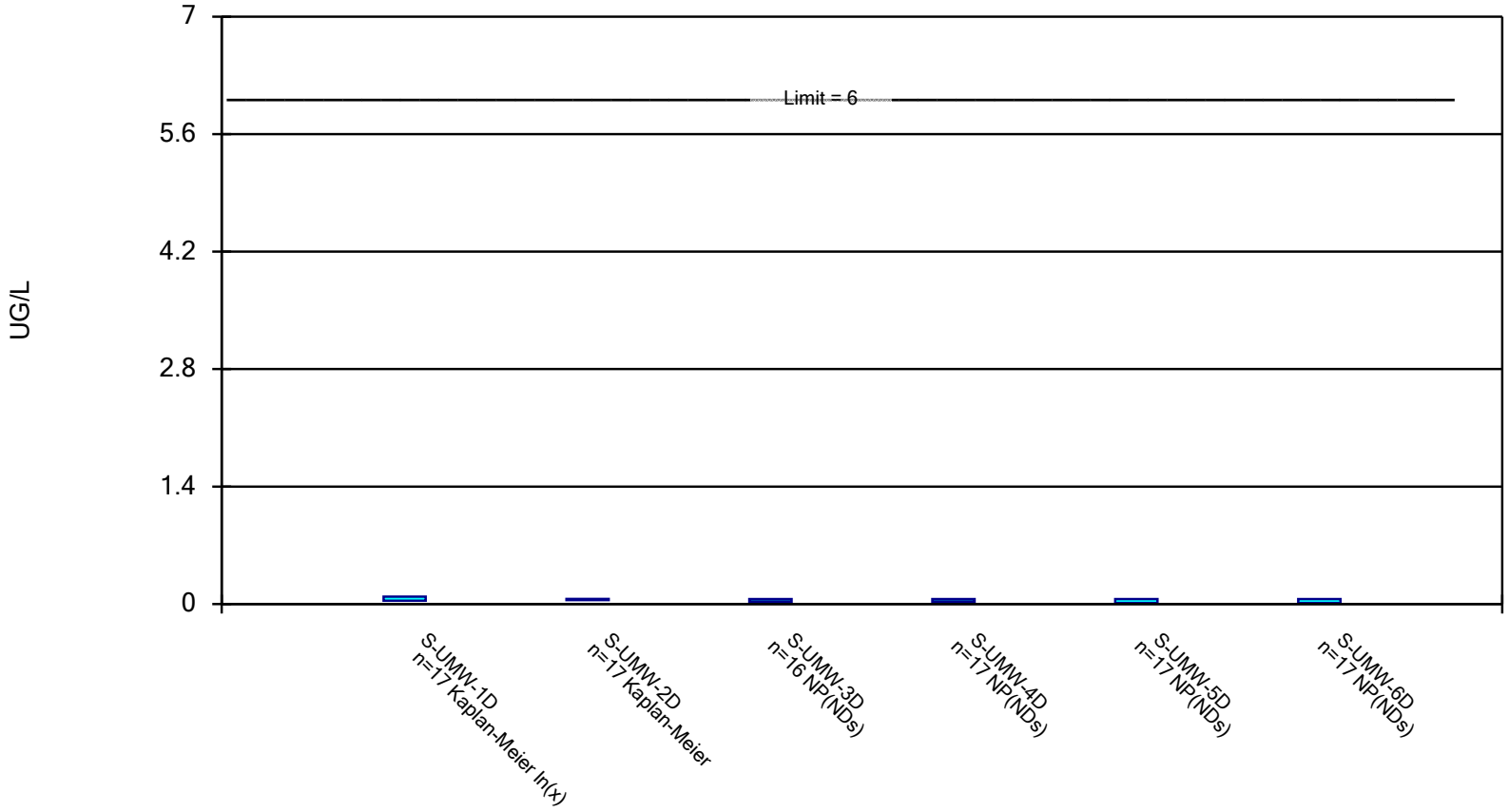
Prepared by: JTR
Checked by: GTM
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



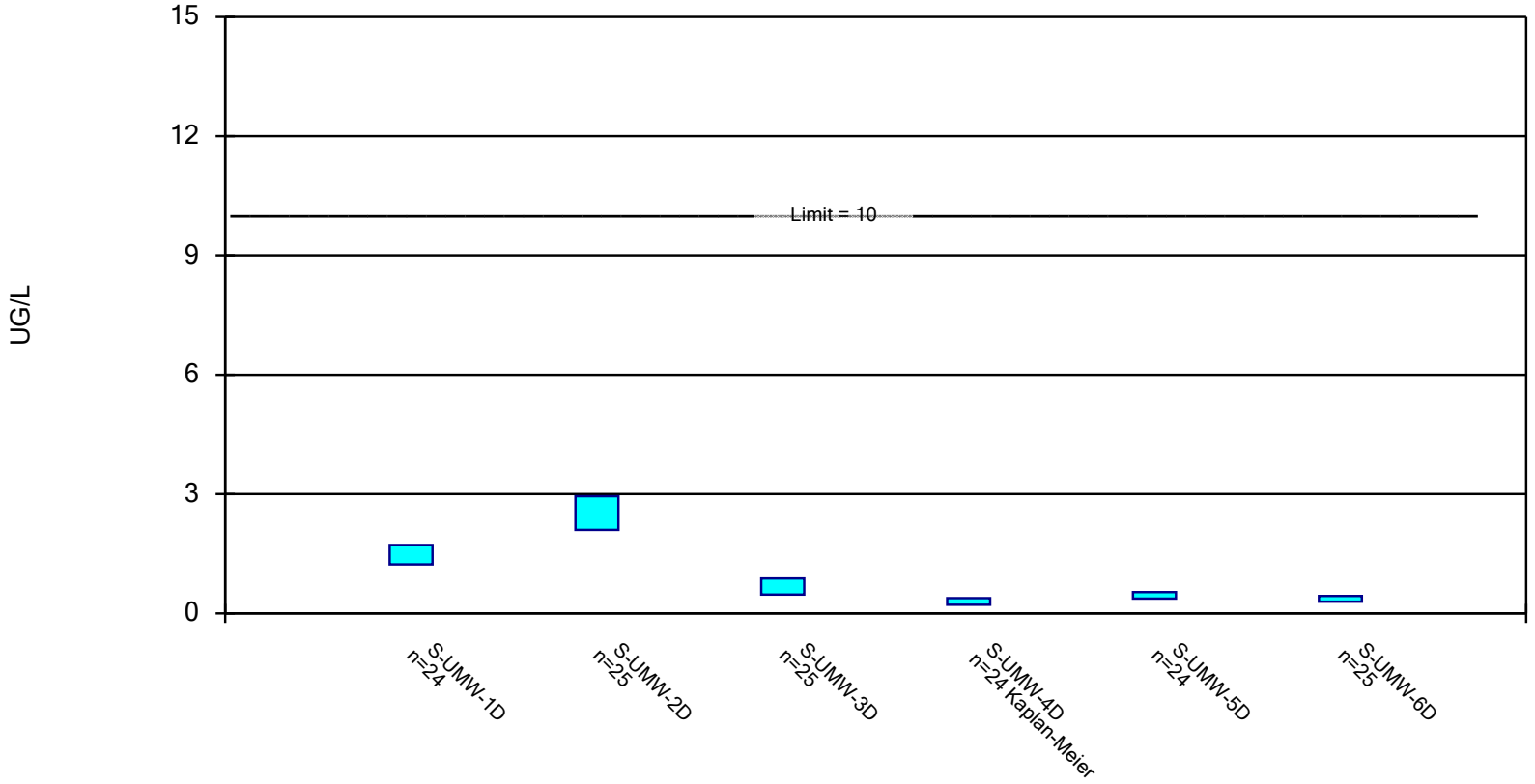
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

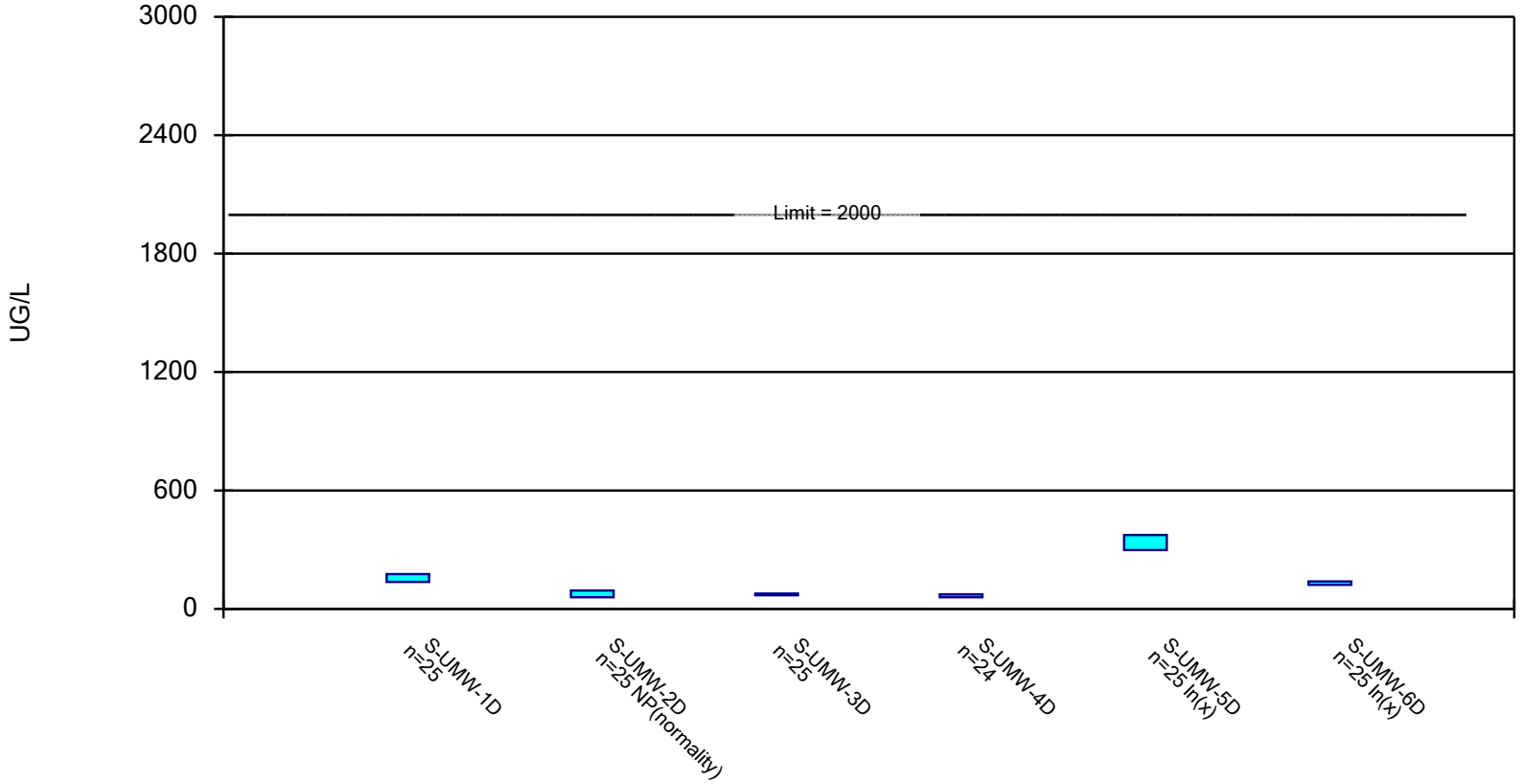


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Sioux E.C. Client: Ameren Data: SEC_DATA

Parametric and Non-Parametric (NP) Confidence Interval

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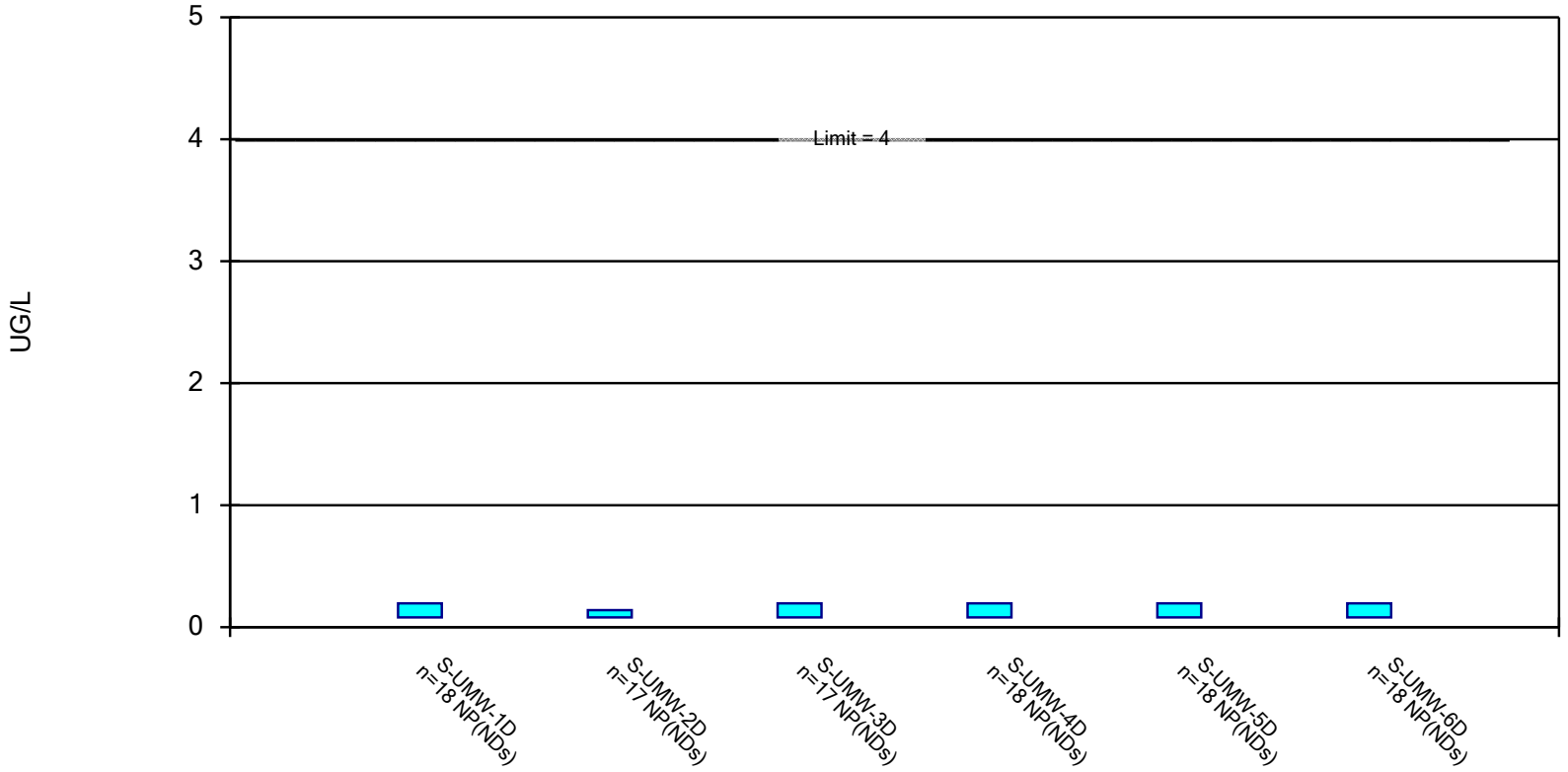
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

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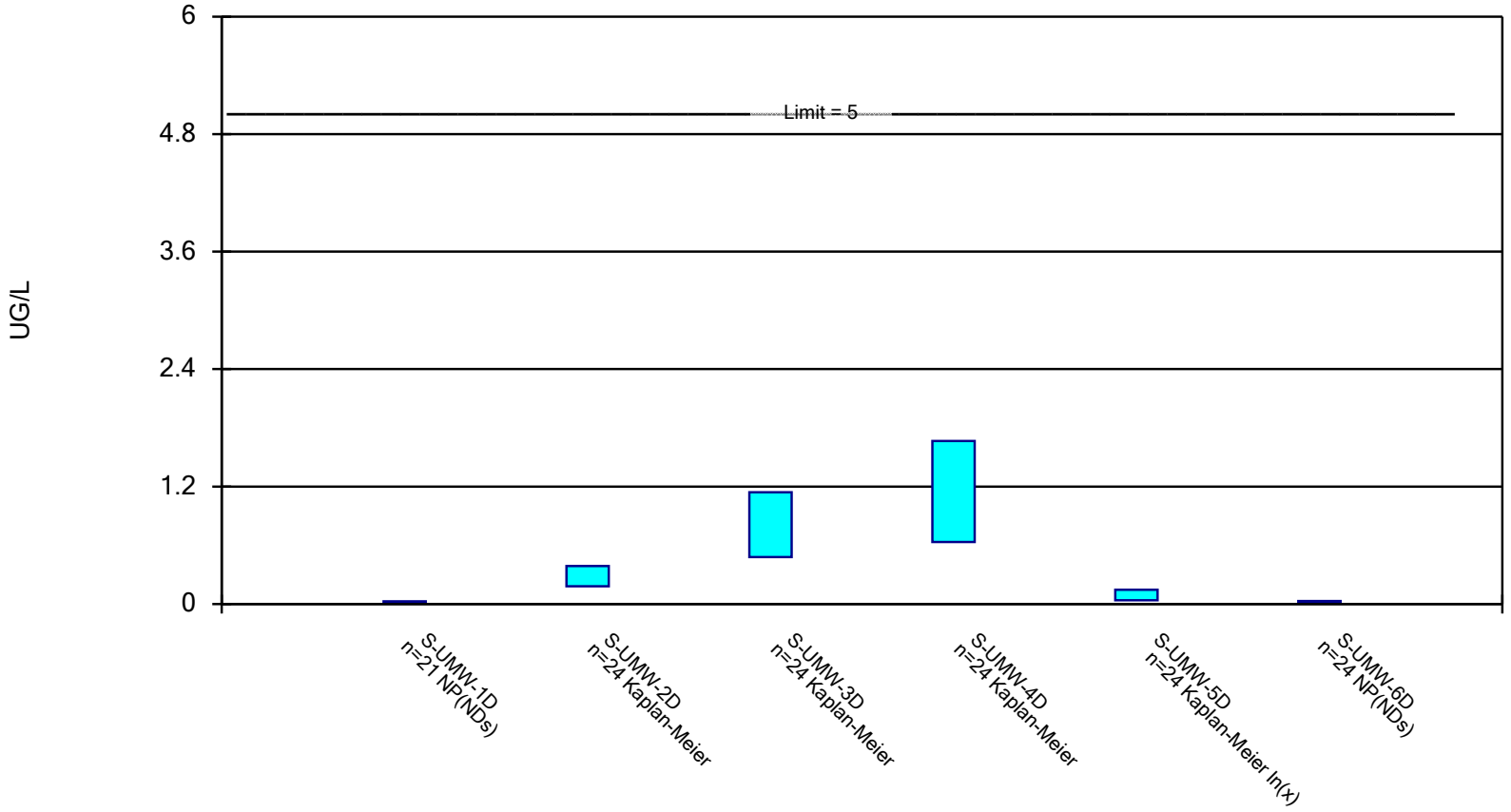
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

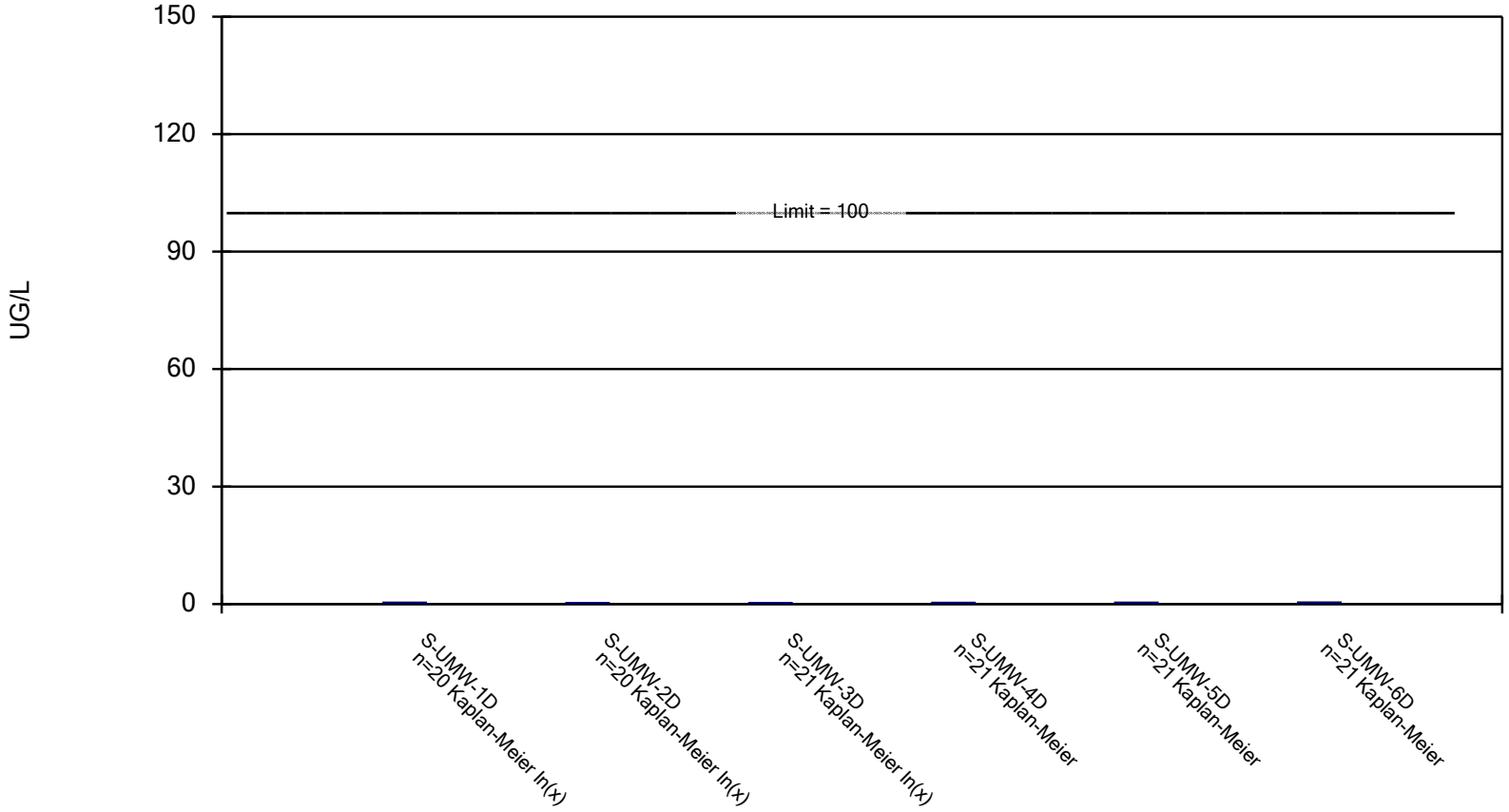


Constituent: CADMIUM, TOTAL Analysis Run 12/19/2025 2:39 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Parametric Confidence Interval

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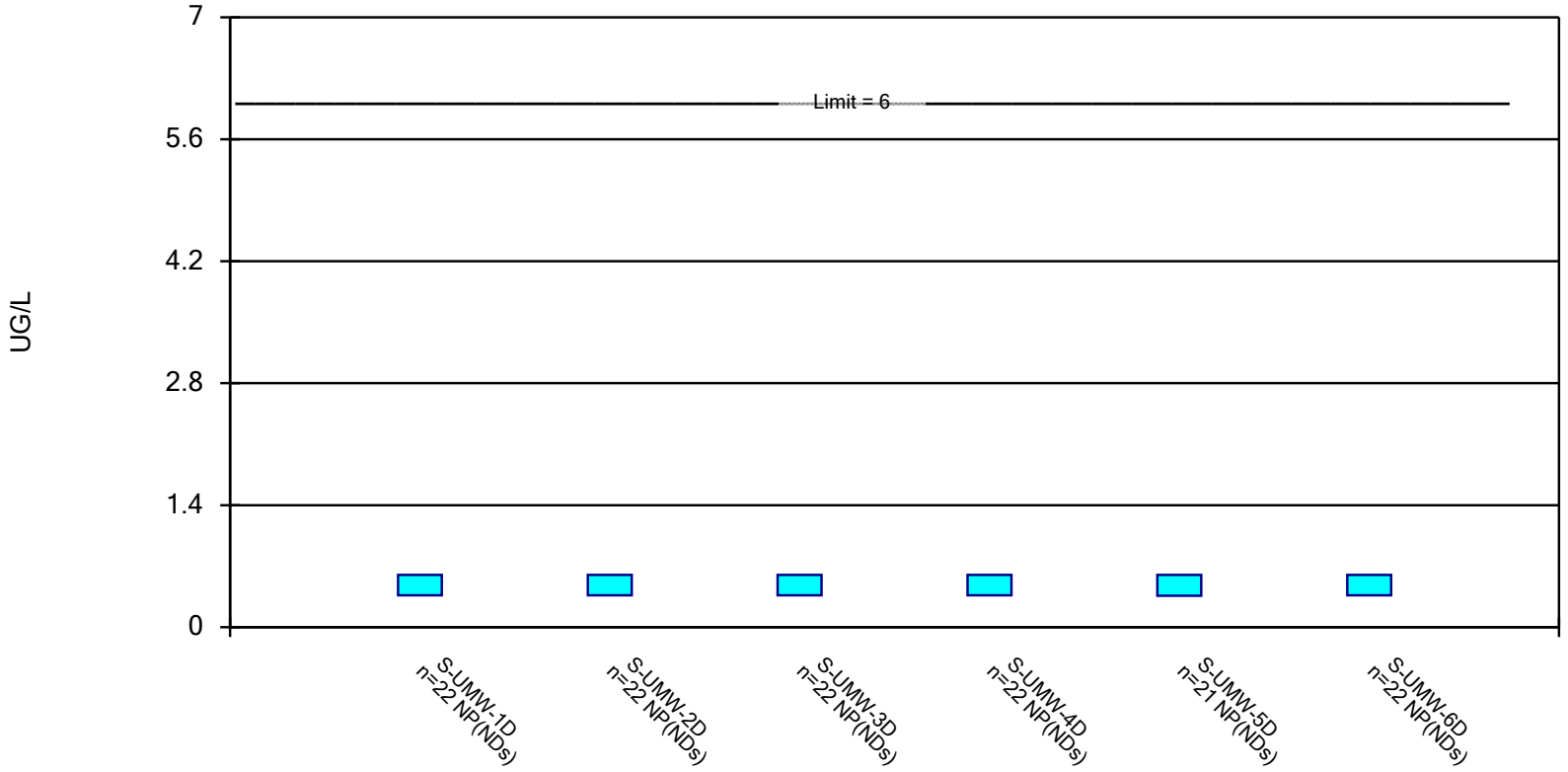


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Sioux E.C. Client: Ameren Data: SEC_DATA

Non-Parametric Confidence Interval

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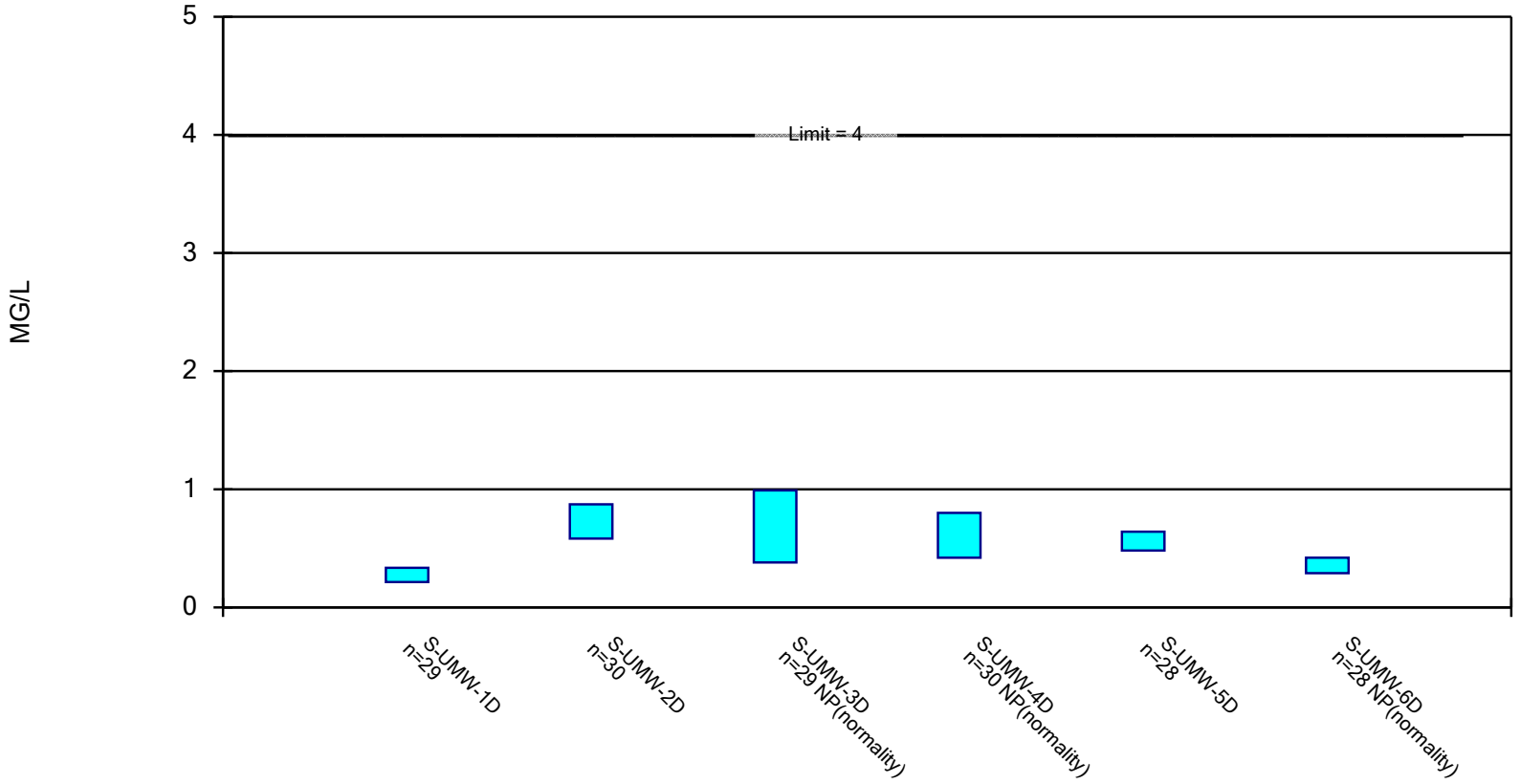
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



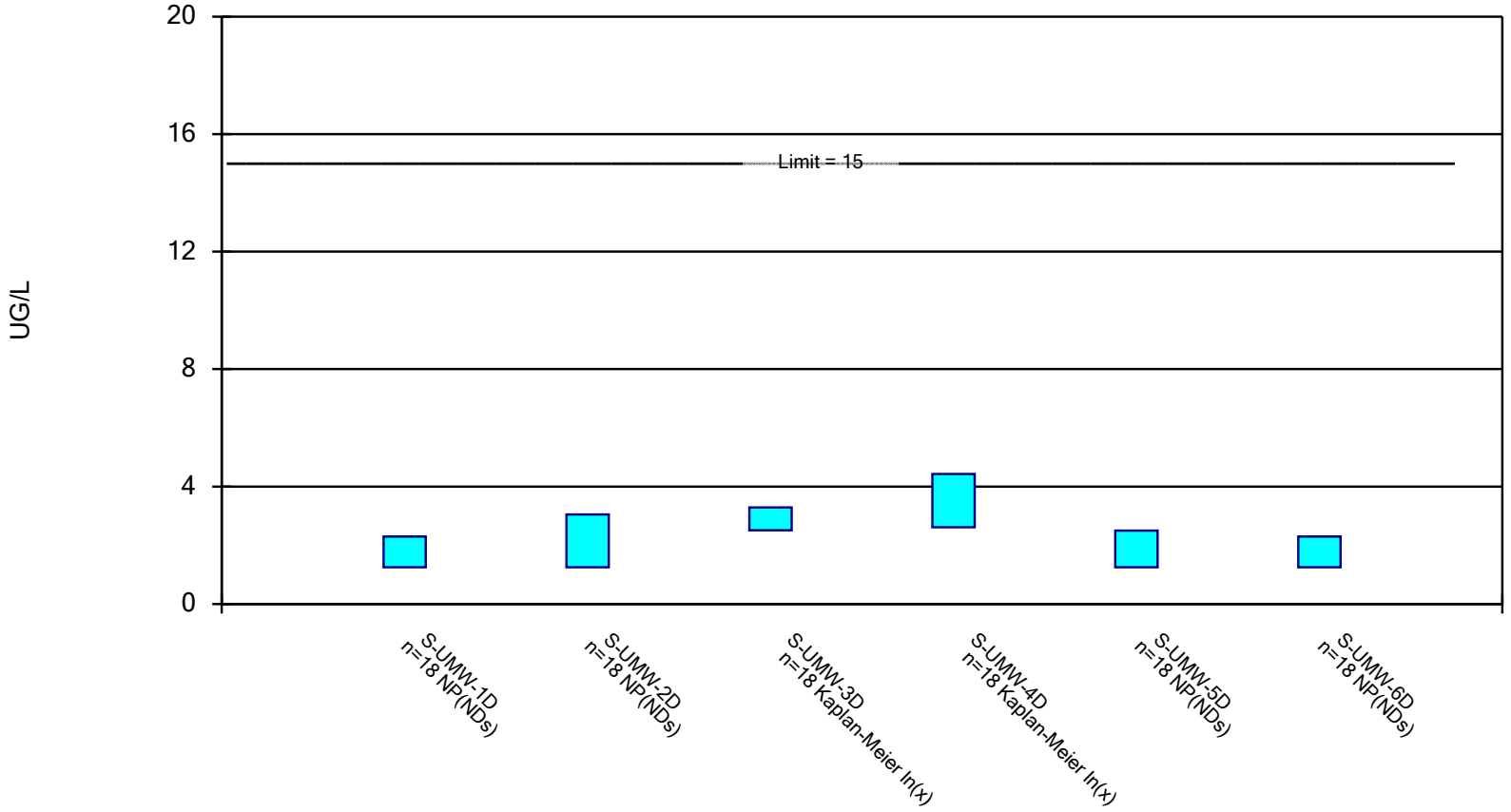
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



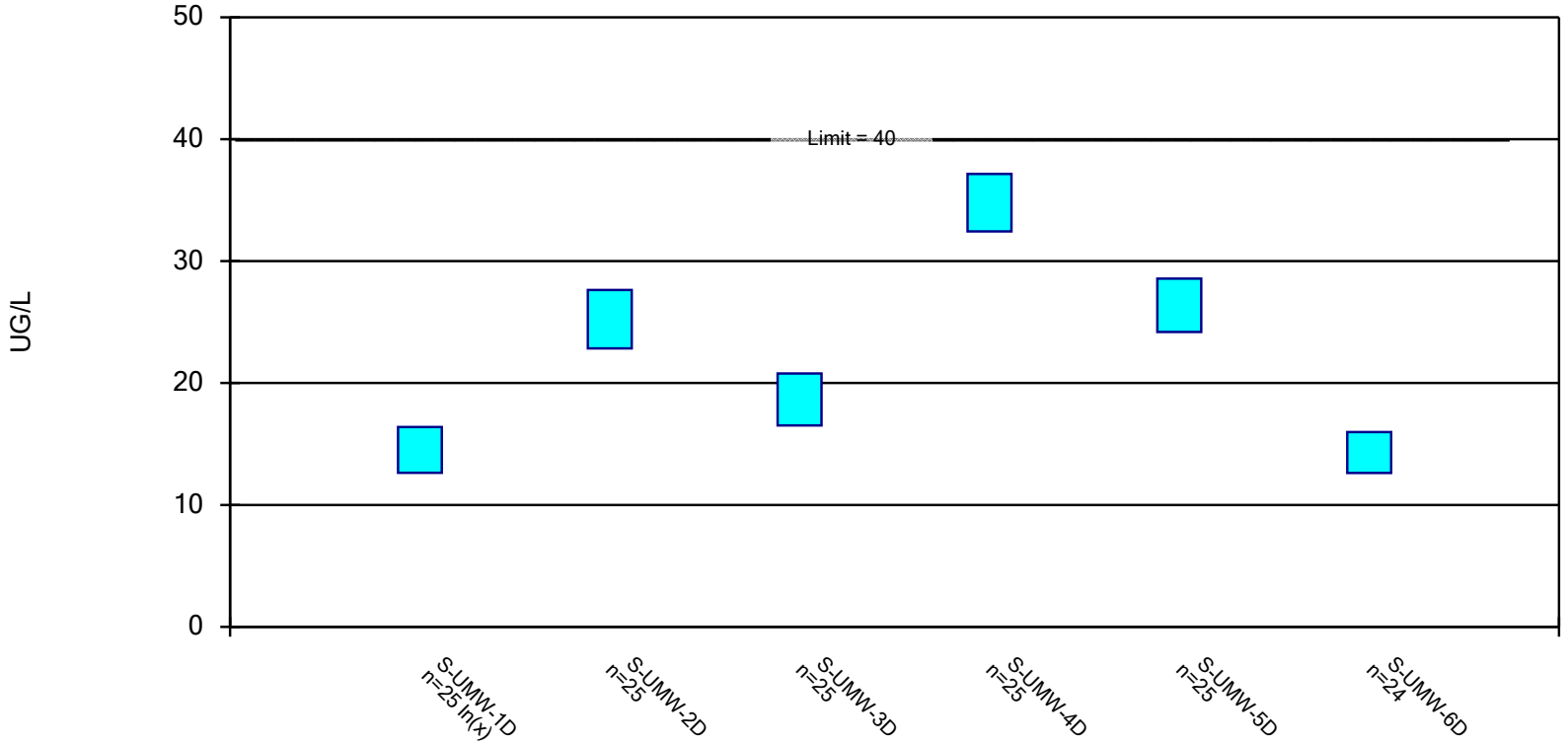
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval

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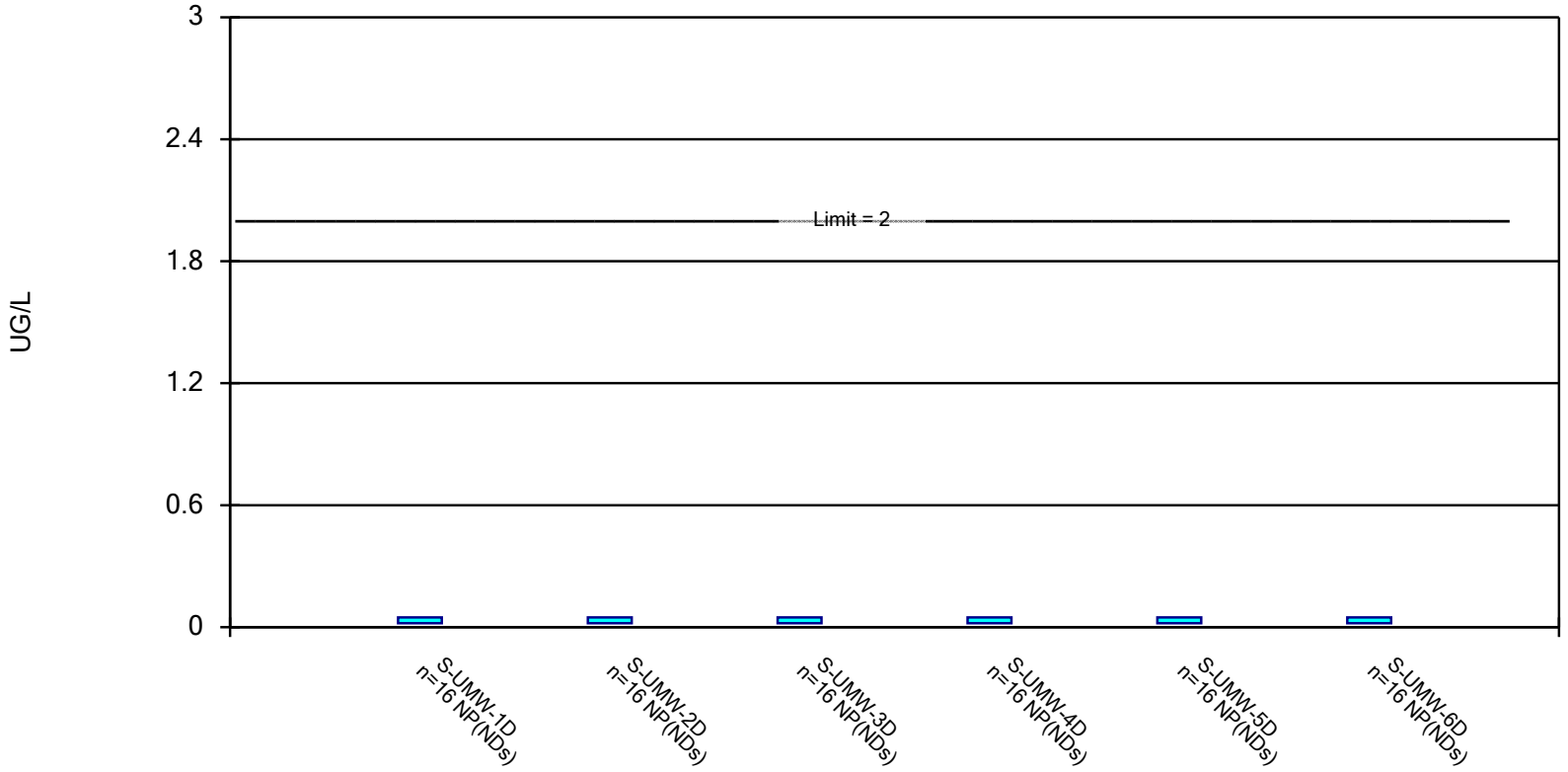
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

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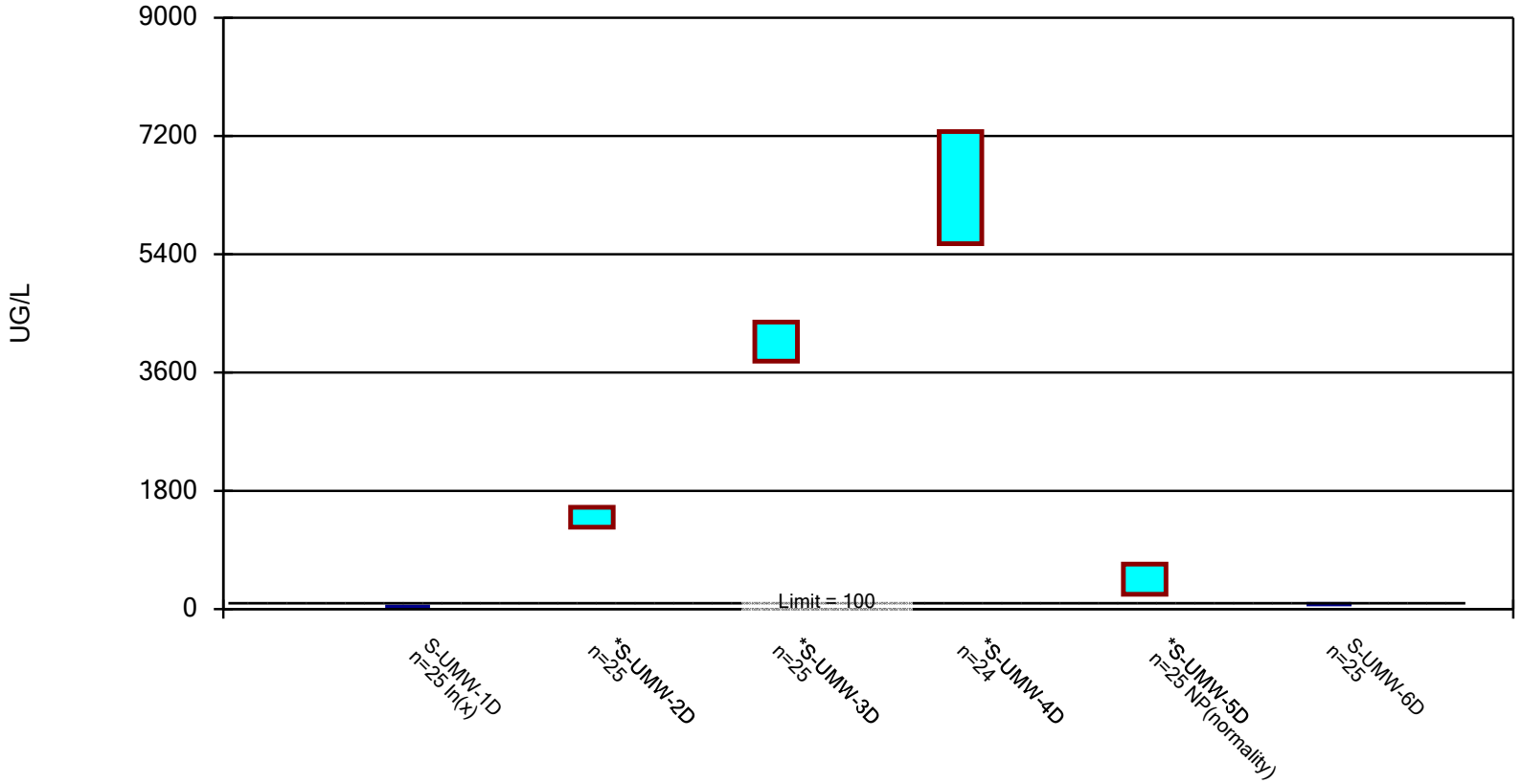
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:39 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



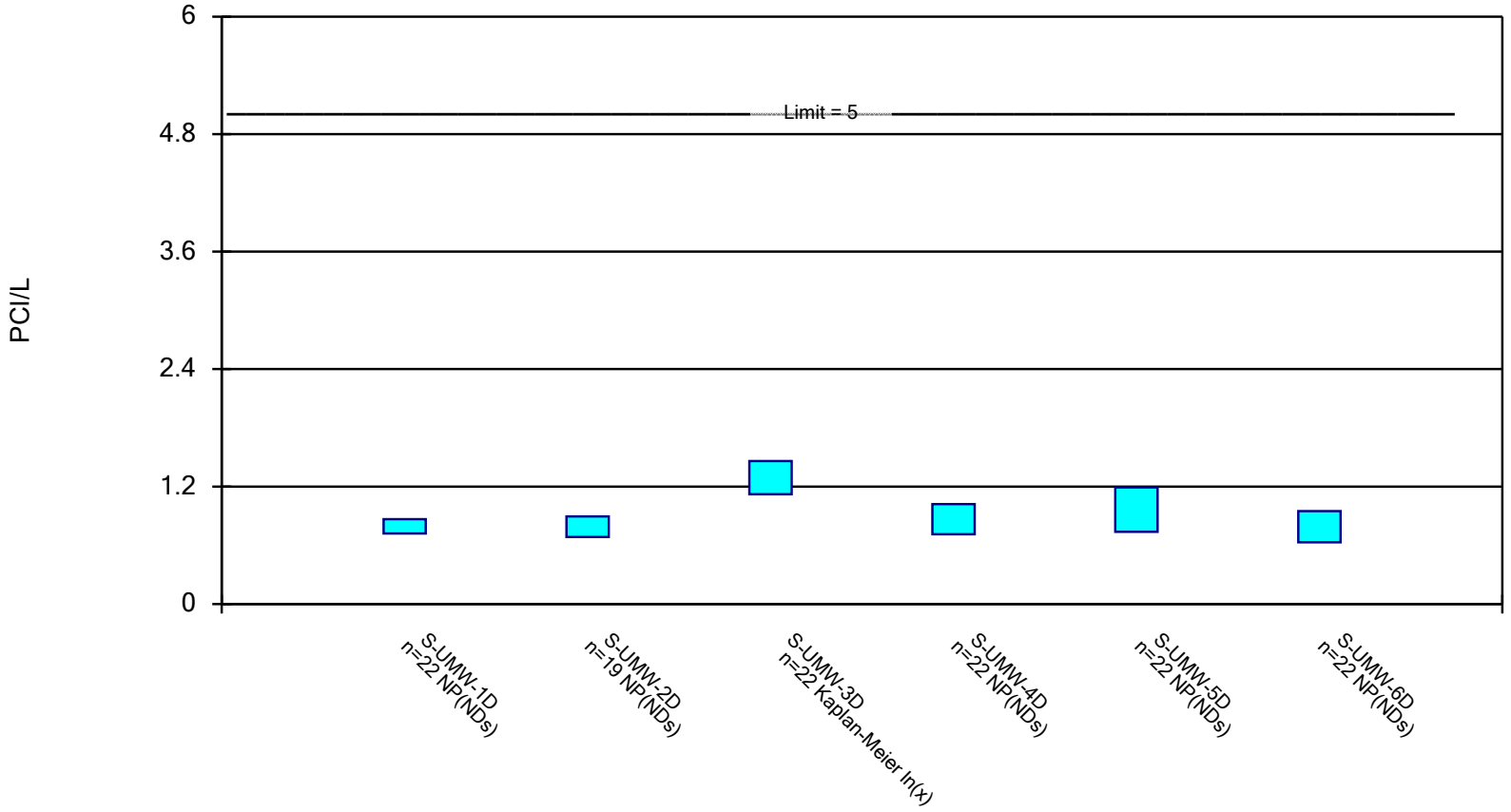
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval

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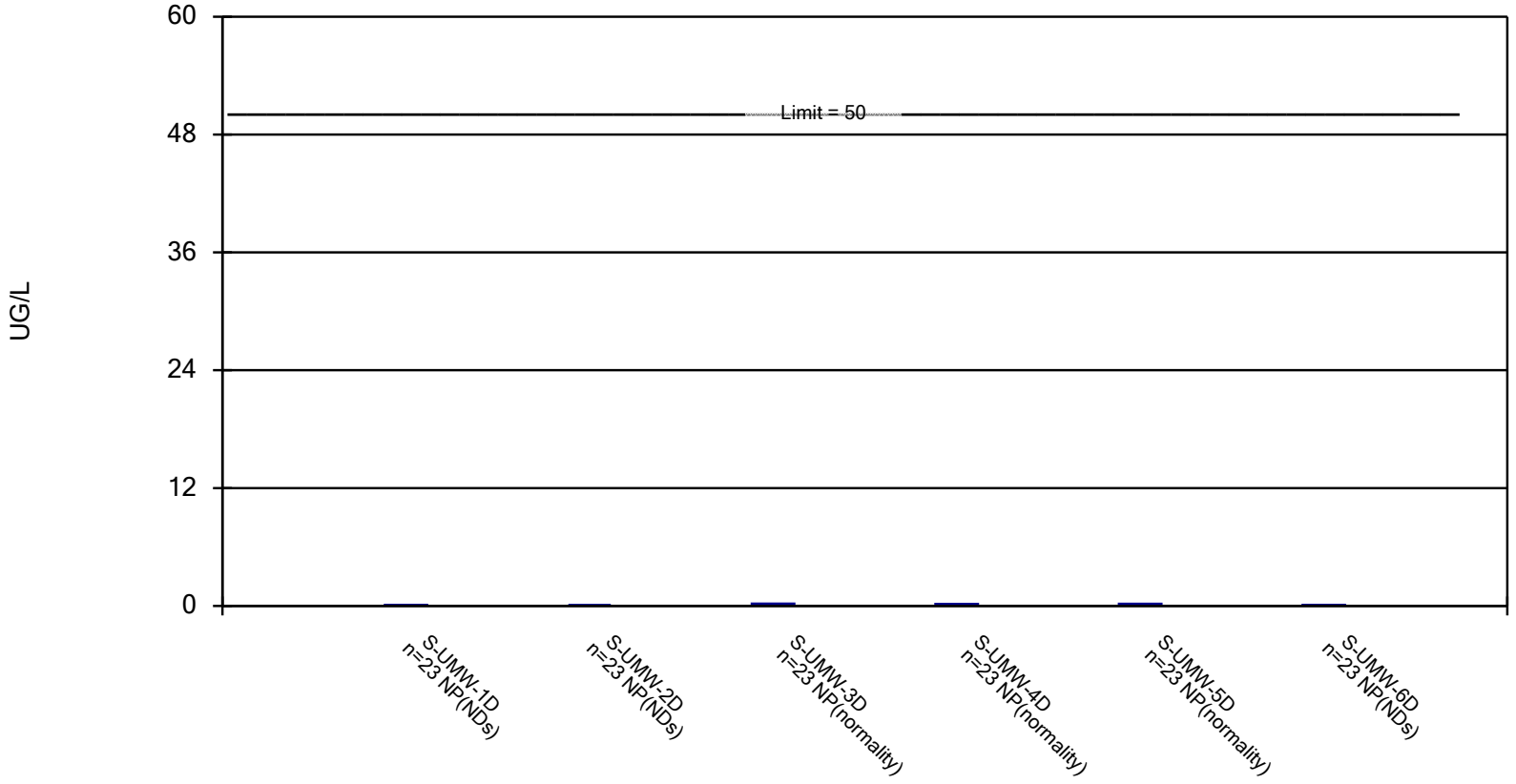
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

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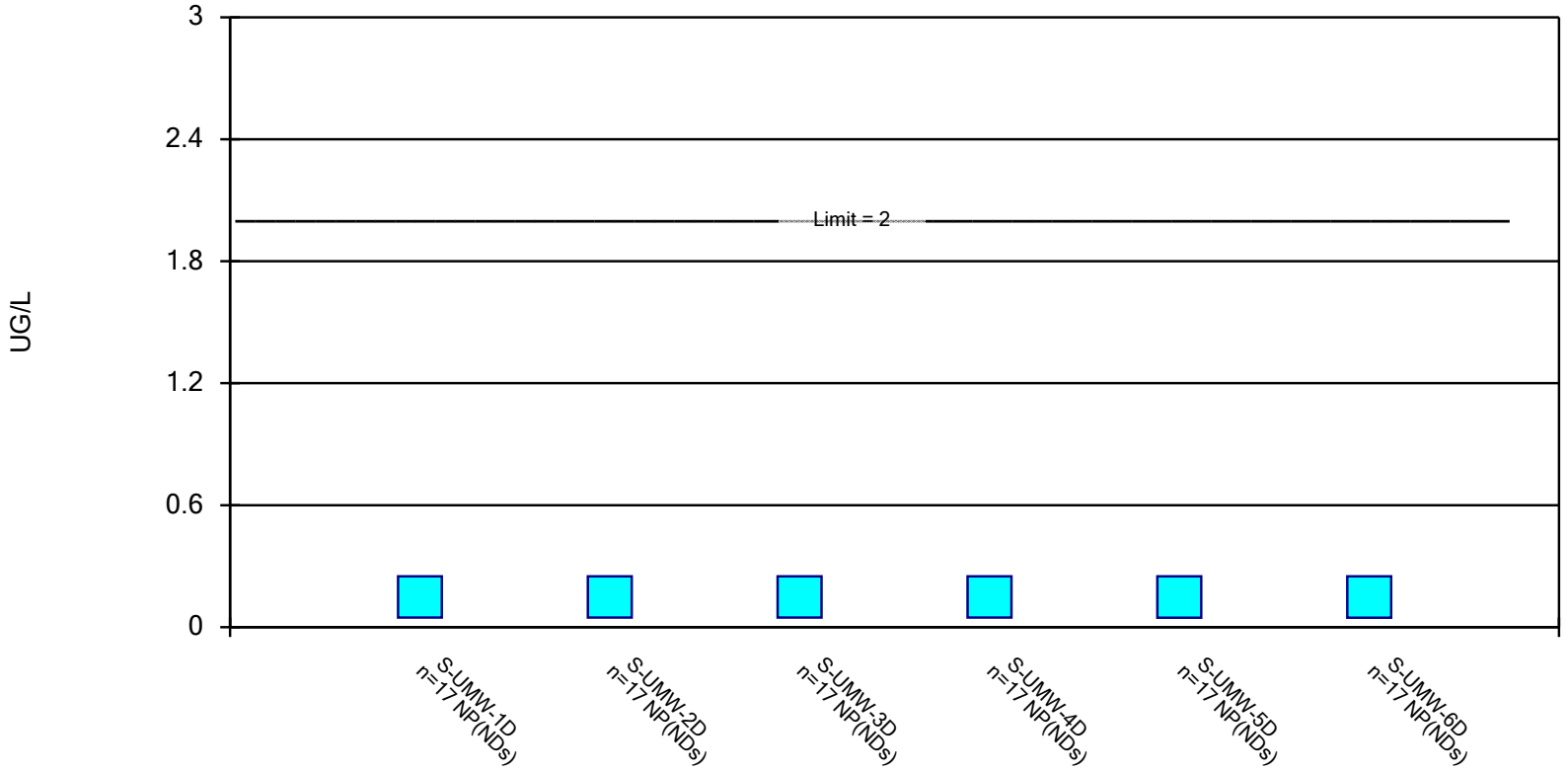
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: THALLIUM, TOTAL Analysis Run 12/19/2025 2:40 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 12/19/2025, 2:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	0.088554	0.038707	6	No	17	52.941	ln(x)	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.061757	0.046687	6	No	17	70.588	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UMW-3D	0.06	0.029	6	No	16	87.5	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-4D	0.06	0.029	6	No	17	94.118	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-5D	0.06	0.013	6	No	17	100	No	0.01	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-UMW-6D	0.06	0.013	6	No	17	100	No	0.01	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-UMW-1D	1.722	1.2313	10	No	24	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-2D	2.9424	2.0952	10	No	25	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UMW-3D	0.87535	0.47233	10	No	25	8	No	0.01	Param.
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BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
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BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	0.195	0.08	4	No	17	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	0.195	0.08	4	No	18	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.028	0.0145	5	No	21	90.476	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-UMW-2D	0.38847	0.18115	5	No	24	29.167	No	0.01	Param.
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CADMIUM, TOTAL (UG/L)	S-UMW-4D	1.6657	0.63342	5	No	24	16.667	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.14524	0.039106	5	No	24	37.5	ln(x)	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.03	0.0145	5	No	24	83.333	No	0.01	NP (NDs)
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COBALT, TOTAL (UG/L)	S-UMW-2D	0.6	0.365	6	No	22	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-3D	0.6	0.365	6	No	22	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-4D	0.6	0.365	6	No	22	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-5D	0.6	0.36	6	No	21	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-UMW-6D	0.6	0.365	6	No	22	100	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	0.33502	0.21464	4	No	29	10.345	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-2D	0.87287	0.582	4	No	30	3.3333	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-3D	0.99	0.38	4	No	29	17.241	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-4D	0.8	0.42	4	No	30	10	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	0.64061	0.48081	4	No	28	0	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	0.42	0.29	4	No	28	17.857	No	0.01	NP (normality)
LEAD, TOTAL (UG/L)	S-UMW-1D	2.3	1.25	15	No	18	88.889	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-2D	3.05	1.25	15	No	18	77.778	No	0.01	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 12/19/2025, 2:40 PM

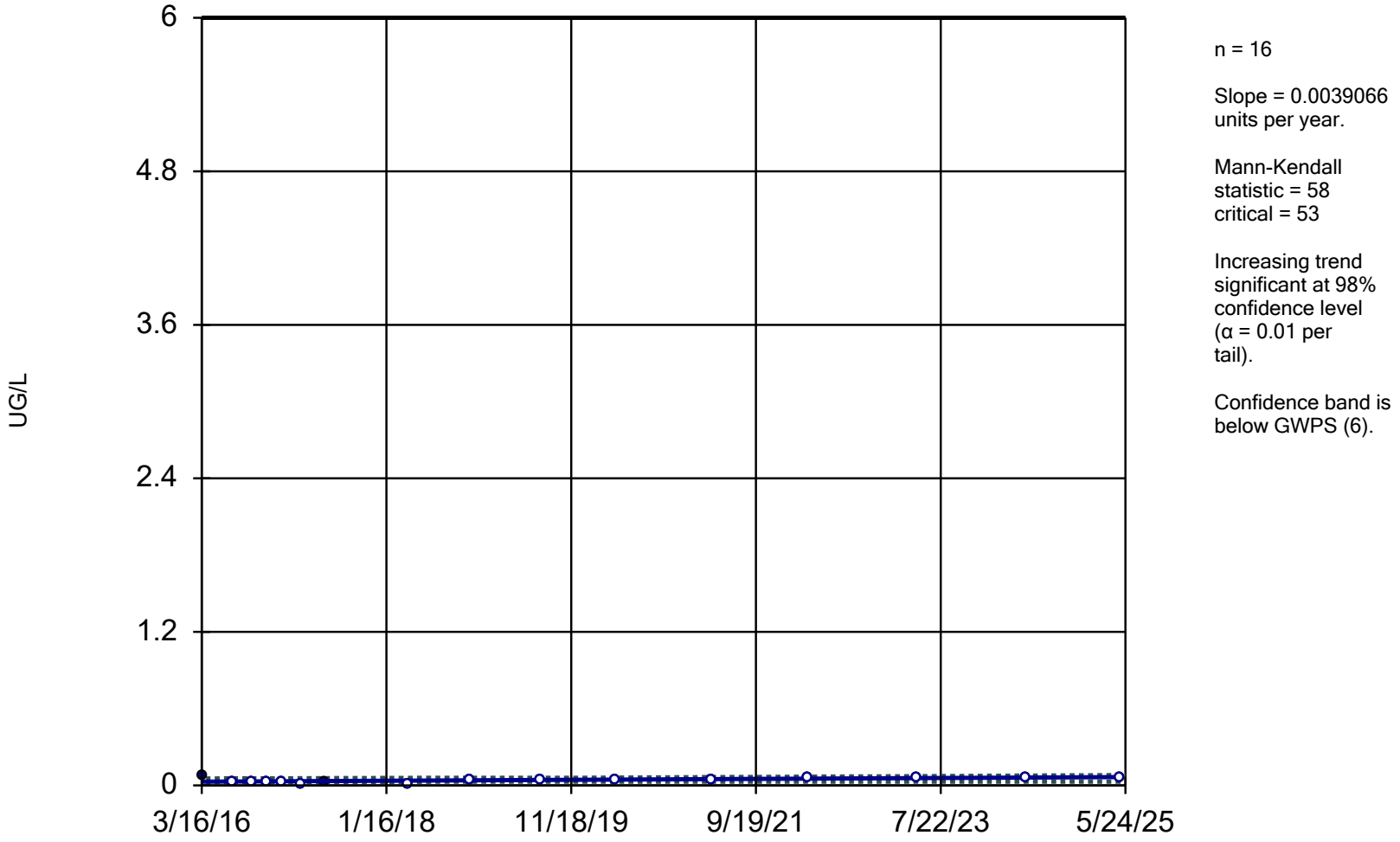
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LEAD, TOTAL (UG/L)	S-UMW-4D	4.4261	2.6163	15	No	18	61.111	ln(x)	0.01	Param.
LEAD, TOTAL (UG/L)	S-UMW-5D	2.5	1.25	15	No	18	83.333	No	0.01	NP (NDs)
LEAD, TOTAL (UG/L)	S-UMW-6D	2.3	1.25	15	No	18	88.889	No	0.01	NP (NDs)
LITHIUM, TOTAL (UG/L)	S-UMW-1D	16.394	12.637	40	No	25	0	ln(x)	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-2D	27.629	22.835	40	No	25	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-3D	20.778	16.526	40	No	25	4	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-4D	37.151	32.441	40	No	25	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-5D	28.562	24.182	40	No	25	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UMW-6D	15.971	12.621	40	No	24	0	No	0.01	Param.
MERCURY, TOTAL (UG/L)	S-UMW-1D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-2D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-3D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-4D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-5D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UMW-6D	0.048	0.0195	2	No	16	100	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-UMW-1D	49.431	31.586	100	No	25	0	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-2D**	**1549.9**	**1247**	**100**	**Yes**	**25**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-3D**	**4367.8**	**3772.2**	**100**	**Yes**	**25**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-4D**	**7266.6**	**5560.1**	**100**	**Yes**	**24**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-5D**	**685**	**226**	**100**	**Yes**	**25**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-6D	90.614	60.282	100	No	25	0	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.8665	0.7205	5	No	22	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-2D	0.8955	0.685	5	No	19	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	1.4609	1.1212	5	No	22	72.727	ln(x)	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	1.0205	0.7125	5	No	22	86.364	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	1.192	0.7375	5	No	22	77.273	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.949	0.63	5	No	22	95.455	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0.095	0.043	50	No	23	86.957	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-2D	0.094	0.09	50	No	23	82.609	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UMW-3D	0.23	0.09	50	No	23	39.13	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-4D	0.2	0.09	50	No	23	39.13	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-5D	0.21	0.09	50	No	23	43.478	No	0.01	NP (normality)
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0.09	0.043	50	No	23	100	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-1D	0.25	0.047	2	No	17	94.118	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-2D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-3D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-4D	0.25	0.047	2	No	17	88.235	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-5D	0.25	0.0465	2	No	17	94.118	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UMW-6D	0.25	0.0465	2	No	17	100	No	0.01	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 16

Slope = 0.0039066 units per year.

Mann-Kendall statistic = 58
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

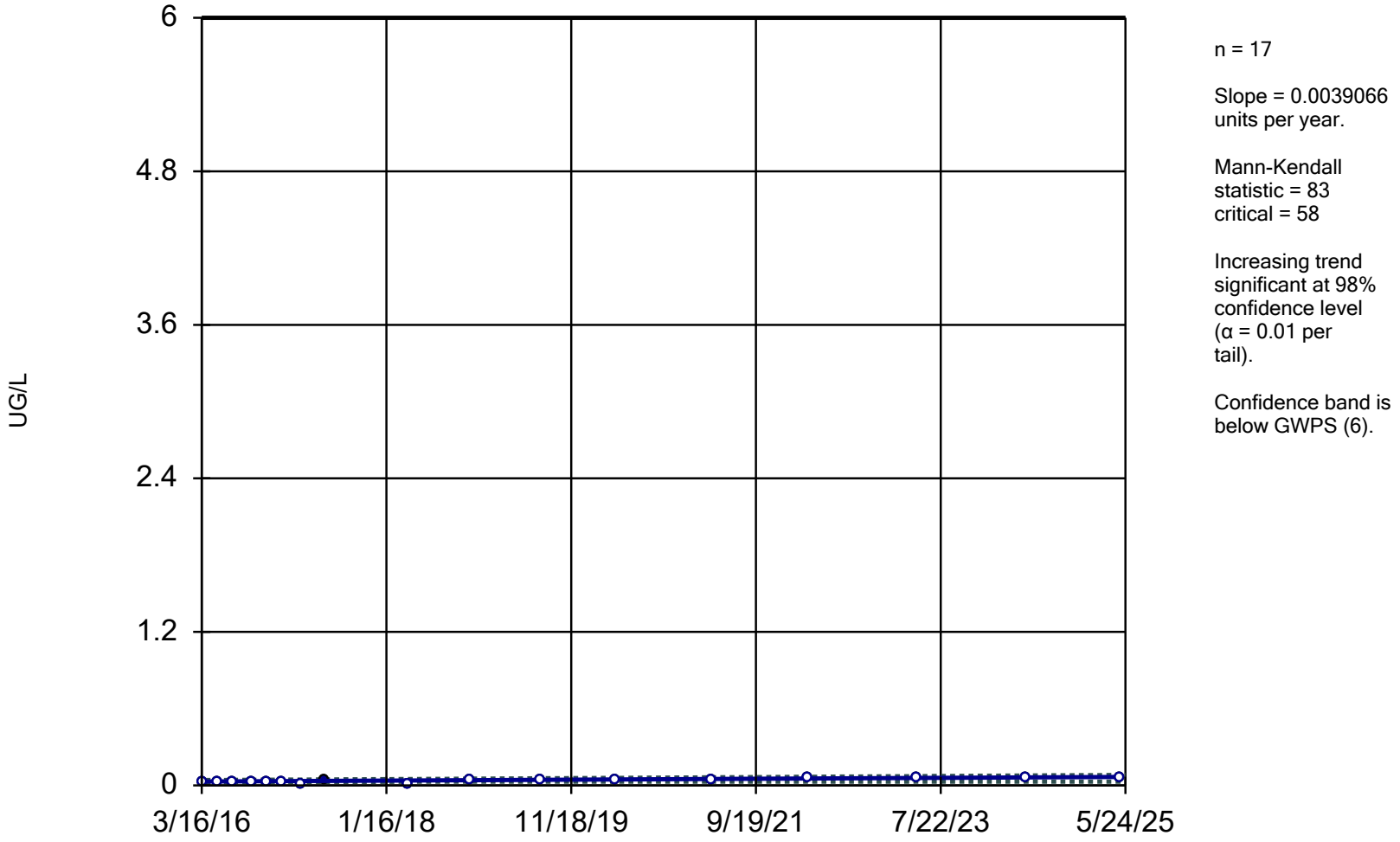
Constituent: ANTIMONY, TOTAL Analysis Run 12/19/2025 2:44 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 17

Slope = 0.0039066 units per year.

Mann-Kendall statistic = 83
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

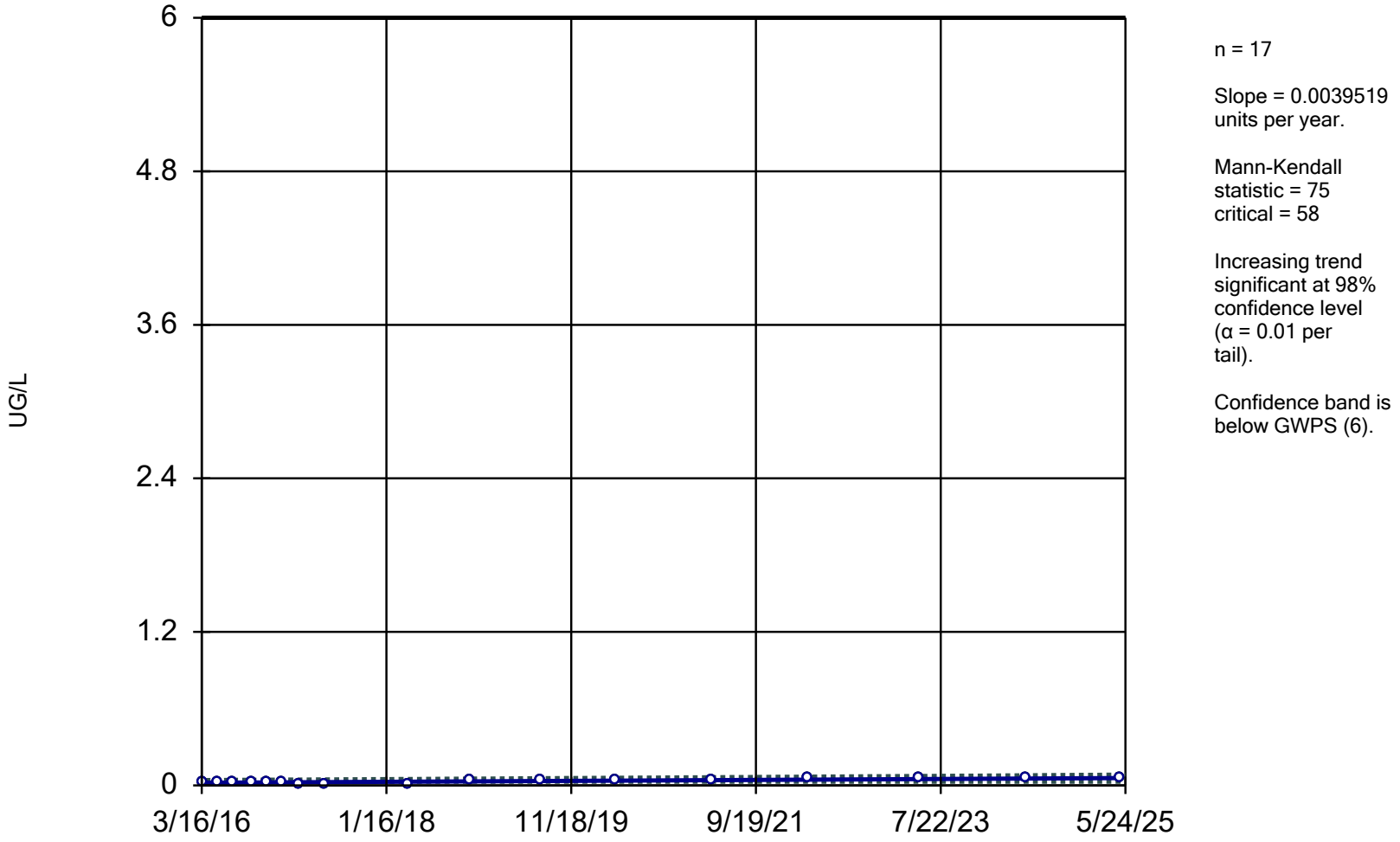
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 17

Slope = 0.0039519 units per year.

Mann-Kendall statistic = 75
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

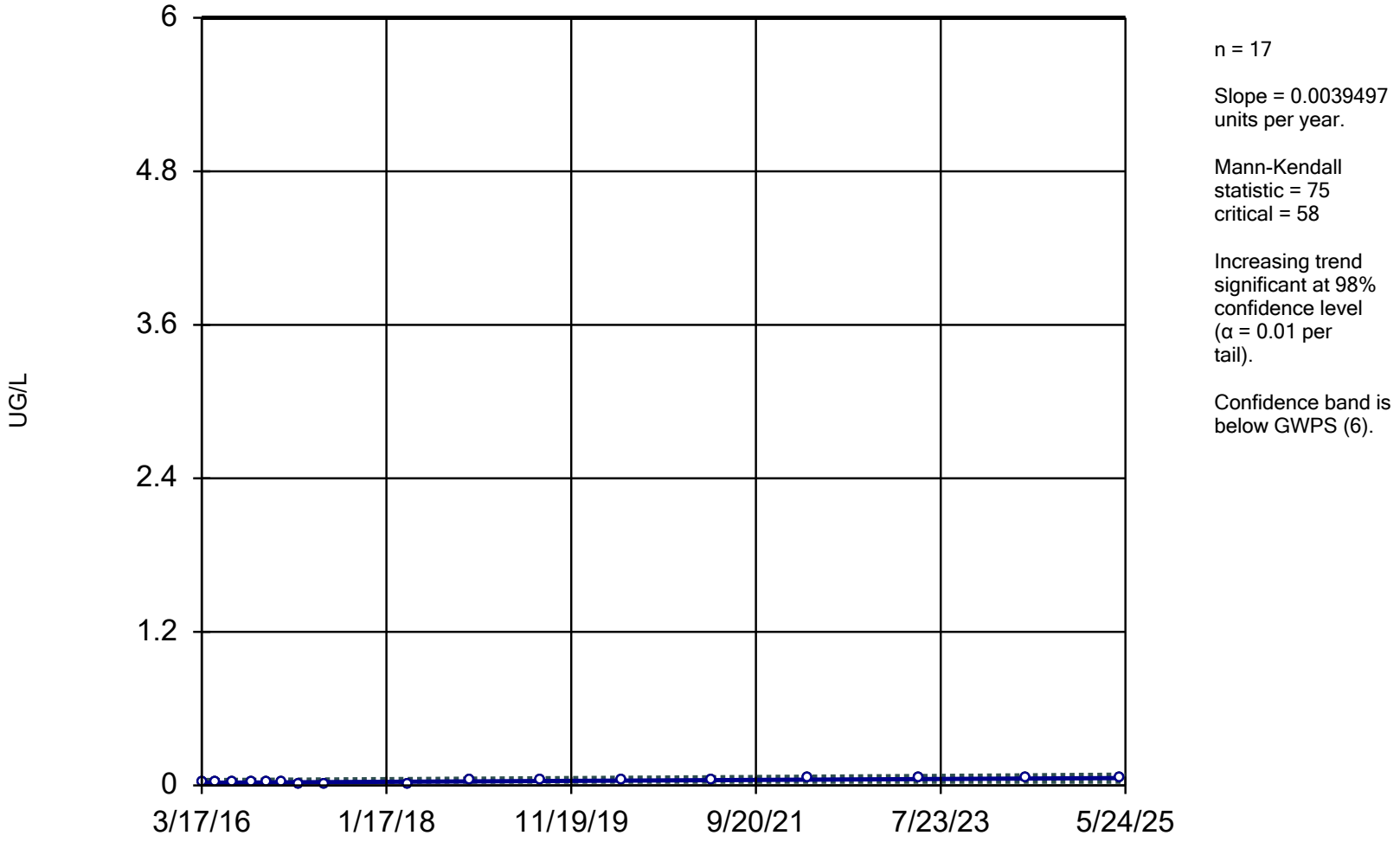
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 17

Slope = 0.0039497 units per year.

Mann-Kendall statistic = 75
critical = 58

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

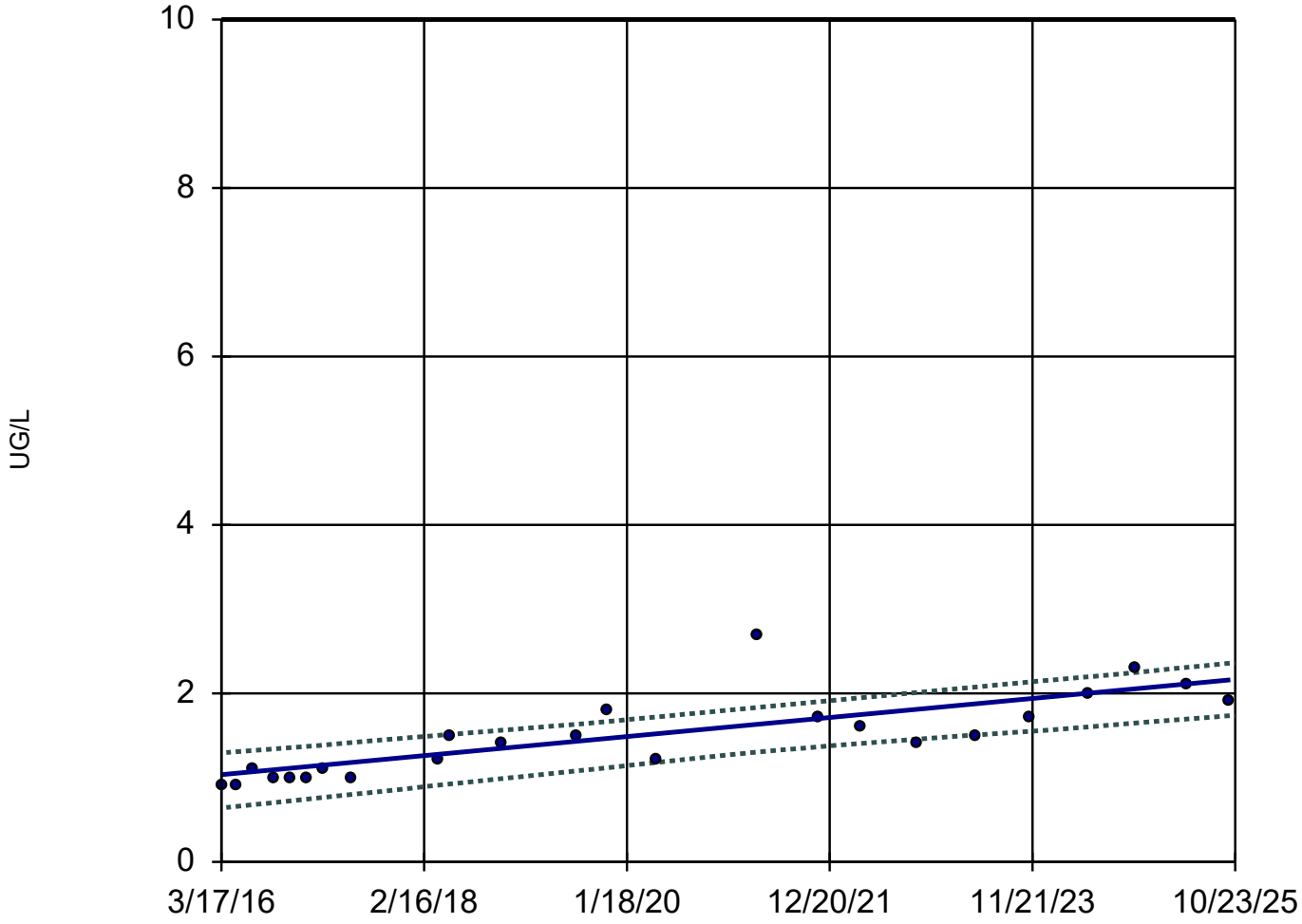
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 24

Slope = 0.11783 units per year.

Mann-Kendall statistic = 191
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

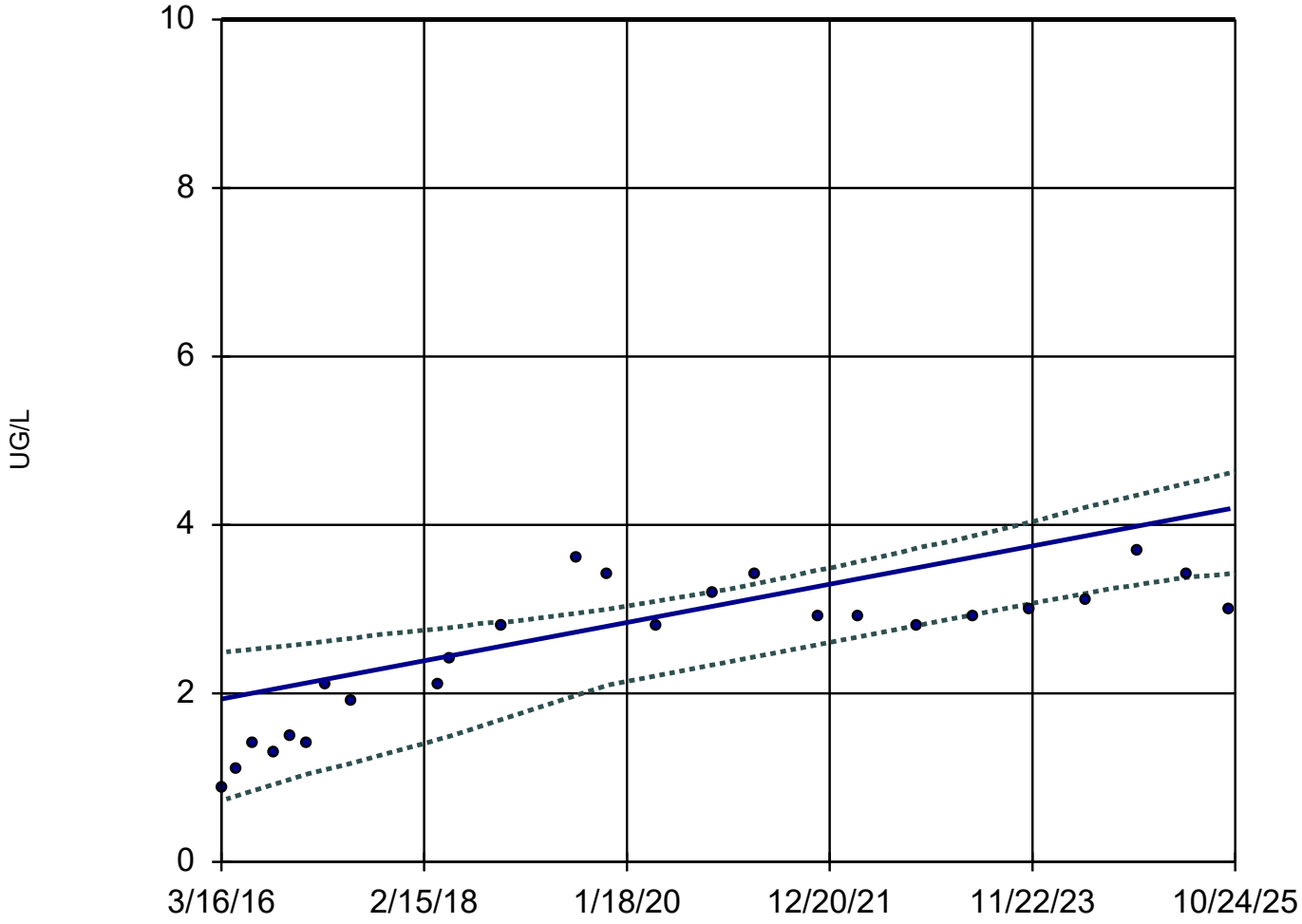
Constituent: ARSENIC, TOTAL Analysis Run 12/19/2025 2:44 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 25

Slope = 0.23615 units per year.

Mann-Kendall statistic = 200
critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

Constituent: ARSENIC, TOTAL Analysis Run 12/19/2025 2:44 PM

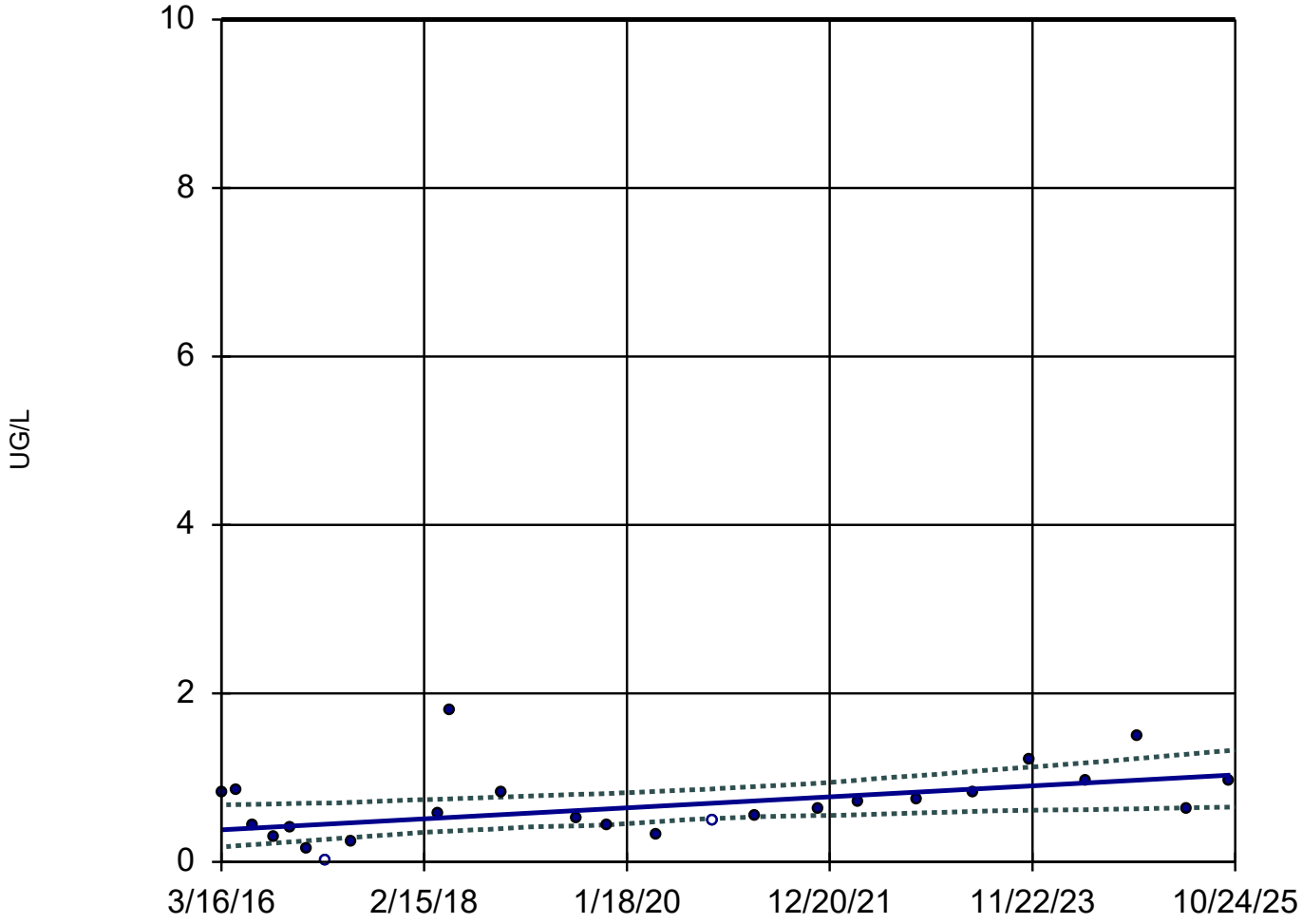
Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 25

Slope = 0.067932 units per year.

Mann-Kendall statistic = 112
critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

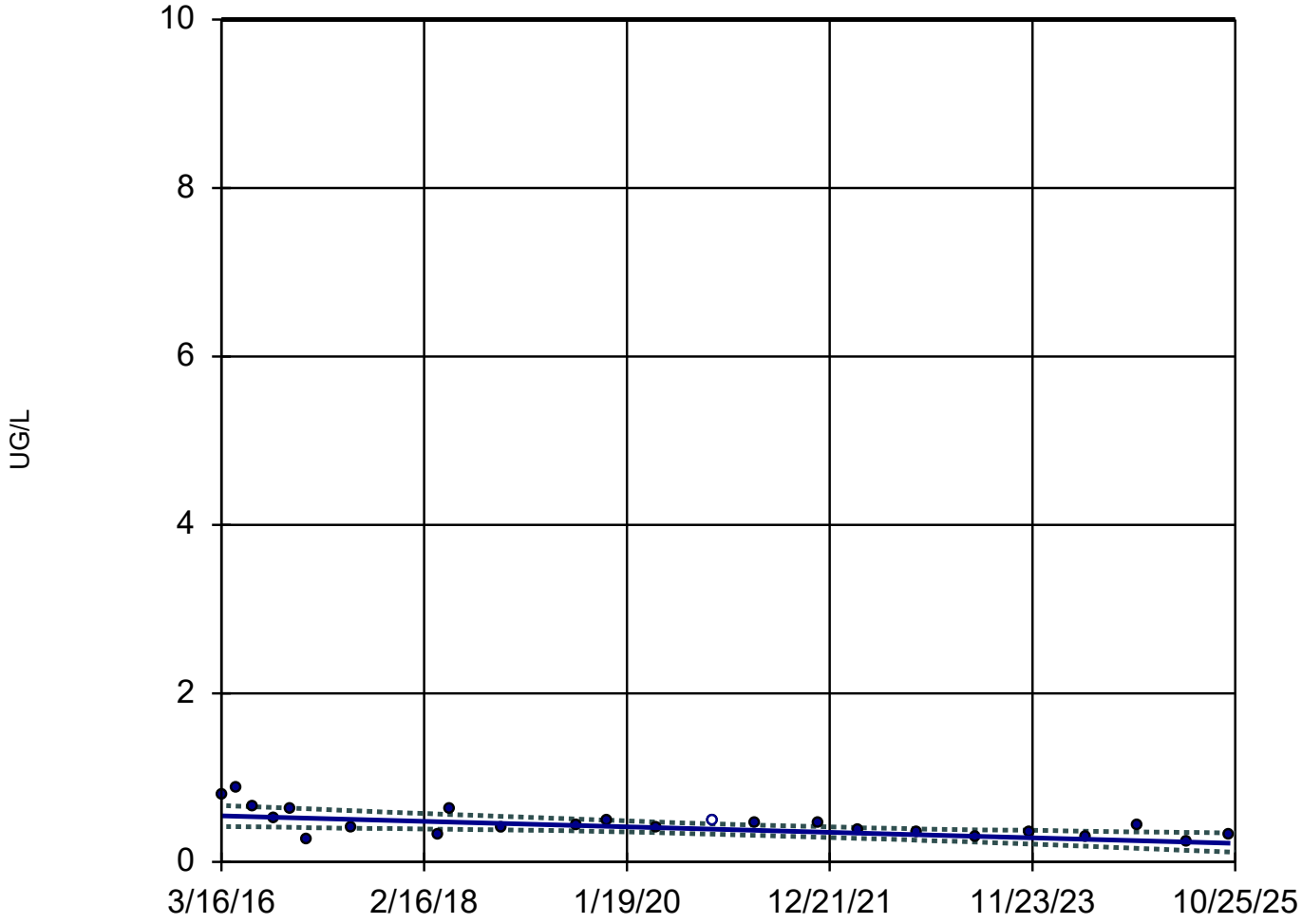
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 24

Slope = -0.033838 units per year.

Mann-Kendall statistic = -147
critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

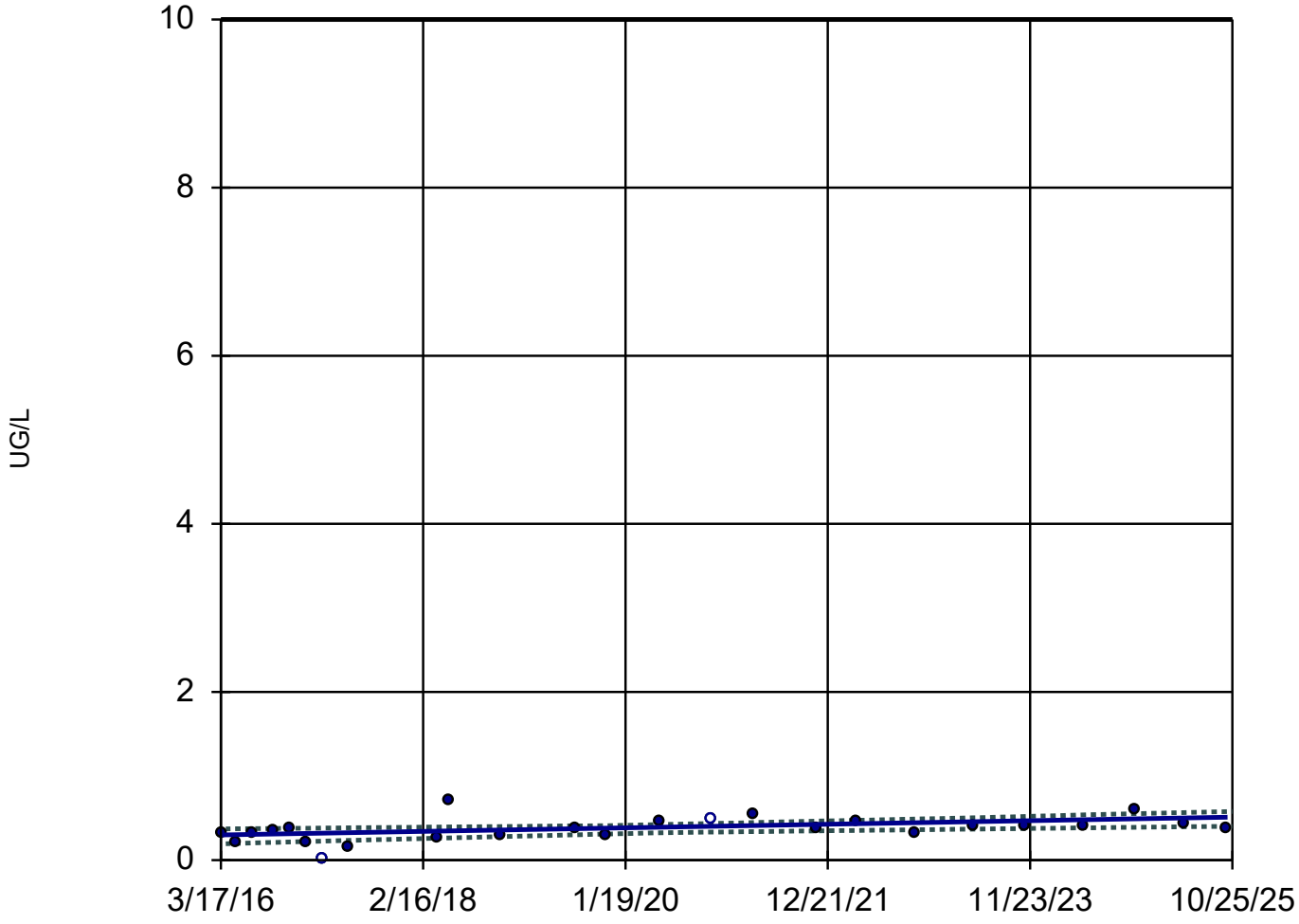
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 25

Slope = 0.02213 units per year.

Mann-Kendall statistic = 119
critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

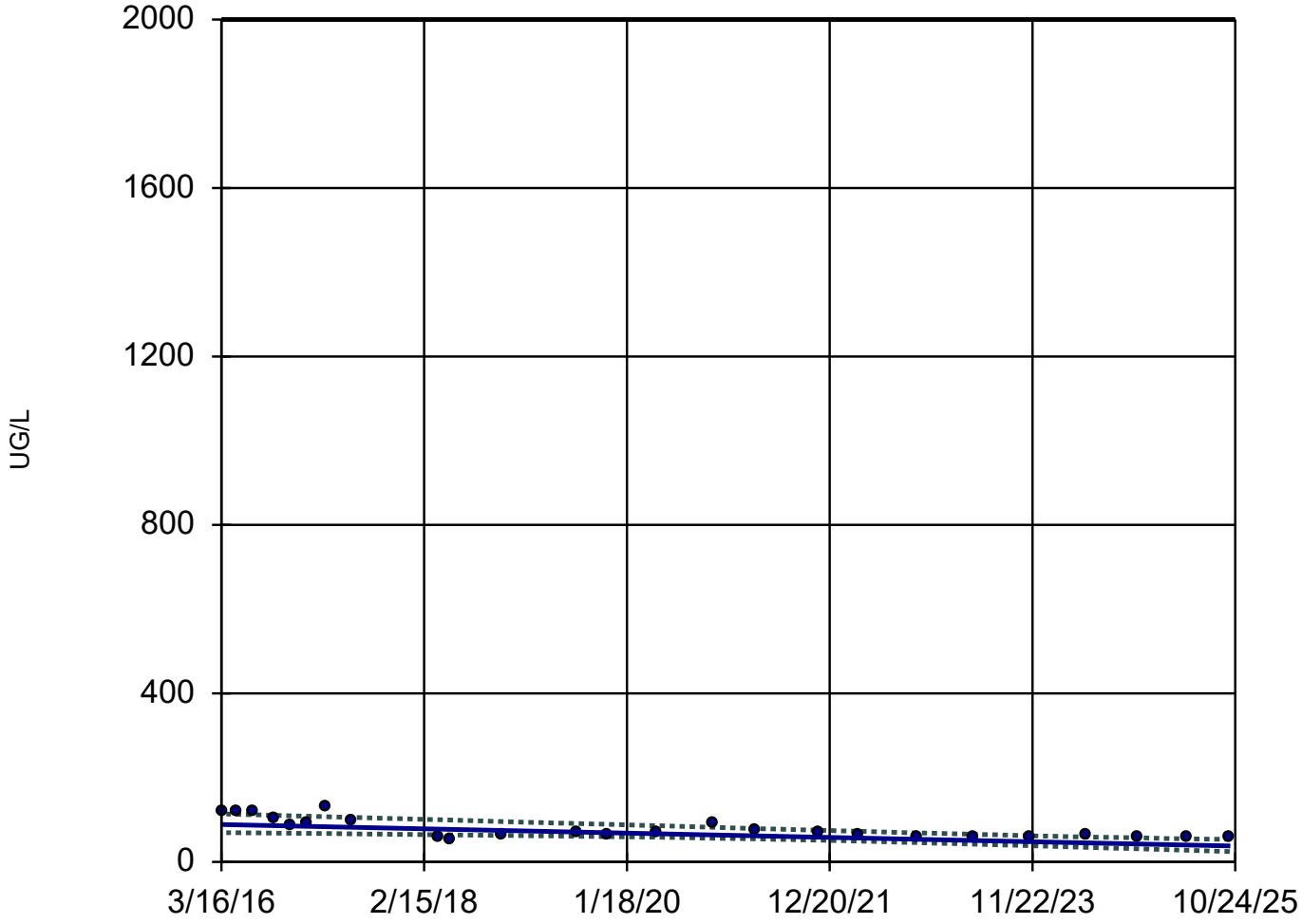
Constituent: ARSENIC, TOTAL Analysis Run 12/19/2025 2:44 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 25

Slope = -5.3068 units per year.

Mann-Kendall statistic = -185 critical = -101

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

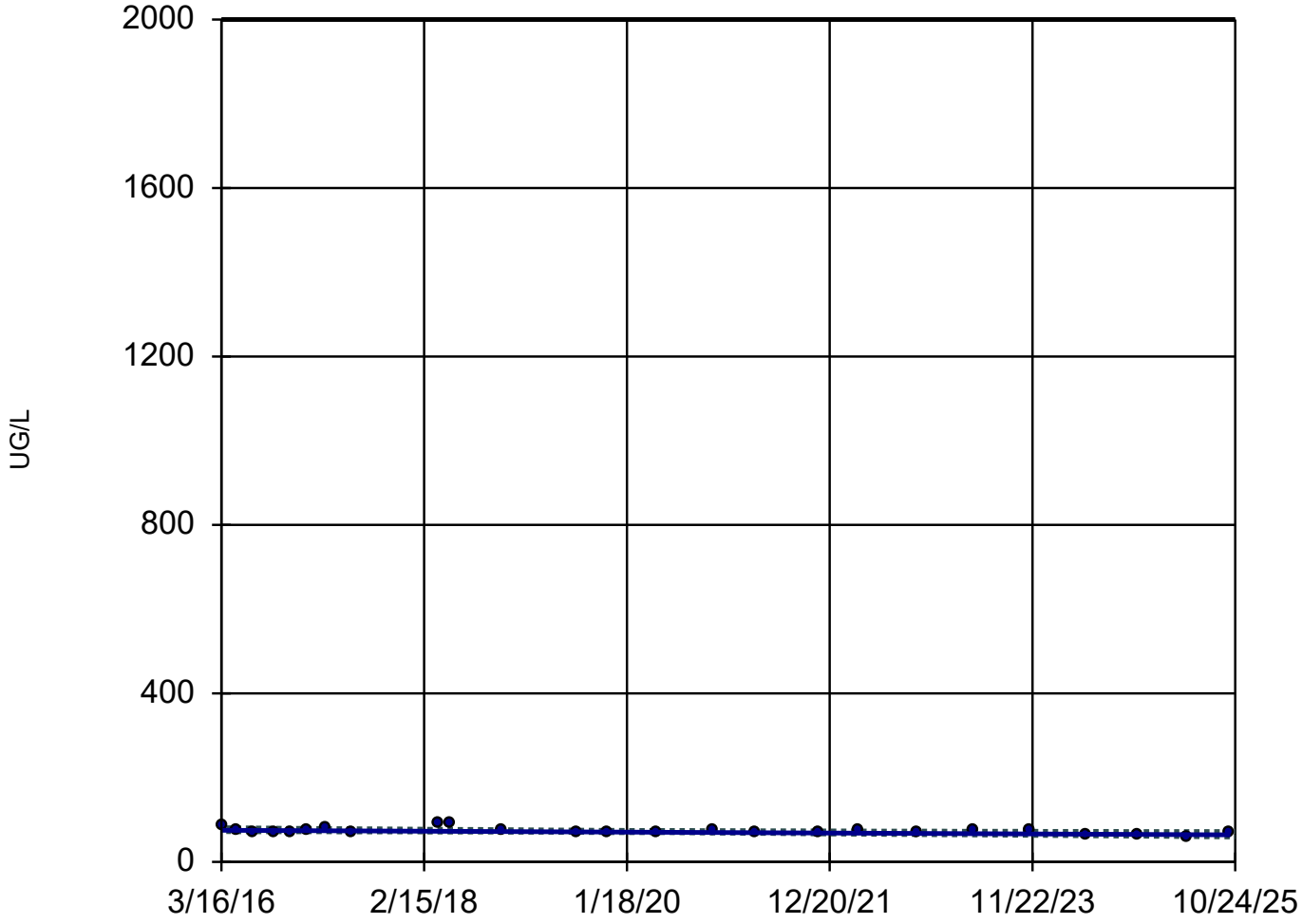
Constituent: BARIUM, TOTAL Analysis Run 12/19/2025 2:44 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 25

Slope = -1.1355 units per year.

Mann-Kendall statistic = -112 critical = -101

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

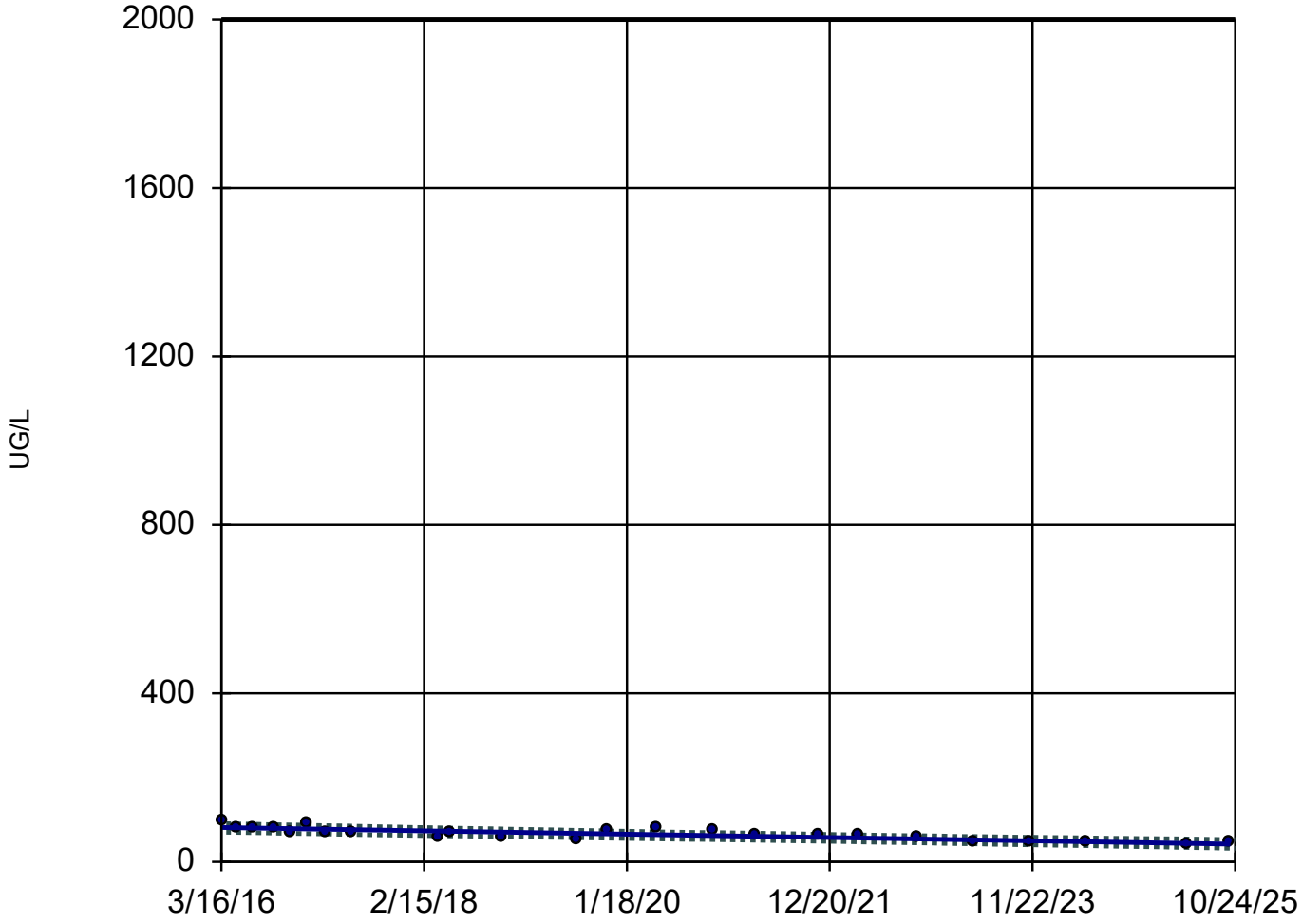
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 24

Slope = -4.1075 units per year.

Mann-Kendall statistic = -184 critical = -95

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

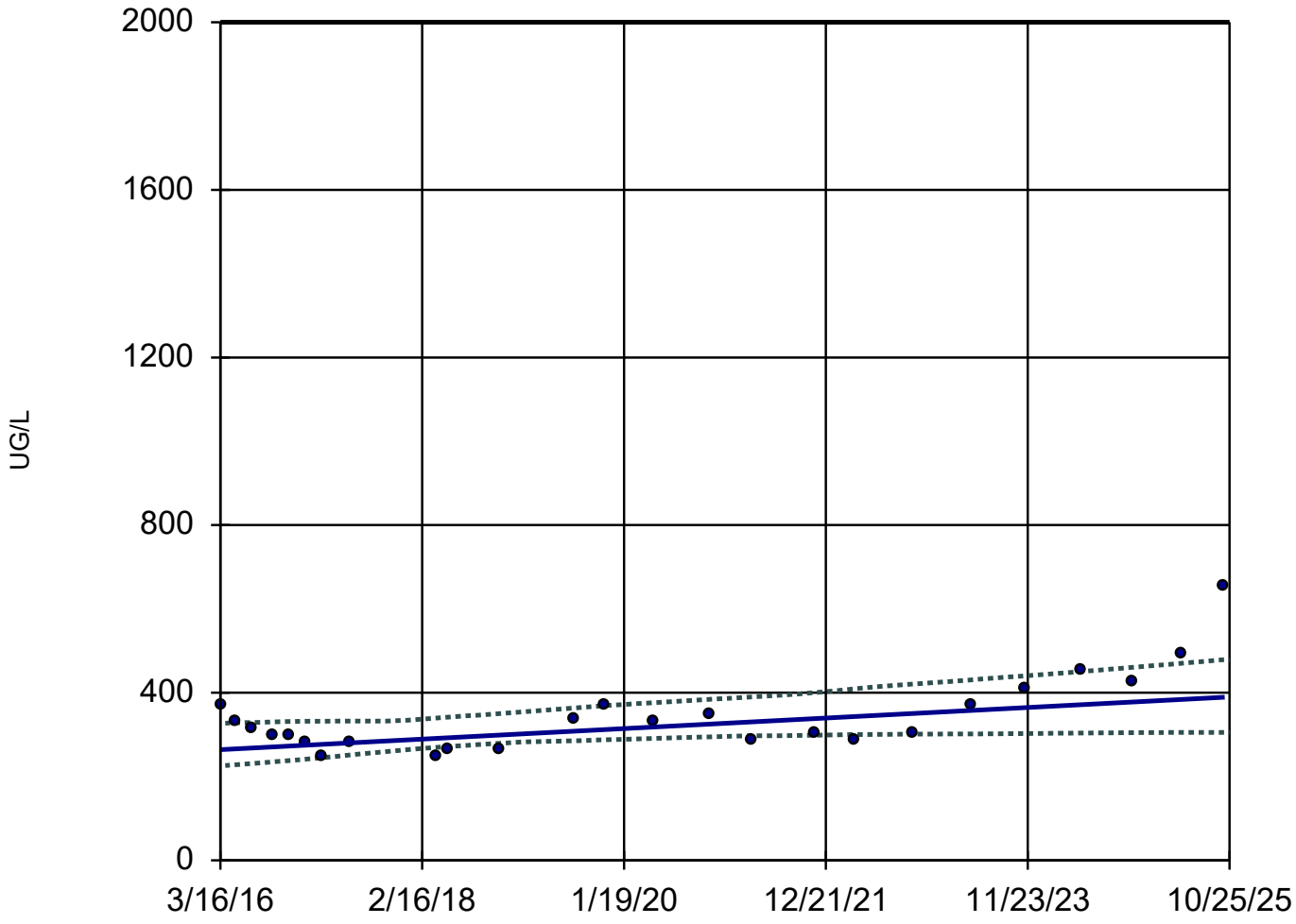
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 25

Slope = 13.111 units per year.

Mann-Kendall statistic = 123 critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

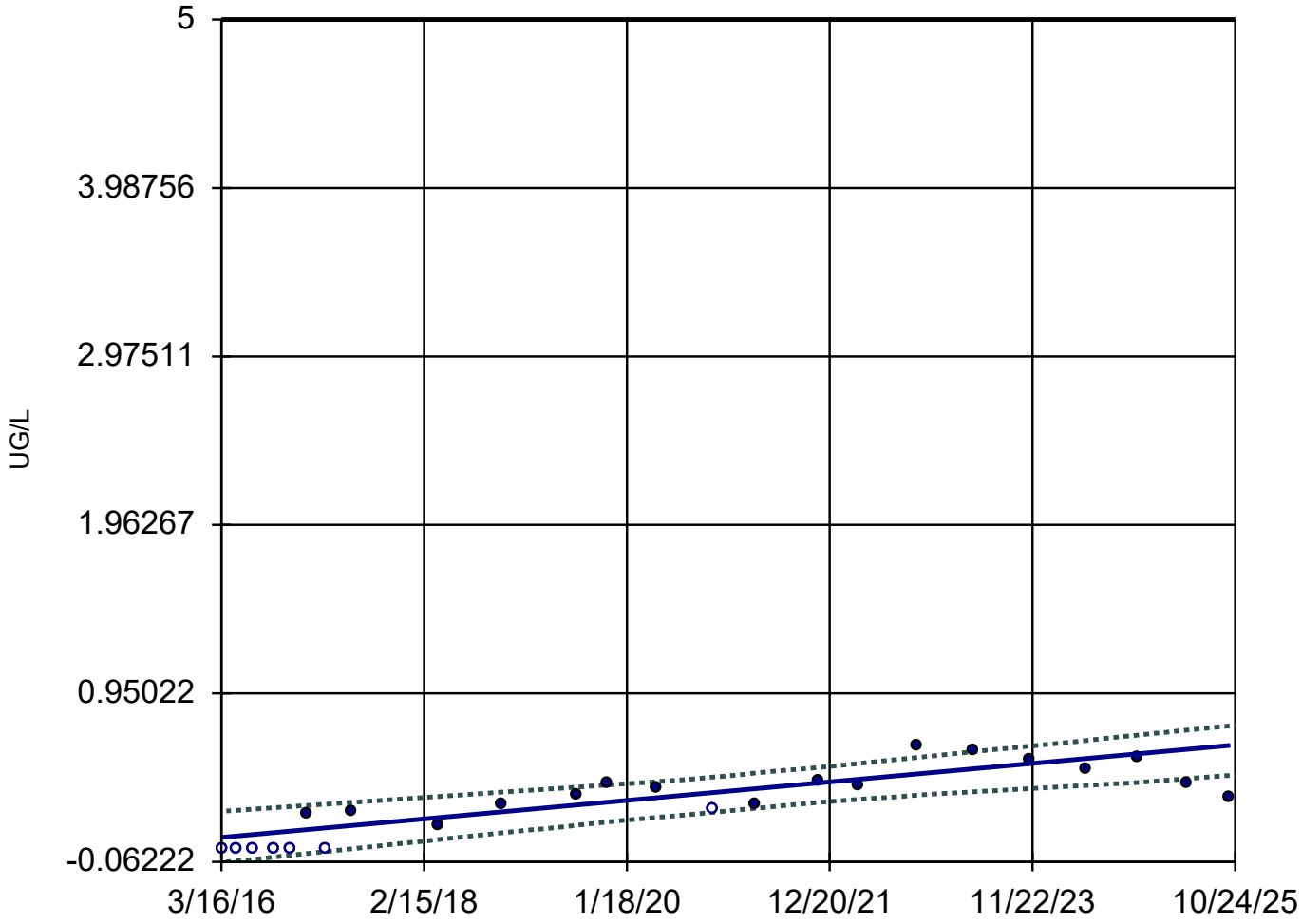
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 24

Slope = 0.057855 units per year.

Mann-Kendall statistic = 177
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

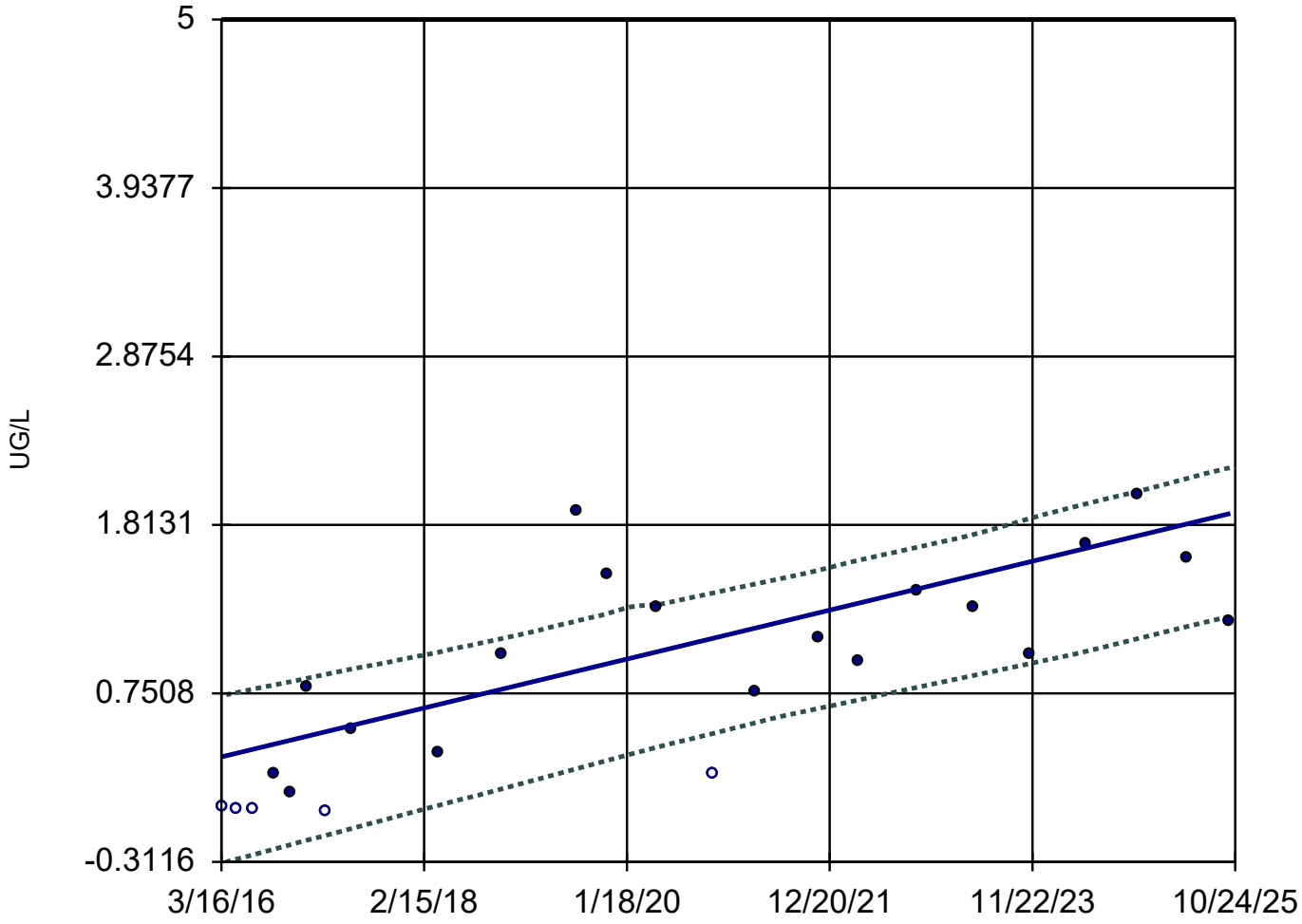
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 24

Slope = 0.16038 units per year.

Mann-Kendall statistic = 156
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

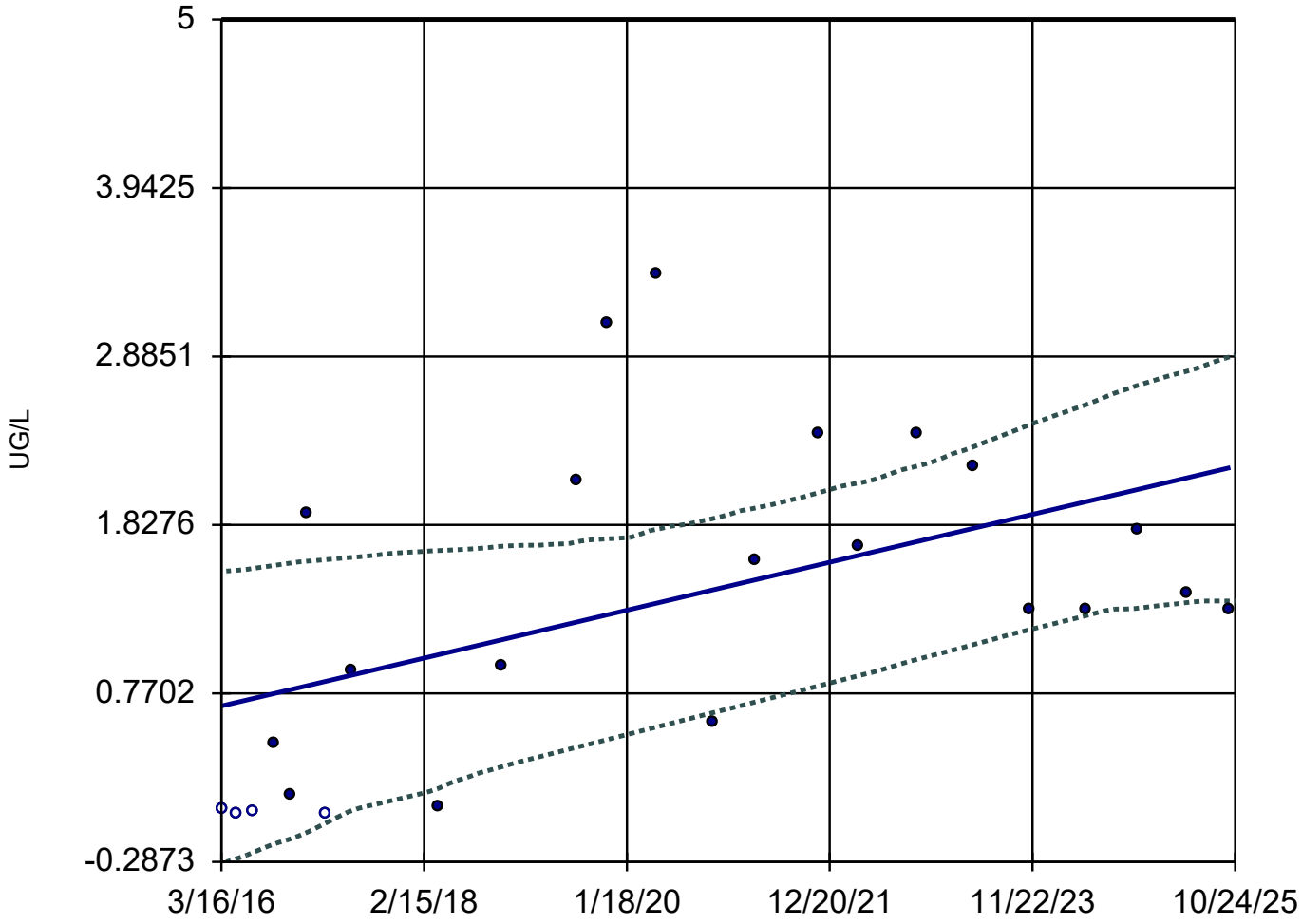
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 24

Slope = 0.15635 units per year.

Mann-Kendall statistic = 104
critical = 95

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

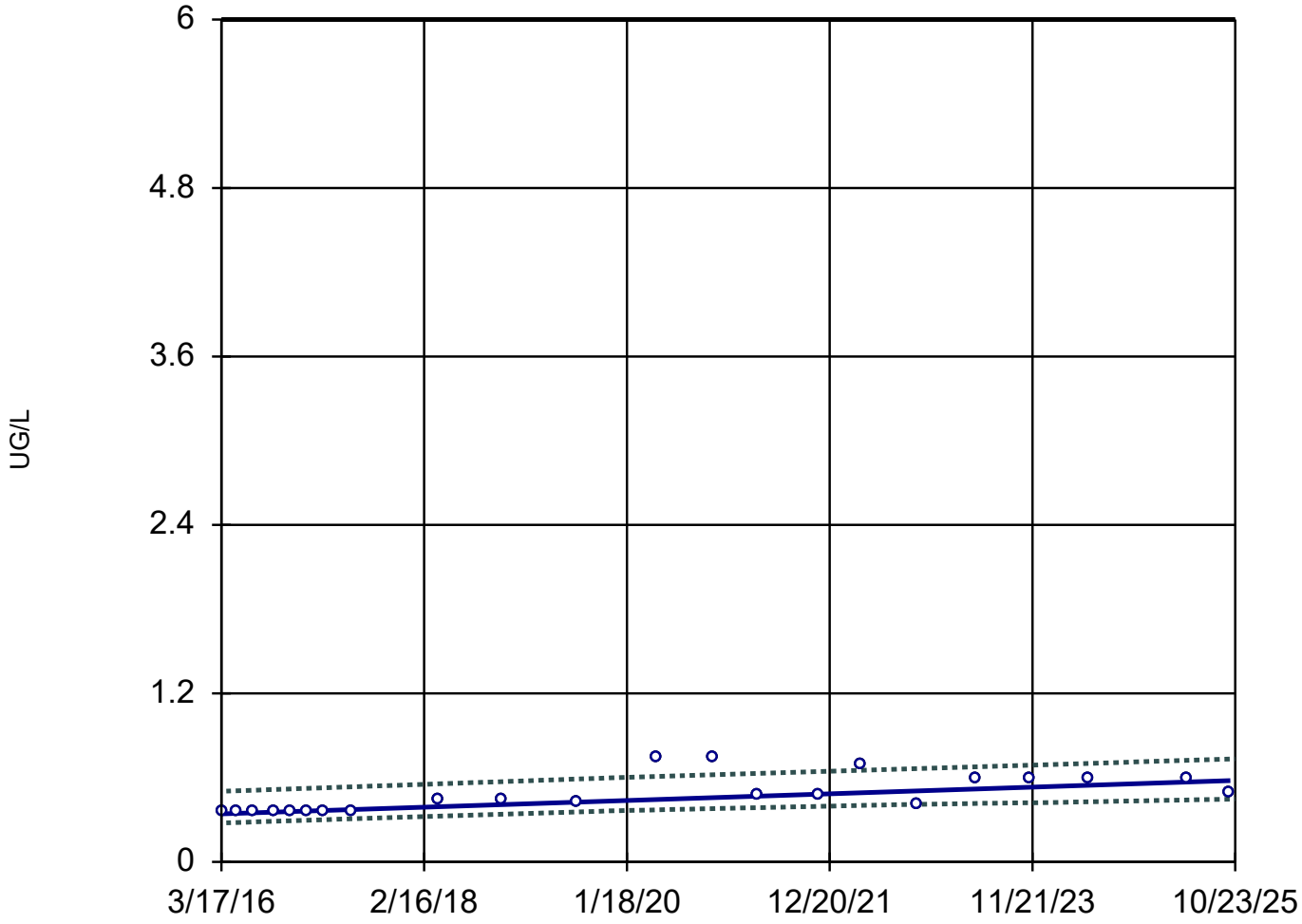
Constituent: CADMIUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 22

Slope = 0.024815 units per year.

Mann-Kendall statistic = 136
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

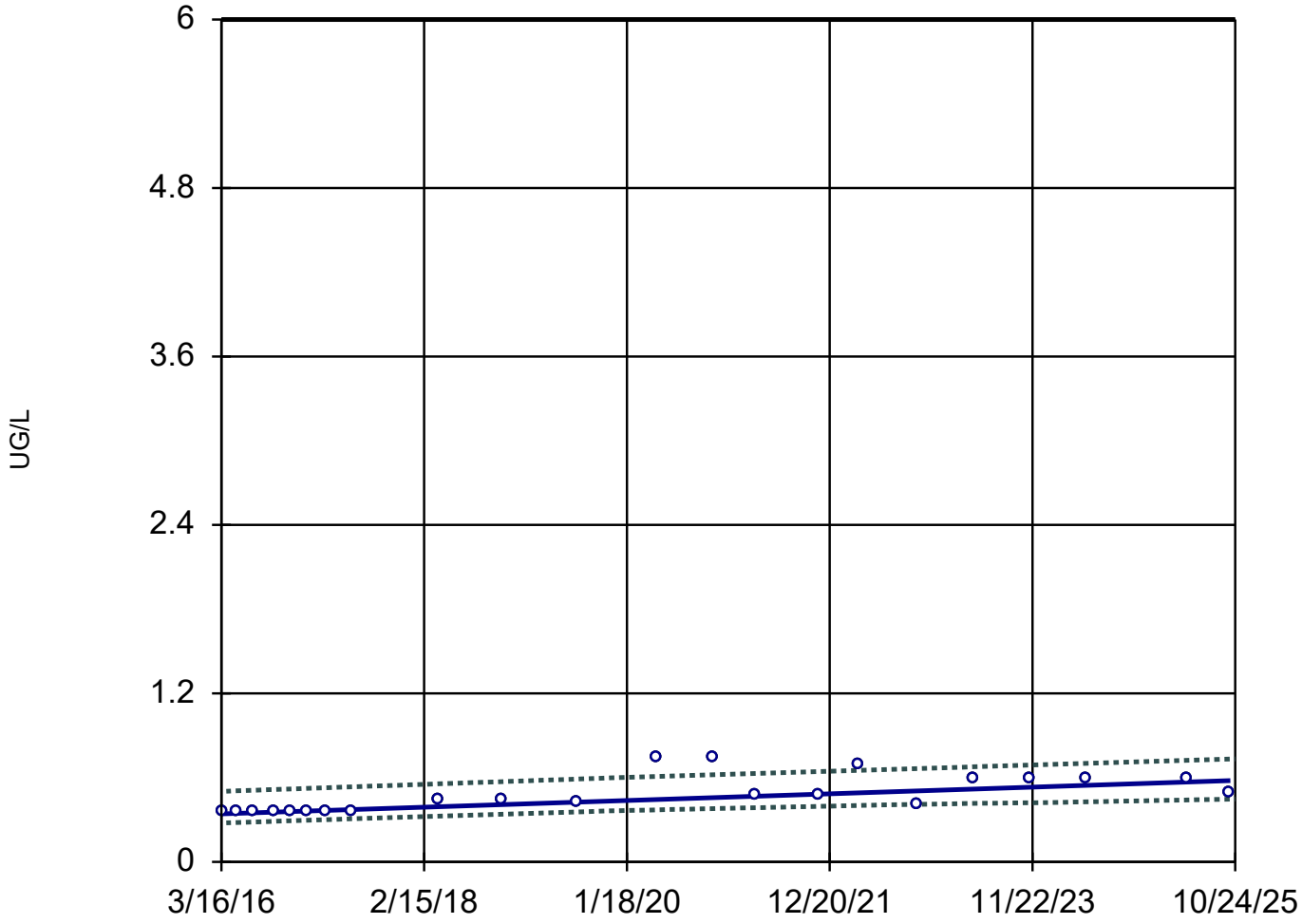
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 22

Slope = 0.024815 units per year.

Mann-Kendall statistic = 136
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

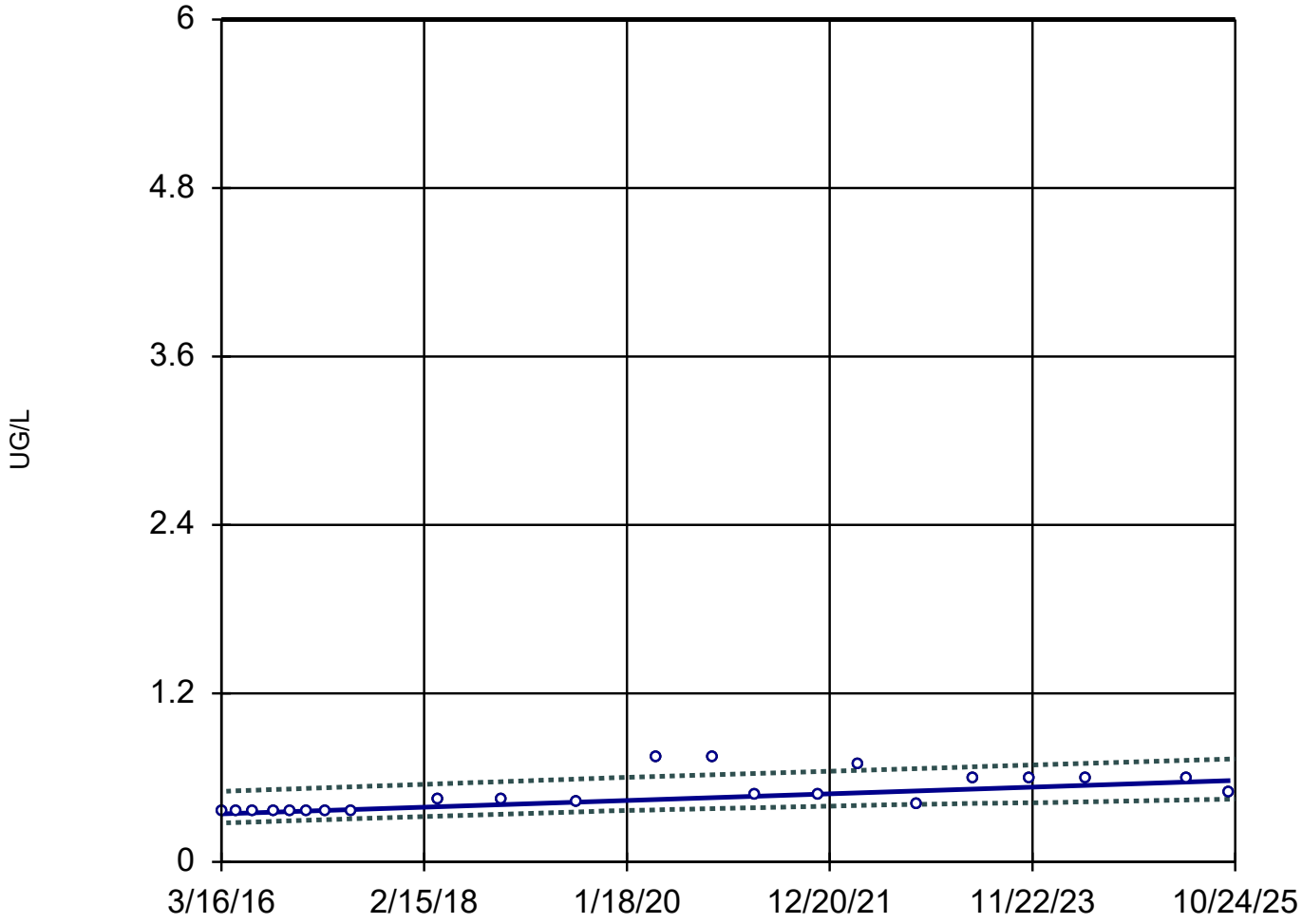
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 22

Slope = 0.024815 units per year.

Mann-Kendall statistic = 136
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

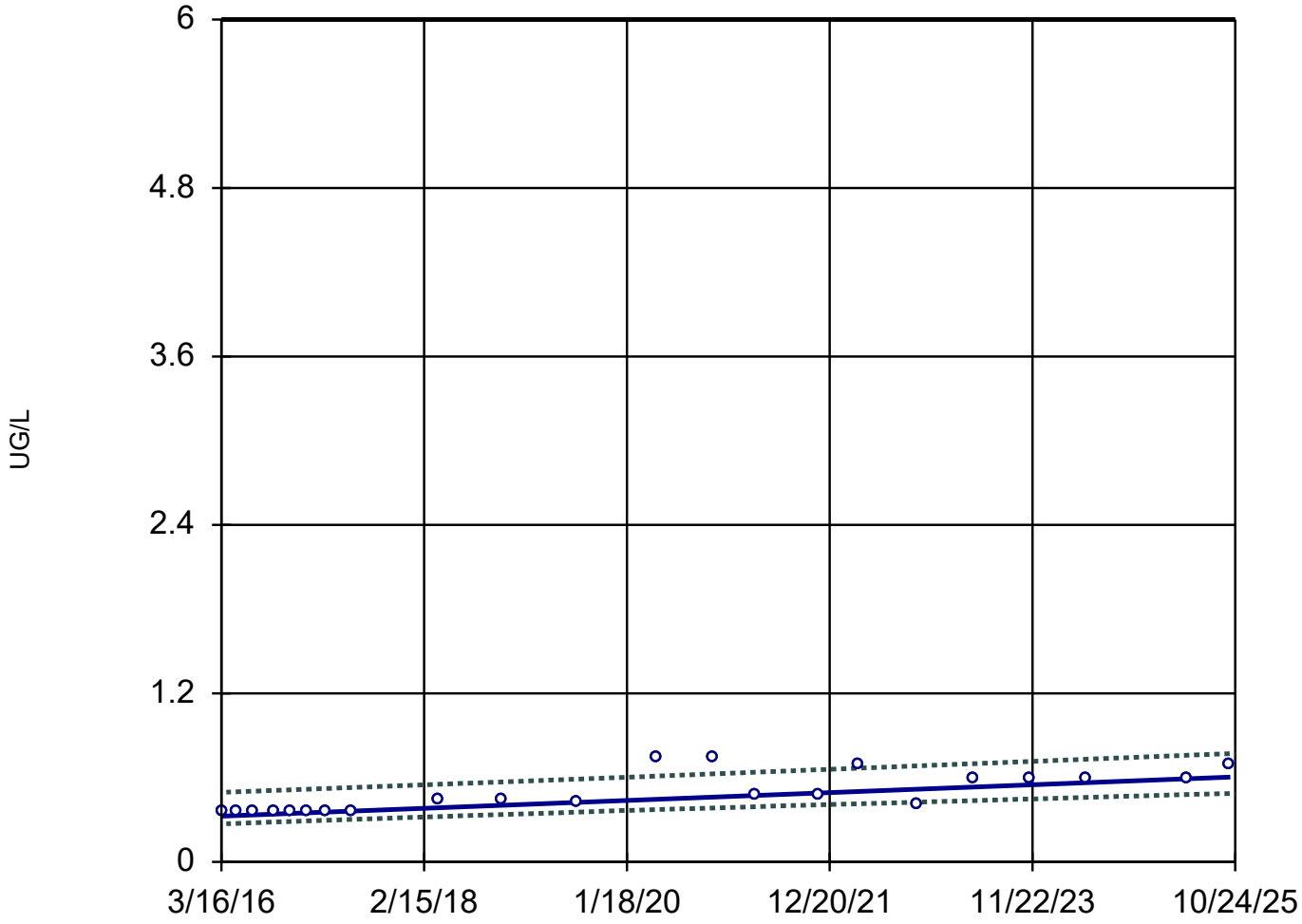
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 22

Slope = 0.028968 units per year.

Mann-Kendall statistic = 145
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

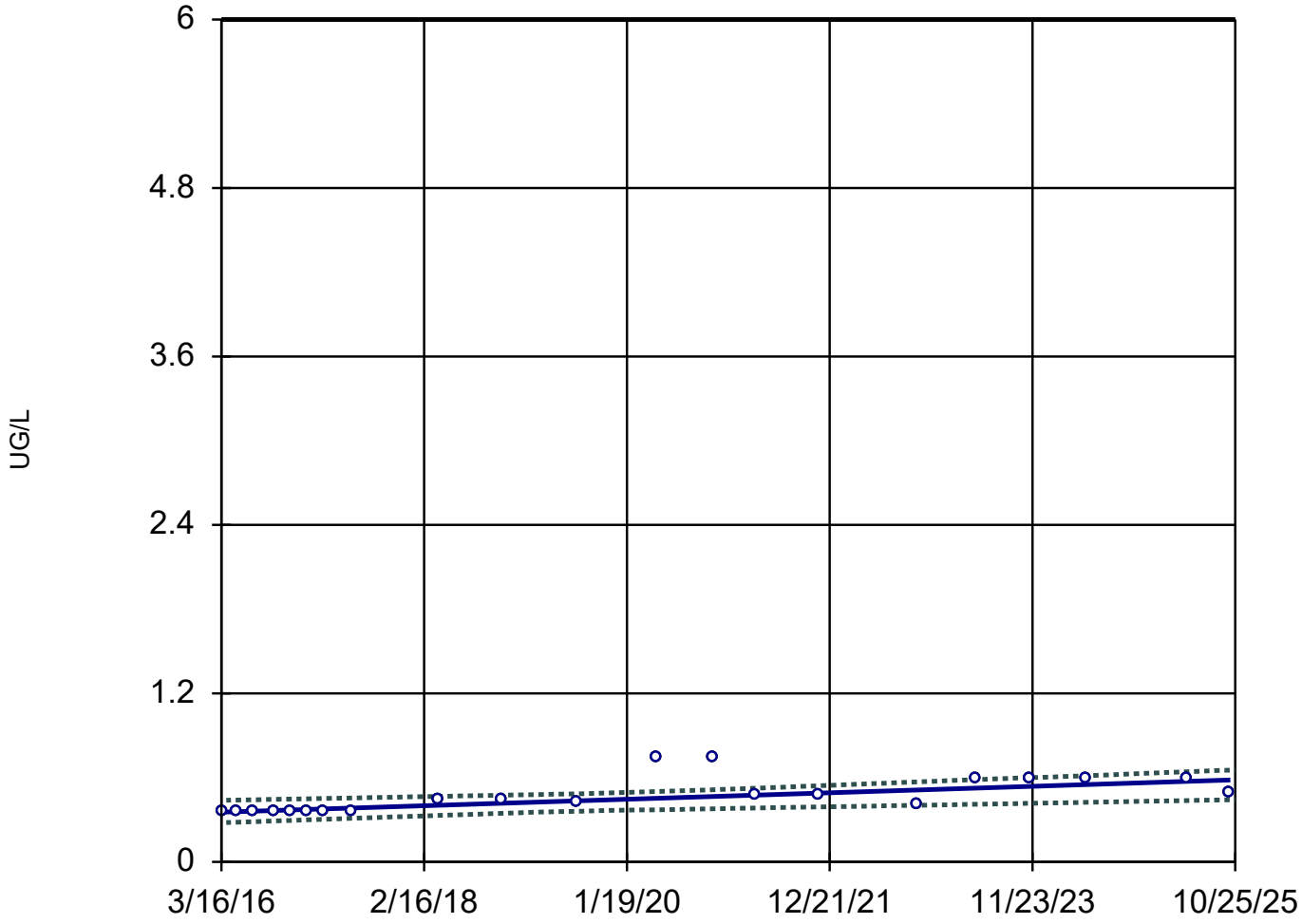
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 21

Slope = 0.023915 units per year.

Mann-Kendall statistic = 131
critical = 78

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

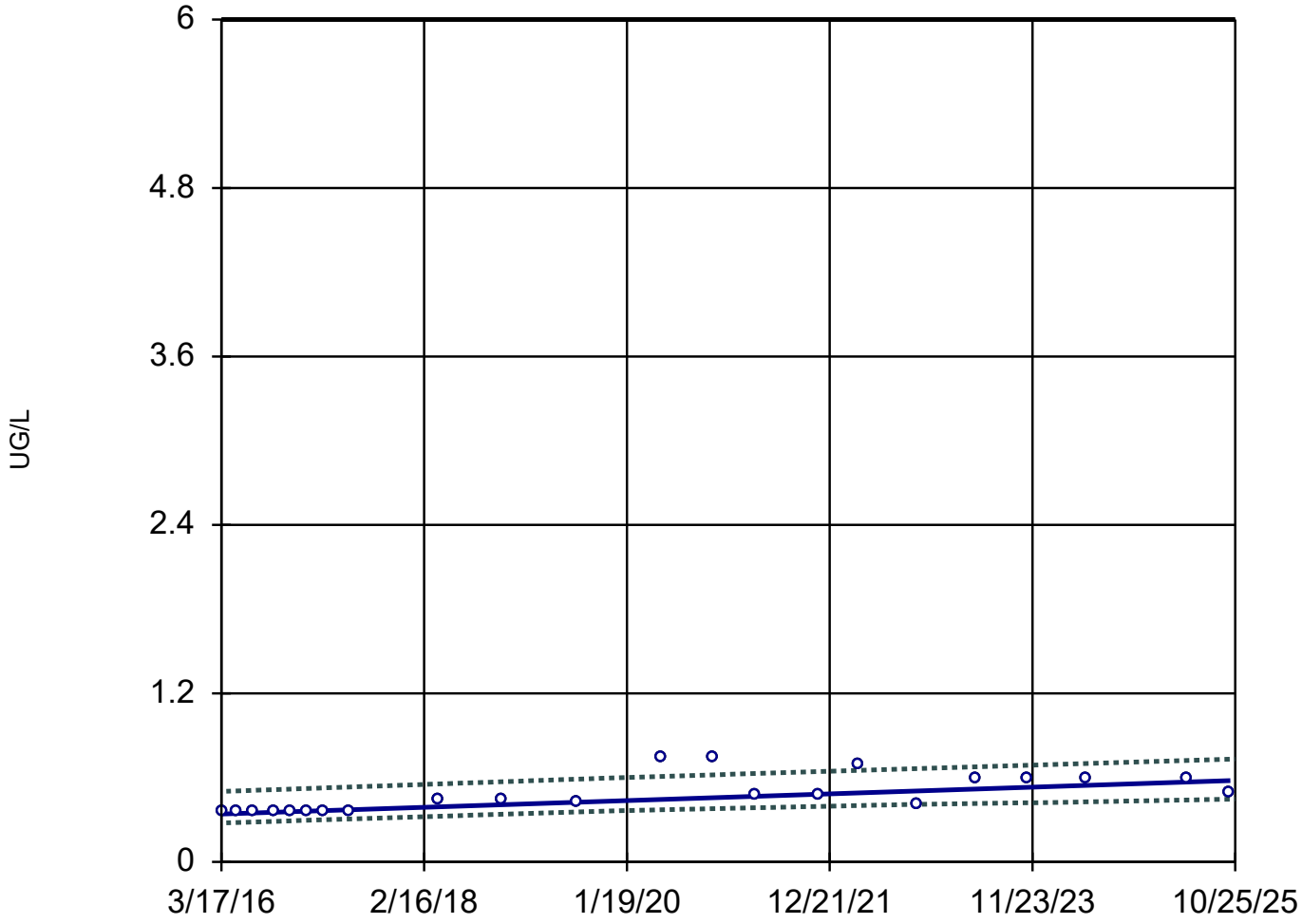
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 22

Slope = 0.024815 units per year.

Mann-Kendall statistic = 136
critical = 84

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

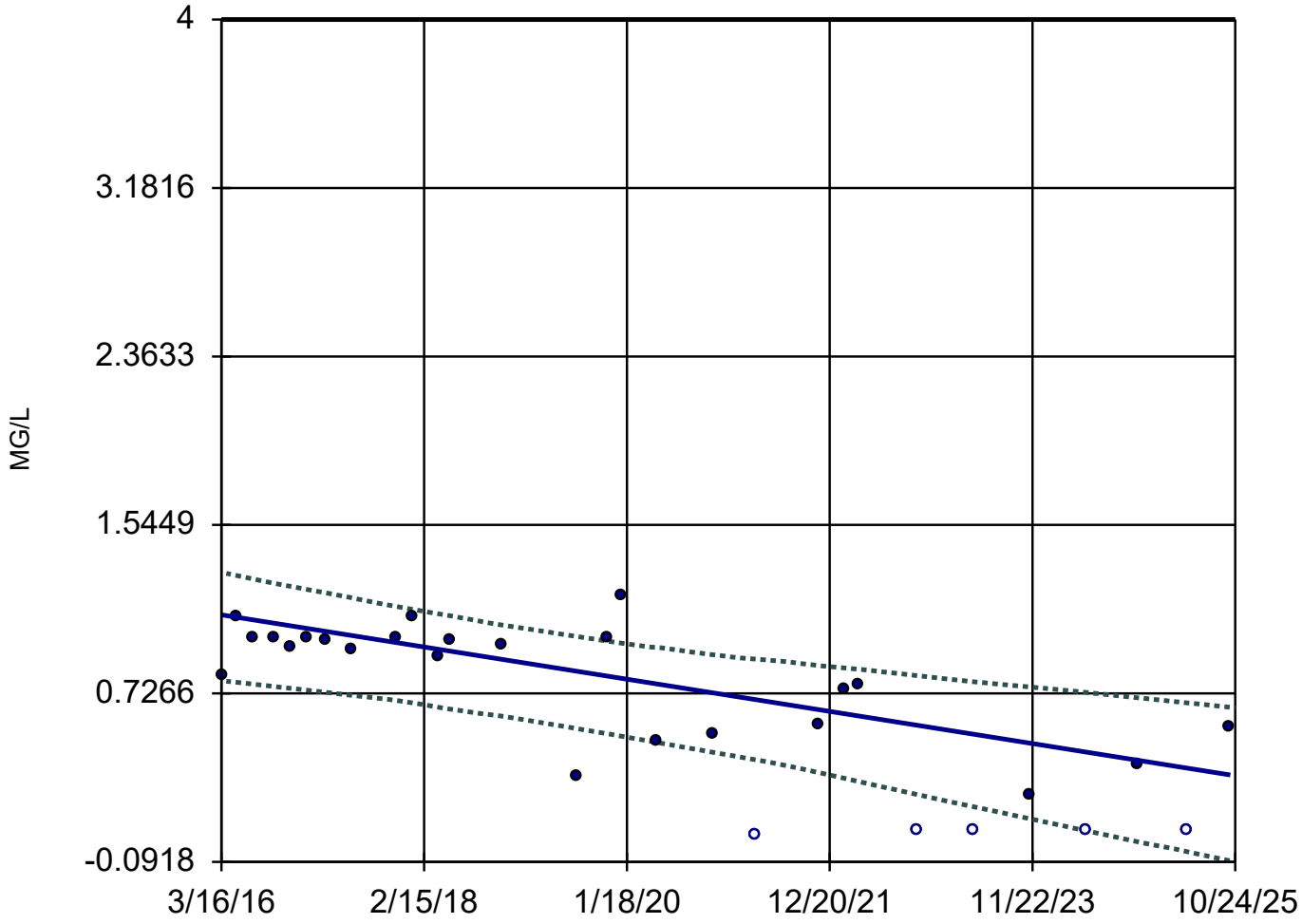
Constituent: COBALT, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 29

Slope = -0.08129 units per year.

Mann-Kendall statistic = -201
critical = -125

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

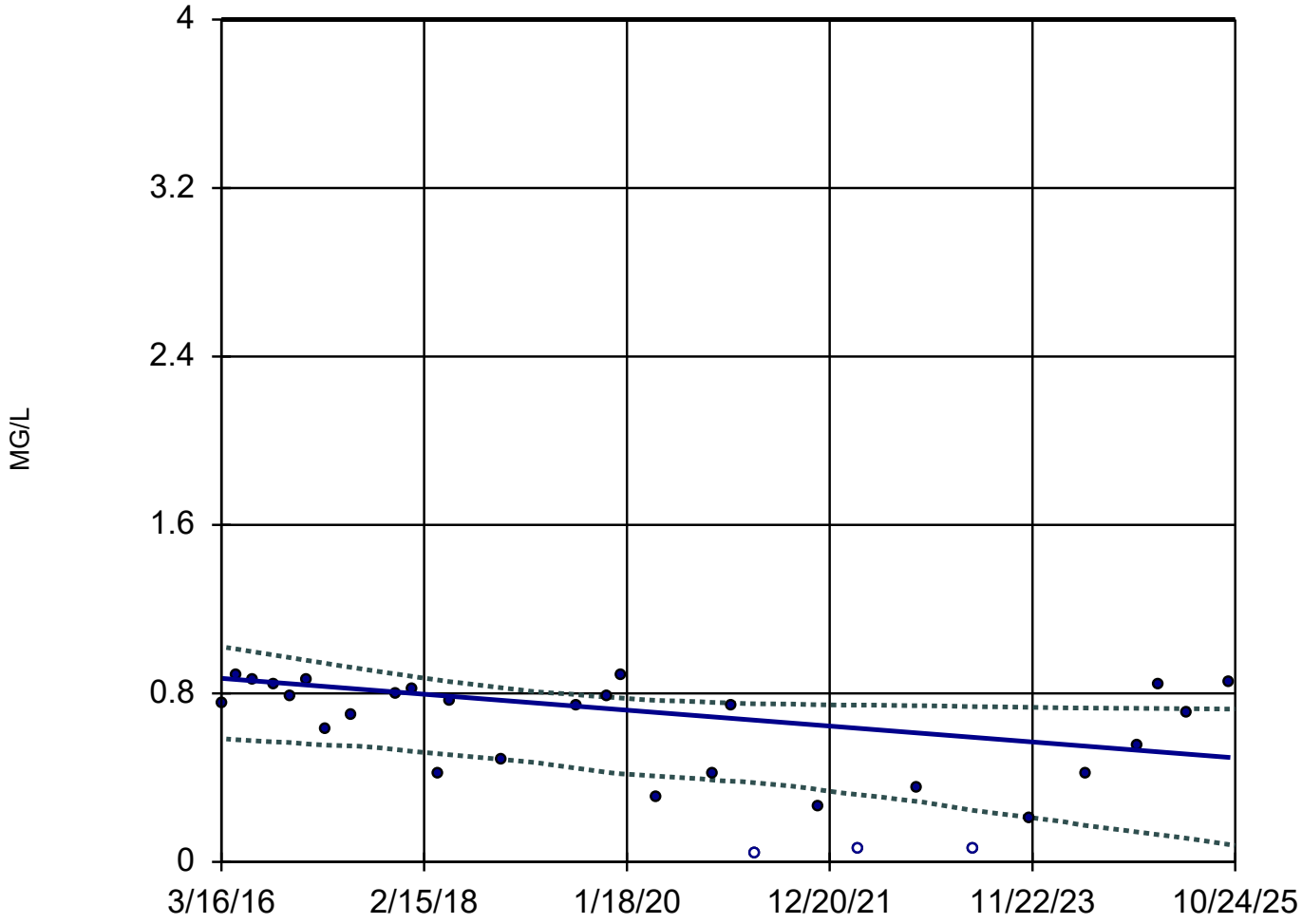
Constituent: FLUORIDE, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 30

Slope = -0.039326 units per year.

Mann-Kendall statistic = -139
critical = -132

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

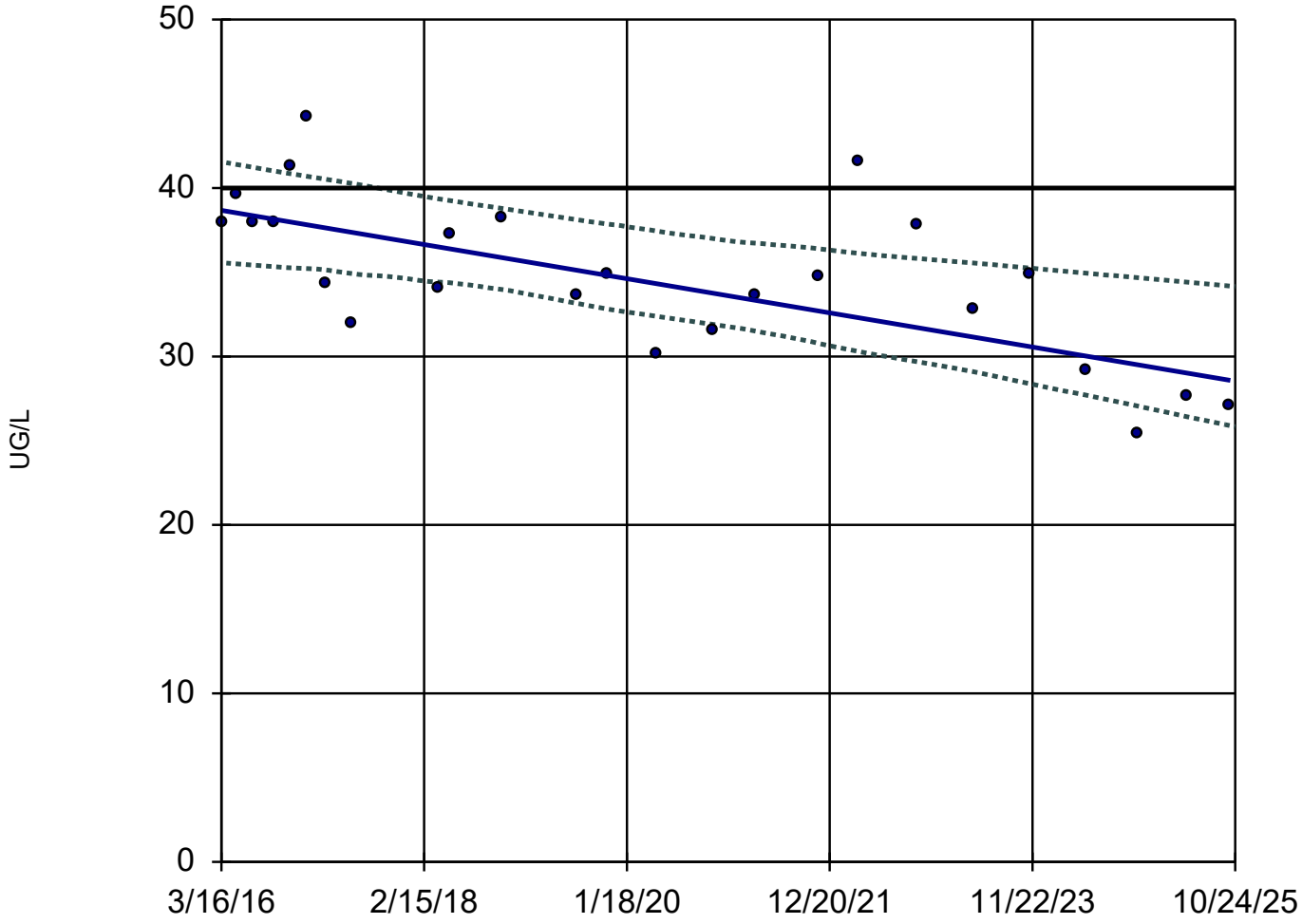
Constituent: FLUORIDE, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 25

Slope = -1.0545 units per year.

Mann-Kendall statistic = -140 critical = -101

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (40) on 09/08/17.

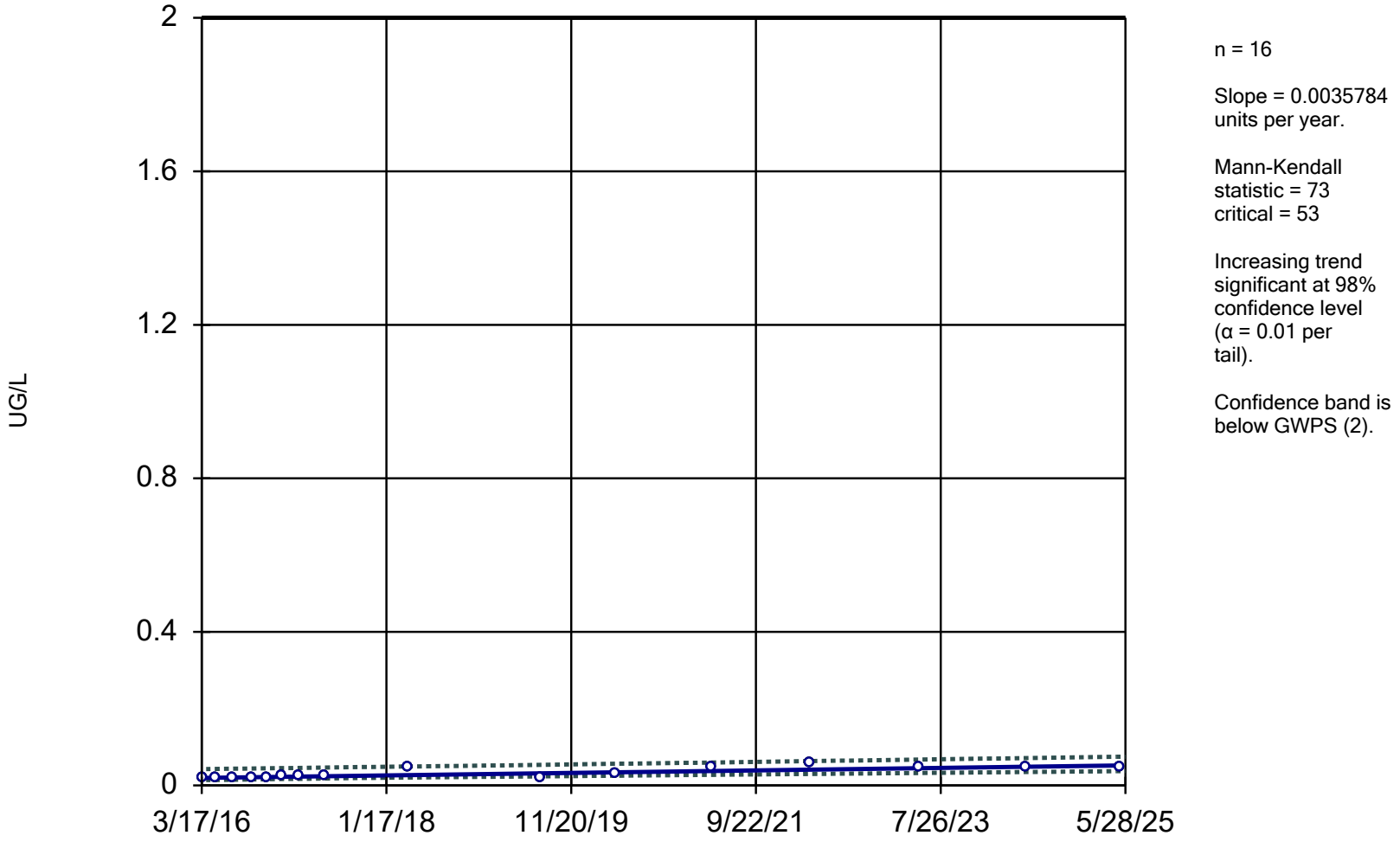
Constituent: LITHIUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 16

Slope = 0.0035784 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

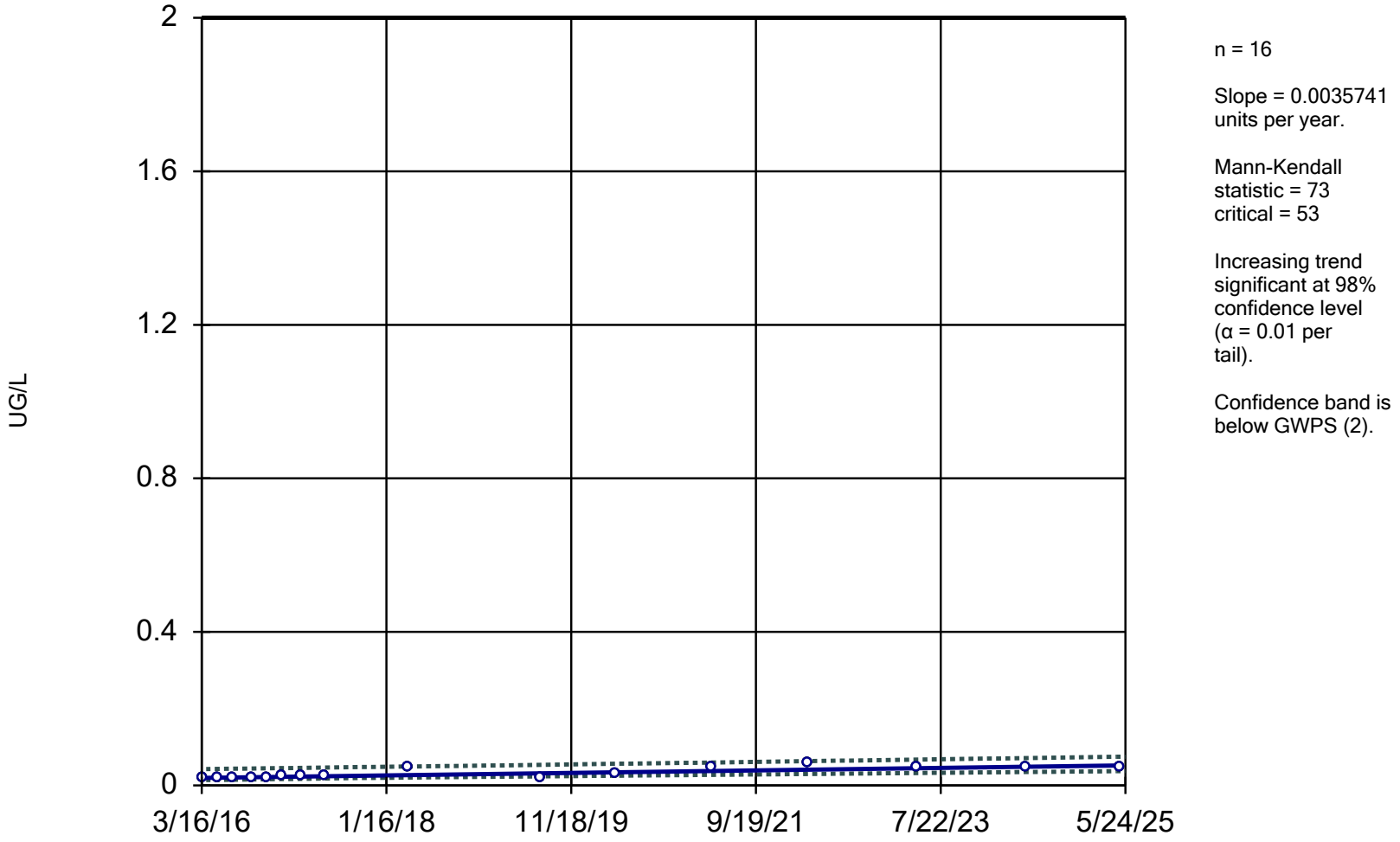
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

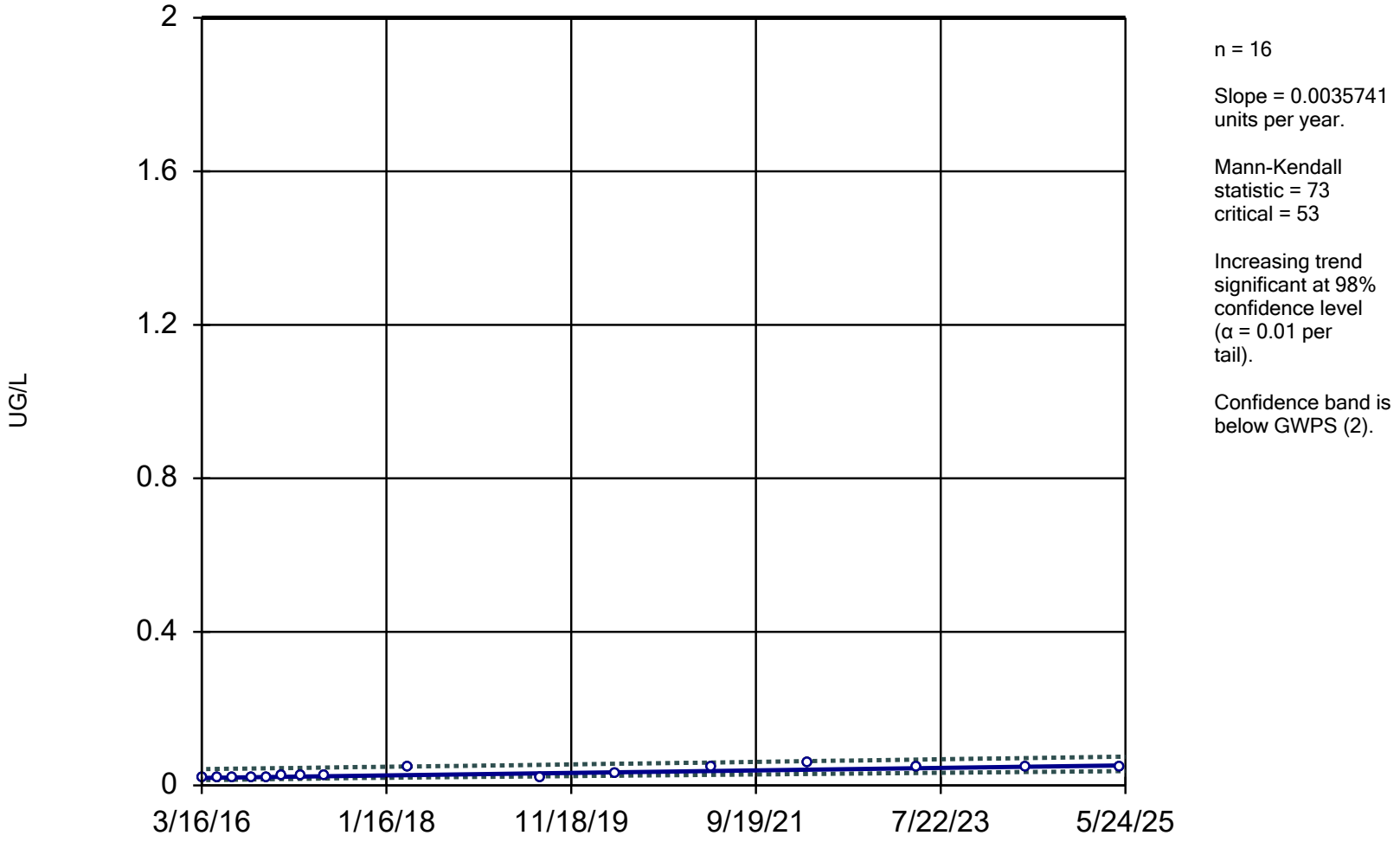
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

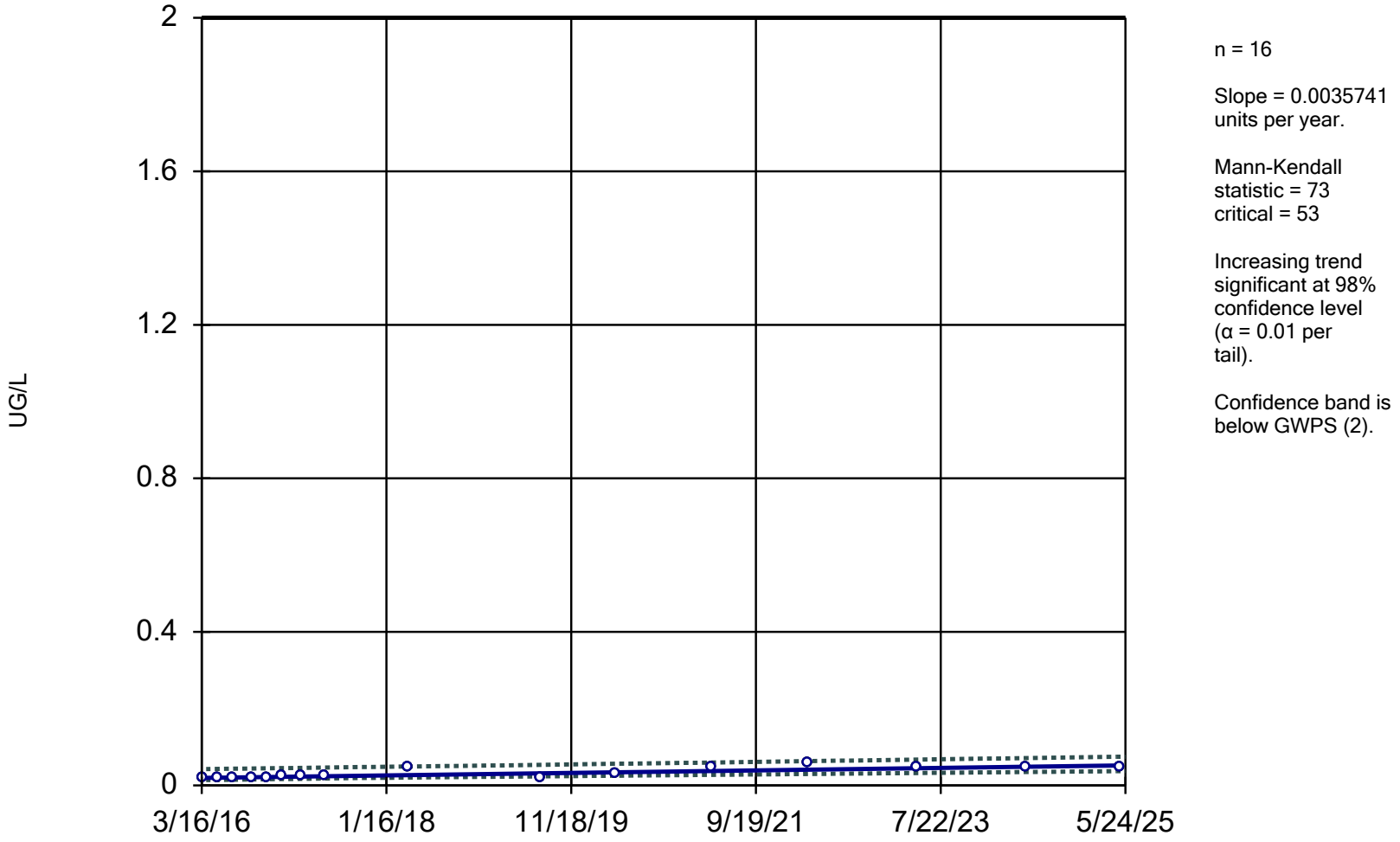
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-4D



n = 16

Slope = 0.0035741 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

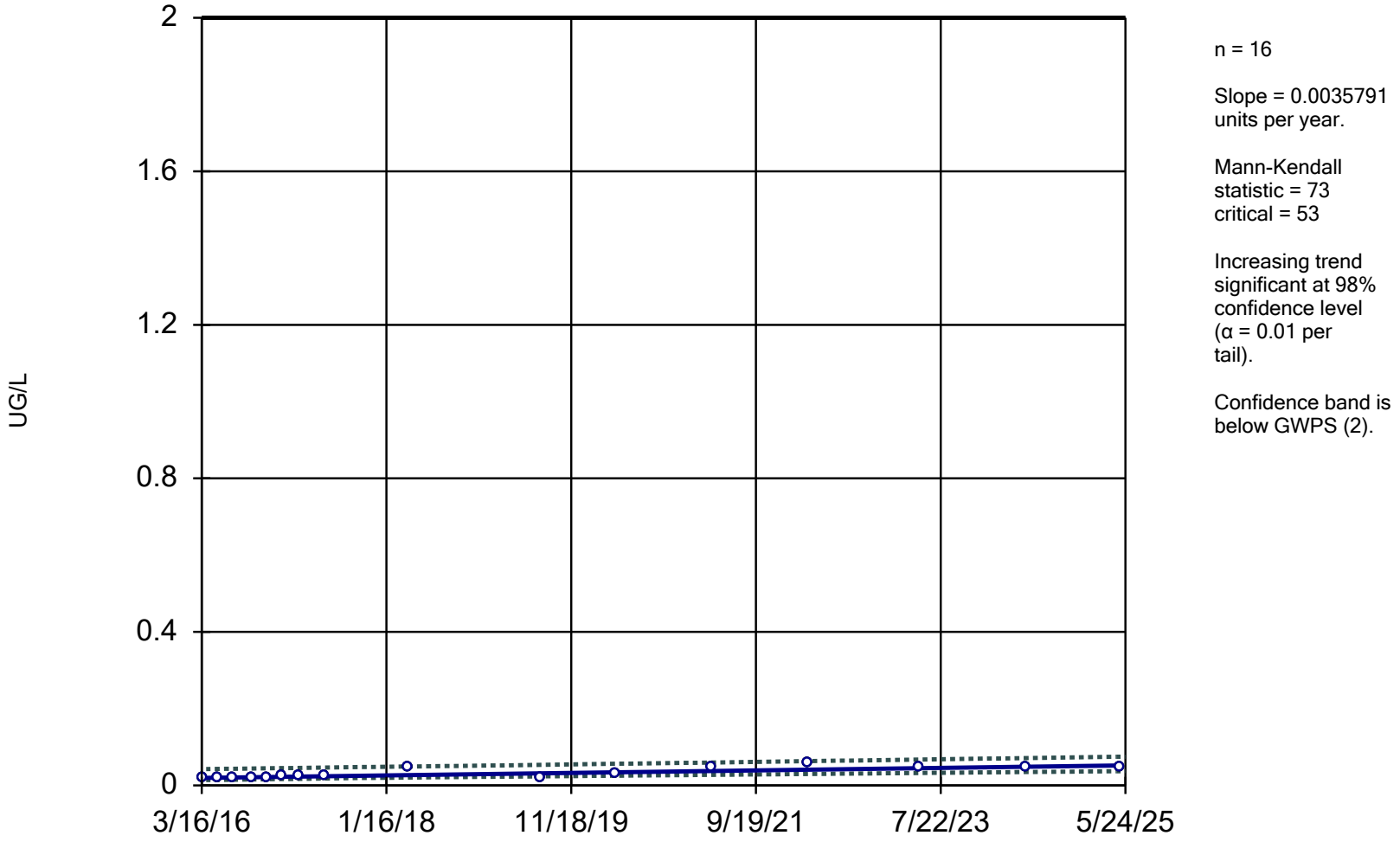
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-5D



n = 16

Slope = 0.0035791 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

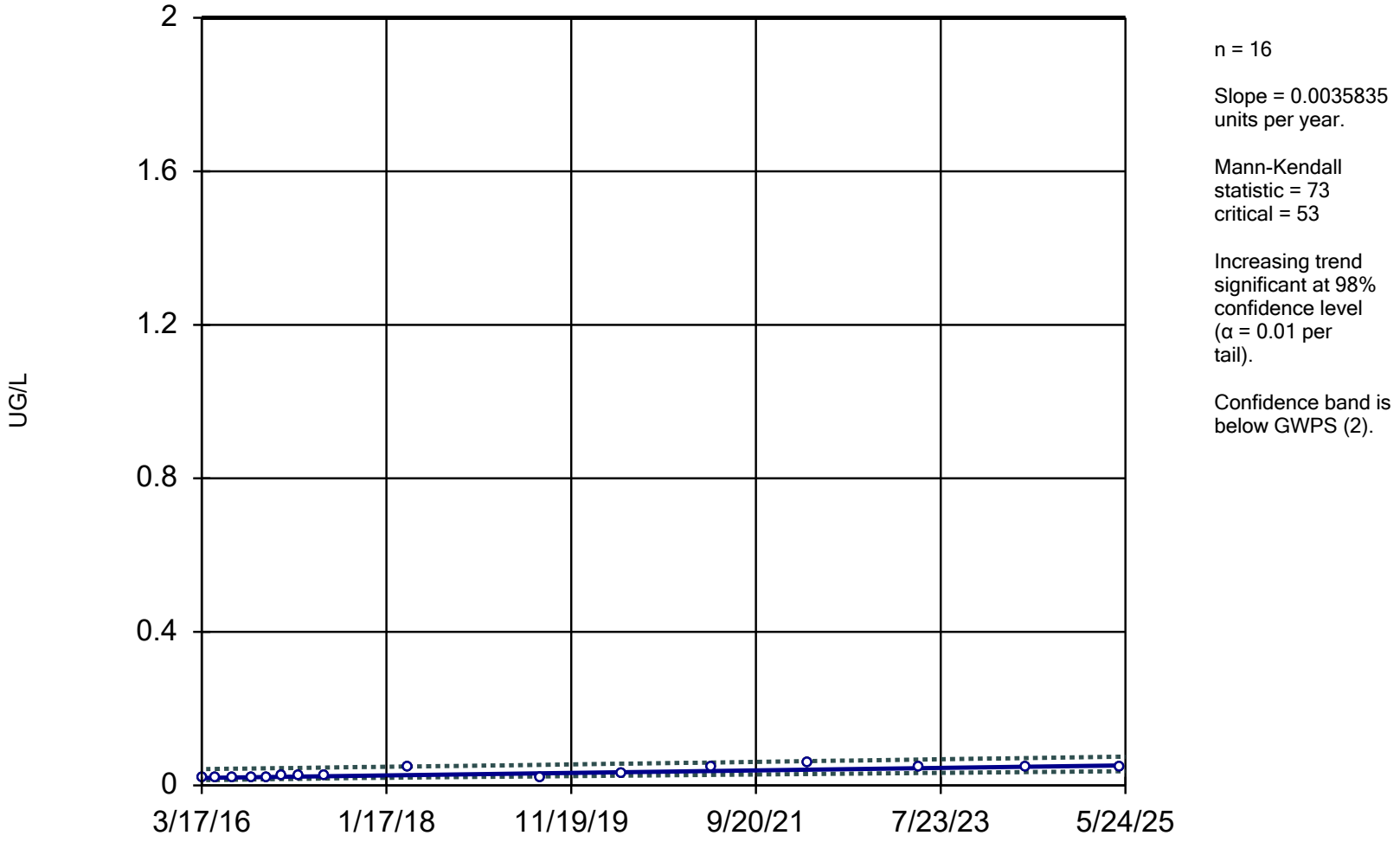
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 16

Slope = 0.0035835 units per year.

Mann-Kendall statistic = 73
critical = 53

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

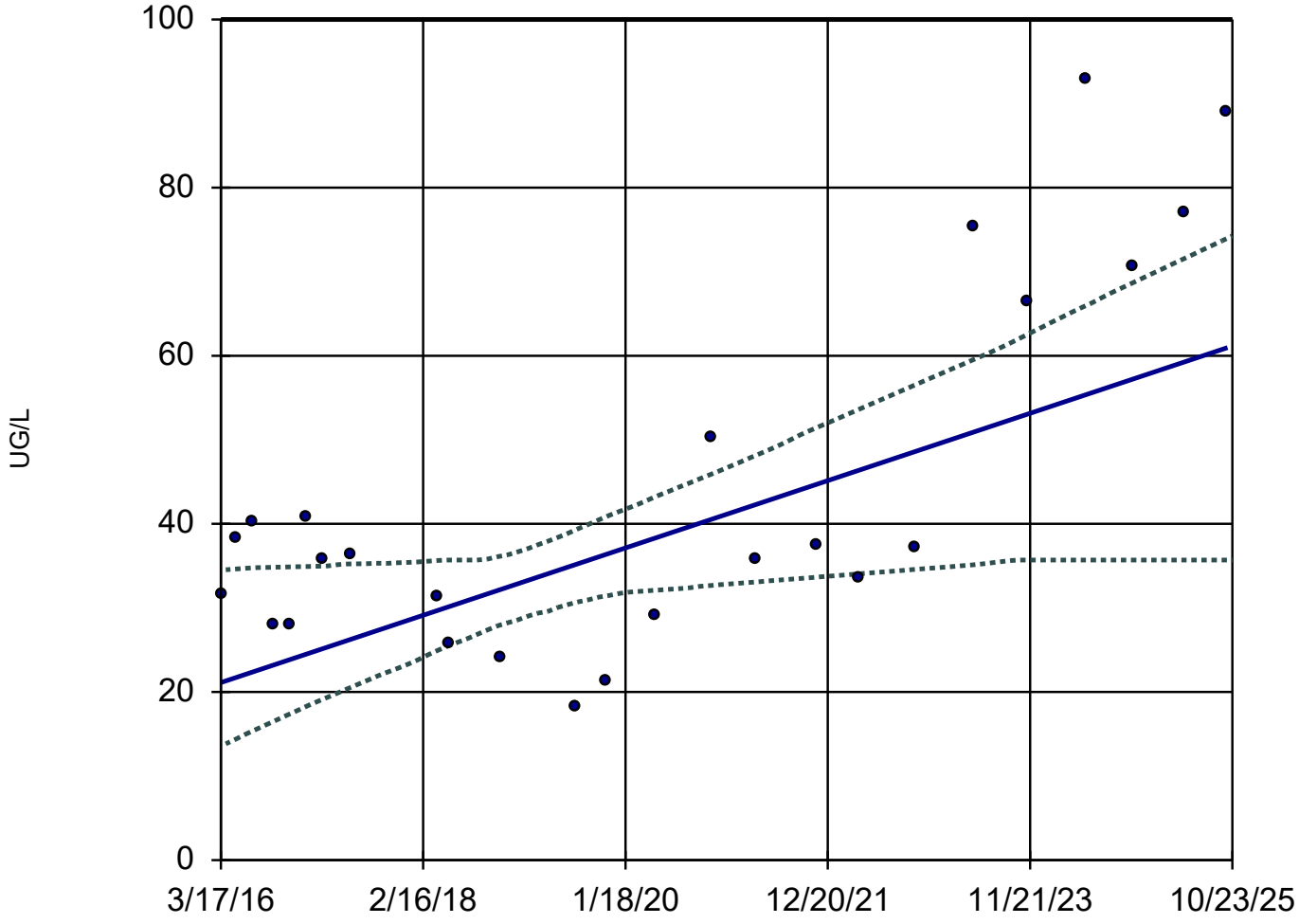
Constituent: MERCURY, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-UMW-1D



n = 25

Slope = 4.1659 units per year.

Mann-Kendall statistic = 112
critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

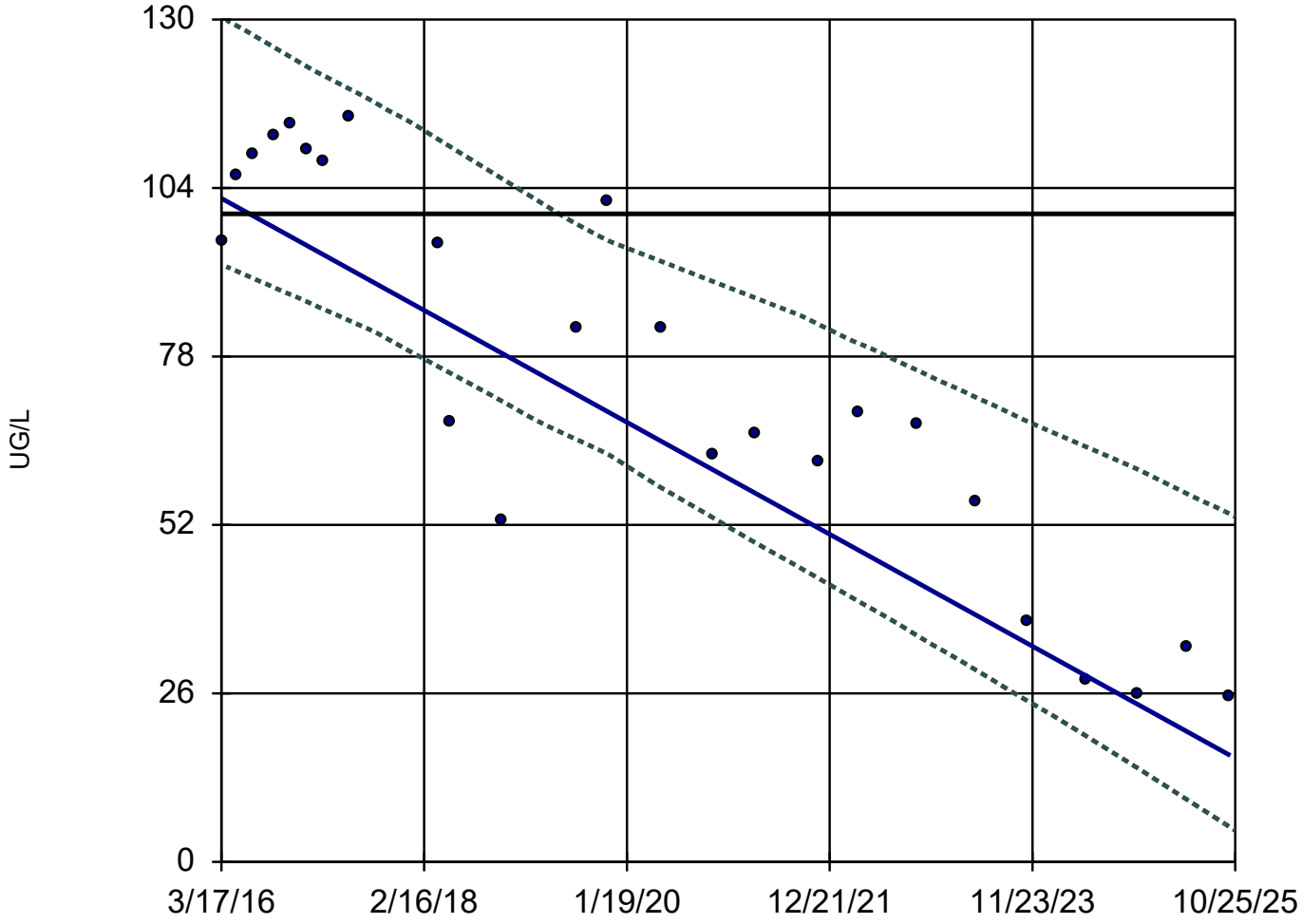
Confidence band is below GWPS (100).

Constituent: MOLYBDENUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sen's Slope and 95% Confidence Band

S-UMW-6D



n = 25

Slope = -8.9852 units per year.

Mann-Kendall statistic = -204 critical = -101

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 05/30/19.

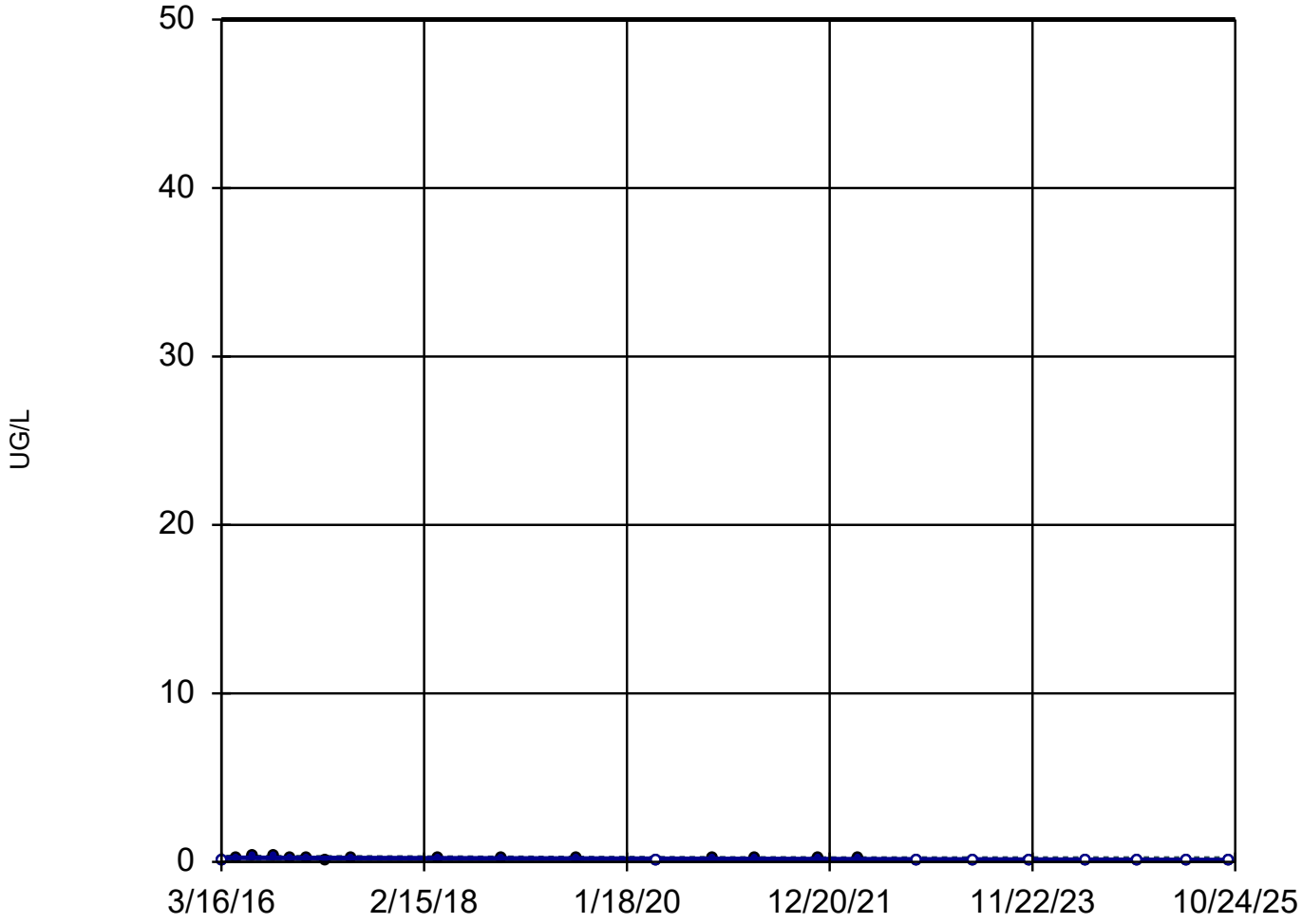
Constituent: MOLYBDENUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 23

Slope = -0.014384 units per year.

Mann-Kendall statistic = -103
critical = -89

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

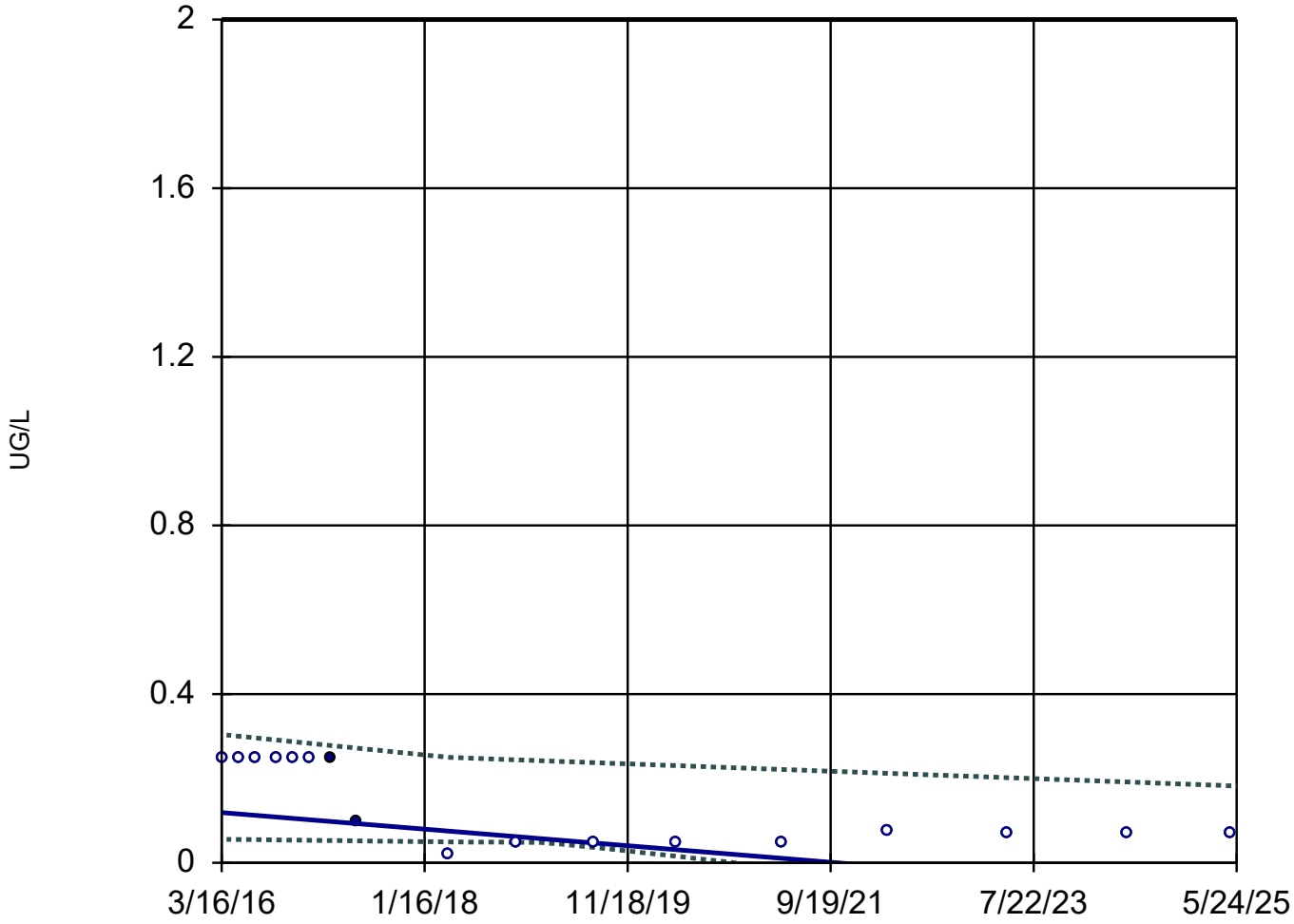
Constituent: SELENIUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-2D



n = 17

Slope = -0.021371 units per year.

Mann-Kendall statistic = -61
critical = -58

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

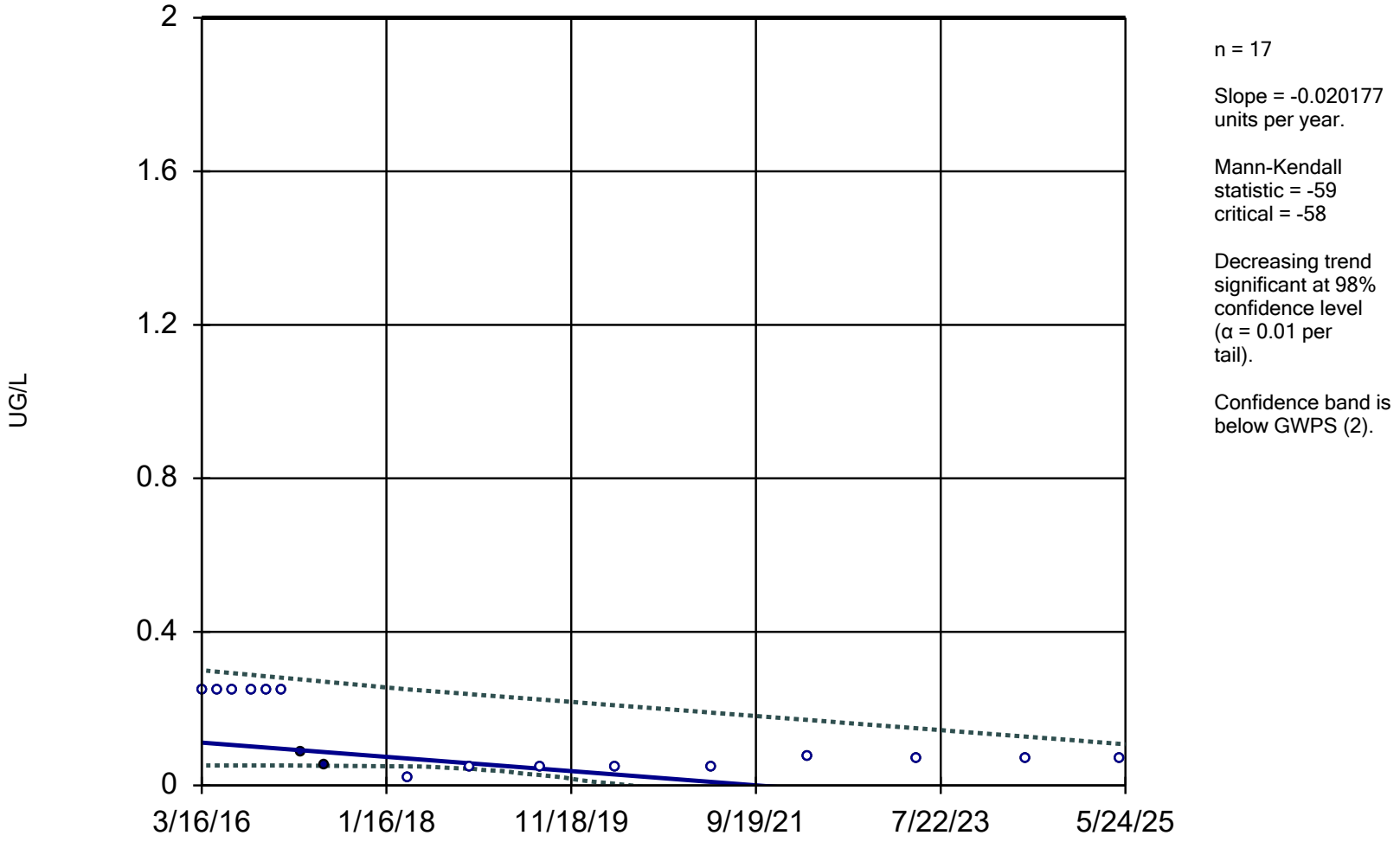
Constituent: THALLIUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.02 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-UMW-3D



n = 17

Slope = -0.020177 units per year.

Mann-Kendall statistic = -59
critical = -58

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2).

Constituent: THALLIUM, TOTAL Analysis Run 12/19/2025 2:45 PM

Sioux E.C. Client: Ameren Data: SEC_DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 12/19/2025, 2:46 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-UMW-1D	0	-3	-58	No	17	52.941	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	S-UMW-2D	0.002...	39	58	No	17	70.588	n/a	n/a	0.02	NP
ANTIMONY, TOTAL (UG/L)	**S-UMW-3D**	**0.003...**	**58**	**53**	**Yes**	**16**	**87.5**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-4D**	**0.003...**	**83**	**58**	**Yes**	**17**	**94.118**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-5D**	**0.003...**	**75**	**58**	**Yes**	**17**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ANTIMONY, TOTAL (UG/L)	**S-UMW-6D**	**0.003...**	**75**	**58**	**Yes**	**17**	**100**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-1D**	**0.11783**	**191**	**95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-2D**	**0.23615**	**200**	**101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-3D**	**0.067932**	**112**	**101**	**Yes**	**25**	**8**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-UMW-4D	0.011418	45	95	No	24	16.667	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-UMW-5D**	**-0.03...**	**-147**	**-95**	**Yes**	**24**	**4.1667**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	**S-UMW-6D**	**0.02213**	**119**	**101**	**Yes**	**25**	**8**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-1D	4.9133	81	101	No	25	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-UMW-2D**	**-5.3068**	**-185**	**-101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-UMW-3D**	**-1.1355**	**-112**	**-101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-UMW-4D**	**-4.1075**	**-184**	**-95**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-UMW-5D**	**13.111**	**123**	**101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-UMW-6D	2.3138	59	101	No	25	0	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-1D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-2D	0	-17	-58	No	17	94.118	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-42	-58	No	17	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
BERYLLIUM, TOTAL (UG/L)	S-UMW-6D	-0.00...	-46	-63	No	18	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-1D	0.001...	67	78	No	21	90.476	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-UMW-2D**	**0.057855**	**177**	**95**	**Yes**	**24**	**29.167**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-3D**	**0.16038**	**156**	**95**	**Yes**	**24**	**20.833**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-UMW-4D**	**0.15635**	**104**	**95**	**Yes**	**24**	**16.667**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-UMW-5D	0.009...	75	95	No	24	37.5	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UMW-6D	0.001...	55	95	No	24	83.333	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-1D	0	0	73	No	20	55	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-2D	-0.00...	-16	-73	No	20	60	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-3D	-0.00...	-38	-78	No	21	61.905	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-4D	0.004...	21	78	No	21	52.381	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-11	-78	No	21	52.381	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UMW-6D	0	4	78	No	21	57.143	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-UMW-1D**	**0.024815**	**136**	**84**	**Yes**	**22**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-2D**	**0.024815**	**136**	**84**	**Yes**	**22**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-3D**	**0.024815**	**136**	**84**	**Yes**	**22**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-4D**	**0.028968**	**145**	**84**	**Yes**	**22**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-5D**	**0.023915**	**131**	**78**	**Yes**	**21**	**100**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	**S-UMW-6D**	**0.024815**	**136**	**84**	**Yes**	**22**	**100**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-1D	-0.00...	-52	-125	No	29	10.345	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UMW-2D	-0.02...	-74	-132	No	30	3.3333	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-UMW-3D**	**-0.08129**	**-201**	**-125**	**Yes**	**29**	**17.241**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-UMW-4D**	**-0.03...**	**-139**	**-132**	**Yes**	**30**	**10**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-UMW-5D	-0.01...	-80	-119	No	28	0	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UMW-6D	-0.01...	-92	-119	No	28	17.857	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-1D	0.093879	63	63	No	18	88.889	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-2D	0.087805	55	63	No	18	77.778	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 12/19/2025, 2:46 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
LEAD, TOTAL (UG/L)	S-UMW-3D	0	-1	-63	No	18	66.667	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-4D	0.034646	6	63	No	18	61.111	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-5D	0.041407	17	63	No	18	83.333	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UMW-6D	0.093879	63	63	No	18	88.889	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-1D	0.81739	95	101	No	25	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-2D	0.065234	9	101	No	25	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-3D	-0.19233	-29	-101	No	25	4	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-UMW-4D**	**-1.0545**	**-140**	**-101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-UMW-5D	-0.73629	-91	-101	No	25	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UMW-6D	0.45115	54	95	No	24	0	n/a	n/a	0.02	NP
MERCURY, TOTAL (UG/L)	**S-UMW-1D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-2D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-3D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-4D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-5D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MERCURY, TOTAL (UG/L)	**S-UMW-6D**	**0.003...**	**73**	**53**	**Yes**	**16**	**100**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-1D**	**4.1659**	**112**	**101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-UMW-2D	12.964	31	101	No	25	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-3D	-40.306	-17	-101	No	25	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-4D	-272.6	-86	-95	No	24	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UMW-5D	-4.0321	-32	-101	No	25	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-UMW-6D**	**-8.9852**	**-204**	**-101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
RADIUM [226 + 228] (PCI/L)	S-UMW-1D	0.023504	67	84	No	22	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-2D	0.016754	41	68	No	19	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-3D	0.020444	45	84	No	22	72.727	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-4D	0.02856	73	84	No	22	86.364	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-5D	0.011361	25	84	No	22	77.273	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UMW-6D	0.023473	62	84	No	22	95.455	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-1D	0	33	89	No	23	86.957	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-2D	0	1	89	No	23	82.609	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.01...**	**-103**	**-89**	**Yes**	**23**	**39.13**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-UMW-4D	-0.00...	-51	-89	No	23	39.13	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-51	-89	No	23	43.478	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UMW-6D	0	41	89	No	23	100	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-1D	-0.02...	-50	-58	No	17	94.118	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	**S-UMW-2D**	**-0.02...**	**-61**	**-58**	**Yes**	**17**	**88.235**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	**S-UMW-3D**	**-0.02...**	**-59**	**-58**	**Yes**	**17**	**88.235**	**n/a**	**n/a**	**0.02**	**NP**
THALLIUM, TOTAL (UG/L)	S-UMW-4D	-0.01...	-49	-58	No	17	88.235	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-5D	-0.00...	-32	-58	No	17	94.118	n/a	n/a	0.02	NP
THALLIUM, TOTAL (UG/L)	S-UMW-6D	-0.00...	-32	-58	No	17	100	n/a	n/a	0.02	NP

Appendix E

November 2024 Corrective Action Statistical Evaluation

Memorandum

March 19, 2025

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-24
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., Jeff Ingram, R.G., Grant Morey, Amanda Derhake, PhD, P.E.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Corrective Action Statistical Evaluation, SCPA Surface Impoundment, Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Corrective Action Monitoring statistical analyses from the November 2024 sampling event for the SCPA Surface Impoundment at the Sioux Energy Center (SEC) located in St. Charles County, Missouri. As outlined in the remedy selection report for the SCPA, Corrective Action at the SCPA consists of two phases, as follows:

1) Source control, stabilization, and containment of Coal Combustion Residuals (CCR) by installation of a low-permeability geomembrane cap.
2) Once source control is achieved, monitor the natural attenuation (MNA) of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modeling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

Phase 1 of Corrective Action commenced on January 20, 2021, and was substantially completed on April 10, 2022 with the installation of a low permeability cover system. The SCPA unit was certified closed on October 14, 2022 and thus the SCPA has transitioned into the post-closure care requirements of the CCR rule effective October 2022 and Phase 2 of Corrective Action has begun. In addition to MNA as a Corrective Measure, Ameren has also initiated a supplemental corrective measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective ion exchange. This treatment system became fully operational in February 2023 and began achieving target flow rates in September 2023. In July 2024, Haley & Aldrich produced a Supplemental Remedy Selection Report for the SEC, documenting that these corrective measures are effectively contributing to constituent mass reductions in groundwater near the SCPA. The supplemental corrective measures are ongoing.

The initial Corrective Action sampling event was completed in April 2020, and a total of 11 sampling events have been completed for the Corrective Action Program at the SCPA to date. This analysis uses sampling results collected since the beginning of Corrective Action monitoring (April 2020) to determine constituents exceeding groundwater protection standards (GWPSs). Data prior to this time was collected during active conditions of the SCPA, prior to the cessation of CCR disposal in the SCPA, and are not representative of groundwater conditions since the initiation of closure. Included in this memorandum is a summary of constituents that are currently in

exceedance of the GWPSs, a list of site-specific Groundwater Protection Standards (**Table 1**), and the Sanitas Technologies™ (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A and Appendix B**).

Trend tests using the Sen's Slope/Mann-Kendall method require a minimum of eight independent results, as outlined in the USEPA Unified Guidance. Therefore, trend tests were completed for the following Appendix IV constituents: arsenic, barium, cadmium, chromium, cobalt, fluoride, lithium, molybdenum, radium 226 + 228, and selenium.

Several constituents were reported at concentrations below the Practical Quantitation Limit (PQL) during the spring 2020, 2021, 2022, 2023, and/or 2024 sampling events, including antimony, beryllium, chromium, lead, mercury, and thallium. When these constituents were not detected during the initial Corrective Action sampling event, they were not sampled/tested during the subsequent semi-annual sampling events in each calendar year. Therefore, there are fewer results available for these constituents, and Sen's Slope/Mann-Kendall analyses may not be completed for these Appendix IV constituents until they reach the requisite quantity of results. As of this evaluation, there are now eight independent chromium results for each well; therefore, this is the first Corrective Action statistical evaluation where trend tests were completed for chromium.

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for exceedances above the GWPSs using the methods and procedures outlined in the Corrective Action Groundwater Monitoring Plan (CAGMP) Statistical Analysis Plan (SAP). An outlier analysis was completed as the first step of the statistical evaluation. The outlier analysis was performed only on the results collected as a part of the Corrective Action Monitoring Program. In addition to outliers noted in previous SCPA Corrective Action evaluations, the following outliers were removed from the dataset prior to the calculation of confidence limits:

- Chromium
    - S-LMW-6S at 0.82 J micrograms per liter (µg/L) on 4/14/2021: result is statistically higher than other chromium results at the same monitoring well. This higher result is not consistent with previous or subsequent chromium results at the well and is an outlier.
- Cobalt
    - S-BMW-3S at 1.4 J µg/L on 11/8/2021: result is statistically higher than other cobalt results at the same monitoring well. This higher result is not consistent with previous or subsequent cobalt results at the well and is an outlier.
- Molybdenum
    - S-TP-6D at non-detect (<20 µg/L) on 5/28/2024: result is statistically higher than other molybdenum results at the same monitoring well due to the high method detection limit (MDL) reported following data validation procedures. This higher result is not consistent with previous or subsequent molybdenum results at the well and is an outlier.
- Selenium
    - S-UG-3 at 0.93 J µg/L and 0.57 J ug/L on 4/27/2020 and 6/16/2020, respectively: results are statistically lower than other selenium results at the same monitoring well. These lower results are not consistent with previous or subsequent selenium results at the well and are outliers.

An analysis of the outliers removed to date was completed and the following statistical outliers that were previously removed were added back into the dataset prior to the calculation of confidence limits:

- Barium
    - S-LMW-4S at 179 µg/L on 11/14/2023: removed during the statistical evaluation for the May 2024 sampling event because the result was statistically lower than other barium results at the same monitoring well. Based on subsequent sampling results, the lower result was confirmed, and the result is no longer an outlier.
- Radium 226 + 228
    - S-LMW-4S at 2.419 picocuries per liter (pCi/L) and 1.660 J pCi/L on 11/12/2020 and 4/4/2022, respectively: removed during the statistical evaluation for the May 2024 sampling event because the results were statistically higher than other radium results at the same monitoring well. Based on subsequent sampling results, the higher results were confirmed, and the results are no longer outliers.

Following the outlier analysis, the second step in the statistical analysis was to calculate confidence intervals and compare those to the site-specific GWPSs (**Appendix A**). Confidence interval evaluation was supplemented with Sen's Slope/Mann-Kendall analyses on constituents that have eight independent sampling results at a given well, per the USEPA Unified Guidance (**Appendix B**). The Sen's Slope/Mann-Kendall analysis identifies well-analyte pairs that have statistically significant trends and calculates confidence bands that vary with time. The upper confidence band, in relation to the GWPS for a given constituent, is used to determine exceedances, as outlined in the CAGMP. As discussed previously, antimony, beryllium, lead, mercury, and thallium do not have the requisite quantity of results to perform Sen's Slope/Mann-Kendall analyses, so only confidence intervals were produced for those constituents.

Using these corrective action statistical methods, as of November 2024, the wells with constituents exceeding the GWPS are as follows:

- Cobalt at S-LMW-6S
- Lithium at S-LMW-5S, S-TP-2D, and S-TP-5D
- Molybdenum at S-LMW-2S, S-LMW-5S, S-AM-1D, S-AM-1S, S-TP-5D, and S-PZ-1S

Lithium at S-TP-5D is a new statistical exceedance as of this evaluation. Although the upper confidence limit in **Appendix A** is below the GWPS, Sanitas has now identified a statistically significant increasing trend where the upper confidence band exceeds the GWPS (see **Appendix B**). The other cobalt, lithium, and molybdenum exceedances identified in the statistical evaluation for the June 2024 sampling event remain as of November 2024.

Variability in initial constituent concentrations directly after the closure of the SCPA is expected, especially at wells nearest the CCR unit, where closure grading and disturbance activities were greatest. The concentrations reported in these results following closure are expected to be variable but are expected to decrease over time as stabilization and natural attenuation occur and the groundwater treatment system continues operation.

3.0 CLOSING

Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Amanda Derhake, PhD, P.E.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring[6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.6556
Barium	µg/L	2000	2000	699
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	27.91
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.537
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) 2012 Edition of the Drinking Water Standards and Health Advisories. Updated January 9, 2023 at http://water.epa.gov/drink/contaminants/index.cfm.
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2023 from monitoring wells BMW-1D and BMW-3D.

ROCKSMITH GEOENGINEERING

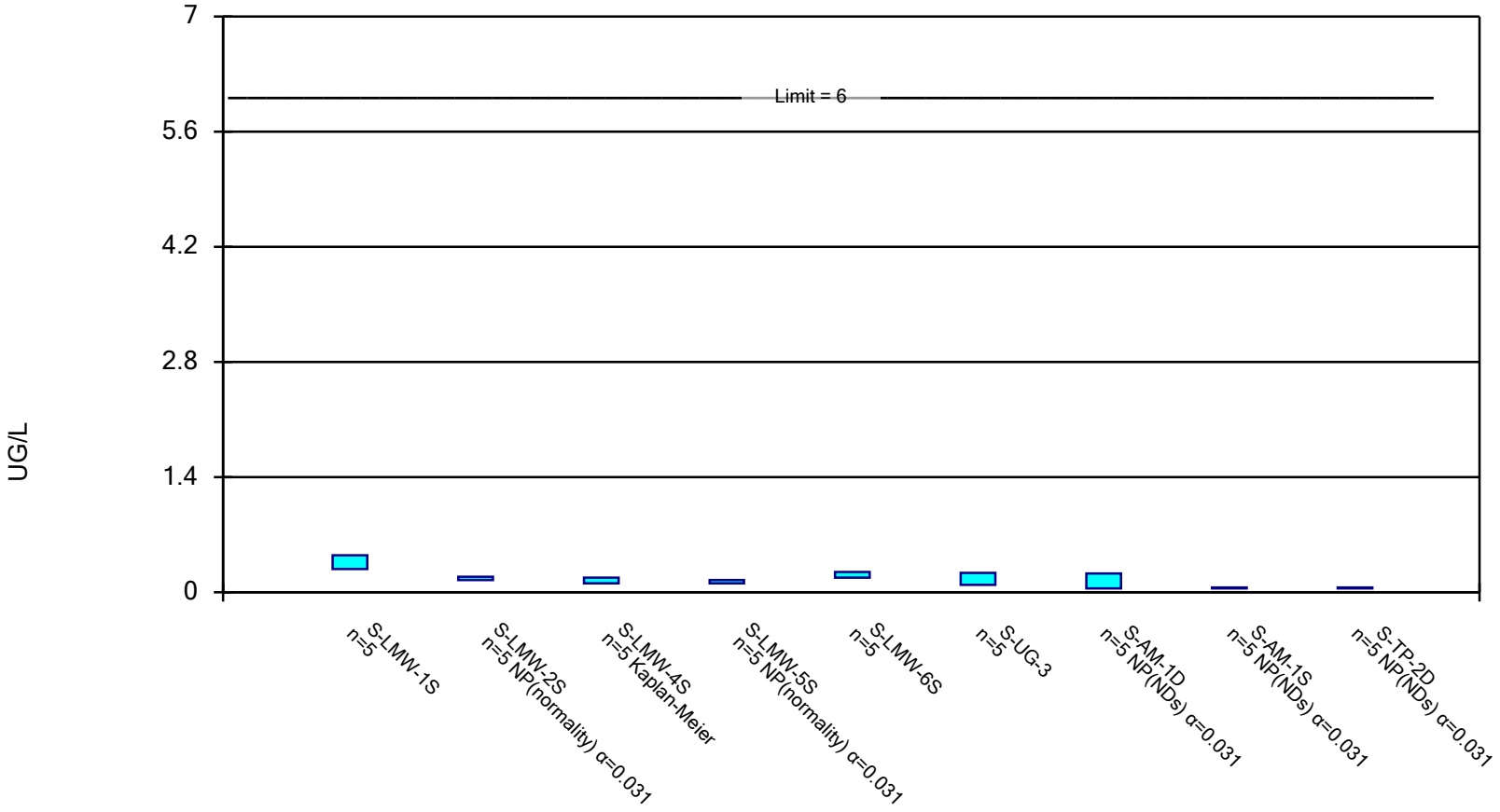
Prepared by: GTM
Checked by: JSI
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



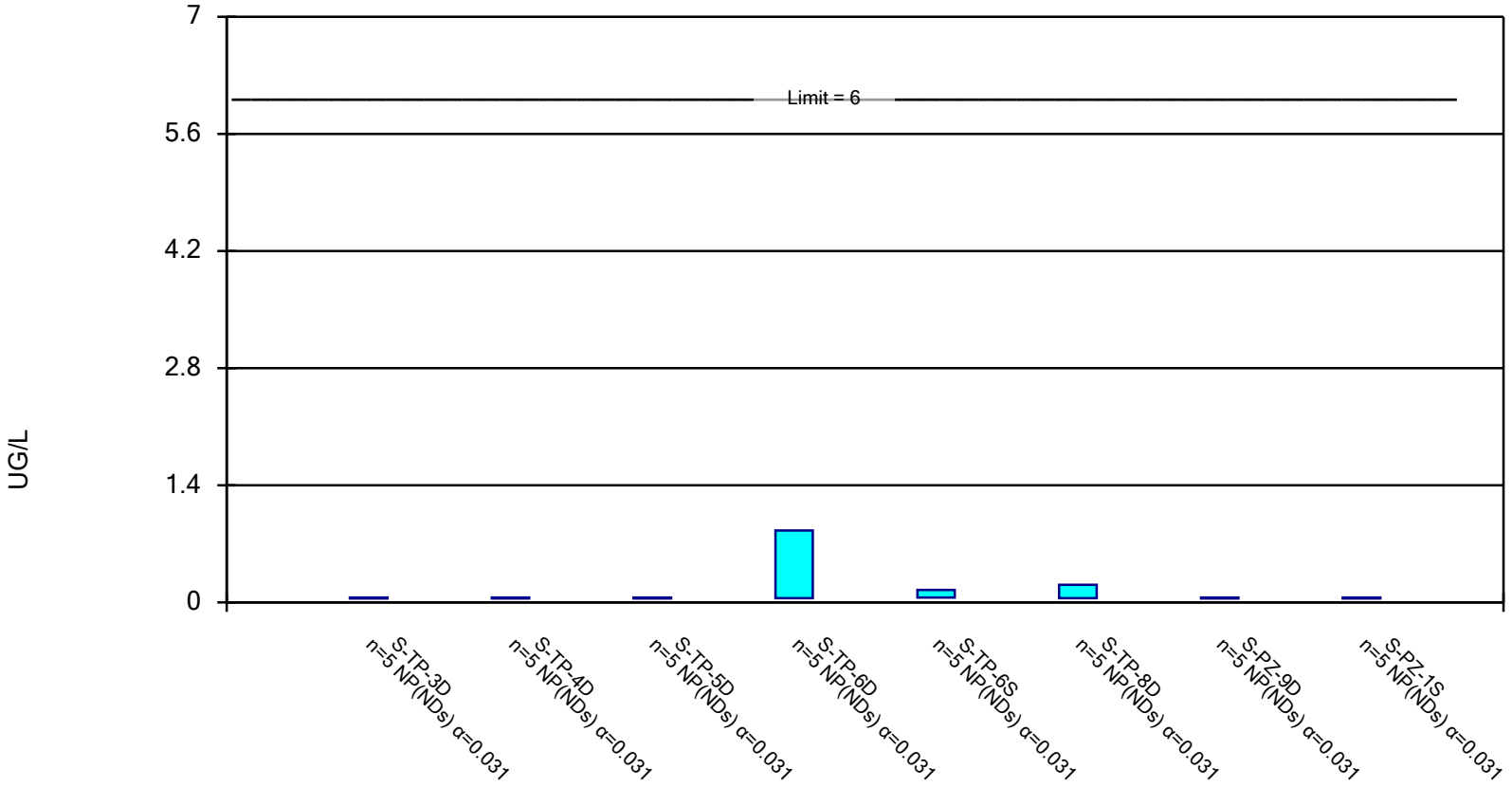
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Sioux E.C. Client: Ameren Data: SEC DATA

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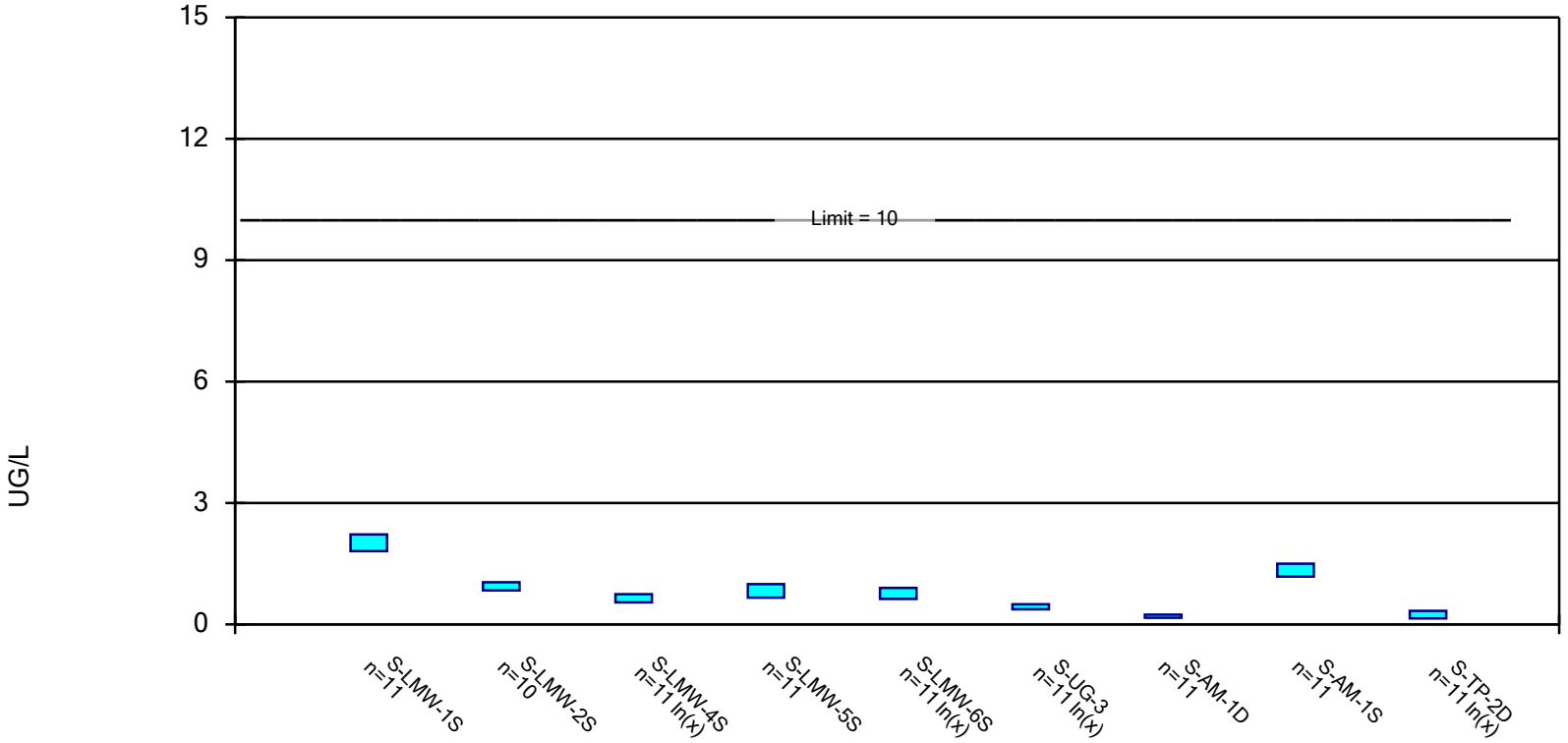


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Sioux E.C. Client: Ameren Data: SEC DATA

Parametric Confidence Interval, Corrective Action Mode

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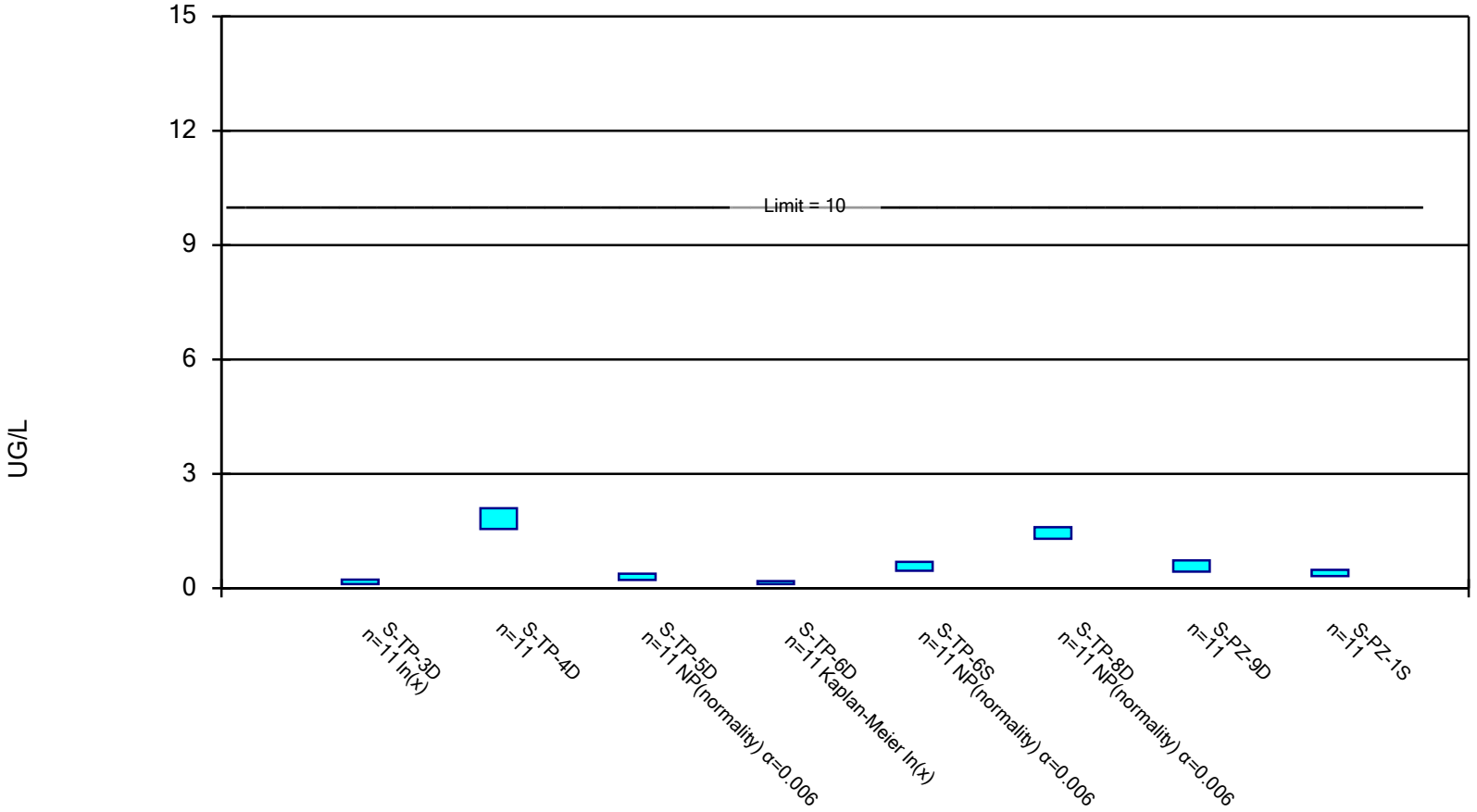
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

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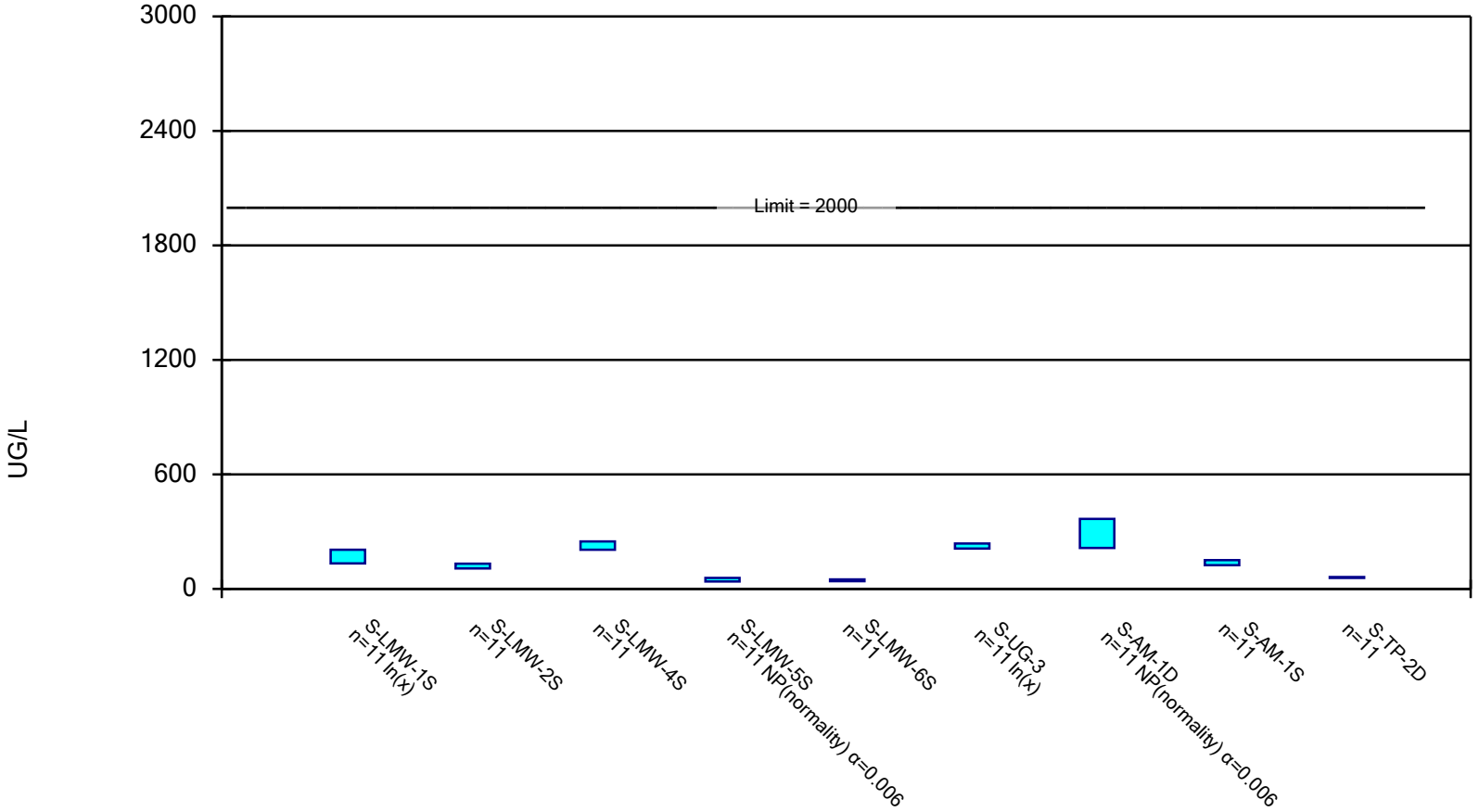


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Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

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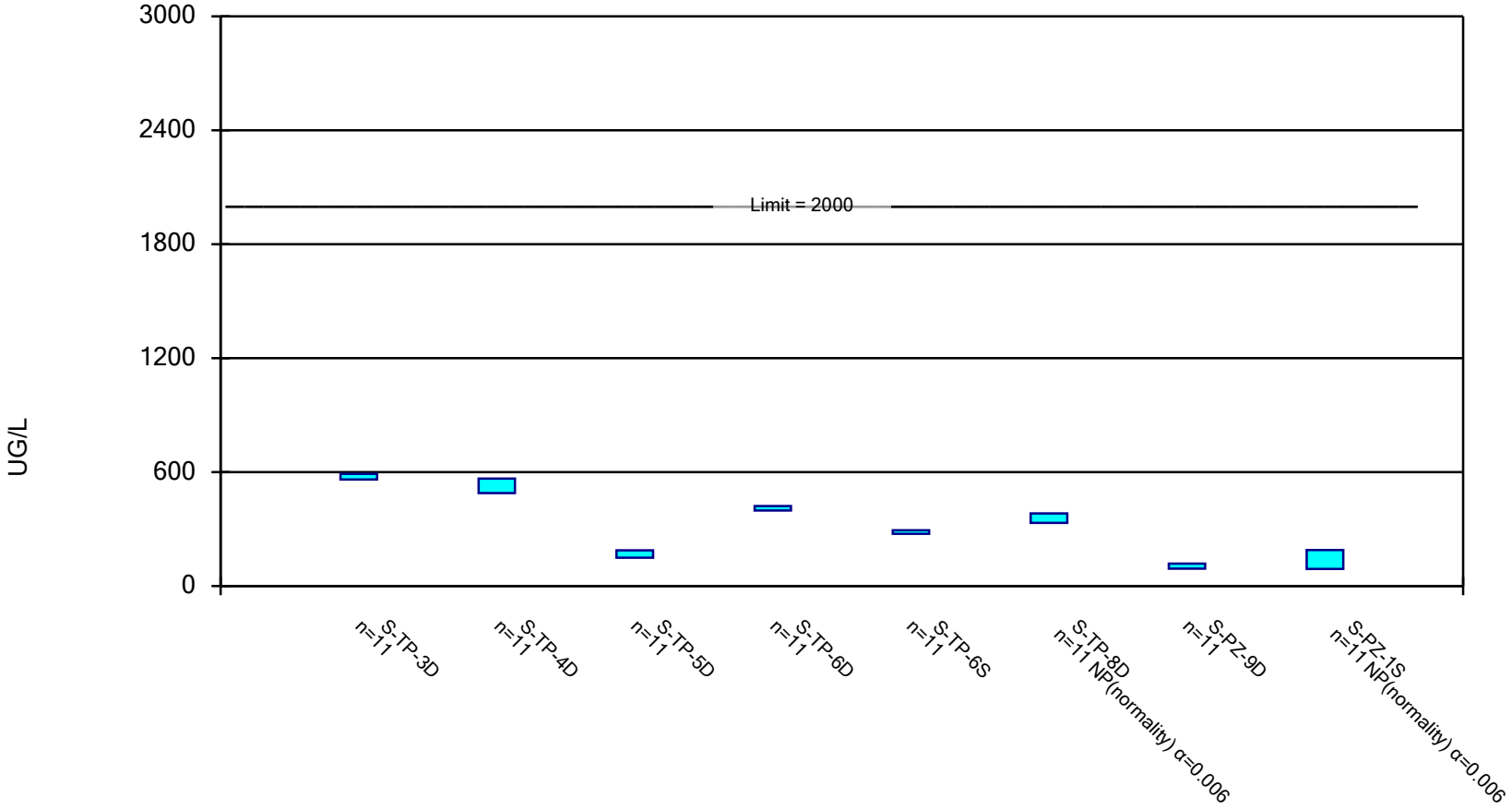
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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

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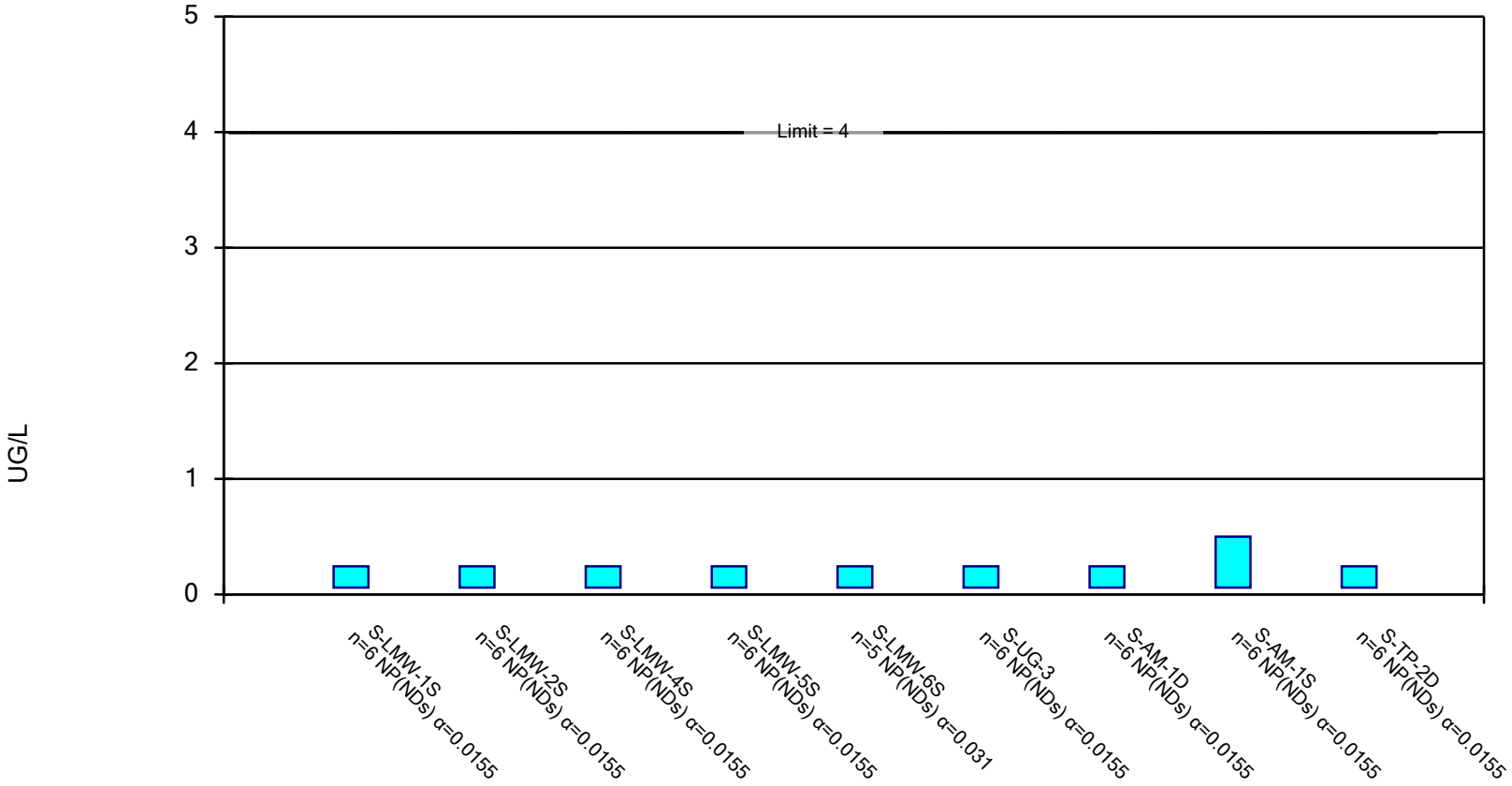
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Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

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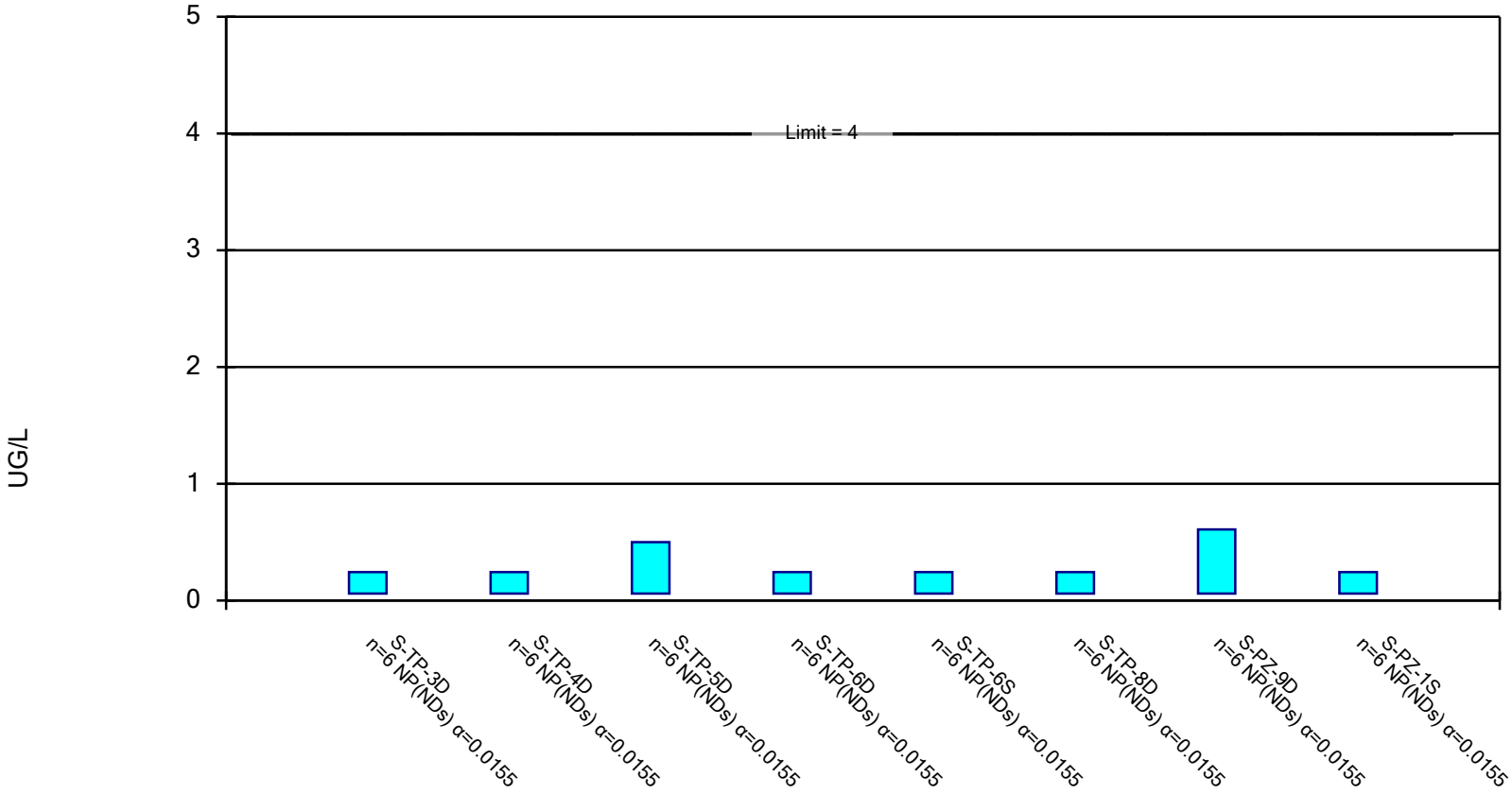
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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



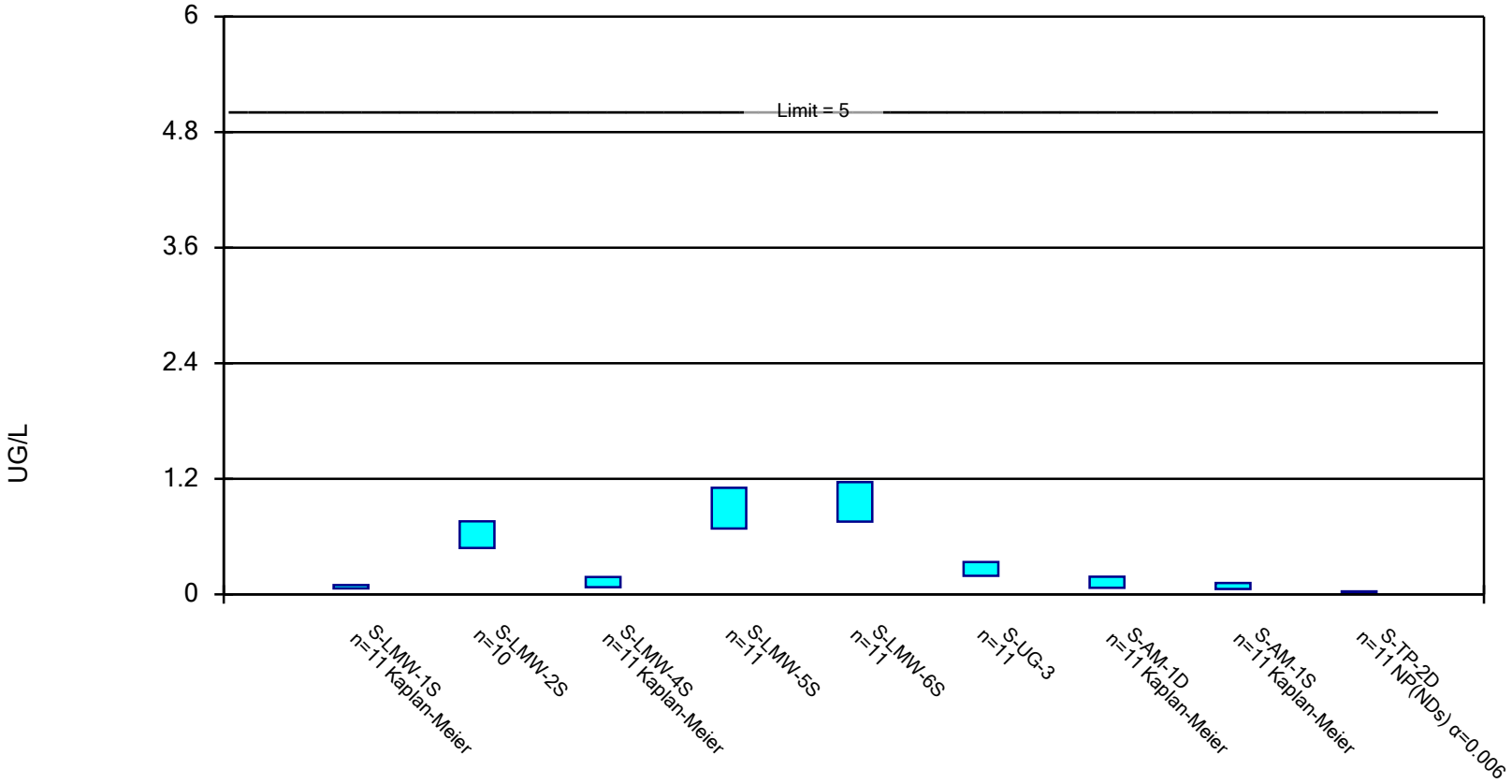
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Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



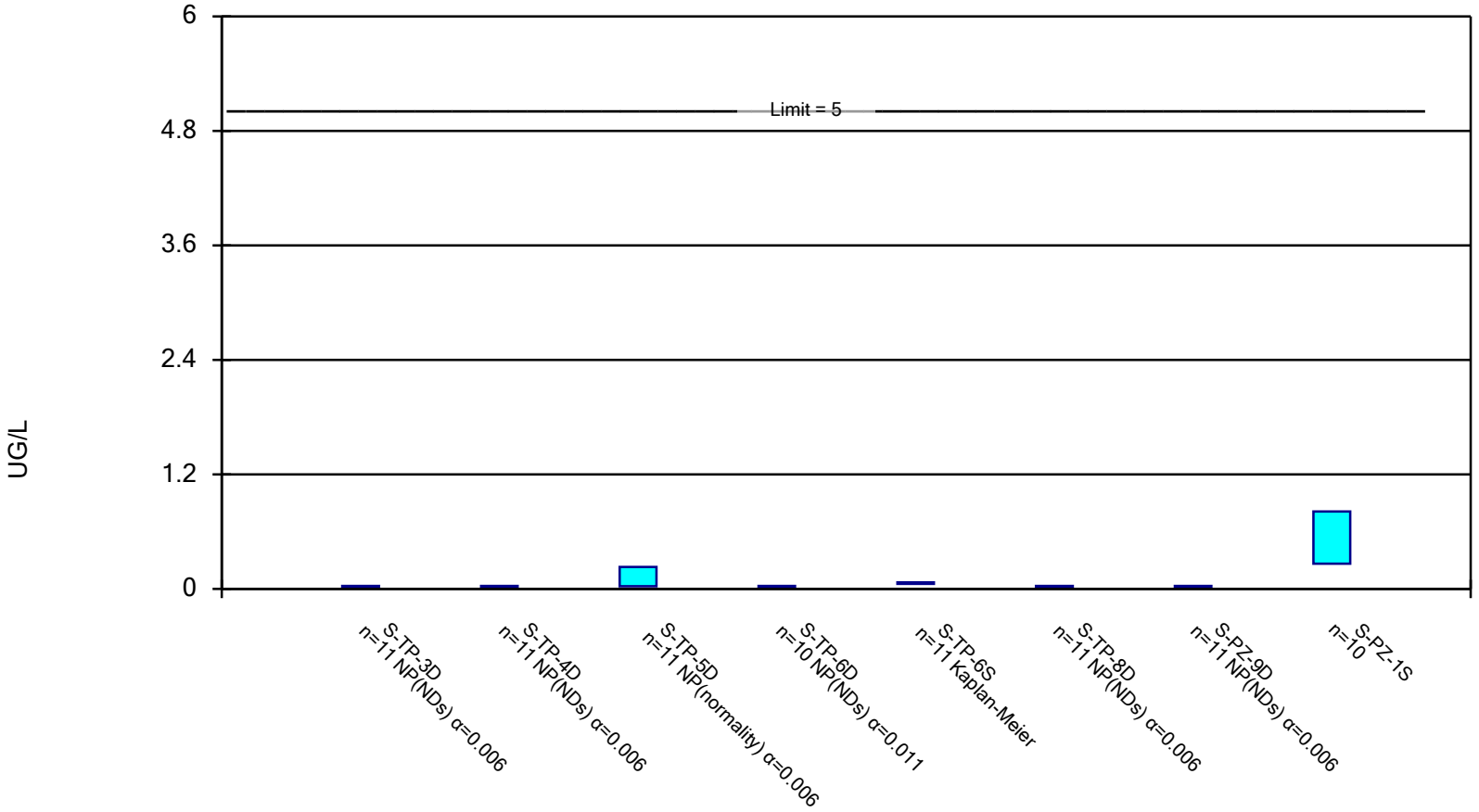
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



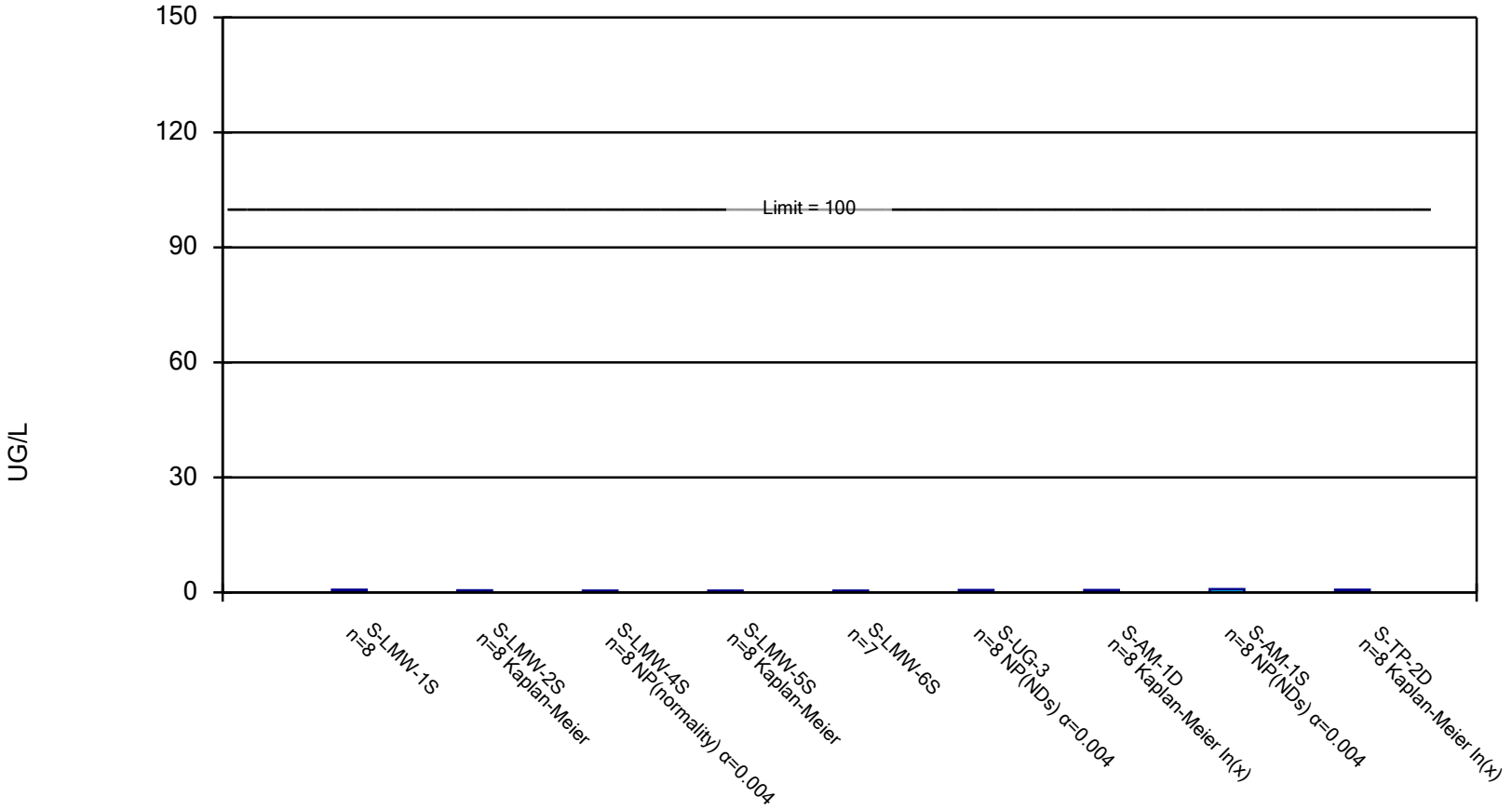
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Sioux E.C. Client: Ameren Data: SEC DATA

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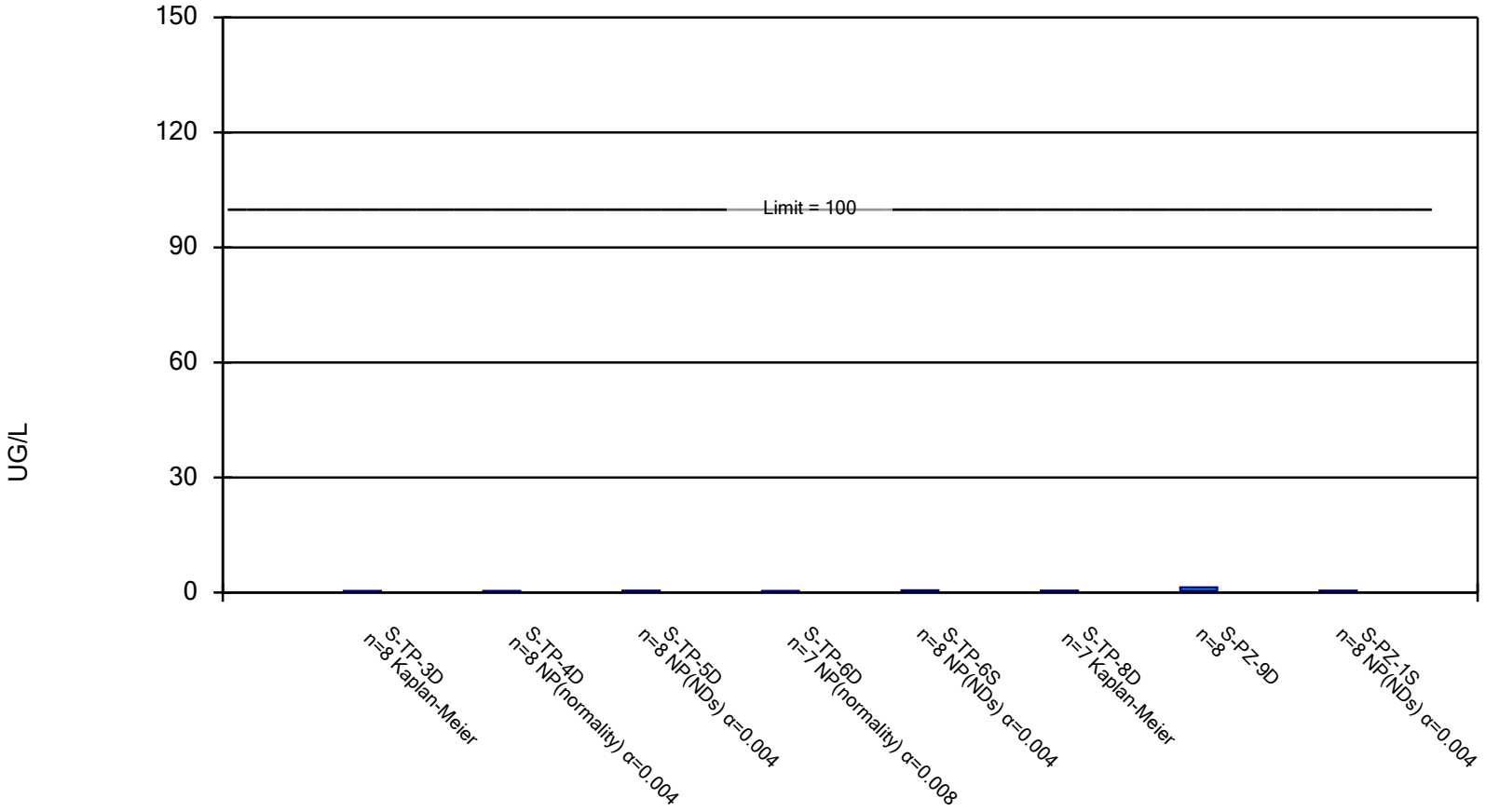


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Sioux E.C. Client: Ameren Data: SEC DATA

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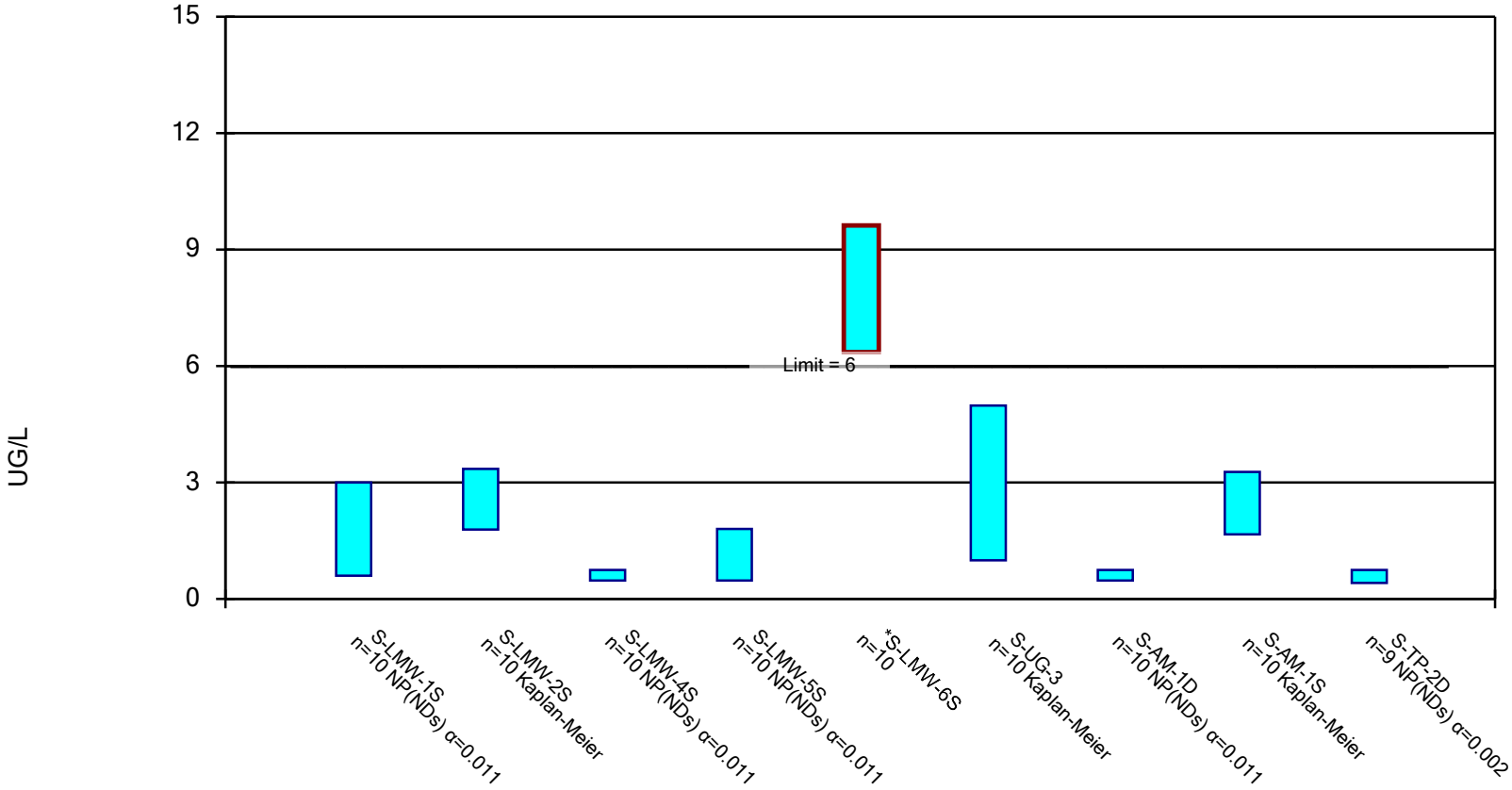
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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



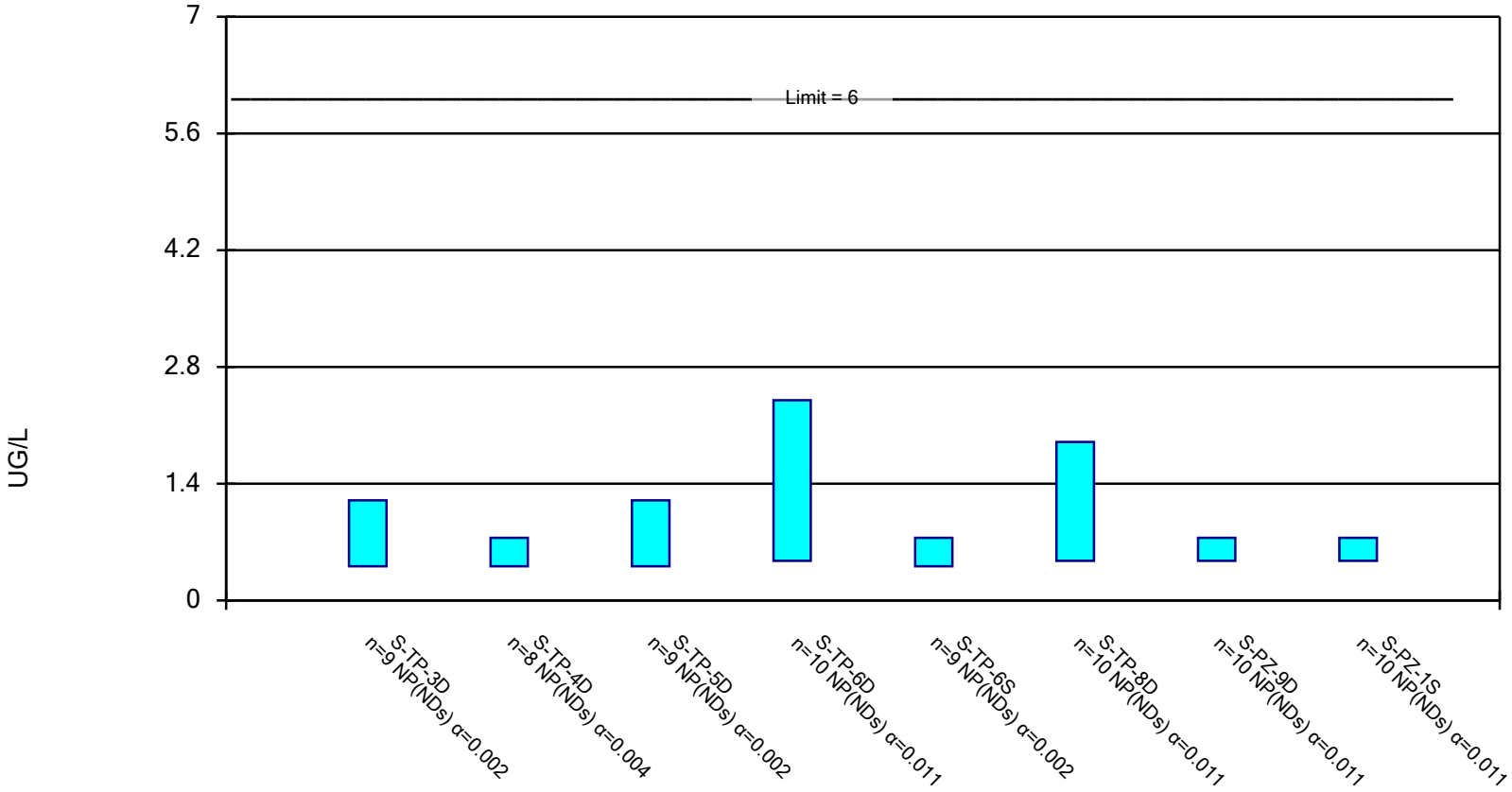
Constituent: COBALT, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

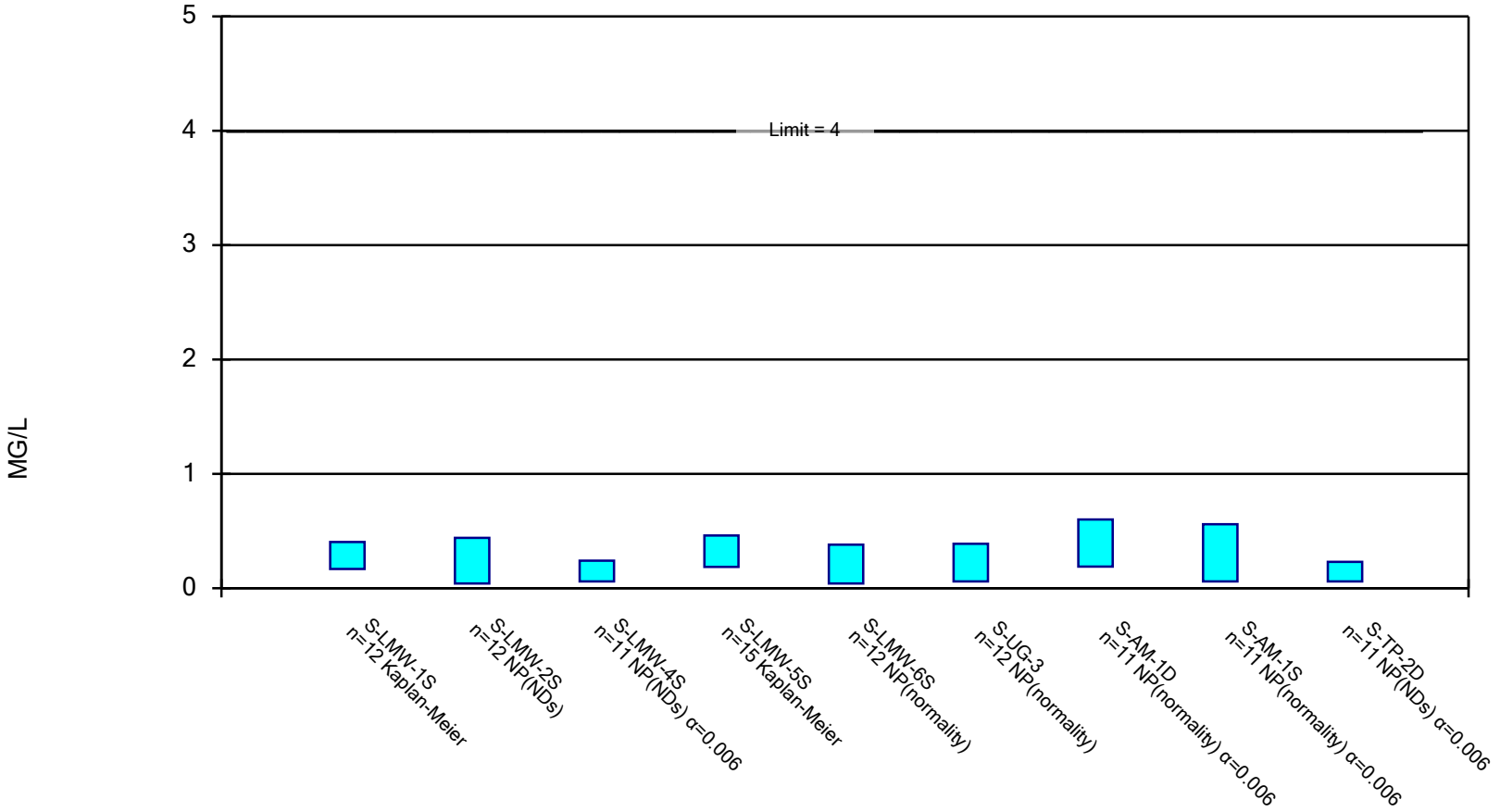


Constituent: COBALT, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



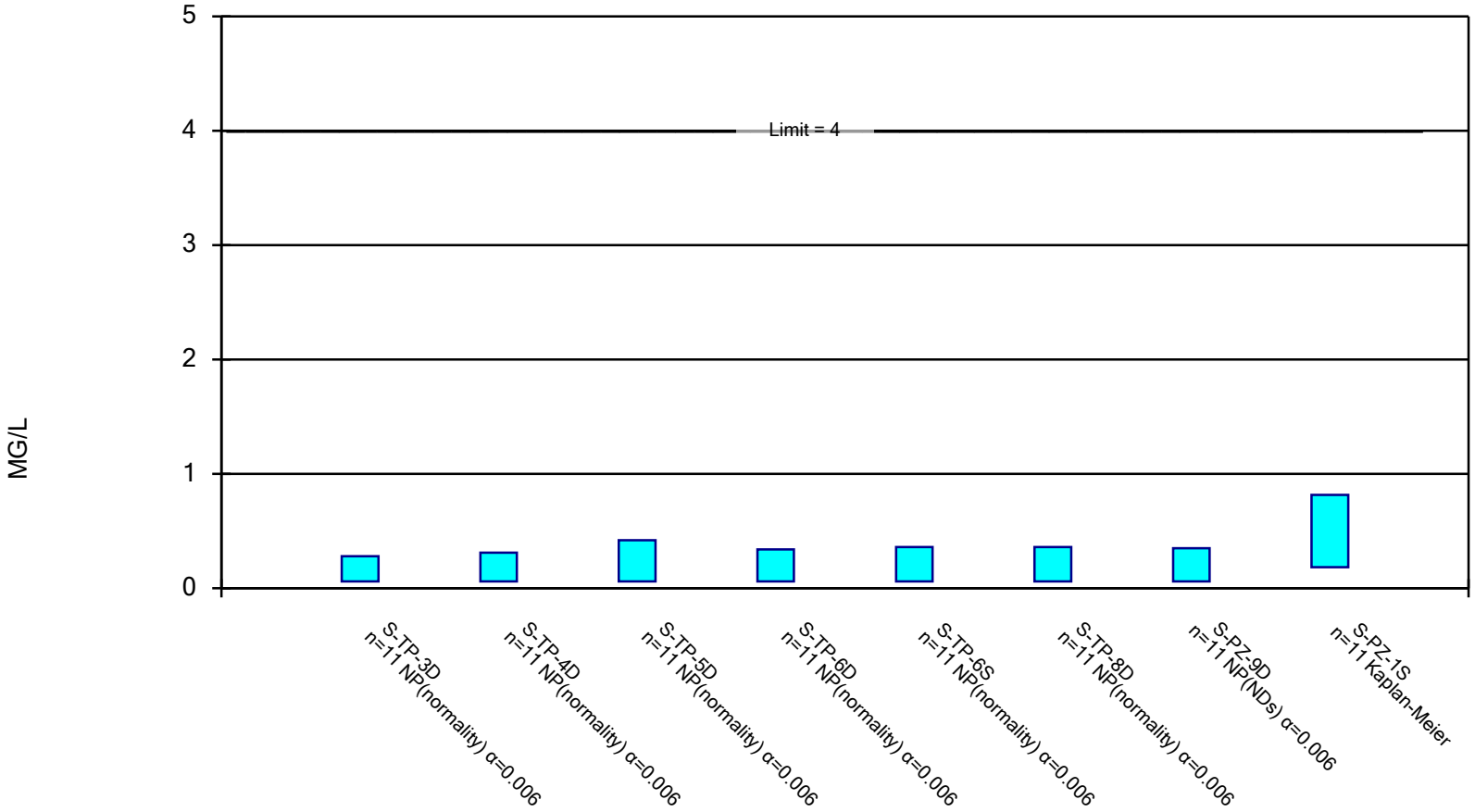
Constituent: FLUORIDE, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

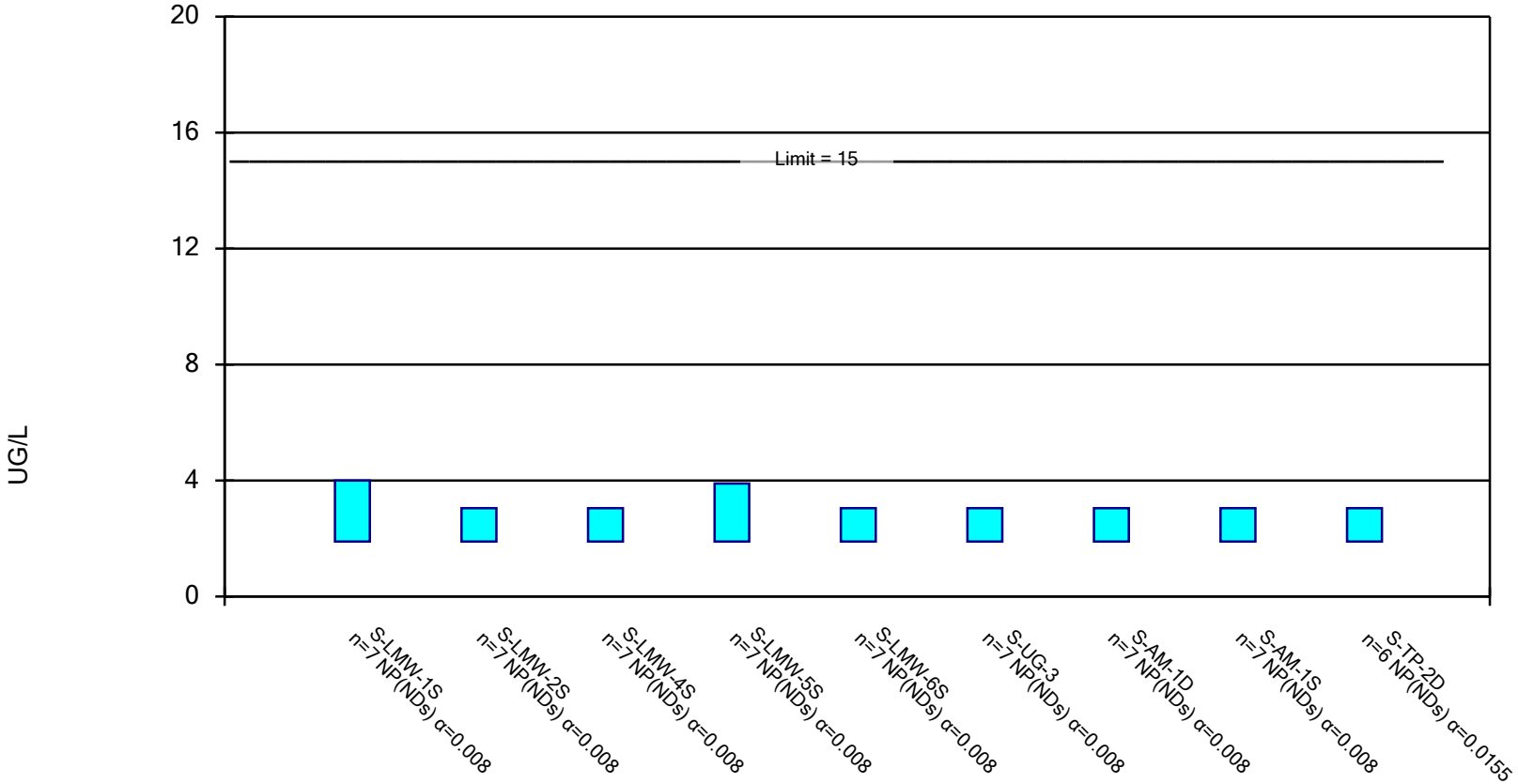


Constituent: FLUORIDE, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

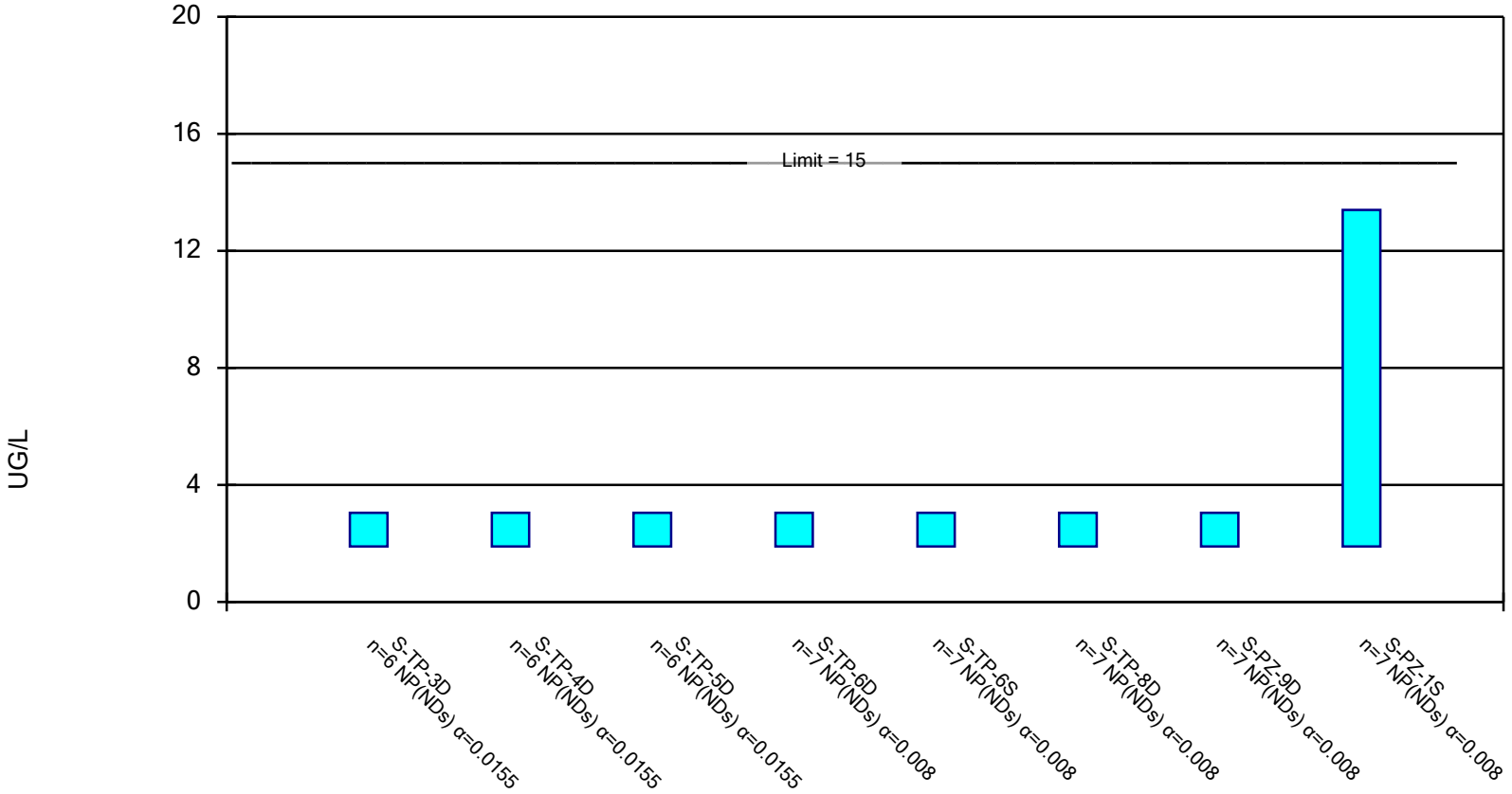


Constituent: LEAD, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



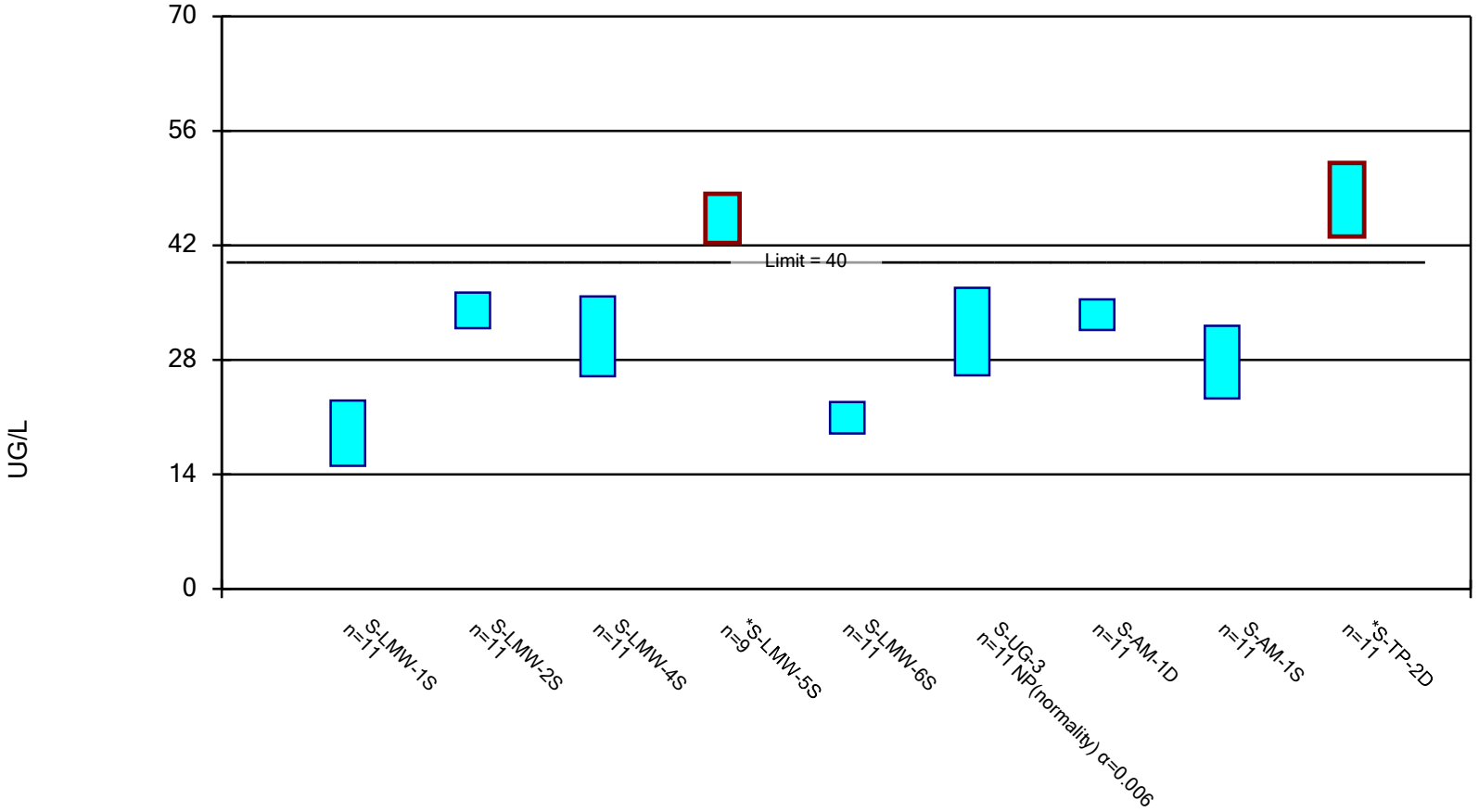
Constituent: LEAD, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



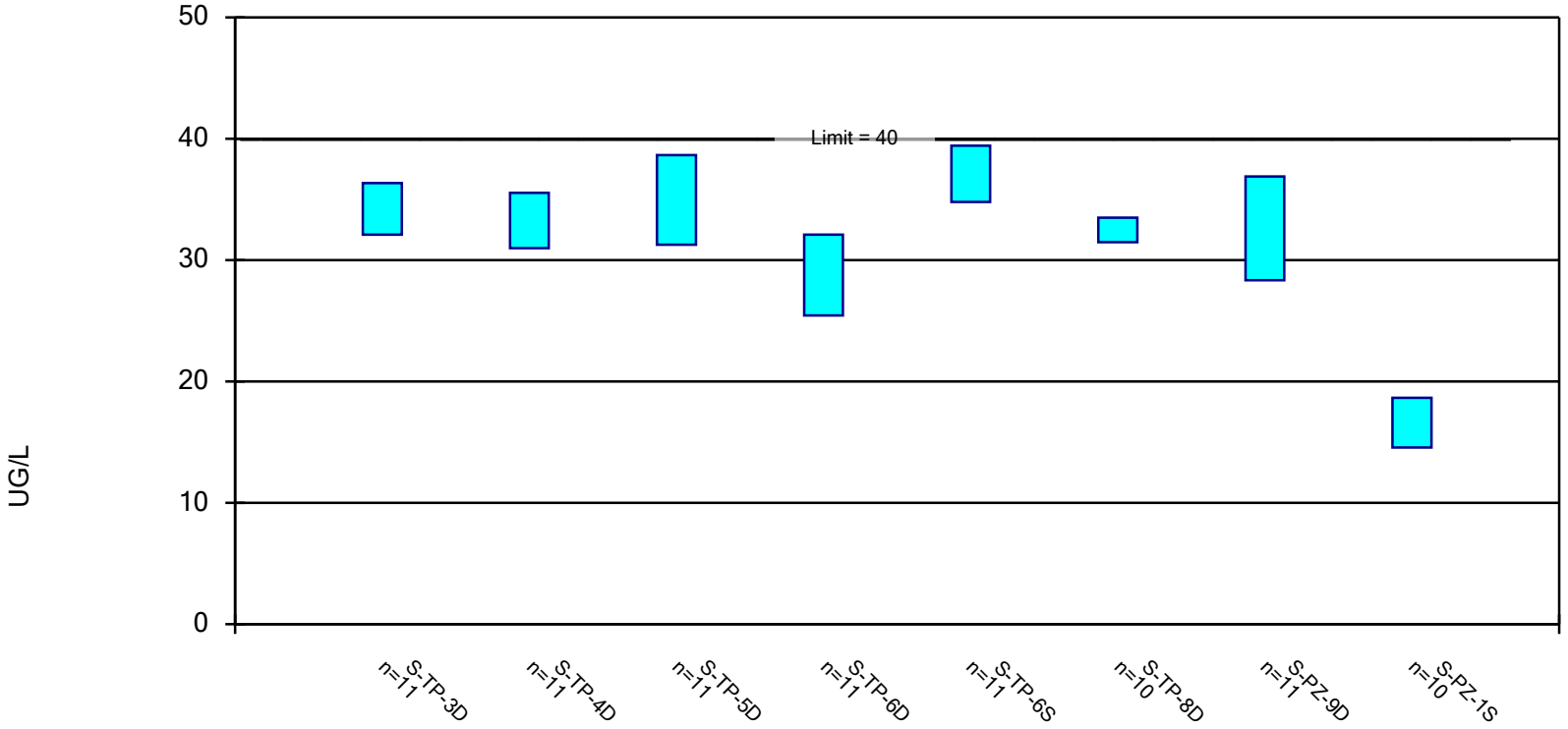
Constituent: LITHIUM, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

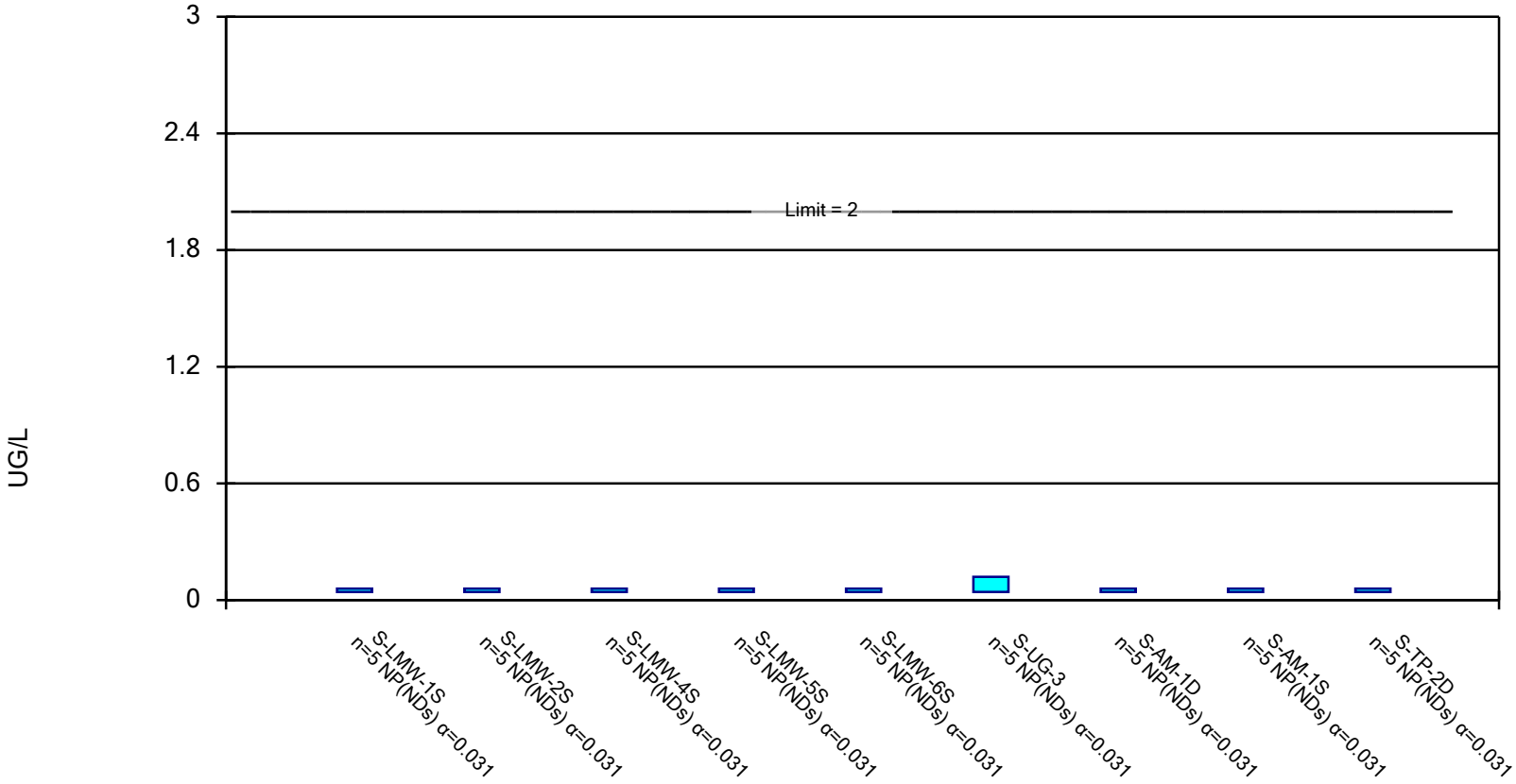


Constituent: LITHIUM, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



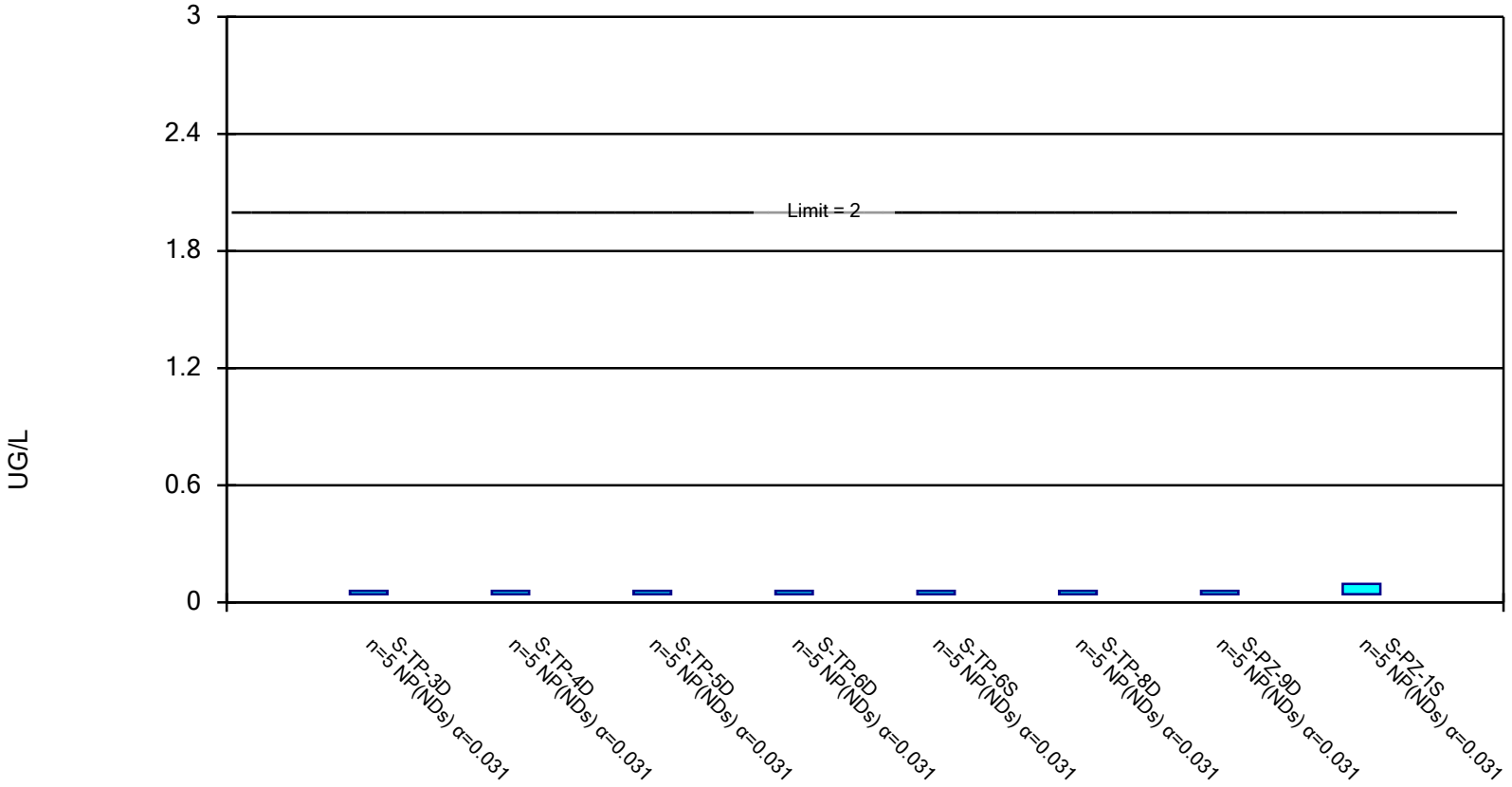
Constituent: MERCURY, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



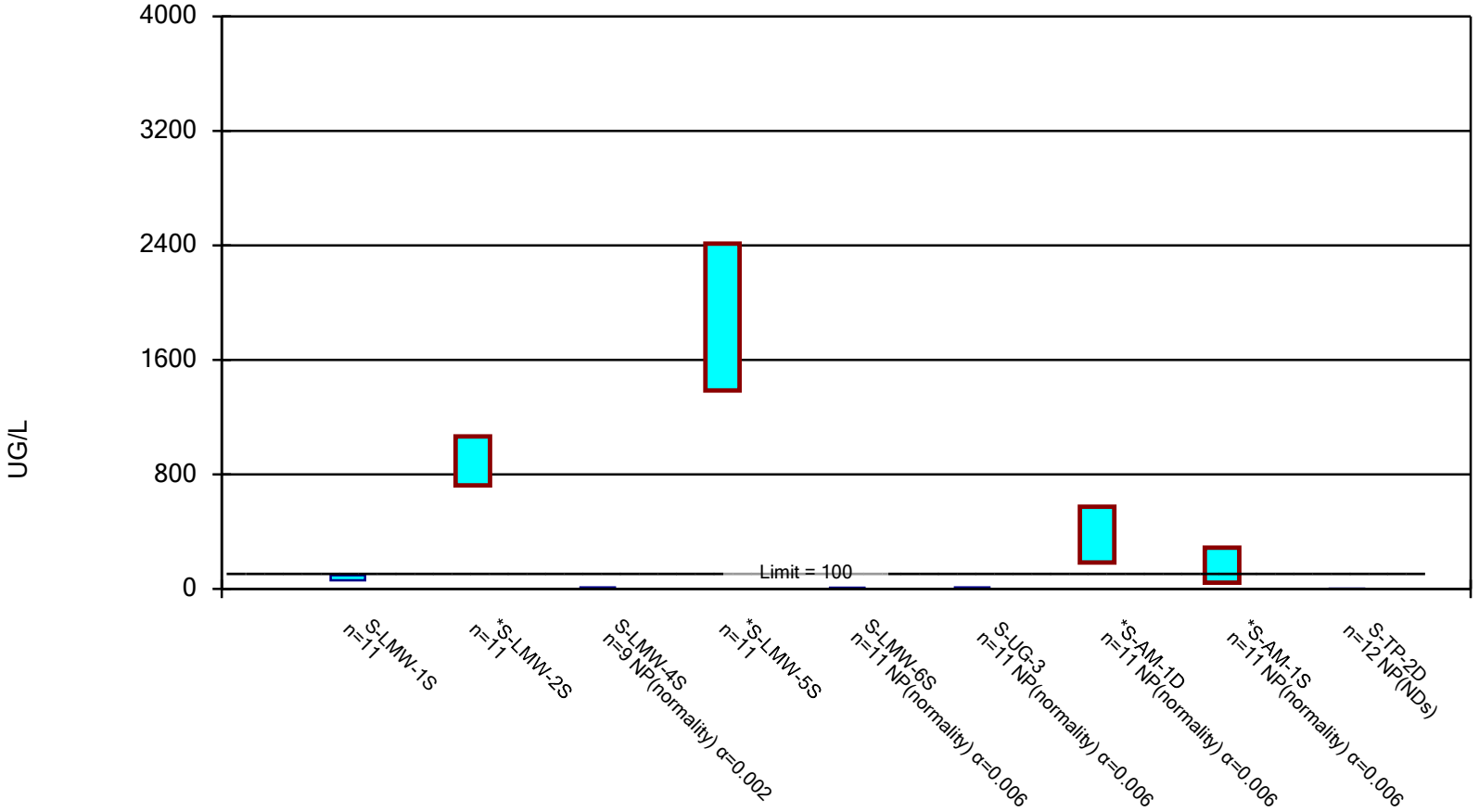
Constituent: MERCURY, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



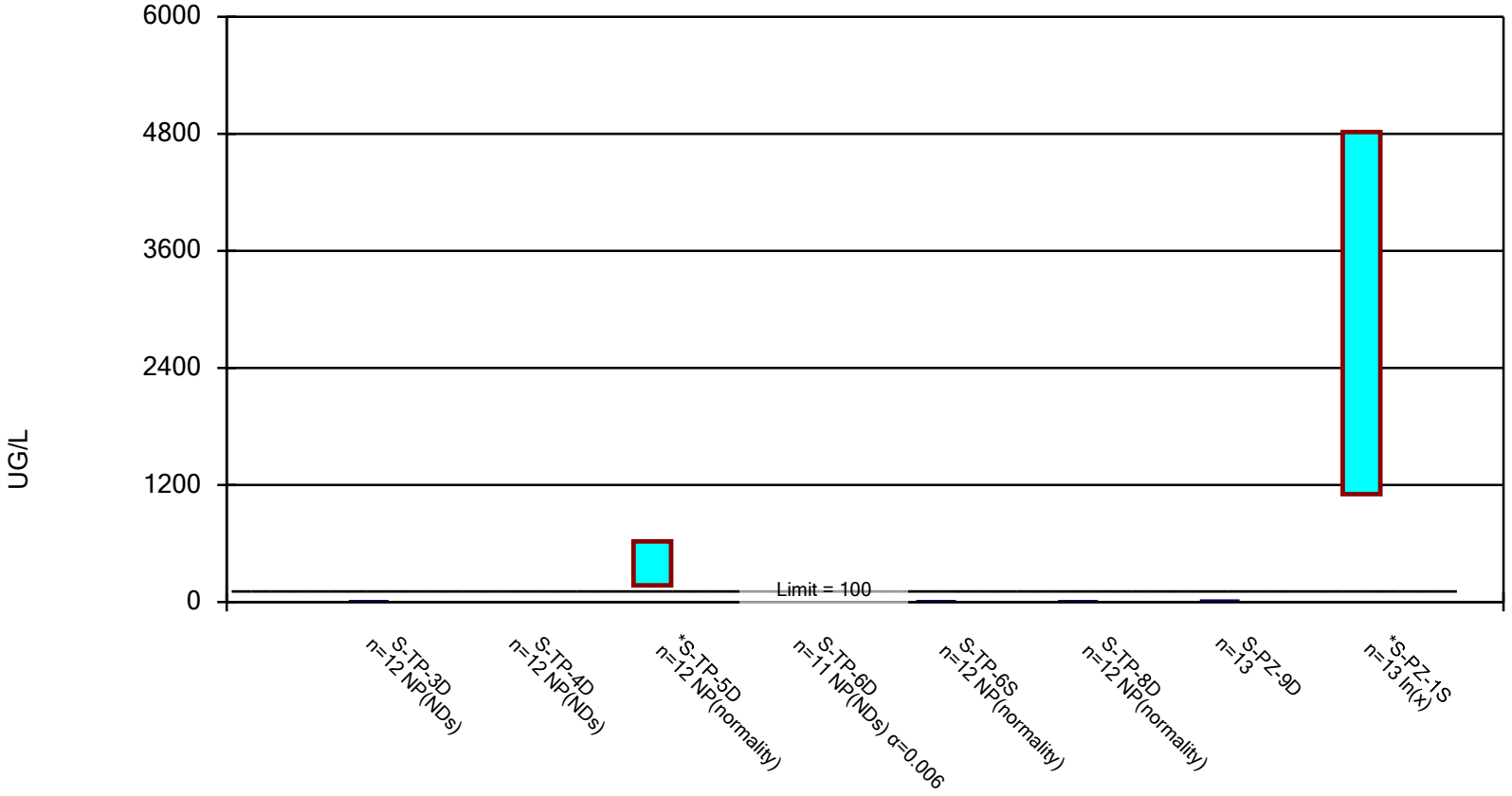
Constituent: MOLYBDENUM, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

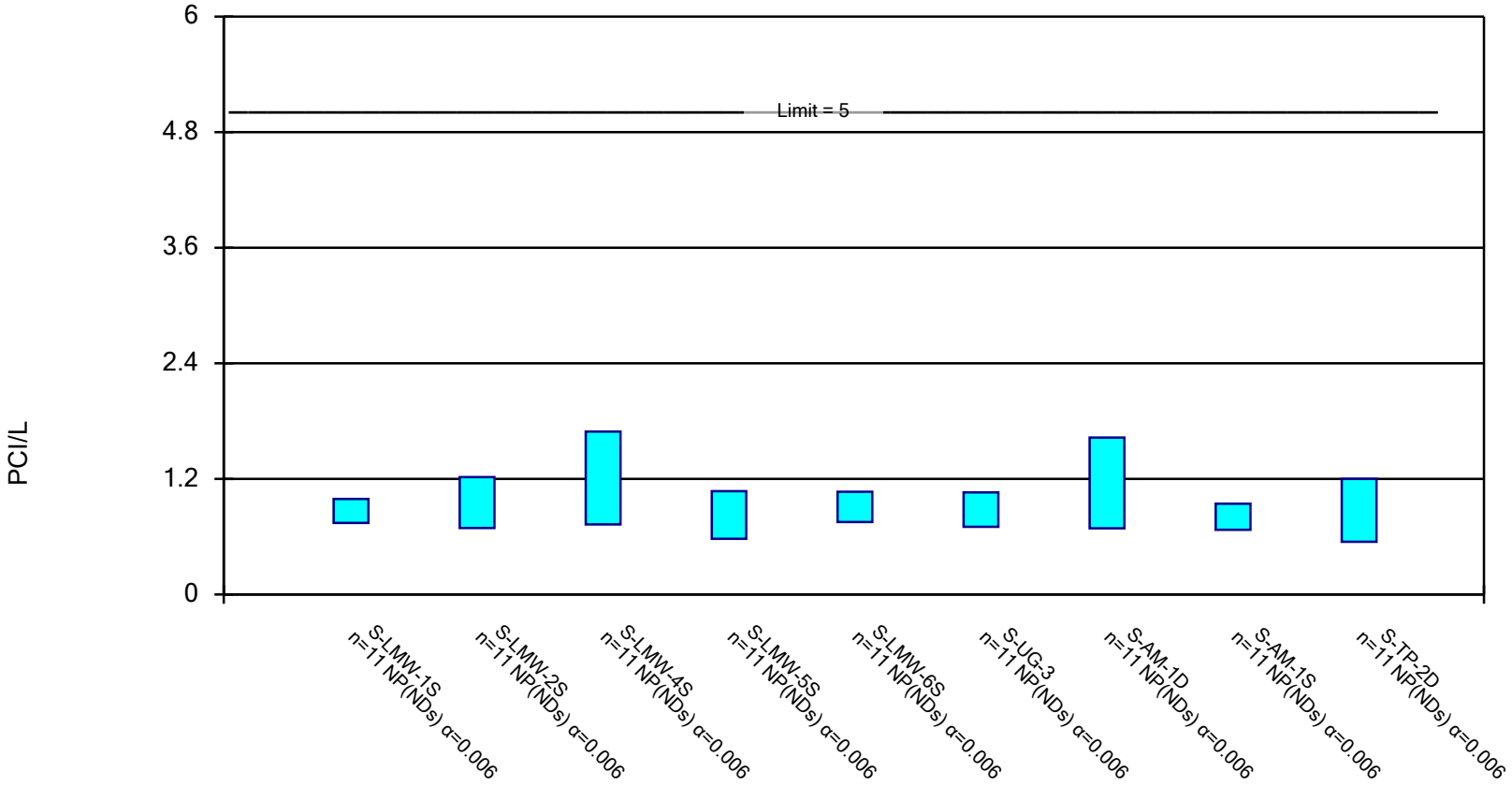


Constituent: MOLYBDENUM, TOTAL Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

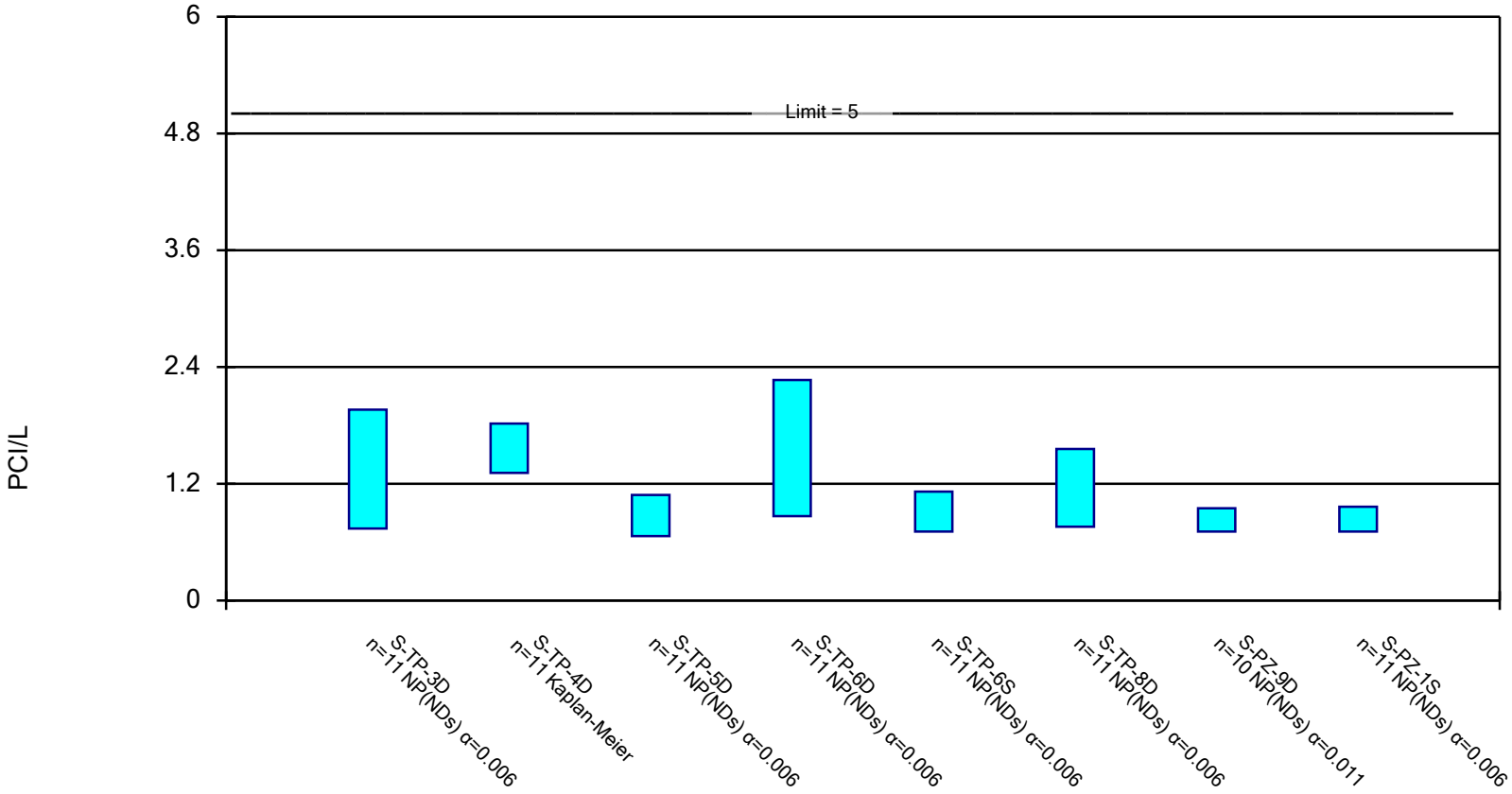


Constituent: RADIUM [226 + 228] Analysis Run 3/13/2025 11:55 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

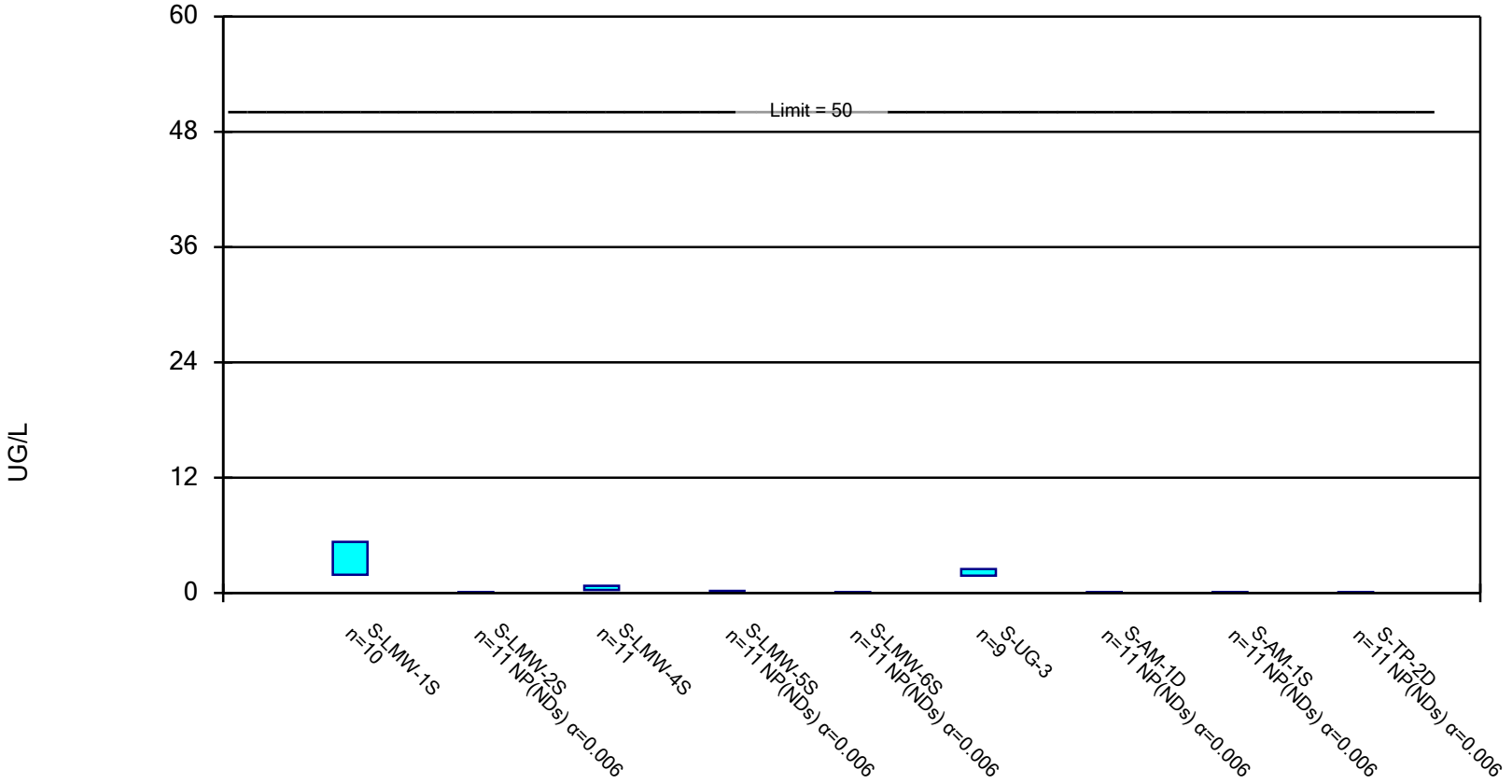


Constituent: RADIUM [226 + 228] Analysis Run 3/13/2025 11:56 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



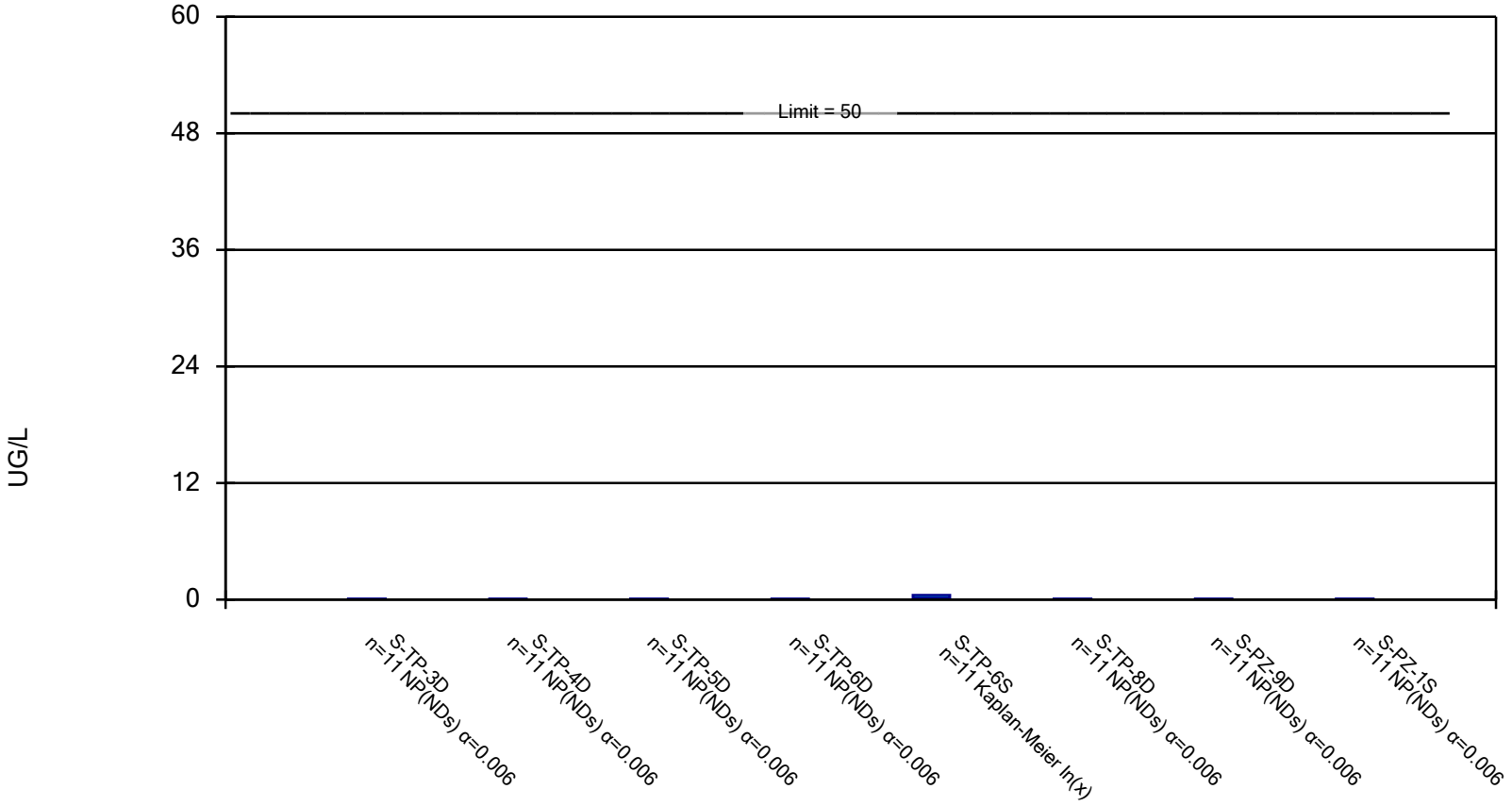
Constituent: SELENIUM, TOTAL Analysis Run 3/13/2025 11:56 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

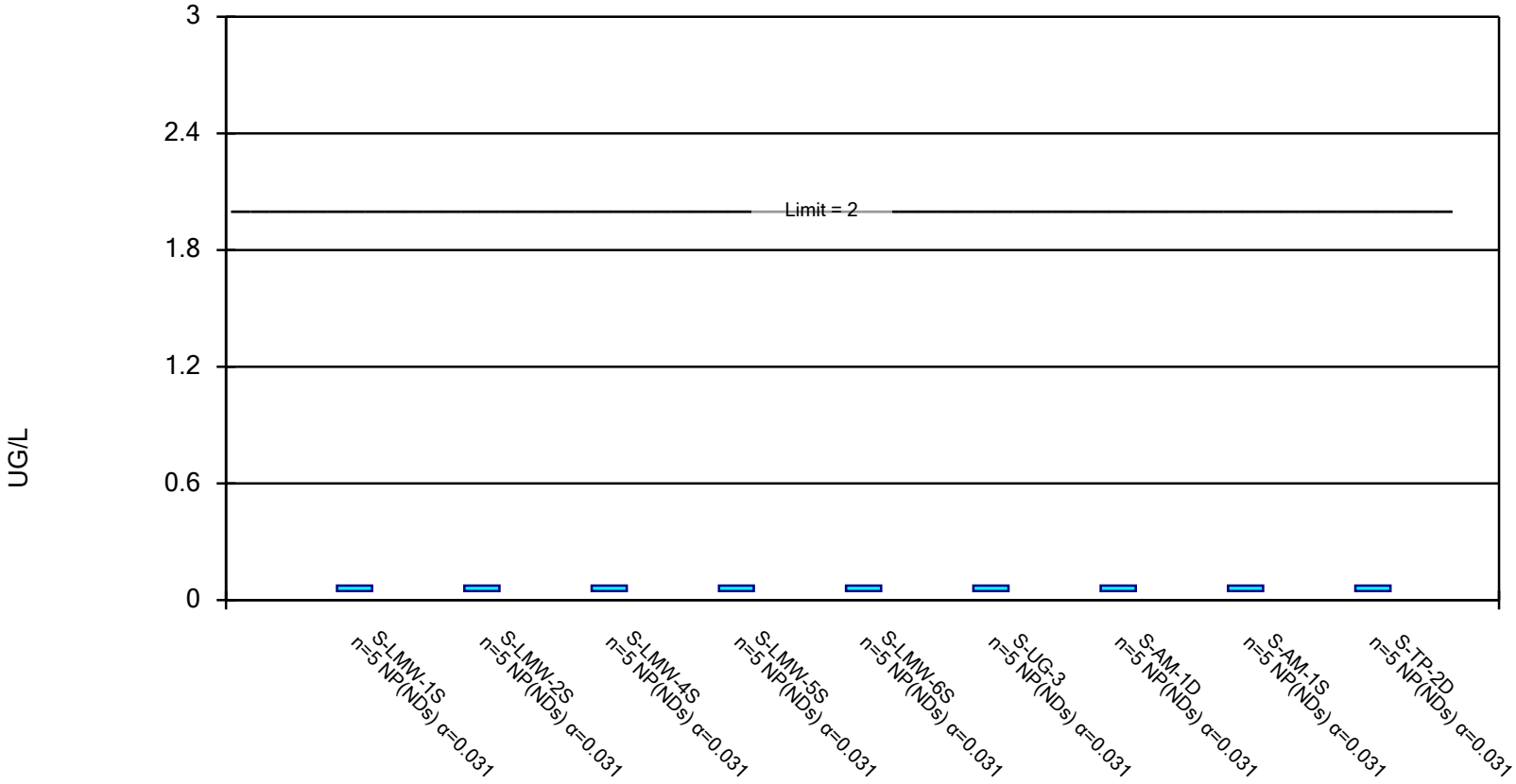


Constituent: SELENIUM, TOTAL Analysis Run 3/13/2025 11:56 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

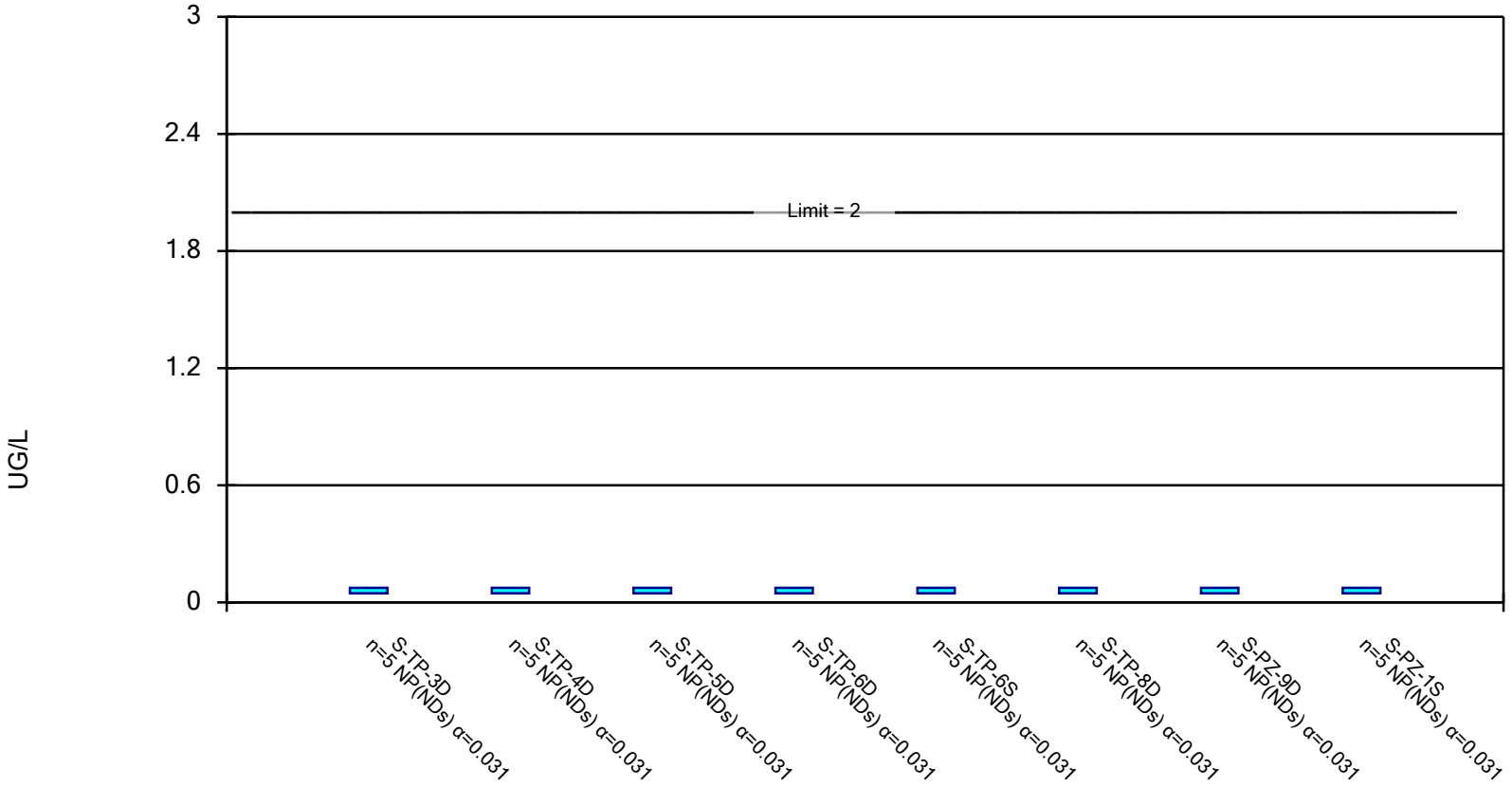


Constituent: THALLIUM, TOTAL Analysis Run 3/13/2025 11:56 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



Constituent: THALLIUM, TOTAL Analysis Run 3/13/2025 11:56 AM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-LMW-1S	0.4513	0.2847	6	No	5	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-2S	0.19	0.15	6	No	5	0	No	0.031	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-4S	0.1799	0.1108	6	No	5	20	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-5S	0.15	0.11	6	No	5	0	No	0.031	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-6S	0.2487	0.1793	6	No	5	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UG-3	0.2367	0.09134	6	No	5	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-AM-1D	0.23	0.0485	6	No	5	80	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-AM-1S	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-2D	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-3D	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-4D	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-5D	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6D	0.86	0.05	6	No	5	80	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6S	0.15	0.06	6	No	5	60	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-8D	0.21	0.05	6	No	5	80	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-1S	0.06	0.0485	6	No	5	100	No	0.031	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-LMW-1S	2.225	1.811	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-2S	1.042	0.8419	10	No	10	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.7462	0.5418	10	No	11	9.091	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.9959	0.6623	10	No	11	9.091	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0.8986	0.6332	10	No	11	9.091	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UG-3	0.4963	0.3768	10	No	11	0	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-AM-1D	0.2407	0.1629	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-AM-1S	1.501	1.179	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-2D	0.336	0.1485	10	No	11	0	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.2226	0.1091	10	No	11	9.091	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-4D	2.096	1.558	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.38	0.22	10	No	11	0	No	0.006	NP (normality)
ARSENIC, TOTAL (UG/L)	S-TP-6D	0.1866	0.1122	10	No	11	27.27	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-6S	0.69	0.46	10	No	11	0	No	0.006	NP (normality)
ARSENIC, TOTAL (UG/L)	S-TP-8D	1.6	1.3	10	No	11	0	No	0.006	NP (normality)
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.7289	0.4347	10	No	11	9.091	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-PZ-1S	0.484	0.316	10	No	11	9.091	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-1S	204.8	134.4	2000	No	11	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-2S	131.7	106.8	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-4S	249.1	204.7	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-5S	57.3	39.6	2000	No	11	0	No	0.006	NP (normality)
BARIUM, TOTAL (UG/L)	S-LMW-6S	50.67	41.35	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UG-3	237.9	210.9	2000	No	11	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-AM-1D	367	214	2000	No	11	0	No	0.006	NP (normality)
BARIUM, TOTAL (UG/L)	S-AM-1S	151.2	124.7	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-2D	62.68	57.5	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-3D	591.2	561.2	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-4D	565.3	490.1	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-5D	187.8	149.5	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-6D	420.9	397.4	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-6S	294.4	275.1	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-8D	382	332	2000	No	11	0	No	0.006	NP (normality)
BARIUM, TOTAL (UG/L)	S-PZ-9D	118.9	91.26	2000	No	11	0	No	0.01	Param.

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 11:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
BARIUM, TOTAL (UG/L)	S-PZ-1S	190	89.8	2000	No	11	0	No	0.006	NP (normality)
BERYLLIUM, TOTAL (UG/L)	S-LMW-1S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-2S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-4S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-5S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-6S	0.245	0.06	4	No	5	100	No	0.031	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UG-3	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1S	0.5	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-2D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-3D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-4D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-8D	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-9D	0.61	0.06	4	No	6	83.33	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-1S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.09785	0.06147	5	No	11	18.18	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.7585	0.4815	5	No	10	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.1802	0.07361	5	No	11	36.36	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-5S	1.108	0.6829	5	No	11	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-6S	1.166	0.7543	5	No	11	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UG-3	0.3364	0.1945	5	No	11	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1D	0.1851	0.0697	5	No	11	18.18	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1S	0.118	0.05543	5	No	11	18.18	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-2D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-3D	0.031	0.025	5	No	11	90.91	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-4D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.23	0.028	5	No	11	27.27	No	0.006	NP (normality)
CADMIUM, TOTAL (UG/L)	S-TP-6D	0.031	0.025	5	No	10	100	No	0.011	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.06758	0.0523	5	No	11	36.36	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-8D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-9D	0.031	0.025	5	No	11	90.91	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.8123	0.2637	5	No	10	10	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.72	0.2375	100	No	8	12.5	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0.5256	0.1969	100	No	8	37.5	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.5	0.11	100	No	8	37.5	No	0.004	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	0.4941	0.2184	100	No	8	37.5	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	0.472	0.1937	100	No	7	14.29	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UG-3	0.65	0.11	100	No	8	87.5	No	0.004	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-AM-1D	0.6159	0.1705	100	No	8	50	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-AM-1S	0.83	0.11	100	No	8	62.5	No	0.004	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-2D	0.7419	0.1985	100	No	8	37.5	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.41	0.2243	100	No	8	50	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.43	0.11	100	No	8	50	No	0.004	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.11	100	No	8	87.5	No	0.004	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-6D	0.38	0.15	100	No	7	42.86	No	0.008	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-TP-6S	0.59	0.11	100	No	8	62.5	No	0.004	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-8D	0.4372	0.217	100	No	7	42.86	No	0.01	Param.

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	1.325	0.5325	100	No	8	0	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	0.5	0.11	100	No	8	62.5	No	0.004	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-1S	3	0.6	6	No	10	60	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-2S	3.353	1.787	6	No	10	20	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-LMW-4S	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-5S	1.8	0.475	6	No	10	70	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	**S-LMW-6S**	**9.621**	**6.359**	**6**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
COBALT, TOTAL (UG/L)	S-UG-3	4.984	0.9964	6	No	10	20	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-AM-1D	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-AM-1S	3.273	1.667	6	No	10	20	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-TP-2D	0.75	0.41	6	No	9	100	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-3D	1.2	0.41	6	No	9	88.89	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-4D	0.75	0.41	6	No	8	100	No	0.004	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-5D	1.2	0.41	6	No	9	88.89	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6D	2.4	0.475	6	No	10	90	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6S	0.75	0.41	6	No	9	100	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-8D	1.9	0.475	6	No	10	80	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-PZ-9D	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-PZ-1S	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-1S	0.4039	0.1687	4	No	12	33.33	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	0.44	0.043	4	No	12	66.67	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-4S	0.24	0.06	4	No	11	54.55	No	0.006	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	0.4611	0.1881	4	No	15	26.67	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	0.38	0.043	4	No	12	50	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UG-3	0.39	0.06	4	No	12	33.33	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-AM-1D	0.6	0.19	4	No	11	9.091	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-AM-1S	0.56	0.06	4	No	11	18.18	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-2D	0.23	0.06	4	No	11	63.64	No	0.006	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-TP-3D	0.28	0.06	4	No	11	36.36	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-4D	0.31	0.06	4	No	11	36.36	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-5D	0.42	0.06	4	No	11	27.27	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-6D	0.34	0.06	4	No	11	36.36	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-6S	0.36	0.06	4	No	11	36.36	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-8D	0.36	0.06	4	No	11	45.45	No	0.006	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	0.35	0.06	4	No	11	63.64	No	0.006	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-PZ-1S	0.815	0.1832	4	No	11	36.36	No	0.01	Param.
LEAD, TOTAL (UG/L)	S-LMW-1S	4	1.9	15	No	7	85.71	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-2S	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-4S	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-5S	3.9	1.9	15	No	7	85.71	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-6S	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-UG-3	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1S	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-2D	3.05	1.9	15	No	6	100	No	0.0155	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-3D	3.05	1.9	15	No	6	100	No	0.0155	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-4D	3.05	1.9	15	No	6	100	No	0.0155	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-5D	3.05	1.9	15	No	6	100	No	0.0155	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6S	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
LEAD, TOTAL (UG/L)	S-TP-8D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-9D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-1S	13.4	1.9	15	No	7	57.14	No	0.008	NP (NDs)
LITHIUM, TOTAL (UG/L)	S-LMW-1S	23.04	15.05	40	No	11	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-2S	36.24	31.88	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-4S	35.75	26.02	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-LMW-5S**	**48.32**	**42.28**	**40**	**Yes**	**9**	**0**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-LMW-6S	22.84	19.01	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UG-3	36.8	26.1	40	No	11	9.091	No	0.006	NP (normality)
LITHIUM, TOTAL (UG/L)	S-AM-1D	35.38	31.66	40	No	11	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-AM-1S	32.16	23.29	40	No	11	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-TP-2D**	**52.08**	**43.09**	**40**	**Yes**	**11**	**9.091**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-TP-3D	36.34	32.09	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-4D	35.53	30.97	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-5D	38.65	31.27	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6D	32.09	25.43	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6S	39.43	34.8	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-8D	33.49	31.47	40	No	10	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-9D	36.87	28.33	40	No	11	9.091	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-1S	18.65	14.55	40	No	10	0	No	0.01	Param.
MERCURY, TOTAL (UG/L)	S-LMW-1S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-2S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-4S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-5S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-6S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UG-3	0.12	0.0425	2	No	5	80	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-2D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-3D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-4D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-5D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6S	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-8D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-1S	0.095	0.0425	2	No	5	100	No	0.031	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-LMW-1S	95.43	60.46	100	No	11	0	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-2S**	**1065**	**722.6**	**100**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	10	0.85	100	No	9	44.44	No	0.002	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-5S**	**2412**	**1387**	**100**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-6S	10.6	0.85	100	No	11	45.45	No	0.006	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	10	2.5	100	No	11	27.27	No	0.006	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**575**	**184**	**100**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**289**	**42.9**	**100**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	2.4	0.45	100	No	12	83.33	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	10	0.5	100	No	12	66.67	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-TP-4D	1.5	0.5	100	No	12	66.67	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	**S-TP-5D**	**622**	**171**	**100**	**Yes**	**12**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	1.1	0.5	100	No	11	90.91	No	0.006	NP (NDs)

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	10	2.5	100	No	12	16.67	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	10	0.85	100	No	12	50	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-PZ-9D	14.37	6.042	100	No	13	7.692	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-1S**	**4818**	**1107**	**100**	**Yes**	**13**	**0**	**ln(x)**	**0.01**	**Param.**
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	0.9925	0.742	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	1.218	0.689	5	No	11	81.82	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	1.69	0.7285	5	No	11	72.73	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	1.072	0.578	5	No	11	90.91	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	1.065	0.7535	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UG-3	1.059	0.7035	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1D	1.63	0.6875	5	No	11	90.91	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1S	0.941	0.6705	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-2D	1.2	0.5485	5	No	11	90.91	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-3D	1.963	0.74	5	No	11	72.73	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-4D	1.82	1.311	5	No	11	36.36	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-TP-5D	1.084	0.6615	5	No	11	90.91	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-6D	2.266	0.8685	5	No	11	54.55	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-6S	1.118	0.7105	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-8D	1.557	0.759	5	No	11	72.73	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	0.949	0.709	5	No	10	100	No	0.011	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	0.9645	0.7075	5	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-1S	5.313	1.911	50	No	10	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-4S	0.7346	0.3054	50	No	11	9.091	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0.22	0.09	50	No	11	81.82	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UG-3	2.475	1.792	50	No	9	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-AM-1D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-AM-1S	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-2D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-3D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-4D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-5D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6D	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6S	0.4784	0.1966	50	No	11	18.18	ln(x)	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-TP-8D	0.09	0.09	50	No	11	90.91	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0.09	0.09	50	No	11	90.91	No	0.006	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0.09	0.09	50	No	11	100	No	0.006	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-1S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-2S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-4S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-5S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-6S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UG-3	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-2D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-3D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-4D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-5D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 11:56 AM

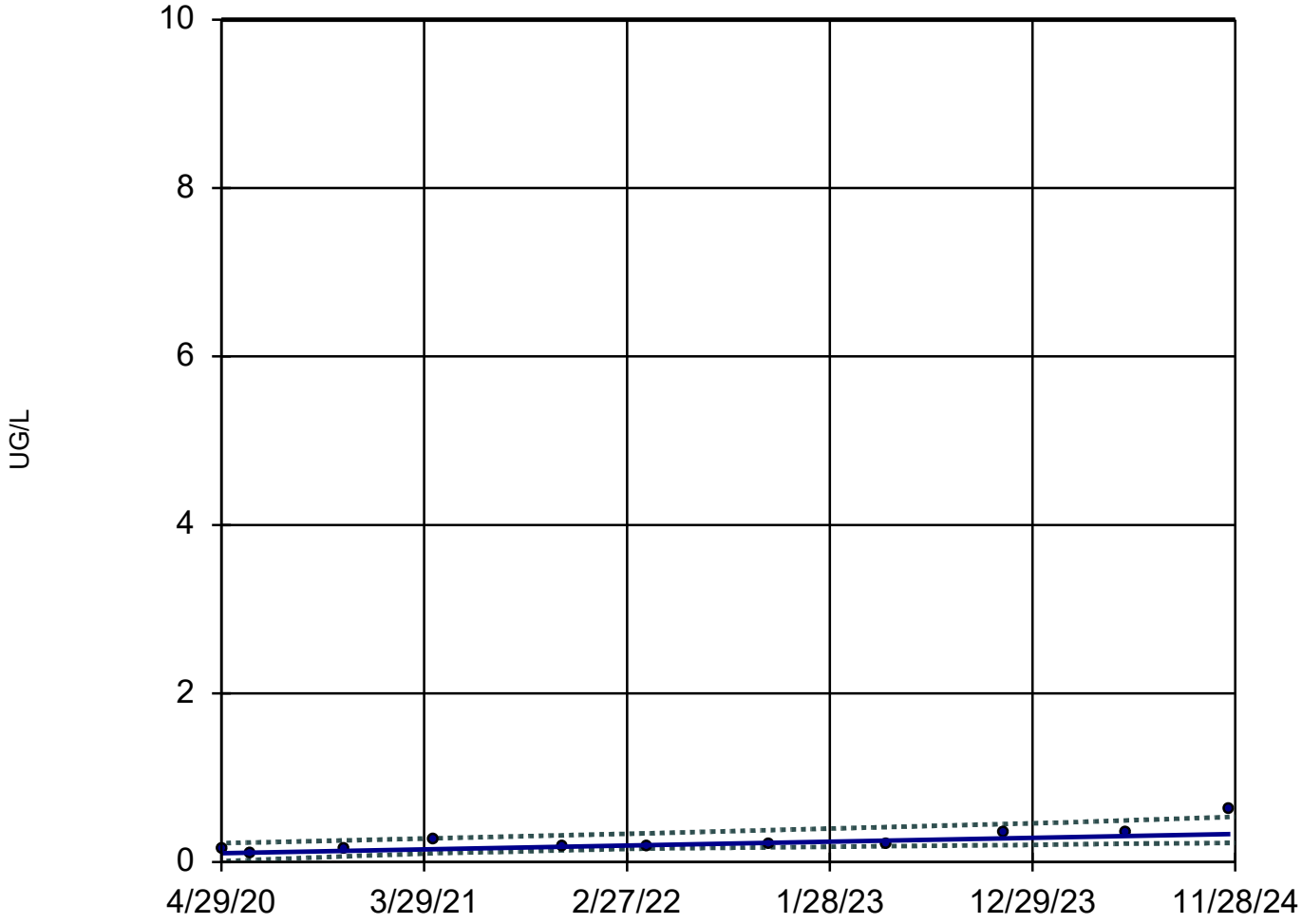
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
THALLIUM, TOTAL (UG/L)	S-TP-6D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-6S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-8D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-9D	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-1S	0.075	0.0465	2	No	5	100	No	0.031	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-2D



n = 11

Slope = 0.0499 units per year.

Mann-Kendall statistic = 43
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

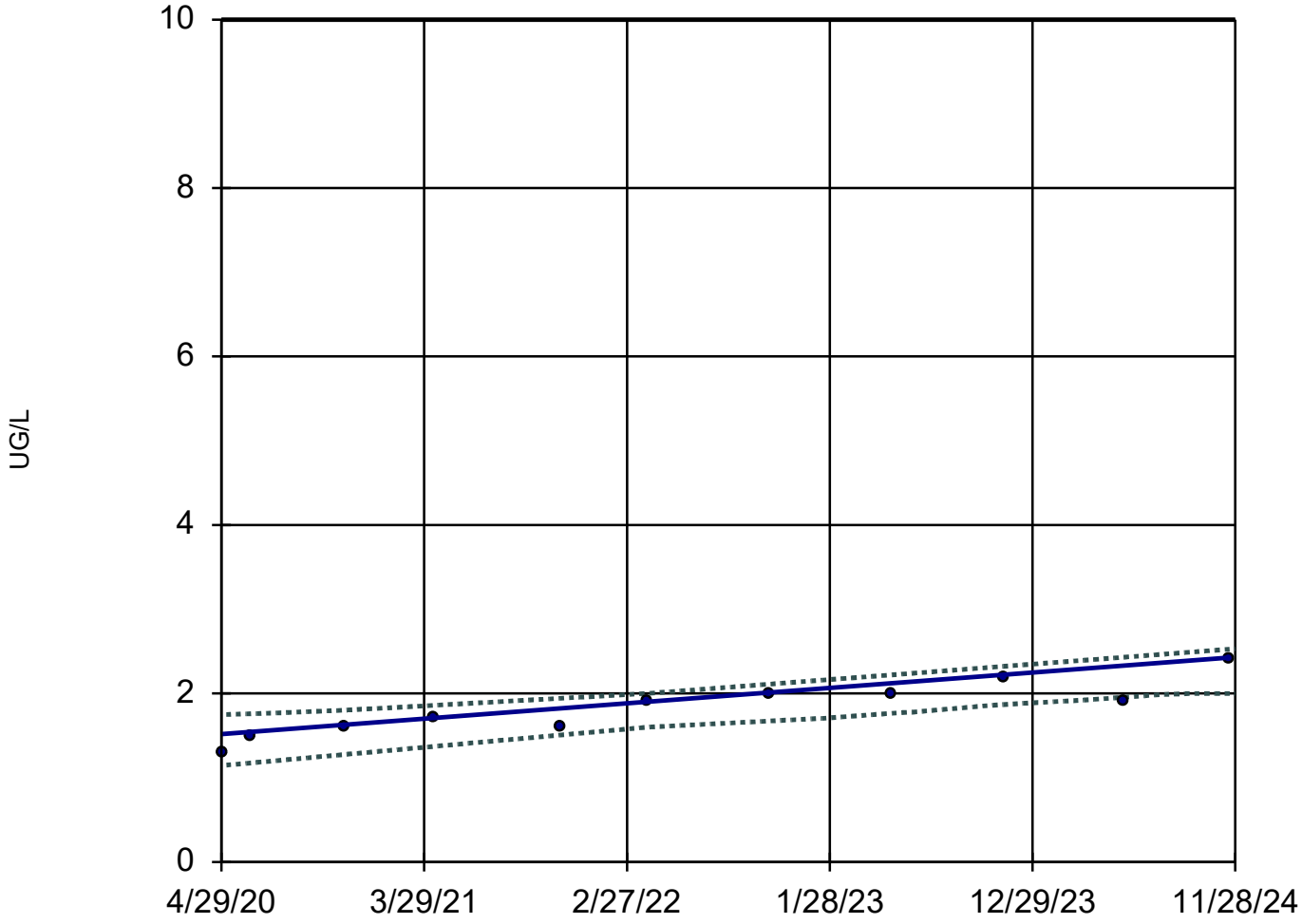
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 11

Slope = 0.1995 units per year.

Mann-Kendall statistic = 44
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

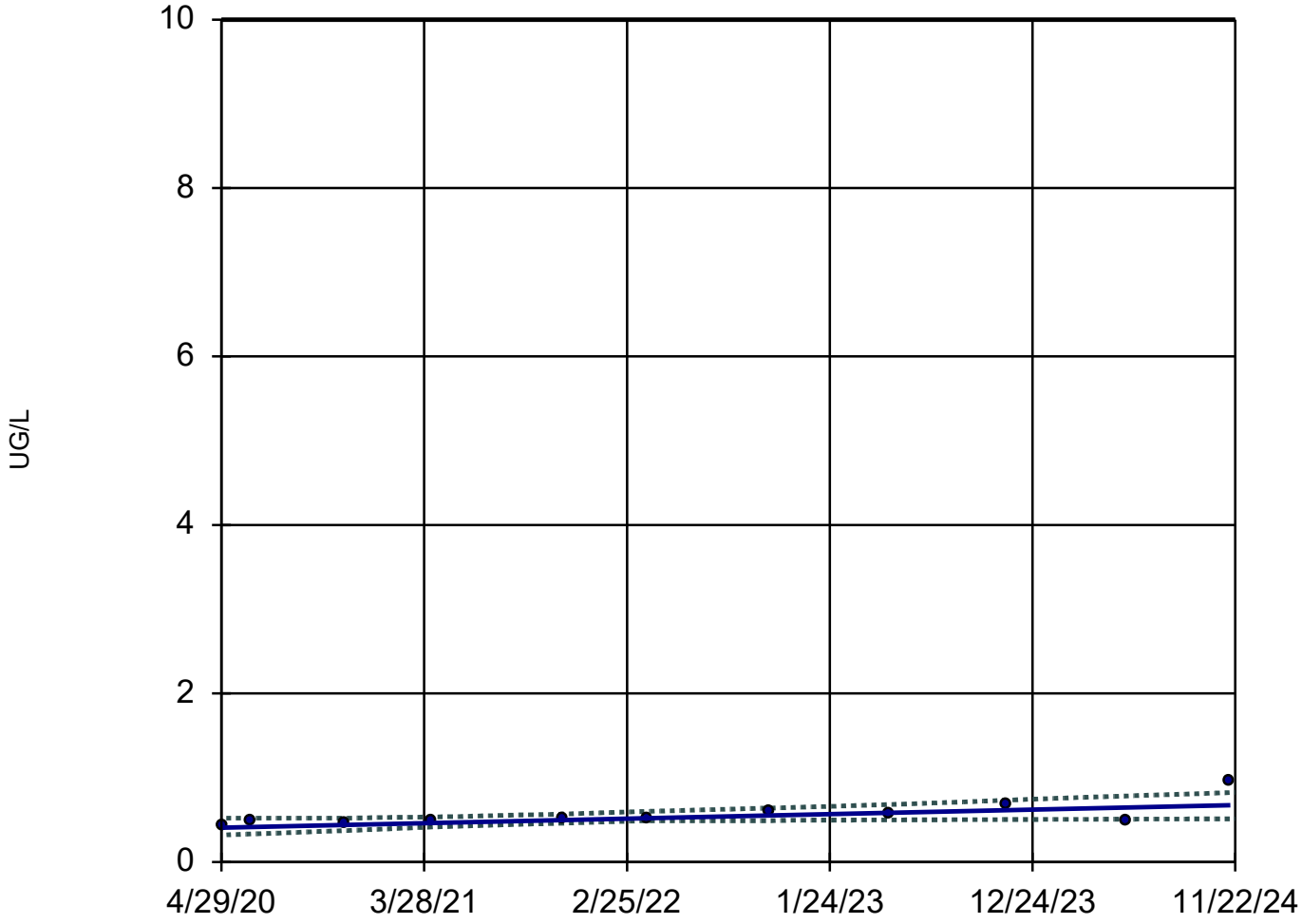
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-6S



n = 11

Slope = 0.05866 units per year.

Mann-Kendall statistic = 37
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

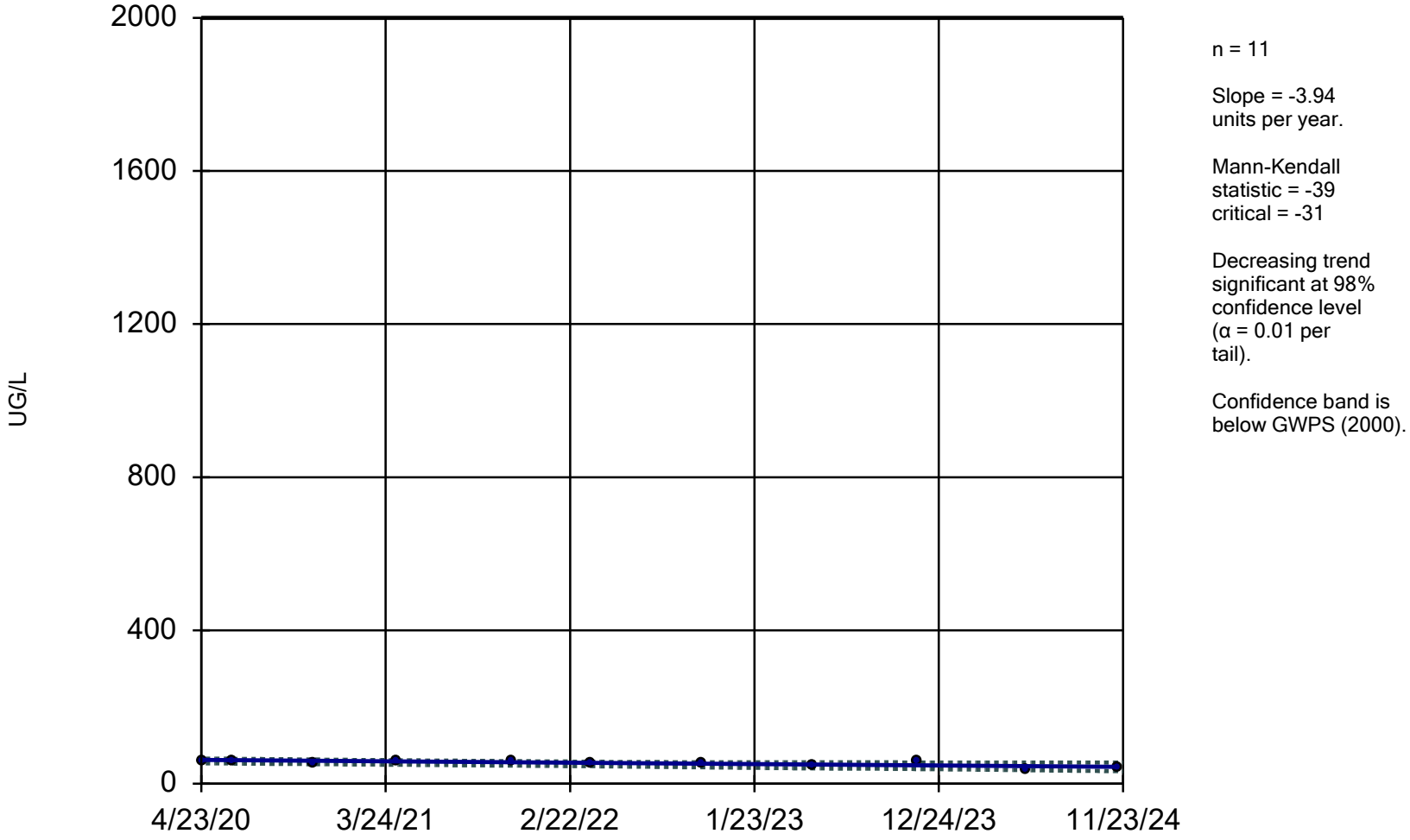
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-LMW-5S



n = 11

Slope = -3.94 units per year.

Mann-Kendall statistic = -39
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

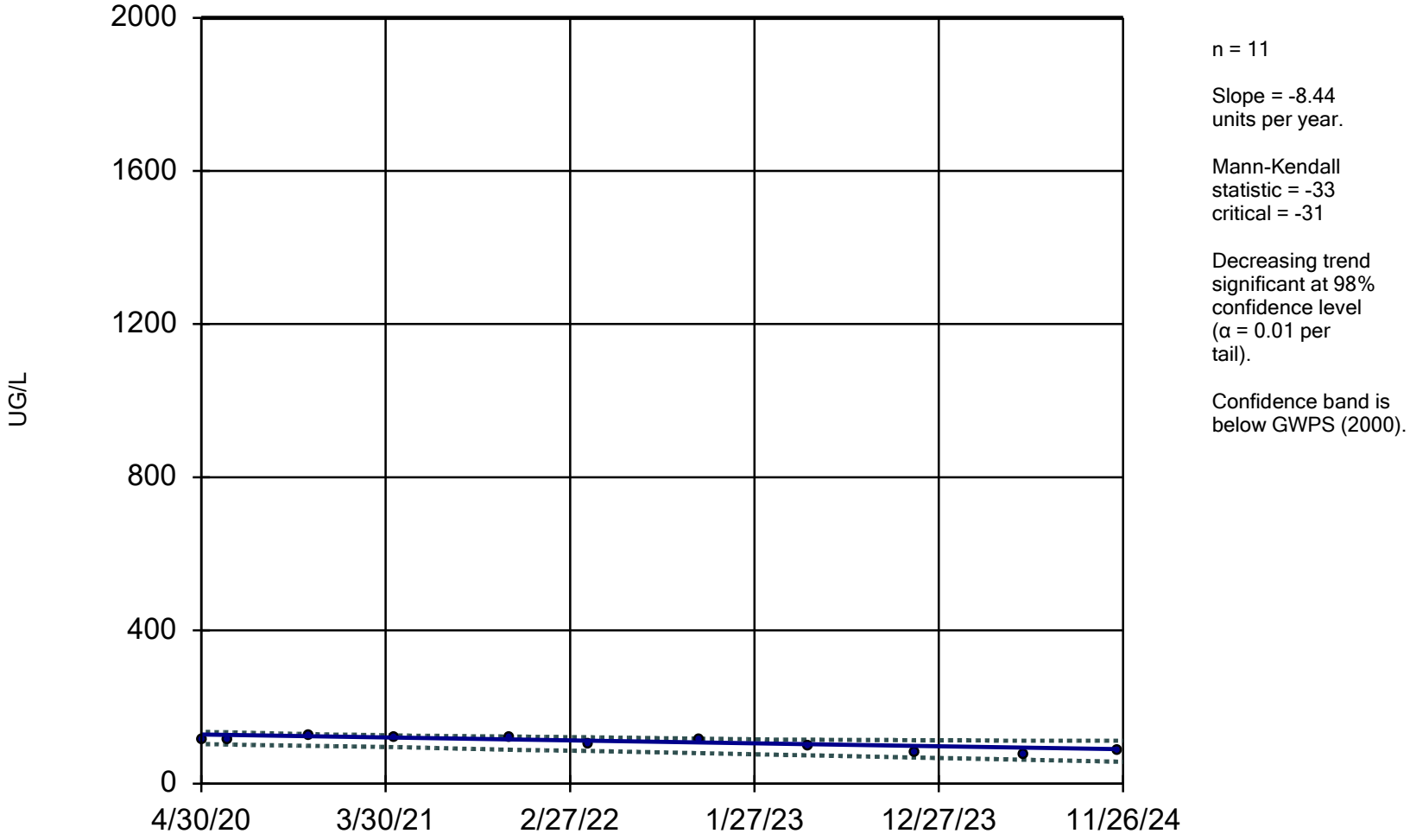
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 11

Slope = -8.44 units per year.

Mann-Kendall statistic = -33 critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

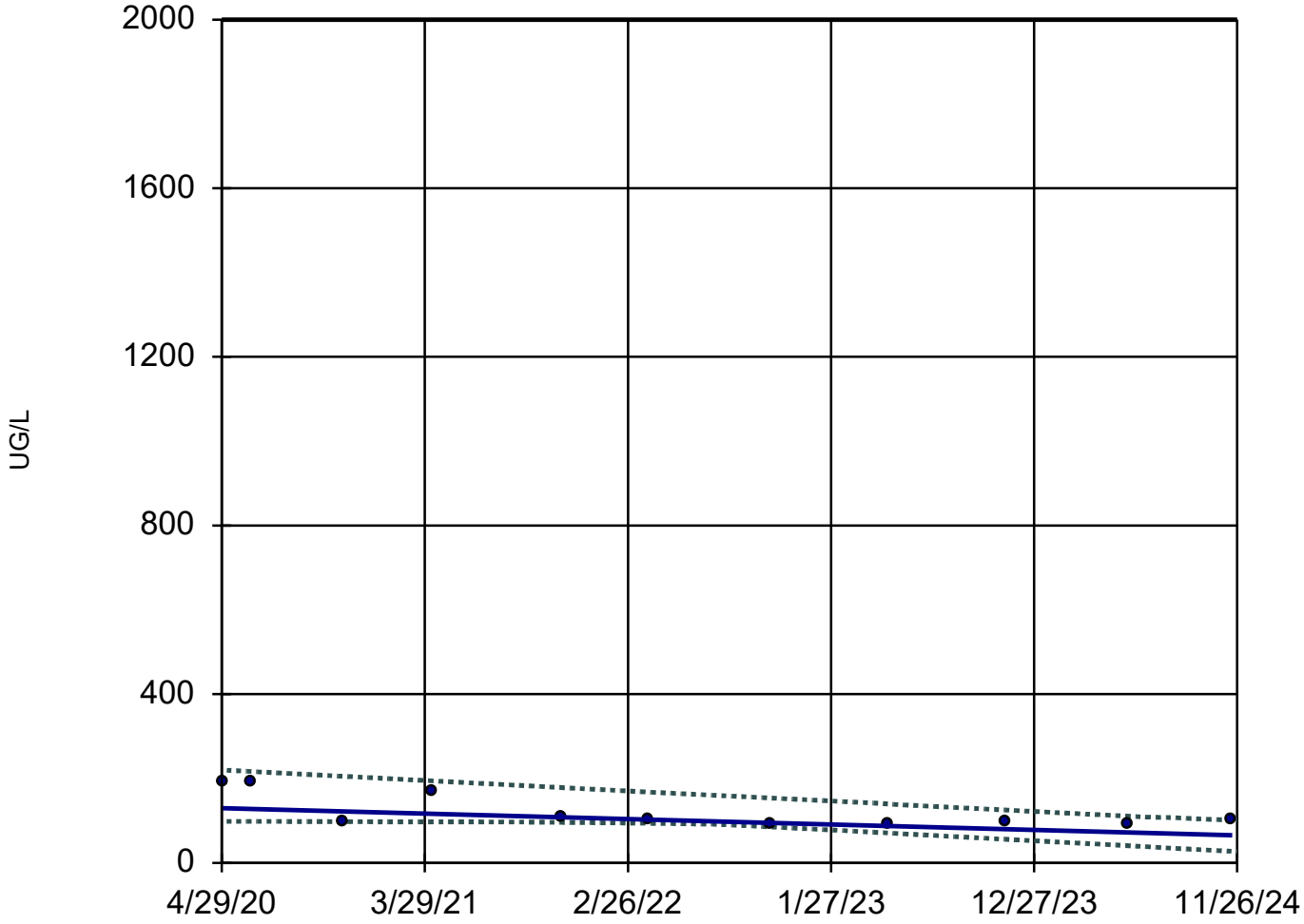
Constituent: BARIUM, TOTAL Analysis Run 3/13/2025 4:23 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-PZ-1S



n = 11

Slope = -14.09 units per year.

Mann-Kendall statistic = -35
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

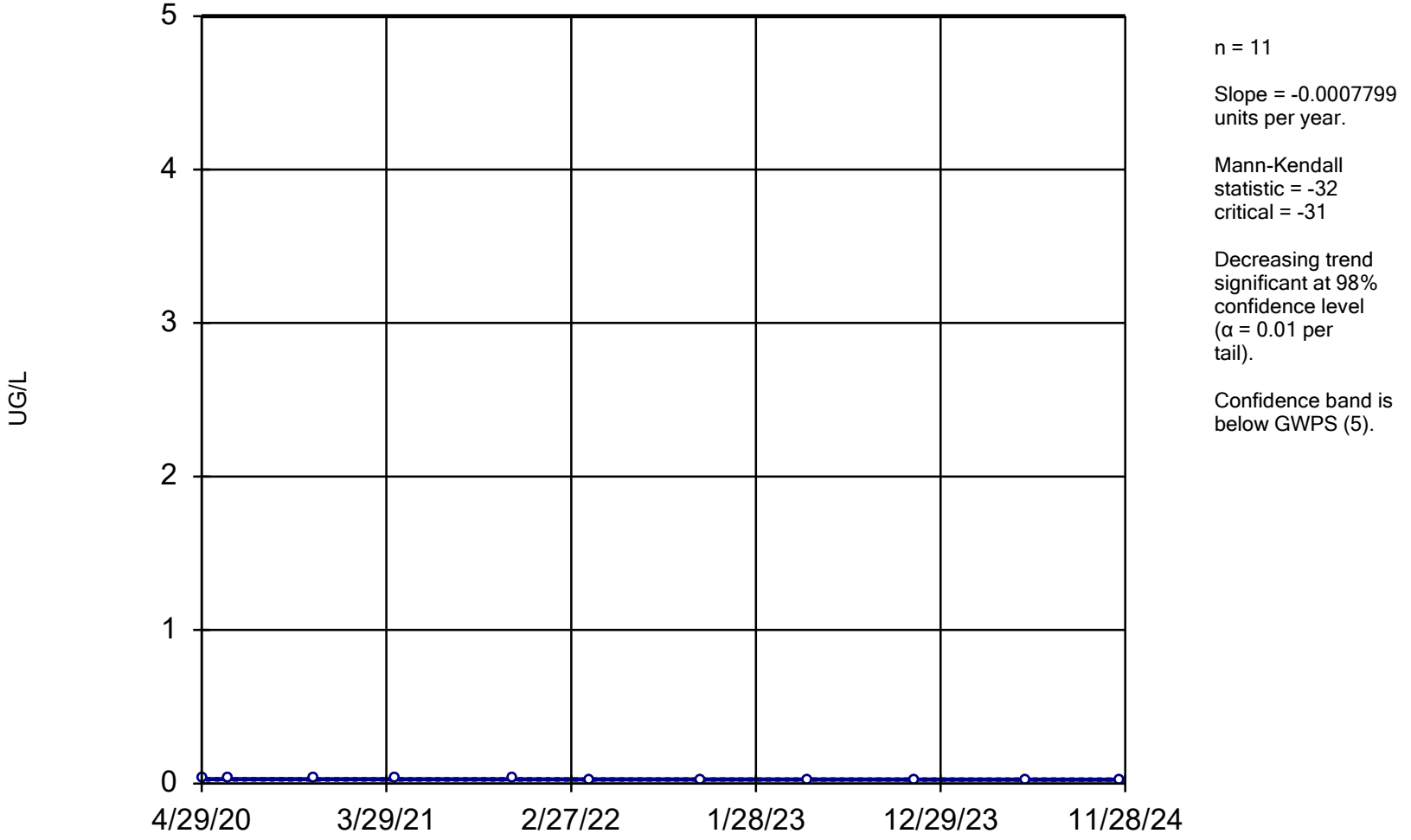
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-2D



n = 11

Slope = -0.0007799 units per year.

Mann-Kendall statistic = -32
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

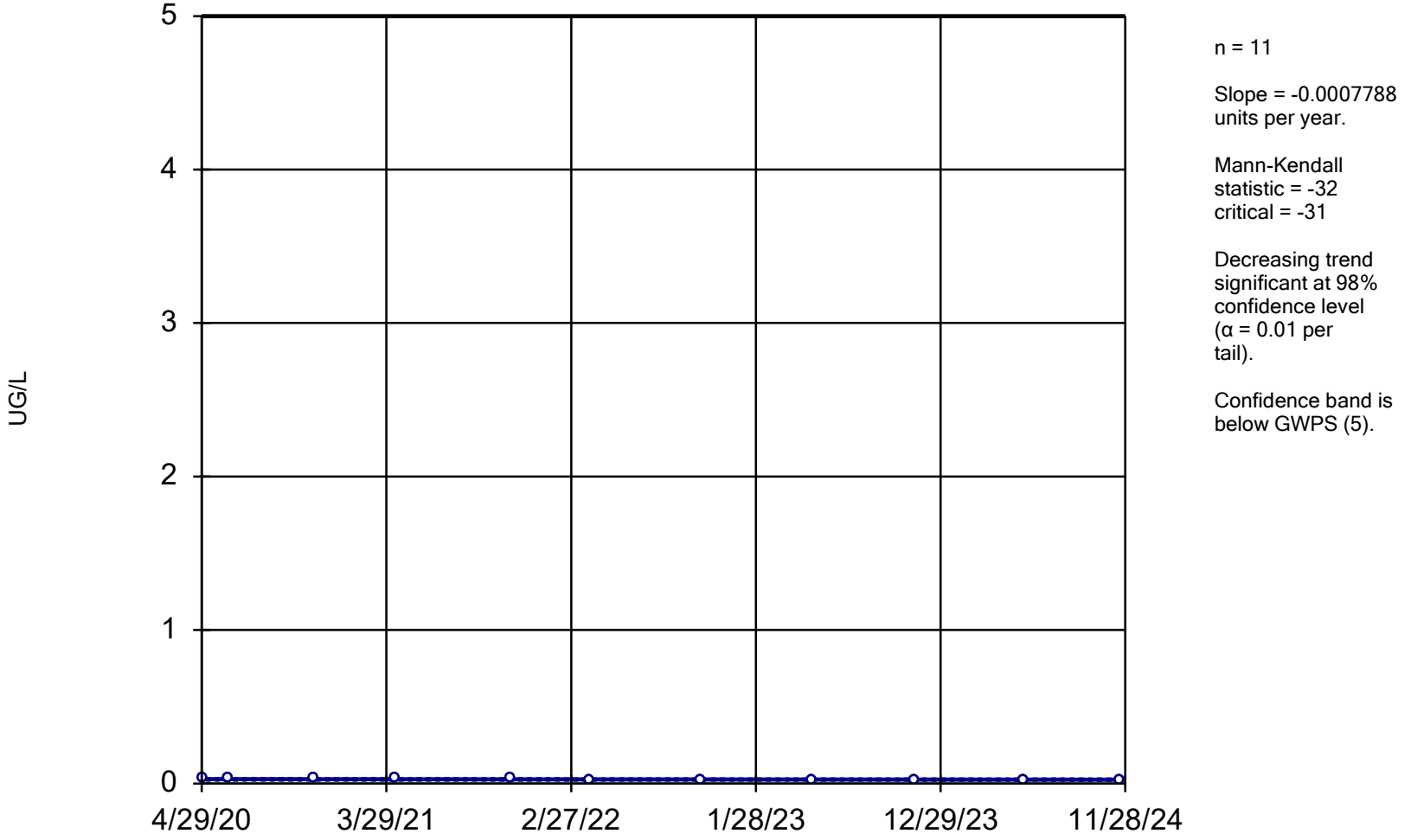
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 11

Slope = -0.0007788 units per year.

Mann-Kendall statistic = -32
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

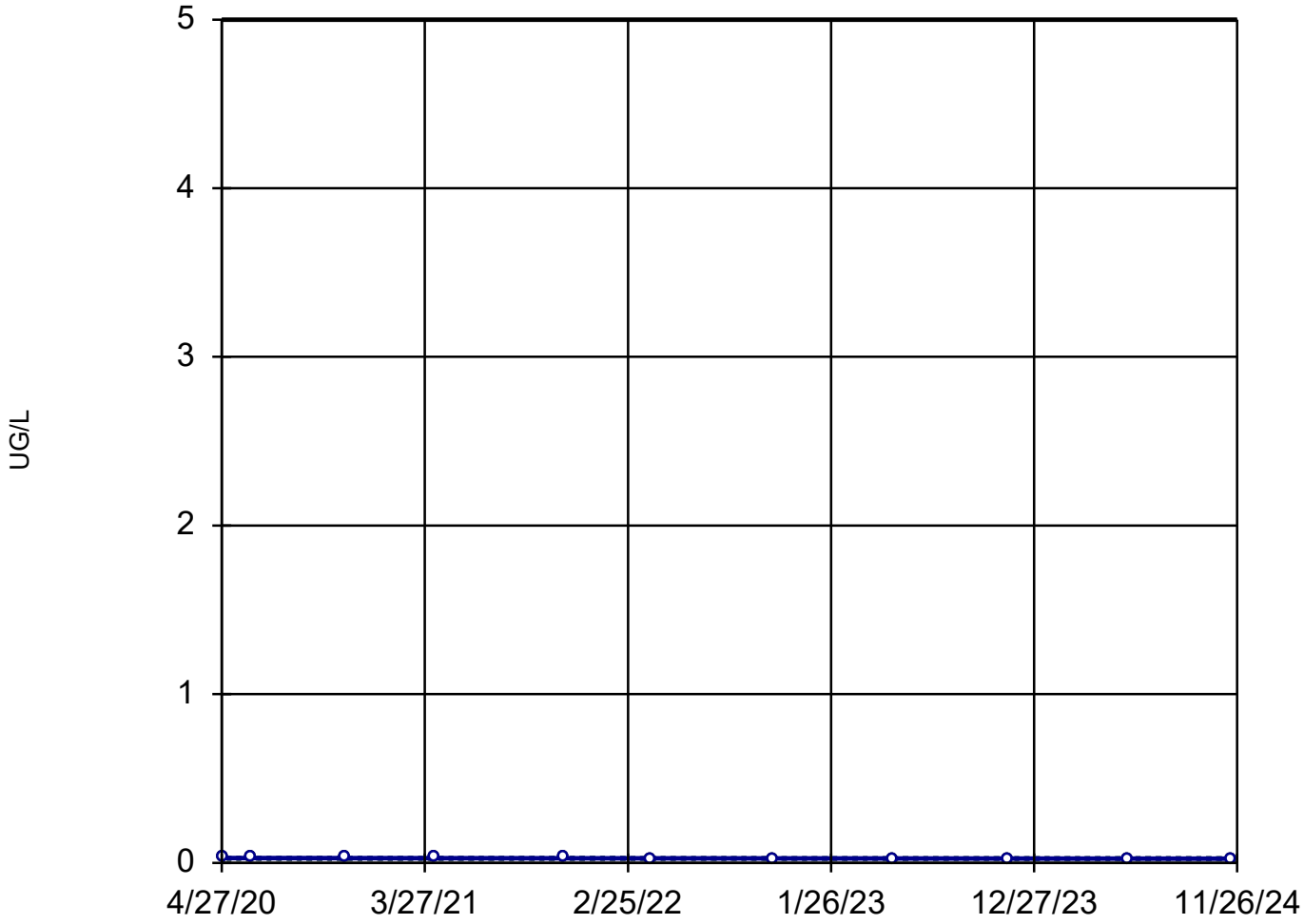
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-8D



n = 11

Slope = -0.0007744 units per year.

Mann-Kendall statistic = -32
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

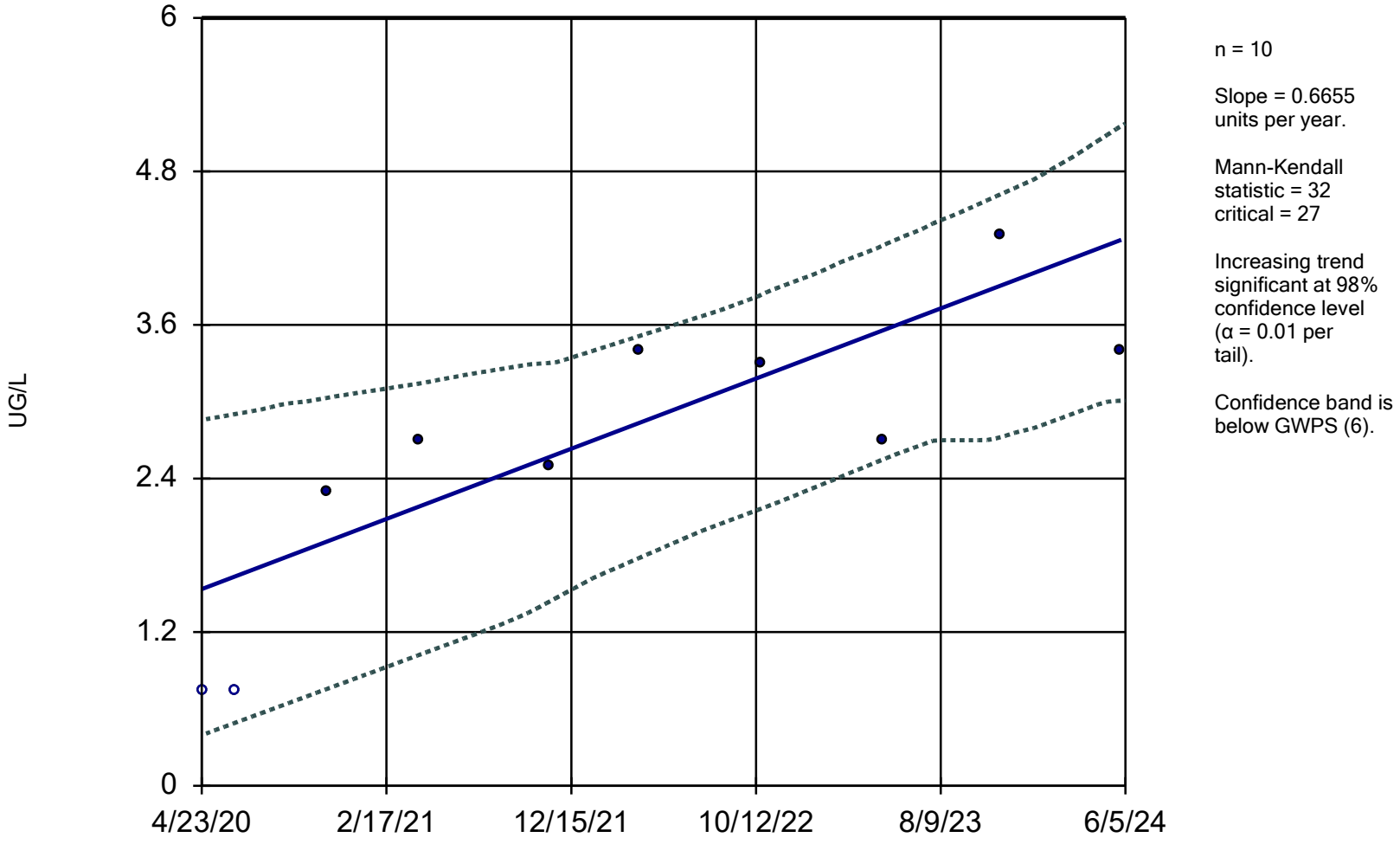
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-2S



n = 10

Slope = 0.6655 units per year.

Mann-Kendall statistic = 32
critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

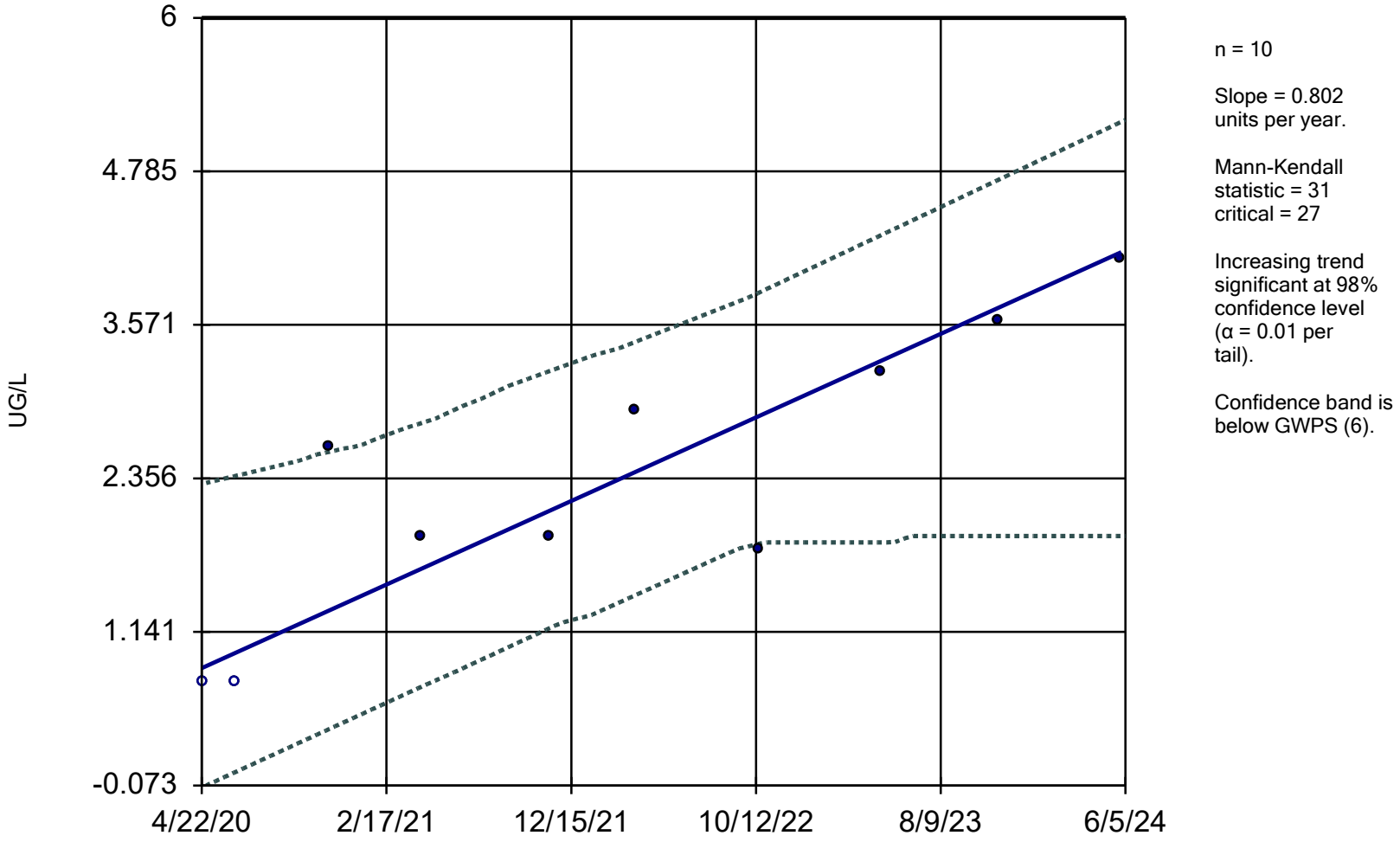
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-AM-1S



n = 10

Slope = 0.802 units per year.

Mann-Kendall statistic = 31
critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

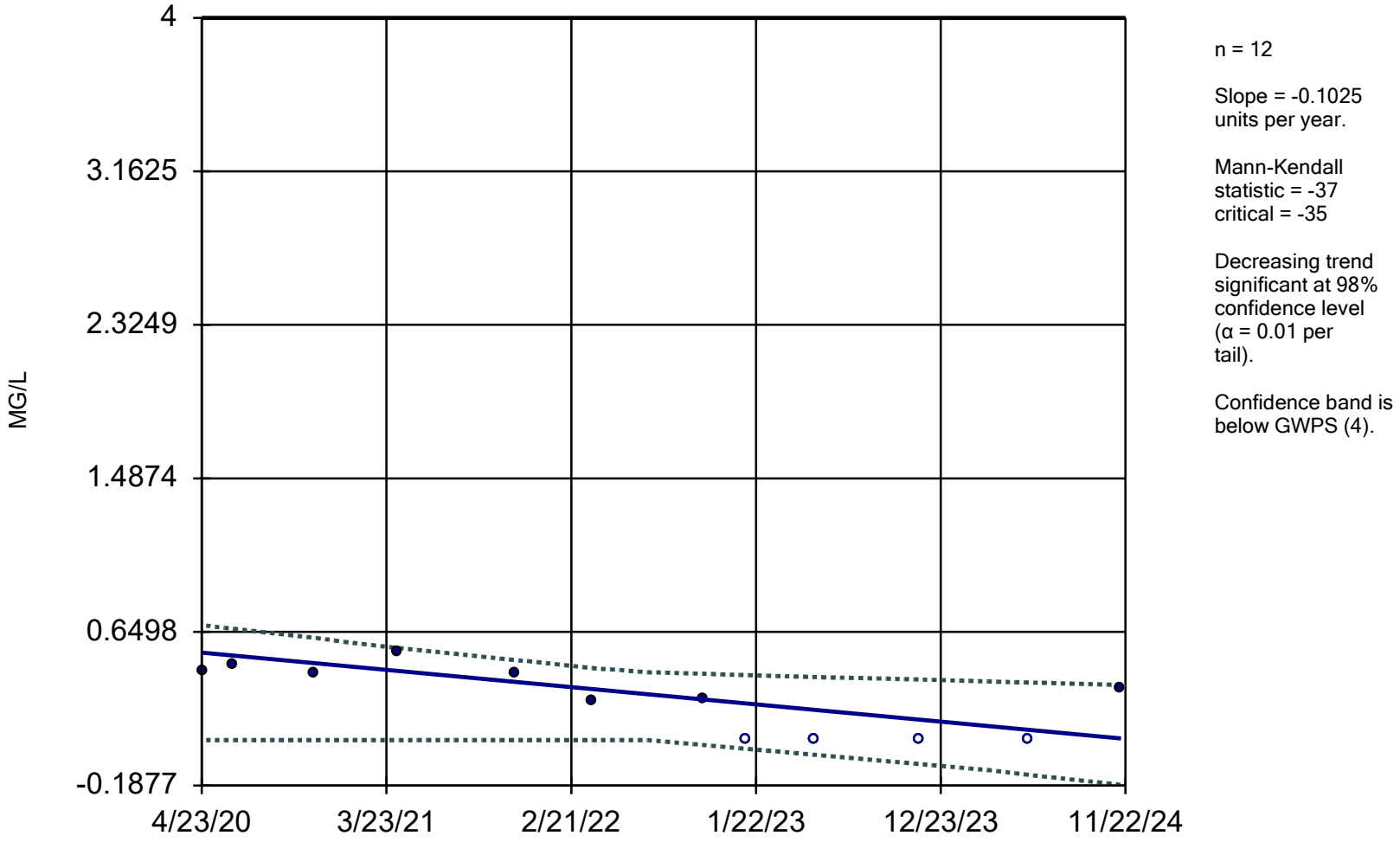
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-1S



n = 12

Slope = -0.1025 units per year.

Mann-Kendall statistic = -37
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

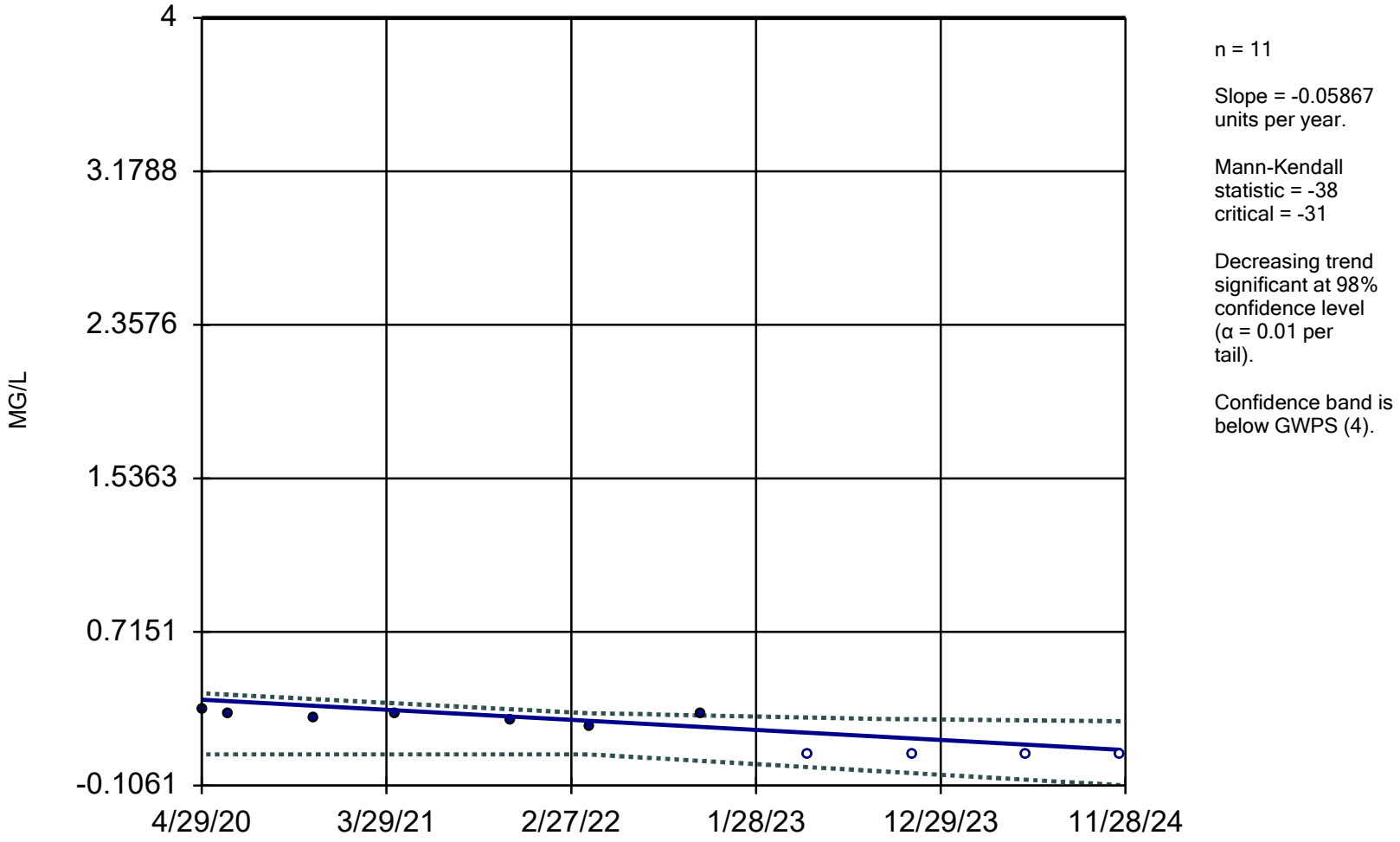
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-3D



n = 11

Slope = -0.05867 units per year.

Mann-Kendall statistic = -38
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

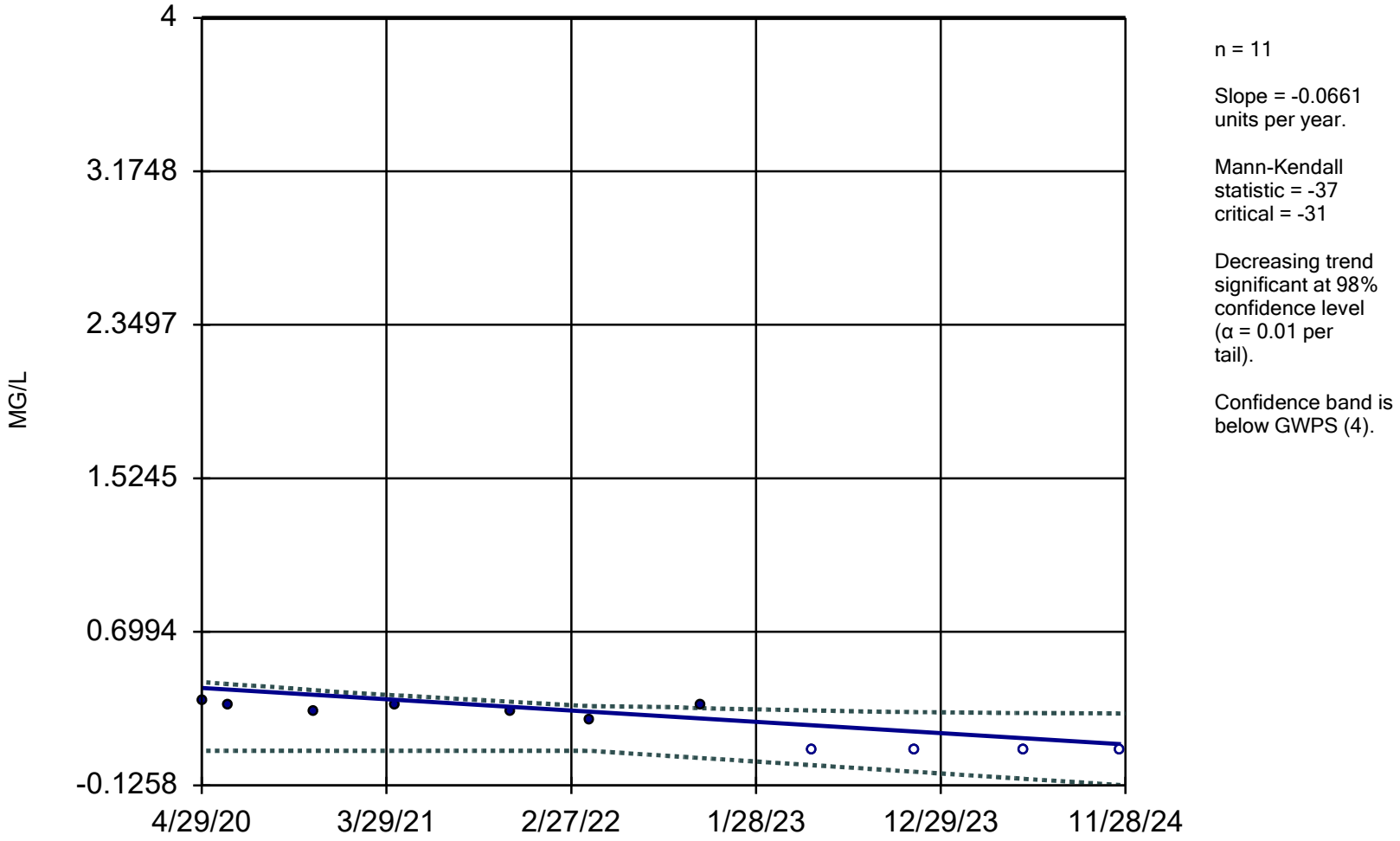
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 11

Slope = -0.0661 units per year.

Mann-Kendall statistic = -37
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

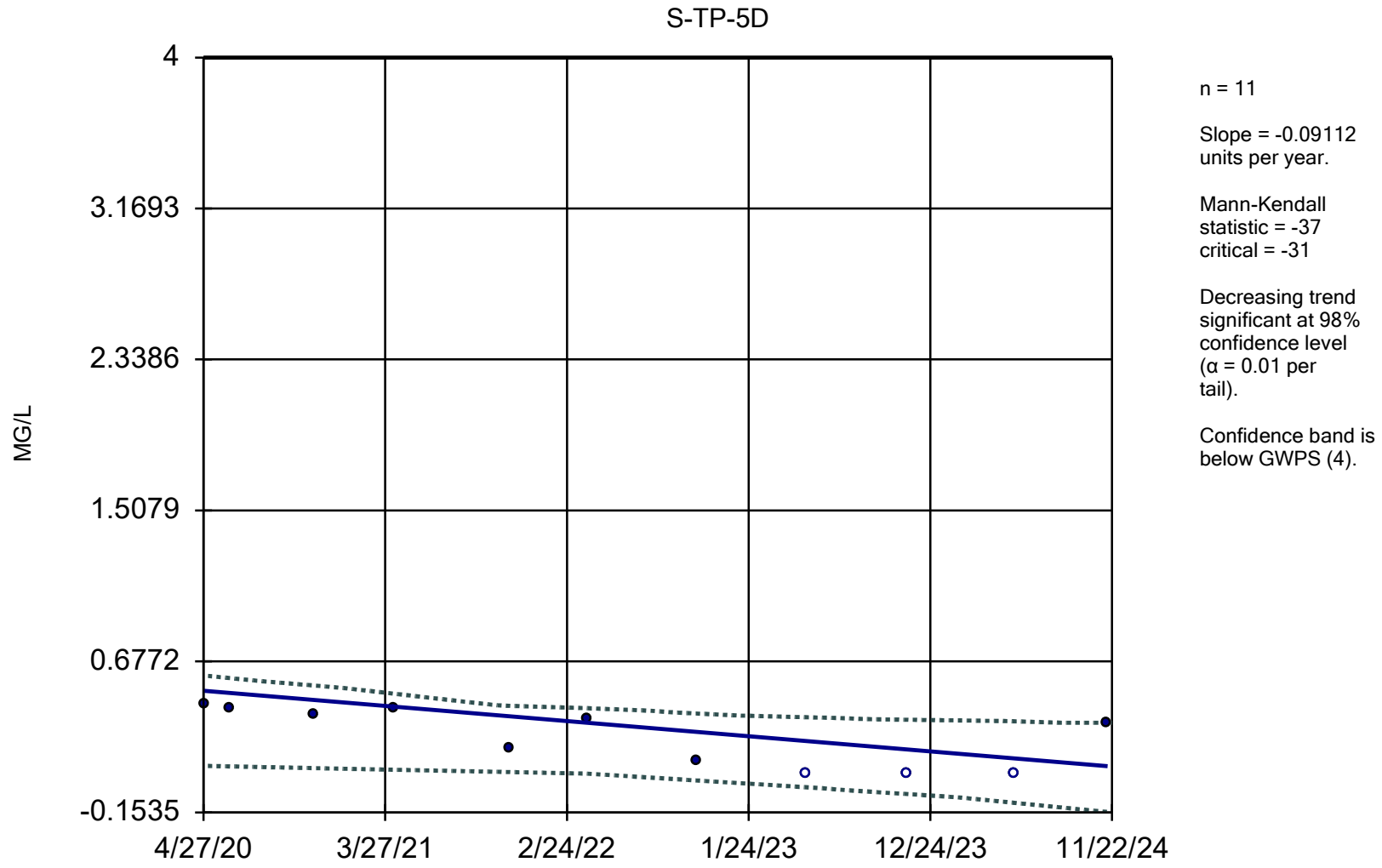
Confidence band is below GWPS (4).

Constituent: FLUORIDE, TOTAL Analysis Run 3/13/2025 4:24 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

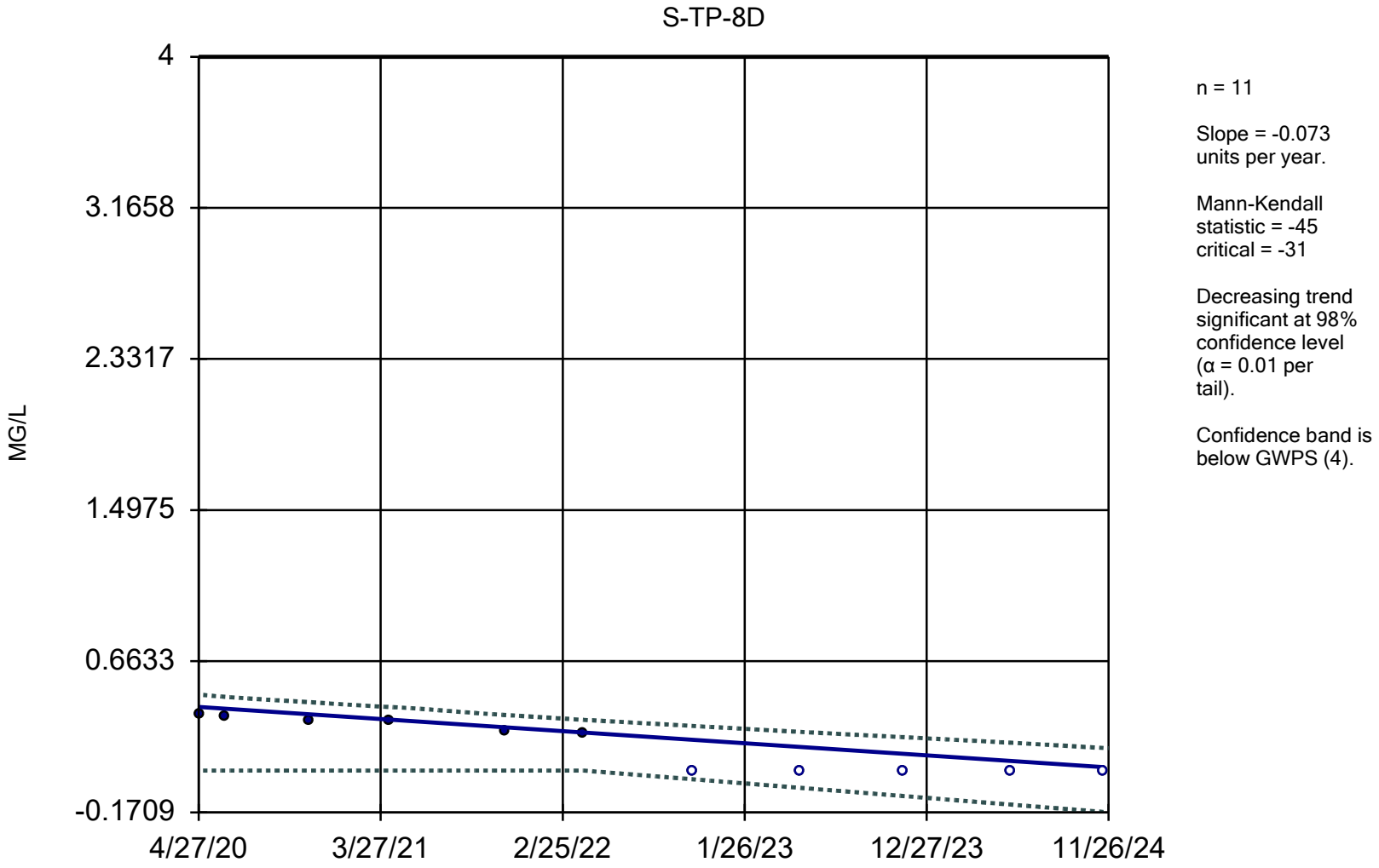


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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



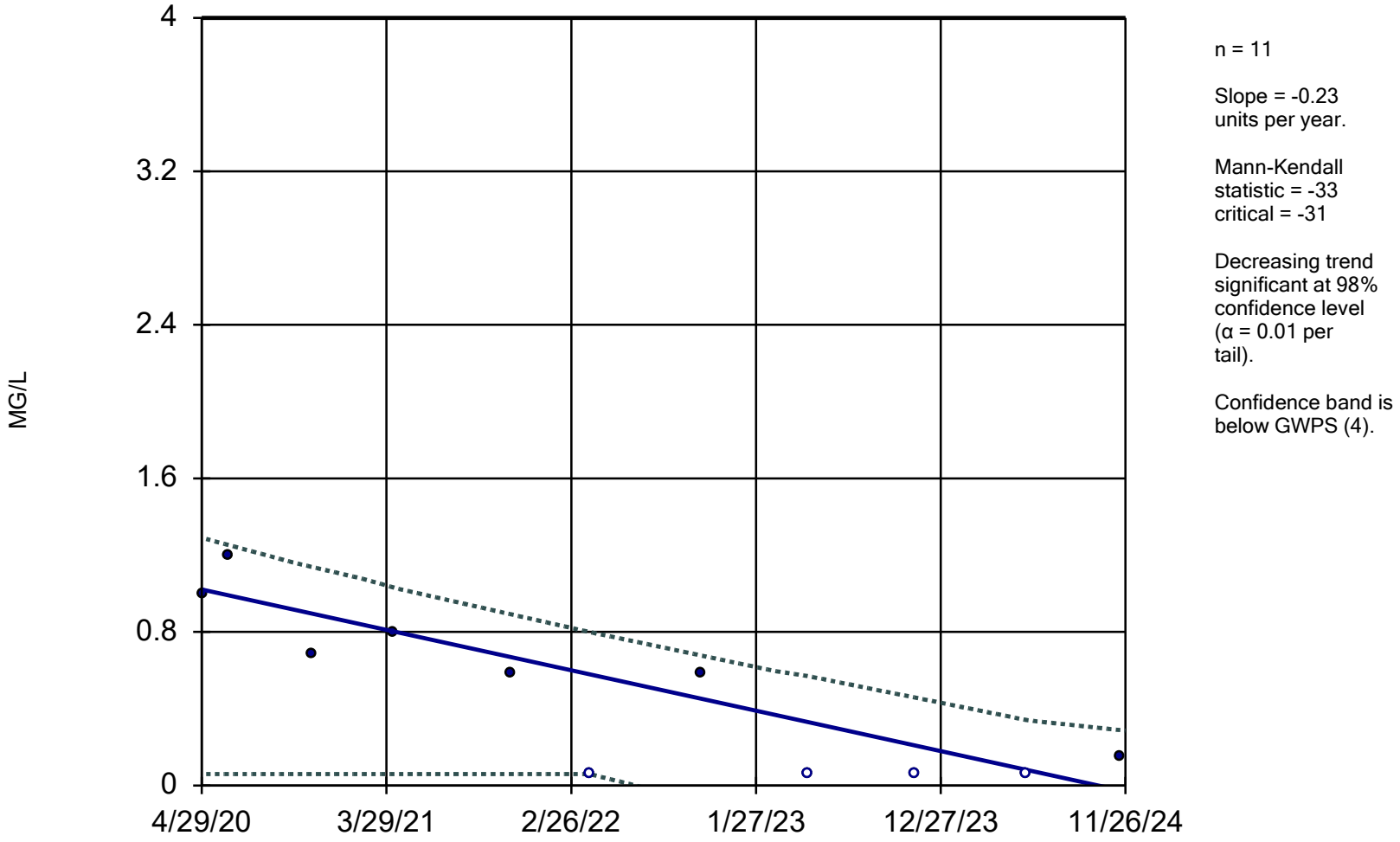
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-1S



n = 11

Slope = -0.23 units per year.

Mann-Kendall statistic = -33
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

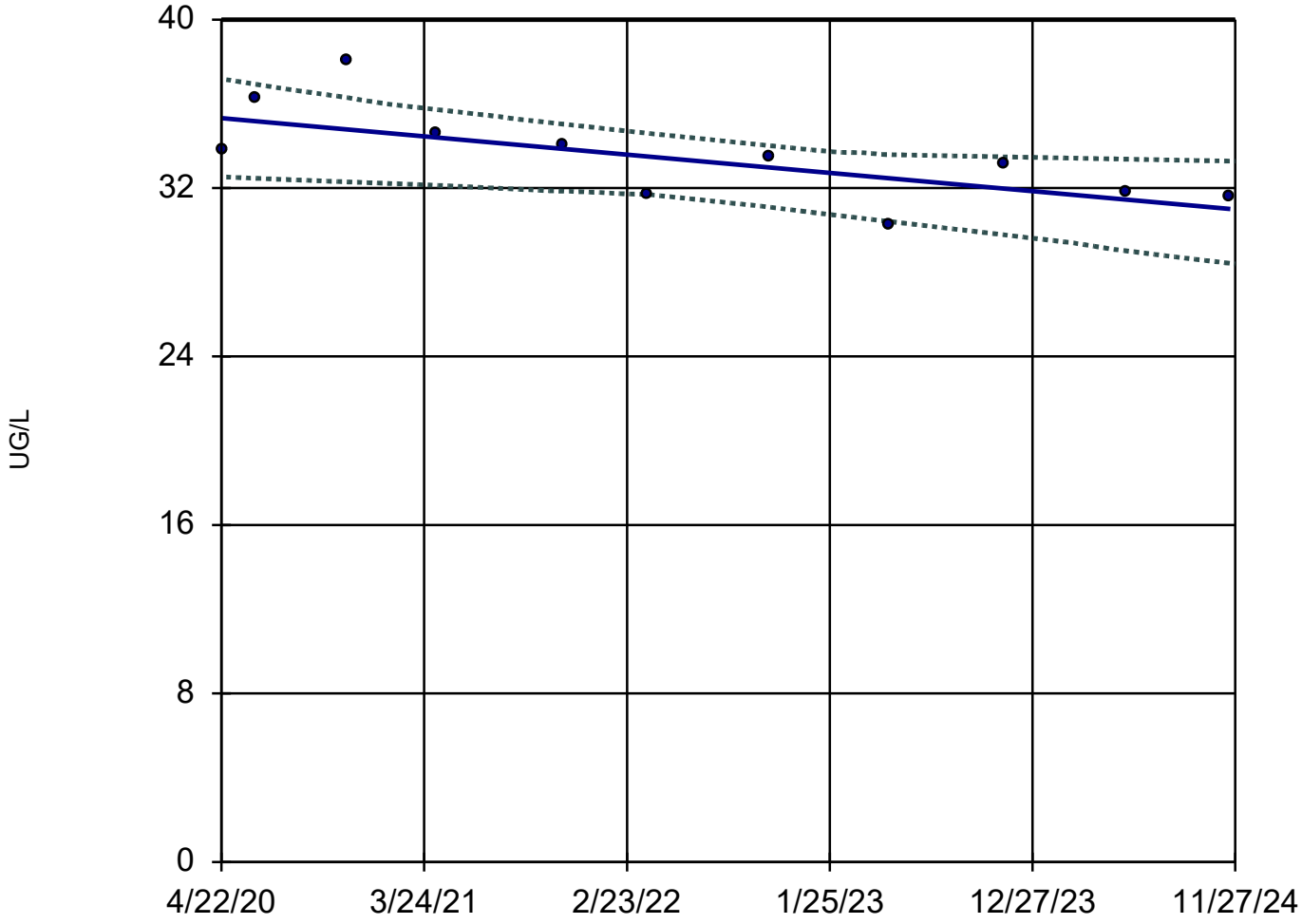
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1D



n = 11

Slope = -0.9404 units per year.

Mann-Kendall statistic = -33
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

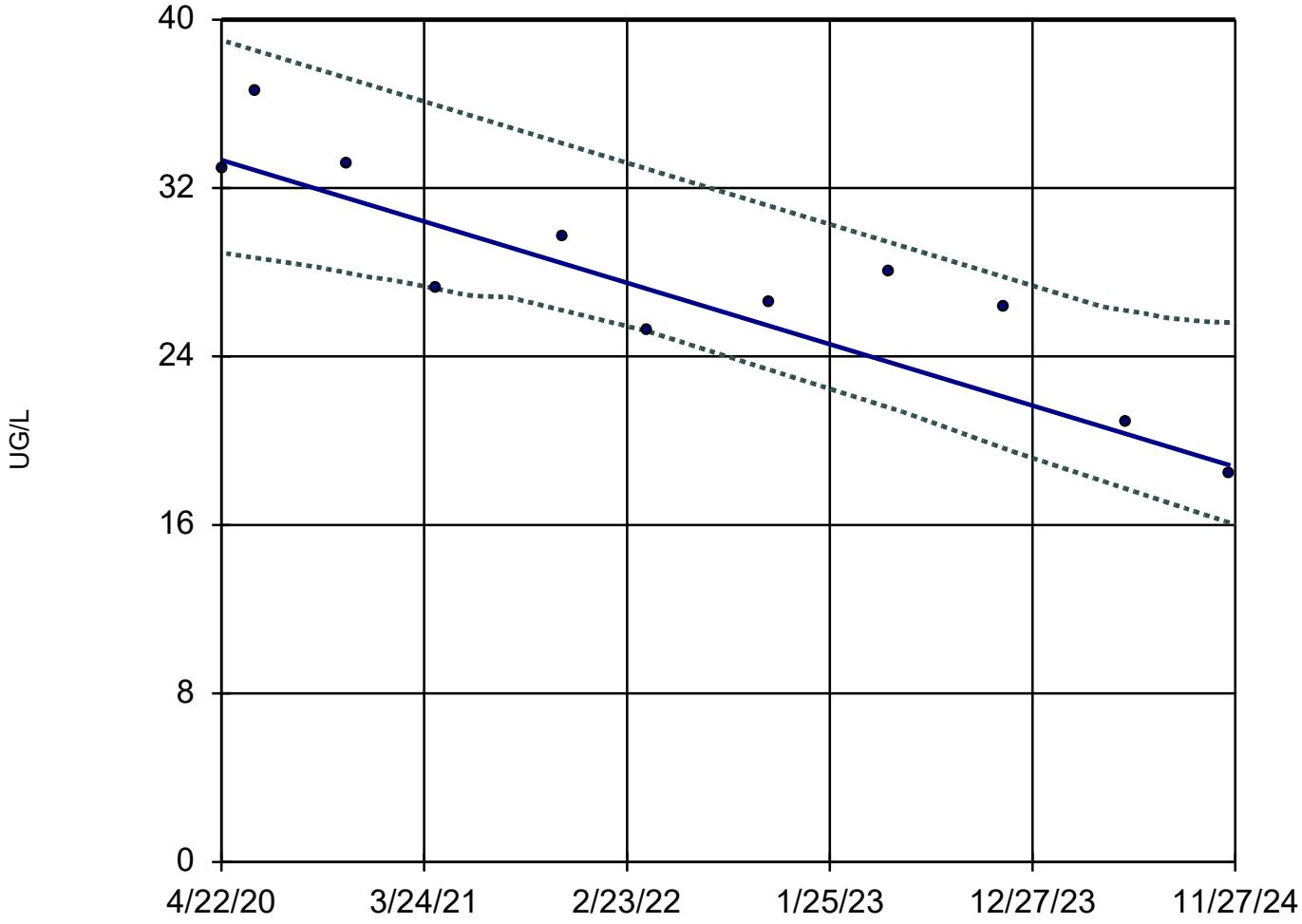
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1S



n = 11

Slope = -3.165 units per year.

Mann-Kendall statistic = -39
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

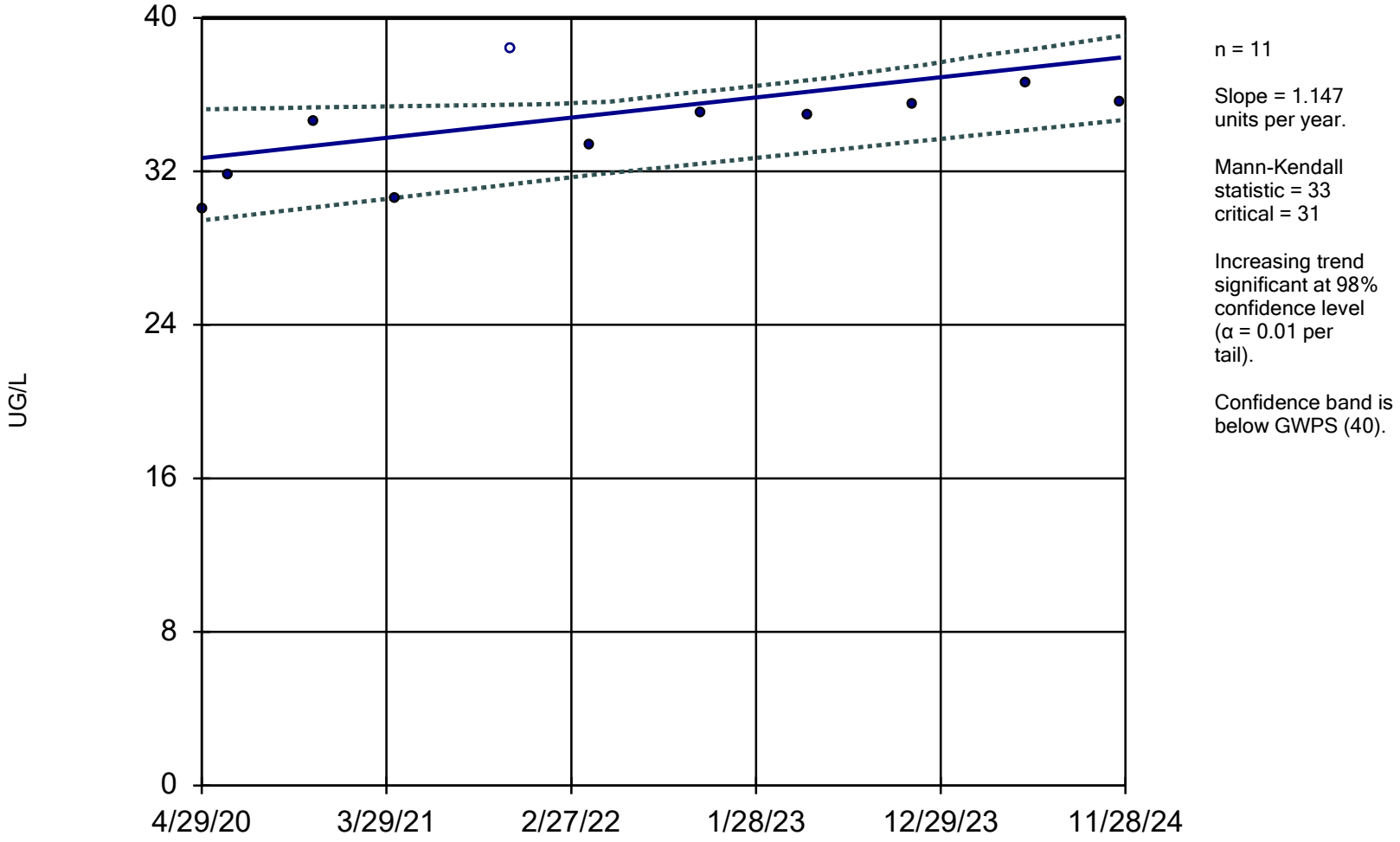
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-3D



n = 11

Slope = 1.147 units per year.

Mann-Kendall statistic = 33
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

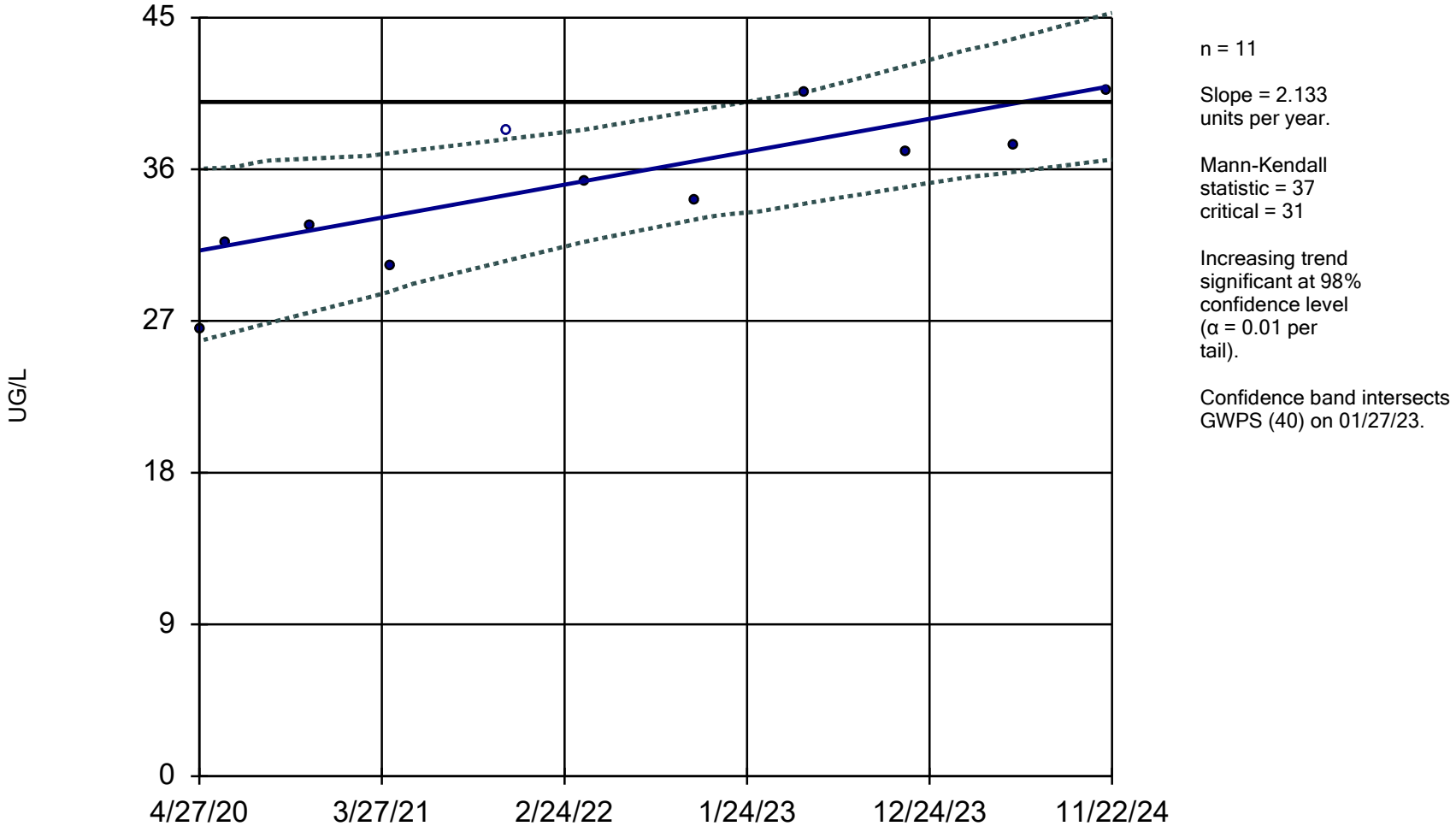
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-5D



n = 11

Slope = 2.133 units per year.

Mann-Kendall statistic = 37
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (40) on 01/27/23.

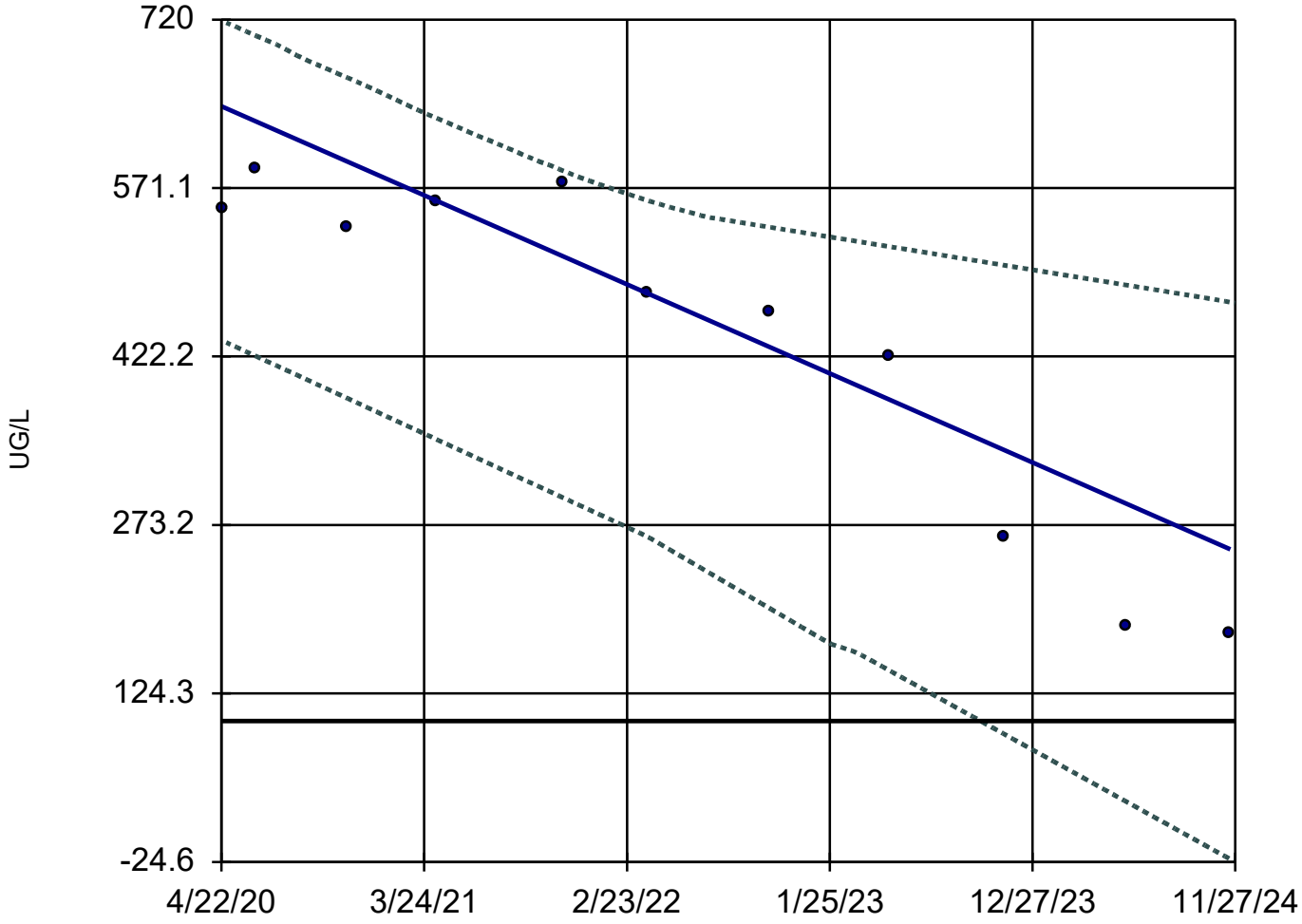
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1D



n = 11

Slope = -85.51 units per year.

Mann-Kendall statistic = -43
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 10/06/23.

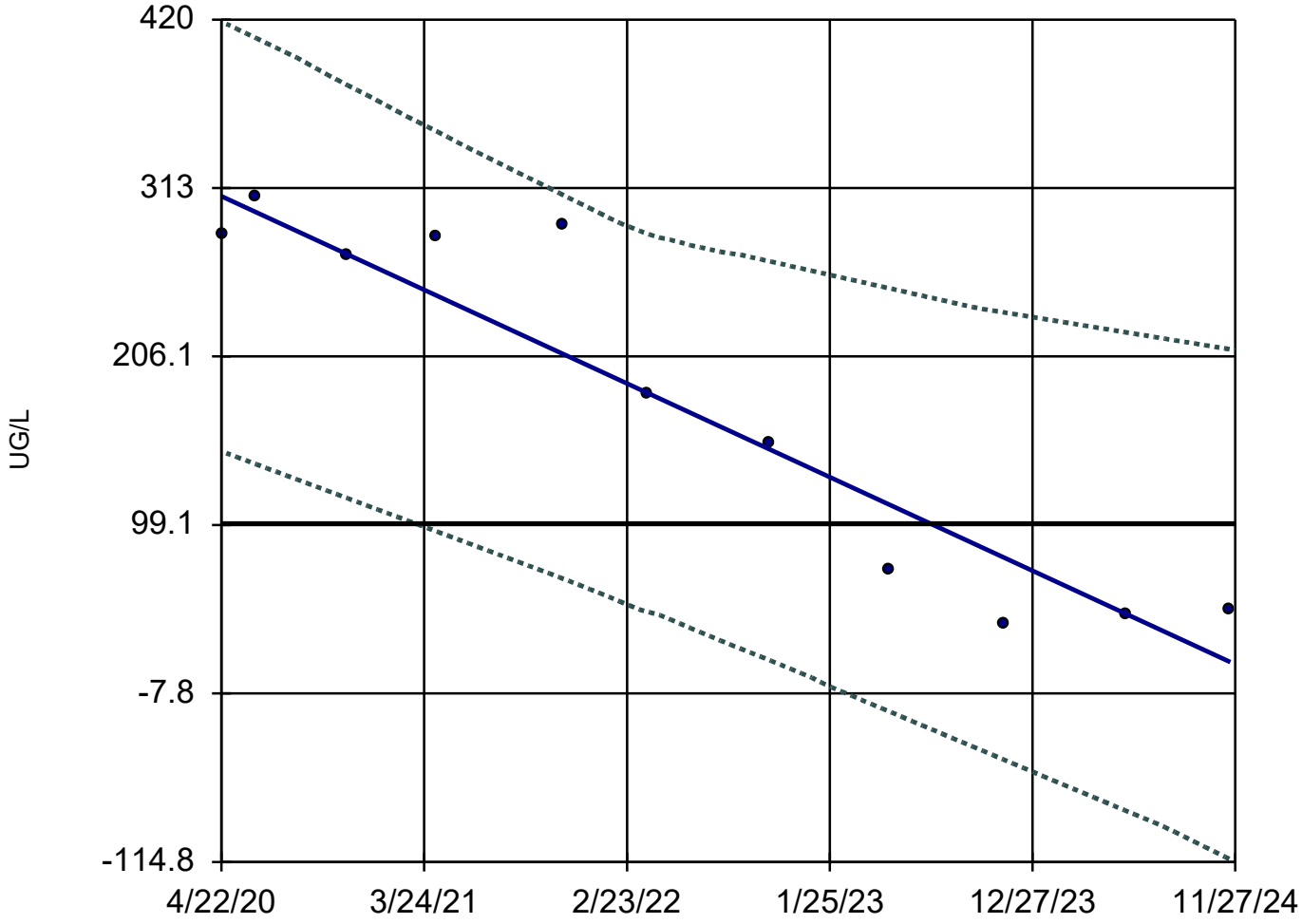
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1S



n = 11

Slope = -64.57 units per year.

Mann-Kendall statistic = -39
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 03/14/21.

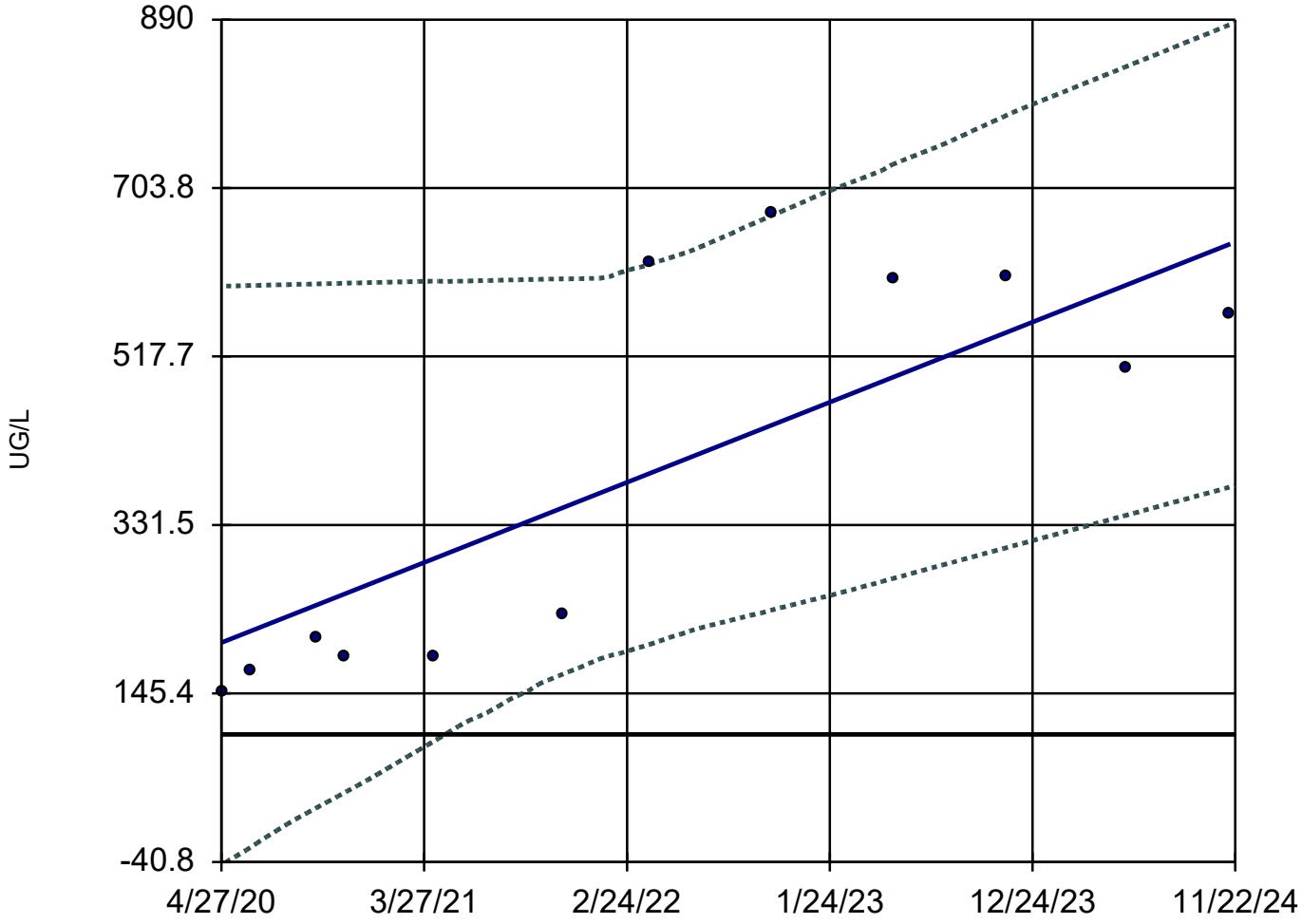
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-5D



n = 12

Slope = 96.76 units per year.

Mann-Kendall statistic = 37
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 05/05/21.

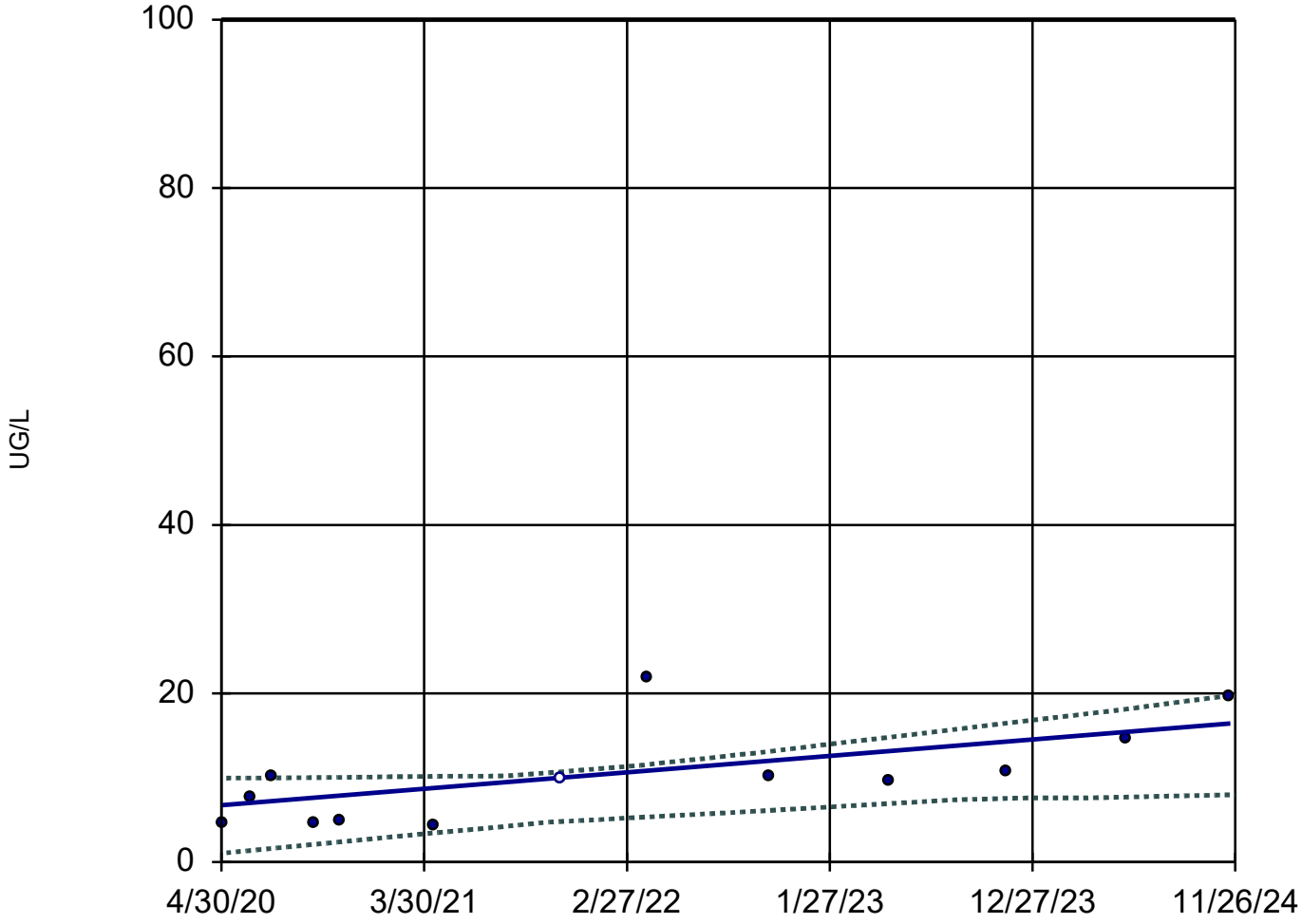
Constituent: MOLYBDENUM, TOTAL Analysis Run 3/13/2025 4:24 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.24 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 13

Slope = 2.125 units per year.

Mann-Kendall statistic = 40
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (100).

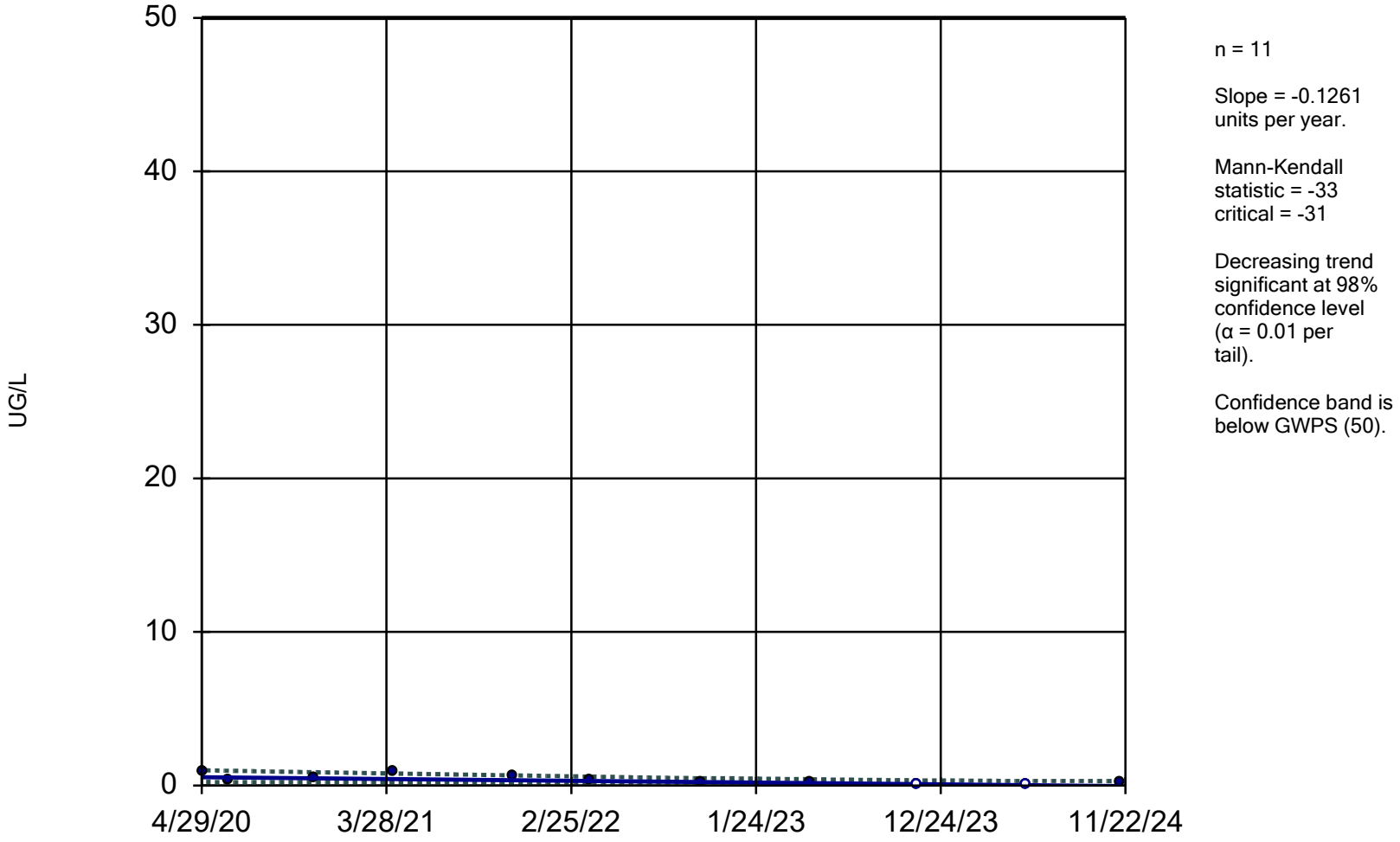
Constituent: MOLYBDENUM, TOTAL Analysis Run 3/13/2025 4:24 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-6S



n = 11

Slope = -0.1261 units per year.

Mann-Kendall statistic = -33
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

Constituent: SELENIUM, TOTAL Analysis Run 3/13/2025 4:25 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 4:26 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ARSENIC, TOTAL (UG/L)	S-LMW-1S	0	-2	-31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-2S	0.01973	9	27	No	10	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.02343	14	31	No	11	9.091	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.04803	22	31	No	11	9.091	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0.0469	26	31	No	11	9.091	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-UG-3	0.01173	7	31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-AM-1D	-0.01407	-26	-31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-AM-1S	-0.066	-18	-31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-2D**	**0.0499**	**43**	**31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.02135	30	31	No	11	9.091	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-4D**	**0.1995**	**44**	**31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.02596	25	31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-TP-6D	0.004042	6	31	No	11	27.27	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-6S**	**0.05866**	**37**	**31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-8D	-0.03921	-16	-31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.06361	21	31	No	11	9.091	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-1S	-0.04231	-14	-31	No	11	9.091	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-LMW-1S	20.17	30	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-LMW-2S	-5.034	-14	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-LMW-4S	7.349	29	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-LMW-5S**	**-3.94**	**-39**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-LMW-6S	-2.925	-31	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-UG-3	-3.514	-14	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1D	8.714	8	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1S	-3.899	-11	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-2D	-0.5069	-11	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-3D	2.33	12	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-4D	-21.74	-25	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-5D	11.64	27	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-6D	-4.438	-18	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-6S	0.5547	4	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-8D	7.197	18	31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-PZ-9D**	**-8.44**	**-33**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-PZ-1S**	**-14.09**	**-35**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.01291	24	31	No	11	18.18	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.04958	16	27	No	10	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.01872	9	31	No	11	36.36	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-5S	-0.01916	-3	-31	No	11	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-6S	-0.04822	-9	-31	No	11	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UG-3	0	-1	-31	No	11	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1D	-0.00...	-3	-31	No	11	18.18	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1S	-0.01609	-20	-31	No	11	18.18	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-TP-2D**	**-0.00...**	**-32**	**-31**	**Yes**	**11**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-TP-3D	-0.00...	-15	-31	No	11	90.91	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-TP-4D**	**-0.00...**	**-32**	**-31**	**Yes**	**11**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.04307	25	31	No	11	27.27	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6D	-0.00...	-23	-27	No	10	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.005661	16	31	No	11	36.36	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-TP-8D**	**-0.00...**	**-32**	**-31**	**Yes**	**11**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-PZ-9D	-0.00...	-15	-31	No	11	90.91	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 4:26 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.01012	6	27	No	10	10	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.07492	10	20	No	8	12.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0.01638	5	20	No	8	37.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.03564	10	20	No	8	37.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	-0.01142	-1	-20	No	8	37.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	0.03692	1	17	No	7	14.29	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UG-3	0	4	20	No	8	87.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1D	0	-2	-20	No	8	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1S	-0.07448	-7	-20	No	8	62.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-2D	0.05217	6	20	No	8	37.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.02712	9	20	No	8	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.01008	5	20	No	8	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-5D	-0.097	-8	-20	No	8	87.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6D	0	-2	-17	No	7	42.86	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6S	0	0	20	No	8	62.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-8D	-0.03921	-4	-17	No	7	42.86	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	0.07582	5	20	No	8	0	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	0	-1	-20	No	8	62.5	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-1S	0	-1	-27	No	10	60	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-LMW-2S**	**0.6655**	**32**	**27**	**Yes**	**10**	**20**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	S-LMW-4S	-0.03794	-16	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-5S	0	4	27	No	10	70	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-6S	-1.087	-27	-27	No	10	0	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-UG-3	0.8384	15	27	No	10	20	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-AM-1D	-0.03794	-16	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-AM-1S**	**0.802**	**31**	**27**	**Yes**	**10**	**20**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	S-TP-2D	-0.04018	-15	-23	No	9	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-3D	-0.04018	-10	-23	No	9	88.89	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-4D	-0.04014	-10	-20	No	8	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-5D	-0.01835	-5	-23	No	9	88.89	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6D	0	-4	-27	No	10	90	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6S	-0.0402	-11	-23	No	9	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-8D	0	-4	-27	No	10	80	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-9D	-0.03792	-16	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-1S	-0.03797	-16	-27	No	10	100	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-LMW-1S**	**-0.1025**	**-37**	**-35**	**Yes**	**12**	**33.33**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	-0.03499	-16	-35	No	12	66.67	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-4S	-0.04773	-31	-31	No	11	54.55	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	-0.06733	-32	-48	No	15	26.67	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	-0.00...	-8	-35	No	12	50	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UG-3	-0.06381	-25	-35	No	12	33.33	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1D	-0.06063	-22	-31	No	11	9.091	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1S	-0.1023	-24	-31	No	11	18.18	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-2D	-0.03388	-22	-31	No	11	63.64	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-3D**	**-0.05867**	**-38**	**-31**	**Yes**	**11**	**36.36**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-4D**	**-0.0661**	**-37**	**-31**	**Yes**	**11**	**36.36**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-5D**	**-0.09112**	**-37**	**-31**	**Yes**	**11**	**27.27**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-TP-6D	-0.06581	-25	-31	No	11	36.36	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-6S	-0.05046	-23	-31	No	11	36.36	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-8D**	**-0.073**	**-45**	**-31**	**Yes**	**11**	**45.45**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 4:26 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	-0.05268	-19	-31	No	11	63.64	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-PZ-1S**	**-0.23**	**-33**	**-31**	**Yes**	**11**	**36.36**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-LMW-1S	1.795	23	31	No	11	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-2S	-0.3842	-8	-31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-4S	1.787	19	31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-5S	-0.1343	-2	-23	No	9	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-6S	0.4614	8	31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UG-3	-0.2676	-5	-31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-AM-1D**	**-0.9404**	**-33**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-AM-1S**	**-3.165**	**-39**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-2D	1.175	11	31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-TP-3D**	**1.147**	**33**	**31**	**Yes**	**11**	**9.091**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-4D	0.1825	4	31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-TP-5D**	**2.133**	**37**	**31**	**Yes**	**11**	**9.091**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-6D	-0.4114	-8	-31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-6S	-0.3152	-8	-31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-8D	0.5108	20	27	No	10	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-9D	-1.82	-17	-31	No	11	9.091	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-1S	0.4151	14	27	No	10	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-1S	-11.15	-21	-31	No	11	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-2S	-24.83	-5	-31	No	11	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	0.05208	5	23	No	9	44.44	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-5S	-295.5	-27	-31	No	11	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-6S	0.3032	31	31	No	11	45.45	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	0.3088	14	31	No	11	27.27	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**-85.51**	**-43**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**-64.57**	**-39**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	-0.1009	-19	-35	No	12	83.33	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	0	0	35	No	12	66.67	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-4D	0.1034	27	35	No	12	66.67	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-TP-5D**	**96.76**	**37**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	0	-1	-31	No	11	90.91	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	0.2375	18	35	No	12	16.67	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	0.3258	33	35	No	12	50	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-9D**	**2.125**	**40**	**39**	**Yes**	**13**	**7.692**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-PZ-1S	-1419	-38	-39	No	13	0	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	0.03045	13	31	No	11	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	-0.01658	-1	-31	No	11	81.82	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	0.03518	7	31	No	11	72.73	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	-0.01629	-15	-31	No	11	90.91	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	0.01456	9	31	No	11	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UG-3	0.05694	19	31	No	11	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1D	0.1093	21	31	No	11	90.91	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1S	0.01795	3	31	No	11	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-2D	-0.02954	-3	-31	No	11	90.91	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-3D	0.06463	17	31	No	11	72.73	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-4D	0.07329	7	31	No	11	36.36	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-5D	0.05084	15	31	No	11	90.91	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6D	-0.04911	-7	-31	No	11	54.55	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6S	0.01747	7	31	No	11	100	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 3/13/2025, 4:26 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
RADIUM [226 + 228] (PCI/L)	S-TP-8D	0.06873	21	31	No	11	72.73	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	-0.00...	-9	-27	No	10	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	-0.04545	-15	-31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-1S	0	-3	-27	No	10	0	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-4S	-0.07052	-15	-31	No	11	9.091	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0	7	31	No	11	81.82	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UG-3	0.1249	14	23	No	9	0	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-AM-1D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-AM-1S	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-2D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-3D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-4D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-5D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-6D	0	0	31	No	11	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-TP-6S**	**-0.1261**	**-33**	**-31**	**Yes**	**11**	**18.18**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-TP-8D	0	-2	-31	No	11	90.91	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0	-4	-31	No	11	90.91	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0	0	31	No	11	100	n/a	n/a	0.02	NP

Appendix F

May 2025 Corrective Action Statistical Evaluation

Memorandum

September 25, 2025

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-25
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., R.G., Jeff Ingram, R.G., Grant Morey, R.G.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Corrective Action Statistical Evaluation, SCPA Surface Impoundment, Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Corrective Action Monitoring statistical analyses from the May 2025 sampling event for the SCPA Surface Impoundment at the Sioux Energy Center (SEC) located in St. Charles County, Missouri. As outlined in the remedy selection report for the SCPA, Corrective Action at the SCPA consists of two phases, as follows:

1) Source control, stabilization, and containment of Coal Combustion Residuals (CCR) by installation of a low-permeability geomembrane cap.
2) Once source control is achieved, monitor the natural attenuation (MNA) of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modeling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

Phase 1 of Corrective Action commenced on January 20, 2021, and was substantially completed on April 10, 2022 with the installation of a low permeability cover system. The SCPA unit was certified closed on October 14, 2022 and thus the SCPA has transitioned into the post-closure care requirements of the CCR rule effective October 2022 and Phase 2 of Corrective Action has begun. In addition to MNA as a Corrective Measure, Ameren has also initiated a supplemental corrective measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective ion exchange. This treatment system became fully operational in February 2023 and began achieving target flow rates in September 2023. In July 2024, Haley & Aldrich produced a Supplemental Remedy Selection Report for the SEC, documenting that these corrective measures are effectively contributing to constituent mass reductions in groundwater near the SCPA. The supplemental corrective measures are ongoing.

The initial Corrective Action sampling event was completed in April 2020, and a total of 12 sampling events have been completed for the Corrective Action Program at the SCPA to date. This analysis uses sampling results collected since the beginning of Corrective Action monitoring (April 2020) to determine constituents exceeding groundwater protection standards (GWPSs). Data prior to this time was collected during active conditions of the SCPA, prior to the cessation of CCR disposal in the SCPA, and are not representative of groundwater conditions since the initiation of closure. Included in this memorandum is a summary of constituents that are currently in

exceedance of the GWPSs, a list of site-specific Groundwater Protection Standards (**Table 1**), and the Sanitas Technologies™ (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A and Appendix B**).

Several constituents were reported at concentrations below the Practical Quantitation Limit (PQL) during the spring 2020, 2021, 2022, 2023 and/or 2024 sampling events, including antimony, beryllium, chromium, lead, mercury, and thallium. When these constituents were not detected during the initial Corrective Action sampling event, they were not sampled/tested during the subsequent semi-annual sampling events in each calendar year. Therefore, there are fewer results available for these constituents, and Sen's Slope/Mann-Kendall analyses cannot be completed until a sufficient quantity of results is obtained.

Trend tests using the Sen's Slope/Mann-Kendall method require a minimum of eight independent results, as outlined in the USEPA Unified Guidance. Therefore, trend tests were completed for the following Appendix IV constituents: arsenic, barium, cadmium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium 226 + 228, and selenium. Since a minimum of eight lead results now exist at each well, this is the first Corrective Action statistical evaluation where Sen's Slope/Mann Kendall analysis was performed for lead.

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for exceedances above the GWPSs using the methods and procedures outlined in the Corrective Action Groundwater Monitoring Plan (CAGMP) Statistical Analysis Plan (SAP). An outlier analysis was completed as the first step of the statistical evaluation. The outlier analysis was performed only on the results collected as a part of the Corrective Action Monitoring Program. In addition to outliers noted in previous SCPA Corrective Action evaluations, the following outliers were removed from the dataset prior to the calculation of confidence limits:

- Arsenic
    - S-AM-1D at 0.32 J micrograms per liter (µg/L) on 11/19/2024: result is statistically higher than other arsenic results at the same monitoring well. This higher result is not consistent with previous or subsequent arsenic results at the well and is an outlier.
    - S-TP-6S at 0.97 J µg/L on 11/14/2024: result is statistically higher than other arsenic results at the same monitoring well. This higher result is not consistent with previous or subsequent arsenic results at the well and is an outlier.
- Barium
    - S-UG-3 at 265 µg/L on 4/1/2022: result is statistically higher than other barium results at the same monitoring well. This higher result is not consistent with previous or subsequent barium results at the well and is an outlier.
- Cadmium
    - S-TP-3D at 0.051 J µg/L on 11/20/2024: result is statistically higher than other cadmium results at the same monitoring well. This higher result is not consistent with previous or subsequent cadmium results at the well and is an outlier.
    - S-PZ-9D at 0.12 J µg/L on 11/18/2024: result is statistically higher than other cadmium results at the same monitoring well. This higher result is not consistent with previous or subsequent cadmium results at the well and is an outlier.

- Mercury
    - S-UG-3 at 0.12 J µg/L on 5/28/2024: result is statistically higher than other mercury results at the same monitoring well. This higher result is not consistent with previous or subsequent mercury results at the well and is an outlier.
- Molybdenum
    - S-LMW-4S at ND (<20 µg/L) on 5/29/2024: result is statistically higher than other molybdenum results at the same monitoring well due to the high reporting limit used following data validation procedures. The result was qualified as a non-detect at the PQL, making the effective result higher than other values at the well. This higher result is not consistent with previous or subsequent molybdenum results at the well and is an outlier.

An analysis of the outliers removed to date was completed. No statistical outliers that were previously removed were added back into the dataset prior to the calculation of confidence limits.

Following the outlier analysis, the second step in the statistical analysis was to calculate confidence intervals and compare those to the site-specific GWPSs (**Appendix A**). Confidence interval evaluation was supplemented with Sen's Slope/Mann-Kendall analyses on constituents that have eight independent sampling results at a given well, per the USEPA Unified Guidance (**Appendix B**). The Sen's Slope/Mann-Kendall analysis identifies well-analyte pairs that have statistically significant trends and calculates confidence bands that vary with time. The upper confidence band, in relation to the GWPS for a given constituent, is used to determine exceedances, as outlined in the CAGMP. As discussed previously, antimony, beryllium, lead, mercury, and thallium do not have the requisite quantity of results to perform Sen's Slope/Mann-Kendall analyses, so only confidence intervals were produced for those constituents.

Using these corrective action statistical methods, as of May 2025, the wells with constituents exceeding the GWPS are as follows:

- Cobalt at S-LMW-6S[1] and S-AM-1S
- Lithium at S-LMW-5S[1], S-TP-2D
- Molybdenum at S-LMW-2S[1], S-LMW-5S[1], S-AM-1D[2], S-AM-1S[2], S-TP-5D, and S-PZ-1S[1]

Cobalt at S-AM-1S is a new statistical exceedance as of this evaluation. Although the upper confidence limit in **Appendix A** is below the GWPS, analysis has identified a statistically significant increasing trend where the upper confidence band exceeds the GWPS for cobalt (6 µg/L, see **Appendix B**). The May 2025 cobalt result at S-AM-1S is the only cobalt result exceeding the GWPS, and results will be closely monitored in future statistical evaluations.

Lithium at S-TP-5D was first identified as an exceedance during the statistical evaluation of the November 2024 sampling event, but it is no longer a statistical exceedance as of May 2025. The upper confidence limit is now below the GWPS for lithium (40 µg/L). The other cobalt, lithium, and molybdenum exceedances identified in the statistical evaluation for the November 2024 sampling event remain as of May 2025.

[1] These results display an overall downward trend since April 2020 that is not statistically significant at the 98% confidence level.

[2] These results display an overall downward trend since April 2020 that is statistically significant at the 98% confidence level.

Variability in initial constituent concentrations directly after the closure of the SCPA is expected, especially at wells nearest the CCR unit, where closure grading and disturbance activities were greatest. The concentrations reported in these results following closure are expected to be variable but are expected to decrease over time as stabilization and natural attenuation occur and the groundwater treatment system continues operation.

3.0 CLOSING

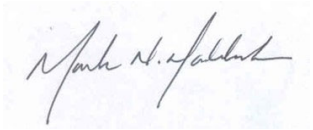
Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Mark Haddock, P.E., R.G.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring [6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.63424
Barium	µg/L	2000	2000	703
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	30.509
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.634
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) National Primary Drinking Water Regulations. Updated December 12, 2024 at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2025 from monitoring wells BMW-1D and BMW-3D.

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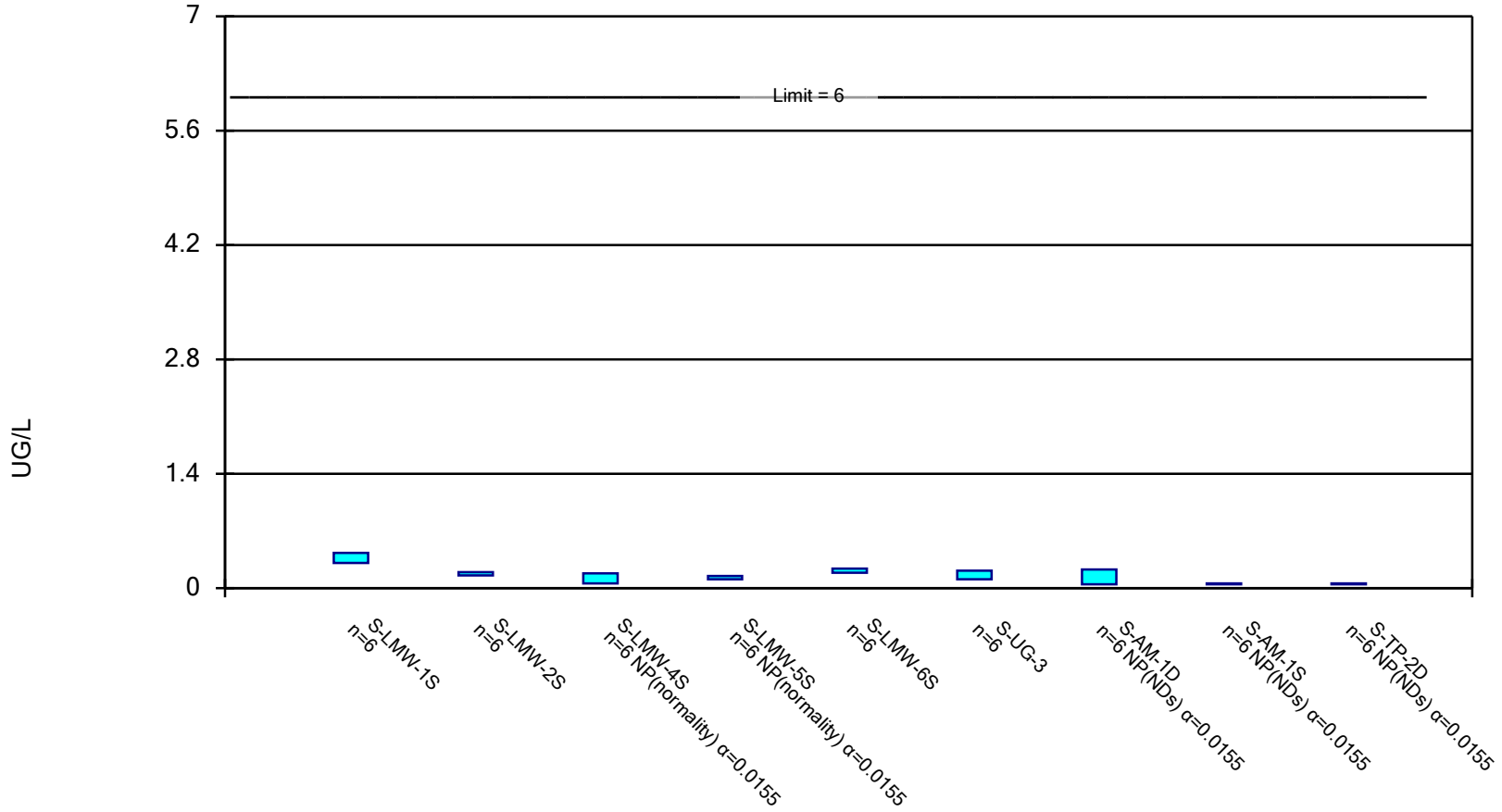
Prepared by: JTR
Checked by: GTM
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

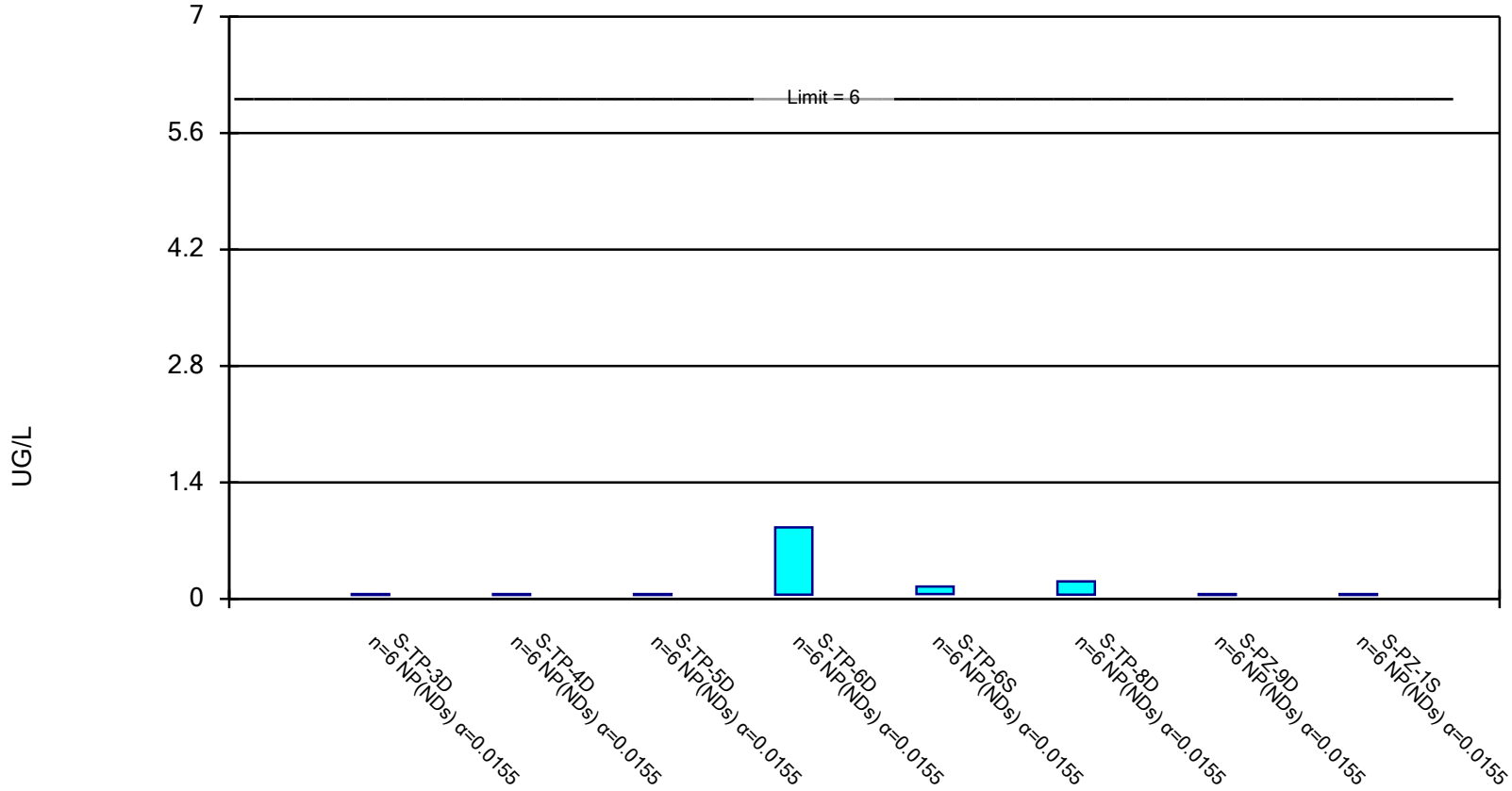


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Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

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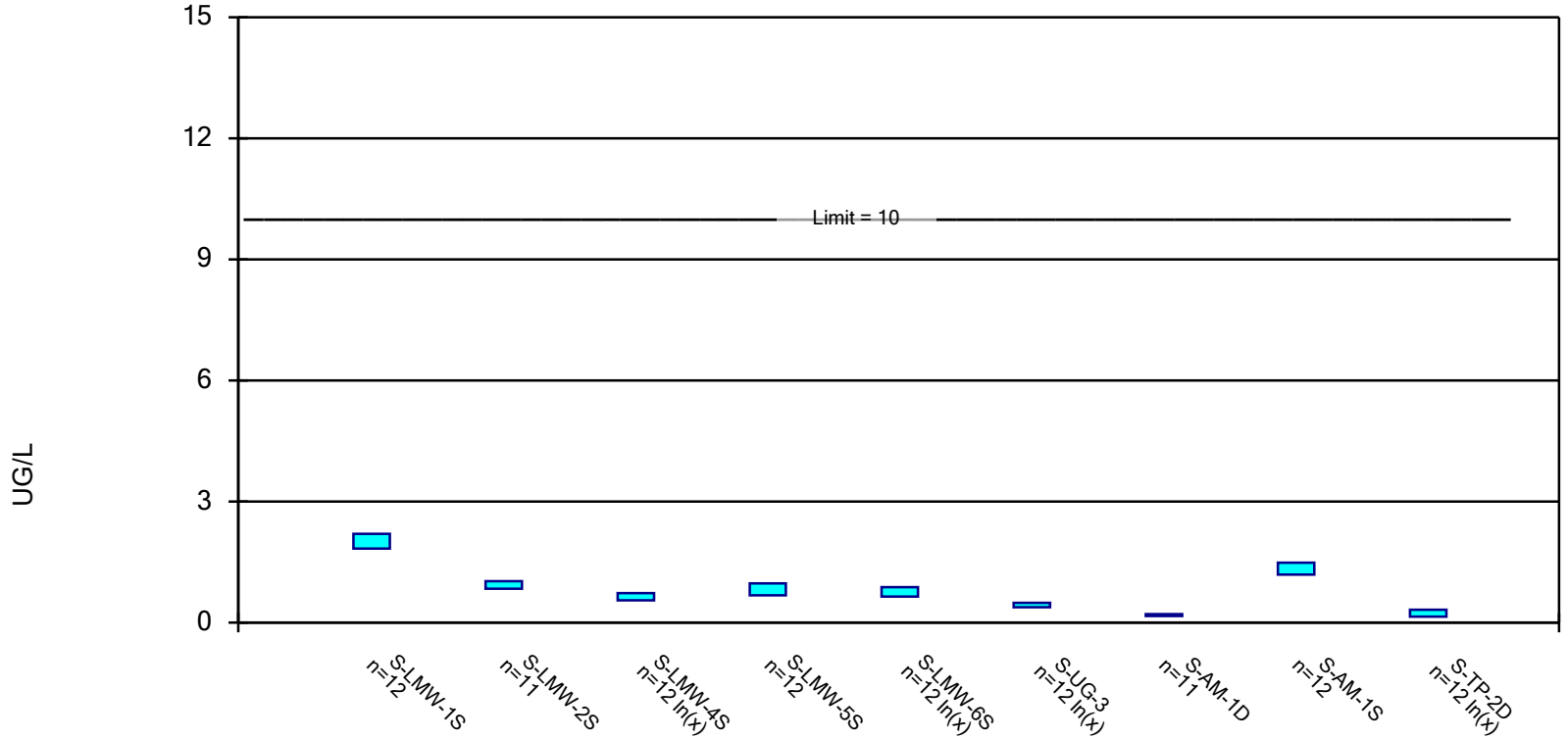
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric Confidence Interval, Corrective Action Mode

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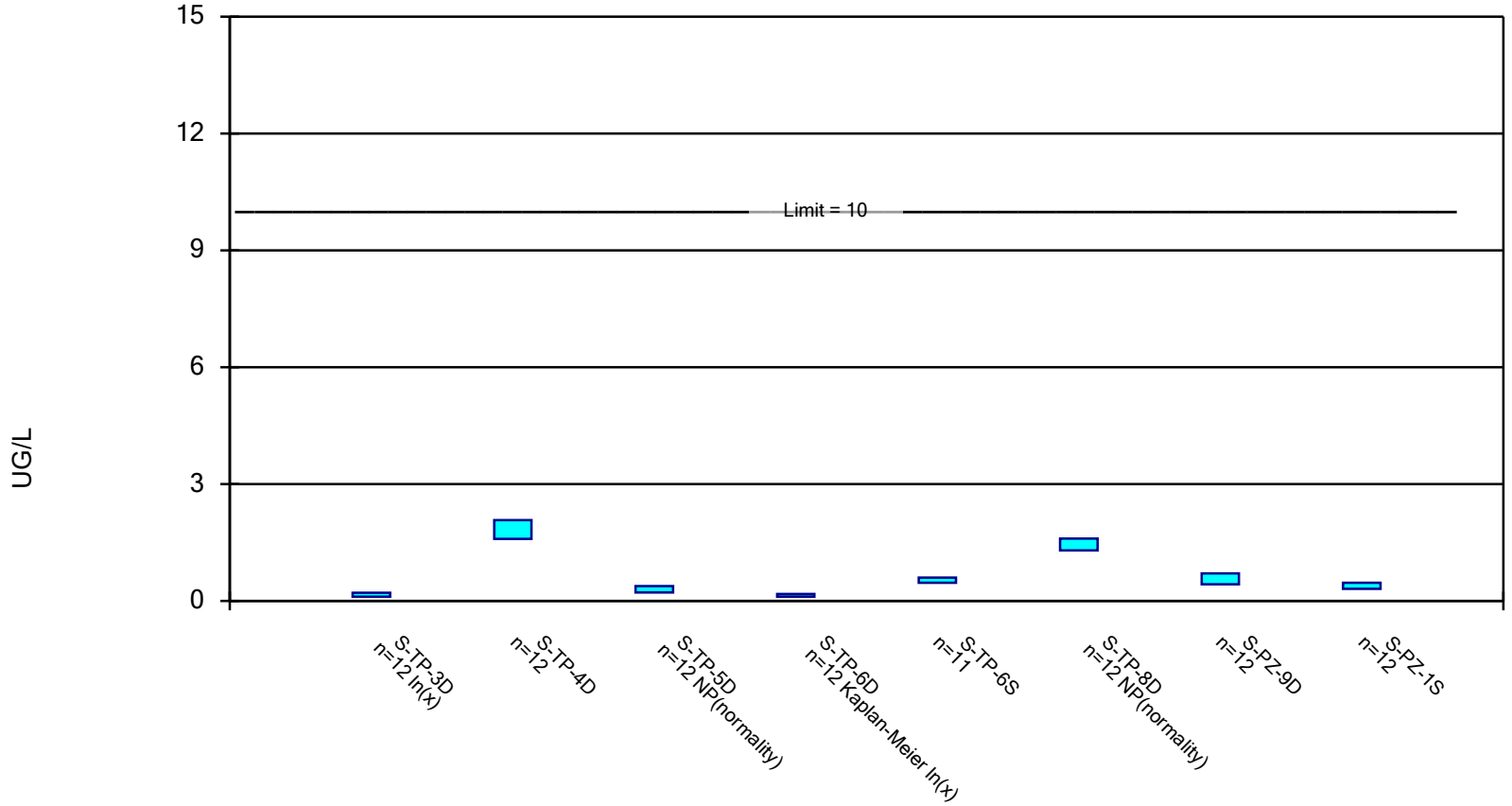


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Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



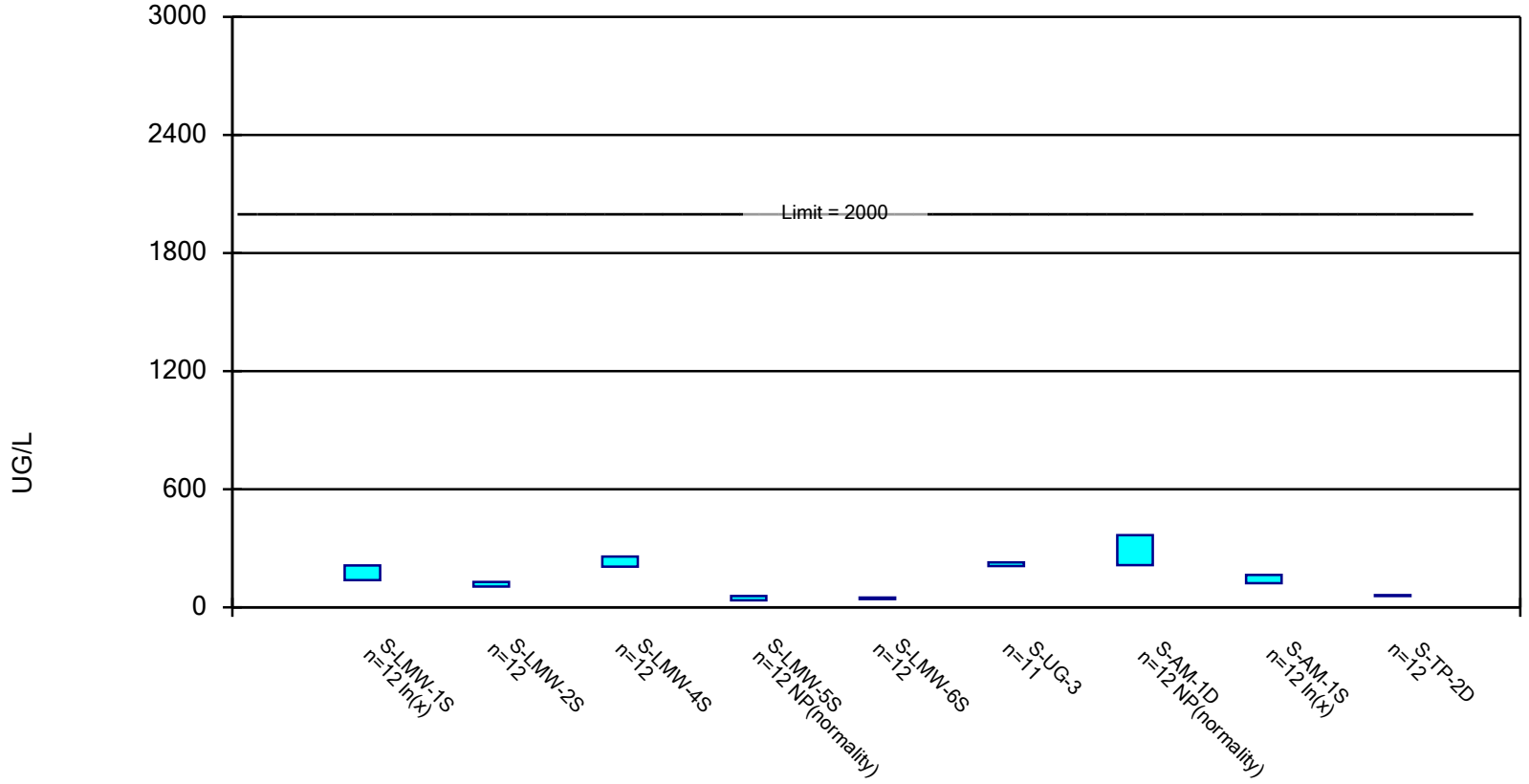
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



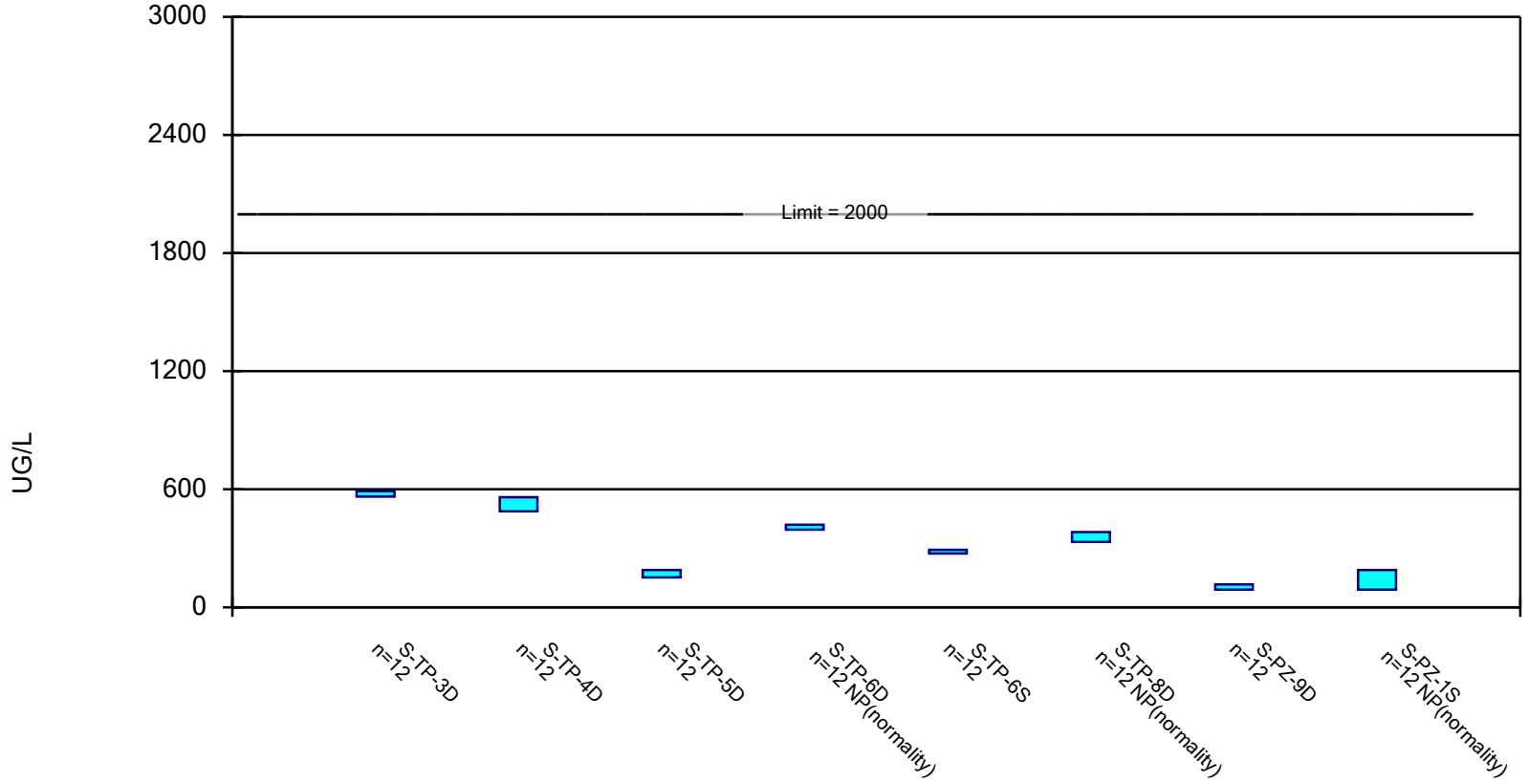
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Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

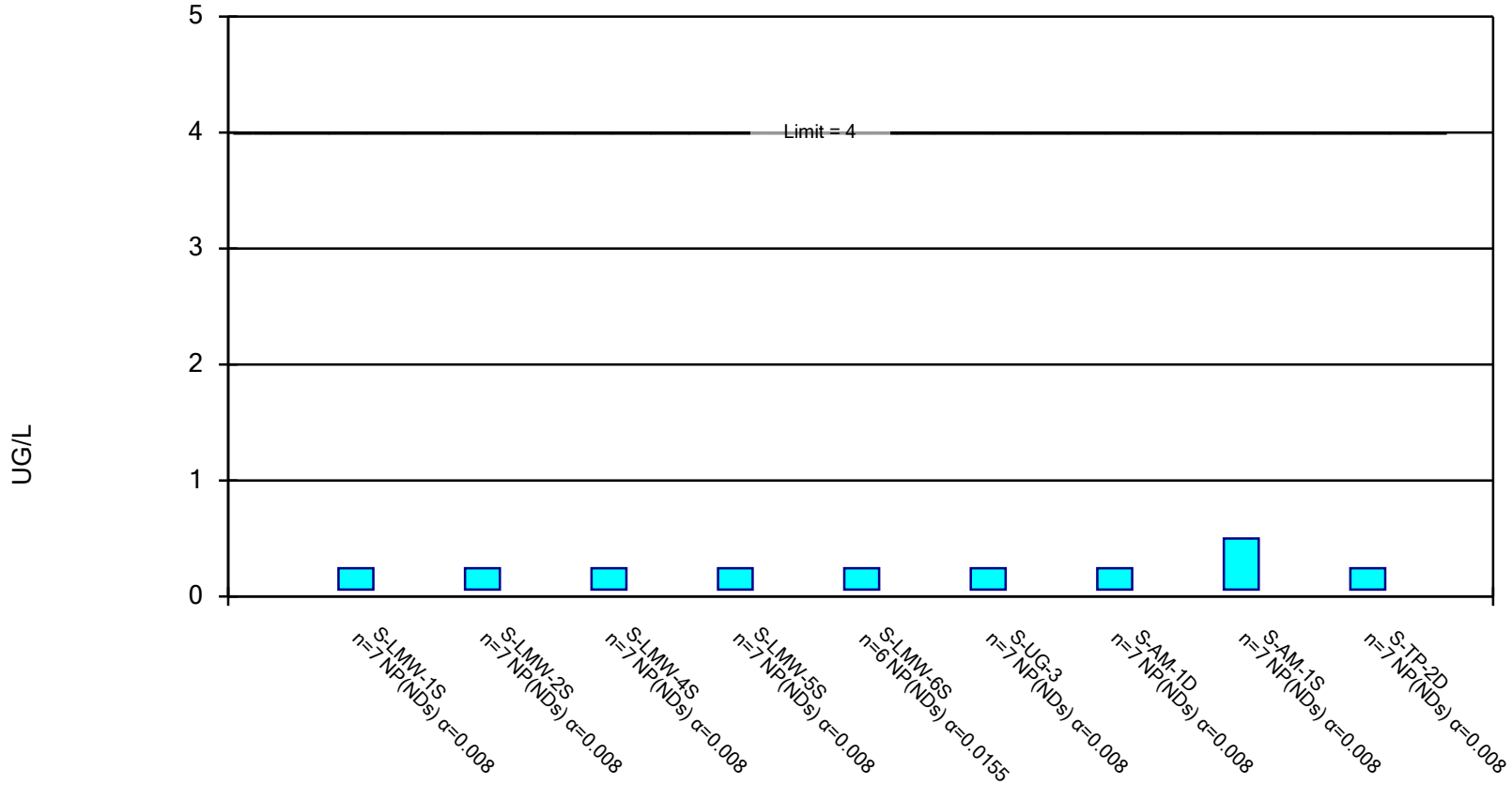


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Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



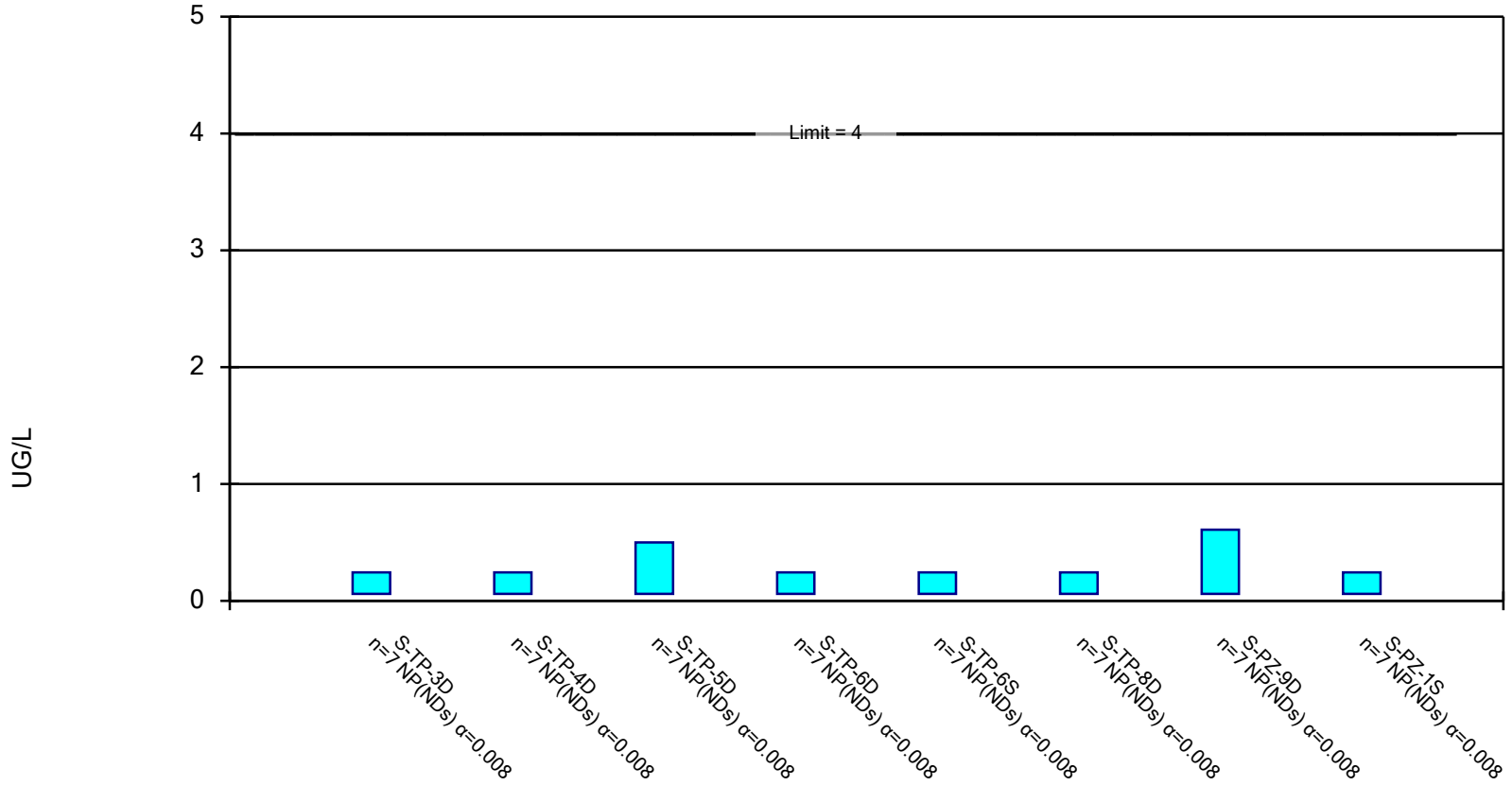
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



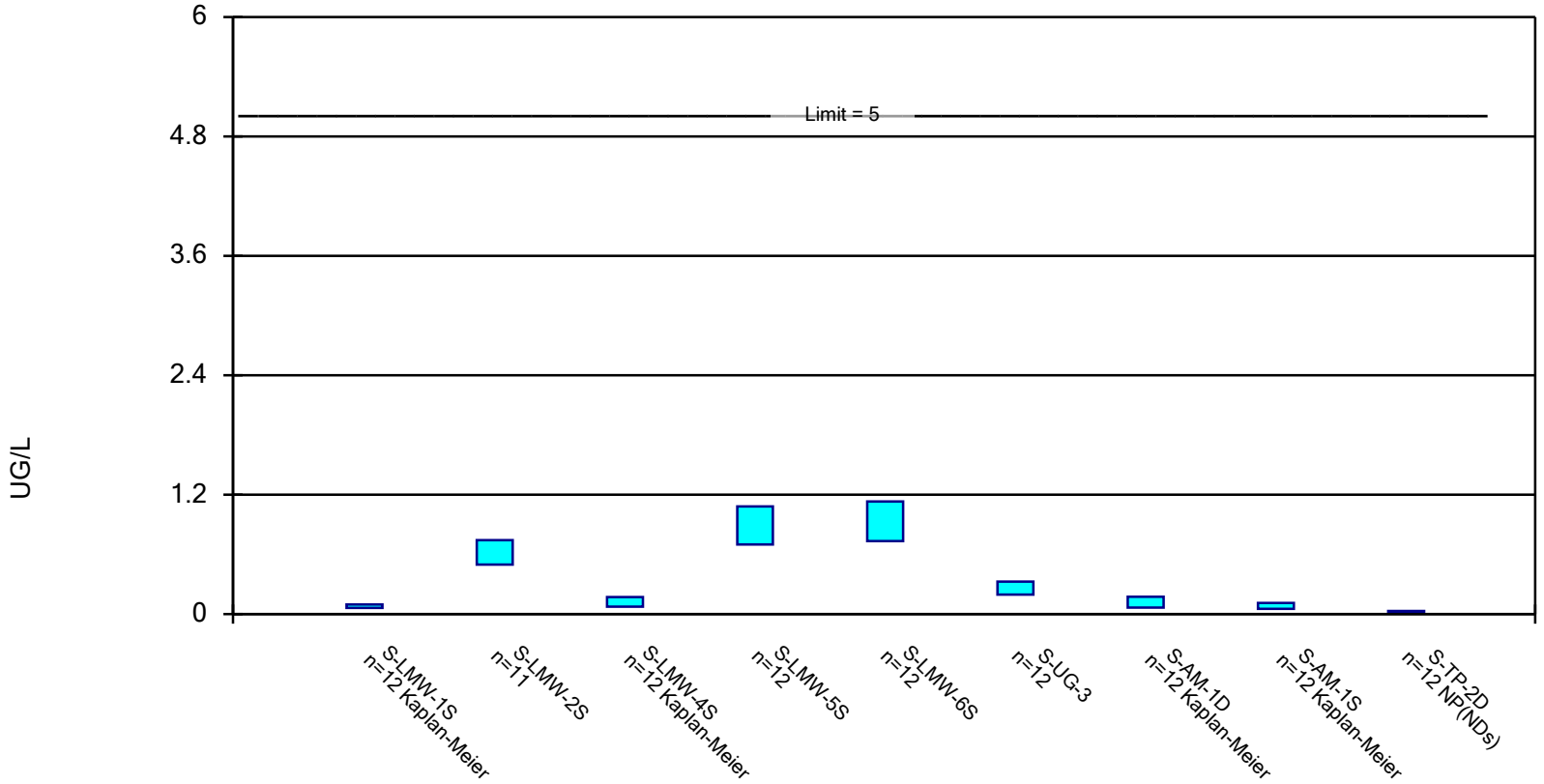
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

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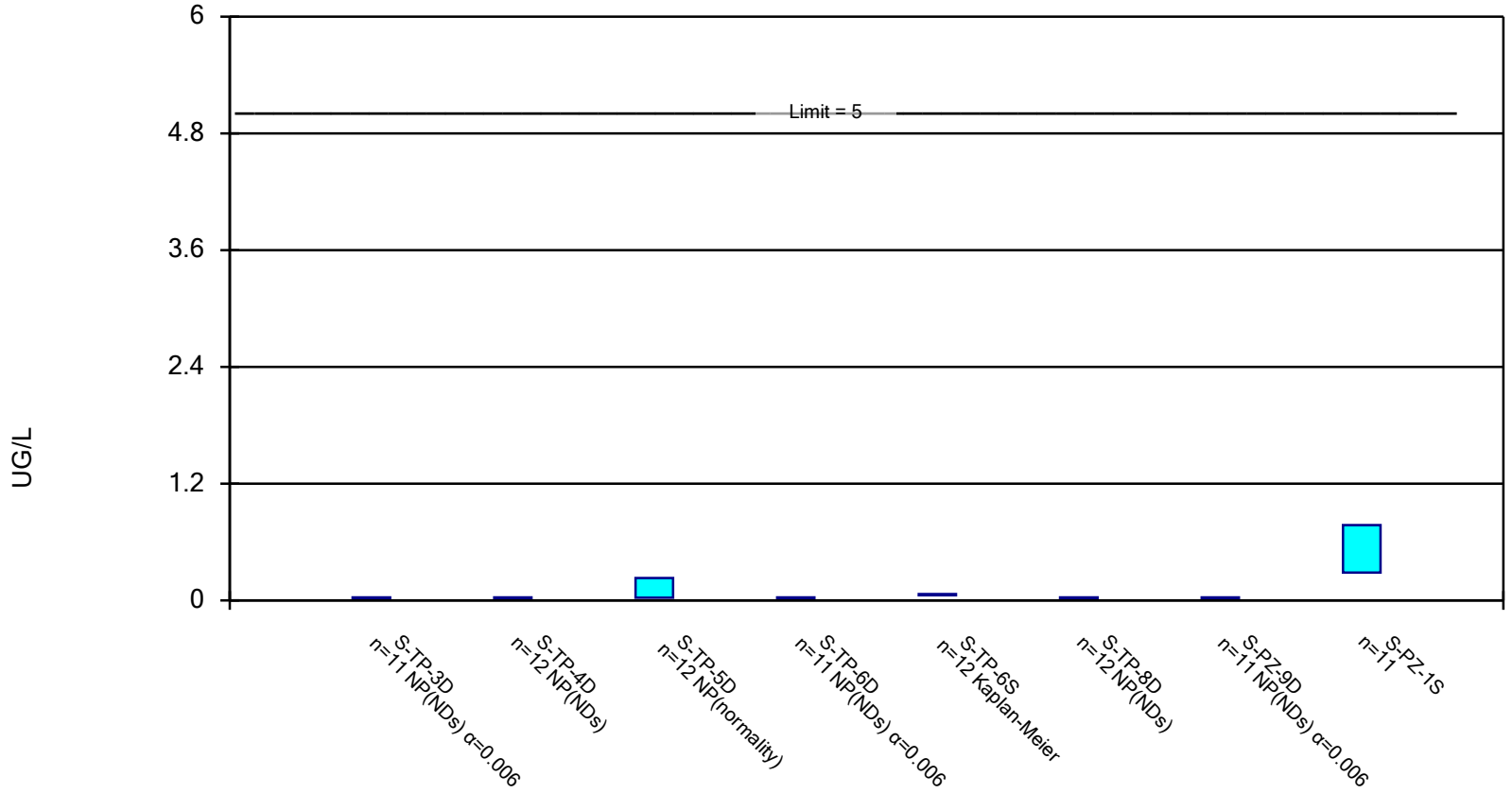


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Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

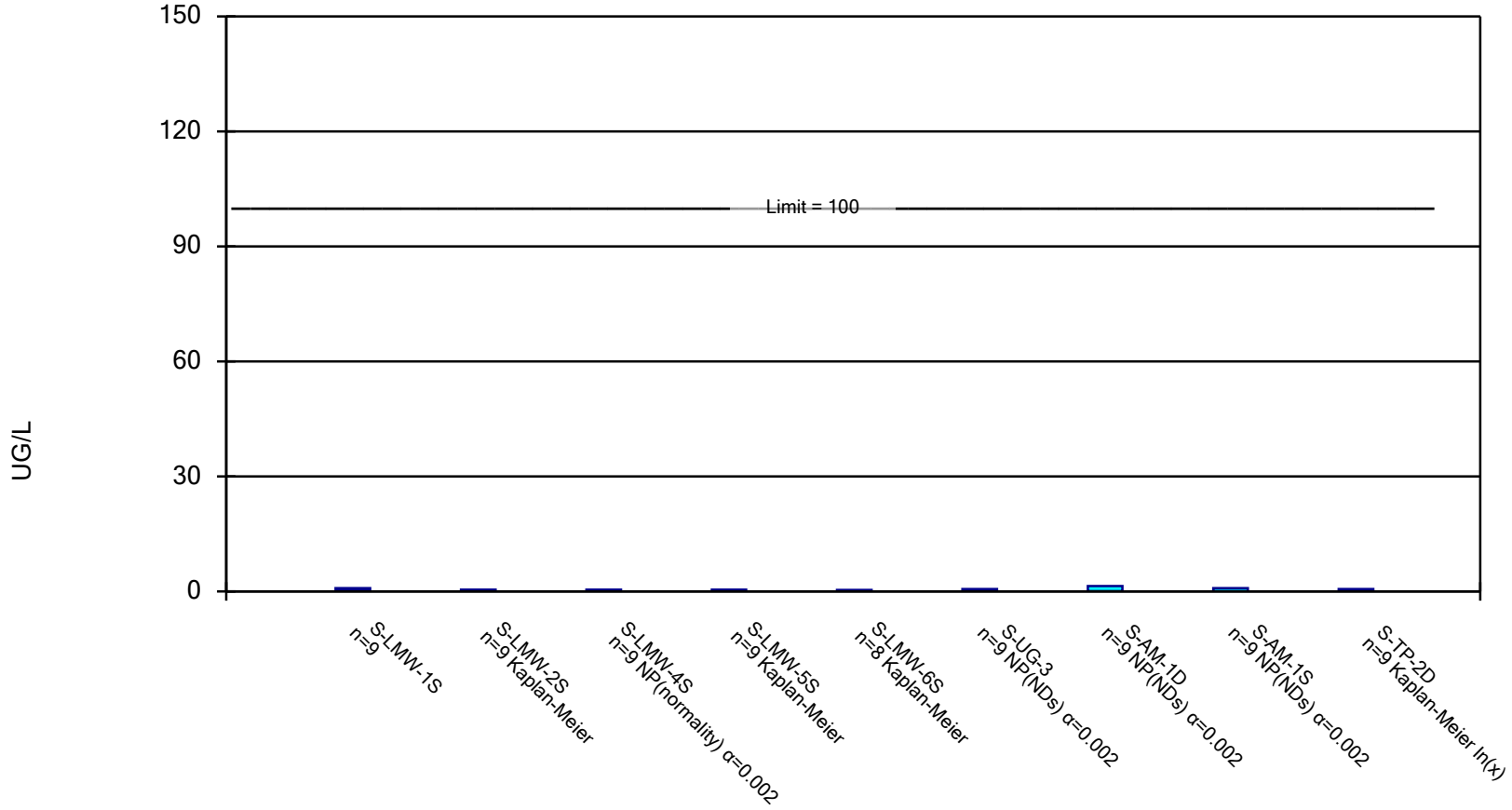


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Sioux E.C. Client: Ameren Data: SEC DATA

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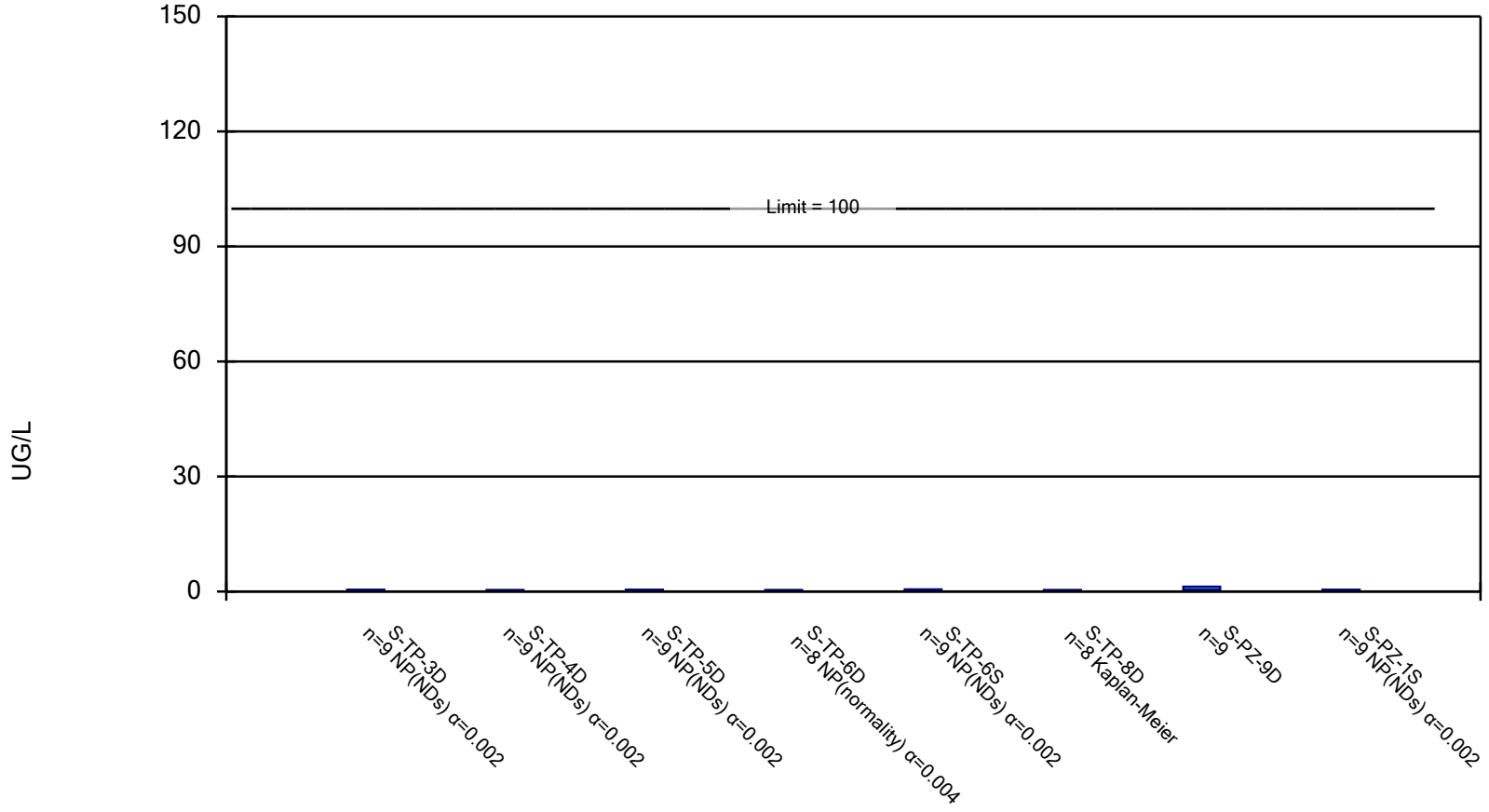


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Sioux E.C. Client: Ameren Data: SEC DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



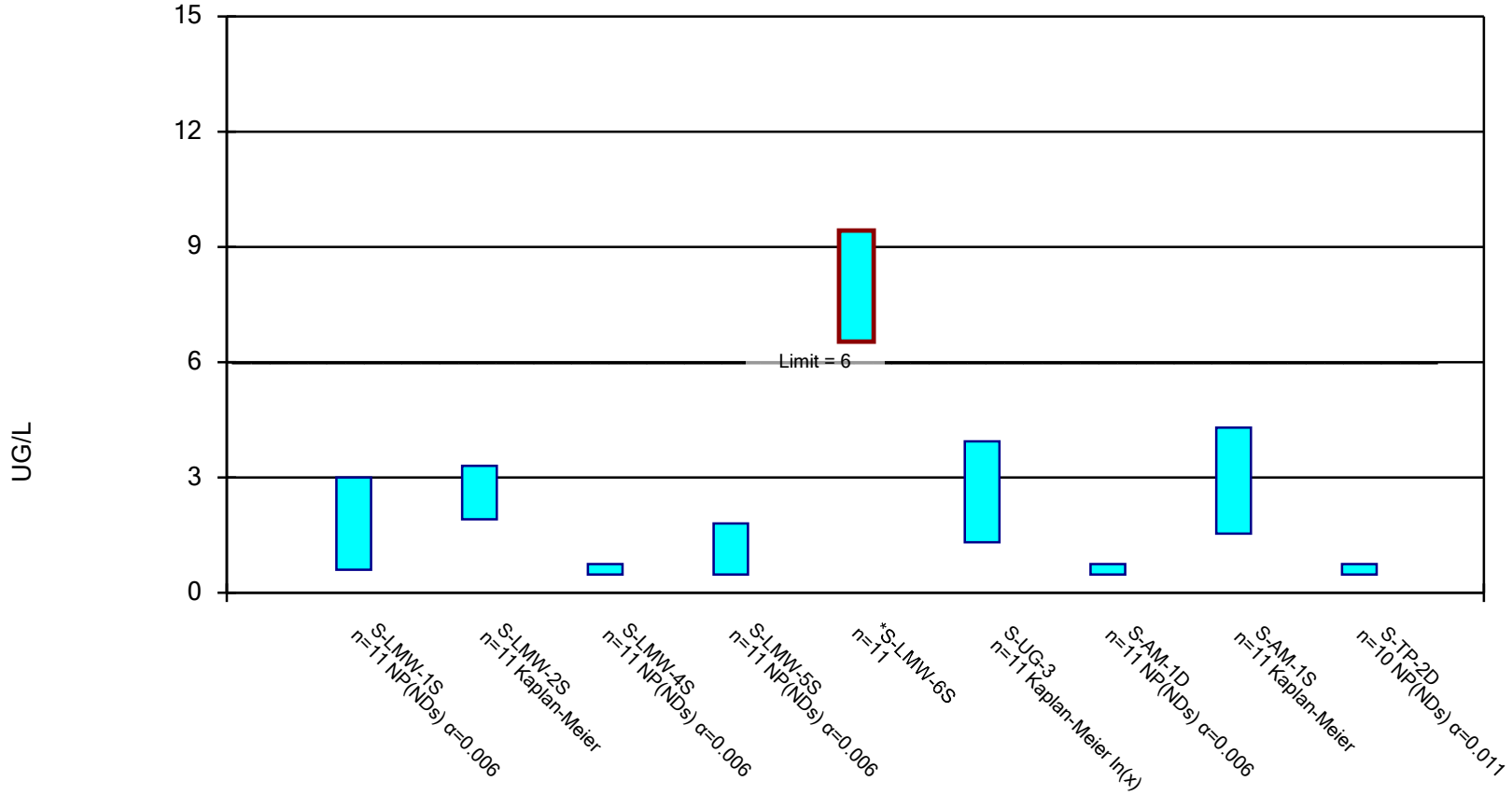
Constituent: CHROMIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



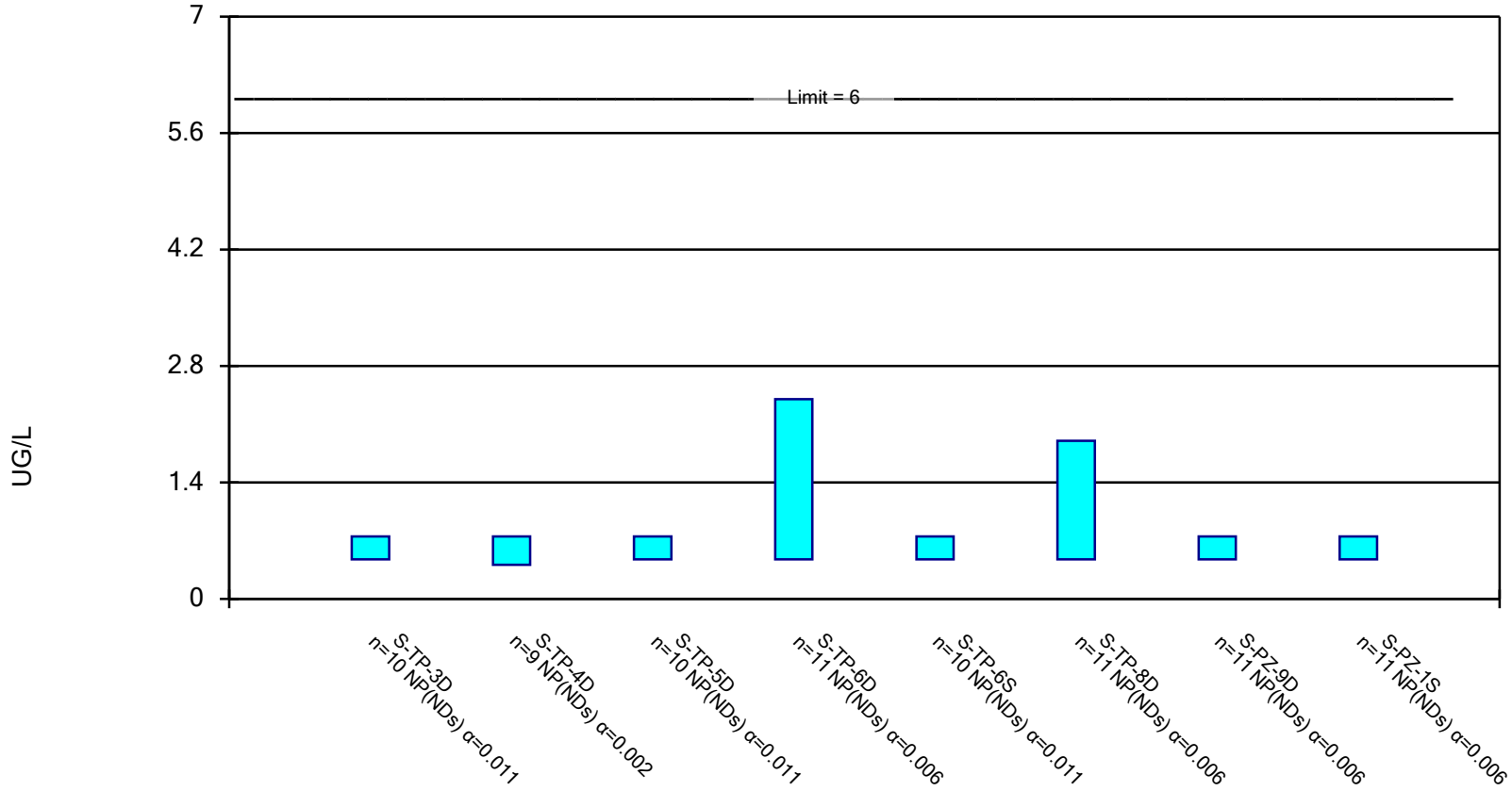
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



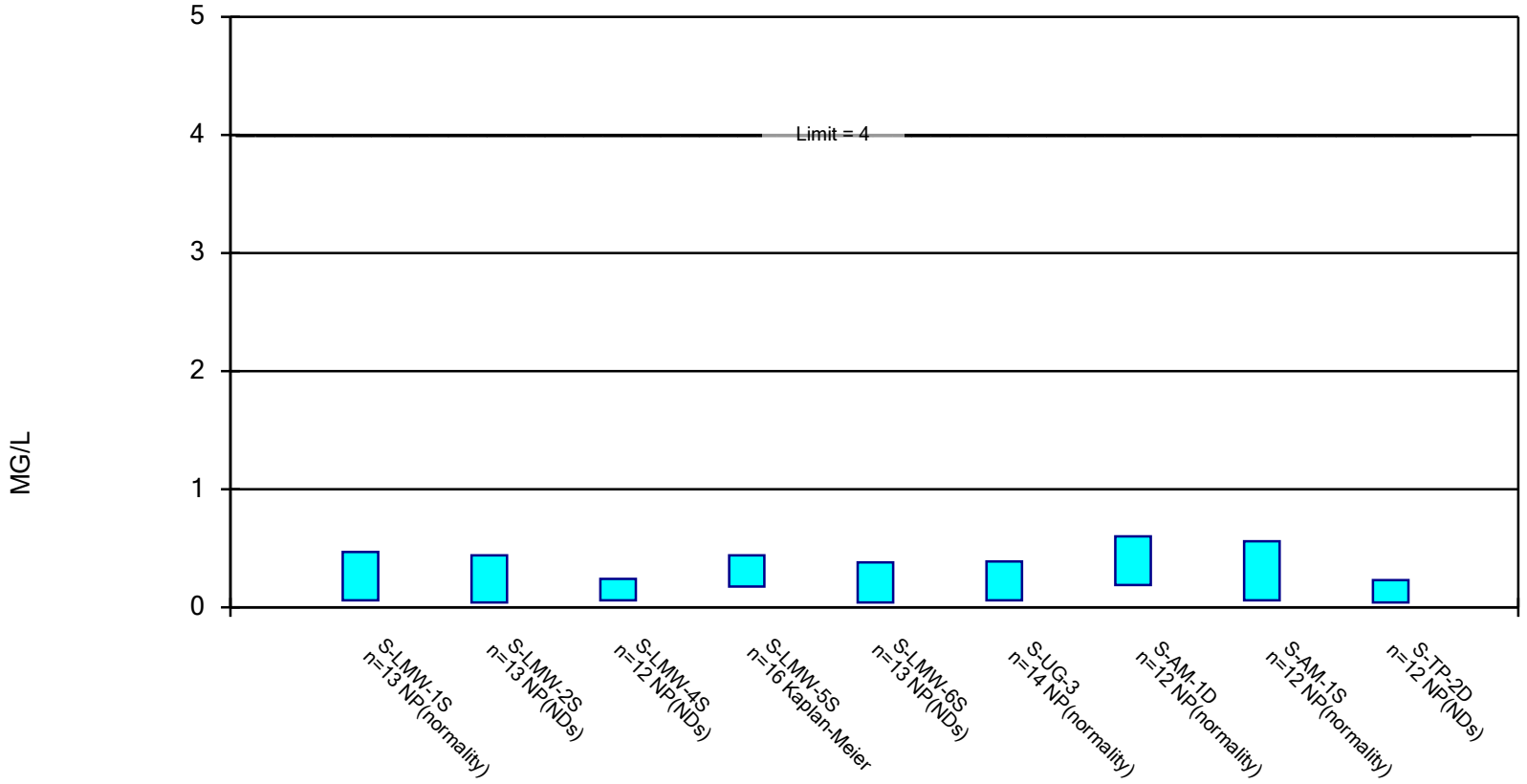
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Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



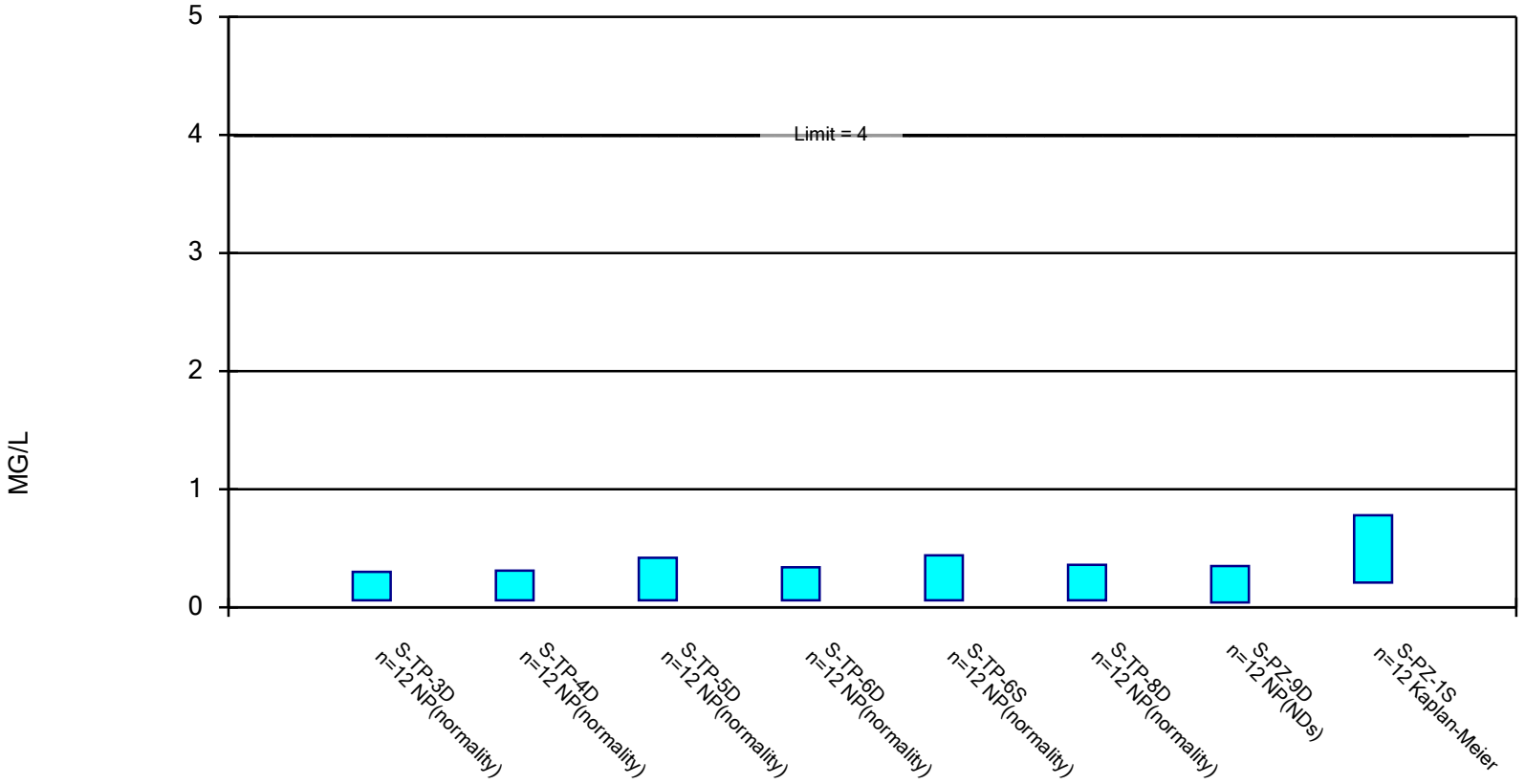
Constituent: FLUORIDE, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

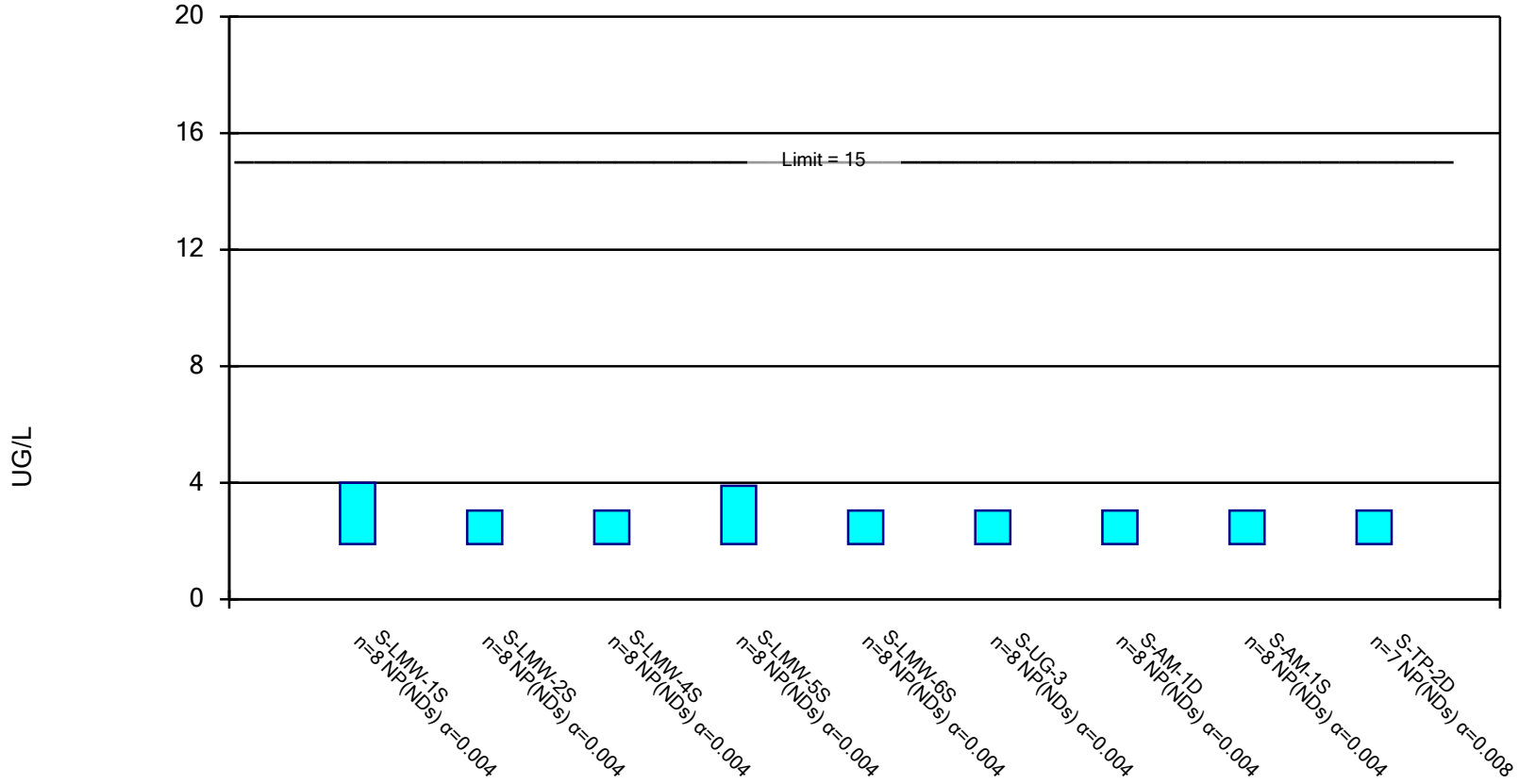


Constituent: FLUORIDE, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



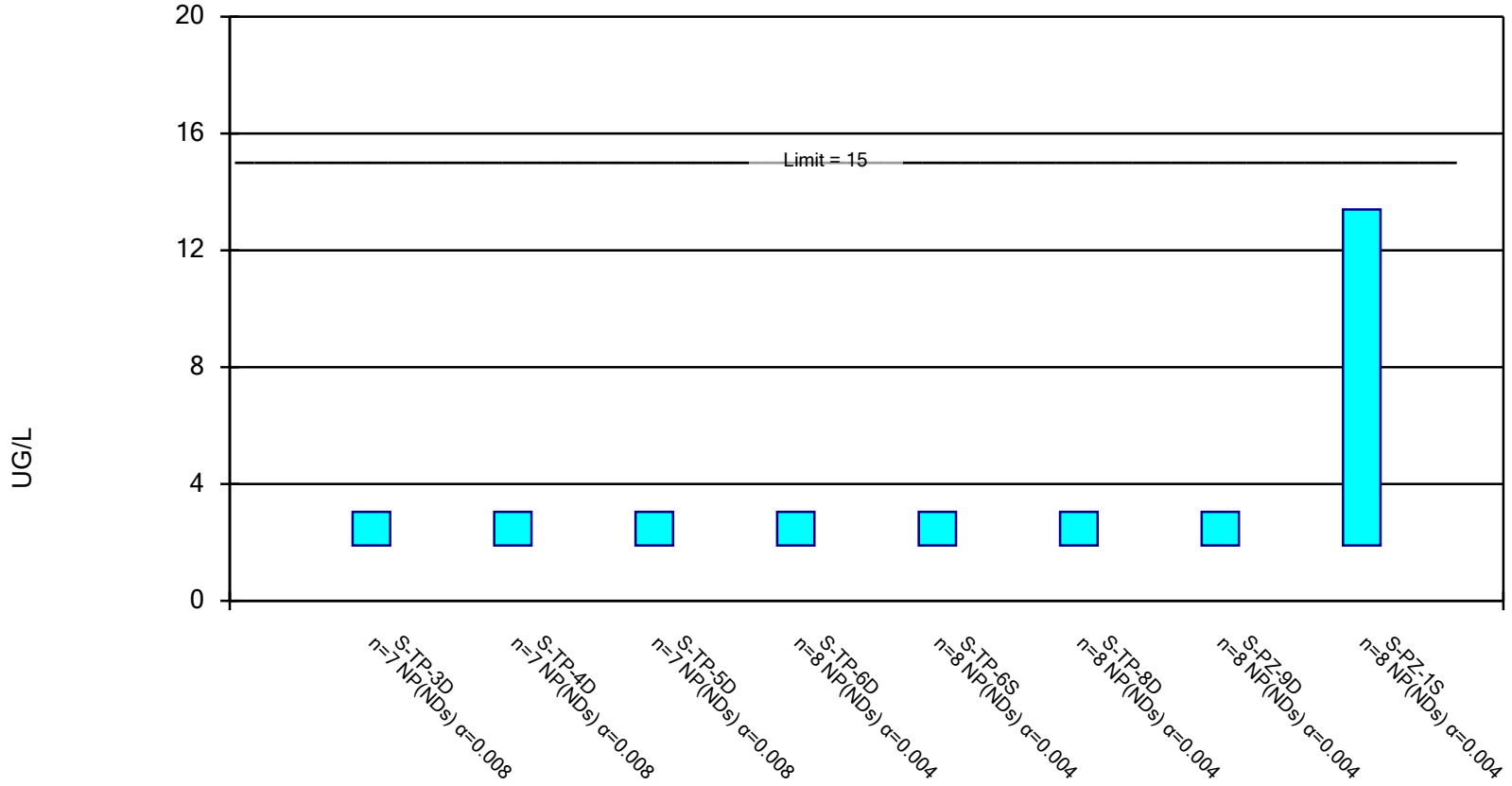
Constituent: LEAD, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



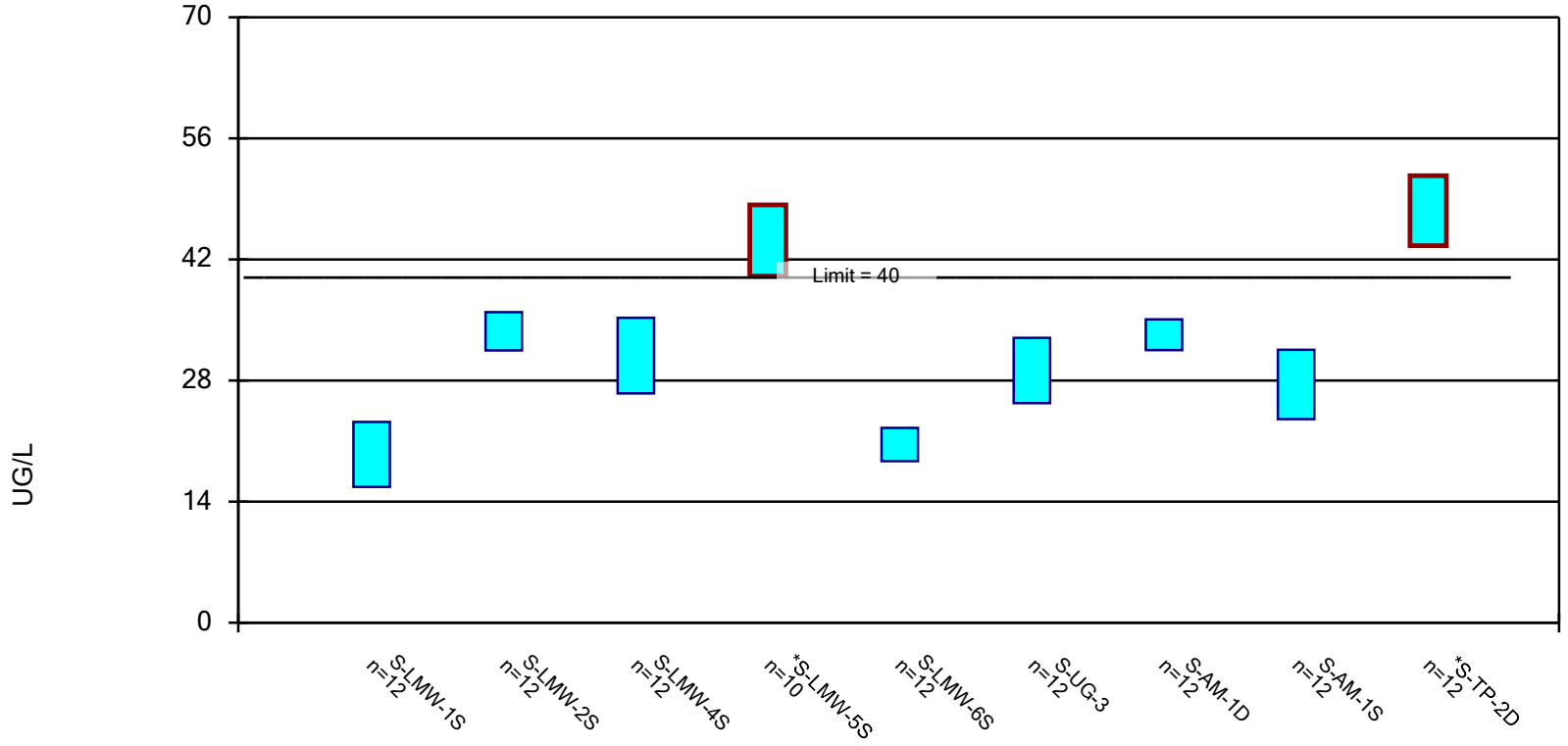
Constituent: LEAD, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



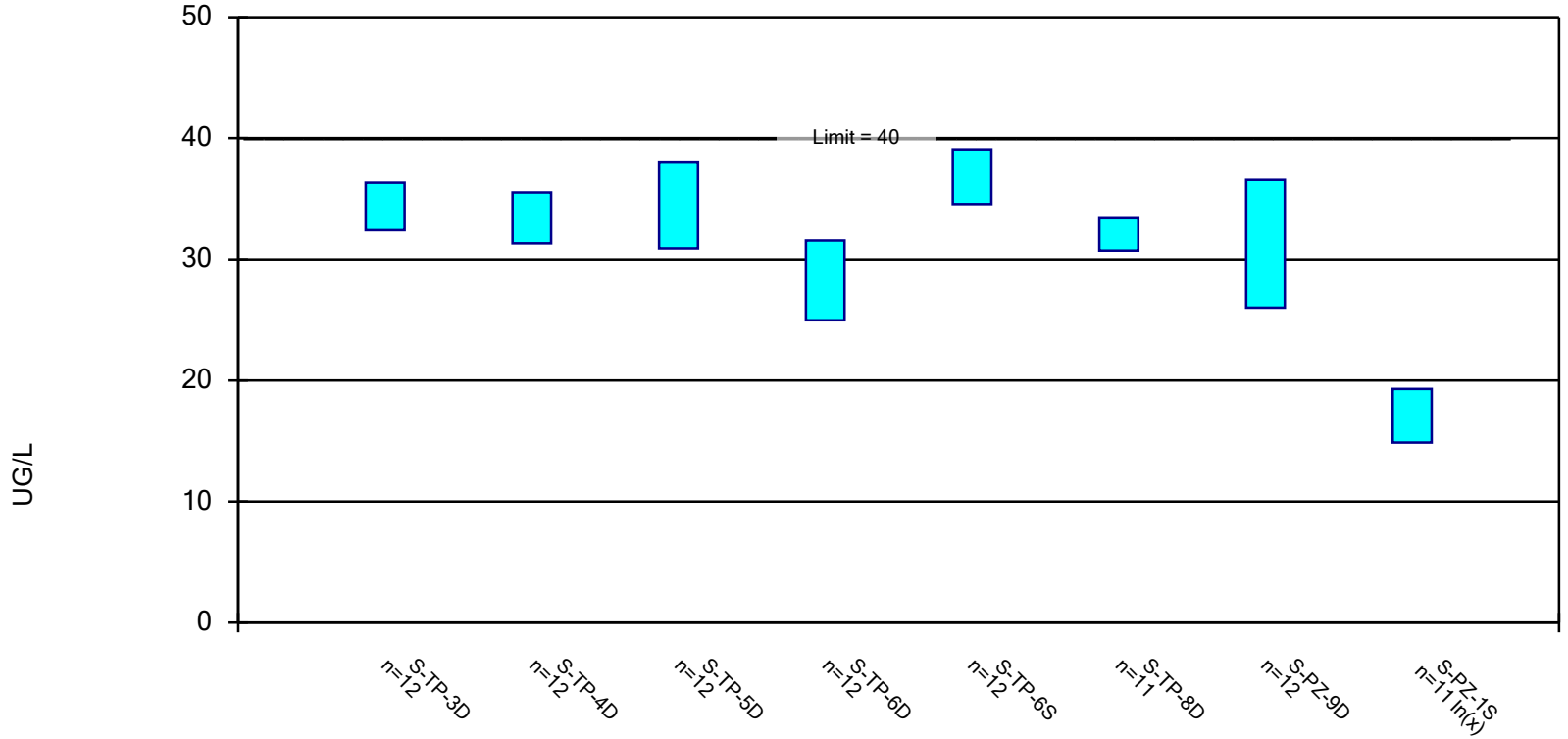
Constituent: LITHIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

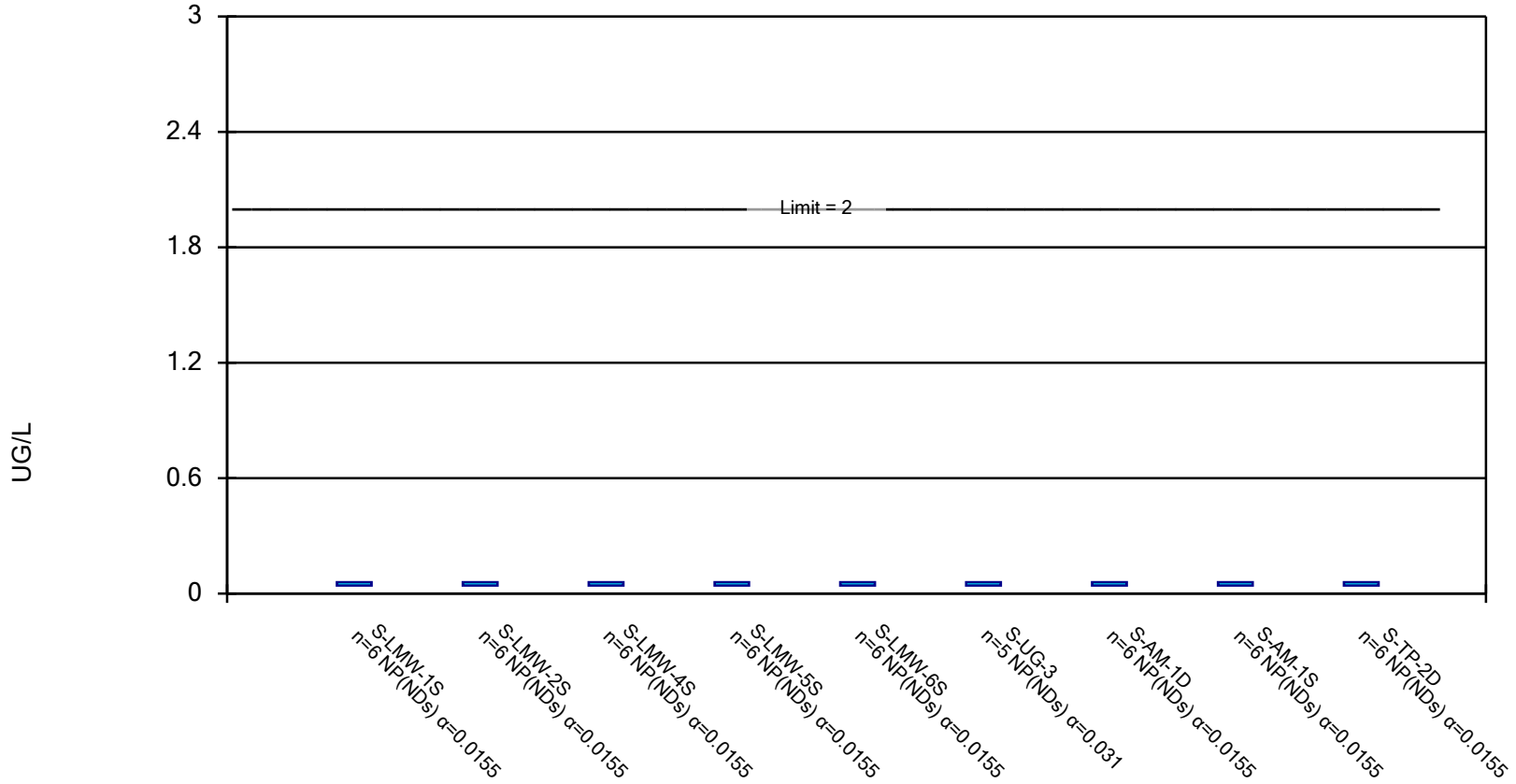


Constituent: LITHIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



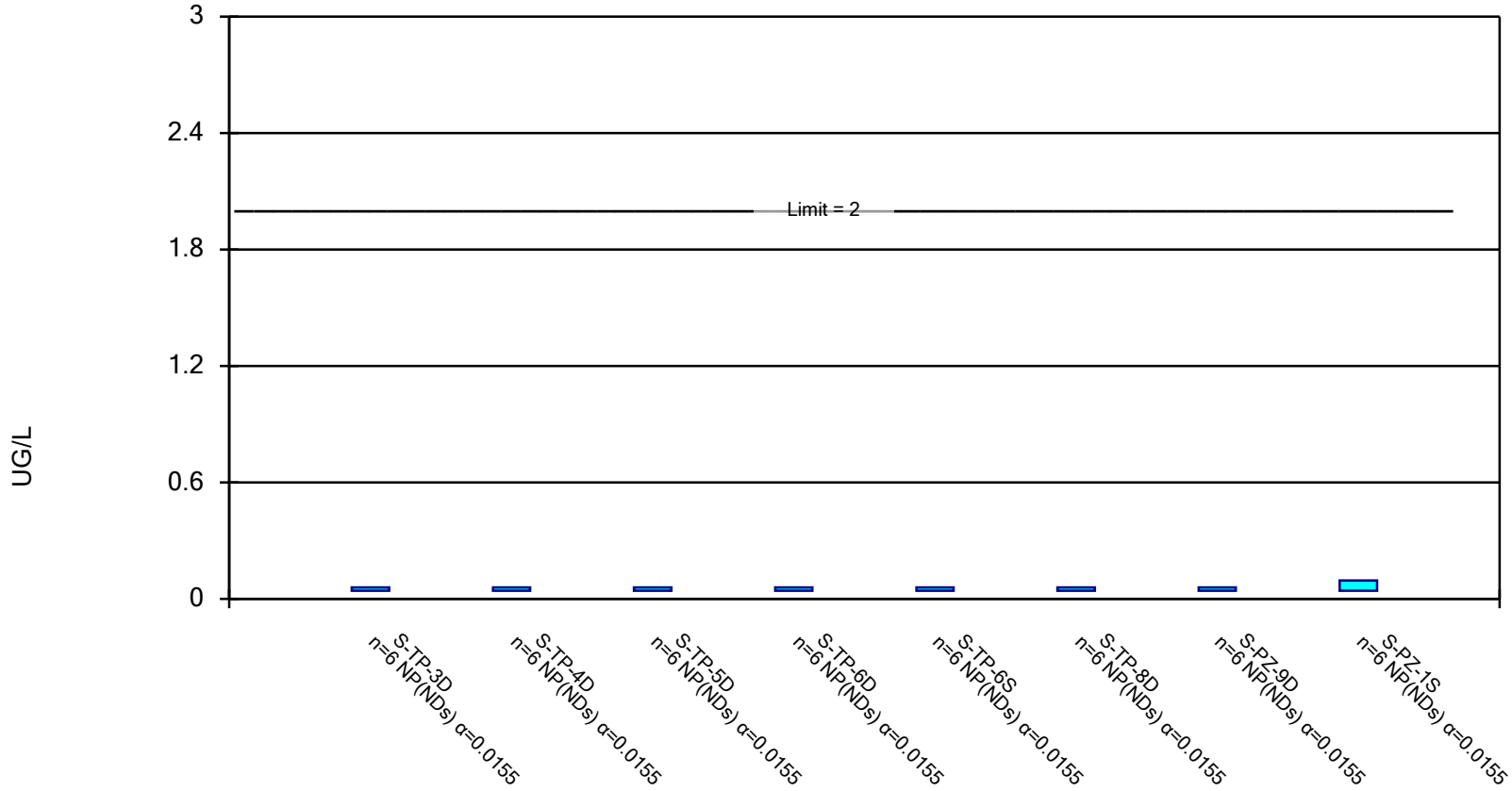
Constituent: MERCURY, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



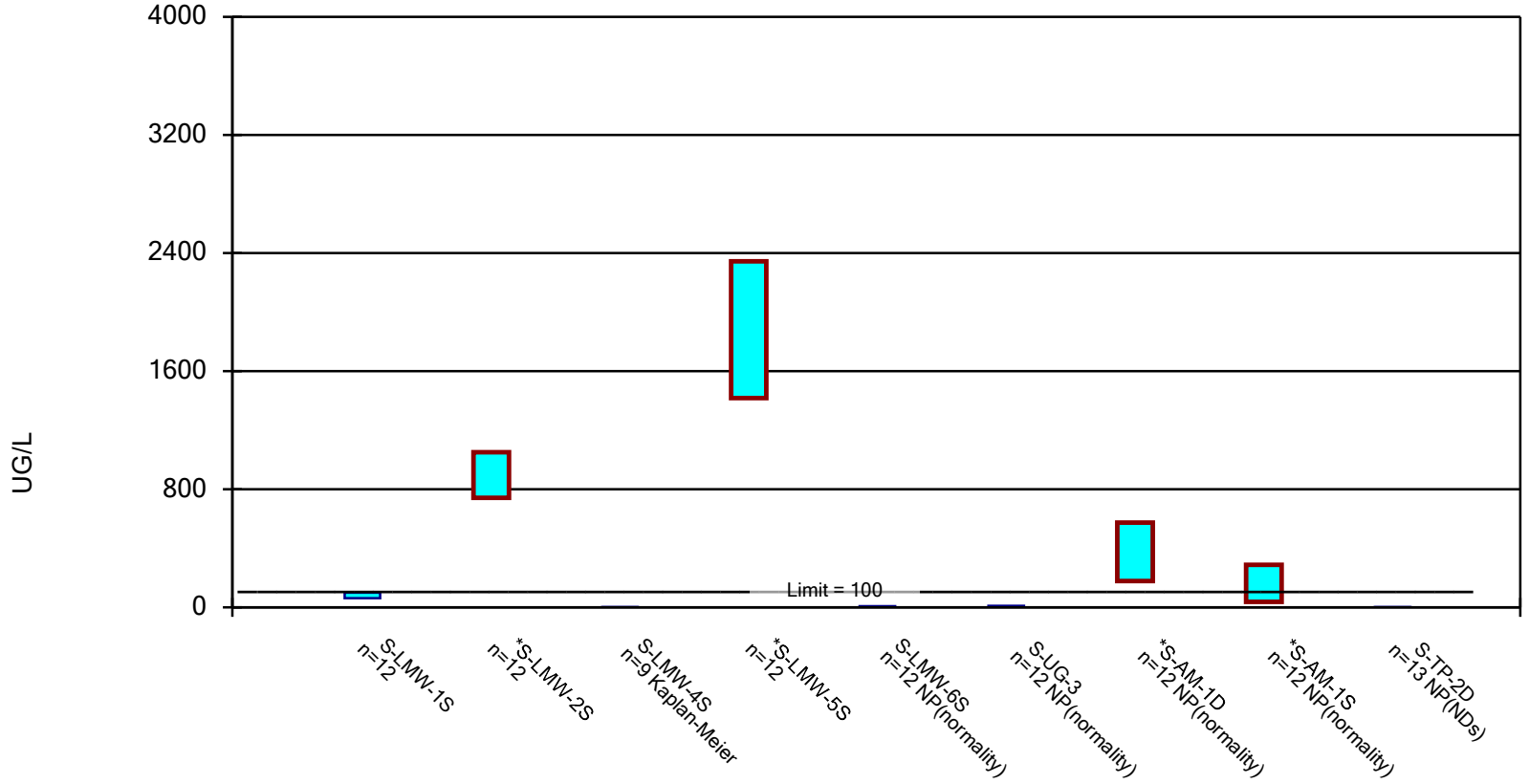
Constituent: MERCURY, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



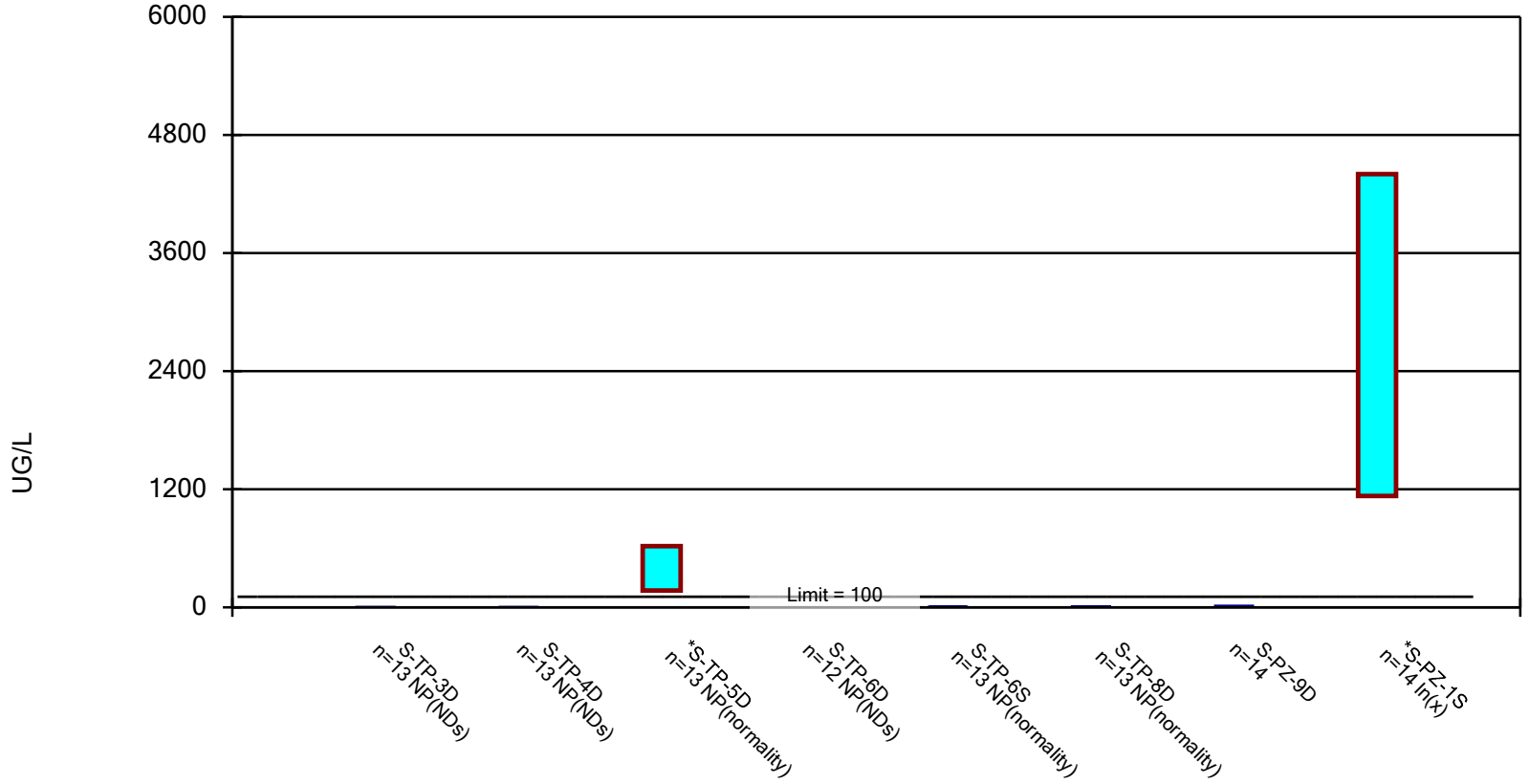
Constituent: MOLYBDENUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



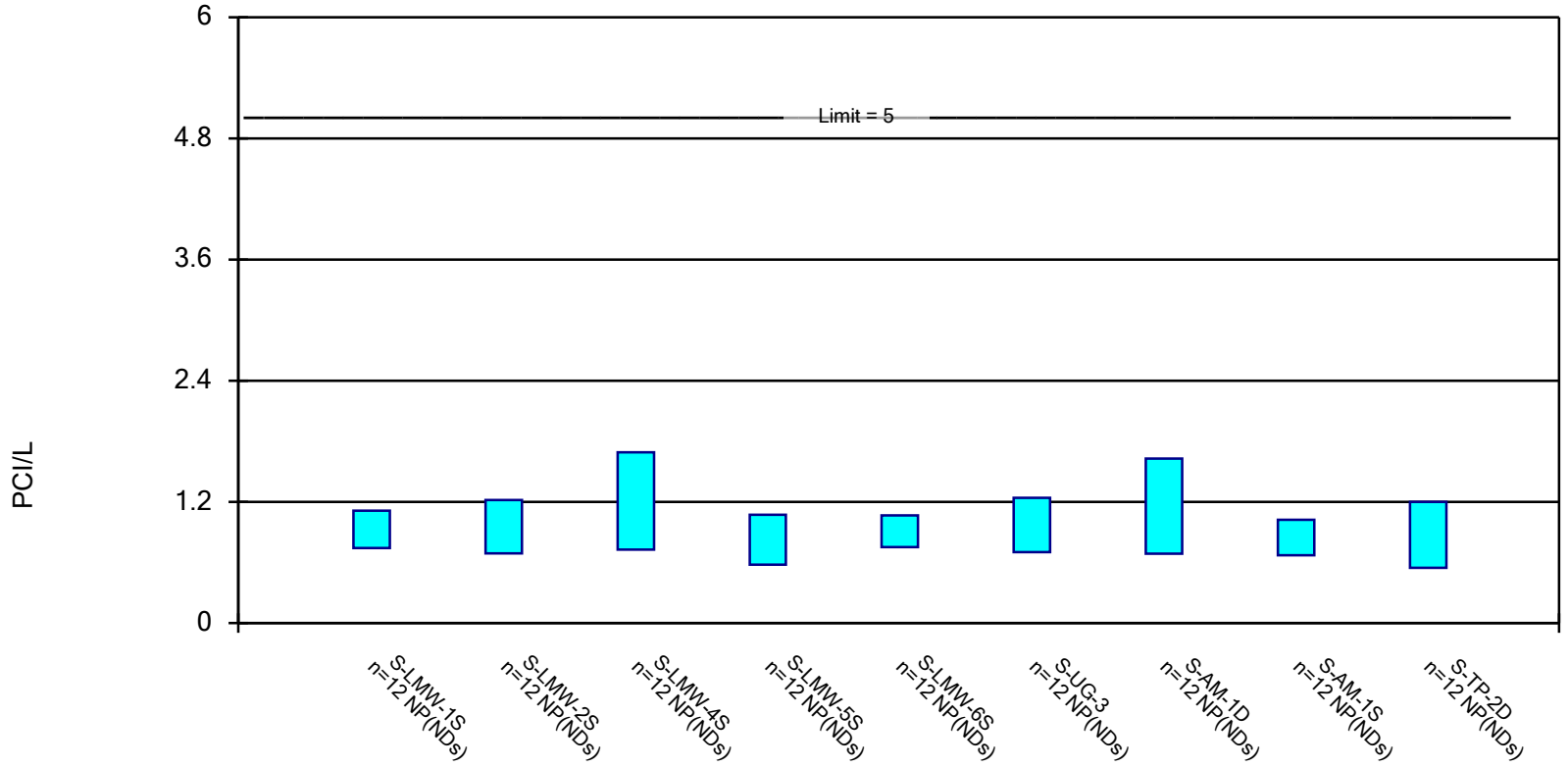
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01.



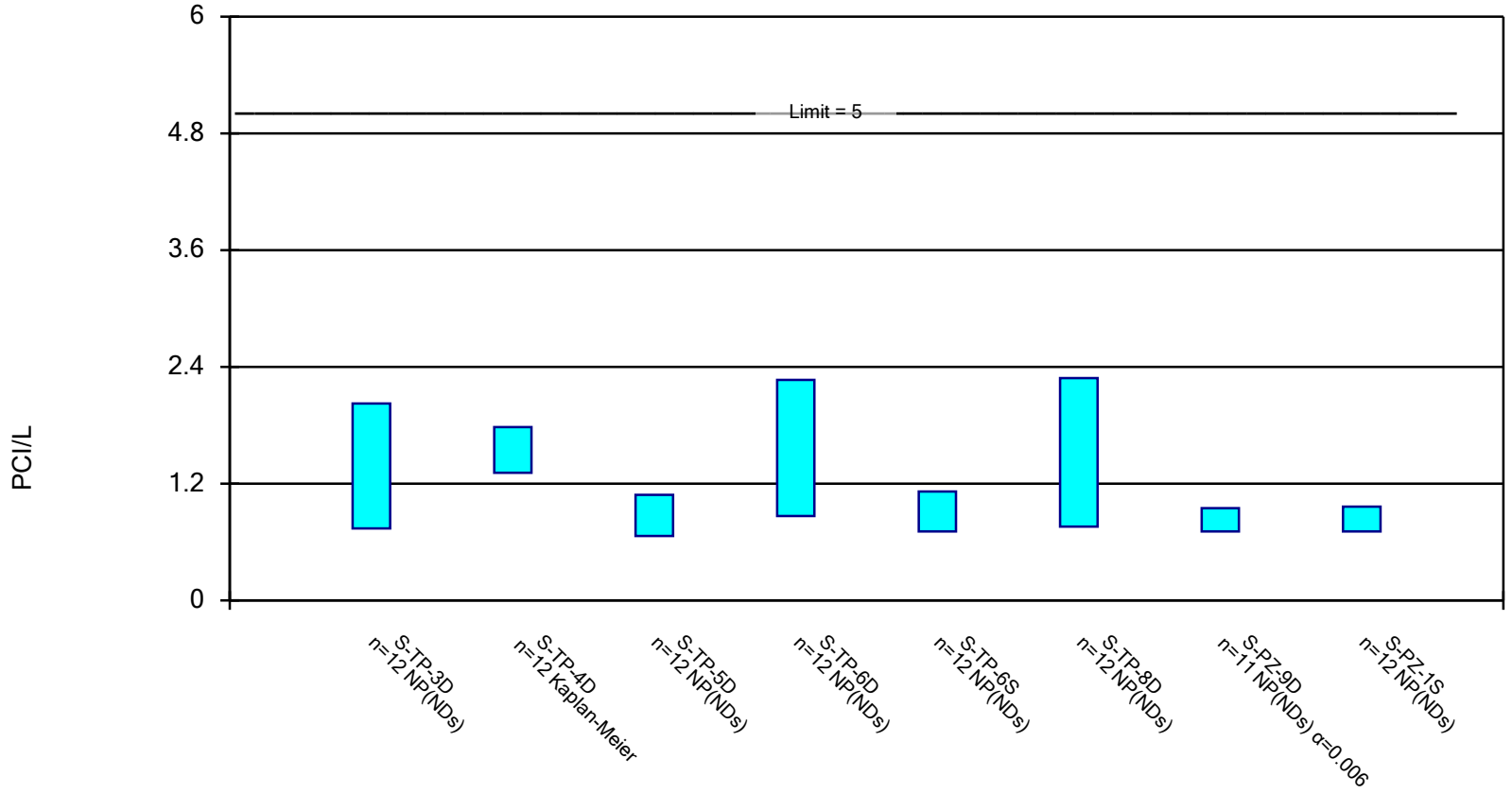
Constituent: RADIUM [226 + 228] Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



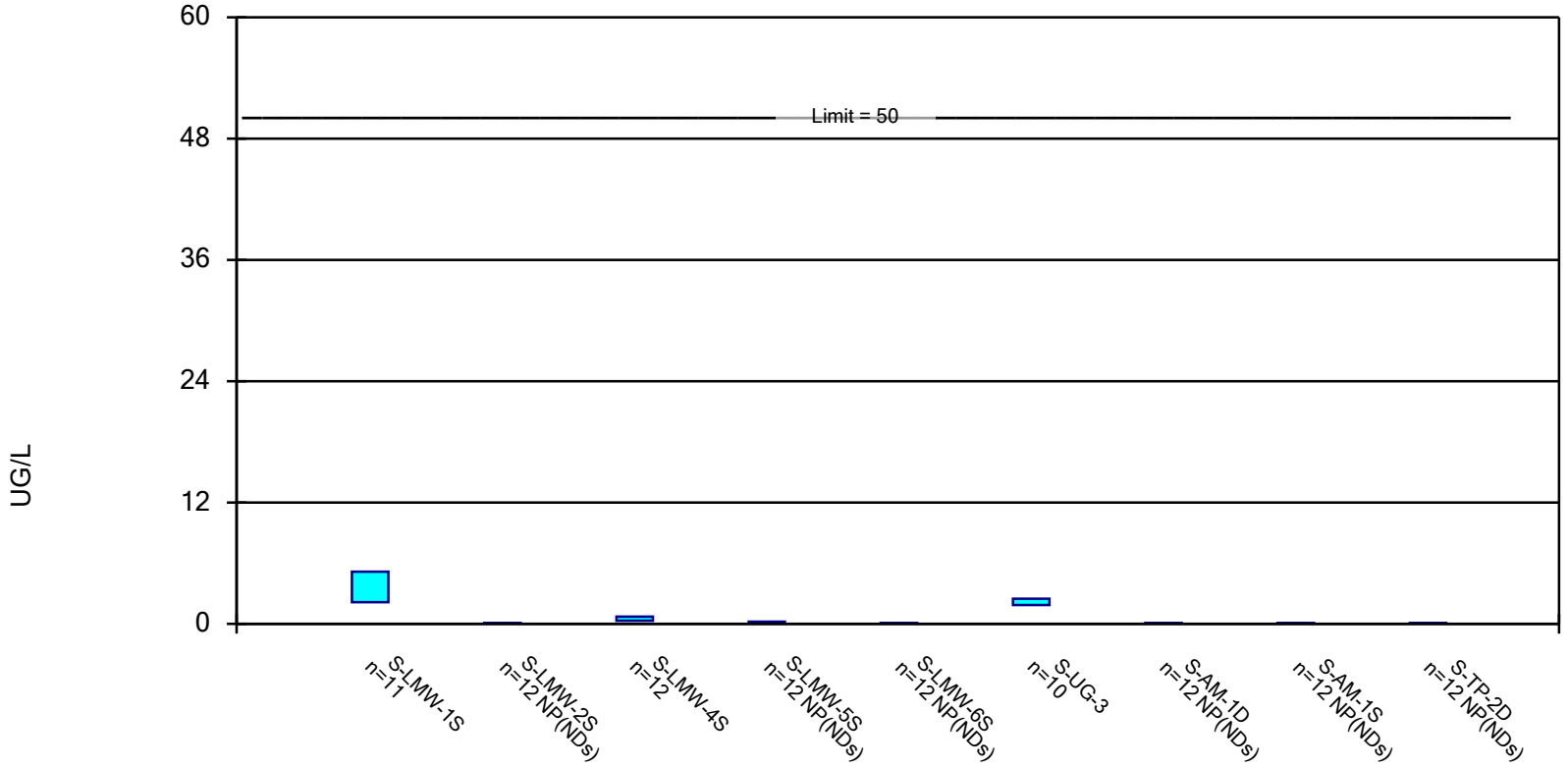
Constituent: RADIUM [226 + 228] Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



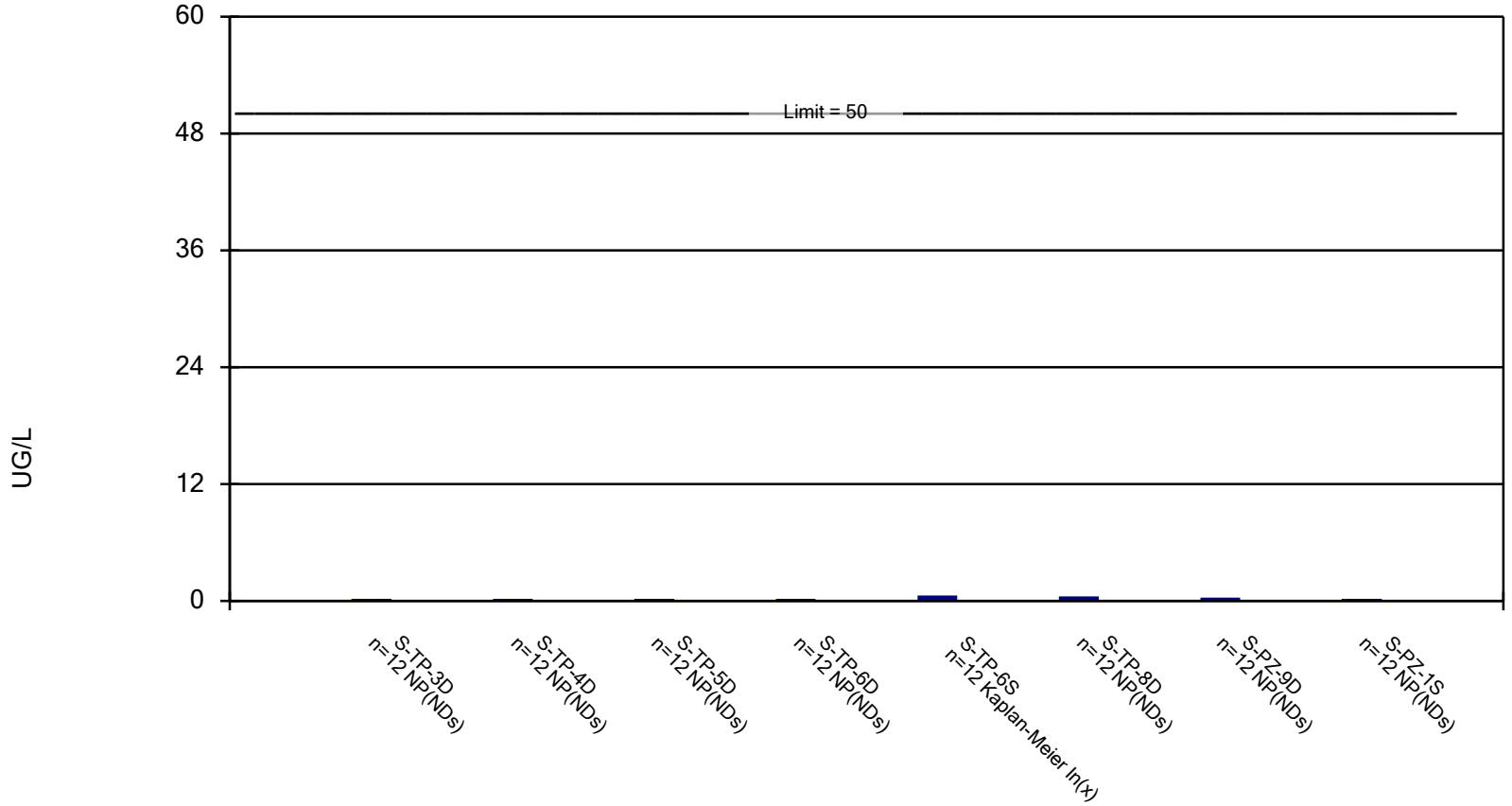
Constituent: SELENIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

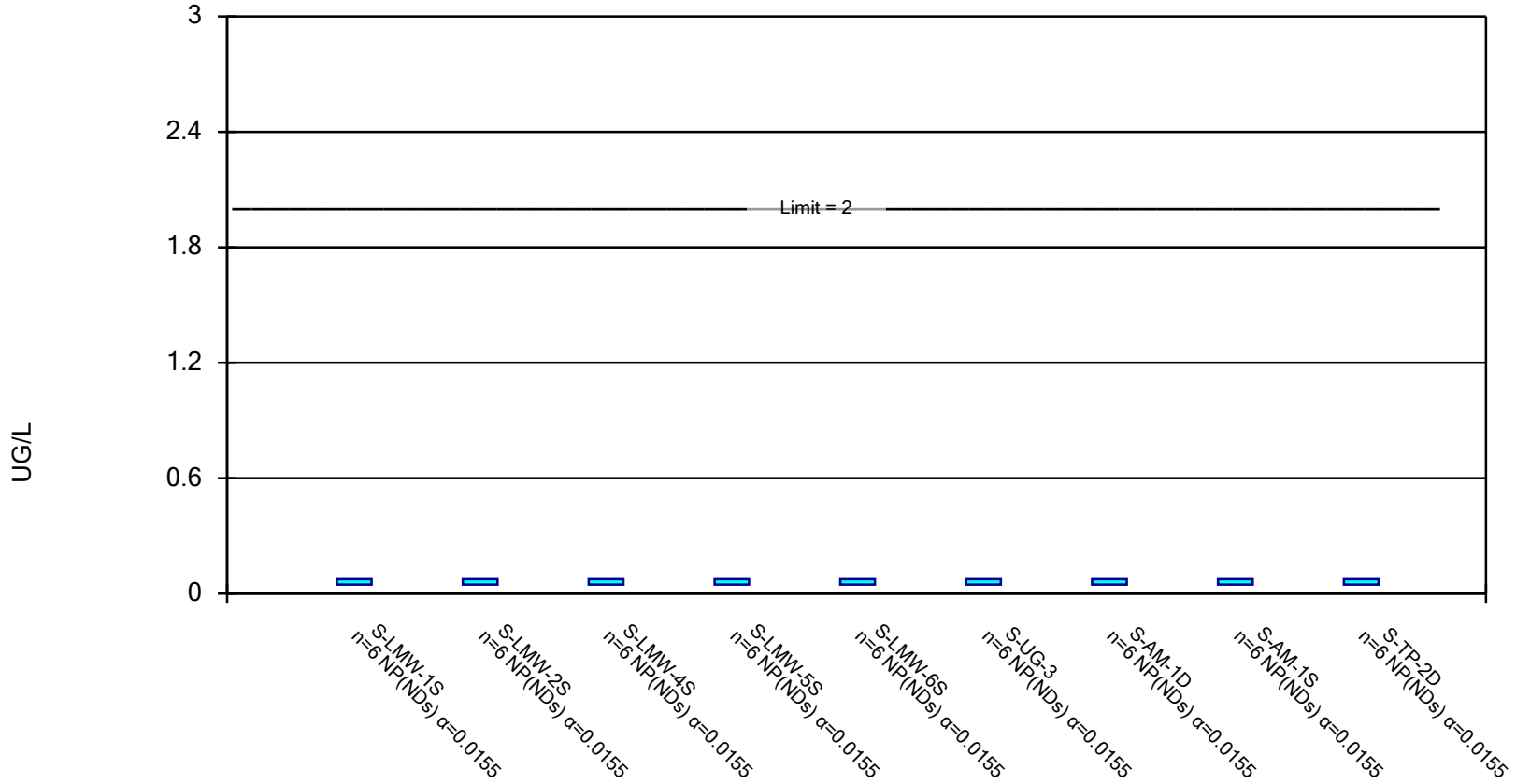


Constituent: SELENIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



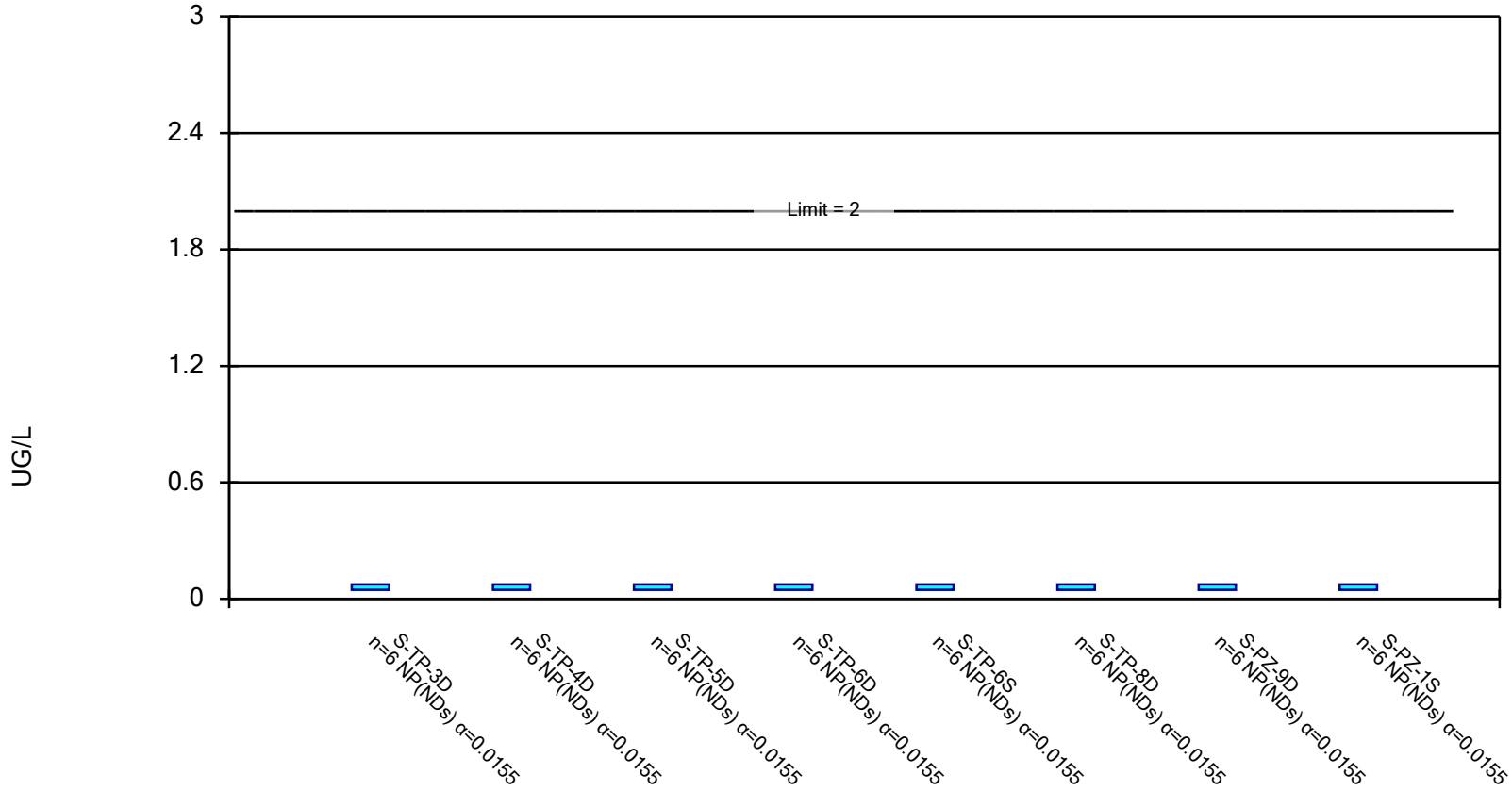
Constituent: THALLIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



Constituent: THALLIUM, TOTAL Analysis Run 8/19/2025 4:16 PM View: Corrective Action Stats

Sioux E.C. Client: Ameren Data: SEC DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 8/19/2025, 4:17 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-LMW-1S	0.43143	0.30857	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-2S	0.19735	0.15598	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-4S	0.18	0.06	6	No	6	33.333	No	0.0155	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-5S	0.15	0.11	6	No	6	0	No	0.0155	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-6S	0.23891	0.18776	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UG-3	0.21552	0.10782	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-AM-1D	0.23	0.0485	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-AM-1S	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-2D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-3D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-4D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-5D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6D	0.86	0.05	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6S	0.15	0.06	6	No	6	66.667	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-8D	0.21	0.05	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-1S	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-LMW-1S	2.2024	1.8309	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-2S	1.0253	0.84195	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.73176	0.54869	10	No	12	8.3333	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.97581	0.67585	10	No	12	8.3333	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0.88045	0.64277	10	No	12	8.3333	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UG-3	0.48678	0.37918	10	No	12	0	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-AM-1D	0.20972	0.16301	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-AM-1S	1.4812	1.1921	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-2D	0.31667	0.15055	10	No	12	0	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.21294	0.112	10	No	12	8.3333	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-4D	2.0754	1.5913	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.38	0.22	10	No	12	0	No	0.01	NP (normality)
ARSENIC, TOTAL (UG/L)	S-TP-6D	0.17948	0.11211	10	No	12	33.333	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-6S	0.60163	0.46927	10	No	11	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-8D	1.6	1.3	10	No	12	0	No	0.01	NP (normality)
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.70517	0.42983	10	No	12	8.3333	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-PZ-1S	0.47025	0.31141	10	No	12	8.3333	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-1S	213.33	138.97	2000	No	12	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-2S	129.65	105.6	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-4S	258.7	207.13	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-5S	57.3	36.1	2000	No	12	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-LMW-6S	50.154	41.779	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UG-3	228.64	210.64	2000	No	11	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-AM-1D	367	214	2000	No	12	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-AM-1S	165.05	123.54	2000	No	12	0	ln(x)	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-2D	62.566	57.867	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-3D	590.08	563.09	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-4D	559.28	488.89	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-5D	189.18	152.65	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-6D	420	395	2000	No	12	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-TP-6S	292.8	274.2	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-8D	382	332	2000	No	12	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-PZ-9D	116.61	90.194	2000	No	12	0	No	0.01	Param.

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC DATA Printed 8/19/2025, 4:17 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
BARIUM, TOTAL (UG/L)	S-PZ-1S	190	89.8	2000	No	12	0	No	0.01	NP (normality)
BERYLLIUM, TOTAL (UG/L)	S-LMW-1S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-2S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-4S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-5S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-6S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UG-3	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1S	0.5	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-2D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-3D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-4D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-8D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-9D	0.61	0.06	4	No	7	85.714	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-1S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.096363	0.063786	5	No	12	16.667	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.74187	0.49631	5	No	11	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.17186	0.074326	5	No	12	33.333	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-5S	1.0821	0.69959	5	No	12	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-6S	1.1317	0.73329	5	No	12	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UG-3	0.32575	0.19592	5	No	12	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1D	0.17537	0.065297	5	No	12	16.667	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1S	0.11299	0.054346	5	No	12	25	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-2D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-3D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-4D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.23	0.028	5	No	12	25	No	0.01	NP (normality)
CADMIUM, TOTAL (UG/L)	S-TP-6D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.066549	0.052535	5	No	12	33.333	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-8D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-9D	0.031	0.025	5	No	11	100	No	0.006	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.774	0.286	5	No	11	9.0909	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.86892	0.24886	100	No	9	11.111	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0.49431	0.20346	100	No	9	44.444	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.5	0.11	100	No	9	44.444	No	0.002	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	0.4682	0.22291	100	No	9	44.444	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	0.42308	0.25192	100	No	8	25	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UG-3	0.65	0.11	100	No	9	88.889	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-AM-1D	1.4	0.11	100	No	9	55.556	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-AM-1S	0.83	0.11	100	No	9	66.667	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-2D	0.64927	0.20036	100	No	9	44.444	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.5	0.11	100	No	9	55.556	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.43	0.11	100	No	9	55.556	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.11	100	No	9	88.889	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-6D	0.38	0.15	100	No	8	50	No	0.004	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-TP-6S	0.59	0.11	100	No	9	66.667	No	0.002	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-8D	0.42951	0.24049	100	No	8	37.5	No	0.01	Param.

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	1.2501	0.47882	100	No	9	0	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	0.5	0.11	100	No	9	66.667	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-1S	3	0.6	6	No	11	63.636	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-2S	3.3063	1.9085	6	No	11	18.182	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-LMW-4S	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-5S	1.8	0.475	6	No	11	72.727	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	**S-LMW-6S**	**9.4275**	**6.5362**	**6**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
COBALT, TOTAL (UG/L)	S-UG-3	3.9438	1.3149	6	No	11	18.182	ln(x)	0.01	Param.
COBALT, TOTAL (UG/L)	S-AM-1D	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-AM-1S	4.2988	1.5375	6	No	11	18.182	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-TP-2D	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-3D	0.75	0.475	6	No	10	90	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-4D	0.75	0.41	6	No	9	100	No	0.002	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-5D	0.75	0.475	6	No	10	90	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6D	2.4	0.475	6	No	11	90.909	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6S	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-8D	1.9	0.475	6	No	11	81.818	No	0.006	NP (NDs)
COBALT, TOTAL (units)	S-PZ-9D	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-PZ-1S	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-1S	0.47	0.06	4	No	13	38.462	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	0.44	0.043	4	No	13	61.538	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-4S	0.24	0.06	4	No	12	58.333	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	0.441	0.17521	4	No	16	31.25	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	0.38	0.043	4	No	13	53.846	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-UG-3	0.39	0.06	4	No	14	35.714	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-AM-1D	0.6	0.19	4	No	12	8.3333	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-AM-1S	0.56	0.06	4	No	12	16.667	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-2D	0.23	0.043	4	No	12	66.667	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-TP-3D	0.3	0.06	4	No	12	41.667	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-4D	0.31	0.06	4	No	12	41.667	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-5D	0.42	0.06	4	No	12	25	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-6D	0.34	0.06	4	No	12	41.667	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-6S	0.44	0.06	4	No	12	41.667	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-8D	0.36	0.06	4	No	12	50	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	0.35	0.043	4	No	12	66.667	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-PZ-1S	0.77998	0.21002	4	No	12	33.333	No	0.01	Param.
LEAD, TOTAL (UG/L)	S-LMW-1S	4	1.9	15	No	8	87.5	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-2S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-4S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-5S	3.9	1.9	15	No	8	87.5	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-6S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-UG-3	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-2D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-3D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-4D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-5D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
LEAD, TOTAL (UG/L)	S-TP-8D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-9D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-1S	13.4	1.9	15	No	8	62.5	No	0.004	NP (NDs)
LITHIUM, TOTAL (UG/L)	S-LMW-1S	23.218	15.699	40	No	12	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-2S	35.895	31.463	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-4S	35.241	26.5	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-LMW-5S**	**48.29**	**40.07**	**40**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-LMW-6S	22.534	18.666	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UG-3	32.946	25.379	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-AM-1D	35.071	31.513	40	No	12	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-AM-1S	31.564	23.552	40	No	12	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-TP-2D**	**51.657**	**43.584**	**40**	**Yes**	**12**	**8.3333**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-TP-3D	36.311	32.414	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-4D	35.519	31.323	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-5D	38.039	30.903	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6D	31.544	24.981	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6S	39.048	34.543	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-8D	33.478	30.722	40	No	11	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-9D	36.54	26.018	40	No	12	8.3333	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-1S	19.305	14.881	40	No	11	0	ln(x)	0.01	Param.
MERCURY, TOTAL (UG/L)	S-LMW-1S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-2S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-4S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-5S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-6S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UG-3	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-2D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-3D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-4D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-5D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-8D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-1S	0.095	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-LMW-1S	99.812	63.088	100	No	12	0	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-2S**	**1049.8**	**742.19**	**100**	**Yes**	**12**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	2.2029	0.94631	100	No	9	44.444	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-5S**	**2343.4**	**1417.1**	**100**	**Yes**	**12**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-6S	10.6	0.85	100	No	12	41.667	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	10	2.5	100	No	12	25	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**575**	**178**	**100**	**Yes**	**12**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**289**	**37**	**100**	**Yes**	**12**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	2.5	0.5	100	No	13	76.923	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	3.3	0.5	100	No	13	61.538	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-TP-4D	2.8	0.85	100	No	13	61.538	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	**S-TP-5D**	**622**	**171**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	1.4	0.5	100	No	12	83.333	No	0.01	NP (NDs)

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	8	2.5	100	No	13	15.385	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	10	0.85	100	No	13	46.154	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-PZ-9D	15.131	6.6693	100	No	14	7.1429	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-1S**	**4402.7**	**1132.3**	**100**	**Yes**	**14**	**0**	**ln(x)**	**0.01**	**Param.**
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	1.1115	0.742	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	1.218	0.689	5	No	12	83.333	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	1.69	0.7285	5	No	12	75	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	1.0725	0.578	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	1.065	0.7535	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UG-3	1.2405	0.7035	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1D	1.63	0.6875	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1S	1.0225	0.6705	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-2D	1.2	0.5485	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-3D	2.025	0.74	5	No	12	66.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-4D	1.7828	1.3106	5	No	12	41.667	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-TP-5D	1.0845	0.6615	5	No	12	91.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-6D	2.266	0.8685	5	No	12	58.333	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-6S	1.118	0.7105	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-8D	2.285	0.759	5	No	12	66.667	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	0.949	0.709	5	No	11	100	No	0.006	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	0.9645	0.7075	5	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-1S	5.1579	2.1367	50	No	11	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-4S	0.70621	0.31879	50	No	12	8.3333	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0.22	0.09	50	No	12	83.333	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UG-3	2.5052	1.8548	50	No	10	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-AM-1D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-AM-1S	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-2D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-3D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-4D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-5D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6D	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6S	0.44383	0.19255	50	No	12	16.667	ln(x)	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-TP-8D	0.33	0.09	50	No	12	91.667	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0.21	0.09	50	No	12	91.667	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0.09	0.09	50	No	12	100	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-2S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-4S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-5S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-6S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UG-3	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-2D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-3D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-4D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-5D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)

Confidence Interval

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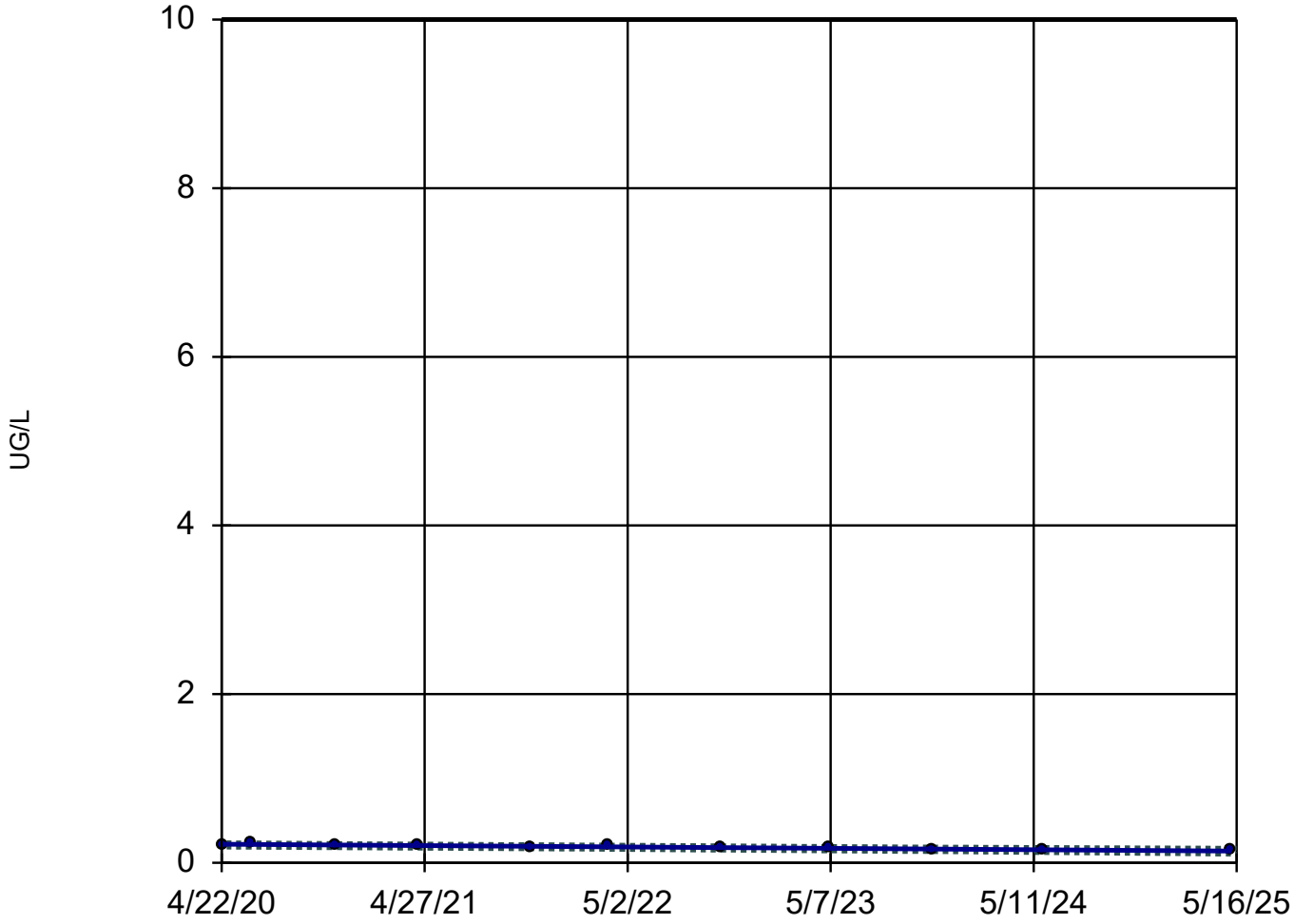
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
THALLIUM, TOTAL (UG/L)	S-TP-6D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-6S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-8D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-9D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1D



n = 11

Slope = -0.016079 units per year.

Mann-Kendall statistic = -44
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

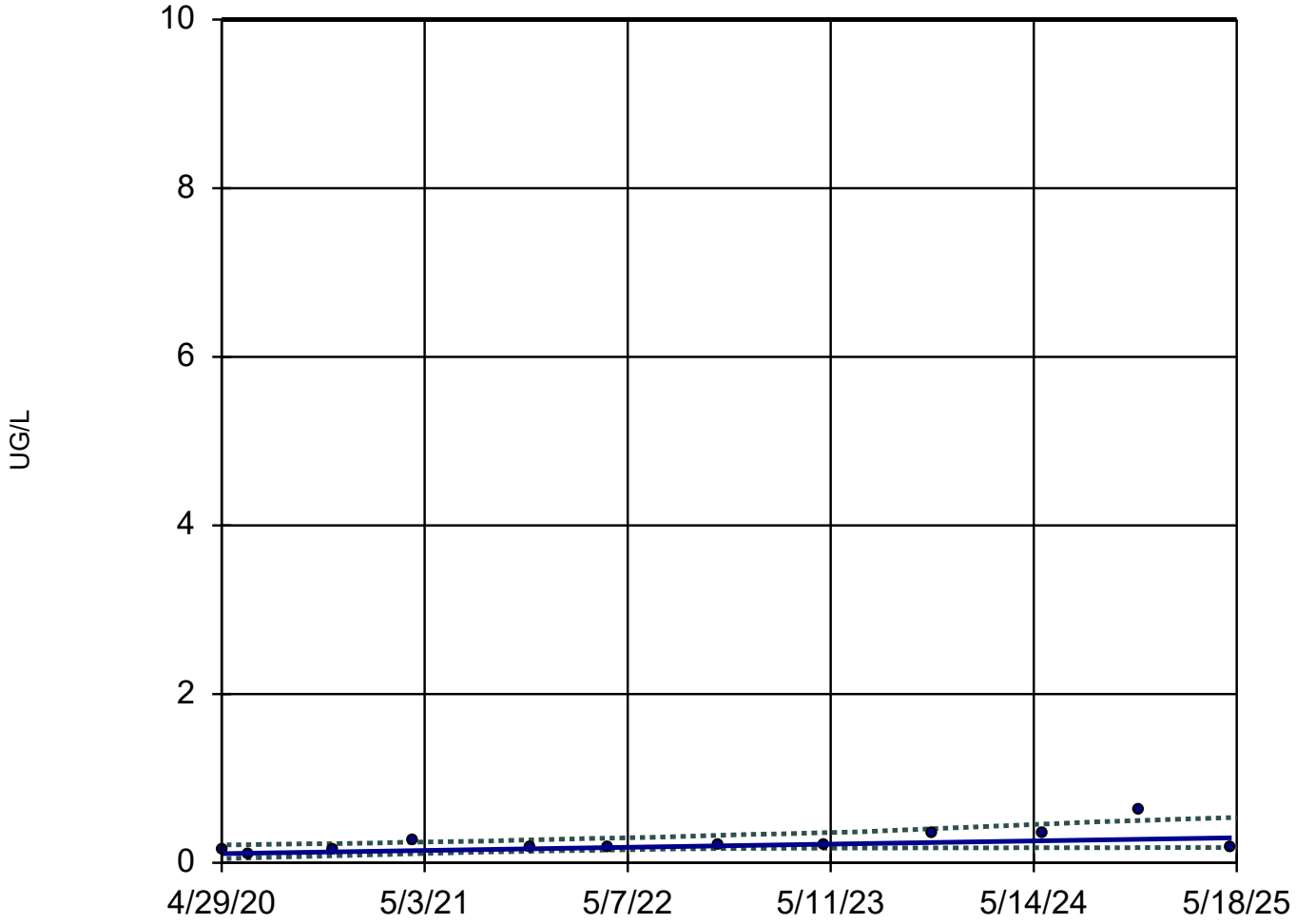
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-2D



n = 12

Slope = 0.037393 units per year.

Mann-Kendall statistic = 38
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

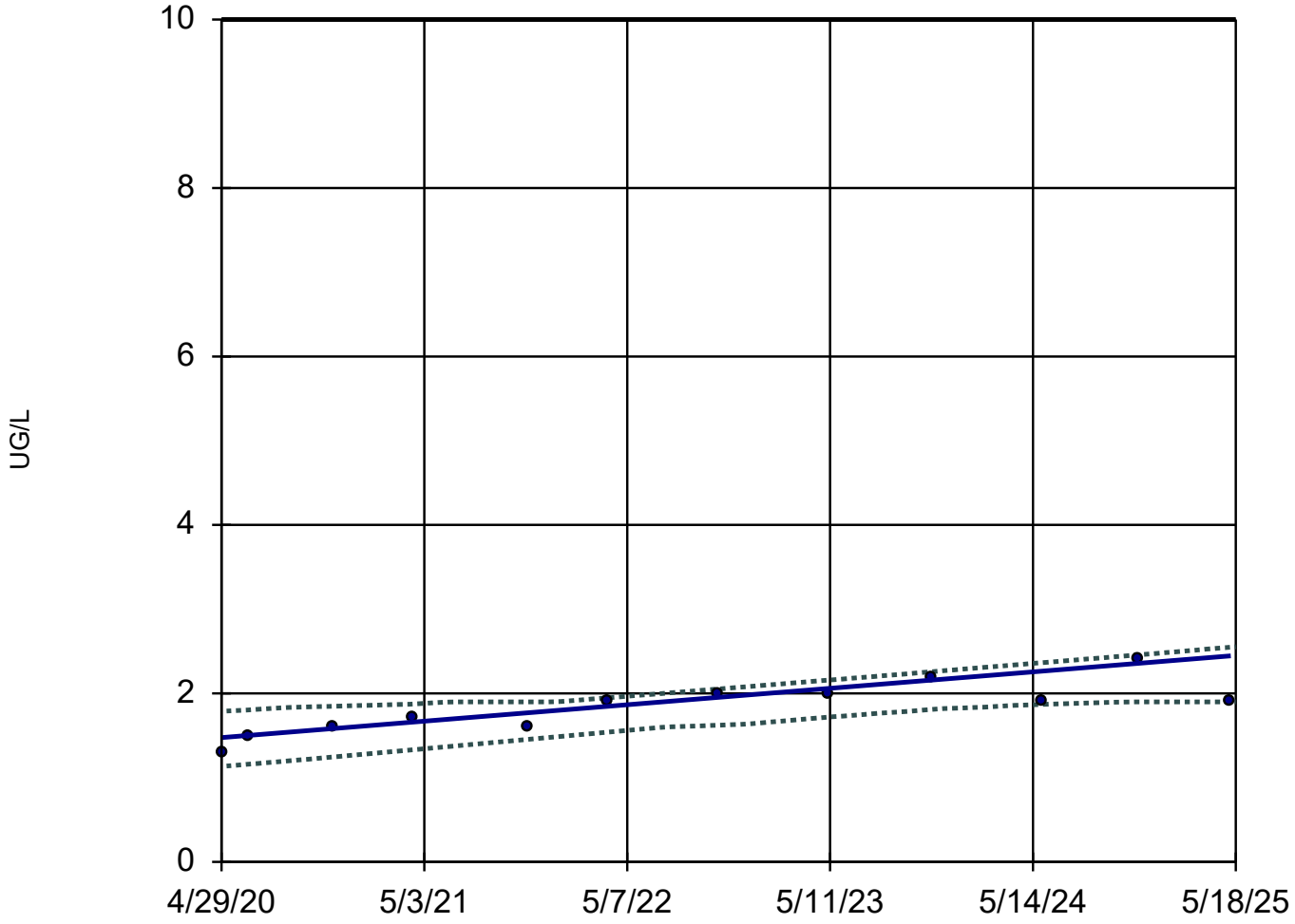
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 12

Slope = 0.19269 units per year.

Mann-Kendall statistic = 45
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

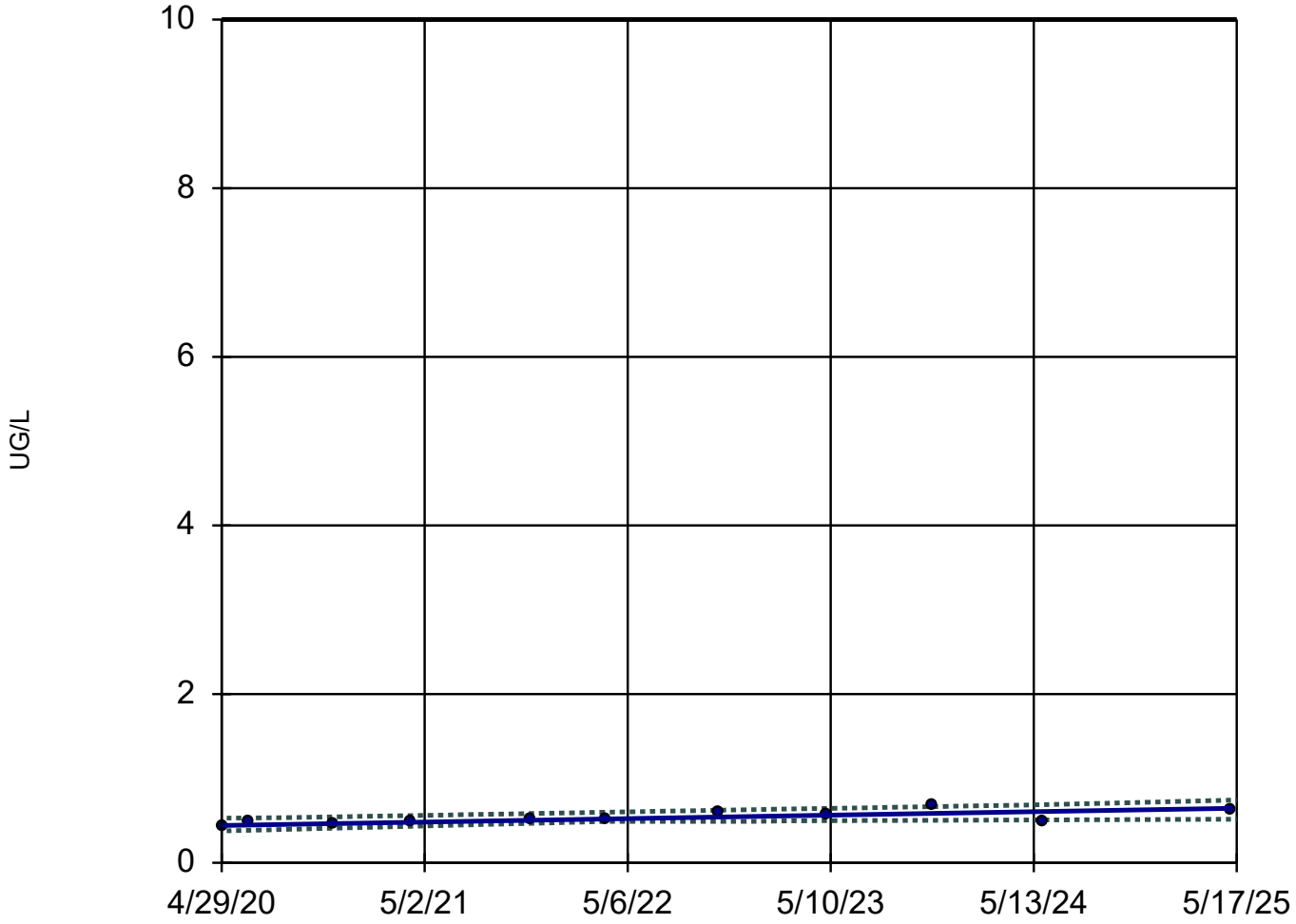
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-6S



n = 11

Slope = 0.040208 units per year.

Mann-Kendall statistic = 35
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

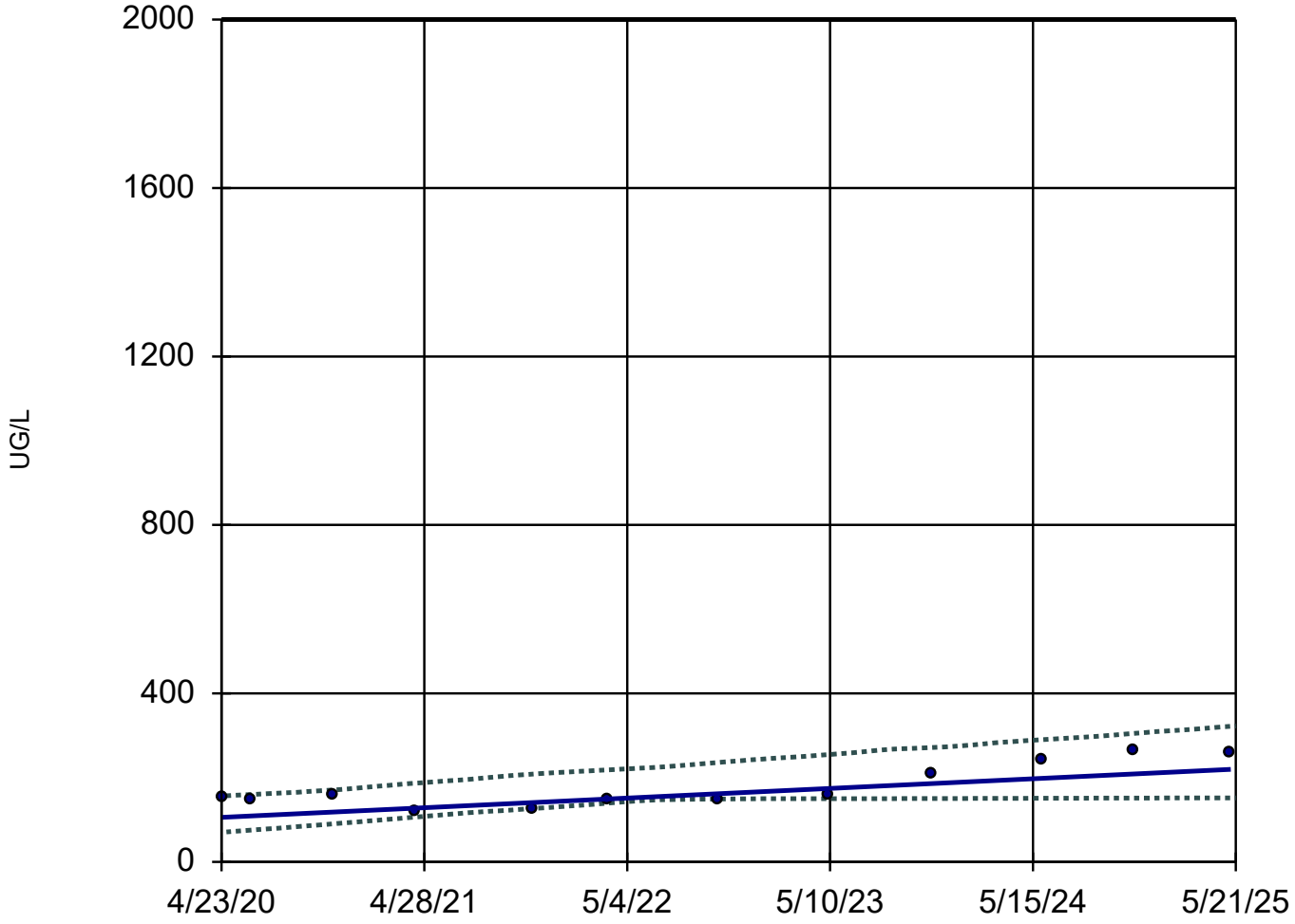
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-LMW-1S



n = 12

Slope = 22.554 units per year.

Mann-Kendall statistic = 39
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

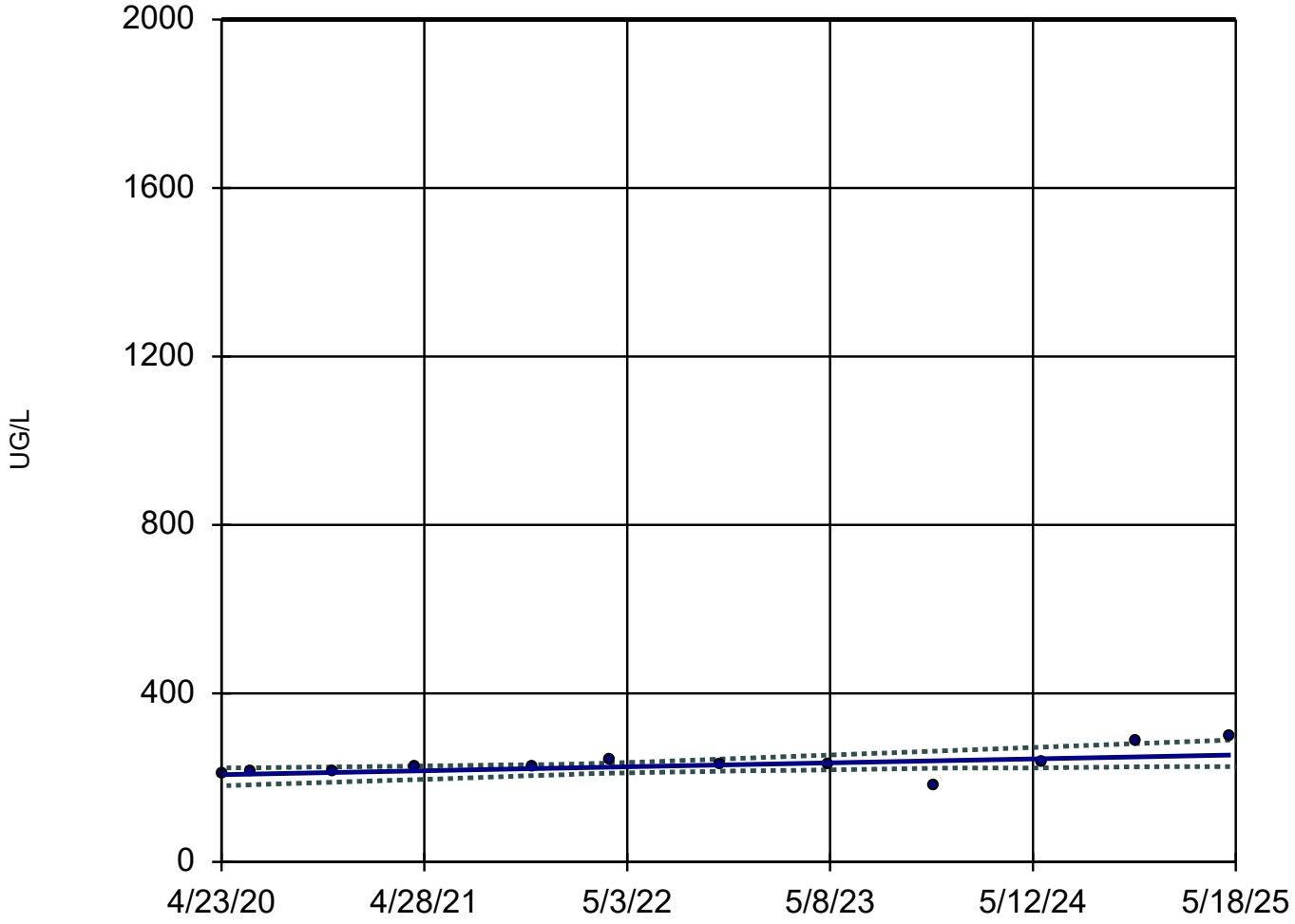
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-LMW-4S



n = 12

Slope = 9.1868 units per year.

Mann-Kendall statistic = 40
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

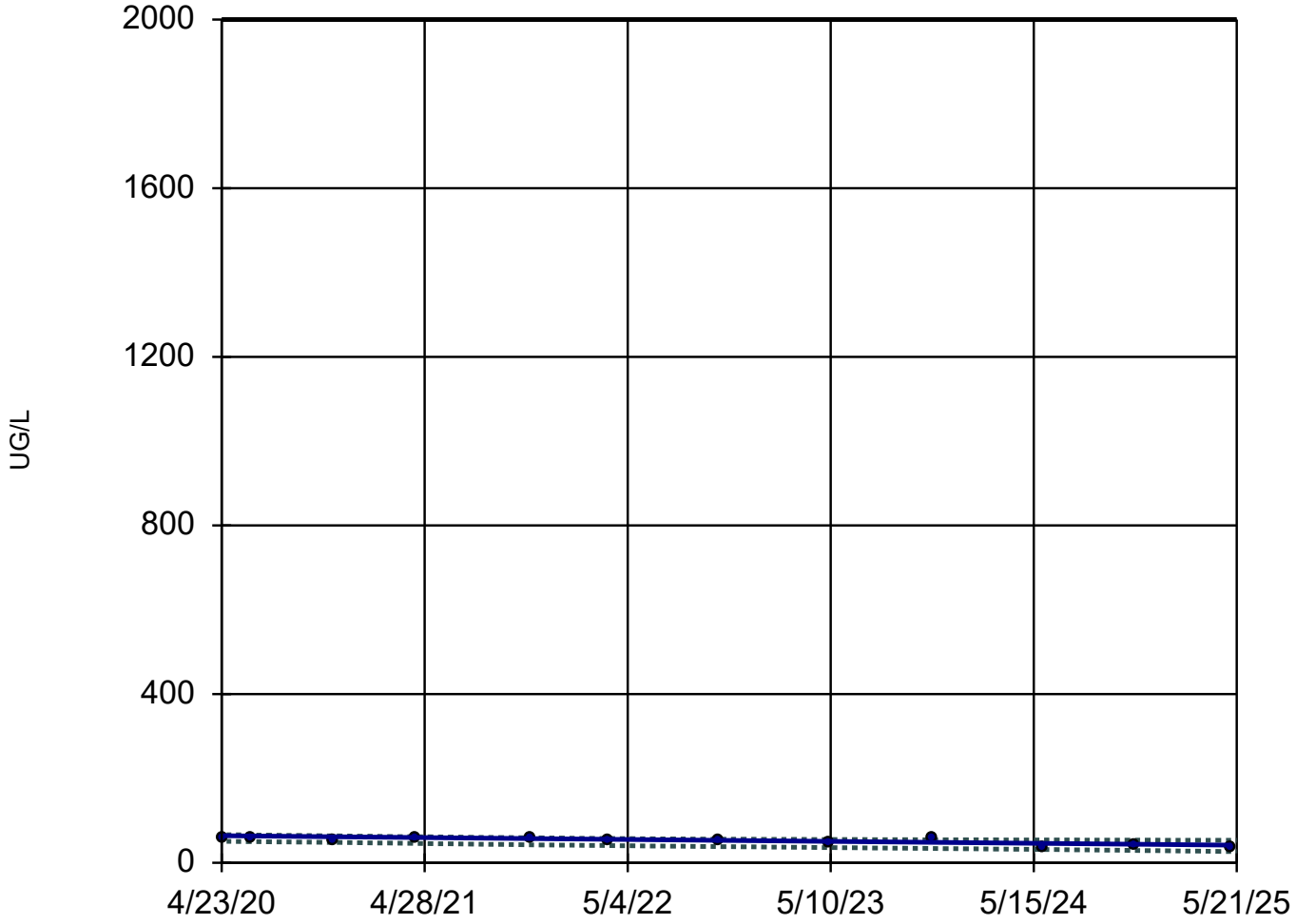
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Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-LMW-5S



n = 12

Slope = -4.3999 units per year.

Mann-Kendall statistic = -48
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

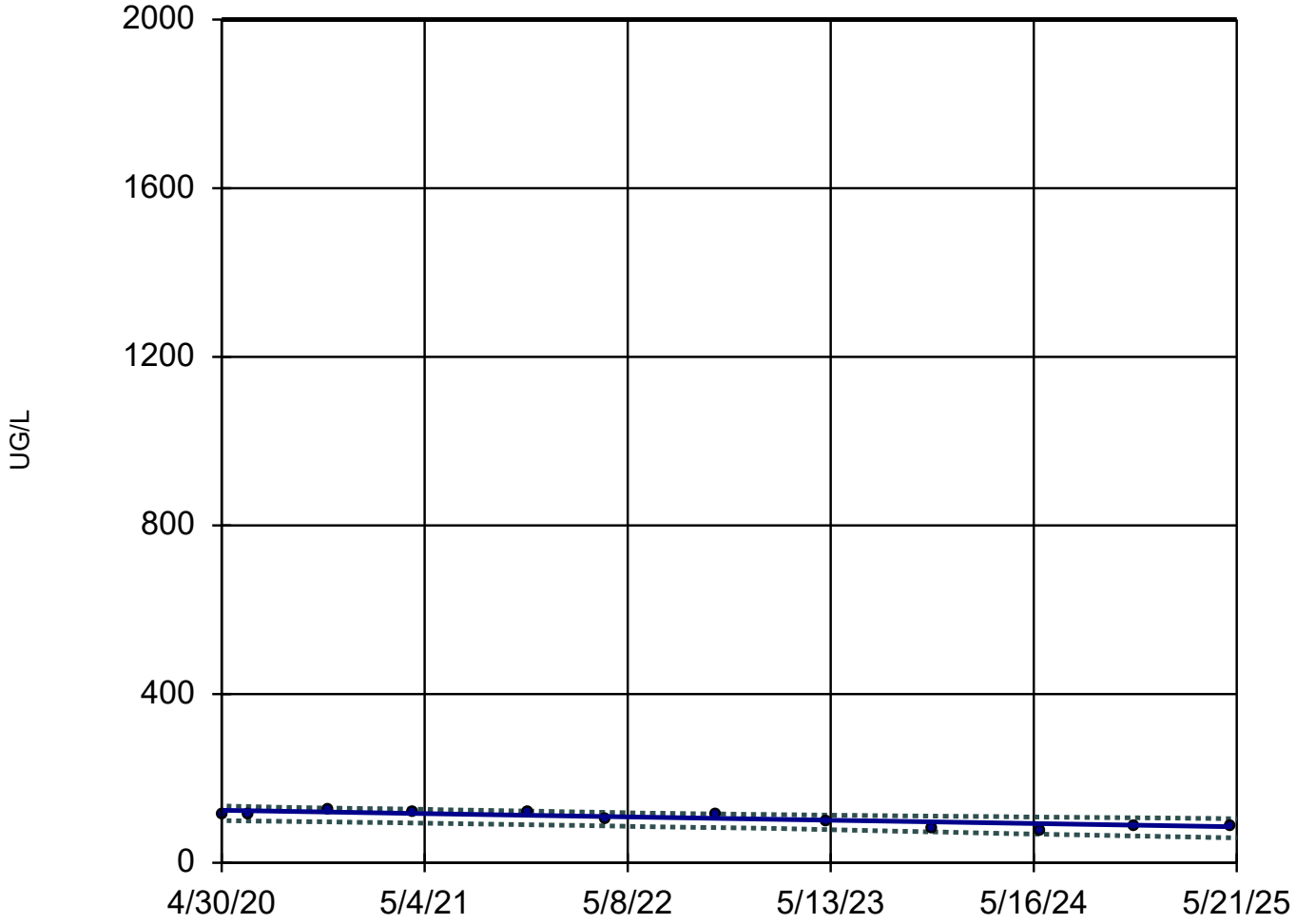
Constituent: BARIUM, TOTAL Analysis Run 9/4/2025 11:50 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 12

Slope = -7.7244 units per year.

Mann-Kendall statistic = -40
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

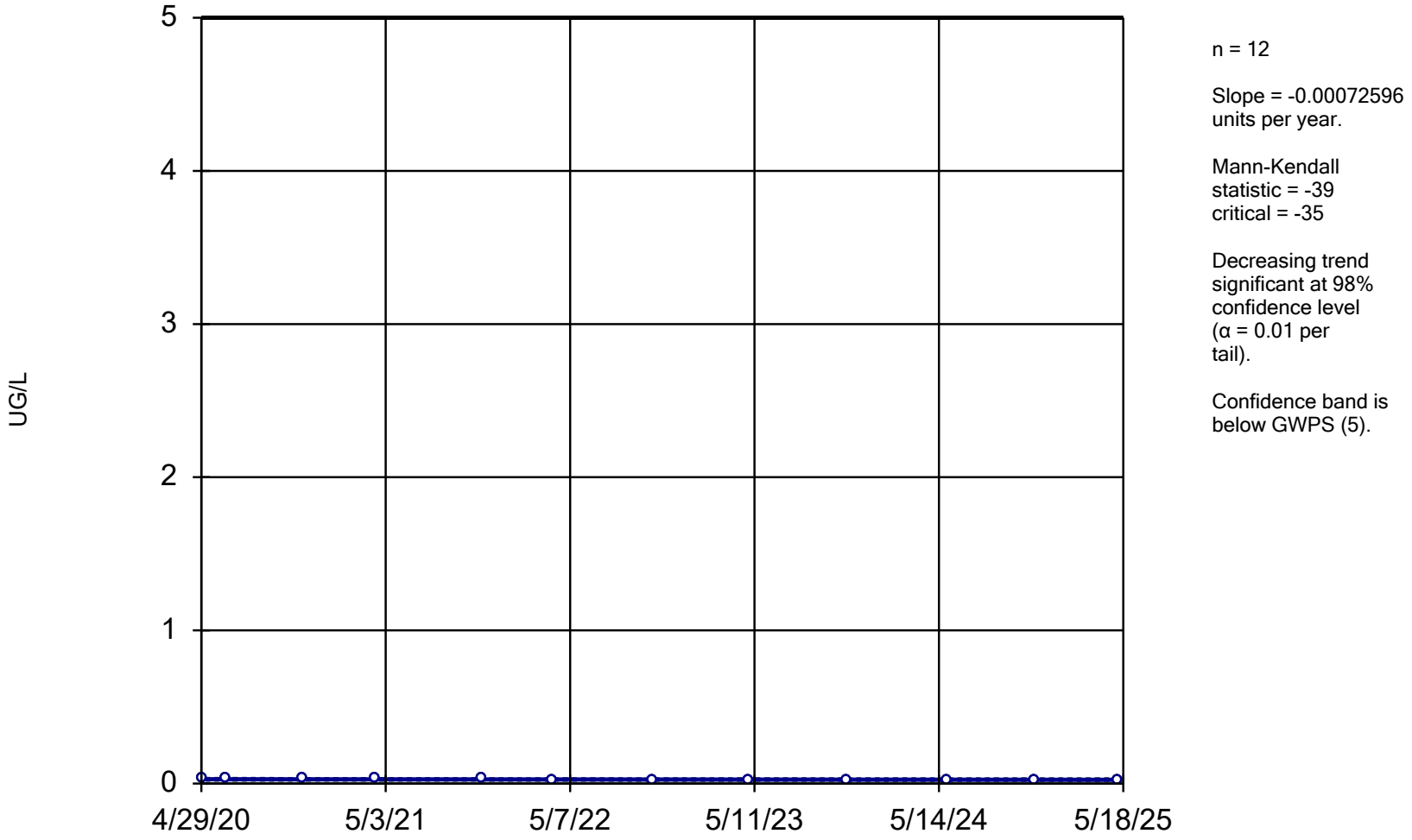
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-2D



n = 12

Slope = -0.00072596 units per year.

Mann-Kendall statistic = -39
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

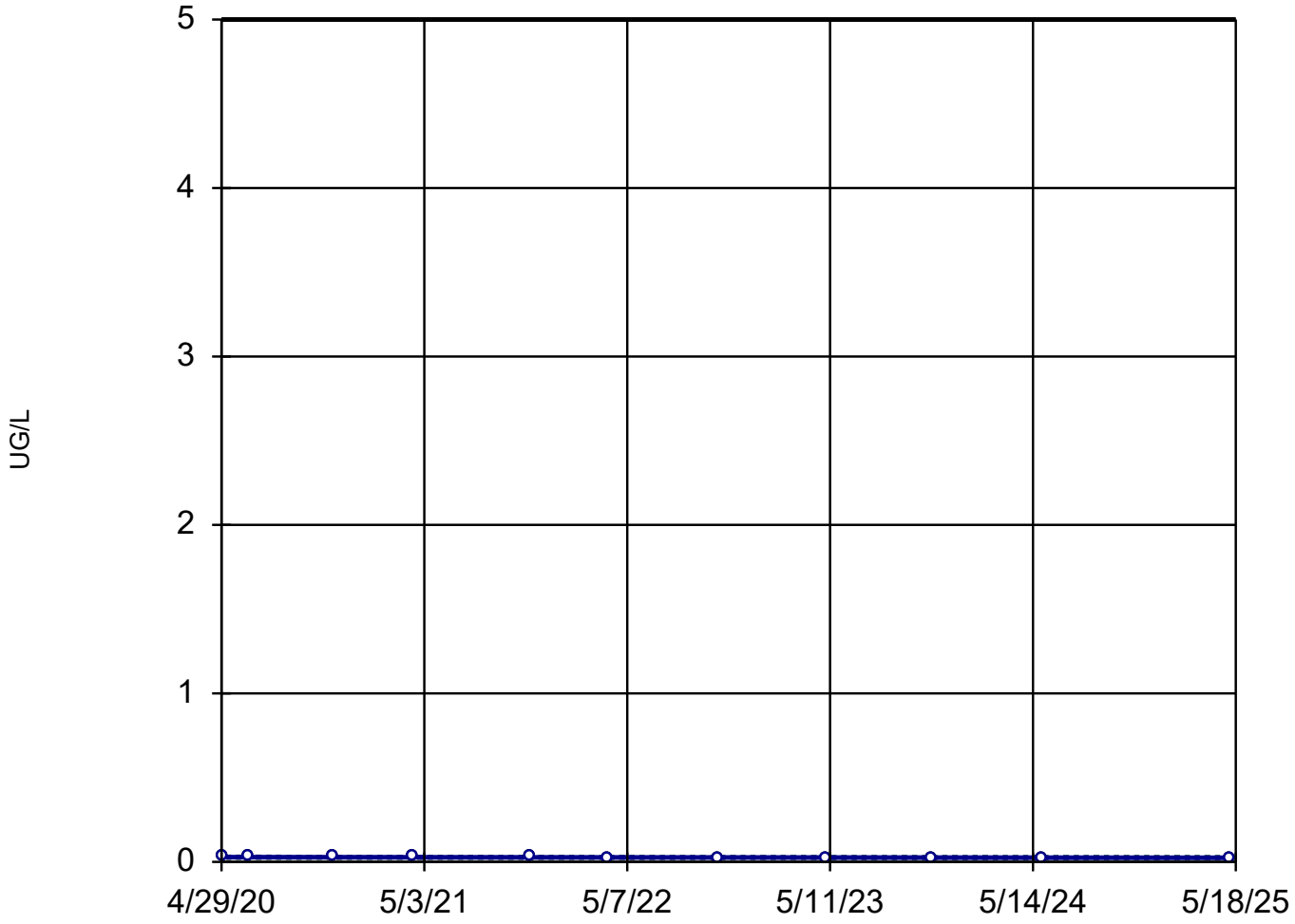
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-3D



n = 11

Slope = -0.00077881 units per year.

Mann-Kendall statistic = -32
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

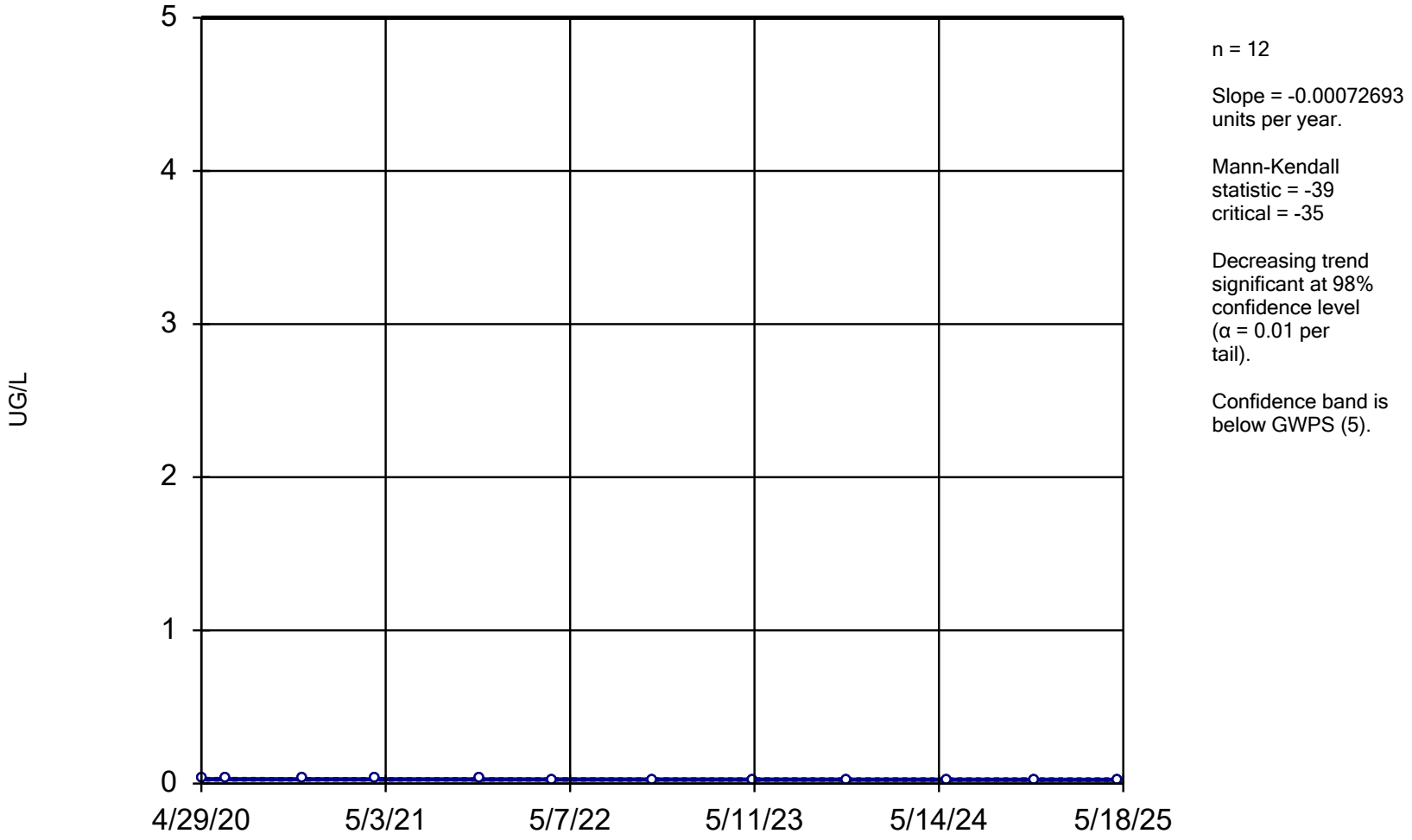
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 12

Slope = -0.00072693 units per year.

Mann-Kendall statistic = -39
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

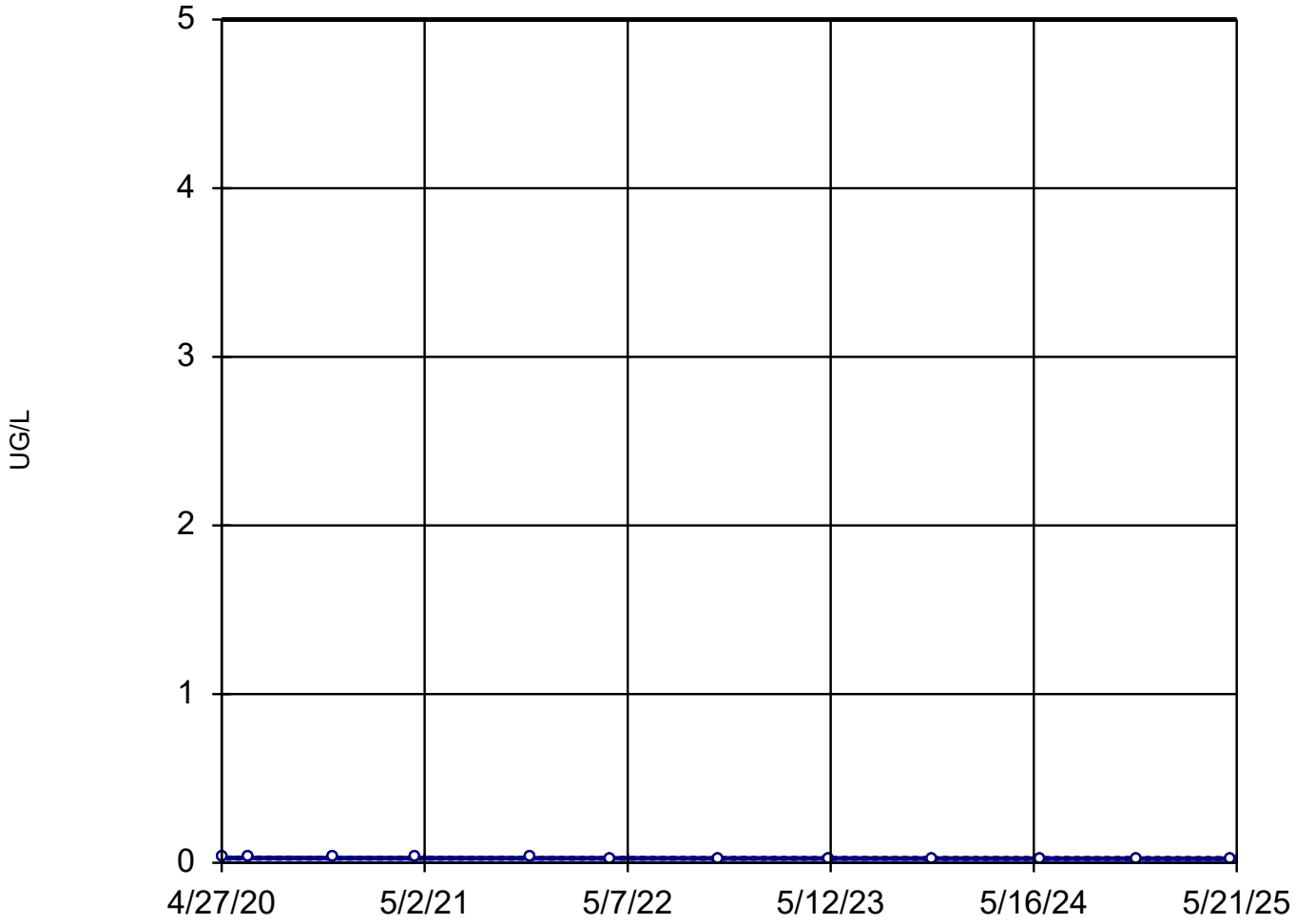
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-8D



n = 12

Slope = -0.00072738 units per year.

Mann-Kendall statistic = -39
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

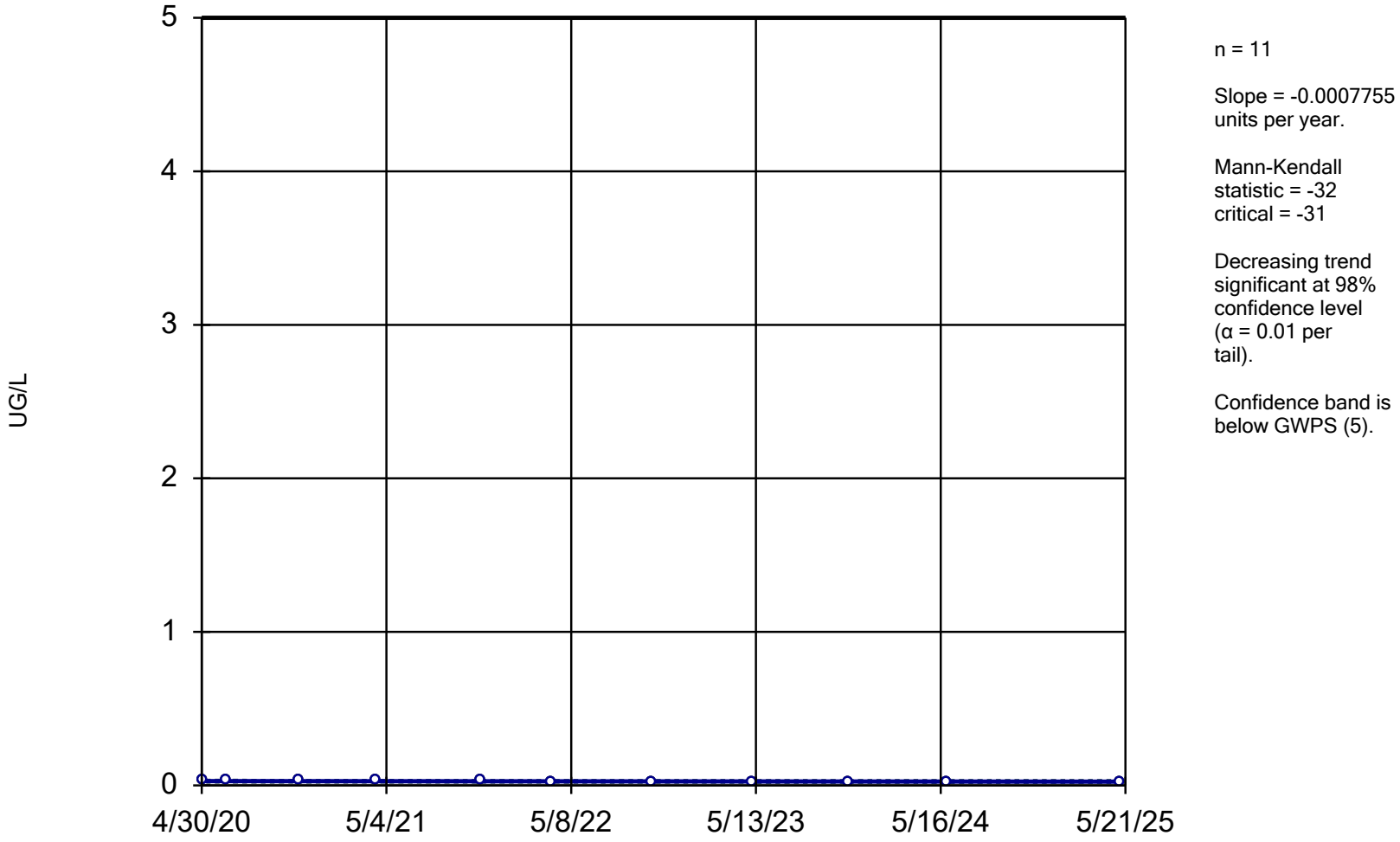
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 11

Slope = -0.0007755 units per year.

Mann-Kendall statistic = -32
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (5).

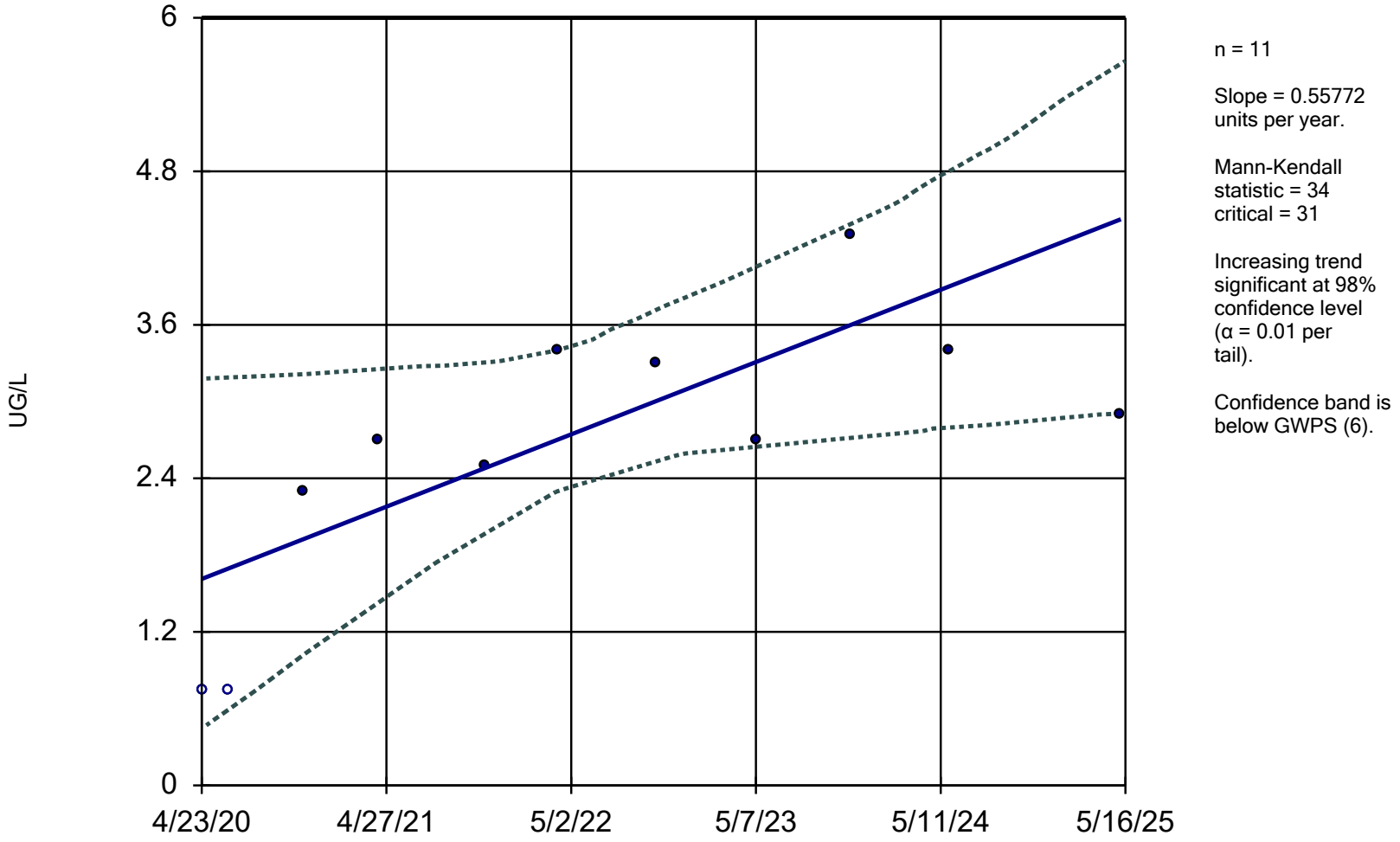
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-2S



n = 11

Slope = 0.55772 units per year.

Mann-Kendall statistic = 34
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (6).

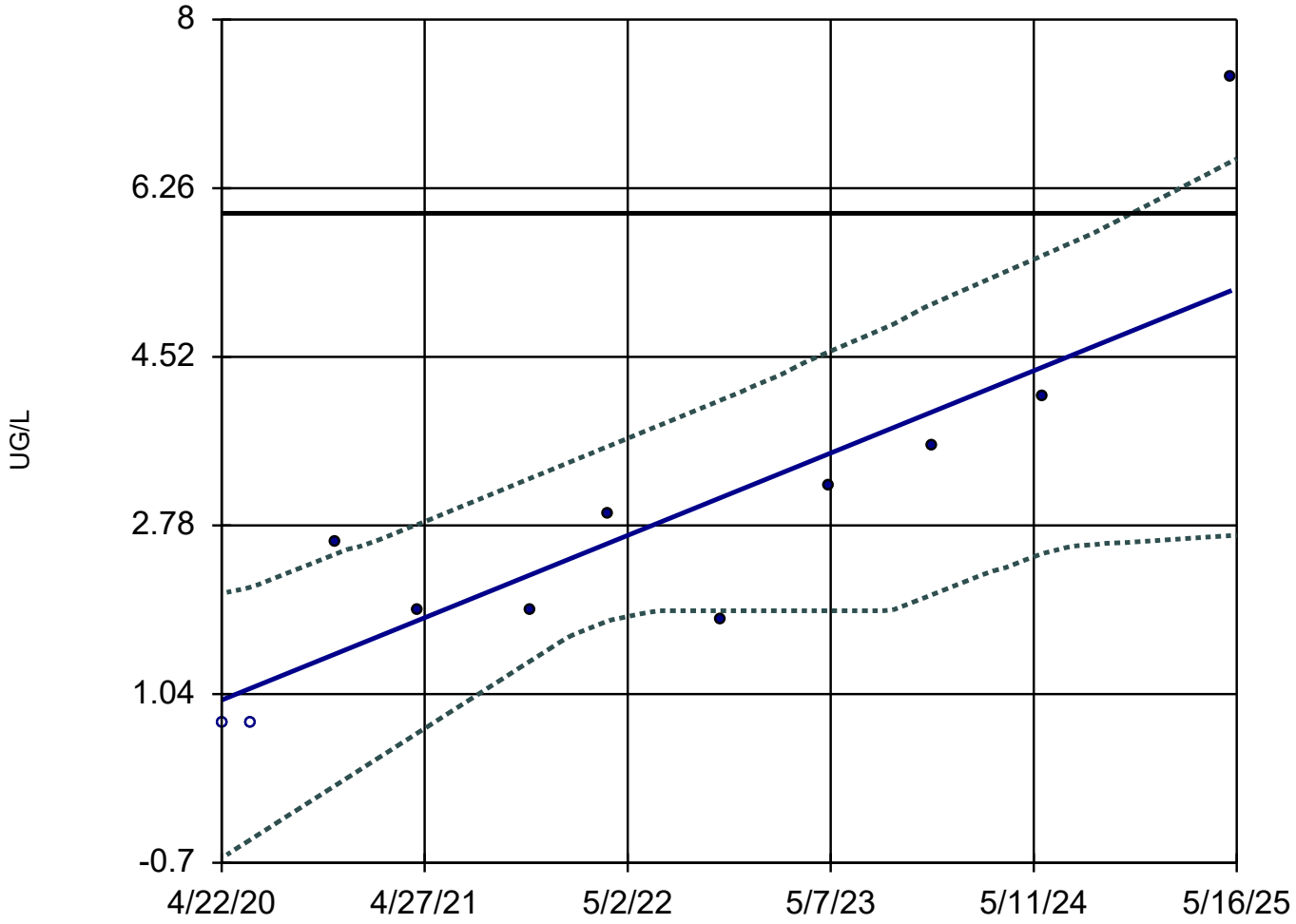
Constituent: COBALT, TOTAL Analysis Run 9/4/2025 11:50 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-AM-1S



n = 11

Slope = 0.83756 units per year.

Mann-Kendall statistic = 41
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (6) on 11/13/24.

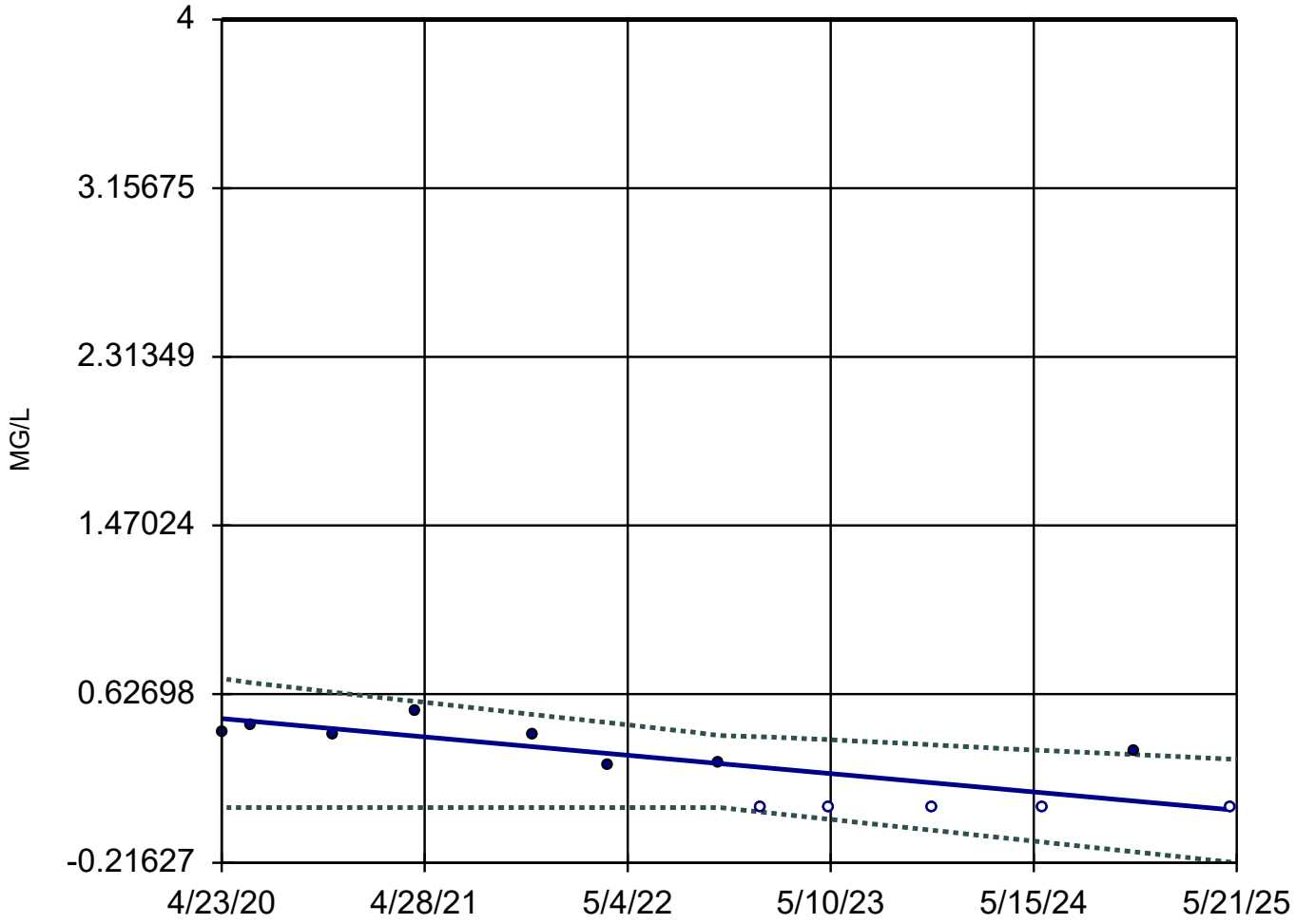
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-1S



n = 13

Slope = -0.090147 units per year.

Mann-Kendall statistic = -45
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

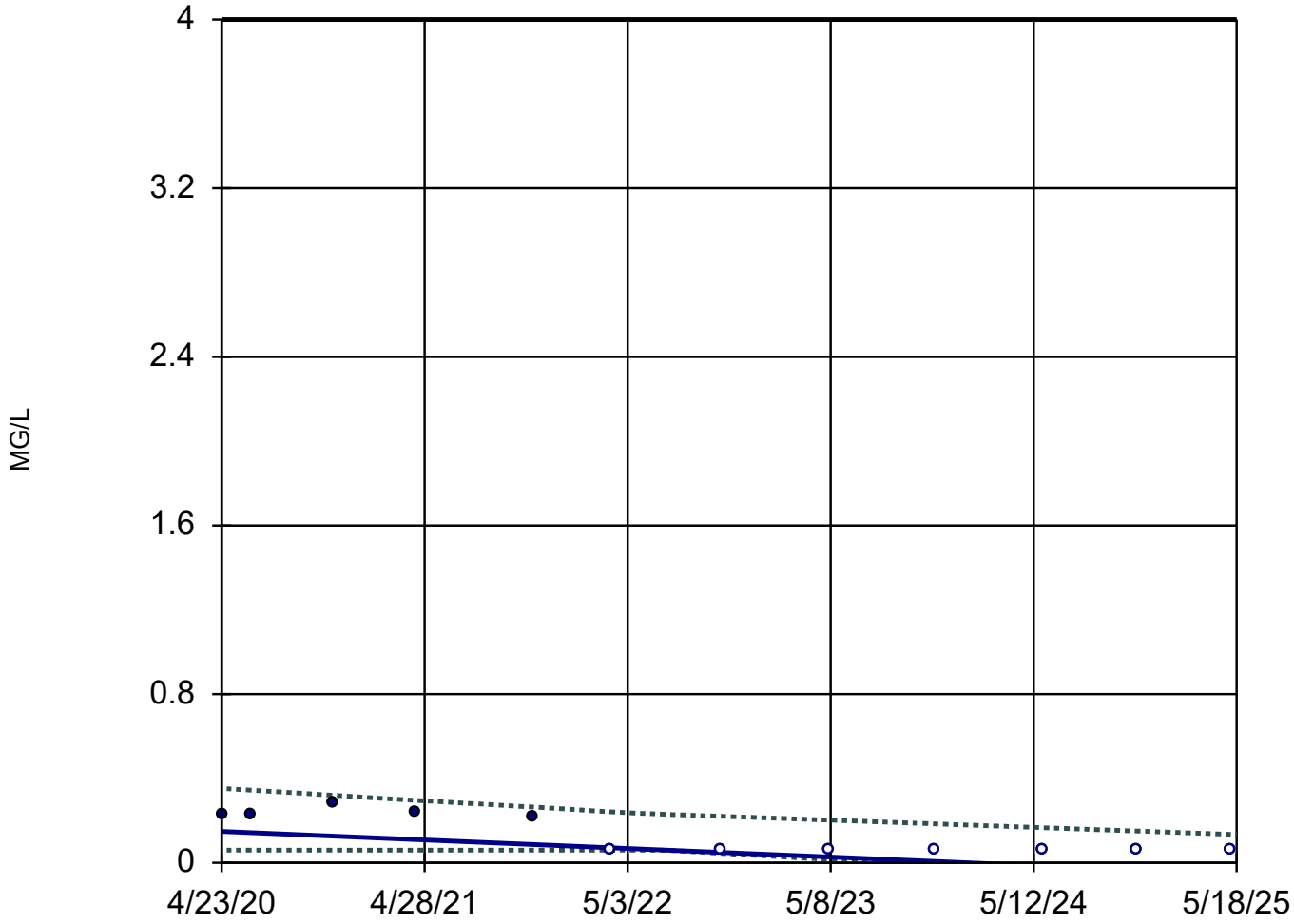
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-4S



n = 12

Slope = -0.039912 units per year.

Mann-Kendall statistic = -36
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

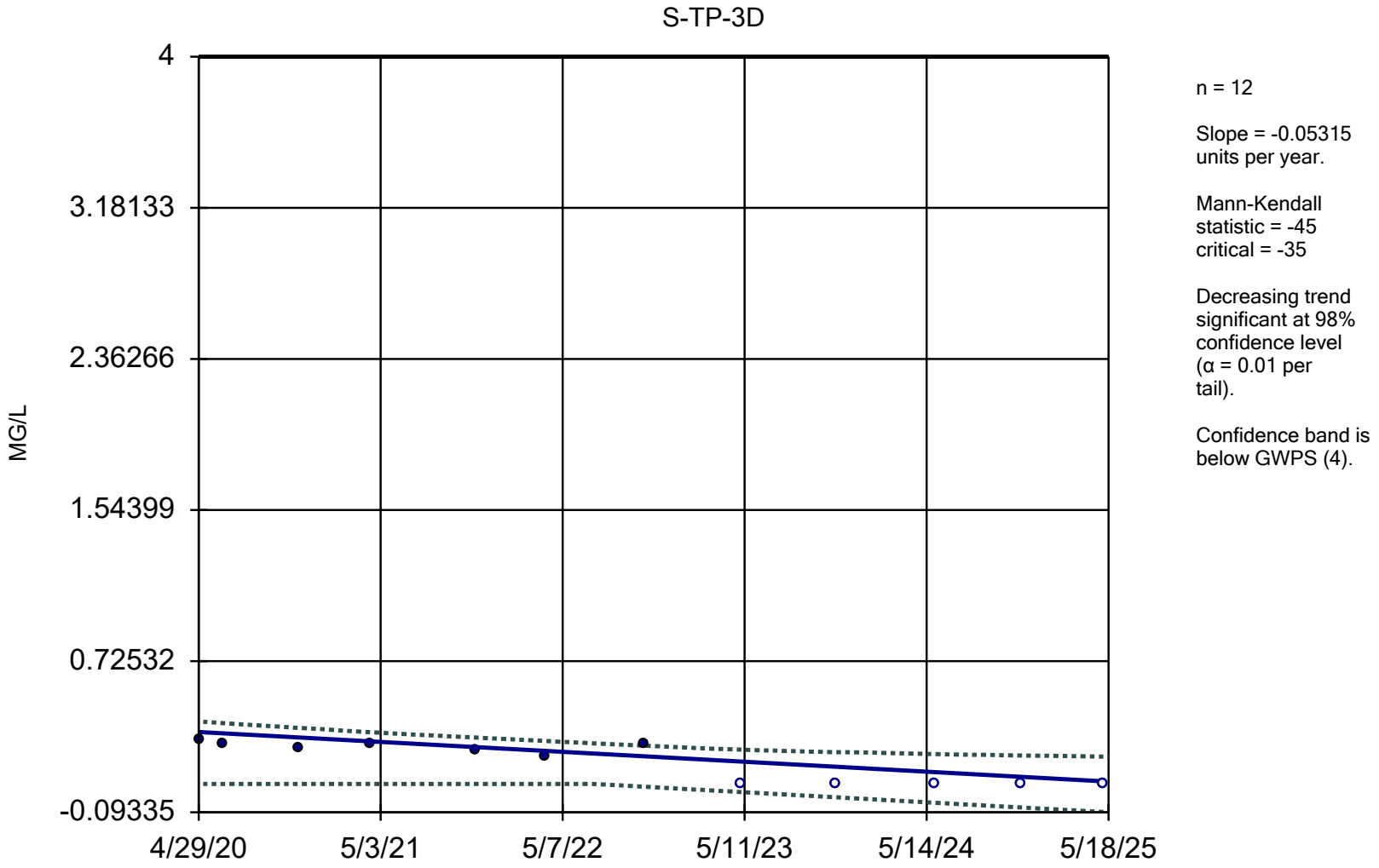
Confidence band is below GWPS (4).

Constituent: FLUORIDE, TOTAL Analysis Run 9/4/2025 11:50 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



n = 12

Slope = -0.05315 units per year.

Mann-Kendall statistic = -45
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

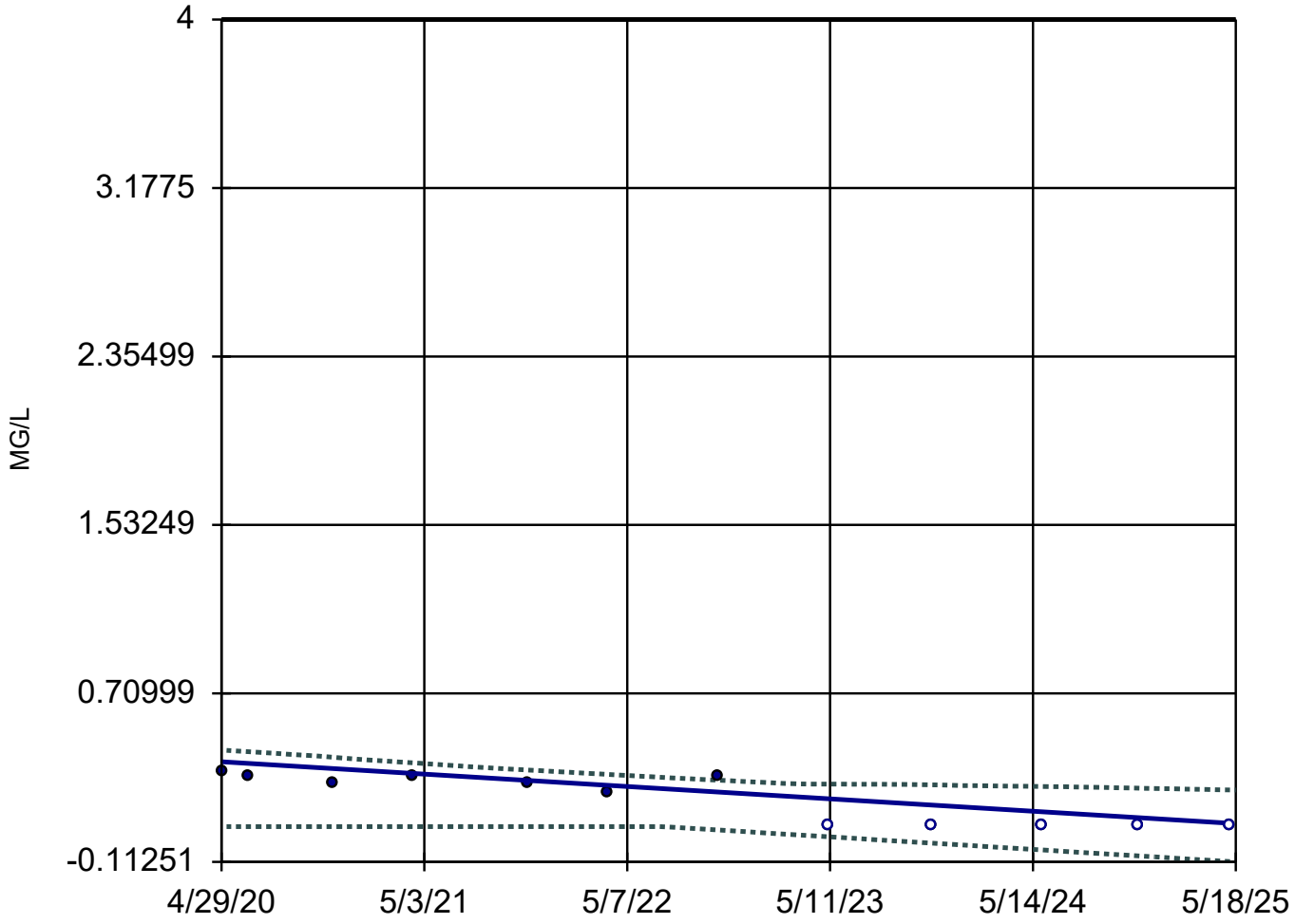
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 12

Slope = -0.059721 units per year.

Mann-Kendall statistic = -44
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

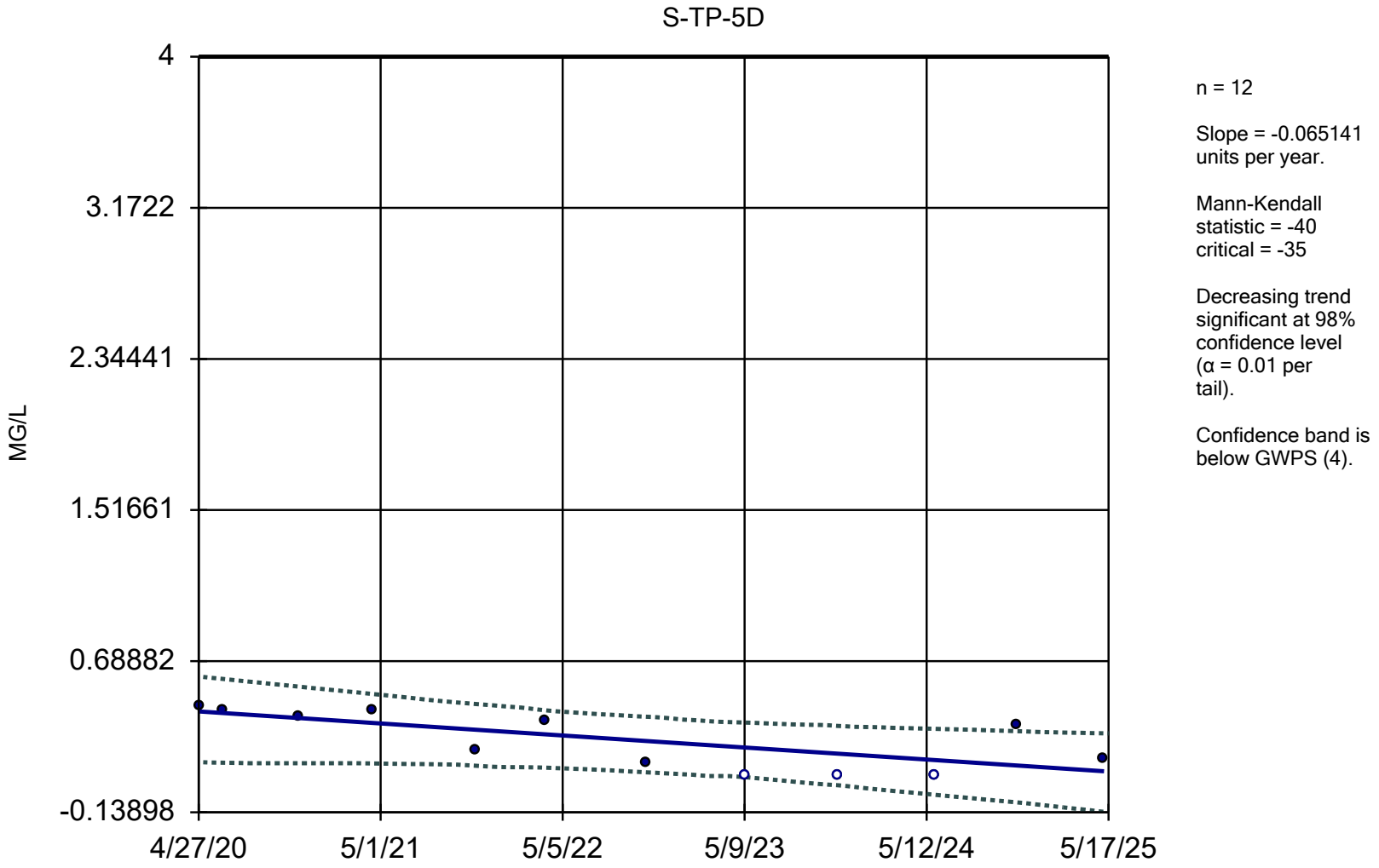
Confidence band is below GWPS (4).

Constituent: FLUORIDE, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



n = 12

Slope = -0.065141 units per year.

Mann-Kendall statistic = -40
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

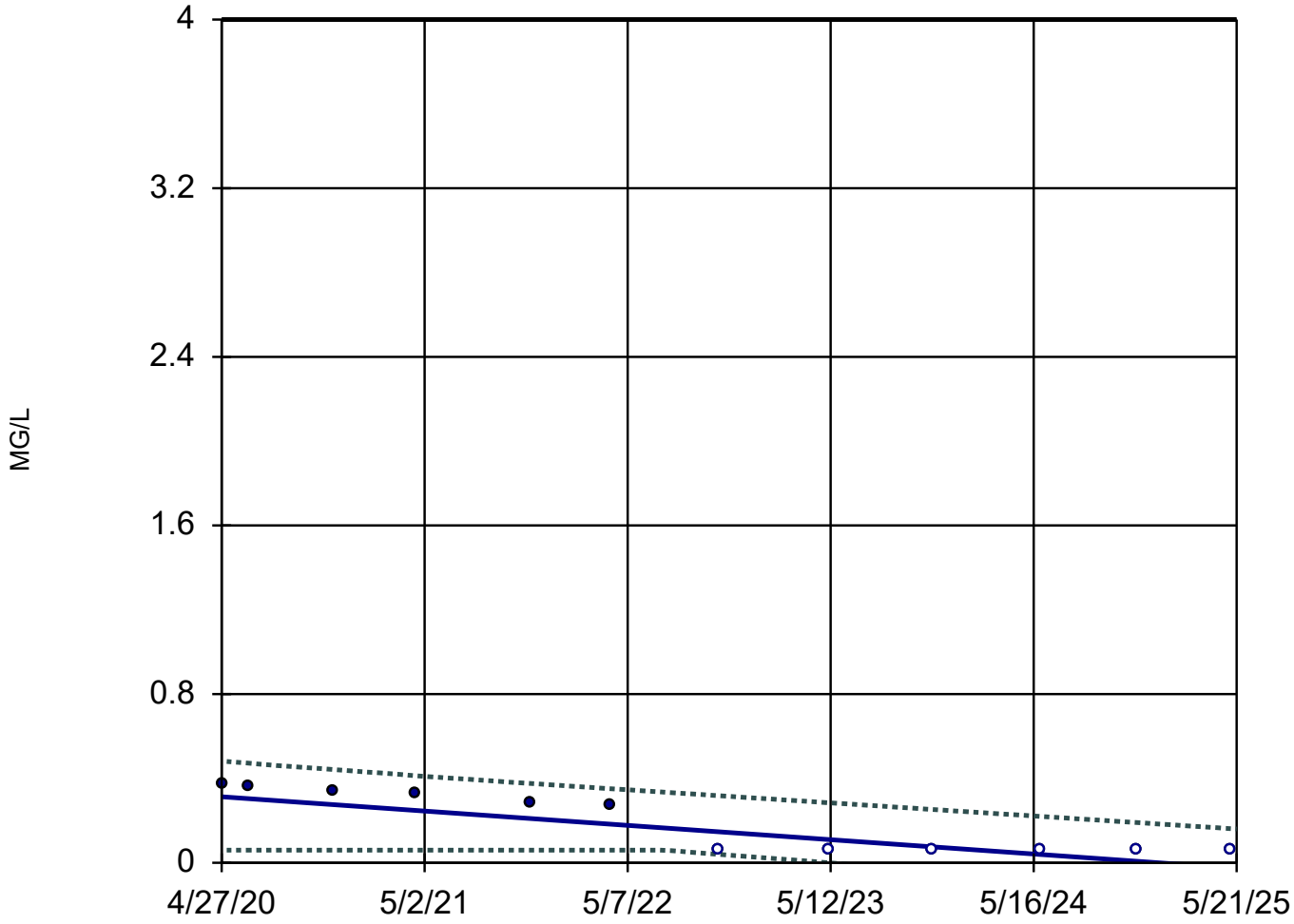
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-8D



n = 12

Slope = -0.066889 units per year.

Mann-Kendall statistic = -51
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (4).

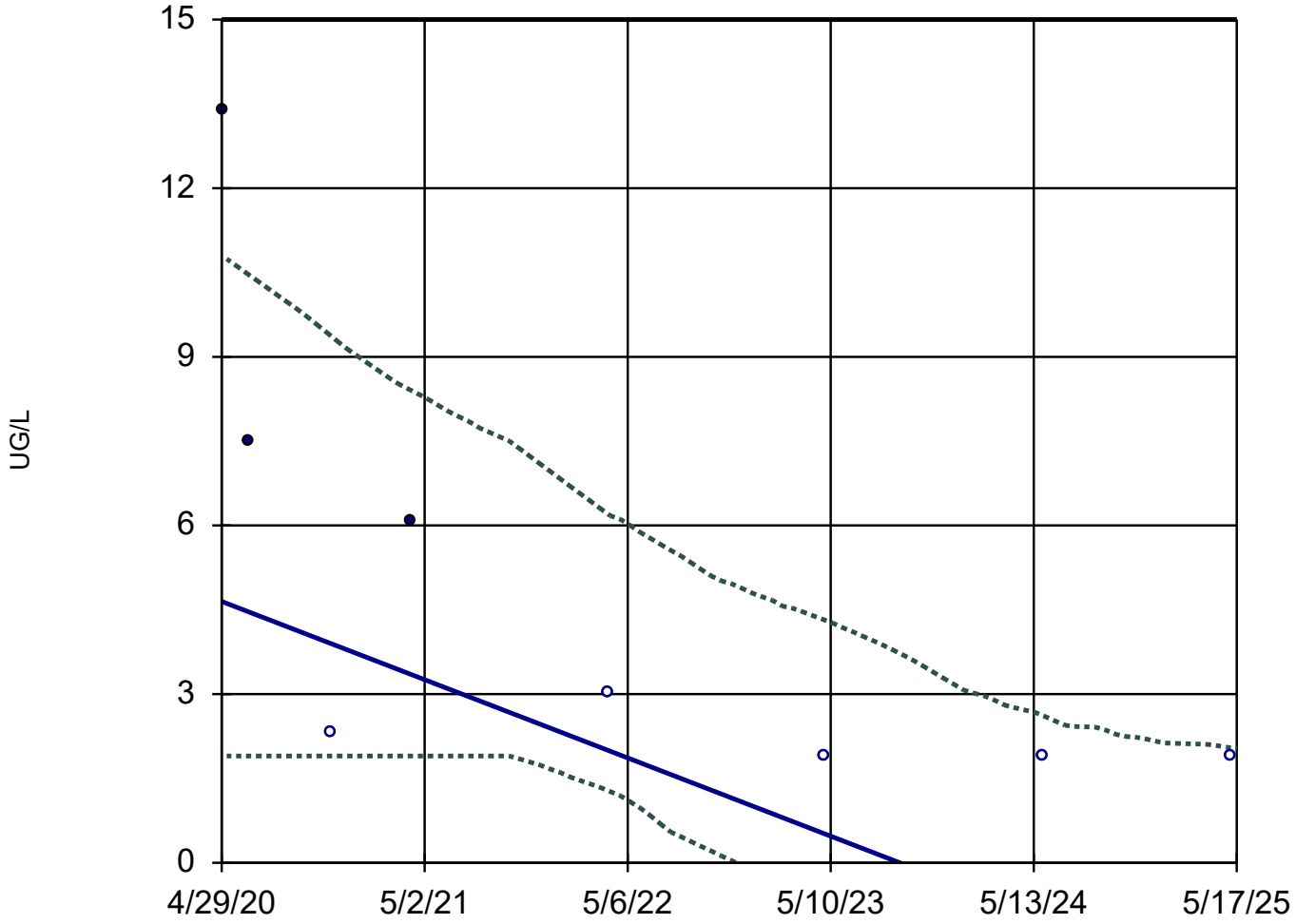
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Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-1S



n = 8

Slope = -1.377 units per year.

Mann-Kendall statistic = -21
critical = -20

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (15).

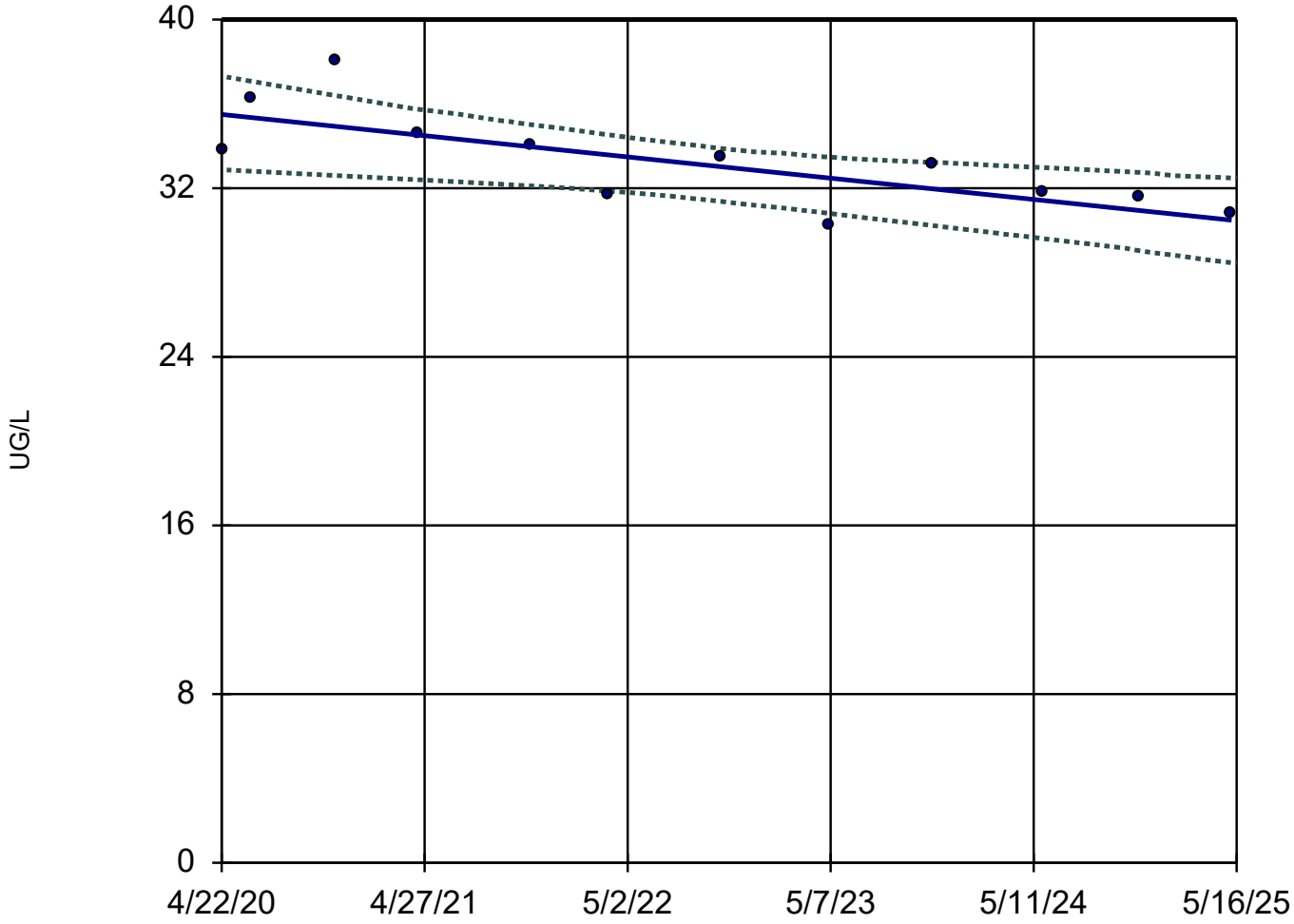
Constituent: LEAD, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-AM-1D



n = 12

Slope = -0.99413 units per year.

Mann-Kendall statistic = -42
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

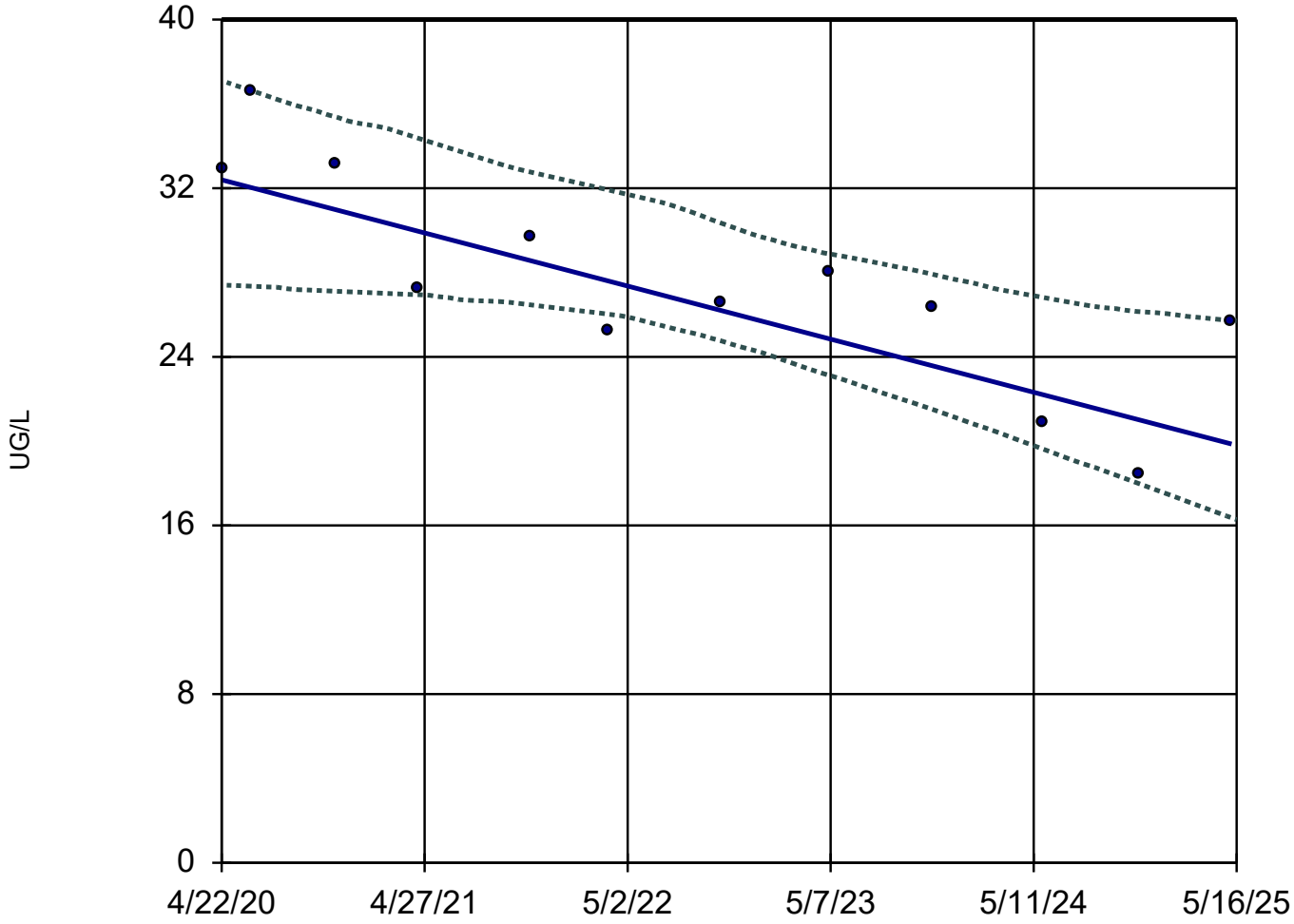
Constituent: LITHIUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-AM-1S



n = 12

Slope = -2.4852 units per year.

Mann-Kendall statistic = -44
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

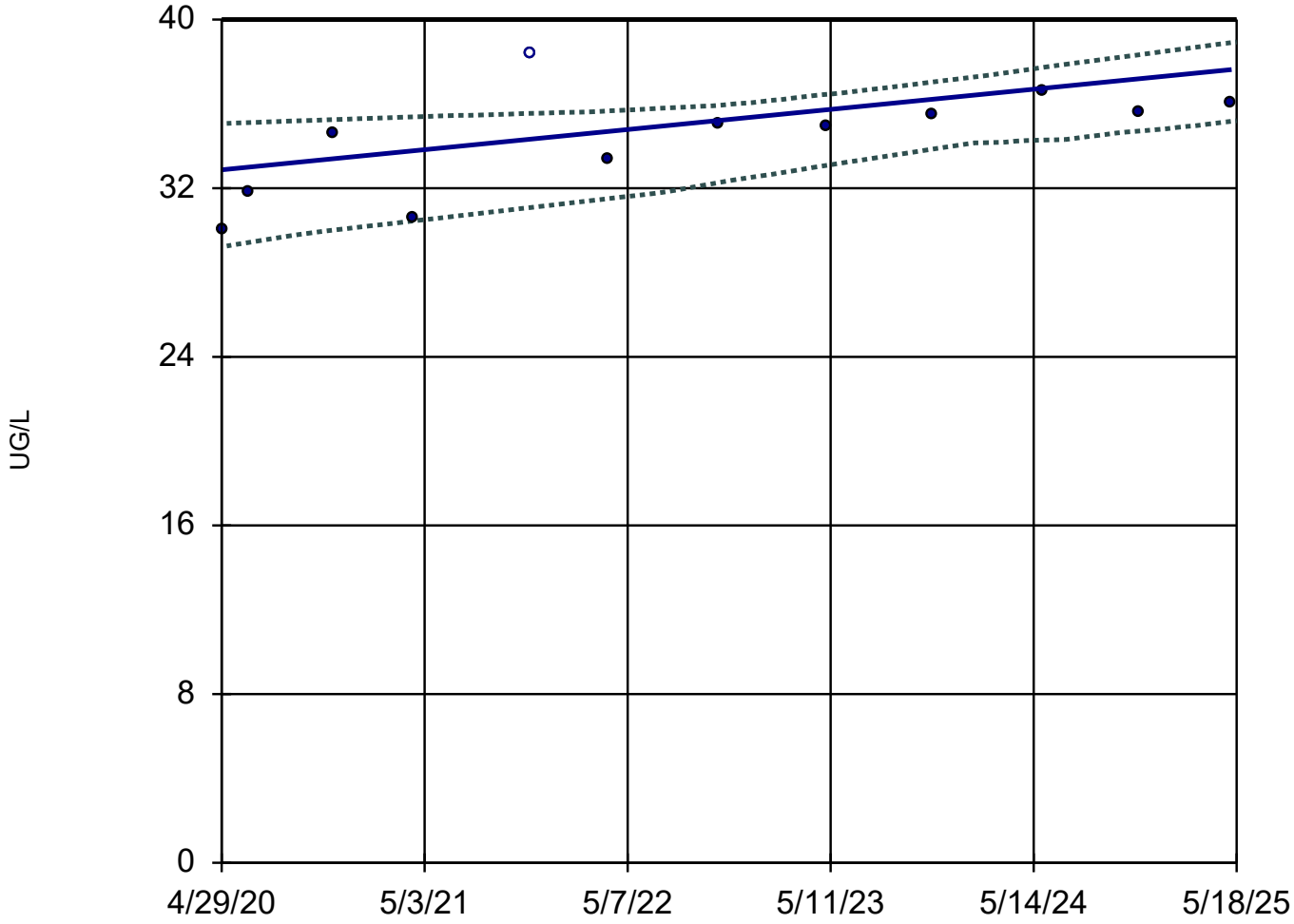
Constituent: LITHIUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-3D



n = 12

Slope = 0.94445 units per year.

Mann-Kendall statistic = 40
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

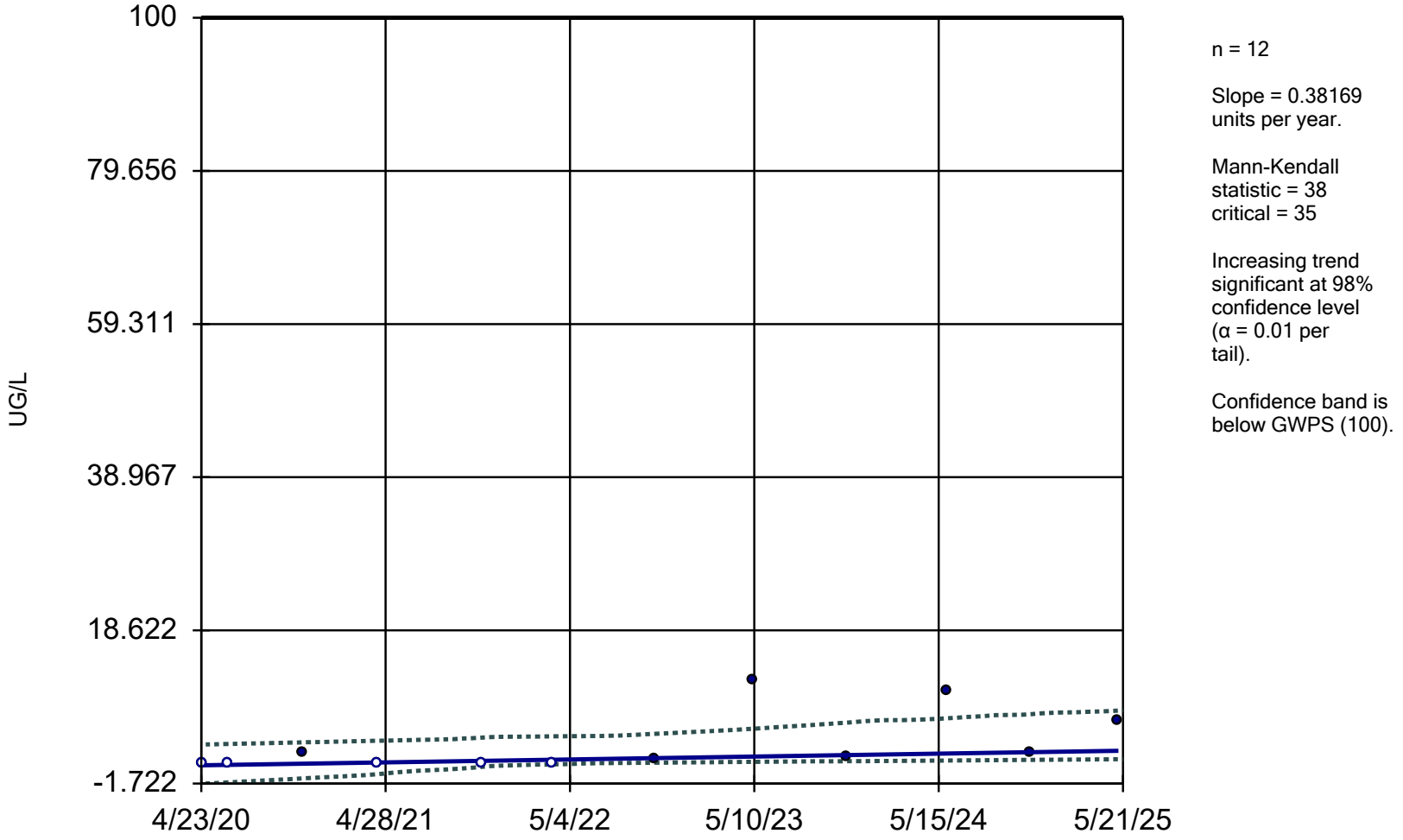
Constituent: LITHIUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-LMW-6S



n = 12

Slope = 0.38169 units per year.

Mann-Kendall statistic = 38
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (100).

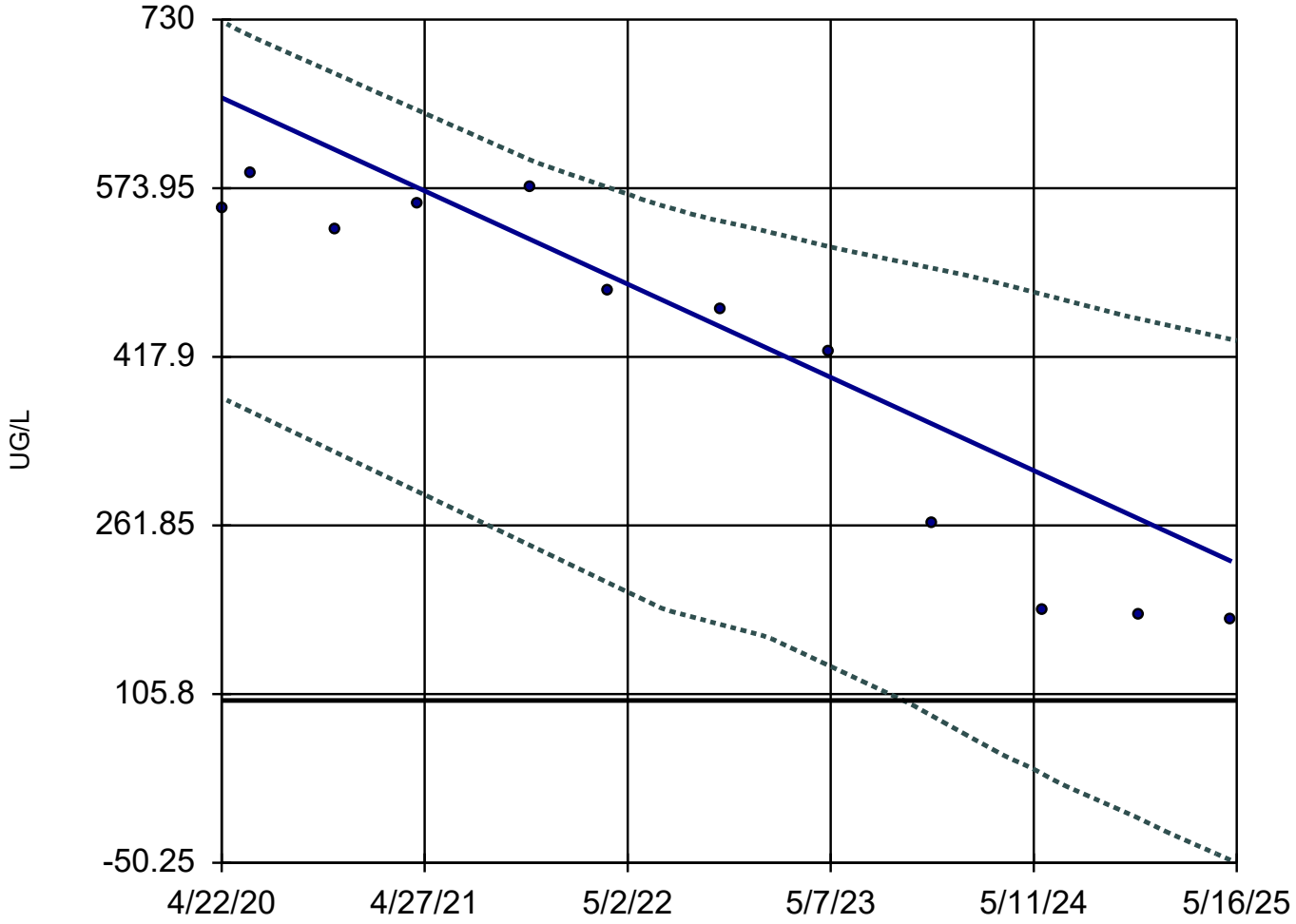
Constituent: MOLYBDENUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-AM-1D



n = 12

Slope = -85.061 units per year.

Mann-Kendall statistic = -54
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 10/05/23.

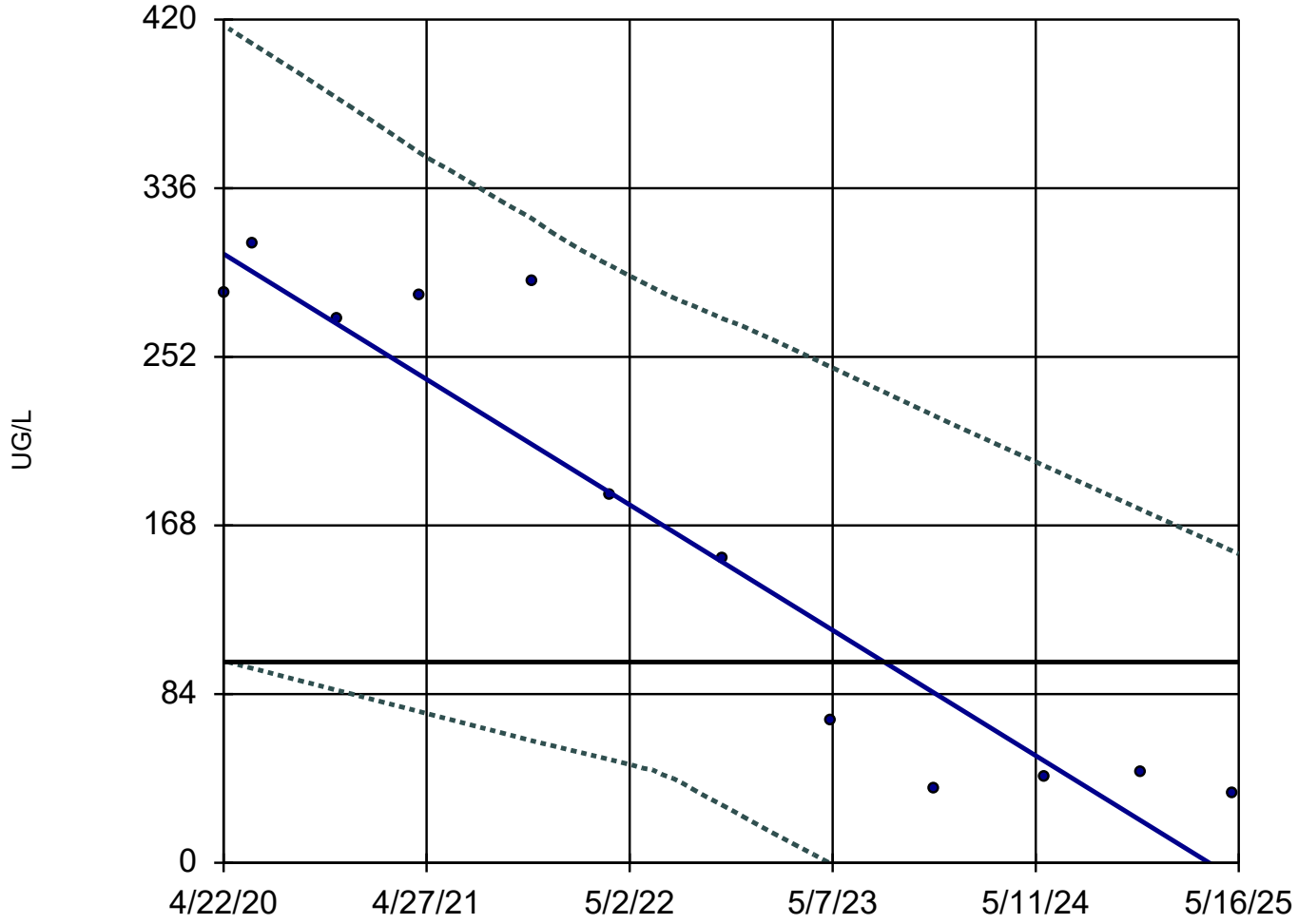
Constituent: MOLYBDENUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Sen's Slope and 95% Confidence Band

S-AM-1S



n = 12

Slope = -61.609 units per year.

Mann-Kendall statistic = -50
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

GWPS (100) is entirely within the confidence band.

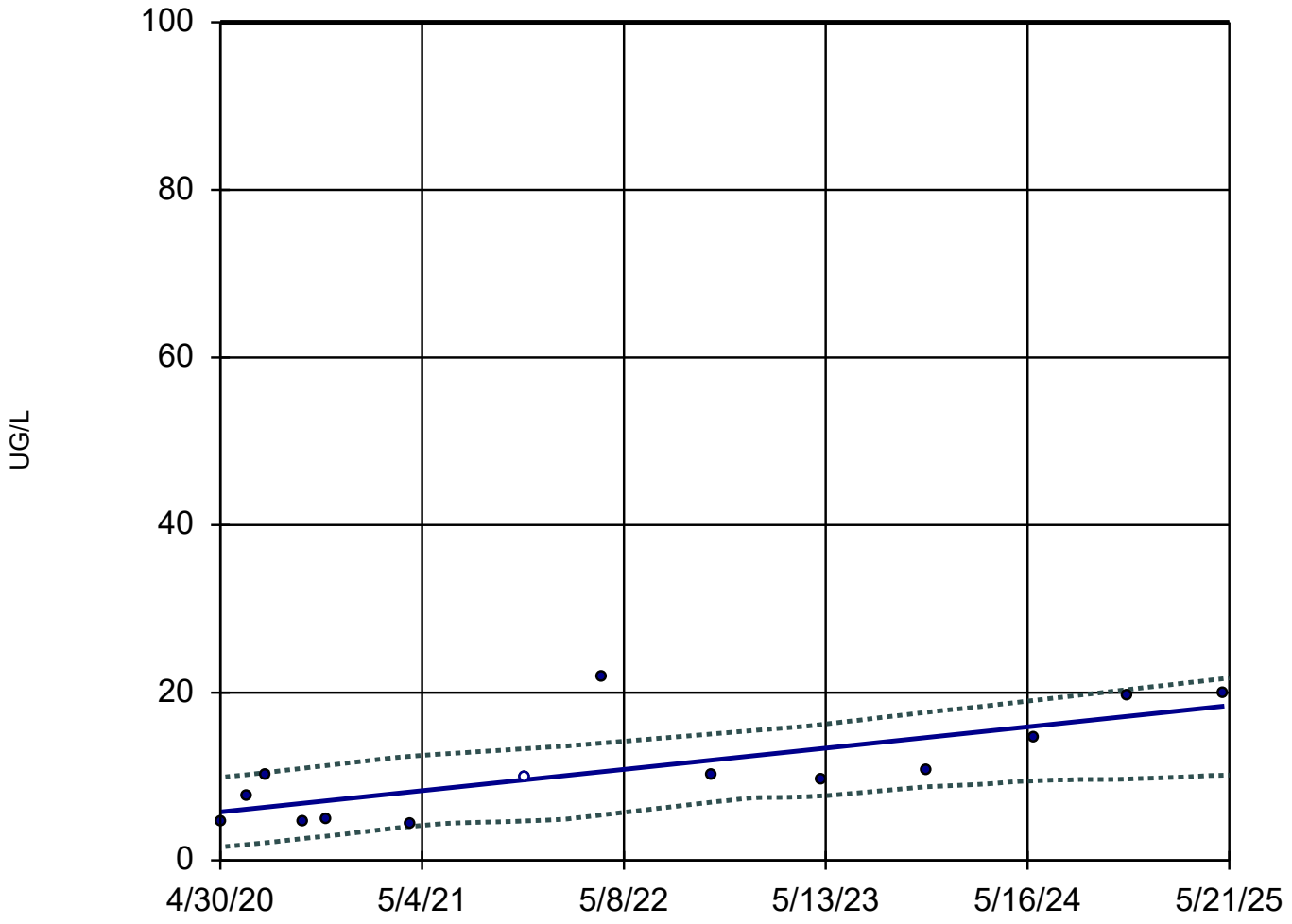
Constituent: MOLYBDENUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 14

Slope = 2.5081 units per year.

Mann-Kendall statistic = 51
critical = 44

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (100).

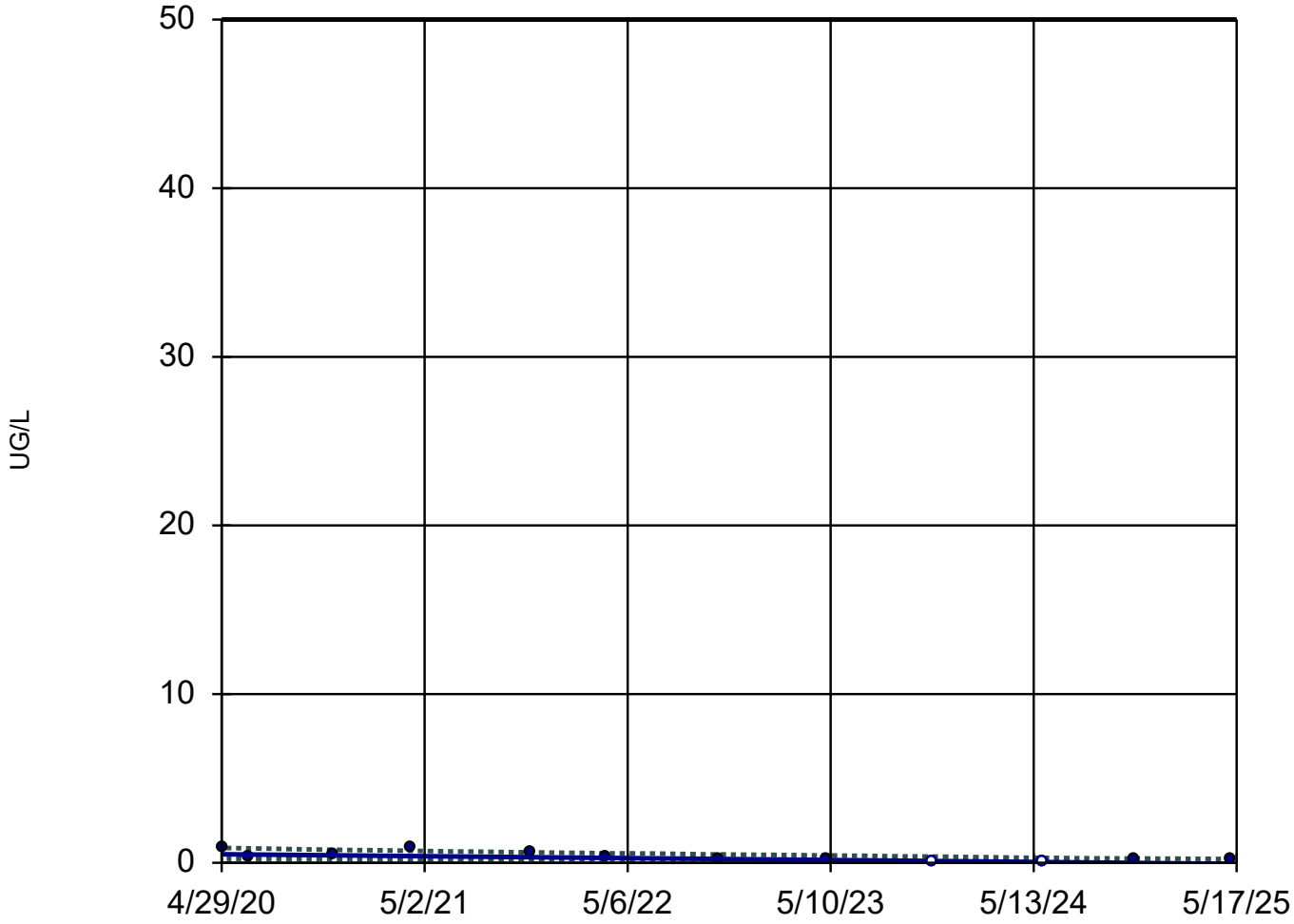
Constituent: MOLYBDENUM, TOTAL Analysis Run 9/4/2025 11:51 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Sanitas™ v.10.0.27 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-6S



n = 12

Slope = -0.11384 units per year.

Mann-Kendall statistic = -40
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

Constituent: SELENIUM, TOTAL Analysis Run 9/4/2025 11:52 AM

Sioux E.C. Client: Ameren Data: SEC DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/4/2025, 11:56 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ARSENIC, TOTAL (UG/L)	S-LMW-1S	0	-4	-35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-2S	0.007...	3	31	No	11	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.01125	13	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.026389	19	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0.027435	23	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-UG-3	0.004...	5	35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-AM-1D**	**-0.01...**	**-44**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-AM-1S	-0.04...	-21	-35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-2D**	**0.037393**	**38**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.014272	28	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-4D**	**0.19269**	**45**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.015877	29	35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-TP-6D	-0.00...	-2	-35	No	12	33.333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-6S**	**0.040208**	**35**	**31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-8D	-0.03...	-22	-35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.032431	14	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-1S	-0.03...	-21	-35	No	12	8.3333	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-LMW-1S**	**22.554**	**39**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-LMW-2S	-5.1372	-25	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-LMW-4S**	**9.1868**	**40**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-LMW-5S**	**-4.3999**	**-48**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-LMW-6S	-2.0538	-32	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-UG-3	-3.3672	-20	-31	No	11	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1D	20.434	15	35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1S	-0.09...	0	35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-2D	-0.42262	-6	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-3D	2.2599	11	35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-4D	-18.834	-32	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-5D	10.964	34	35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-6D	-4.763	-28	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-6S	-0.23072	-3	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-8D	6.3176	21	35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-PZ-9D**	**-7.7244**	**-40**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-PZ-1S	-12.103	-30	-35	No	12	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.009...	25	35	No	12	16.667	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.035412	19	31	No	11	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.004...	4	35	No	12	33.333	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-5S	-0.01...	-4	-35	No	12	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-6S	-0.06166	-20	-35	No	12	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UG-3	-0.00...	-7	-35	No	12	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1D	-0.01...	-10	-35	No	12	16.667	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1S	-0.01...	-29	-35	No	12	25	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-TP-2D**	**-0.00...**	**-39**	**-35**	**Yes**	**12**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-TP-3D**	**-0.00...**	**-32**	**-31**	**Yes**	**11**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-TP-4D**	**-0.00...**	**-39**	**-35**	**Yes**	**12**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.032424	24	35	No	12	25	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6D	-0.00...	-29	-31	No	11	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.005...	22	35	No	12	33.333	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	**S-TP-8D**	**-0.00...**	**-39**	**-35**	**Yes**	**12**	**100**	**n/a**	**n/a**	**0.02**	**NP**
CADMIUM, TOTAL (UG/L)	**S-PZ-9D**	**-0.00...**	**-32**	**-31**	**Yes**	**11**	**100**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/4/2025, 11:56 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.007...	5	31	No	11	9.0909	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.13211	18	23	No	9	11.111	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0	1	23	No	9	44.444	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.008969	7	23	No	9	44.444	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	-0.02...	-5	-23	No	9	44.444	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	-0.01...	-4	-20	No	8	25	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UG-3	0	4	23	No	9	88.889	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1D	0	-5	-23	No	9	55.556	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1S	-0.06...	-10	-23	No	9	66.667	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-2D	0.003976	1	23	No	9	44.444	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.009635	5	23	No	9	55.556	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.001...	3	23	No	9	55.556	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-5D	-0.08...	-11	-23	No	9	88.889	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6D	-0.00...	-6	-20	No	8	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6S	-0.00...	-4	-23	No	9	66.667	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-8D	-0.00...	-1	-20	No	8	37.5	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	-0.00...	-1	-23	No	9	0	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	-0.00...	-5	-23	No	9	66.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-1S	-0.02...	-7	-31	No	11	63.636	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-LMW-2S**	**0.55772**	**34**	**31**	**Yes**	**11**	**18.182**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	S-LMW-4S	-0.03...	-17	-31	No	11	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-5S	0	0	31	No	11	72.727	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-6S	-0.78615	-28	-31	No	11	0	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-UG-3	0.32545	15	31	No	11	18.182	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-AM-1D	-0.03...	-17	-31	No	11	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	**S-AM-1S**	**0.83756**	**41**	**31**	**Yes**	**11**	**18.182**	**n/a**	**n/a**	**0.02**	**NP**
COBALT, TOTAL (UG/L)	S-TP-2D	-0.03...	-16	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-3D	-0.03...	-12	-27	No	10	90	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-4D	-0.03...	-11	-23	No	9	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-5D	0	-6	-27	No	10	90	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6D	0	-7	-31	No	11	90.909	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6S	-0.02...	-11	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-8D	0	-6	-31	No	11	81.818	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-9D	-0.03...	-17	-31	No	11	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-1S	-0.03...	-17	-31	No	11	100	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-LMW-1S**	**-0.09...**	**-45**	**-39**	**Yes**	**13**	**38.462**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	0	-12	-39	No	13	61.538	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-LMW-4S**	**-0.03...**	**-36**	**-35**	**Yes**	**12**	**58.333**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	-0.07...	-42	-53	No	16	31.25	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	-0.00...	-12	-39	No	13	53.846	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UG-3	-0.03102	-25	-44	No	14	35.714	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1D	-0.04...	-20	-35	No	12	8.3333	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1S	-0.06...	-27	-35	No	12	16.667	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-2D	-0.02...	-25	-35	No	12	66.667	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-3D**	**-0.05315**	**-45**	**-35**	**Yes**	**12**	**41.667**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-4D**	**-0.05...**	**-44**	**-35**	**Yes**	**12**	**41.667**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-5D**	**-0.06...**	**-40**	**-35**	**Yes**	**12**	**25**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-TP-6D	-0.05577	-32	-35	No	12	41.667	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-6S	-0.06...	-30	-35	No	12	41.667	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-8D**	**-0.06...**	**-51**	**-35**	**Yes**	**12**	**50**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/4/2025, 11:56 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	-0.02383	-22	-35	No	12	66.667	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-PZ-1S	-0.18316	-34	-35	No	12	33.333	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-1S	-0.08...	-10	-20	No	8	87.5	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-2S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-4S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-5S	-0.08...	-10	-20	No	8	87.5	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-6S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UG-3	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-AM-1D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-AM-1S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-2D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-3D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-4D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-5D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-6D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-6S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-8D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-PZ-9D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	**S-PZ-1S**	**-1.377**	**-21**	**-20**	**Yes**	**8**	**62.5**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-LMW-1S	1.8523	30	35	No	12	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-2S	-0.60698	-19	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-4S	1.0593	18	35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-5S	-1.1374	-11	-27	No	10	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-6S	-0.03...	-1	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UG-3	-1.0669	-16	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-AM-1D**	**-0.99413**	**-42**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-AM-1S**	**-2.4852**	**-44**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-2D	0.98745	14	35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-TP-3D**	**0.94445**	**40**	**35**	**Yes**	**12**	**8.3333**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-4D	0.26698	9	35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-5D	1.9901	28	35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-6D	-0.76565	-17	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-6S	-0.66691	-17	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-8D	0.35054	10	31	No	11	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-9D	-2.5124	-28	-35	No	12	8.3333	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-1S	0.48721	24	31	No	11	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-1S	-5.002	-10	-35	No	12	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-2S	-13.759	-2	-35	No	12	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	-0.14818	-9	-23	No	9	44.444	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-5S	-231.97	-28	-35	No	12	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-6S**	**0.38169**	**38**	**35**	**Yes**	**12**	**41.667**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	0.27566	15	35	No	12	25	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**-85.061**	**-54**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**-61.609**	**-50**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	-0.08...	-9	-39	No	13	76.923	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	0	4	39	No	13	61.538	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-4D	0.15943	39	39	No	13	61.538	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-5D	85.257	37	39	No	13	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	0.025109	10	35	No	12	83.333	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	0.30191	26	39	No	13	15.385	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC DATA Printed 9/4/2025, 11:56 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	0.28639	35	39	No	13	46.154	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-9D**	**2.5081**	**51**	**44**	**Yes**	**14**	**7.1429**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-PZ-1S	-1057.1	-42	-44	No	14	0	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	0.051	24	35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	0.006...	2	35	No	12	83.333	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	0.018201	6	35	No	12	75	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	-0.01...	-8	-35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	0.016722	14	35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UG-3	0.080605	30	35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1D	0.088685	26	35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1S	0.04548	14	35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-2D	0.000...	0	35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-3D	0.13131	28	35	No	12	66.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-4D	-0.01...	-4	-35	No	12	41.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-5D	0.042329	10	35	No	12	91.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6D	-0.04...	-10	-35	No	12	58.333	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6S	0.01221	6	35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-8D	0.15495	32	35	No	12	66.667	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	-0.00...	-3	-31	No	11	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	-0.01...	-8	-35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-1S	0	-3	-31	No	11	0	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-4S	-0.04829	-18	-35	No	12	8.3333	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0	5	35	No	12	83.333	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-UG-3	0.13469	22	27	No	10	0	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-AM-1D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-AM-1S	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-2D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-3D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-4D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-5D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-6D	0	0	35	No	12	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-TP-6S**	**-0.11384**	**-40**	**-35**	**Yes**	**12**	**16.667**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-TP-8D	0	-3	-35	No	12	91.667	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0	-5	-35	No	12	91.667	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0	0	35	No	12	100	n/a	n/a	0.02	NP

Appendix G

October 2025 Corrective Action Statistical Evaluation

Memorandum

January 31, 2026

To:	Bill Kutosky – Ameren Missouri	**Project Number:**	23009-25
CC:	Ameren Missouri - Susan Knowles, Craig Giesmann, Lisa Meyer, Austin Nieman		
From:	Rocksmith Geoengineering - Mark Haddock, P.E., R.G., Jeff Ingram, R.G., Grant Morey, R.G.	**Email:**	jeff.ingram@rocksmithgeo.com
RE:	**Corrective Action Statistical Evaluation, SCPA Surface Impoundment, Sioux Energy Center, St. Charles County, Missouri**		

1.0 INTRODUCTION

This Technical Memorandum provides the results of the Corrective Action Monitoring statistical analyses from the October 2025 sampling event for the SCPA Surface Impoundment at the Sioux Energy Center (SEC) located in St. Charles County, Missouri. As outlined in the remedy selection report for the SCPA, Corrective Action at the SCPA consists of two phases, as follows:

1) Source control, stabilization, and containment of Coal Combustion Residuals (CCR) by installation of a low-permeability geomembrane cap.
2) Once source control is achieved, monitor the natural attenuation (MNA) of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modeling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

Phase 1 of Corrective Action commenced on January 20, 2021, and was substantially completed on April 10, 2022 with the installation of a low permeability cover system. The SCPA unit was certified closed on October 14, 2022 and thus the SCPA has transitioned into the post-closure care requirements of the CCR rule effective October 2022 and Phase 2 of Corrective Action has begun. In addition to MNA as a Corrective Measure, Ameren also implemented a supplemental corrective measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective ion exchange. This treatment system became fully operational in February 2023 and began achieving target flow rates in September 2023. In July 2024, Haley & Aldrich produced a Supplemental Remedy Selection Report for the SEC, documenting that these corrective measures are effectively contributing to constituent mass reductions in groundwater near the SCPA. The supplemental corrective measures are ongoing.

The initial Corrective Action sampling event was completed in April 2020, and a total of 13 sampling events have been completed for Corrective Action Monitoring at the SCPA to date. This analysis uses sampling results collected since April 2020 to determine constituents exceeding groundwater protection standards (GWPSs). Data prior to this time was collected during active conditions of the SCPA, prior to the cessation of CCR disposal in the SCPA, and are not representative of groundwater conditions since the initiation of closure. Included in this memorandum is a summary of constituents that are currently in exceedance of the GWPSs, a list of site-specific

GWPSs (**Table 1**), and the Sanitas Technologies™ (Sanitas) statistical software output for each of the Appendix IV parameters (**Appendix A and Appendix B**).

Several constituents were reported at concentrations below the Practical Quantitation Limit (PQL) during the spring 2020, 2021, 2022, 2023, 2024, and/or 2025 sampling events, including antimony, beryllium, chromium, lead, mercury, and thallium. When these constituents were not detected during the initial Corrective Action sampling event, they were not sampled/tested during the subsequent semi-annual sampling events in each calendar year. Therefore, there are fewer results available for these constituents, and Sen's Slope/Mann-Kendall analyses cannot be completed until a minimum of eight independent results are obtained, as outlined in the USEPA Unified Guidance. As a result, trend tests were completed for the following Appendix IV constituents: arsenic, barium, cadmium, chromium, cobalt, fluoride, lead, lithium, molybdenum, radium 226 + 228, and selenium.

2.0 STATISTICAL EVALUATION

The Appendix IV constituents were evaluated for exceedances above the GWPSs using the methods and procedures outlined in the Corrective Action Groundwater Monitoring Plan (CAGMP) Statistical Analysis Plan (SAP). An outlier analysis was completed as the first step of the statistical evaluation. The outlier analysis was performed only on the results collected as a part of Corrective Action Monitoring. In addition to outliers noted in previous SCPA Corrective Action evaluations, the following outliers were removed from the dataset prior to the calculation of confidence limits:

- Arsenic
    - S-LMW-6S at 1.2 micrograms per liter (µg/L) on 11/15/2024: result is statistically higher than other arsenic results at the same monitoring well. This higher result is not consistent with previous or subsequent arsenic results at the well and is an outlier.
- Barium
    - S-AM-1S at 225 µg/L on 5/7/2025: result is statistically higher than other barium results at the same monitoring well. This higher result is not consistent with previous or subsequent barium results at the well and is an outlier.
- Cobalt
    - S-TP-6D at 2.4 J µg/L on 3/29/2022: result is statistically higher than other cobalt results at the same monitoring well. This higher result is not consistent with previous or subsequent cobalt results at the well and is an outlier.
    - S-TP-6D at Non-Detect (ND, <5 µg/L) on 10/19/2022: result is statistically higher than other cobalt results at the same monitoring well due to the high reporting limit used following data validation procedures. This higher result is not consistent with previous or subsequent cobalt results at the well and is an outlier.
- Fluoride
    - S-AM-1D at ND (<0.12 µg/L) on 11/10/2023, 0.19 J µg/L on 5/29/2024, and 0.28 µg/L on 11/19/2024: results are statistically lower than other fluoride results at the same monitoring well. These lower results are not consistent with previous or subsequent fluoride results at the well and are outliers.

- Molybdenum
    - S-TP-6D at 2.8 µg/L J on 5/8/2025: result is statistically higher than other molybdenum results at the same monitoring well. This higher result is not consistent with previous or subsequent molybdenum results at the well and is an outlier.
- Radium 226 + 228
    - S-UG-3 at 2.547 picocuries per liter (pCi/L) on 5/8/2025: result is statistically higher than other radium results at the same monitoring well. This higher result is not consistent with previous or subsequent radium results at the well and is an outlier.
    - S-AM-1S at 2.42 pCi/L on 5/7/2025: result is statistically higher than other radium results at the same monitoring well. This higher result is not consistent with previous or subsequent radium results at the well and is an outlier.

An analysis of the outliers removed to date was completed. No statistical outliers that were previously removed were added back into the dataset prior to the calculation of confidence limits.

Following the outlier analysis, the second step in the statistical analysis was to calculate confidence intervals and compare those to the site-specific GWPSs (**Appendix A**). Confidence interval evaluation was supplemented with Sen's Slope/Mann-Kendall analyses on constituents that have eight independent sampling results at a given well, per the USEPA Unified Guidance (**Appendix B**). The Sen's Slope/Mann-Kendall analysis identifies well-analyte pairs that have statistically significant trends and calculates confidence bands that vary with time. The upper confidence band, in relation to the GWPS for a given constituent, is used to determine exceedances, as outlined in the CAGMP. As discussed previously, antimony, beryllium, lead, mercury, and thallium do not have the requisite quantity of results to perform Sen's Slope/Mann-Kendall analyses, so only confidence intervals were produced for those constituents.

Using these corrective action statistical methods, as of October 2025, the wells with constituents exceeding the GWPS are as follows:

- Cobalt at S-LMW-6S
- Lithium at S-LMW-5S, S-TP-2D
- Molybdenum at S-LMW-1S, S-LMW-2S, S-LMW-5S, S-AM-1D[1], S-AM-1S[1], S-TP-5D, and S-PZ-1S[1]

Cobalt at S-AM-1S is no longer an exceedance as of this evaluation. The upper confidence limit in **Appendix A** is below the GWPS, and a statistically significant trend no longer exists.

Molybdenum at S-LMW-1S is again an exceedance as the upper confidence limit now exceeds the GWPS. It was first identified as an exceedance during the initial statistical evaluation in August 2022 and was last an exceedance as of the statistical evaluation for the November 2023 sampling event.

Other cobalt, lithium, and molybdenum exceedances identified in Corrective Action statistical evaluation for the May 2025 sampling event remain.

[1] These results display an overall downward trend since April 2020 that is statistically significant at the 98% confidence level.

Variability in initial constituent concentrations directly after the closure of the SCPA is expected, especially at wells near the closed CCR unit. Constituent concentrations reported post-closure are expected to be variable but are expected to decrease over time as stabilization and natural attenuation occur and the groundwater treatment system continues operation.

3.0 CLOSING

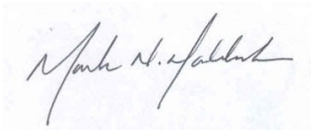
Rocksmith appreciates this opportunity to provide hydrogeological and engineering support services to Ameren. If you have any questions or comments regarding the information provided, please contact the undersigned.

Sincerely,

Rocksmith Geoengineering, LLC



Jeff Ingram, R.G.
Senior Geologist, Partner



Mark Haddock, P.E., R.G.
Principal Engineer, Senior Partner

Attachments

Tables

Table 1 – SCPA Groundwater Protection Standards

Appendices

Appendix A – Sanitas Confidence Interval Statistical Output

Appendix B – Sanitas Trending Confidence Bands Statistical Output

Tables

Table 1 - SCPA Groundwater Protection Standards
SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

Parameter	Units	MCL or Health Based GWPS	Site GWPS	Value to Return to Detection Monitoring [6]
Antimony	µg/L	6	6	DQR
Arsenic	µg/L	10	10	0.63424
Barium	µg/L	2000	2000	703
Beryllium	µg/L	4	4	DQR
Cadmium	µg/L	5	5	DQR
Chromium	µg/L	100	100	DQR
Cobalt	µg/L	6	6	DQR
Fluoride	mg/L	4	4	0.44
Lead	µg/L	15	15	DQR
Lithium	µg/L	40	40	30.509
Mercury	µg/L	2	2	DQR
Molybdenum	µg/L	100	100	DQR
Radium 226 + 228	pCi/L	5	5	2.634
Selenium	µg/L	50	50	DQR
Thallium	µg/L	2	2	DQR

Notes:
1. µg/L - micrograms per liter.
2. mg/L - milligrams per liter.
3. pCi/L - picocuries per liter.
4. MCL - Maximum Contaminant Level. MCLs from United States Environmental Protection Agency (USEPA) National Primary Drinking Water Regulations. Updated December 12, 2024 at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
5. Health Based Groundwater Protection Standards (GWPS) were adoped for Appendix IV parameters without an MCL (i.e. cobalt, lithium, molybdenum, and lead). Information available at https://www.epa.gov/coalash/coal-ash-rule.
6. Values were calculated using statistical methods outlined for Detection Monitoring and are used for returning to Detection Monitoring based on available data to date.
7. DQR - Double Quantification Rule. If all baseline data are less than the Practical Quantitation Limit (PQL), then the DQR will be used. More information on the DQR is provided in the Statistical Analysis Plan.
8. Site GWPS is either the MCL/Health Based GWPS or based on background levels (calculated as described in the Statistical Analysis Plan for Assessment Monitoring), whichever is higher.
9. GWPS and background values calculated using results through May 2025 from monitoring wells BMW-1D and BMW-3D.

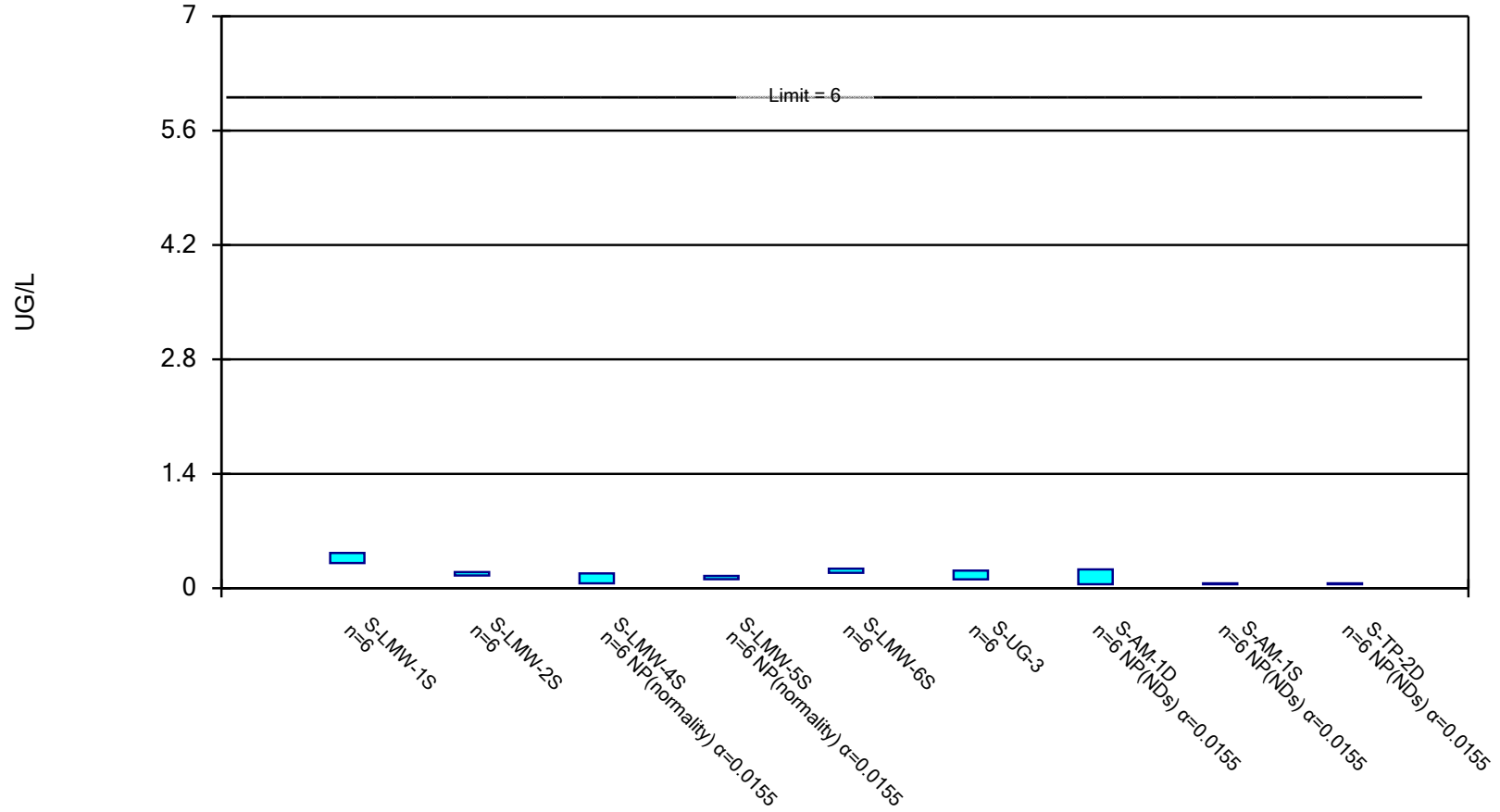
ROCKSMITH GEOENGINEERING

Prepared by: JTR
Checked by: GTM
Reviewed by: MNH

Appendix A
Sanitas Confidence Interval Statistical Output

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



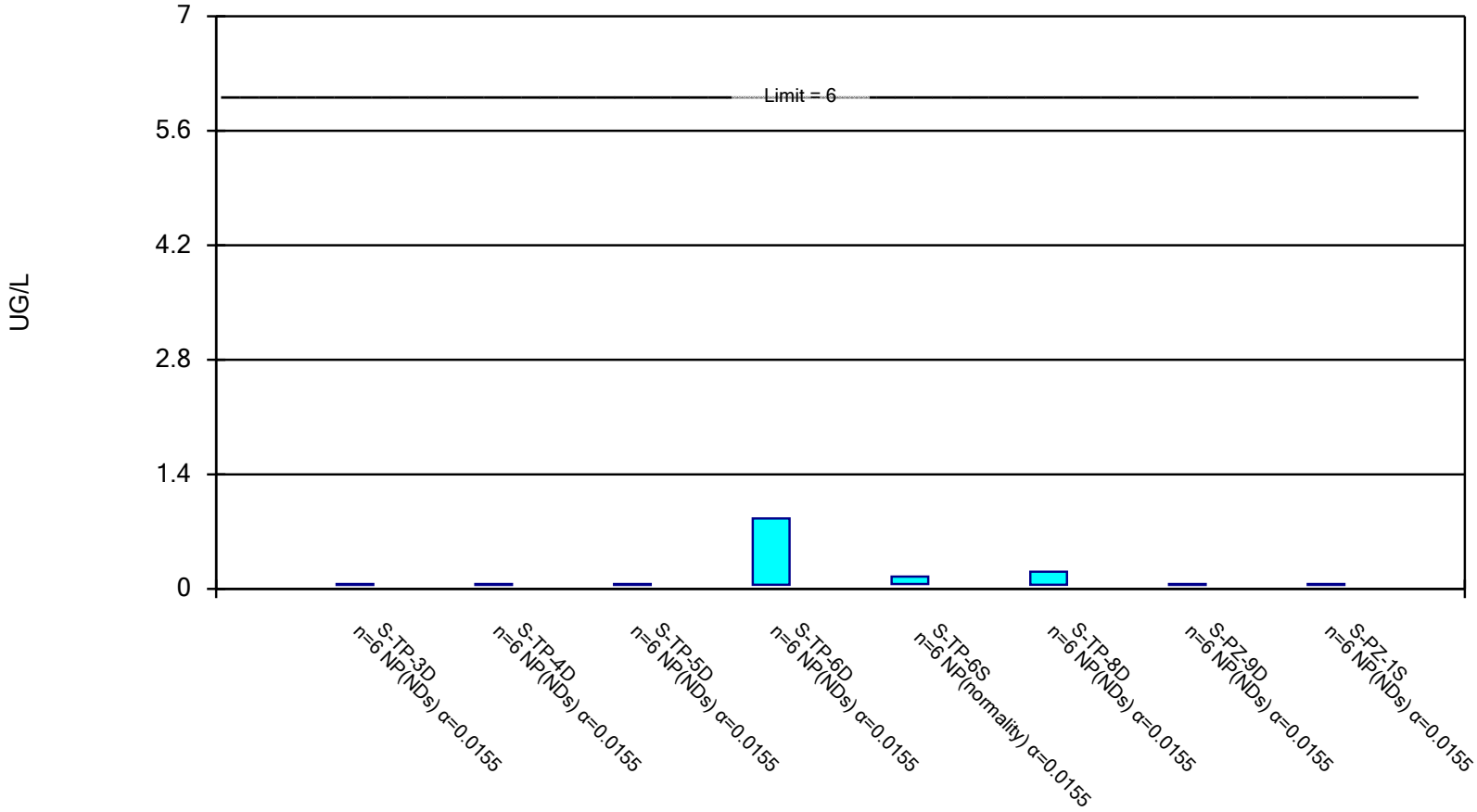
Constituent: ANTIMONY, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



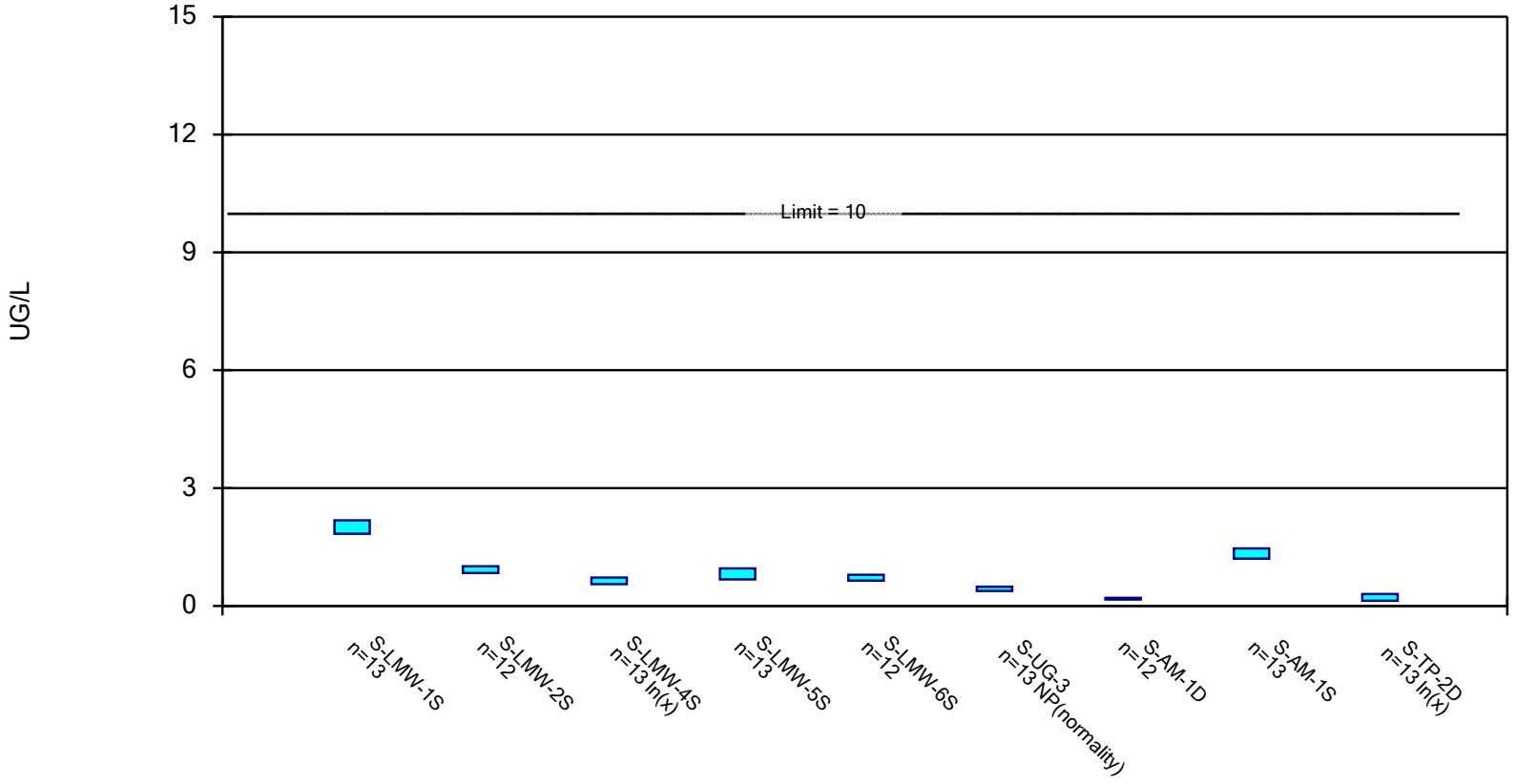
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



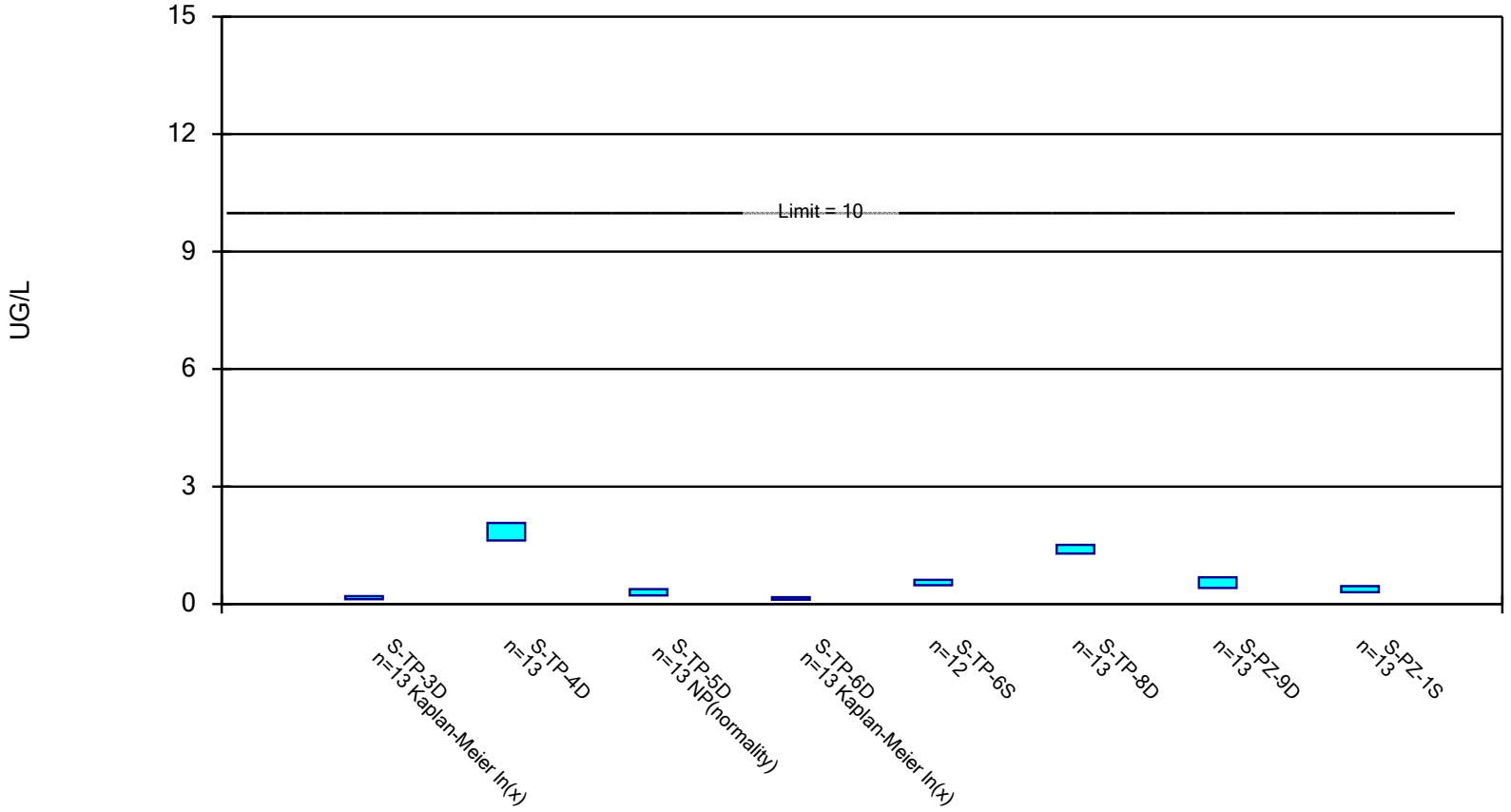
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



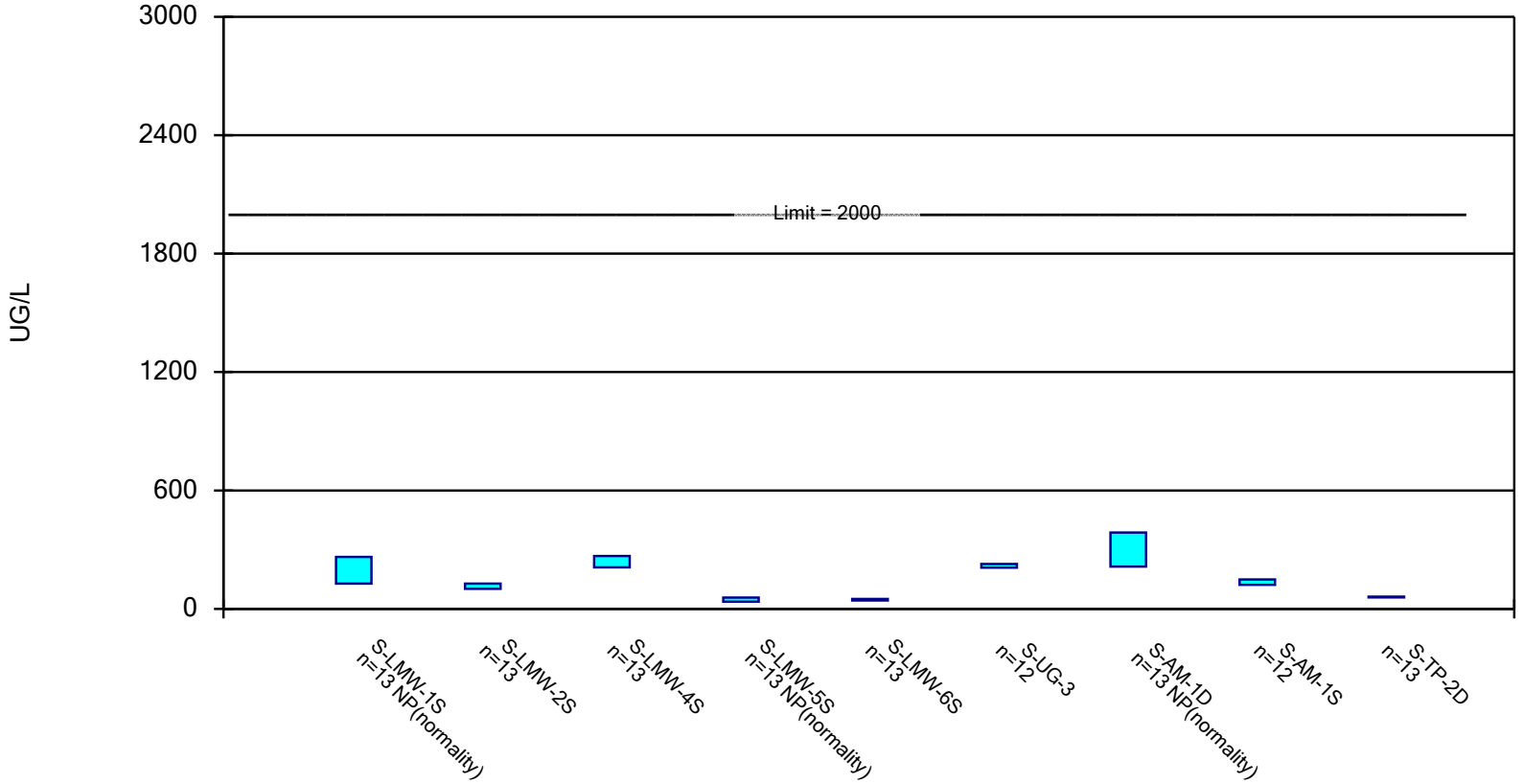
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



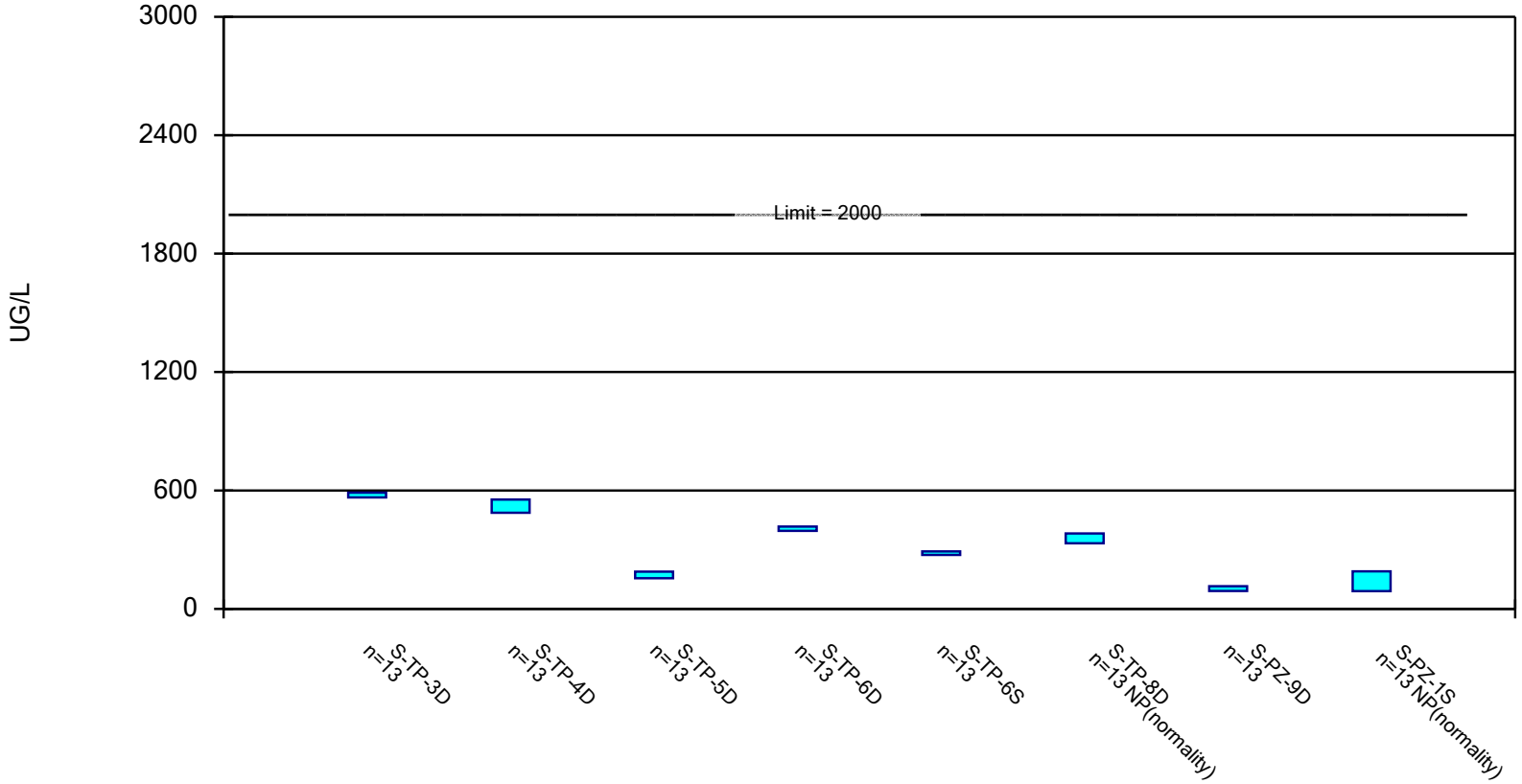
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

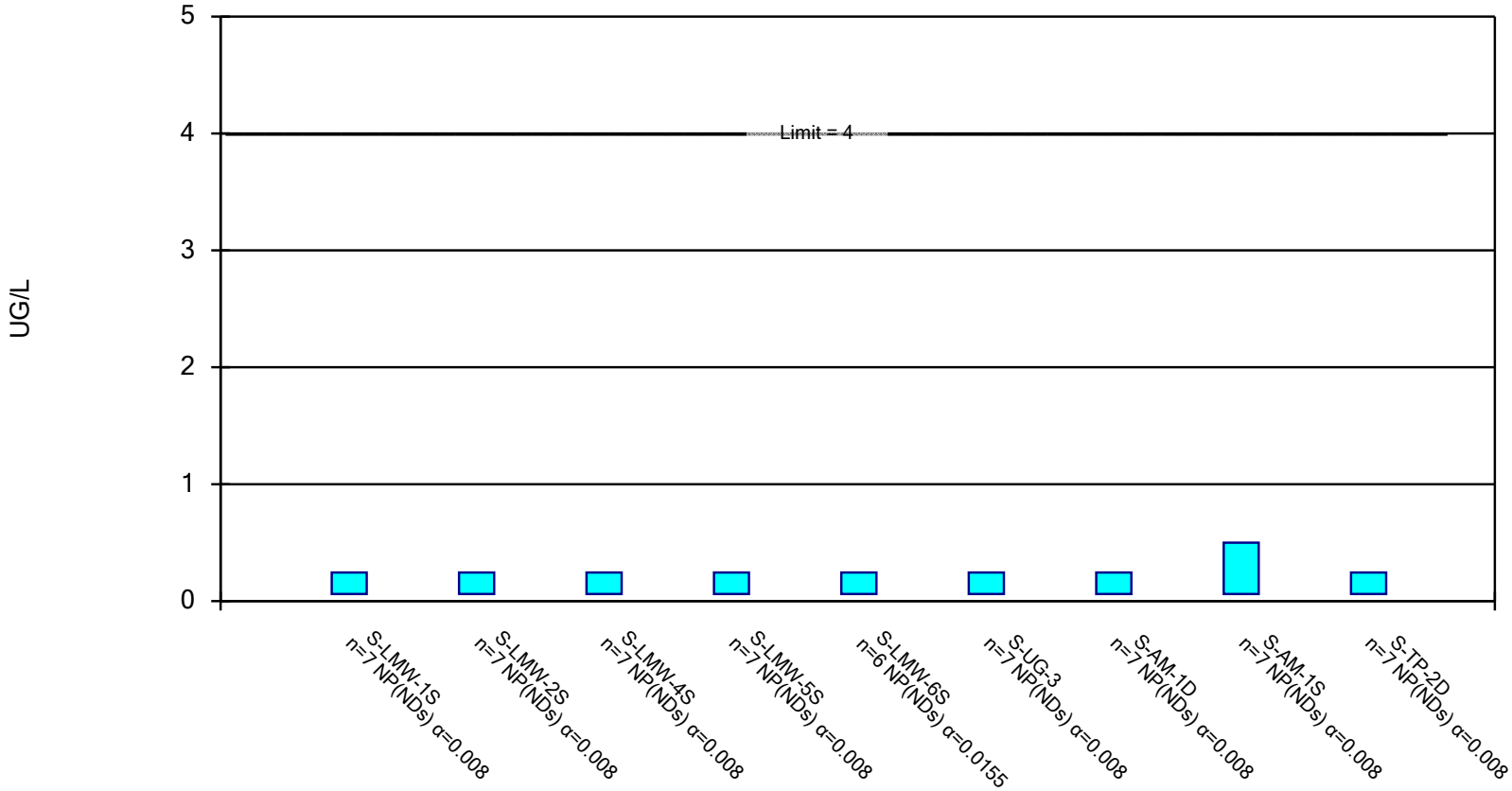


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Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



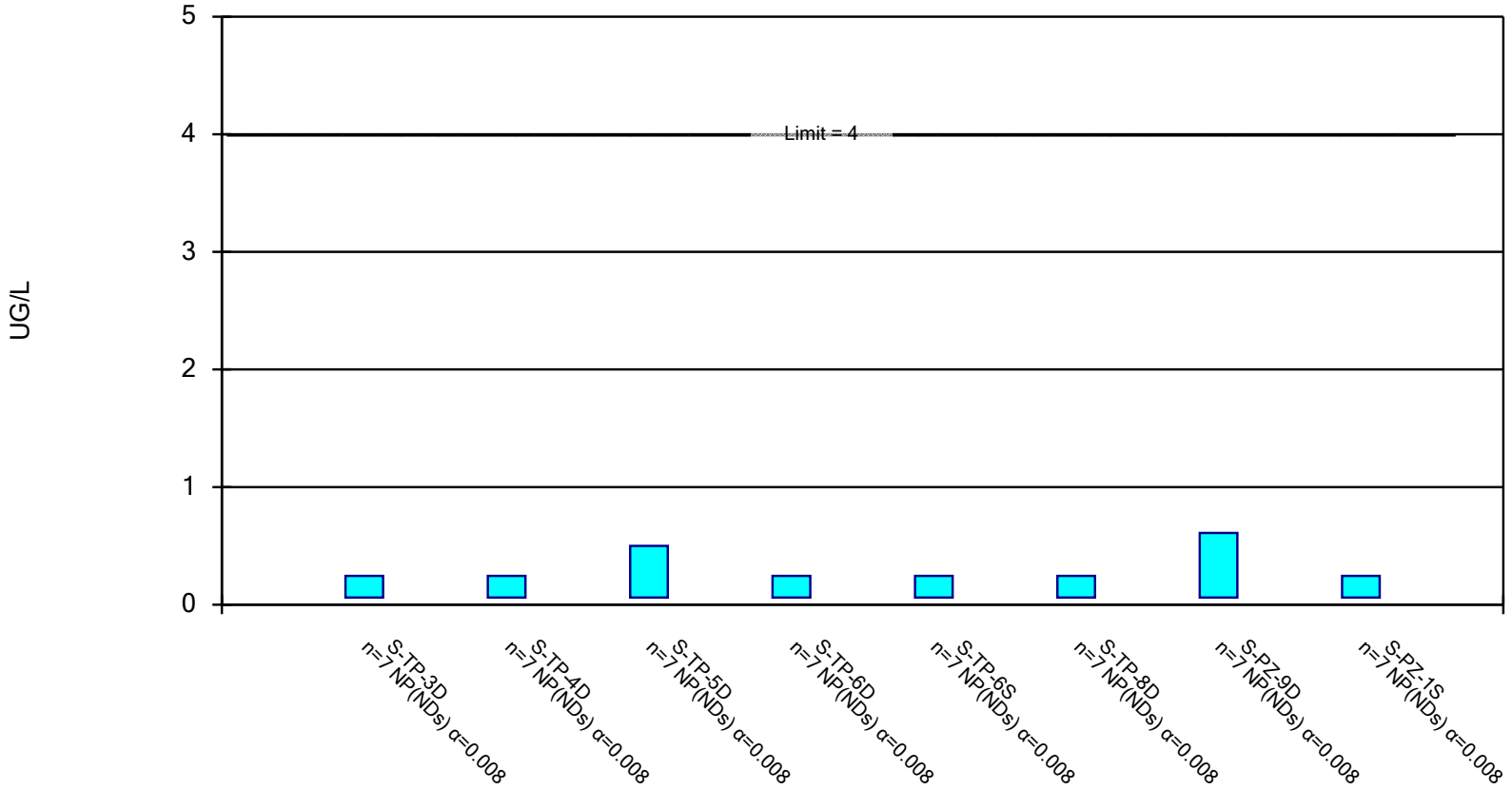
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

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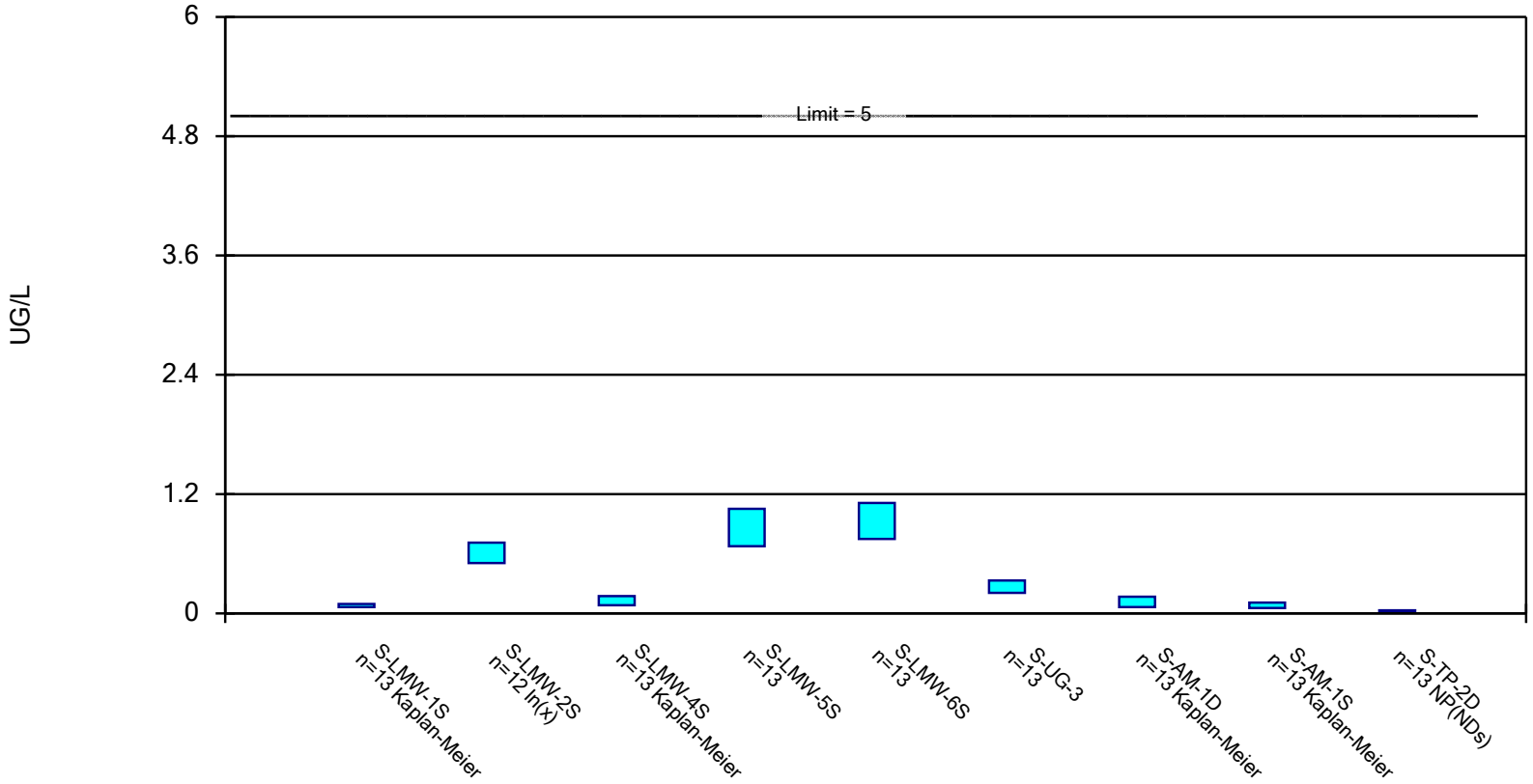
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



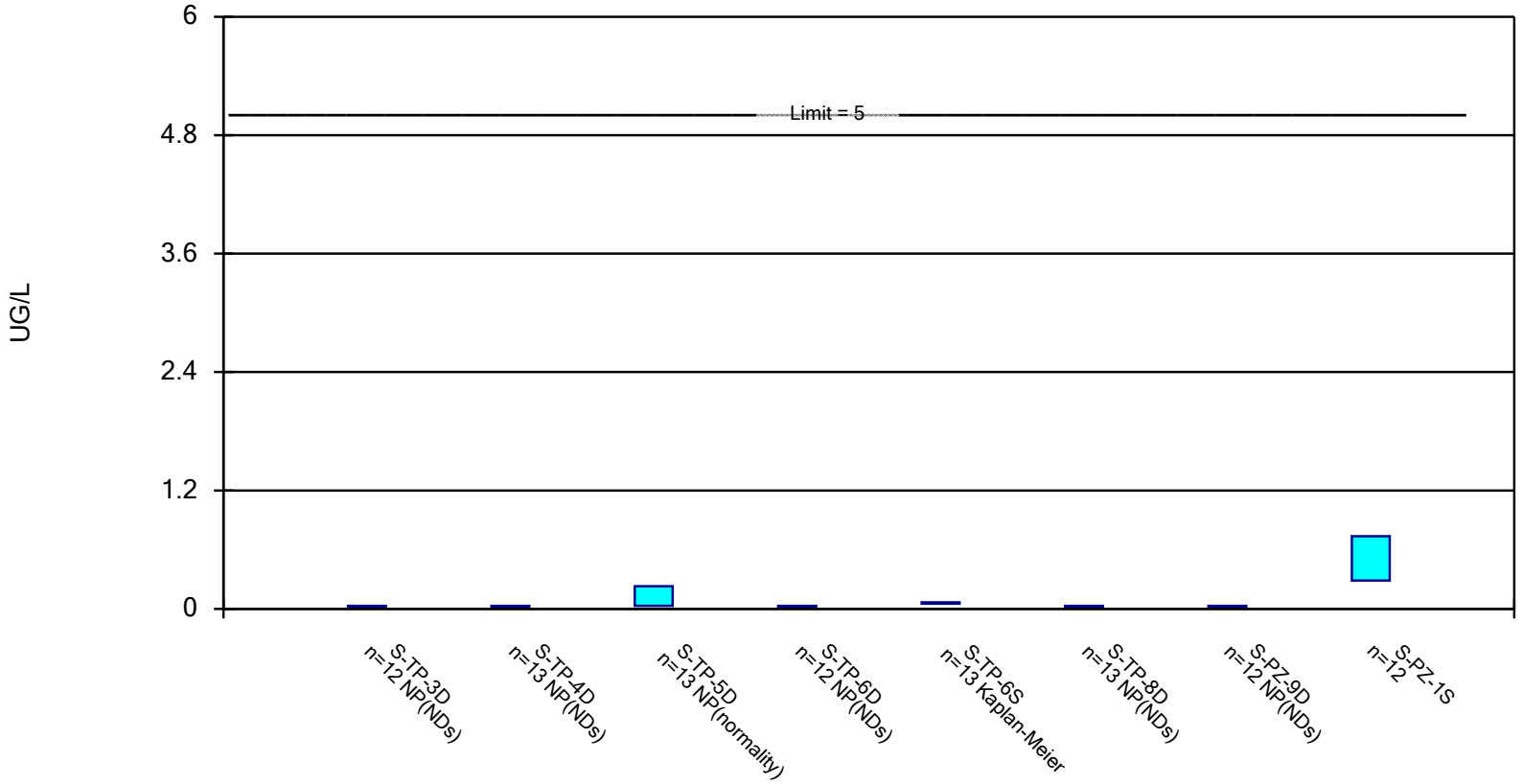
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



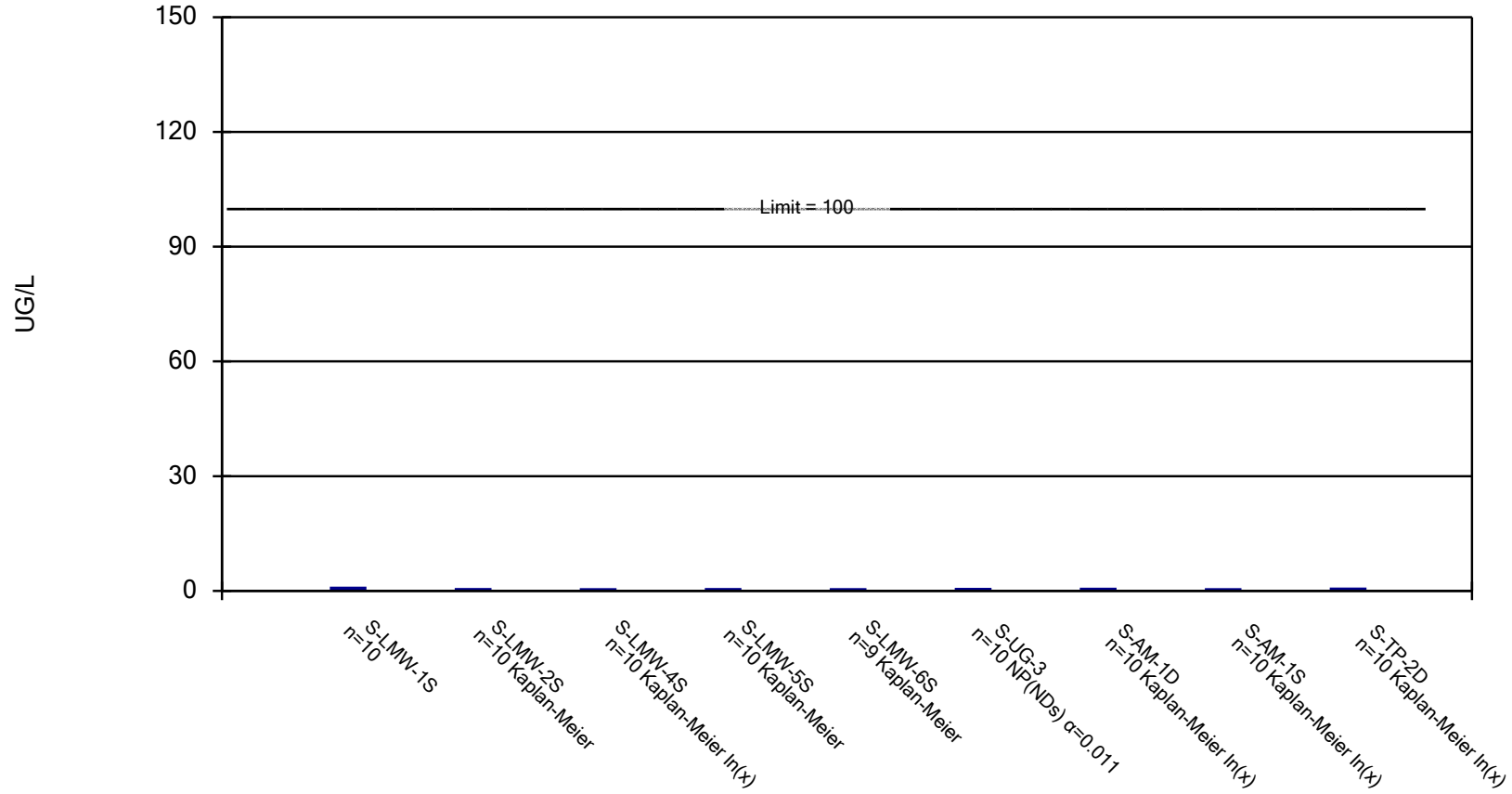
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



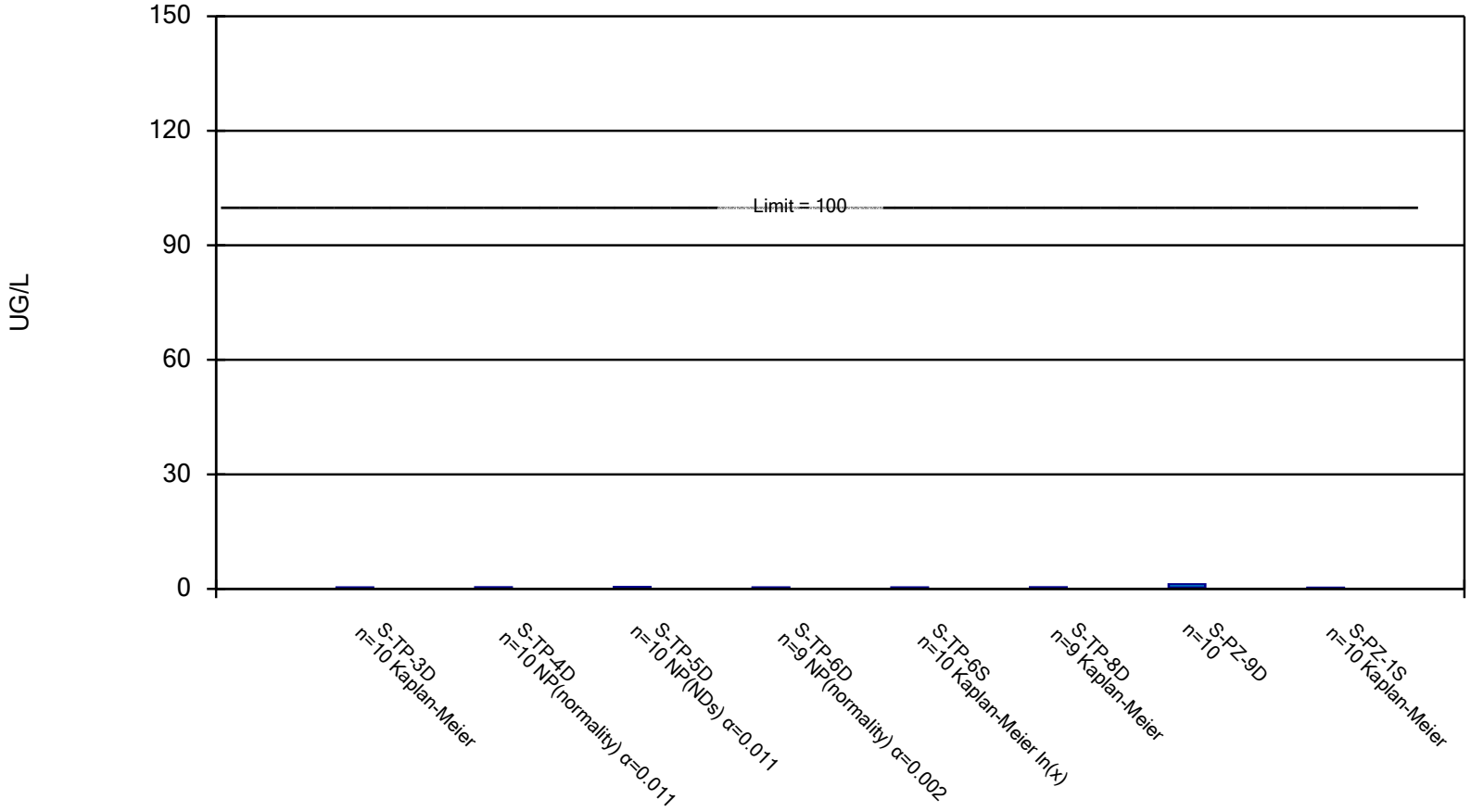
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



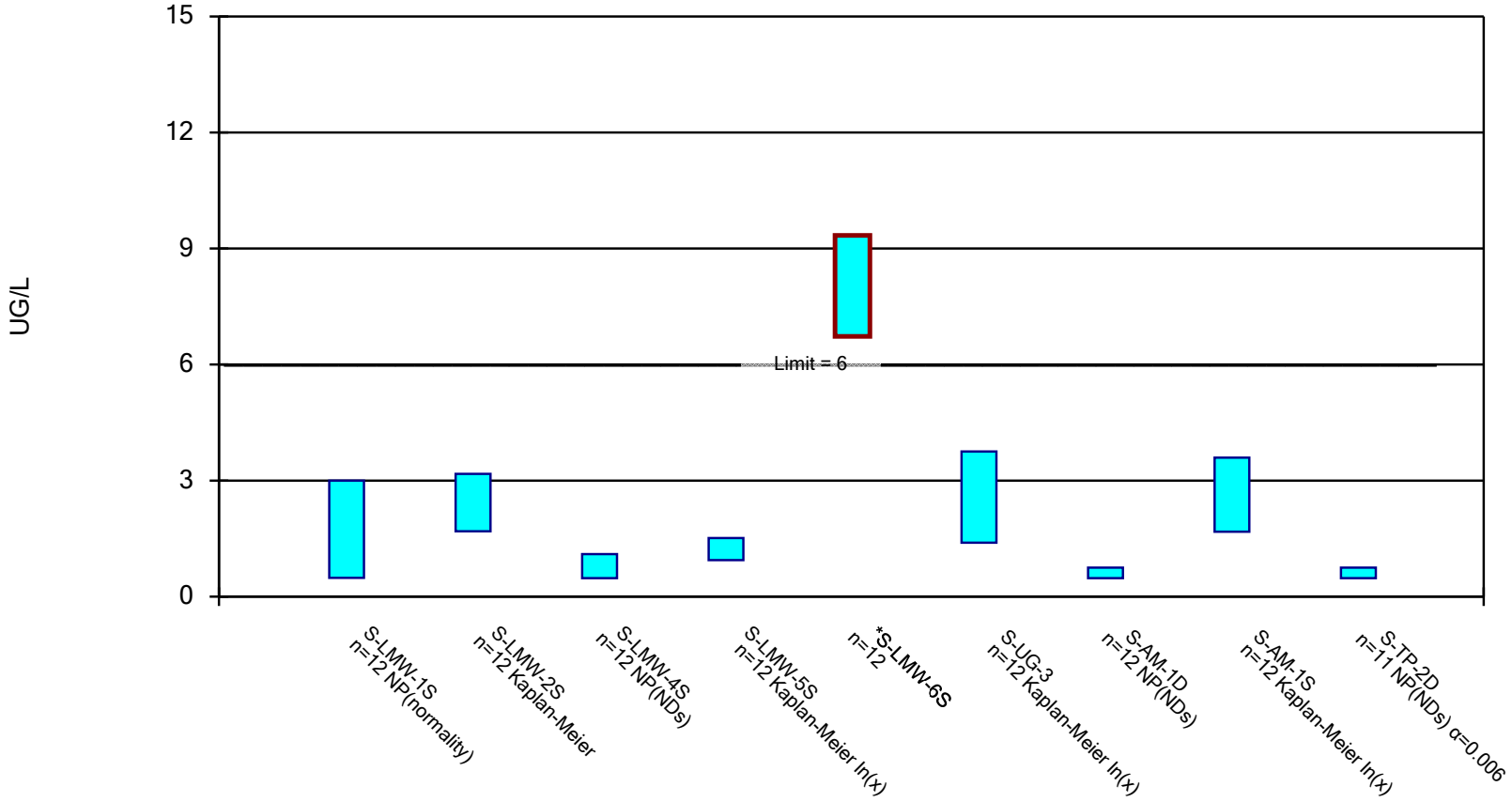
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



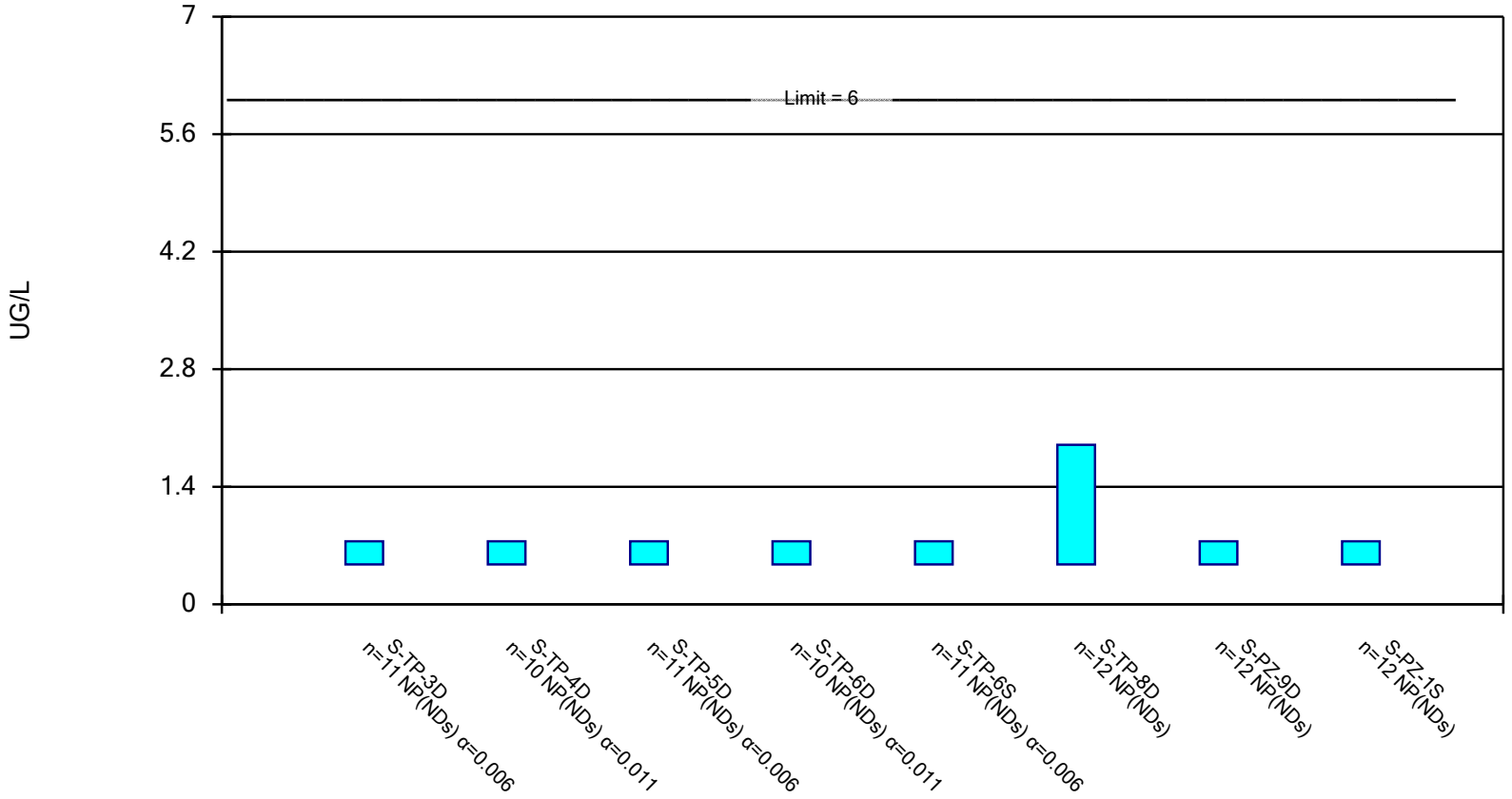
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



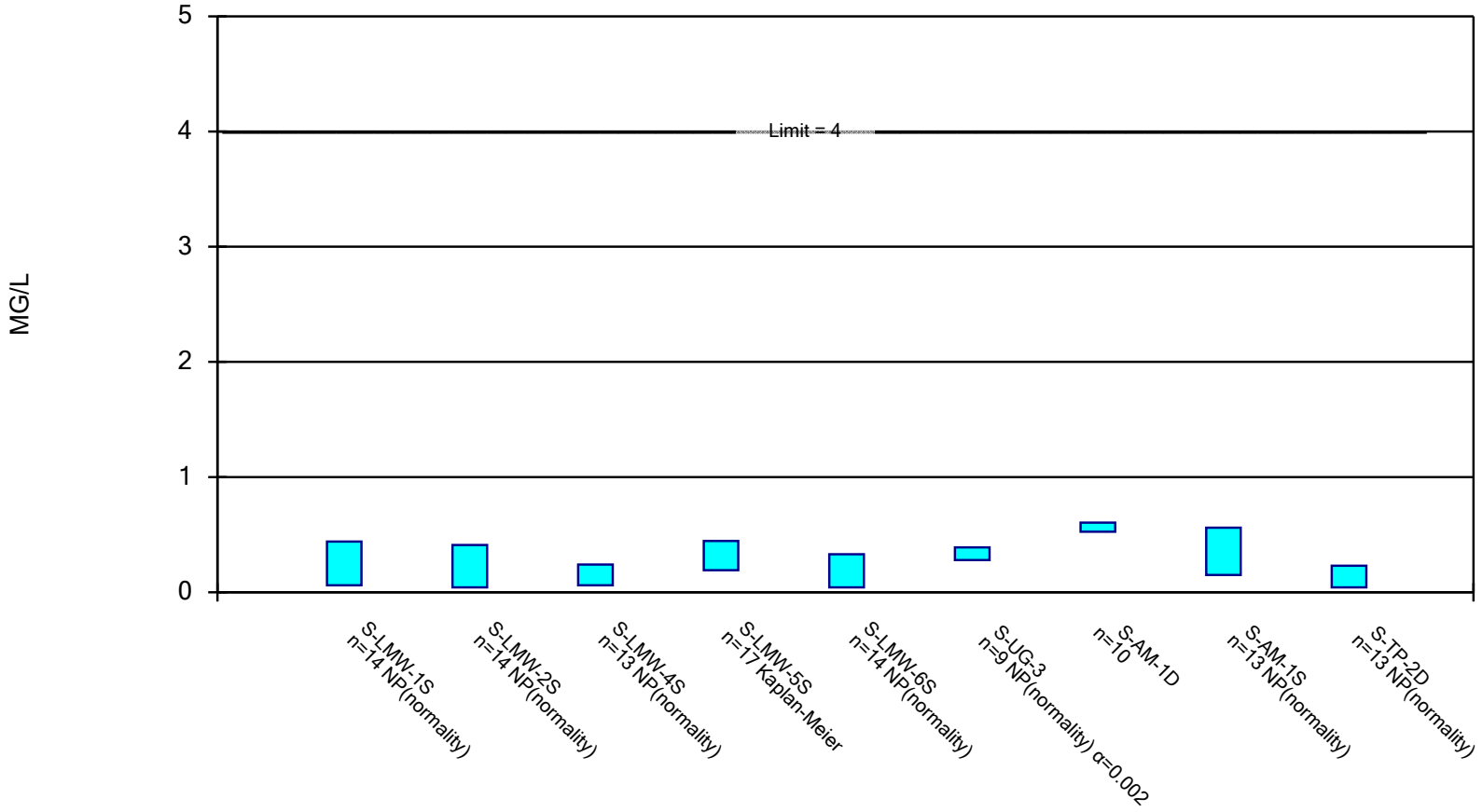
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



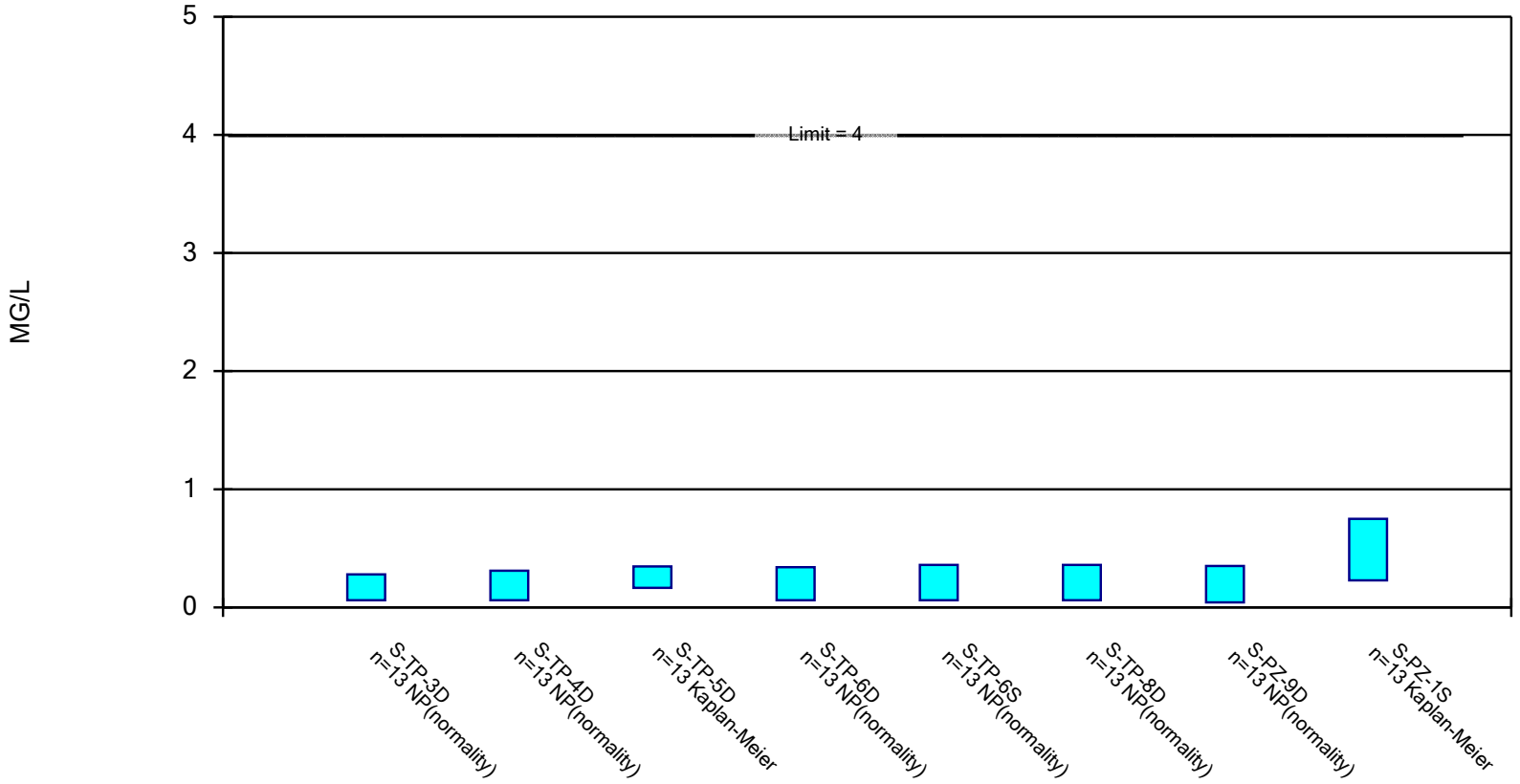
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

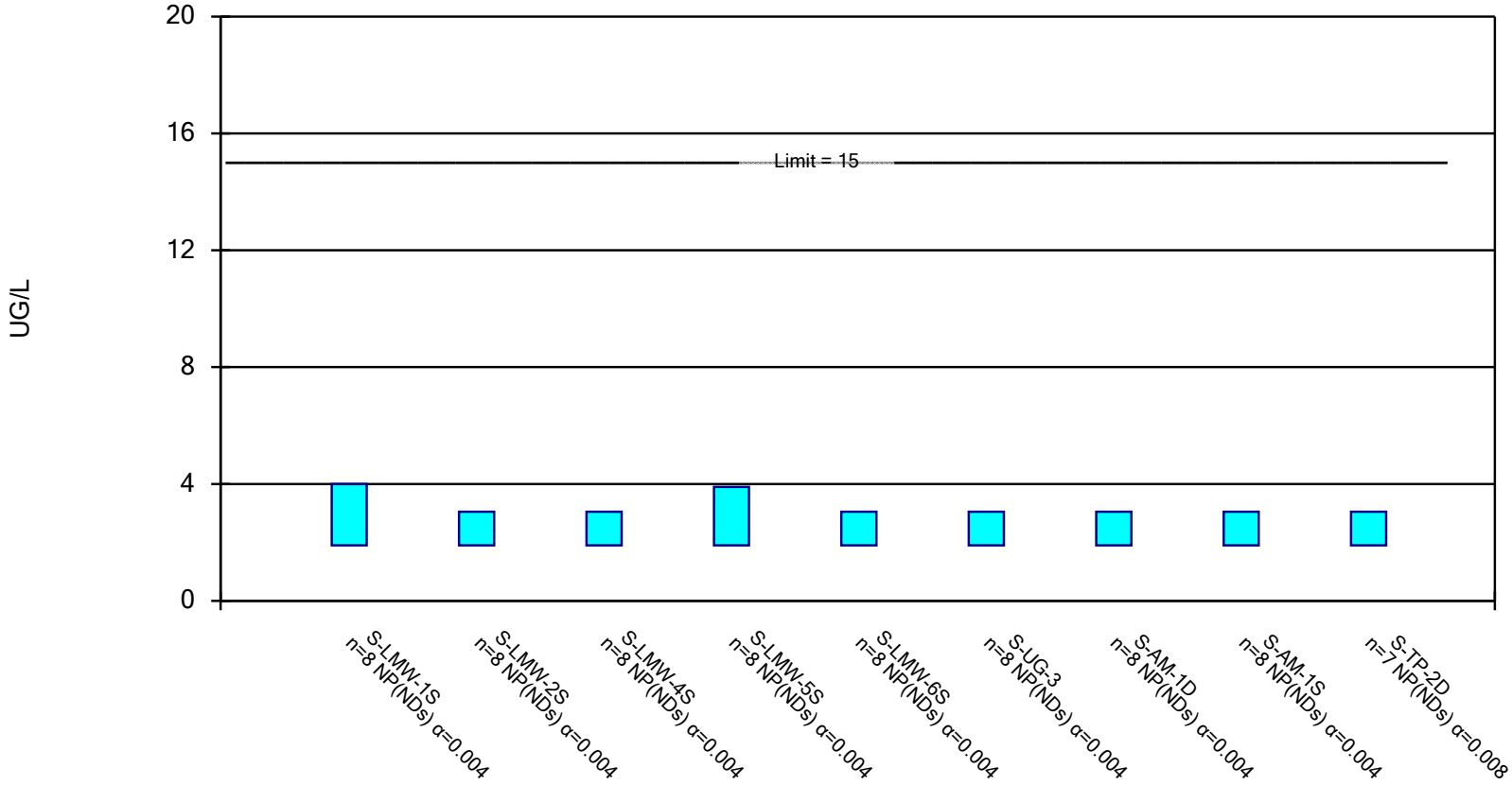


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Sioux E.C. Client: Ameren Data: SEC_DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



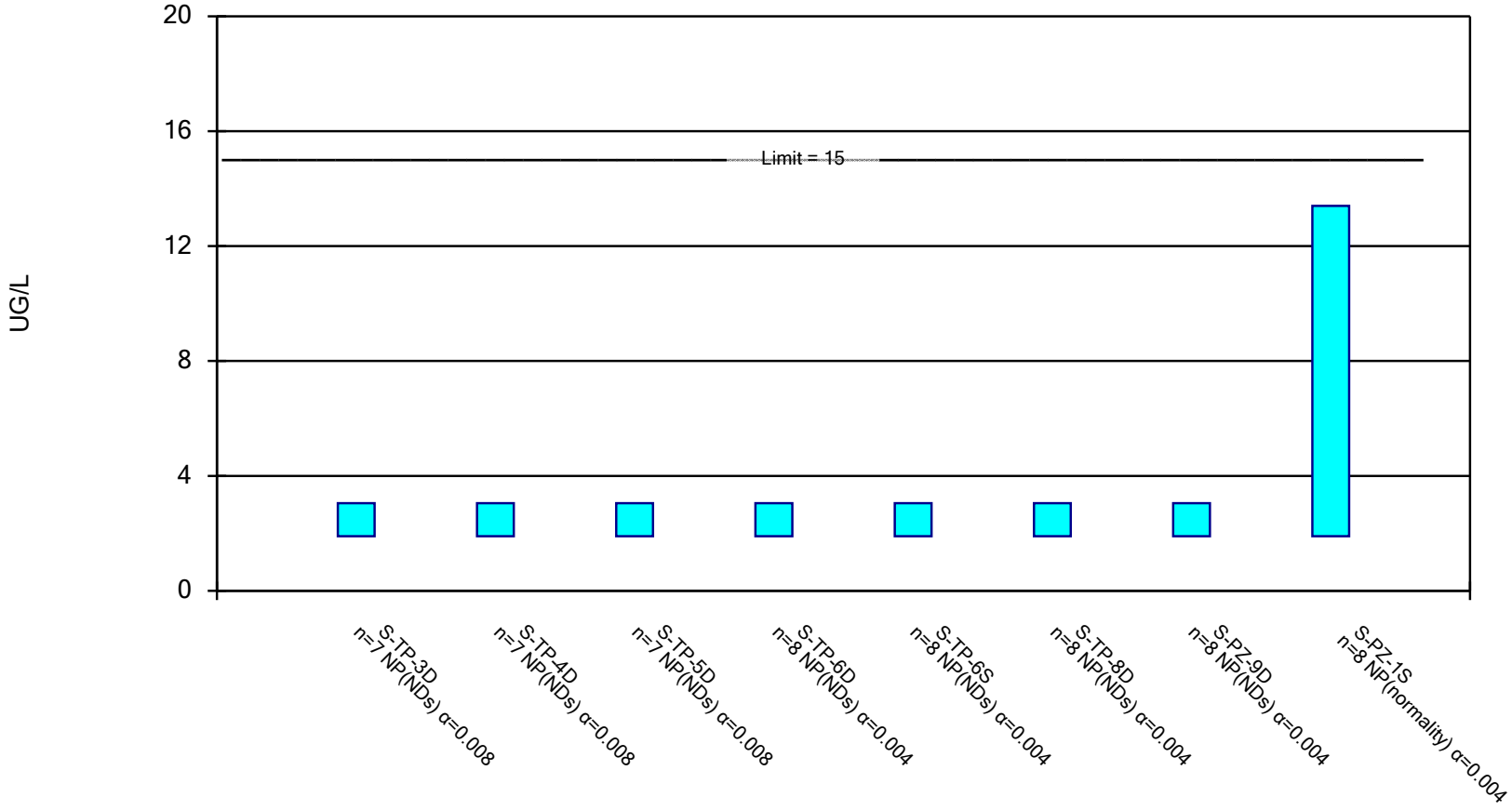
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

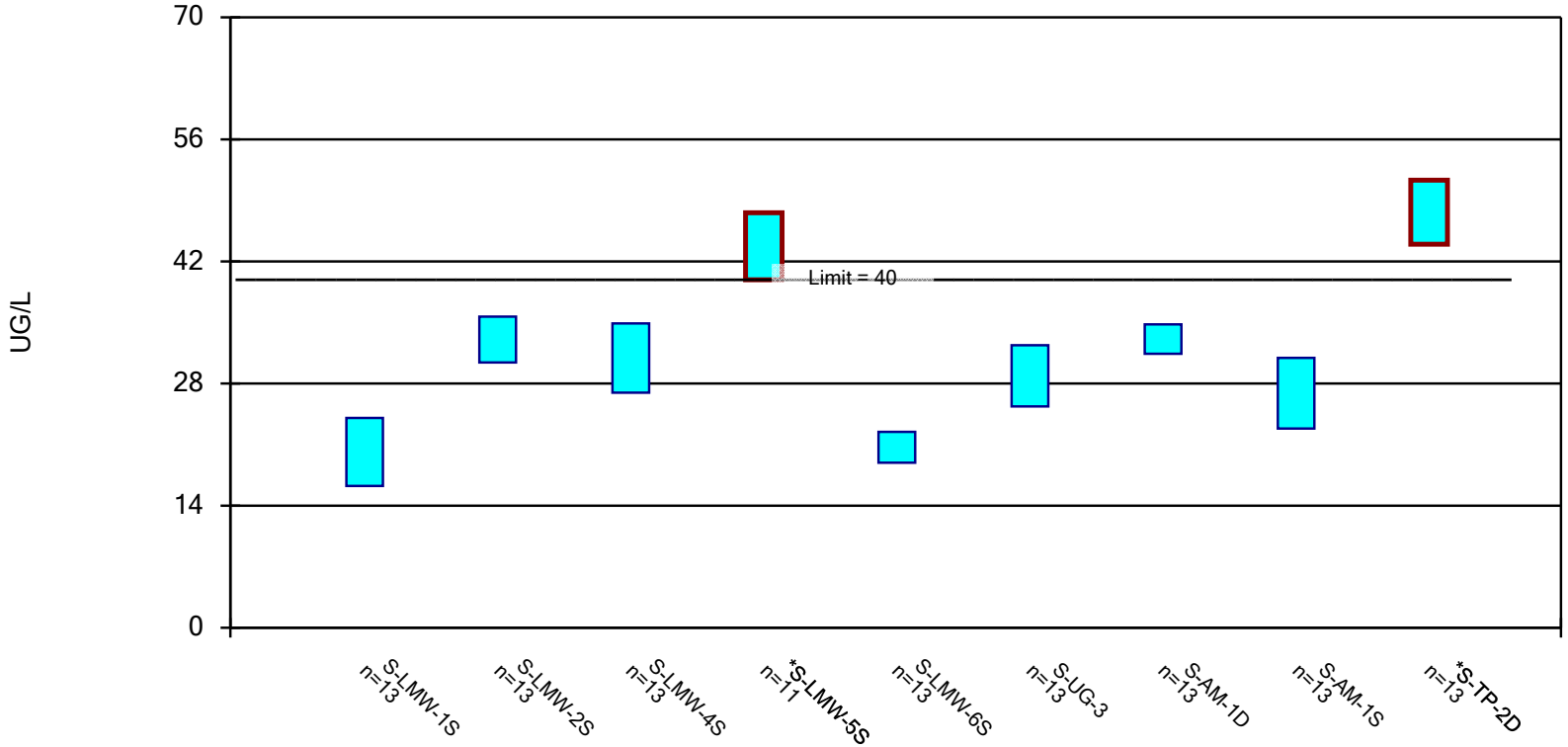


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Sioux E.C. Client: Ameren Data: SEC_DATA

Parametric Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



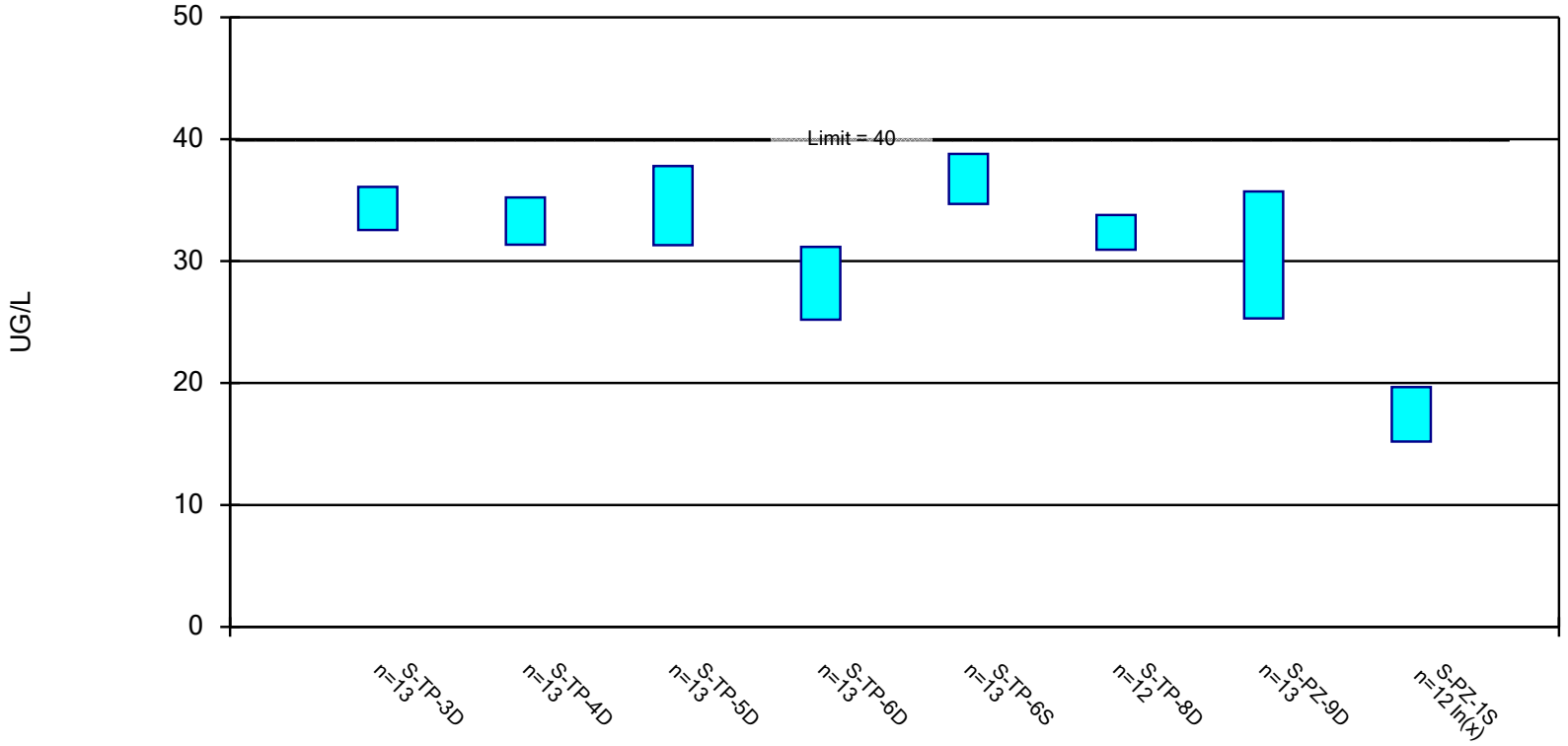
Constituent: LITHIUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

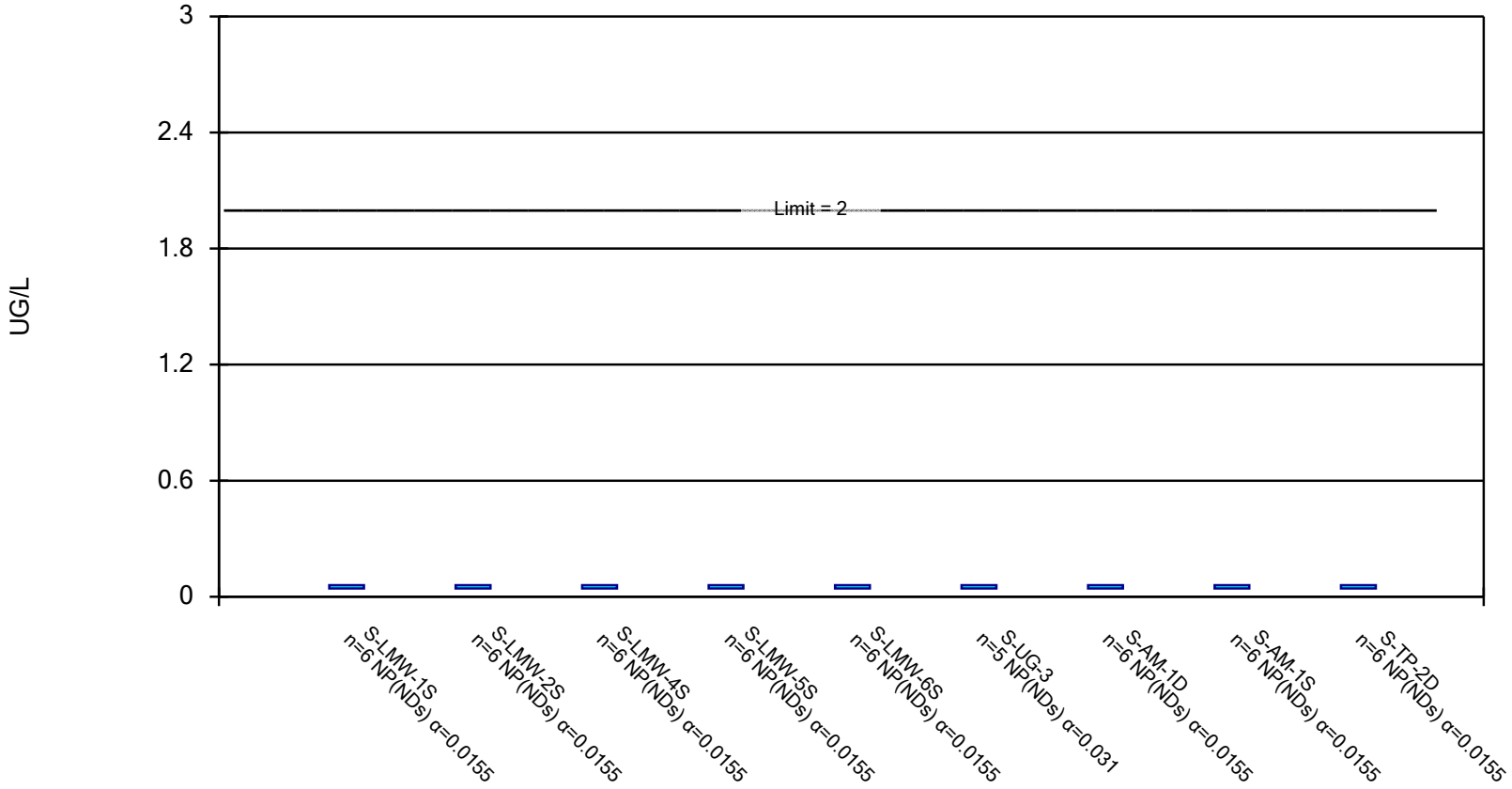


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Non-Parametric Confidence Interval, Corrective Action Mode

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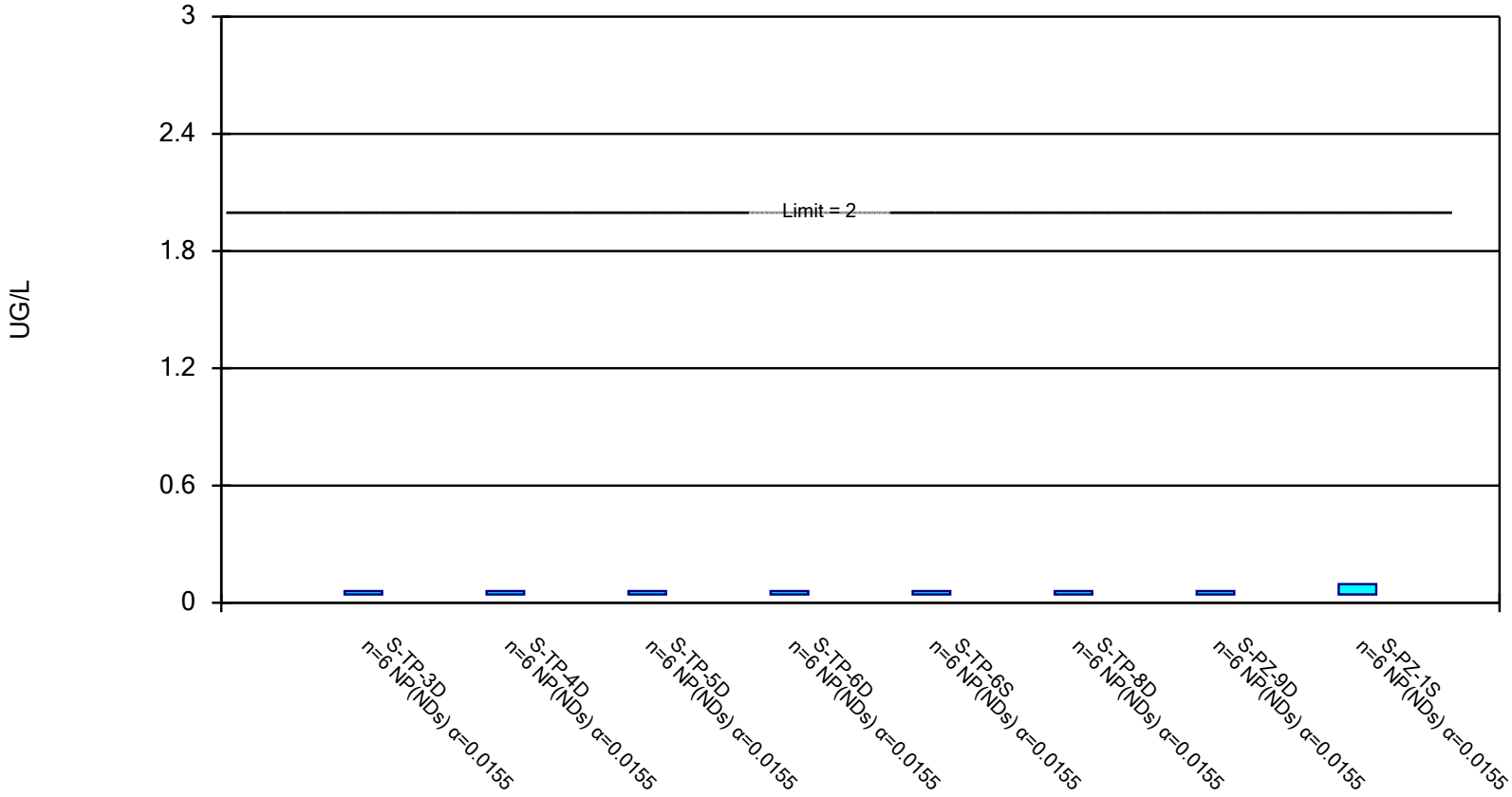


Constituent: MERCURY, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



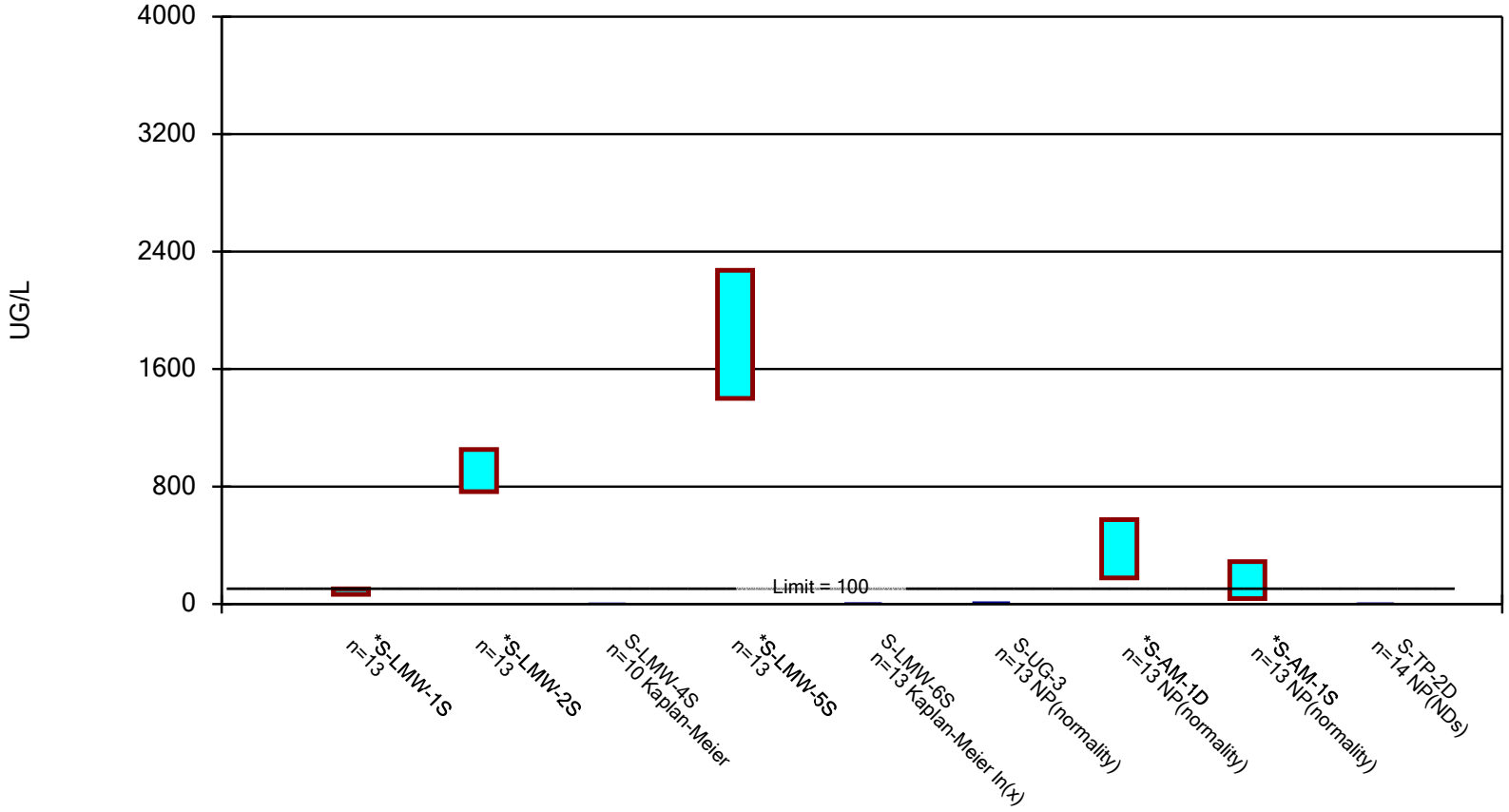
Constituent: MERCURY, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



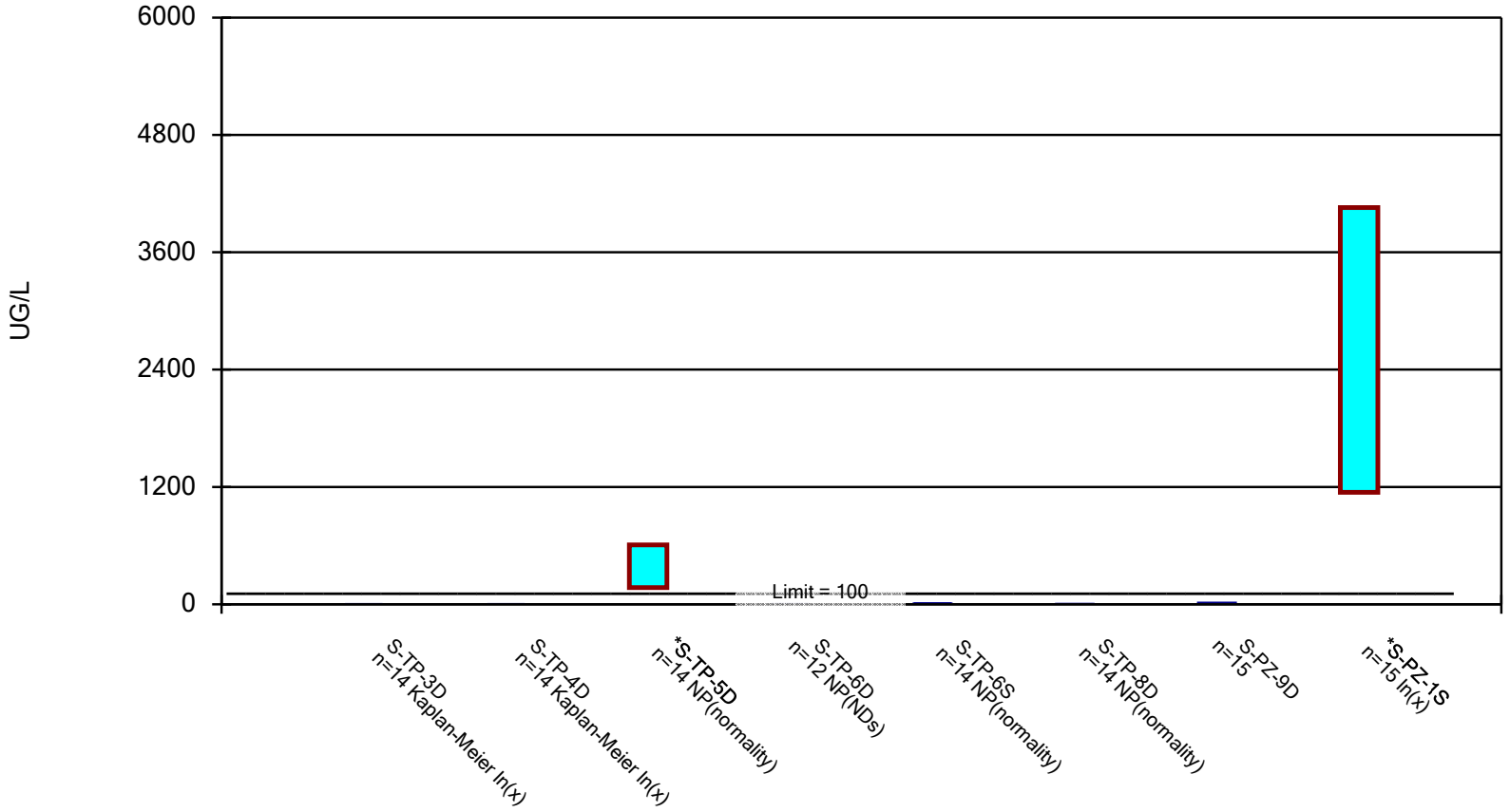
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



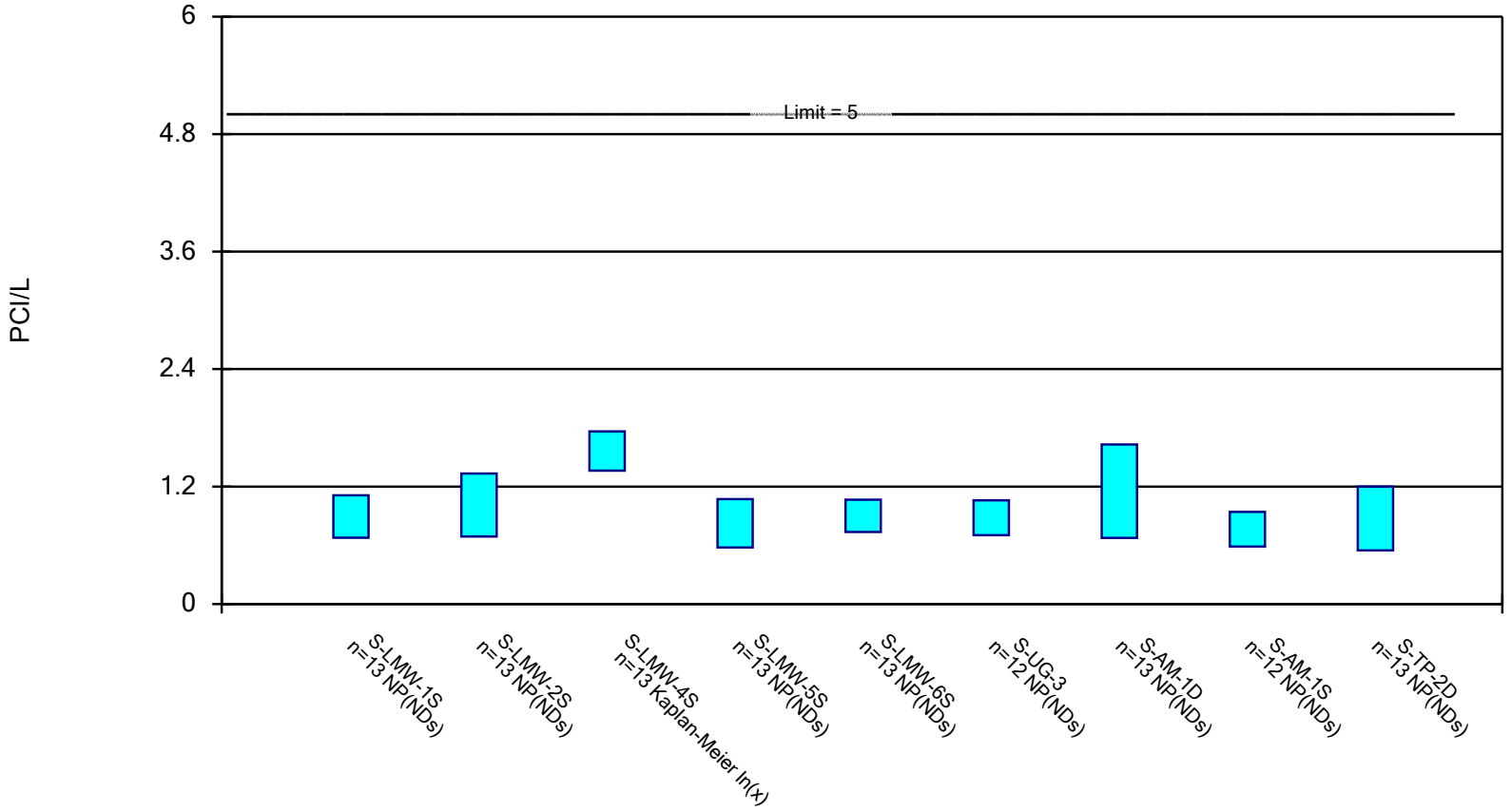
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



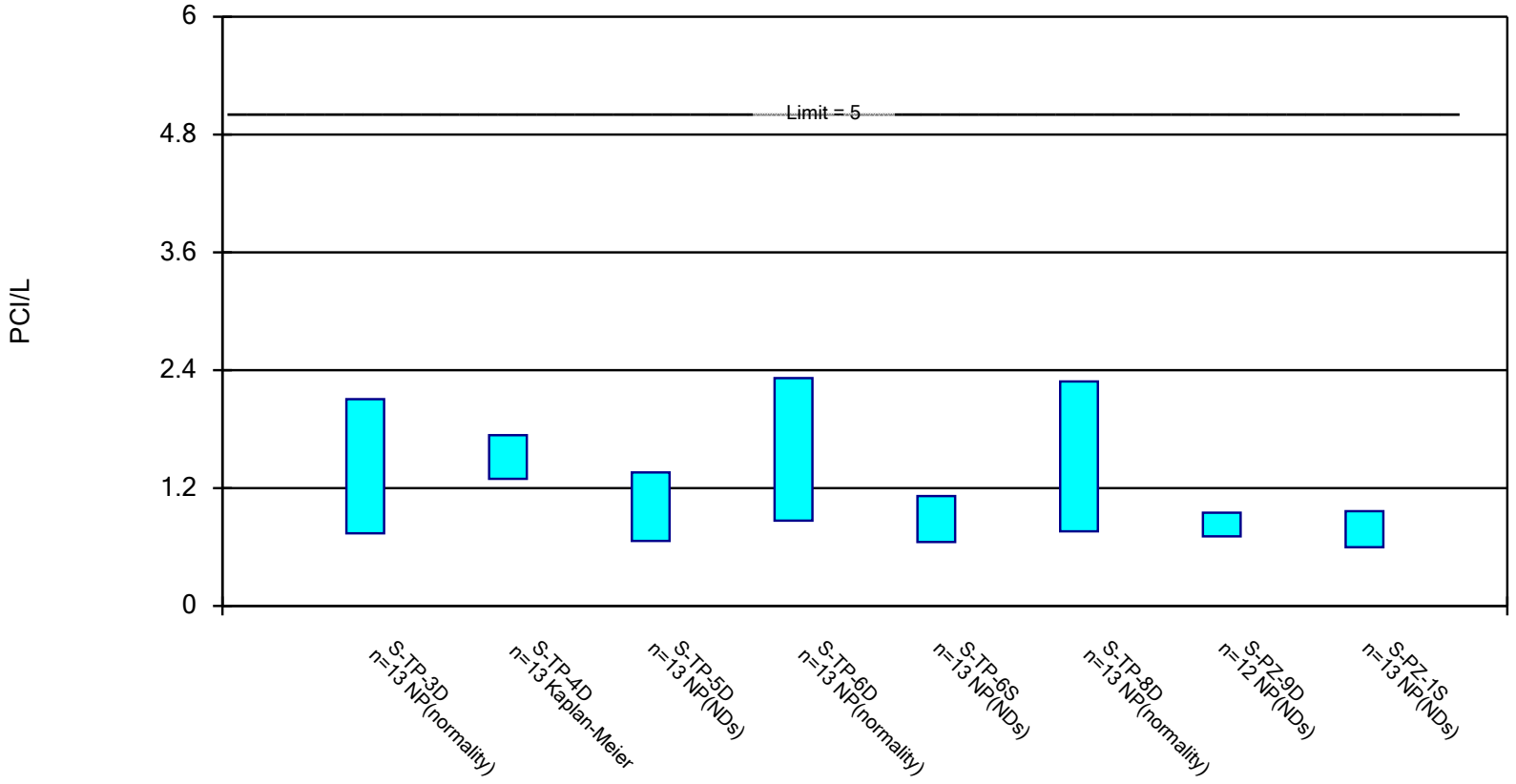
Constituent: RADIUM [226 + 228] Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

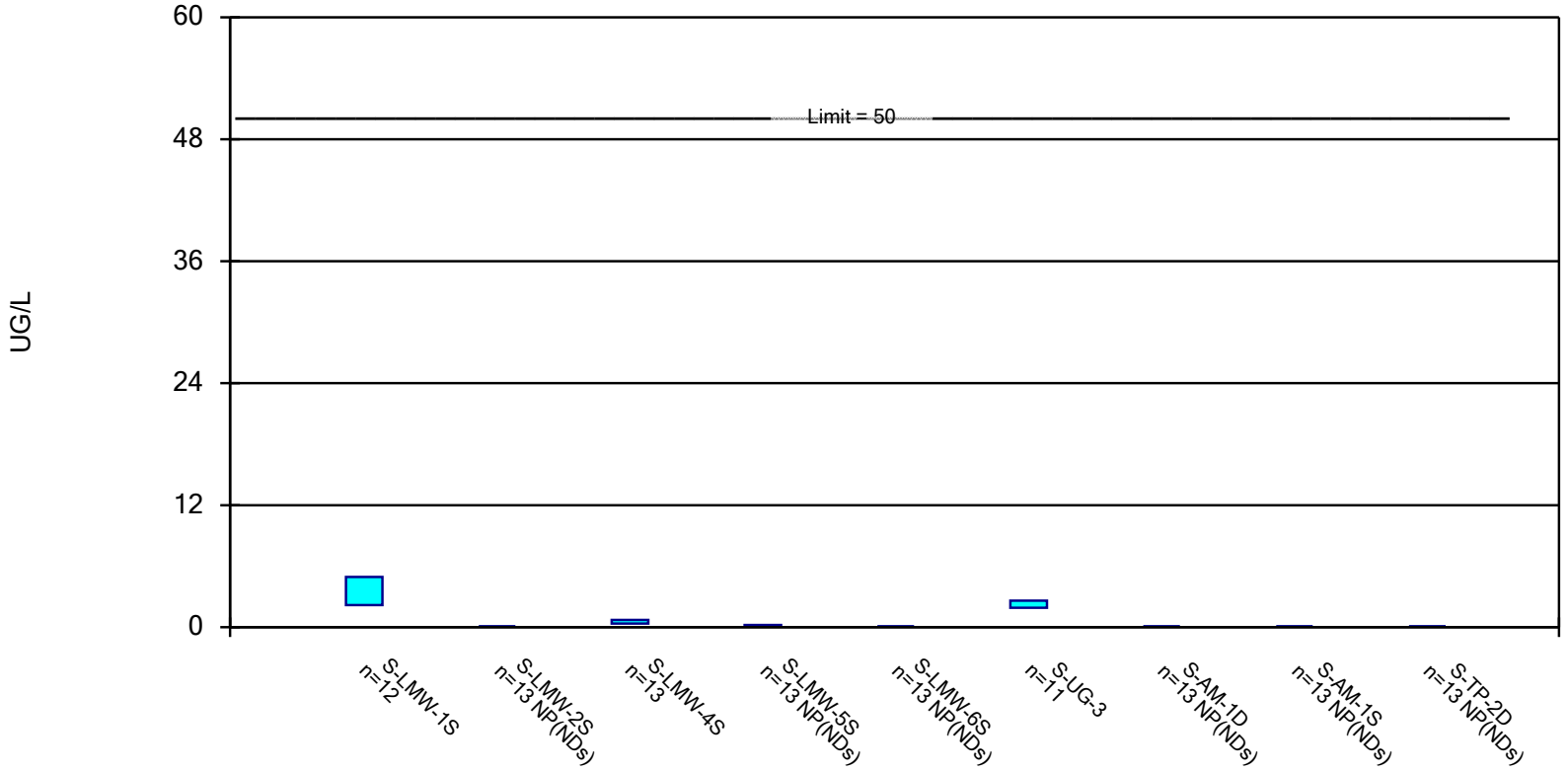


Constituent: RADIUM [226 + 228] Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



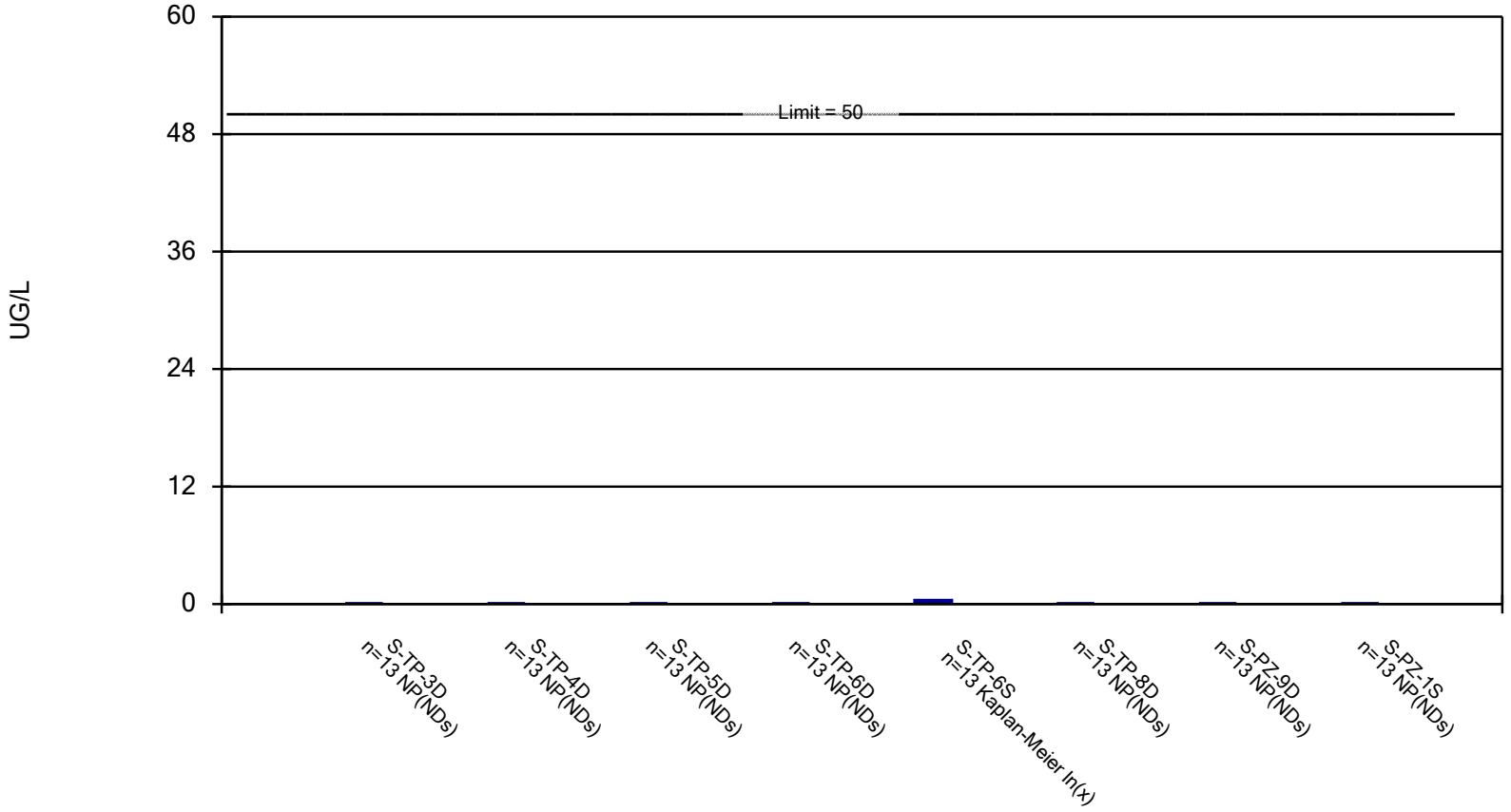
Constituent: SELENIUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Parametric and Non-Parametric (NP) Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

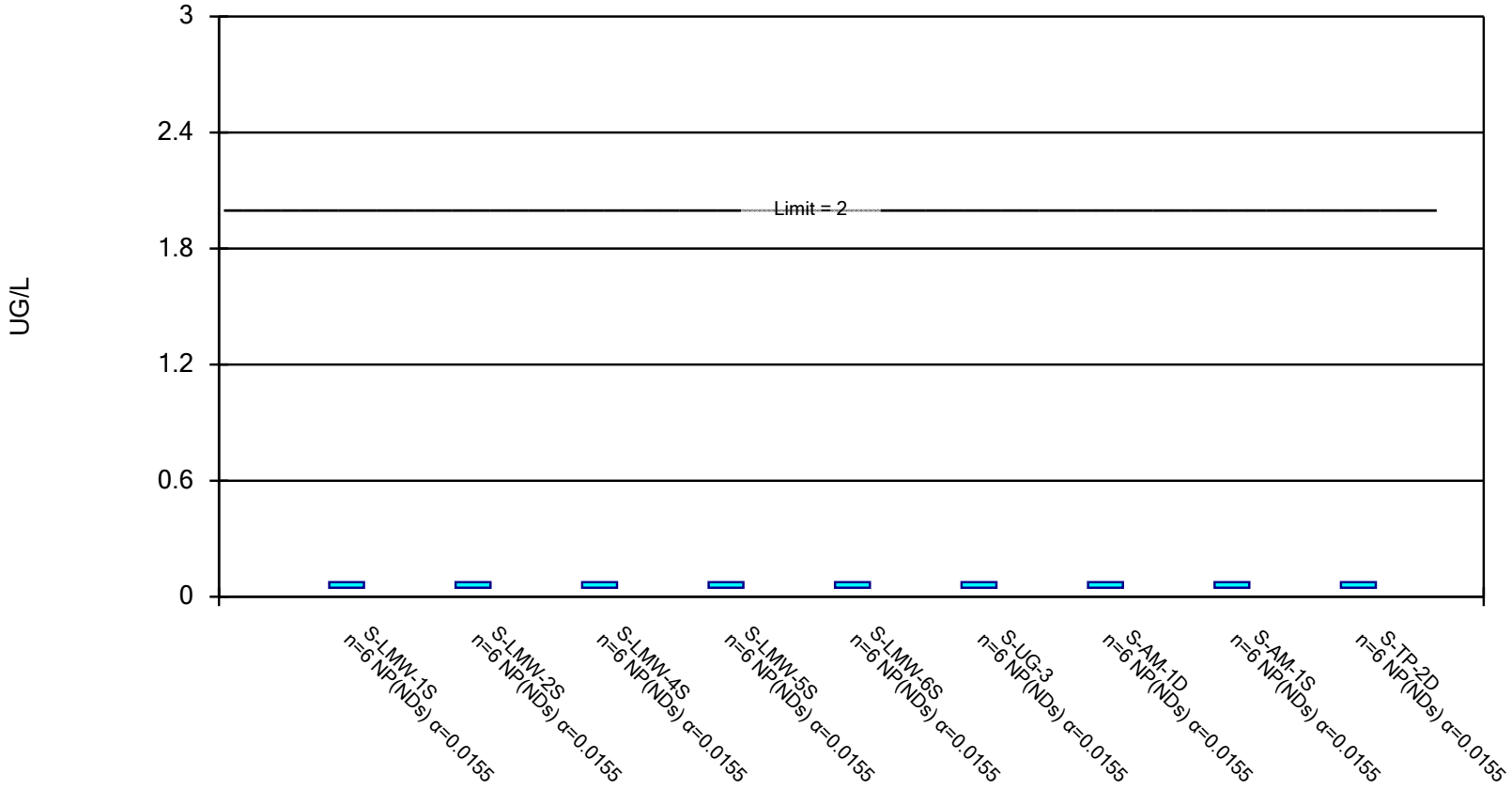


Constituent: SELENIUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.

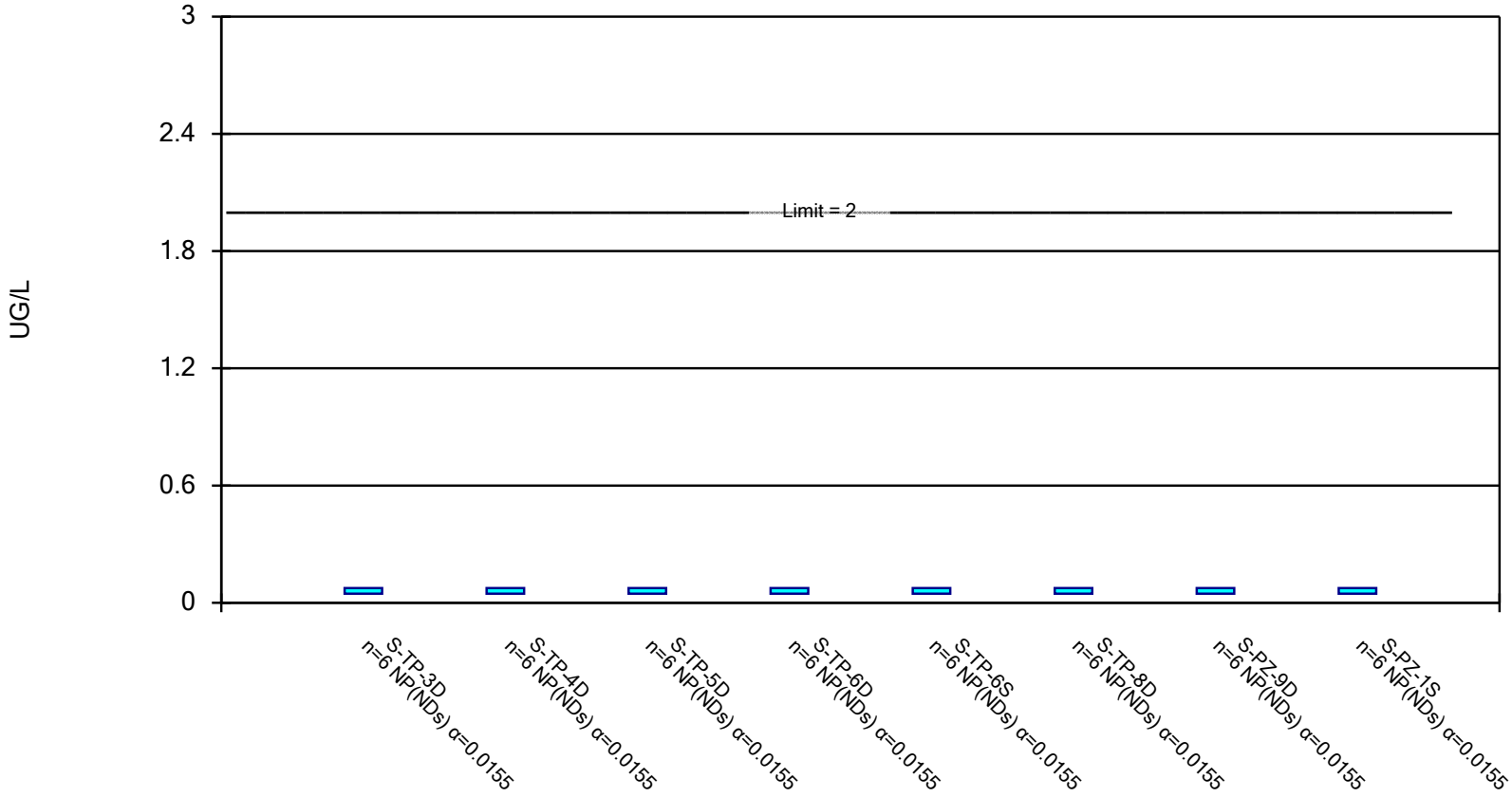


Constituent: THALLIUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Non-Parametric Confidence Interval, Corrective Action Mode

Compliance Limit is not exceeded.



Constituent: THALLIUM, TOTAL Analysis Run 1/1/2026 12:15 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 12:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
ANTIMONY, TOTAL (UG/L)	S-LMW-1S	0.43143	0.30857	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-2S	0.19735	0.15598	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-LMW-4S	0.18	0.06	6	No	6	33.333	No	0.0155	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-5S	0.15	0.11	6	No	6	0	No	0.0155	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-LMW-6S	0.23891	0.18776	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-UG-3	0.21552	0.10782	6	No	6	0	No	0.01	Param.
ANTIMONY, TOTAL (UG/L)	S-AM-1D	0.23	0.0485	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-AM-1S	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-2D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-3D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-4D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-5D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6D	0.86	0.05	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-TP-6S	0.15	0.06	6	No	6	66.667	No	0.0155	NP (normality)
ANTIMONY, TOTAL (UG/L)	S-TP-8D	0.21	0.05	6	No	6	83.333	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ANTIMONY, TOTAL (UG/L)	S-PZ-1S	0.06	0.0485	6	No	6	100	No	0.0155	NP (NDs)
ARSENIC, TOTAL (UG/L)	S-LMW-1S	2.178	1.8374	10	No	13	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-2S	1.0104	0.83792	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.72012	0.5543	10	No	13	7.6923	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.95398	0.67525	10	No	13	7.6923	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0.79253	0.64413	10	No	12	8.3333	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-UG-3	0.49	0.38	10	No	13	0	No	0.01	NP (normality)
ARSENIC, TOTAL (UG/L)	S-AM-1D	0.20597	0.16237	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-AM-1S	1.4652	1.2025	10	No	13	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-2D	0.30268	0.13072	10	No	13	7.6923	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.19959	0.12312	10	No	13	15.385	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-4D	2.0684	1.6239	10	No	13	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.38	0.22	10	No	13	0	No	0.01	NP (normality)
ARSENIC, TOTAL (UG/L)	S-TP-6D	0.17359	0.11212	10	No	13	38.462	ln(x)	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-6S	0.61534	0.47966	10	No	12	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-TP-8D	1.5095	1.2905	10	No	13	0	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.68342	0.41196	10	No	13	7.6923	No	0.01	Param.
ARSENIC, TOTAL (UG/L)	S-PZ-1S	0.45769	0.30231	10	No	13	7.6923	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-1S	263	128	2000	No	13	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-LMW-2S	128.05	101.69	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-4S	267.91	210.4	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-LMW-5S	57.3	36.1	2000	No	13	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-LMW-6S	50.029	42.34	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-UG-3	227.18	209.15	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-AM-1D	387	214	2000	No	13	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-AM-1S	149.05	122.12	2000	No	12	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-2D	62.259	57.956	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-3D	589.11	564.58	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-4D	553.81	486.81	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-5D	188.83	155.17	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-6D	417.29	395.32	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-6S	291.33	273.13	2000	No	13	0	No	0.01	Param.
BARIUM, TOTAL (UG/L)	S-TP-8D	382	332	2000	No	13	0	No	0.01	NP (normality)
BARIUM, TOTAL (UG/L)	S-PZ-9D	114.81	90.528	2000	No	13	0	No	0.01	Param.

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
BARIUM, TOTAL (UG/L)	S-PZ-1S	190	89.8	2000	No	13	0	No	0.01	NP (normality)
BERYLLIUM, TOTAL (UG/L)	S-LMW-1S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-2S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-4S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-5S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-LMW-6S	0.245	0.06	4	No	6	100	No	0.0155	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-UG-3	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-AM-1S	0.5	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-2D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-3D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-4D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-6S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-TP-8D	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-9D	0.61	0.06	4	No	7	85.714	No	0.008	NP (NDs)
BERYLLIUM, TOTAL (UG/L)	S-PZ-1S	0.245	0.06	4	No	7	100	No	0.008	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.093929	0.063918	5	No	13	15.385	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.71084	0.50605	5	No	12	0	ln(x)	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.1736	0.082069	5	No	13	30.769	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-5S	1.0518	0.67584	5	No	13	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-LMW-6S	1.1109	0.74913	5	No	13	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-UG-3	0.33081	0.20611	5	No	13	0	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1D	0.16693	0.063093	5	No	13	23.077	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-AM-1S	0.10859	0.05356	5	No	13	30.769	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-2D	0.031	0.025	5	No	13	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-3D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-4D	0.031	0.025	5	No	13	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.23	0.031	5	No	13	23.077	No	0.01	NP (normality)
CADMIUM, TOTAL (UG/L)	S-TP-6D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.065681	0.052729	5	No	13	38.462	No	0.01	Param.
CADMIUM, TOTAL (UG/L)	S-TP-8D	0.031	0.025	5	No	13	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-9D	0.031	0.025	5	No	12	100	No	0.01	NP (NDs)
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.73633	0.28701	5	No	12	8.3333	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.81794	0.27206	100	No	10	10	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0.47037	0.2103	100	No	10	50	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.41873	0.22793	100	No	10	50	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	0.45353	0.23847	100	No	10	40	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	0.40945	0.25722	100	No	9	22.222	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-UG-3	0.5	0.115	100	No	10	90	No	0.011	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-AM-1D	0.51699	0.19225	100	No	10	50	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-AM-1S	0.43261	0.19591	100	No	10	70	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-2D	0.58593	0.20423	100	No	10	50	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.37555	0.22089	100	No	10	60	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.43	0.115	100	No	10	50	No	0.011	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-TP-5D	0.5	0.15	100	No	10	90	No	0.011	NP (NDs)
CHROMIUM, TOTAL (UG/L)	S-TP-6D	0.38	0.15	100	No	9	55.556	No	0.002	NP (normality)
CHROMIUM, TOTAL (UG/L)	S-TP-6S	0.39671	0.21649	100	No	10	70	ln(x)	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-TP-8D	0.41194	0.2414	100	No	9	44.444	No	0.01	Param.

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	1.1839	0.40606	100	No	10	10	No	0.01	Param.
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	0.30412	0.20688	100	No	10	70	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-LMW-1S	3	0.485	6	No	12	66.667	No	0.01	NP (normality)
COBALT, TOTAL (UG/L)	S-LMW-2S	3.1748	1.69	6	No	12	16.667	No	0.01	Param.
COBALT, TOTAL (UG/L)	S-LMW-4S	1.1	0.475	6	No	12	91.667	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-LMW-5S	1.5137	0.94469	6	No	12	66.667	ln(x)	0.01	Param.
COBALT, TOTAL (UG/L)	**S-LMW-6S**	**9.3387**	**6.7279**	**6**	**Yes**	**12**	**0**	**No**	**0.01**	**Param.**
COBALT, TOTAL (UG/L)	S-UG-3	3.753	1.3939	6	No	12	16.667	ln(x)	0.01	Param.
COBALT, TOTAL (UG/L)	S-AM-1D	0.75	0.475	6	No	12	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-AM-1S	3.5912	1.6772	6	No	12	16.667	ln(x)	0.01	Param.
COBALT, TOTAL (UG/L)	S-TP-2D	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-3D	0.75	0.475	6	No	11	90.909	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-4D	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-5D	0.75	0.475	6	No	11	90.909	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6D	0.75	0.475	6	No	10	100	No	0.011	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-6S	0.75	0.475	6	No	11	100	No	0.006	NP (NDs)
COBALT, TOTAL (UG/L)	S-TP-8D	1.9	0.475	6	No	12	83.333	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-PZ-9D	0.75	0.475	6	No	12	100	No	0.01	NP (NDs)
COBALT, TOTAL (UG/L)	S-PZ-1S	0.75	0.475	6	No	12	100	No	0.01	NP (NDs)
FLUORIDE, TOTAL (MG/L)	S-LMW-1S	0.44	0.06	4	No	14	35.714	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	0.41	0.043	4	No	14	57.143	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-LMW-4S	0.24	0.06	4	No	13	53.846	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	0.44494	0.19149	4	No	17	29.412	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	0.33	0.043	4	No	14	50	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-UG-3	0.39	0.28	4	No	9	0	No	0.002	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-AM-1D	0.60496	0.52504	4	No	10	0	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-AM-1S	0.56	0.15	4	No	13	15.385	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-2D	0.23	0.043	4	No	13	61.538	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-3D	0.28	0.06	4	No	13	38.462	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-4D	0.31	0.06	4	No	13	38.462	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-5D	0.3462	0.16518	4	No	13	23.077	No	0.01	Param.
FLUORIDE, TOTAL (MG/L)	S-TP-6D	0.34	0.06	4	No	13	38.462	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-6S	0.36	0.06	4	No	13	38.462	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-TP-8D	0.36	0.06	4	No	13	46.154	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	0.35	0.043	4	No	13	61.538	No	0.01	NP (normality)
FLUORIDE, TOTAL (MG/L)	S-PZ-1S	0.74912	0.22934	4	No	13	30.769	No	0.01	Param.
LEAD, TOTAL (UG/L)	S-LMW-1S	4	1.9	15	No	8	87.5	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-2S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-4S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-5S	3.9	1.9	15	No	8	87.5	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-LMW-6S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-UG-3	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-AM-1S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-2D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-3D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-4D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-5D	3.05	1.9	15	No	7	100	No	0.008	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-TP-6S	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)

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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
LEAD, TOTAL (UG/L)	S-TP-8D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-9D	3.05	1.9	15	No	8	100	No	0.004	NP (NDs)
LEAD, TOTAL (UG/L)	S-PZ-1S	13.4	1.9	15	No	8	62.5	No	0.004	NP (normality)
LITHIUM, TOTAL (UG/L)	S-LMW-1S	24.059	16.264	40	No	13	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-2S	35.675	30.425	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-LMW-4S	34.895	26.959	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-LMW-5S**	**47.579**	**39.894**	**40**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-LMW-6S	22.454	18.915	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-UG-3	32.399	25.378	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-AM-1D	34.796	31.42	40	No	13	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-AM-1S	30.942	22.843	40	No	13	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	**S-TP-2D**	**51.313**	**43.987**	**40**	**Yes**	**13**	**7.6923**	**No**	**0.01**	**Param.**
LITHIUM, TOTAL (UG/L)	S-TP-3D	36.091	32.547	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-4D	35.225	31.352	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-5D	37.803	31.312	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6D	31.166	25.196	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-6S	38.791	34.693	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-TP-8D	33.781	30.936	40	No	12	0	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-9D	35.71	25.298	40	No	13	7.6923	No	0.01	Param.
LITHIUM, TOTAL (UG/L)	S-PZ-1S	19.662	15.201	40	No	12	0	ln(x)	0.01	Param.
MERCURY, TOTAL (UG/L)	S-LMW-1S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-2S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-4S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-5S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-LMW-6S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-UG-3	0.06	0.0425	2	No	5	100	No	0.031	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-AM-1S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-2D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-3D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-4D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-5D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-6S	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-TP-8D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-9D	0.06	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MERCURY, TOTAL (UG/L)	S-PZ-1S	0.095	0.0425	2	No	6	100	No	0.0155	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-1S**	**103.21**	**65.928**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-2S**	**1052.2**	**765.02**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	2.0433	0.75782	100	No	10	50	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-LMW-5S**	**2272.7**	**1400**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
MOLYBDENUM, TOTAL (UG/L)	S-LMW-6S	4.2381	1.1329	100	No	13	46.154	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	10	2.5	100	No	13	23.077	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**575**	**178**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**289**	**37**	**100**	**Yes**	**13**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	2.4	0.45	100	No	14	78.571	No	0.01	NP (NDs)
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	1.6673	0.86841	100	No	14	64.286	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	S-TP-4D	1.8632	1.0695	100	No	14	57.143	ln(x)	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-TP-5D**	**607**	**171**	**100**	**Yes**	**14**	**0**	**No**	**0.01**	**NP (normality)**
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	1.1	0.5	100	No	12	83.333	No	0.01	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 12:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	8	3	100	No	14	14.286	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	2.9	0.85	100	No	14	42.857	No	0.01	NP (normality)
MOLYBDENUM, TOTAL (UG/L)	S-PZ-9D	15.565	7.2888	100	No	15	6.6667	No	0.01	Param.
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-1S**	**4057.4**	**1144.4**	**100**	**Yes**	**15**	**0**	**ln(x)**	**0.01**	**Param.**
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	1.1115	0.677	5	No	13	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	1.3326	0.689	5	No	13	76.923	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	1.7633	1.363	5	No	13	69.231	ln(x)	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	1.0725	0.578	5	No	13	92.308	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	1.065	0.737	5	No	13	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-UG-3	1.0595	0.7035	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1D	1.63	0.675	5	No	13	92.308	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-AM-1S	0.941	0.5875	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-2D	1.2	0.5485	5	No	13	92.308	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-3D	2.106	0.74	5	No	13	61.538	No	0.01	NP (normality)
RADIUM [226 + 228] (PCI/L)	S-TP-4D	1.739	1.2936	5	No	13	38.462	No	0.01	Param.
RADIUM [226 + 228] (PCI/L)	S-TP-5D	1.36	0.6615	5	No	13	84.615	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-6D	2.319	0.8685	5	No	13	53.846	No	0.01	NP (normality)
RADIUM [226 + 228] (PCI/L)	S-TP-6S	1.118	0.651	5	No	13	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-TP-8D	2.285	0.759	5	No	13	69.231	No	0.01	NP (normality)
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	0.949	0.709	5	No	12	100	No	0.01	NP (NDs)
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	0.9645	0.598	5	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-1S	4.9325	2.1708	50	No	12	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-4S	0.71591	0.3487	50	No	13	7.6923	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0.22	0.09	50	No	13	84.615	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-UG-3	2.6088	1.9003	50	No	11	0	No	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-AM-1D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-AM-1S	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-2D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-3D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-4D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-5D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6D	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-TP-6S	0.4158	0.18975	50	No	13	23.077	ln(x)	0.01	Param.
SELENIUM, TOTAL (UG/L)	S-TP-8D	0.095	0.09	50	No	13	92.308	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0.095	0.09	50	No	13	92.308	No	0.01	NP (NDs)
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0.095	0.09	50	No	13	100	No	0.01	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-2S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-4S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-5S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-LMW-6S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-UG-3	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-AM-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-2D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-3D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-4D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-5D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)

Confidence Interval

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 12:40 PM

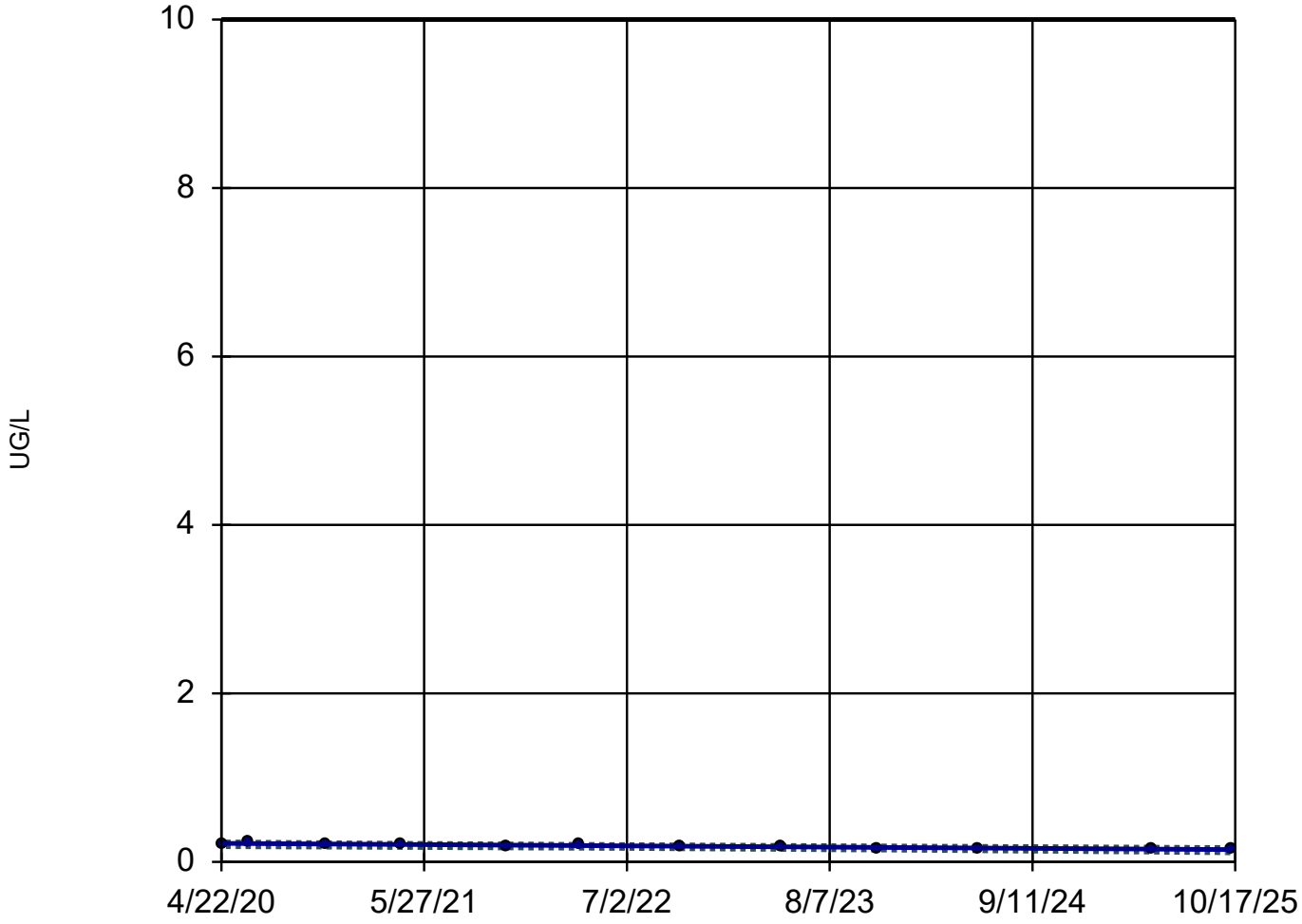
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
THALLIUM, TOTAL (UG/L)	S-TP-6D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-6S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-TP-8D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-9D	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)
THALLIUM, TOTAL (UG/L)	S-PZ-1S	0.075	0.0465	2	No	6	100	No	0.0155	NP (NDs)

Appendix B
Sanitas Trending Confidence Bands Statistical Output

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-AM-1D



n = 12

Slope = -0.013463 units per year.

Mann-Kendall statistic = -50
critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

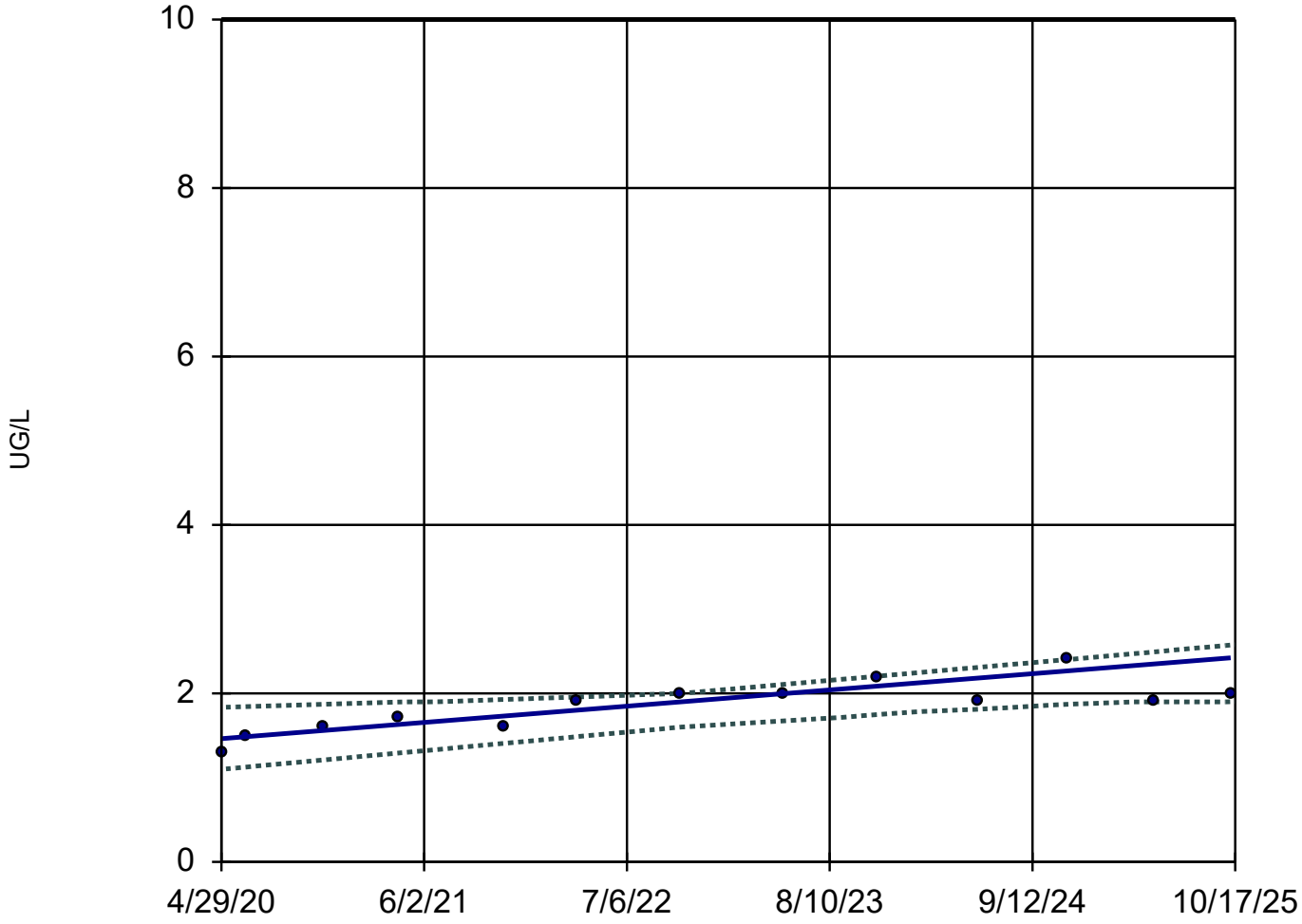
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-TP-4D



n = 13

Slope = 0.17623 units per year.

Mann-Kendall statistic = 51
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

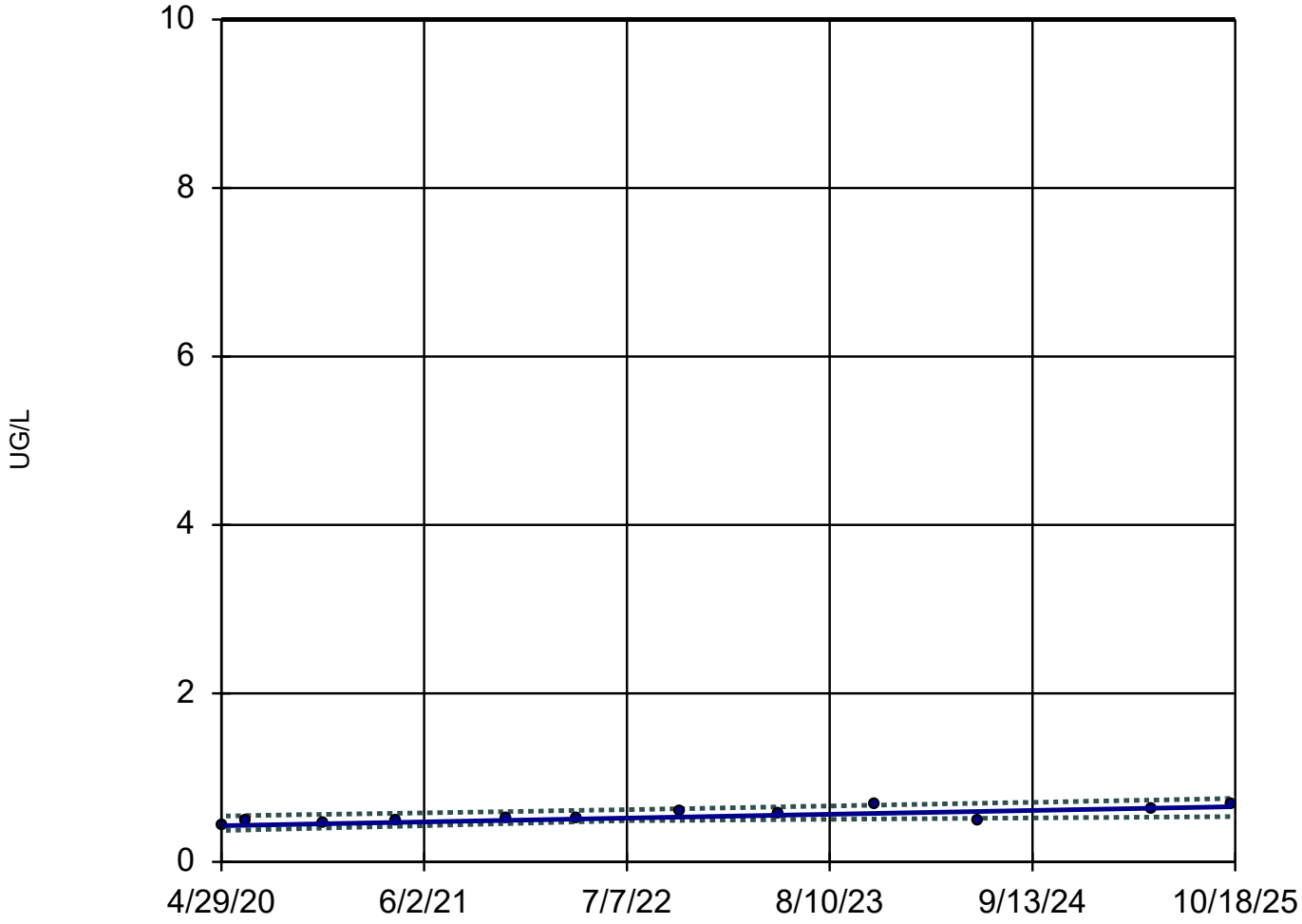
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-TP-6S



n = 12

Slope = 0.041319 units per year.

Mann-Kendall statistic = 44
critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (10).

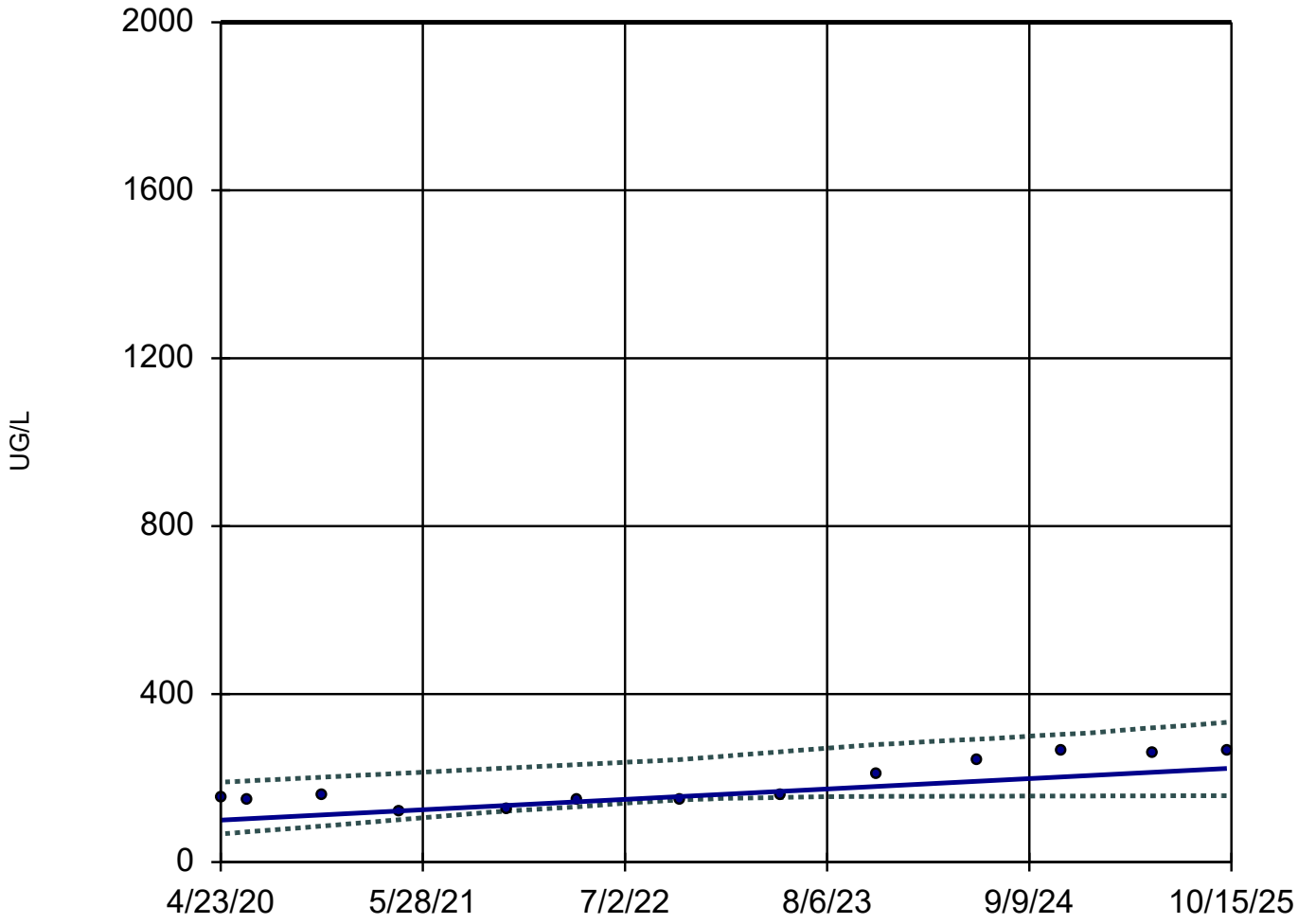
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-LMW-1S



n = 13

Slope = 22.554 units per year.

Mann-Kendall statistic = 49
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

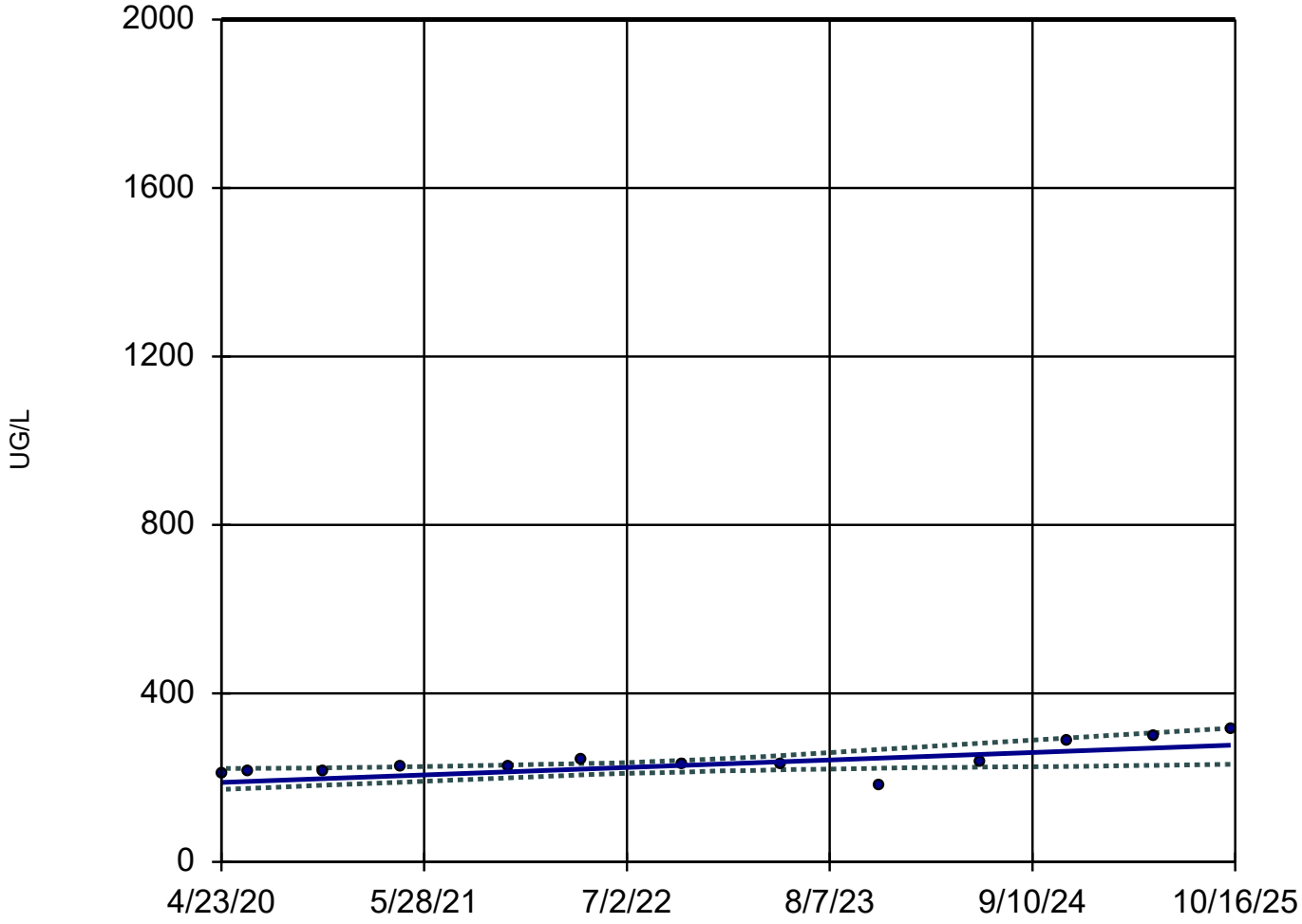
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-LMW-4S



n = 13

Slope = 16.206 units per year.

Mann-Kendall statistic = 52
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

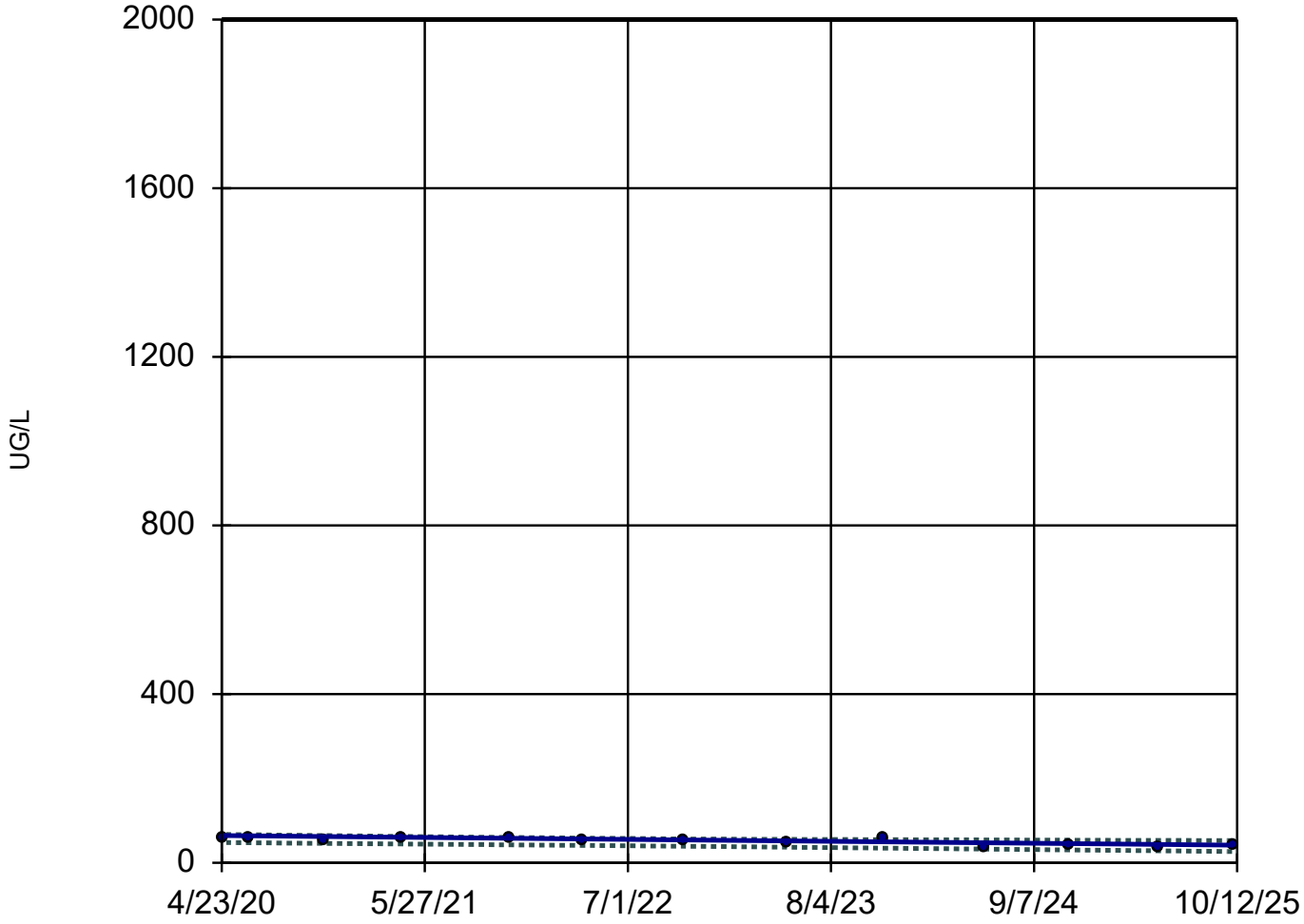
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-LMW-5S



n = 13

Slope = -4.1567 units per year.

Mann-Kendall statistic = -56
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

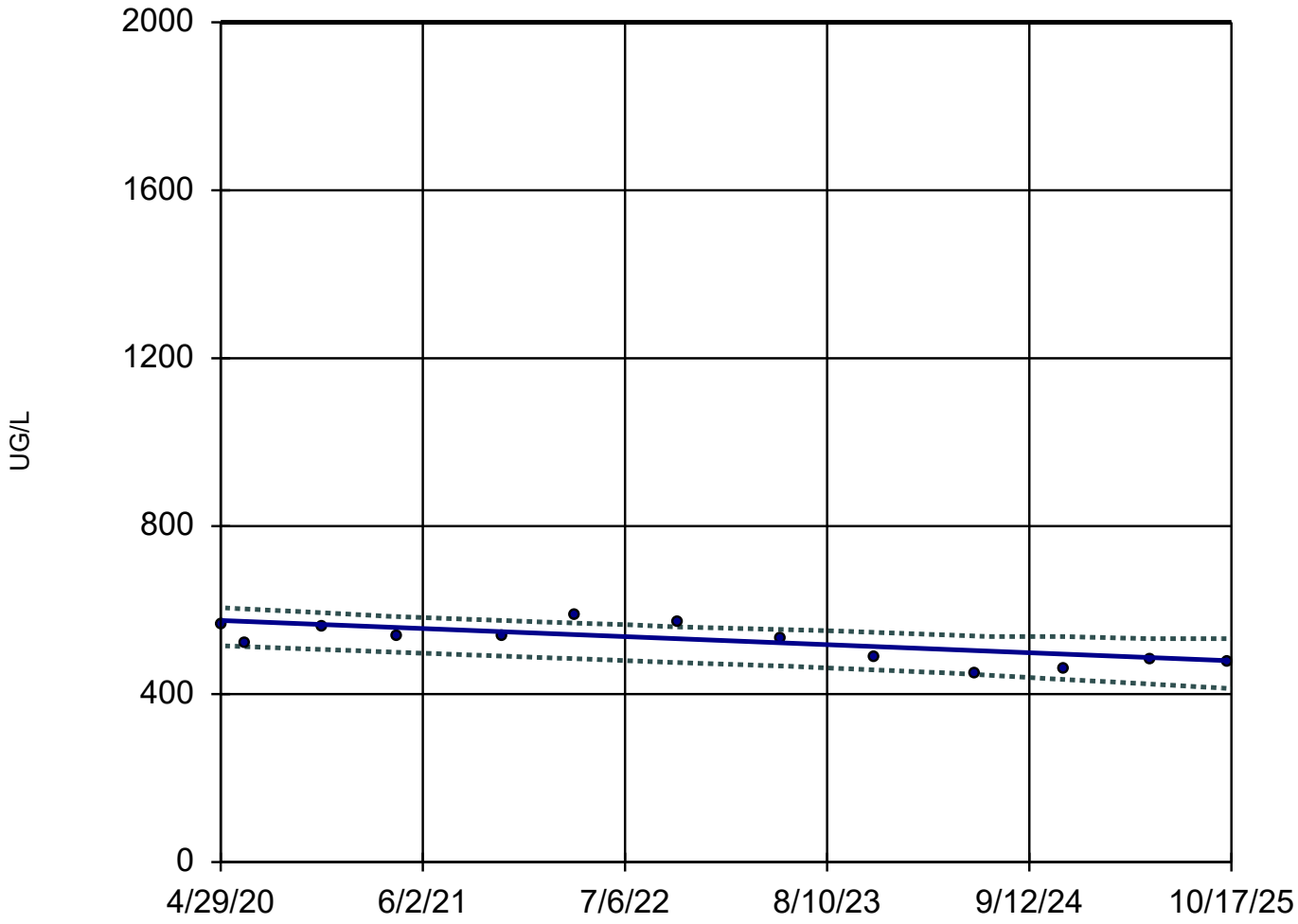
Constituent: BARIUM, TOTAL Analysis Run 1/1/2026 1:35 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-TP-4D



n = 13

Slope = -17.539 units per year.

Mann-Kendall statistic = -40
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

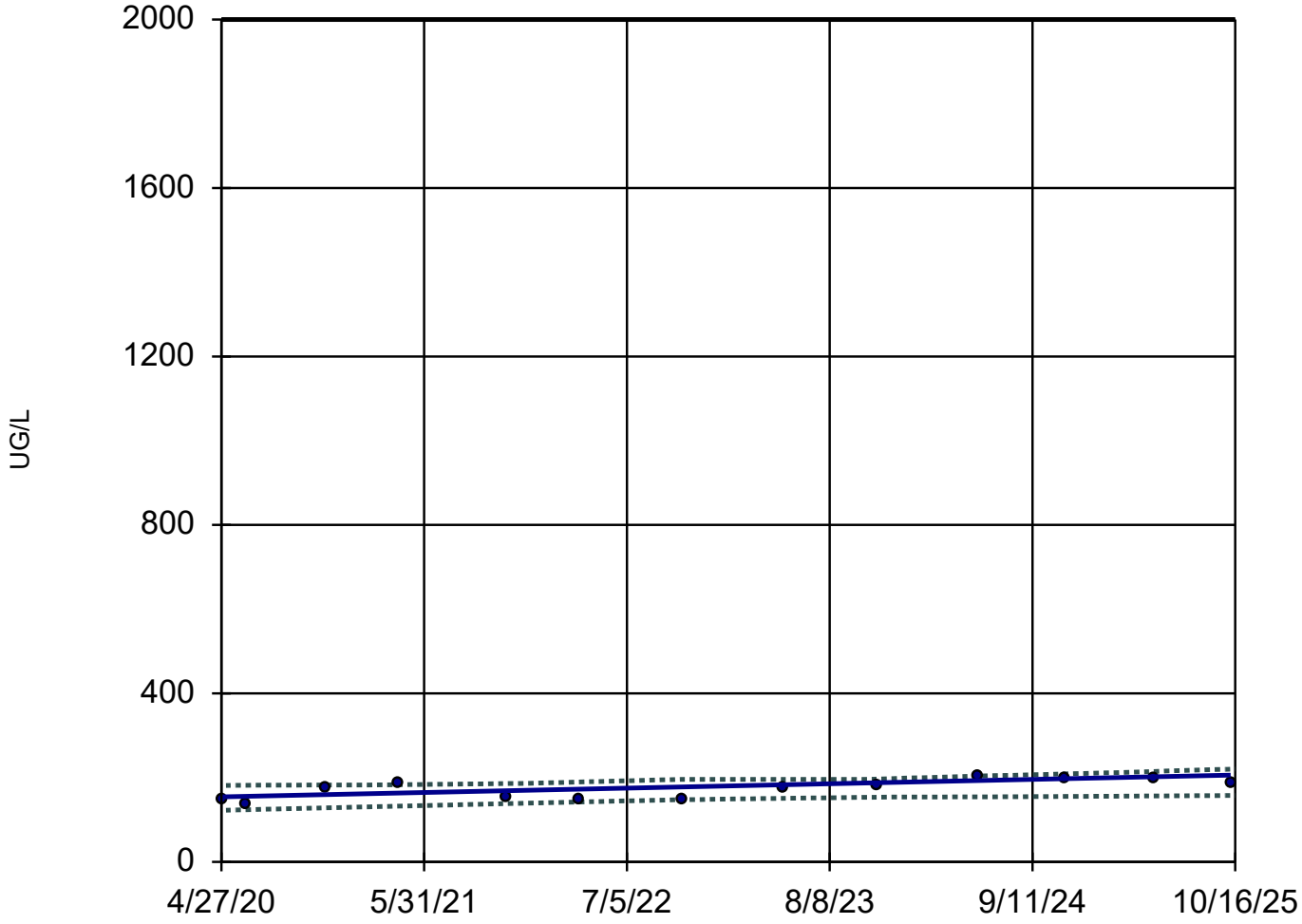
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Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-TP-5D



n = 13

Slope = 9.495 units per year.

Mann-Kendall statistic = 40
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

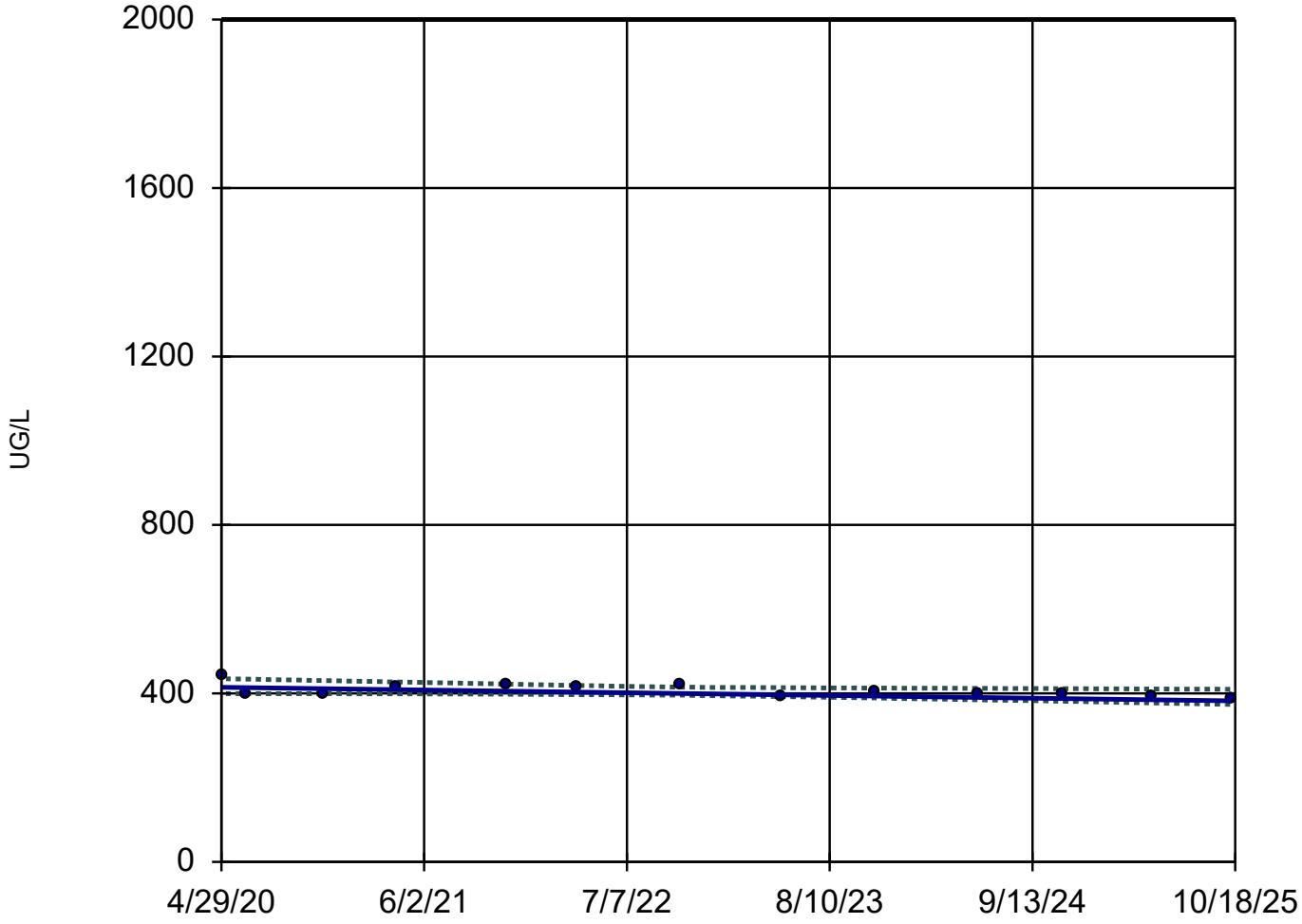
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-TP-6D



n = 13

Slope = -5.8743 units per year.

Mann-Kendall statistic = -40
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (2000).

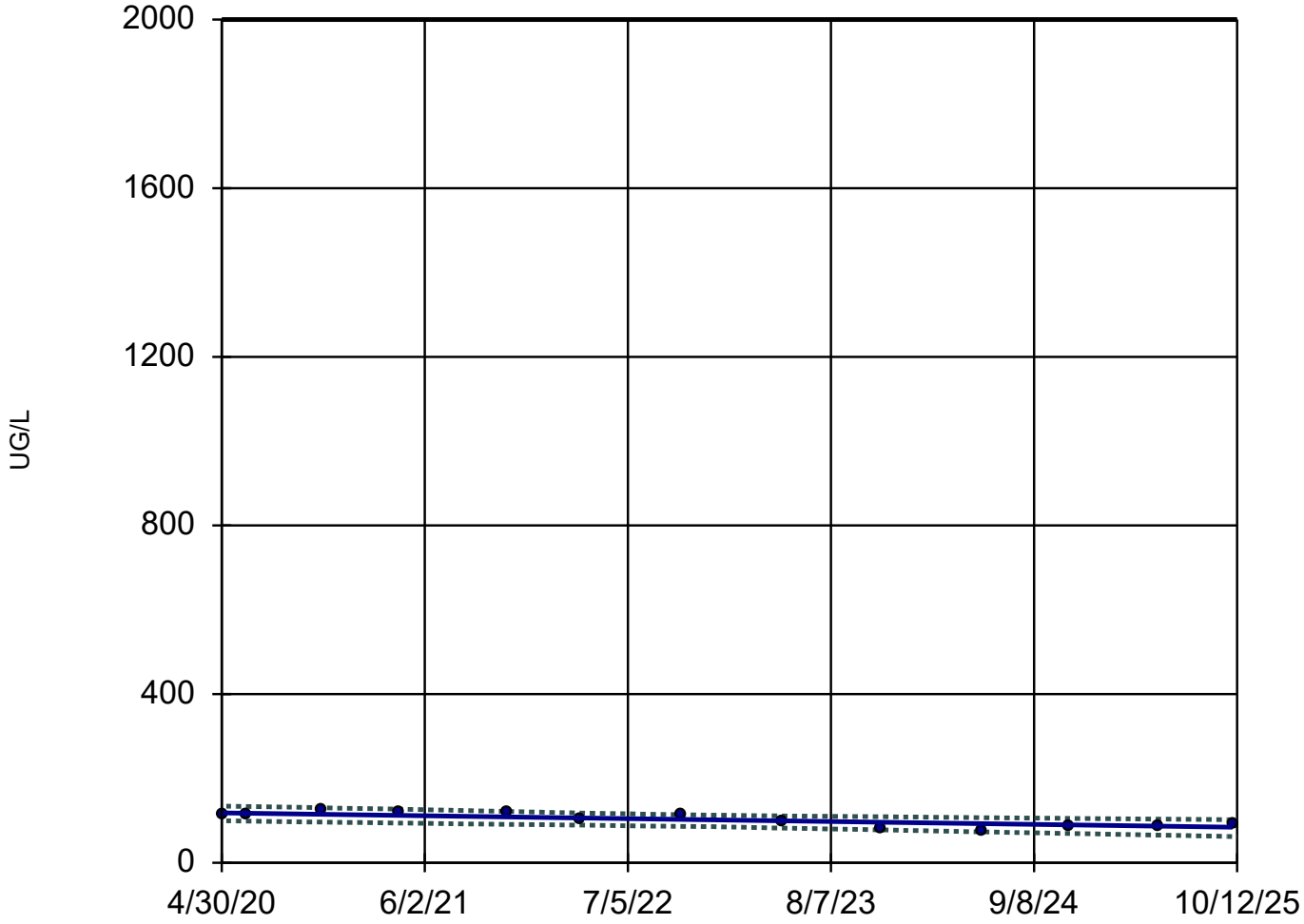
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 13

Slope = -6.2161 units per year.

Mann-Kendall statistic = -44
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

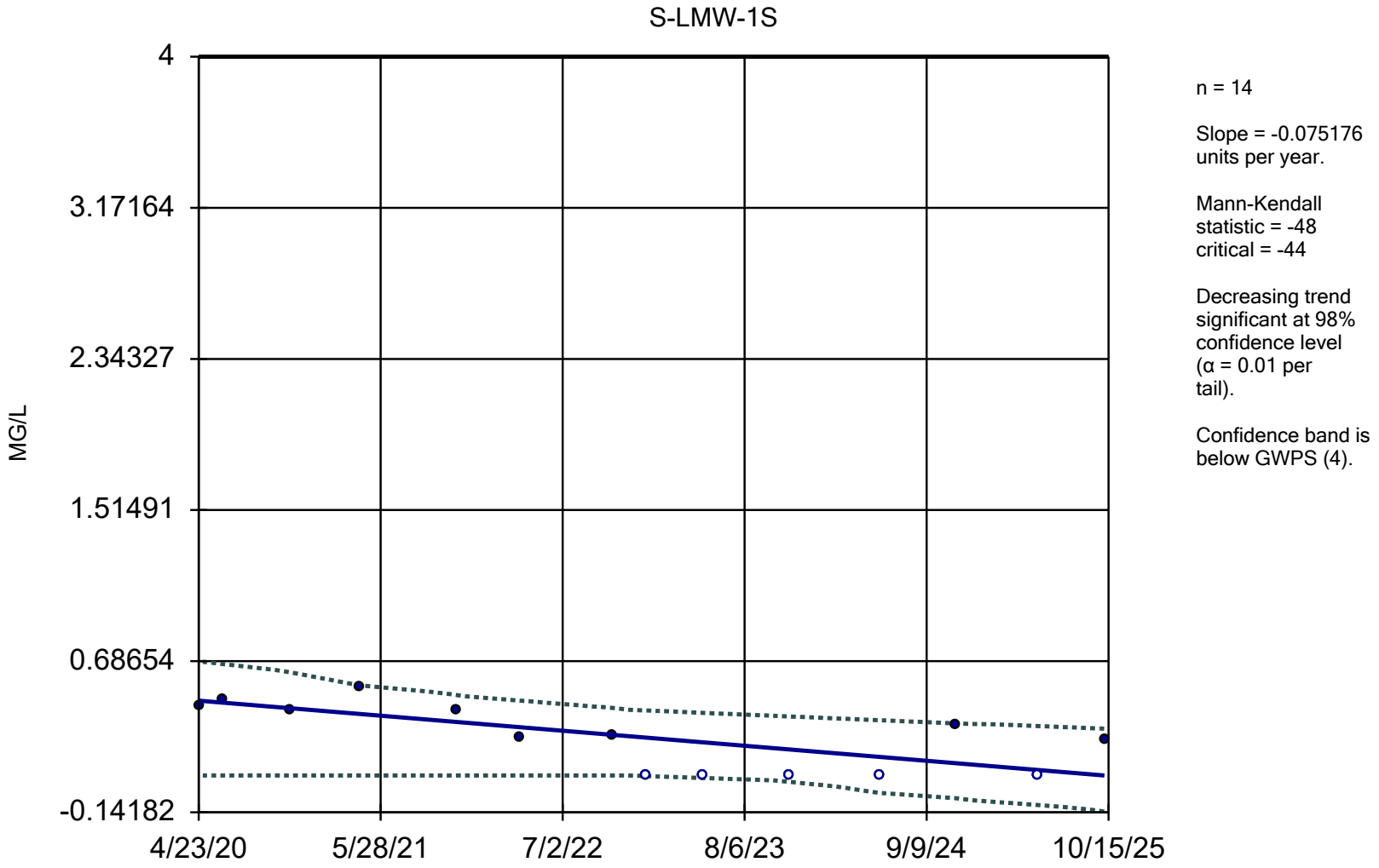
Confidence band is below GWPS (2000).

Constituent: BARIUM, TOTAL Analysis Run 1/1/2026 1:35 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

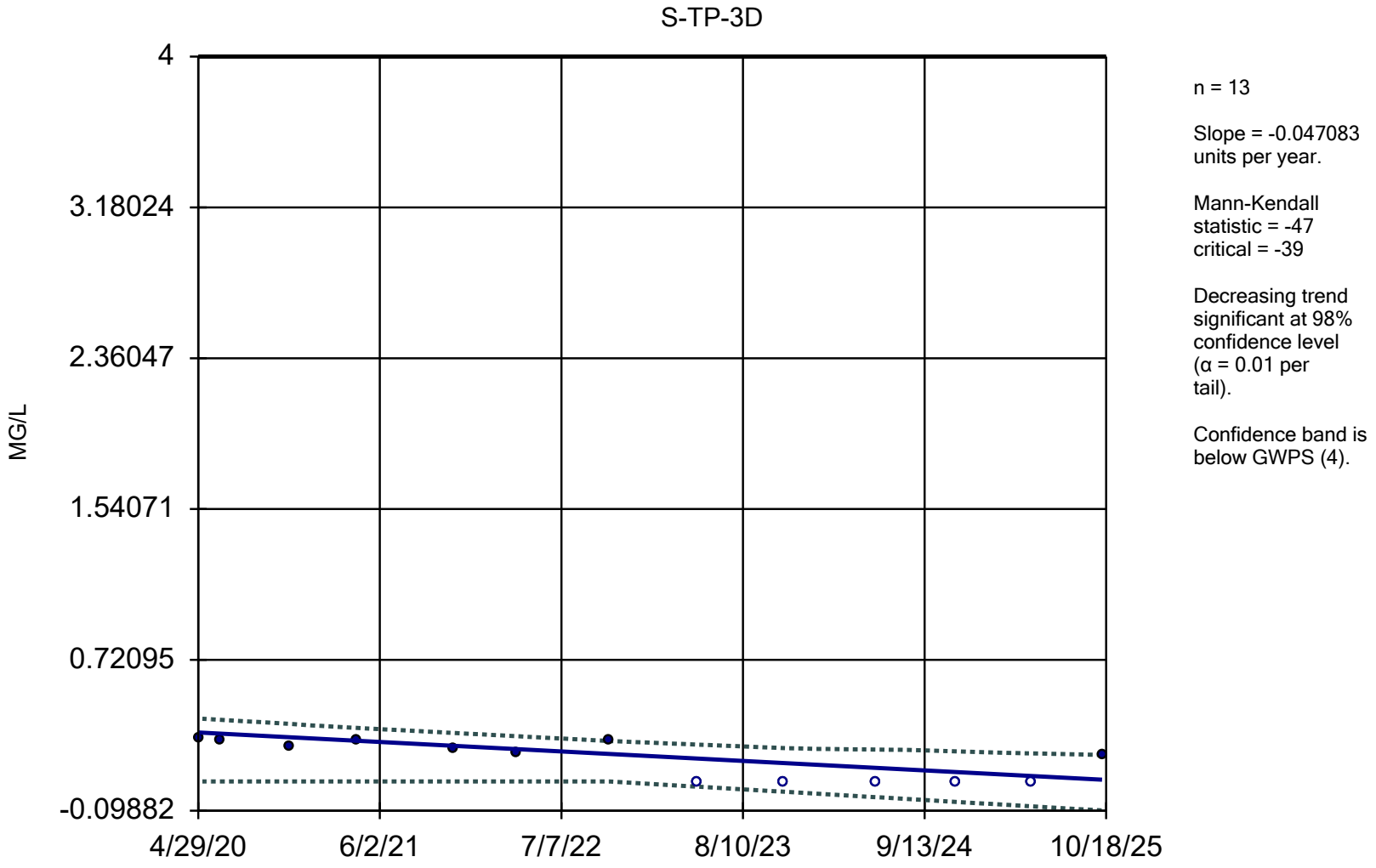


Constituent: FLUORIDE, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



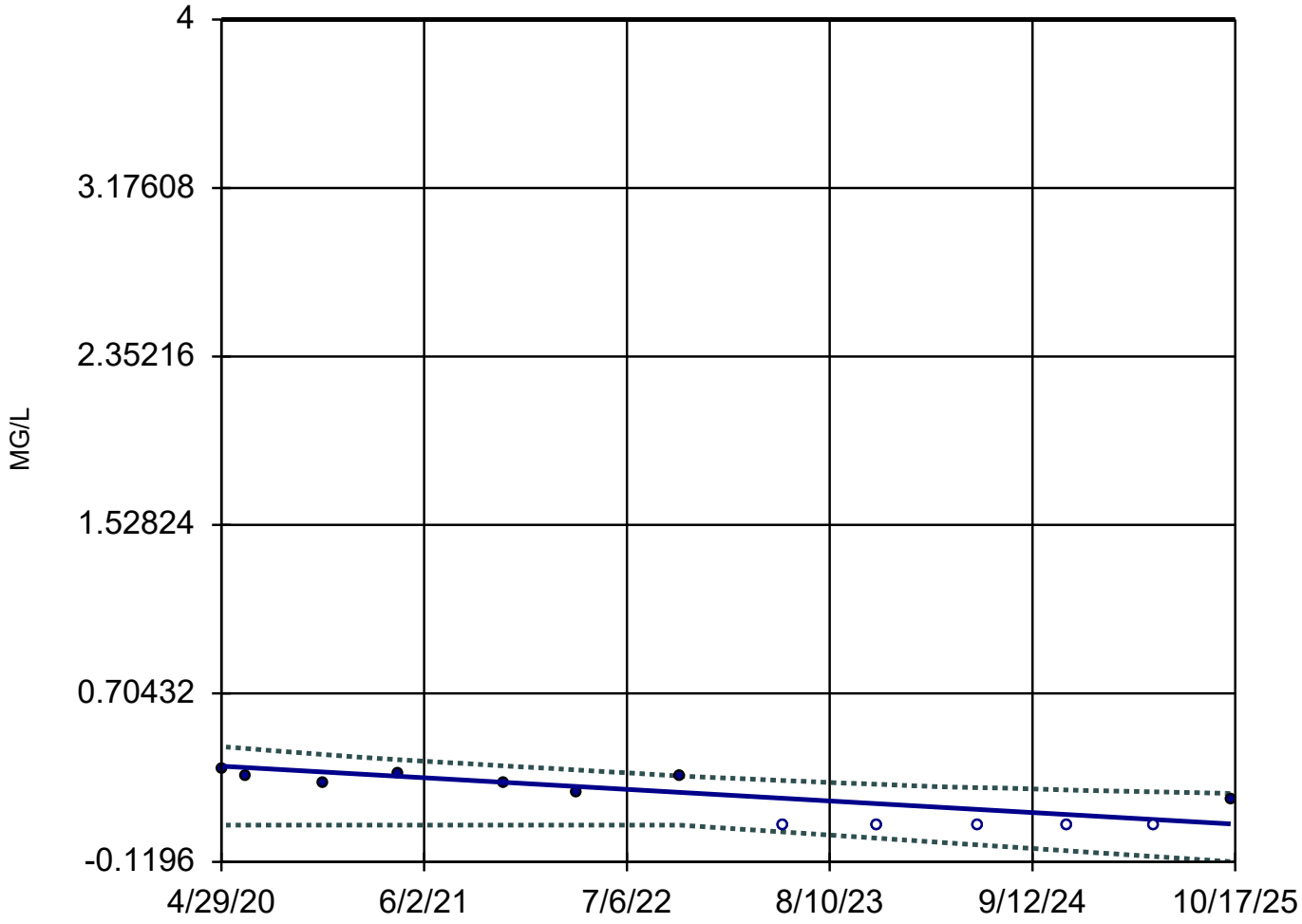
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Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 13

Slope = -0.051928 units per year.

Mann-Kendall statistic = -46
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

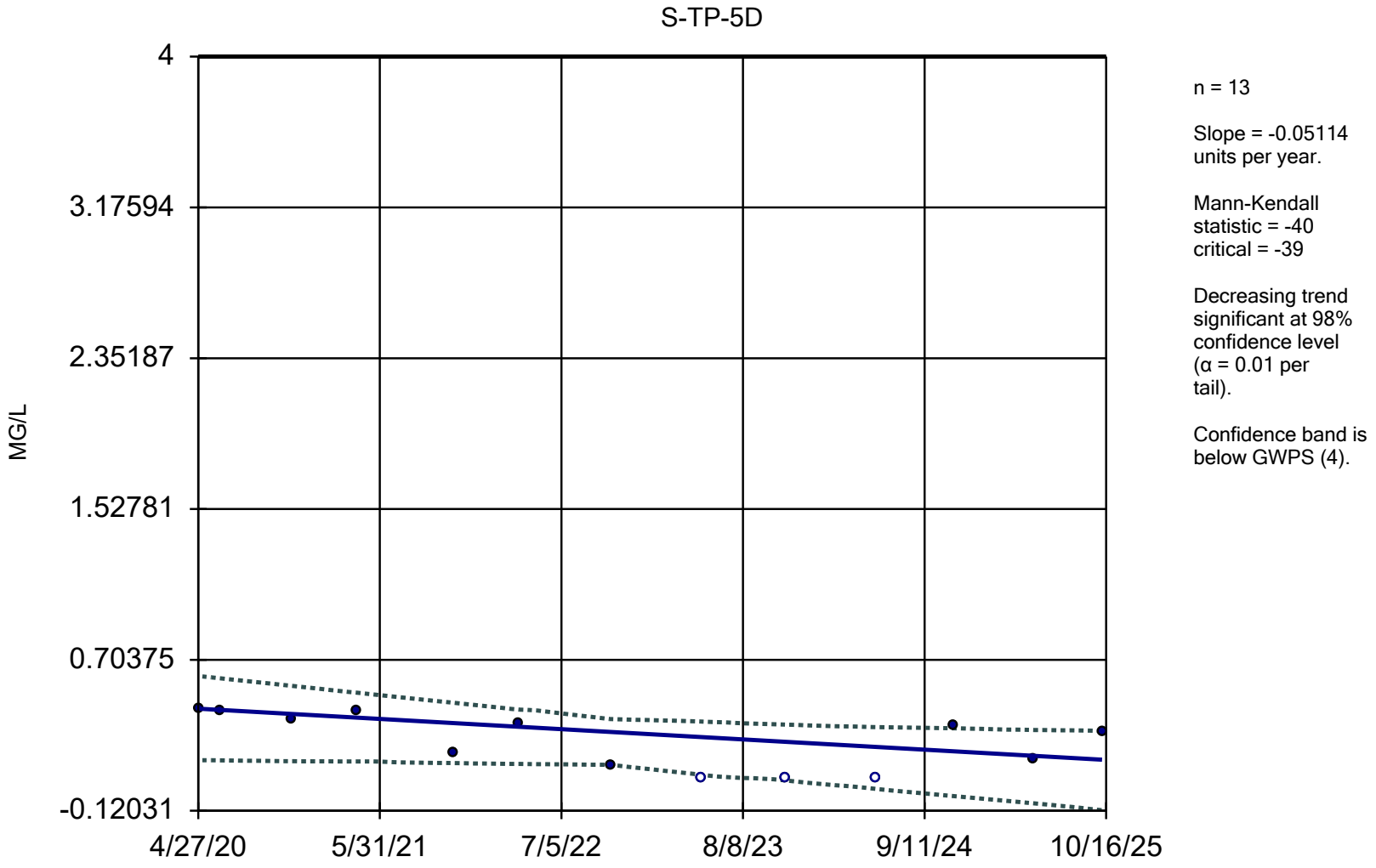
Confidence band is below GWPS (4).

Constituent: FLUORIDE, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

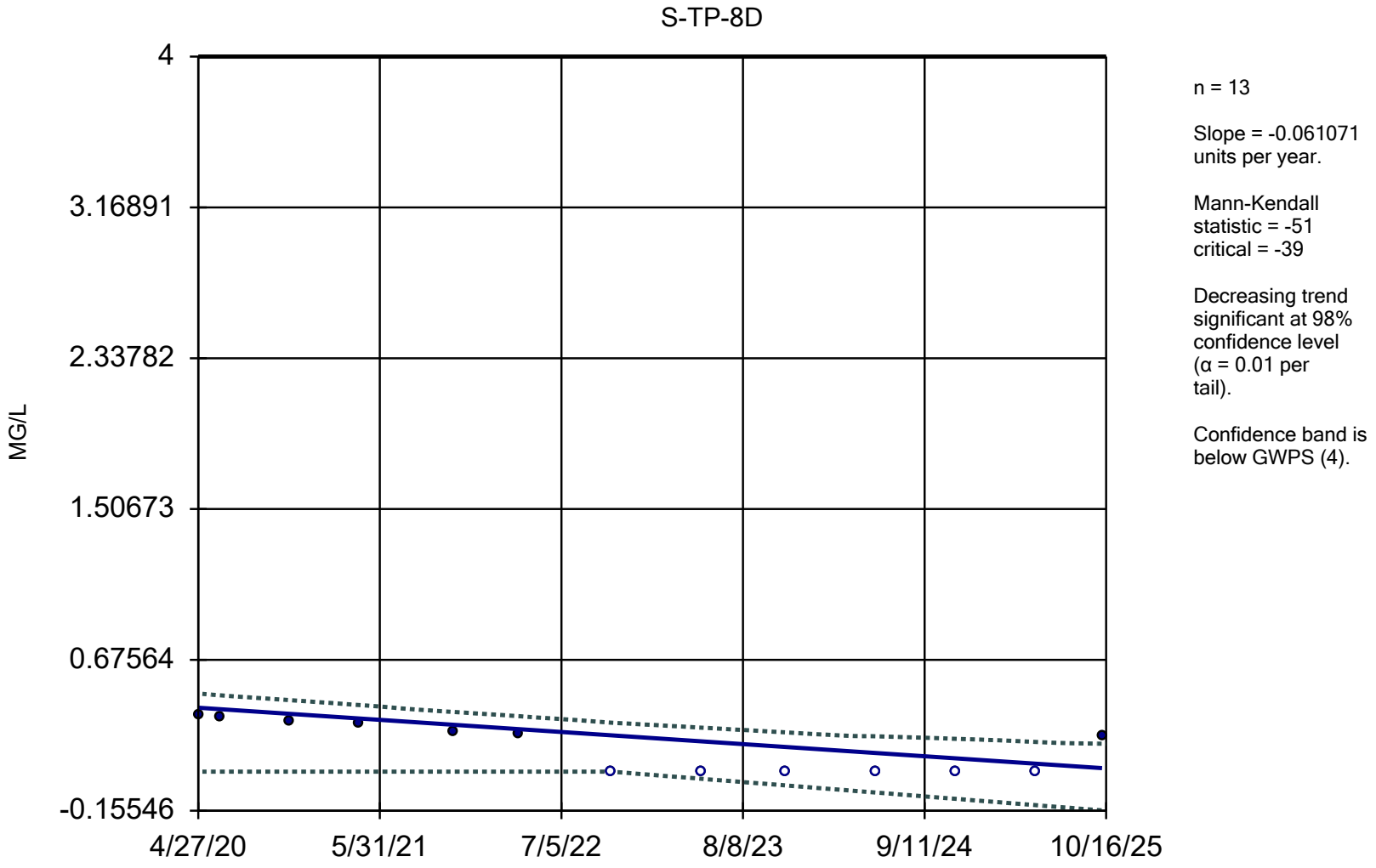


Constituent: FLUORIDE, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



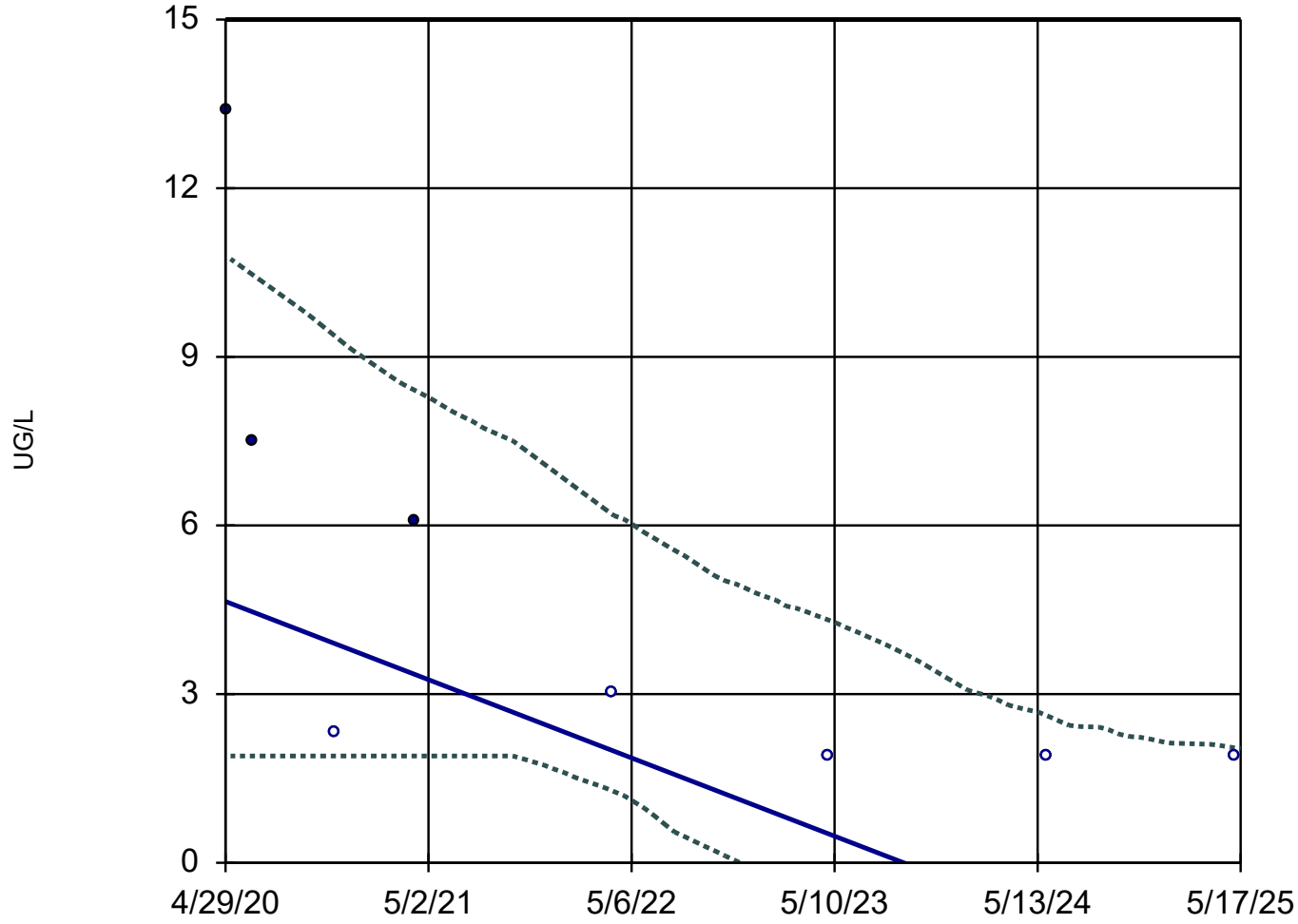
Constituent: FLUORIDE, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-1S



n = 8

Slope = -1.377 units per year.

Mann-Kendall statistic = -21
critical = -20

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (15).

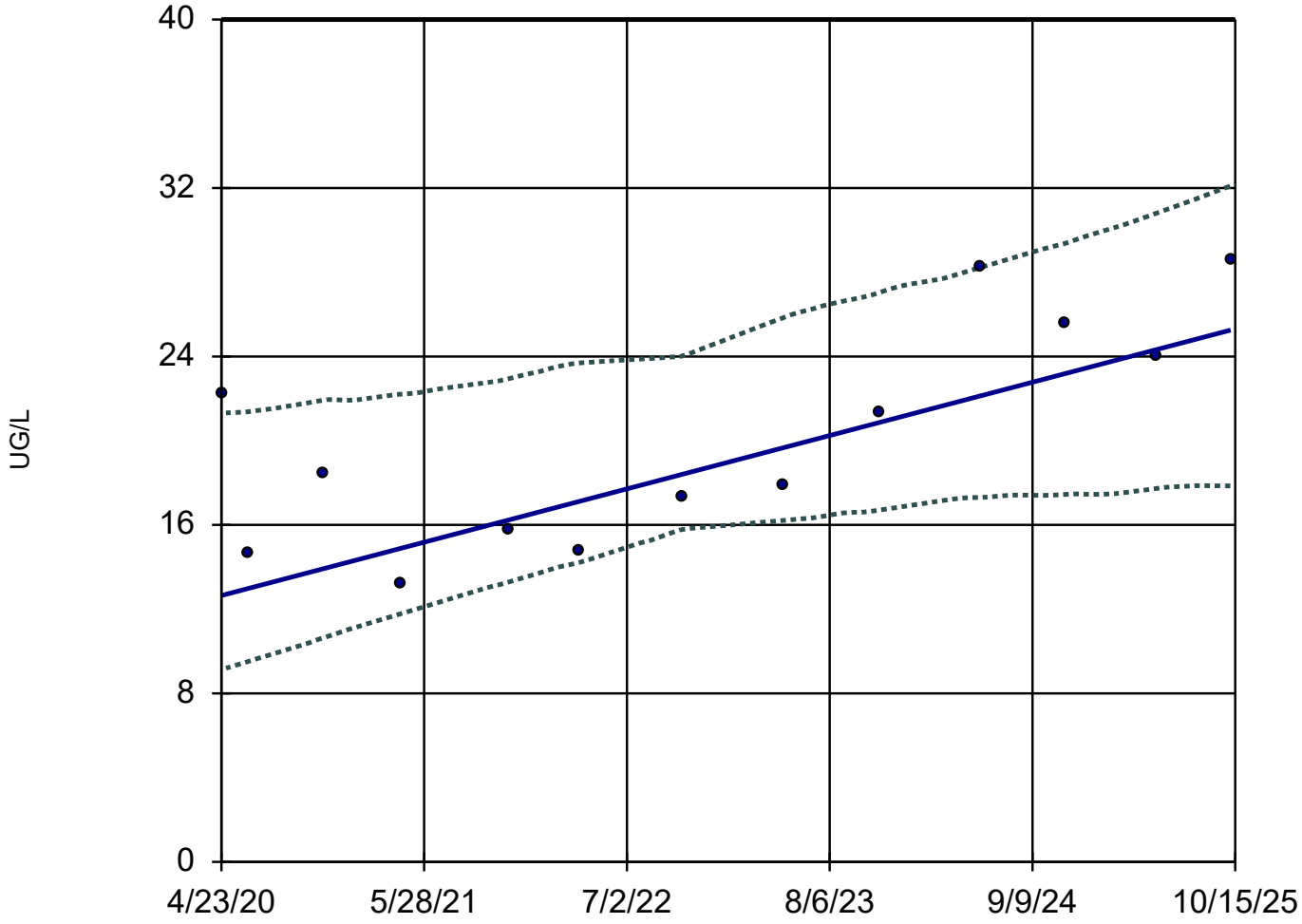
Constituent: LEAD, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-LMW-1S



n = 13

Slope = 2.3086 units per year.

Mann-Kendall statistic = 42
critical = 39

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

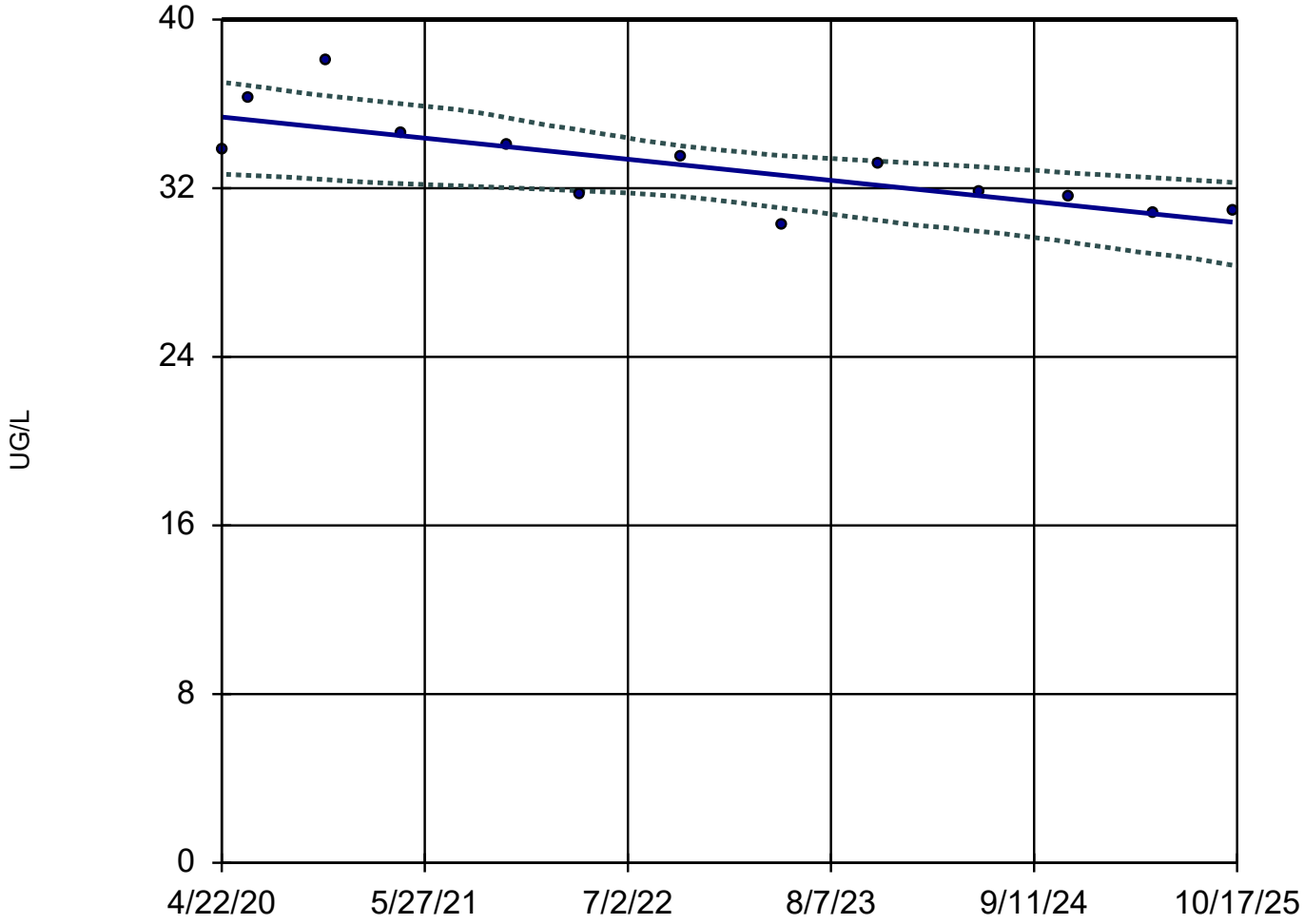
Constituent: LITHIUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-AM-1D



n = 13

Slope = -0.91214 units per year.

Mann-Kendall statistic = -50
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

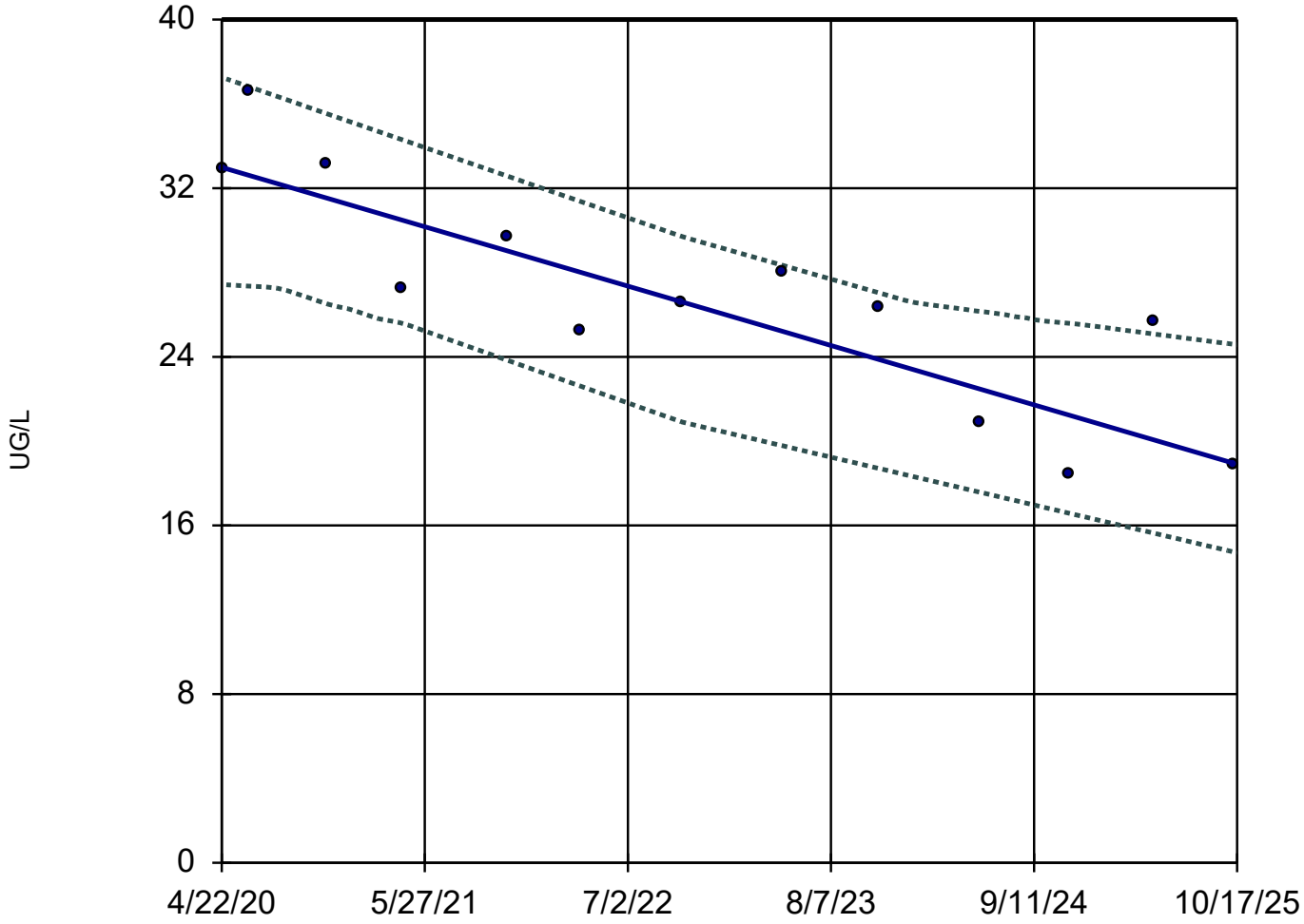
Constituent: LITHIUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-AM-1S



n = 13

Slope = -2.5654 units per year.

Mann-Kendall statistic = -54
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (40).

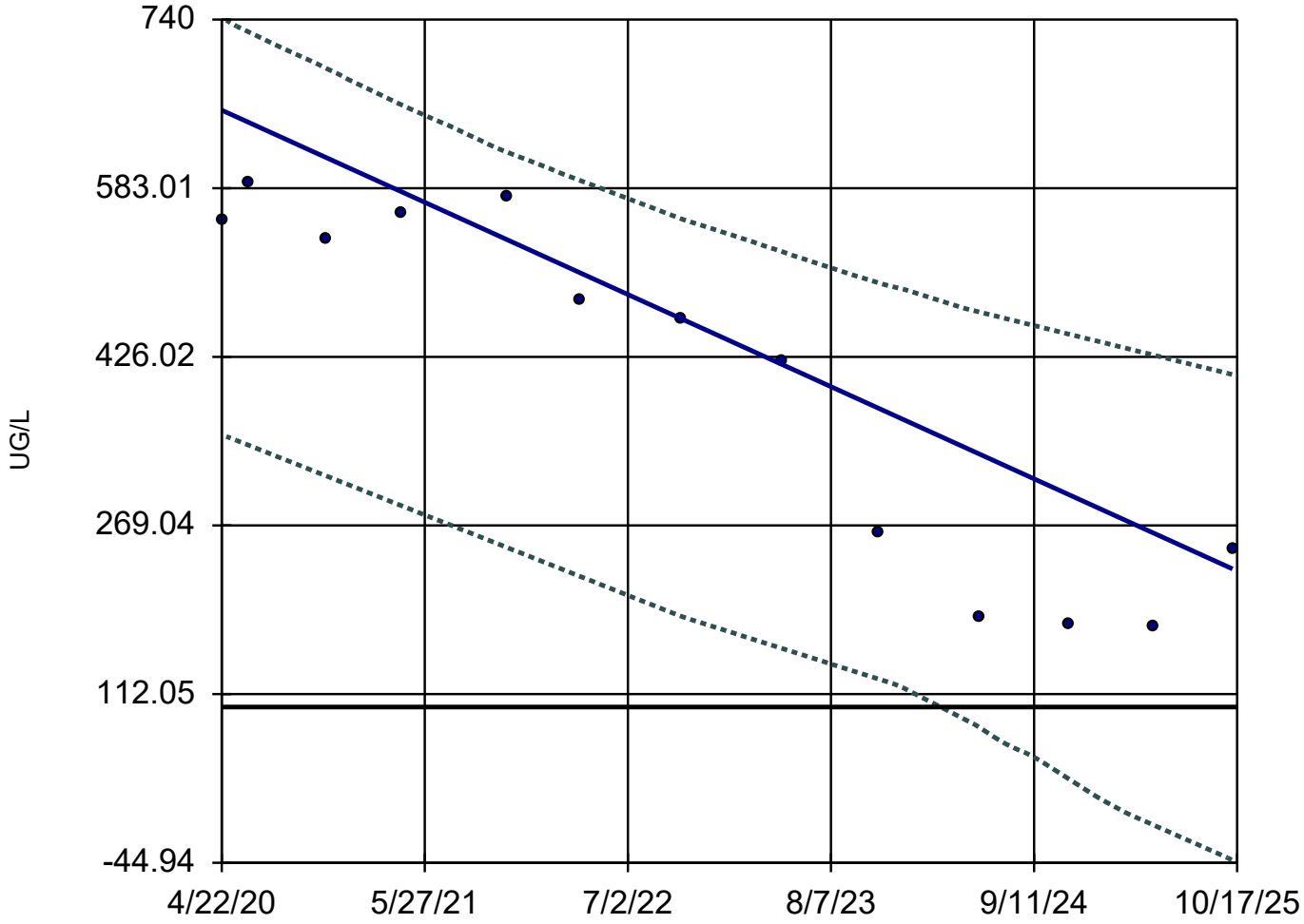
Constituent: LITHIUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-AM-1D



n = 13

Slope = -78.126 units per year.

Mann-Kendall statistic = -60 critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 03/18/24.

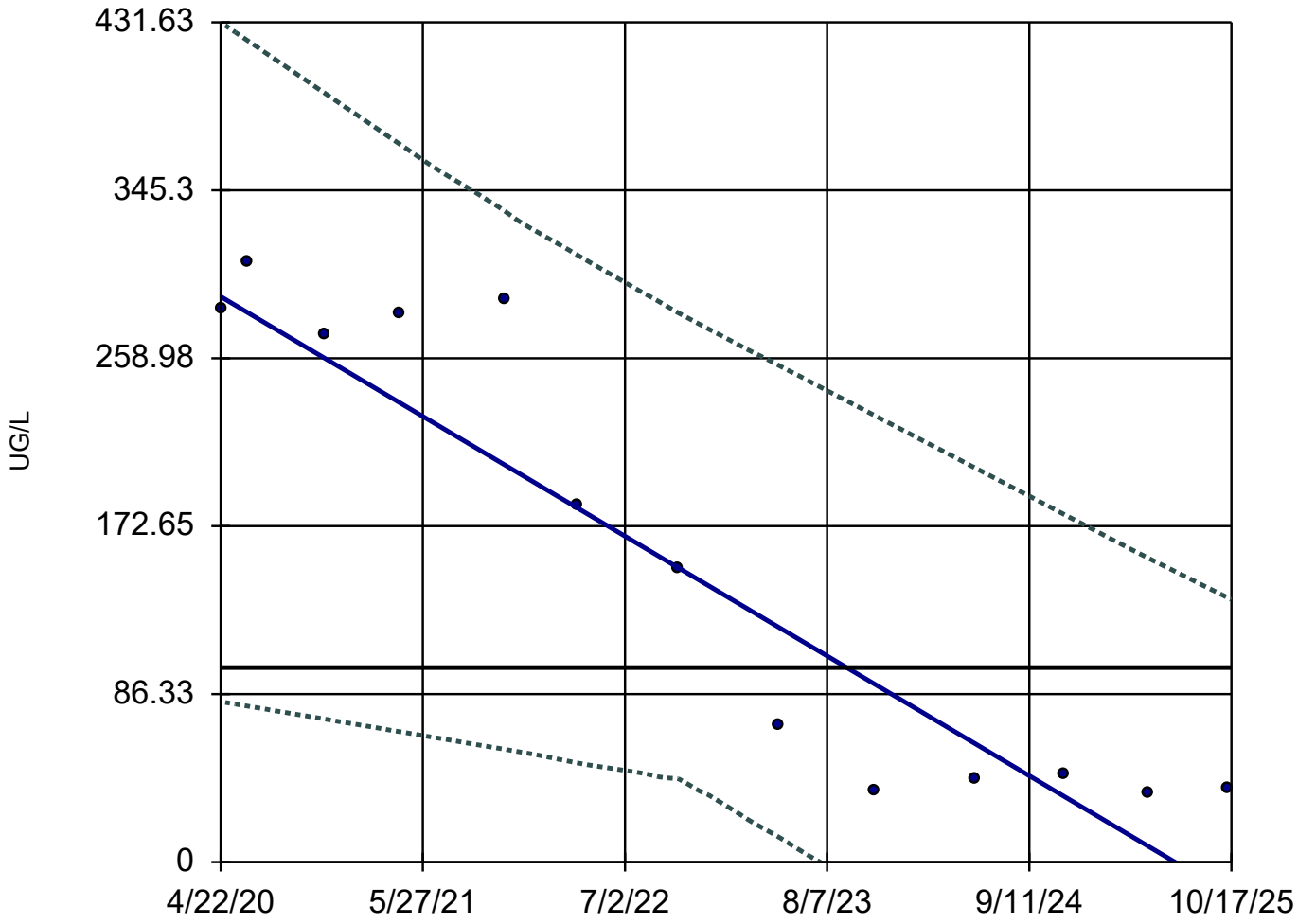
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-AM-1S



n = 13

Slope = -56.054 units per year.

Mann-Kendall statistic = -58
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

GWPS (100) is entirely within the confidence band.

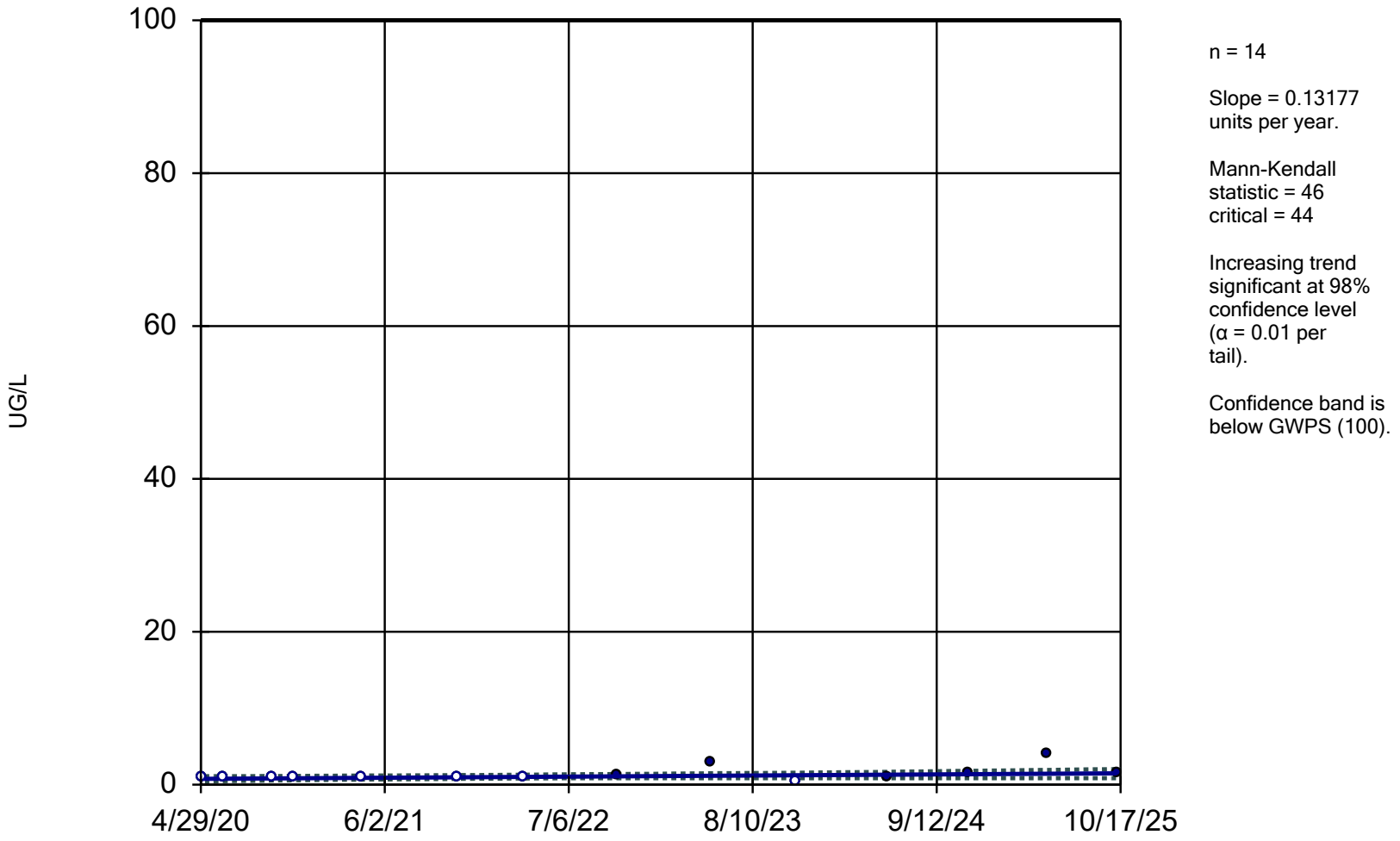
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-4D



n = 14

Slope = 0.13177 units per year.

Mann-Kendall statistic = 46
critical = 44

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (100).

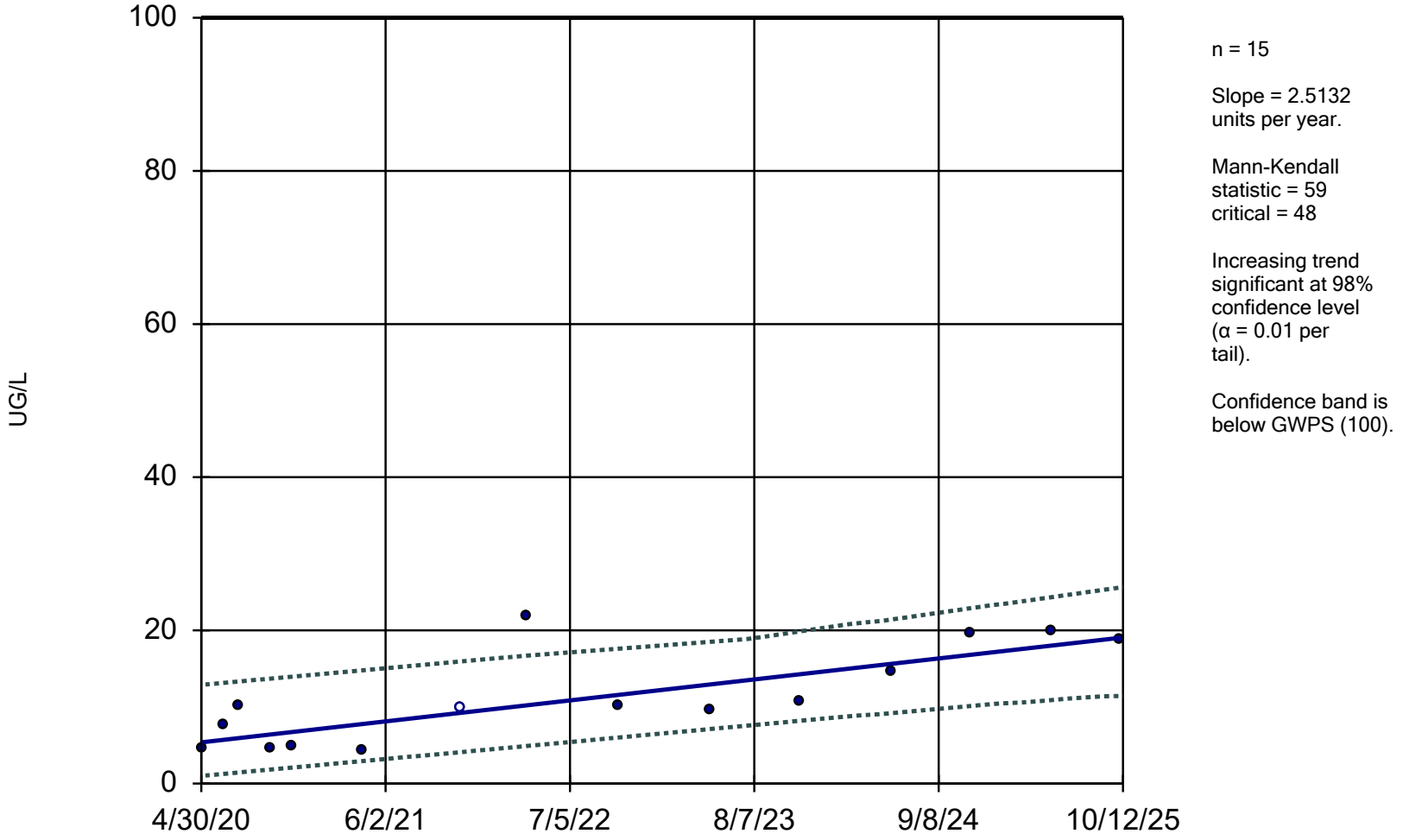
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 1:36 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-PZ-9D



n = 15

Slope = 2.5132 units per year.

Mann-Kendall statistic = 59
critical = 48

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (100).

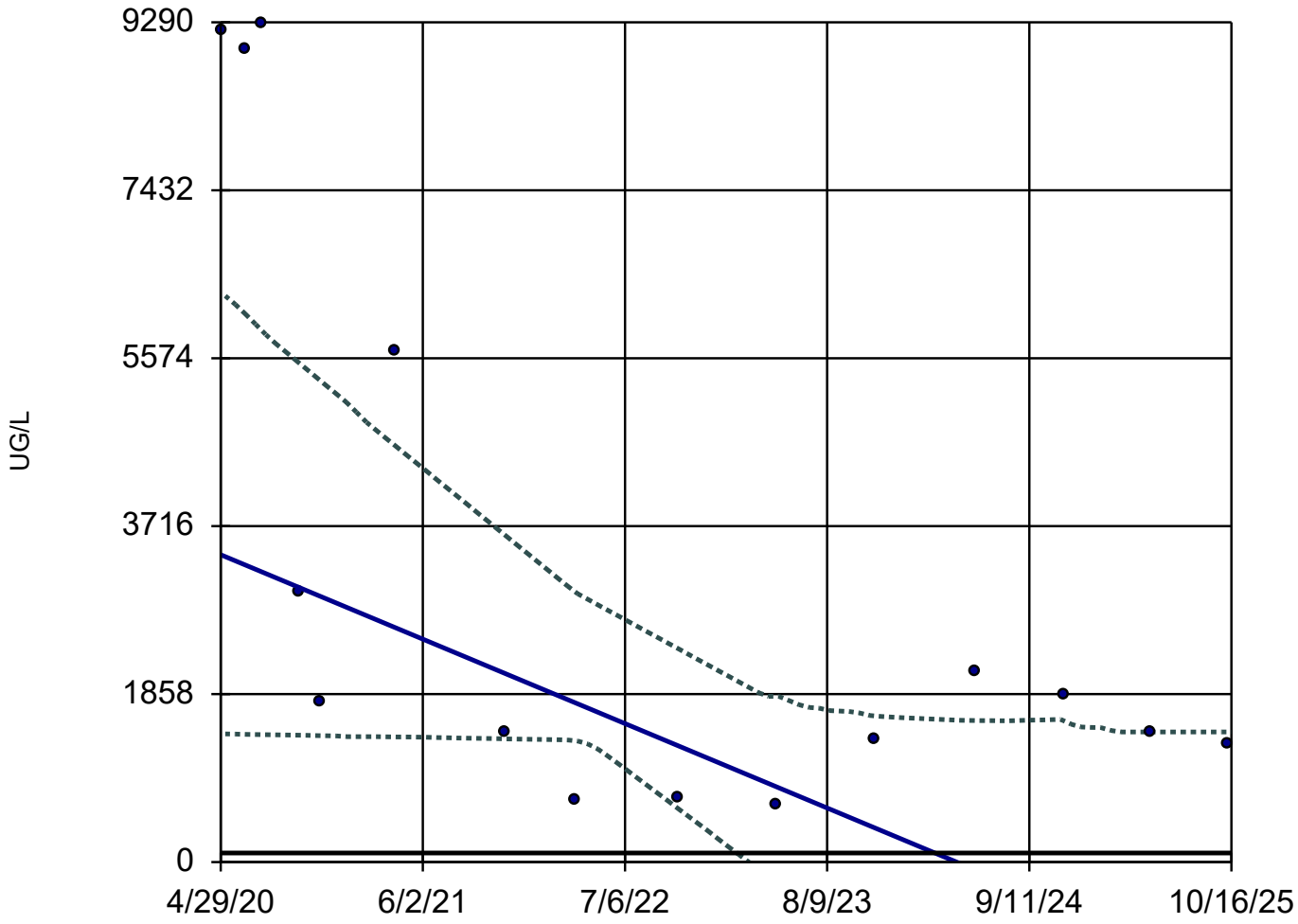
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 1:37 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-PZ-1S



n = 15

Slope = -853.8 units per year.

Mann-Kendall statistic = -50 critical = -48

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band intersects GWPS (100) on 02/16/23.

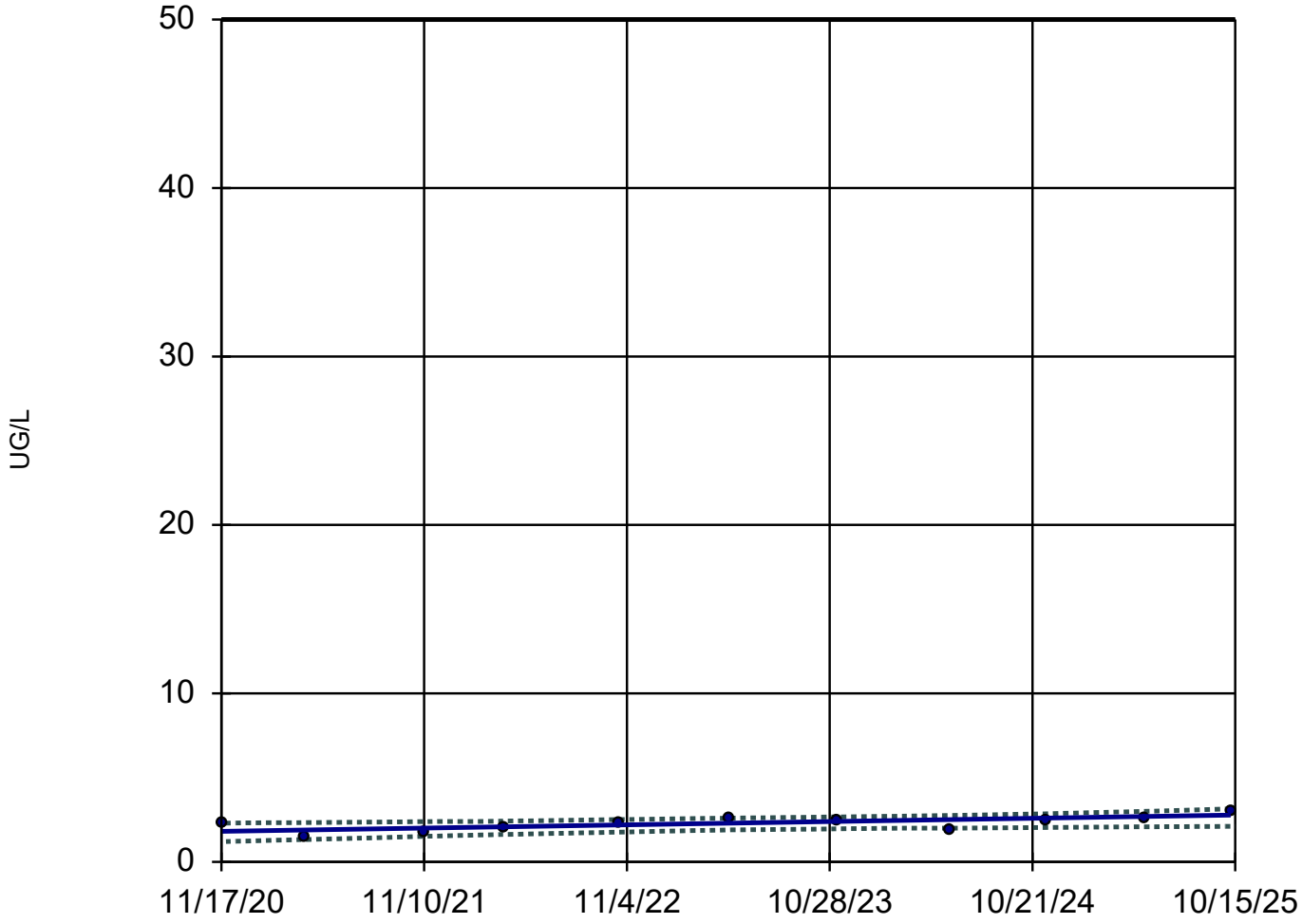
Constituent: MOLYBDENUM, TOTAL Analysis Run 1/1/2026 1:37 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

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Sen's Slope and 95% Confidence Band

S-UG-3



n = 11

Slope = 0.19891 units per year.

Mann-Kendall statistic = 32
critical = 31

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

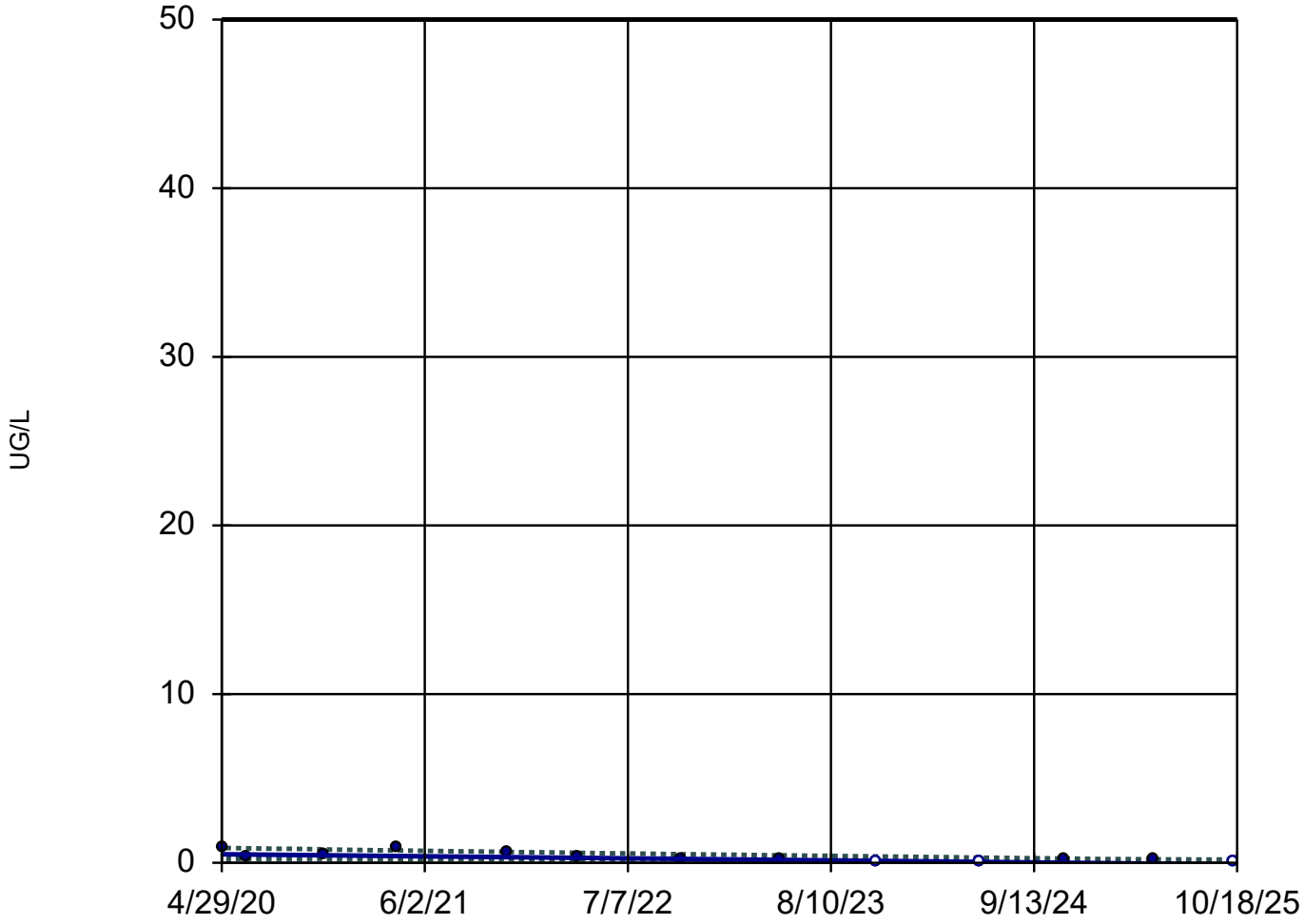
Constituent: SELENIUM, TOTAL Analysis Run 1/1/2026 1:37 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Sanitas™ v.10.1.03 Software licensed to Rocksmith Geoengineering. UG
Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

S-TP-6S



n = 13

Slope = -0.11148 units per year.

Mann-Kendall statistic = -48
critical = -39

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS (50).

Constituent: SELENIUM, TOTAL Analysis Run 1/1/2026 1:37 PM View: Corrective Action

Sioux E.C. Client: Ameren Data: SEC_DATA

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 1:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
ARSENIC, TOTAL (UG/L)	S-LMW-1S	-0.00...	-11	-39	No	13	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-2S	-0.00...	-5	-35	No	12	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-4S	0.007...	12	39	No	13	7.6923	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-5S	0.008...	11	39	No	13	7.6923	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-LMW-6S	0	5	35	No	12	8.3333	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-UG-3	0.003...	6	39	No	13	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-AM-1D**	**-0.01...**	**-50**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-AM-1S	-0.03...	-24	-39	No	13	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-TP-2D	0.026298	26	39	No	13	7.6923	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-TP-3D	0.006...	16	39	No	13	15.385	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-4D**	**0.17623**	**51**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-5D	0.008...	21	39	No	13	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-TP-6D	-0.00...	-10	-39	No	13	38.462	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	**S-TP-6S**	**0.041319**	**44**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
ARSENIC, TOTAL (UG/L)	S-TP-8D	-0.04...	-34	-39	No	13	0	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-9D	0.002...	4	39	No	13	7.6923	n/a	n/a	0.02	NP
ARSENIC, TOTAL (UG/L)	S-PZ-1S	-0.04...	-32	-39	No	13	7.6923	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-LMW-1S**	**22.554**	**49**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-LMW-2S	-7.0692	-37	-39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-LMW-4S**	**16.206**	**52**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-LMW-5S**	**-4.1567**	**-56**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-LMW-6S	-1.4007	-26	-39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-UG-3	-3.8368	-31	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1D	28.146	27	39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-AM-1S	-4.8967	-20	-35	No	12	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-2D	-0.39488	-12	-39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-3D	1.8309	9	39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-TP-4D**	**-17.539**	**-40**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-TP-5D**	**9.495**	**40**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	**S-TP-6D**	**-5.8743**	**-40**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-TP-6S	-2.0473	-13	-39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	S-TP-8D	5.372	24	39	No	13	0	n/a	n/a	0.02	NP
BARIUM, TOTAL (UG/L)	**S-PZ-9D**	**-6.2161**	**-44**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
BARIUM, TOTAL (UG/L)	S-PZ-1S	-6.8186	-24	-39	No	13	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-1S	0.005...	21	39	No	13	15.385	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-2S	0.020053	14	35	No	12	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-4S	0.01227	10	39	No	13	30.769	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-5S	-0.02817	-16	-39	No	13	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-LMW-6S	-0.04...	-21	-39	No	13	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-UG-3	0	1	39	No	13	0	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1D	-0.02371	-18	-39	No	13	23.077	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-AM-1S	-0.01385	-35	-39	No	13	30.769	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-2D	-0.00...	-29	-39	No	13	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-3D	-0.00...	-23	-35	No	12	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-4D	-0.00...	-29	-39	No	13	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-5D	0.019862	22	39	No	13	23.077	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6D	-0.00...	-20	-35	No	12	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-6S	0.002...	16	39	No	13	38.462	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-TP-8D	-0.00...	-29	-39	No	13	100	n/a	n/a	0.02	NP
CADMIUM, TOTAL (UG/L)	S-PZ-9D	-0.00...	-23	-35	No	12	100	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 1:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
CADMIUM, TOTAL (UG/L)	S-PZ-1S	0.00203	2	35	No	12	8.3333	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-1S	0.073	17	27	No	10	10	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-2S	0	0	27	No	10	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-4S	0.007...	6	27	No	10	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-5S	0	-2	-27	No	10	40	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-LMW-6S	0.003...	1	23	No	9	22.222	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-UG-3	0	9	27	No	10	90	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1D	0	-4	-27	No	10	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-AM-1S	-0.04...	-9	-27	No	10	70	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-2D	-0.01...	-2	-27	No	10	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-3D	0.007...	4	27	No	10	60	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-4D	0.009...	12	27	No	10	50	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-5D	-0.05...	-10	-27	No	10	90	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6D	-0.00...	-6	-23	No	9	55.556	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-6S	-0.01...	-5	-27	No	10	70	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-TP-8D	-0.01817	-3	-23	No	9	44.444	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-9D	-0.12537	-10	-27	No	10	10	n/a	n/a	0.02	NP
CHROMIUM, TOTAL (UG/L)	S-PZ-1S	-0.00...	-6	-27	No	10	70	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-1S	-0.04...	-16	-35	No	12	66.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-2S	0.33156	27	35	No	12	16.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-4S	0	-6	-35	No	12	91.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-5S	0.015321	7	35	No	12	66.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-LMW-6S	-0.45544	-23	-35	No	12	0	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-UG-3	0.24788	18	35	No	12	16.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-AM-1D	-0.03...	-22	-35	No	12	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-AM-1S	0.78123	35	35	No	12	16.667	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-2D	-0.0365	-20	-31	No	11	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-3D	-0.03...	-18	-31	No	11	90.909	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-4D	-0.03672	-16	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-5D	-0.03...	-10	-31	No	11	90.909	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6D	-0.03...	-15	-27	No	10	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-6S	-0.03...	-15	-31	No	11	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-TP-8D	-0.03...	-11	-35	No	12	83.333	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-9D	-0.03...	-22	-35	No	12	100	n/a	n/a	0.02	NP
COBALT, TOTAL (UG/L)	S-PZ-1S	-0.03...	-22	-35	No	12	100	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-LMW-1S**	**-0.07...**	**-48**	**-44**	**Yes**	**14**	**35.714**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-LMW-2S	0	-6	-44	No	14	57.143	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-4S	-0.02...	-34	-39	No	13	53.846	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-5S	-0.04...	-34	-58	No	17	29.412	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-LMW-6S	-0.00...	-11	-44	No	14	50	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-UG-3	-0.01...	-10	-23	No	9	0	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1D	0.004...	5	27	No	10	0	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-AM-1S	-0.04...	-27	-39	No	13	15.385	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-2D	-0.00...	-21	-39	No	13	61.538	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-3D**	**-0.04...**	**-47**	**-39**	**Yes**	**13**	**38.462**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-4D**	**-0.05...**	**-46**	**-39**	**Yes**	**13**	**38.462**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	**S-TP-5D**	**-0.05114**	**-40**	**-39**	**Yes**	**13**	**23.077**	**n/a**	**n/a**	**0.02**	**NP**
FLUORIDE, TOTAL (MG/L)	S-TP-6D	-0.04808	-33	-39	No	13	38.462	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-TP-6S	-0.01...	-30	-39	No	13	38.462	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	**S-TP-8D**	**-0.06...**	**-51**	**-39**	**Yes**	**13**	**46.154**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 1:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
FLUORIDE, TOTAL (MG/L)	S-PZ-9D	0	-12	-39	No	13	61.538	n/a	n/a	0.02	NP
FLUORIDE, TOTAL (MG/L)	S-PZ-1S	-0.13971	-36	-39	No	13	30.769	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-1S	-0.08...	-10	-20	No	8	87.5	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-2S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-4S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-5S	-0.08...	-10	-20	No	8	87.5	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-LMW-6S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-UG-3	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-AM-1D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-AM-1S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-2D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-3D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-4D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-5D	-0.08...	-9	-17	No	7	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-6D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-6S	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-TP-8D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	S-PZ-9D	-0.08...	-11	-20	No	8	100	n/a	n/a	0.02	NP
LEAD, TOTAL (UG/L)	**S-PZ-1S**	**-1.377**	**-21**	**-20**	**Yes**	**8**	**62.5**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-LMW-1S**	**2.3086**	**42**	**39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-LMW-2S	-1.1299	-31	-39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-4S	0.89656	18	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-5S	-1.2493	-19	-31	No	11	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-LMW-6S	0.040851	1	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-UG-3	-0.92948	-24	-39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	**S-AM-1D**	**-0.91214**	**-50**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	**S-AM-1S**	**-2.5654**	**-54**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
LITHIUM, TOTAL (UG/L)	S-TP-2D	0.5323	17	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-3D	0.77281	36	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-4D	0.010954	1	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-5D	1.44	30	39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-6D	-0.5999	-19	-39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-6S	-0.60926	-21	-39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-TP-8D	0.50953	21	35	No	12	0	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-9D	-2.5489	-36	-39	No	13	7.6923	n/a	n/a	0.02	NP
LITHIUM, TOTAL (UG/L)	S-PZ-1S	0.86387	31	35	No	12	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-1S	0.41966	2	39	No	13	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-2S	18.244	5	39	No	13	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-4S	-0.18528	-18	-27	No	10	50	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-5S	-227.37	-36	-39	No	13	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-LMW-6S	0.26854	26	39	No	13	46.154	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-UG-3	0.080485	8	39	No	13	23.077	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1D**	**-78.126**	**-60**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	**S-AM-1S**	**-56.054**	**-58**	**-39**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-TP-2D	-0.08...	-22	-44	No	14	78.571	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-3D	-0.07...	-9	-44	No	14	64.286	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-TP-4D**	**0.13177**	**46**	**44**	**Yes**	**14**	**57.143**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	S-TP-5D	61.787	38	44	No	14	0	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-6D	0	6	35	No	12	83.333	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	S-TP-6S	0.1973	24	44	No	14	14.286	n/a	n/a	0.02	NP

Trend Test

Sioux E.C. Client: Ameren Data: SEC_DATA Printed 1/1/2026, 1:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
MOLYBDENUM, TOTAL (UG/L)	S-TP-8D	0.17371	38	44	No	14	42.857	n/a	n/a	0.02	NP
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-9D**	**2.5132**	**59**	**48**	**Yes**	**15**	**6.6667**	**n/a**	**n/a**	**0.02**	**NP**
MOLYBDENUM, TOTAL (UG/L)	**S-PZ-1S**	**-853.8**	**-50**	**-48**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.02**	**NP**
RADIUM [226 + 228] (PCI/L)	S-LMW-1S	0.028291	12	39	No	13	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-2S	0.044557	14	39	No	13	76.923	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-4S	0.04023	16	39	No	13	69.231	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-5S	-0.01...	-16	-39	No	13	92.308	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-LMW-6S	0.000...	2	39	No	13	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-UG-3	0.016871	16	35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1D	0.035016	14	39	No	13	92.308	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-AM-1S	-0.01...	-8	-35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-2D	-0.01...	-6	-39	No	13	92.308	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-3D	0.15362	38	39	No	13	61.538	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-4D	-0.00...	-4	-39	No	13	38.462	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-5D	0.053006	20	39	No	13	84.615	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6D	0.015756	2	39	No	13	53.846	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-6S	-0.01...	-6	-39	No	13	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-TP-8D	0.067504	24	39	No	13	69.231	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-9D	0.007...	2	35	No	12	100	n/a	n/a	0.02	NP
RADIUM [226 + 228] (PCI/L)	S-PZ-1S	-0.04...	-20	-39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-1S	-0.04...	-8	-35	No	12	0	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-2S	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-4S	-0.02...	-12	-39	No	13	7.6923	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-5S	0	13	39	No	13	84.615	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-LMW-6S	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-UG-3**	**0.19891**	**32**	**31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-AM-1D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-AM-1S	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-2D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-3D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-4D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-5D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-TP-6D	0	12	39	No	13	100	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	**S-TP-6S**	**-0.11148**	**-48**	**-39**	**Yes**	**13**	**23.077**	**n/a**	**n/a**	**0.02**	**NP**
SELENIUM, TOTAL (UG/L)	S-TP-8D	0	7	39	No	13	92.308	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-9D	0	5	39	No	13	92.308	n/a	n/a	0.02	NP
SELENIUM, TOTAL (UG/L)	S-PZ-1S	0	12	39	No	13	100	n/a	n/a	0.02	NP

Appendix H

November 2024 Corrective Action Alternative Source Demonstration

REPORT

SCPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells

Sioux Energy Center, St. Charles County, Missouri, USA

June 17, 2025

Project Number: 23009-25

Submitted to:

Ameren Missouri
1901 Chouteau Ave,
St. Louis, MO 63103

Submitted by:

Rocksmith Geoengineering, LLC
2320 Creve Coeur Mill Rd
Maryland Heights, MO 63043



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Certification Statement

This *SCPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells, Sioux Energy Center, St. Charles County, Missouri, USA* has been prepared to comply with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule under the direction of a licensed professional engineer with Rocksmith Geoengineering, LLC.

I hereby certify that this S*CPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells, Sioux Energy Center, St. Charles County, Missouri, USA* located at 8501 Missouri 94, West Alton, Missouri 63386 has been prepared to meet the requirements of 40 CFR §257.98(a)(1)(i) and 257.95(g)(3)(ii).

Rocksmith Geoengineering, LLC



_____

Mark Haddock, PE, RG
Principal Engineer, Senior Partner

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (CCR Rule or The Rule, USEPA 2015), this SCPA Corrective Action – Alternative Source Demonstration has been prepared to document an Alternative Source Demonstration (ASD) for statistical exceedances of the Groundwater Protection Standard (GWPS) calculated for Ameren Missouri's (Ameren) Sioux Energy Center (SEC) Bottom Ash Surface Impoundment (referred to as the SCPA) Corrective Action Monitoring Well Network. This document satisfies the requirements of §257.98(a)(1)(i) and 257.95(g)(3)(ii), which state that at a minimum, the Corrective Action program must meet the requirements of the Assessment Monitoring Program under 257.95. The Assessment Monitoring Program allows the owner or operator to demonstrate that a source other than the CCR Unit has caused a constituent to be at a statistical level exceeding the GWPS, and that the statistical exceedance was the result of an alternative source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

2.0 SITE DESCRIPTION AND BACKGROUND

The SEC (or Facility) is located approximately 12 miles west-northwest of the confluence of the Mississippi and Missouri Rivers in St. Charles County, Missouri. **Figure 1** depicts the location of the Facility and property boundary referenced to local features as well as the Mississippi and Missouri Rivers. The Facility encompasses approximately 1,100 acres and is located within the floodplain between the Mississippi and Missouri Rivers. The Facility is bounded to the north by wooded areas along the Mississippi River, to the south by a railroad, and to the east and west by agricultural fields.

2.1 Geological and Hydrogeological Setting

Hydrogeologically, the SCPA lies between the Mississippi River to the north and the Missouri River to the south. Flow and deposition from these rivers have resulted in thick alluvial deposits that lie unconformably on top of bedrock. These alluvial deposits, which can range from approximately 100 to 130 feet in thickness, make up the uppermost aquifer called the alluvial aquifer. Overall, this aquifer is described as a fining upwards sequence of stratified sands and gravels with varying amounts of silts and clays. Drilling in the alluvial aquifer identified different sub-units, including floodplain deposits, natural levee deposits, and channel deposits along with volumetrically less important loess deposits. Grain sizes of these alluvial deposits are highly variable.

Beneath the alluvial aquifer lies the bedrock aquifer. Bedrock in this region includes Mississippian-aged rocks of the Meramecian Series. Formations include primarily limestone, dolomite, and shale and are comprised of the Salem Formation overlying the Warsaw Formation and the Burlington-Keokuk Formation.

2.2 Coal Combustion Residuals (CCR) SCPA Surface Impoundment

The SCPA constructed with perimeter berms at an elevation of approximately 446 feet above mean sea level (feet MSL), which is above the 100-year flood elevation of 437.4 feet MSL. Both fly ash and bottom ash have historically been managed and stored in this CCR unit. Borings completed in the SCPA indicate a CCR thickness of up to approximately 75 feet below ground surface (bgs) (to about 370 feet MSL) in the center of the unit and thinning near the edges.

The SCPA is located to the southwest of the SEC plant facilities. The boundary of SCPA extends to within approximately 200 feet of the SEC and is approximately 47 acres in size, as shown in **Figure 1**. Directly to the east of the SCPA is a lined CCR unit called the Fly Ash Surface Impoundment (SCPB). Directly to the south of the SCPA is Highway 94 followed by the Utility Waste Landfill (UWL) and eventually the Missouri River. There are three CCR units currently in the UWL: Cell 1 (SCPC), Cell 2 (SCPD) and Cell 4A (SCL4A). West of the SCPA lies miles of agricultural land. North of SCPA there are side channels from the adjacent Mississippi River.

2.3 CCR Rule Groundwater Monitoring

The CCR Rule was published in the Federal Register on April 17, 2015. This rule required CCR surface impoundments and landfills to monitor groundwater around these CCR units. Prior to the first major deadline of October 17, 2017, Ameren completed the following tasks: (1) installation of a groundwater monitoring well system; (2) a Statistical Method Certification; (3) a Groundwater Monitoring Plan (GMP) that details design, installation,

development, sampling procedures, as well as statistical methods; and (4) eight baseline groundwater sampling events for all Appendix III and Appendix IV parameters of the CCR Rule. In November 2017, the first Detection Monitoring event was completed.

The groundwater monitoring system for the SCPA consists of eight monitoring wells screened within the uppermost aquifer (alluvial aquifer), as shown on **Figure 1**. These wells were installed in 2015 and 2016 for CCR Rule groundwater monitoring purposes. More information regarding the design and installation of the monitoring wells is provided in the SCPA GMP (Golder 2017) and the SCPA 2017 Annual Report (Golder 2018).

Between March 2016 and June 2017, eight baseline sampling events were completed for the SCPA. After baseline sampling, Detection Monitoring events have been completed twice a year generally in the second and fourth quarters. In January 2018, background results from the eight baseline sampling events were used to calculate statistical upper prediction limits (UPL). These UPLs were then compared to the Detection Monitoring results. The results of the analysis indicated that there were Statistically Significant Increases (SSIs), and Assessment Monitoring was initiated.

The Assessment Monitoring program was established at the SCPA on April 15, 2018. Since that time, groundwater sampling and statistical evaluations have been completed semi-annually to determine if there are any values at a Statistically Significant Level (SSL) over the site-specific Groundwater Protection Standard (GWPS). On October 11, 2018, it was determined that molybdenum was present at an SSL at several wells (UMW-2D, UMW-3D, UMW-4D, UMW-5D). The SSLs determined in Assessment Monitoring have remained the same since that time, and no new SSLs have been determined.

2.4 Corrective Action Background

On January 9, 2019, Ameren initiated its Corrective Measures Assessment (CMA) and posted the CMA report on May 20, 2019. A public meeting was held on May 31, 2019, and responses to public comments are posted on Ameren's CCR website. On August 30, 2019, Ameren published its "Remedy Selection Report – 40 CFR § 257.97 Rush Island, Labadie, Sioux and Meramec CCR Basins" (Remedy Selection Report, Ameren 2019) that identified source control through installation of a low permeability cover system, use of Monitored Natural Attenuation (MNA), and installation of Supplemental Corrective Measures as its chosen corrective action remedial plan. The Remedy Selection Report remedial plan consists of two phases as follows:

1) Source control, stabilization, and containment of CCR by installation of a low permeability geomembrane cap (a minimum 1 x 10^{-7} centimeters per second (cm/sec) versus 1 x 10^{-5} cm/sec required by the CCR Rule).
2) Once source control is achieved, monitor the natural attenuation of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modelling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

As required by the CCR Rule, the following were completed within 90 days of selecting the remedy (November 27 2019): (1) a groundwater monitoring well system was selected and certified by a Professional Engineer, (2) a Statistical Method Certification was prepared and certified by a Professional Engineer, and (3) a GMP was prepared recording the design, installation, development, sampling procedures, as well as statistical methods, and placed in the owner's operating record. The Corrective Action Monitoring Well Network consists of 19 groundwater monitoring wells, installed within the shallow, intermediate, and deep zones of the alluvial aquifer as shown in **Figure 1**.

In January 2021, Ameren commenced Phase 1 by initiating closure at the SCPA. Closure of the SCPA has been substantially completed with the completion of the liner cover system on December 21, 2021, and the first Corrective Action sampling event associated with Phase 2 of the Corrective Measures Remedial Plan was completed in April 2022.

On August 3, 2022, corrective action statistical methods[1] were used to determine the following statistical exceedances of the GWPS at individual monitoring wells:

- Cobalt at LMW-6S
- Lithium at LMW-5S, TP-2D, and TP-6S
- Molybdenum at LMW-1S, LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

Monitoring wells LMW-5S and LMW-6S were installed in December 2015 as part of the CCR Rule monitoring program for the SCPB fly ash surface impoundment. These wells are currently used for CCR Rule monitoring for the SCPB, as well as Corrective Action monitoring wells for the SCPA. Monitoring wells TP-2D and TP-6S were installed in July 2018 as part of the nature and extent evaluation completed under Assessment Monitoring and are currently used as Corrective Action monitoring wells.

In addition to MNA as a Corrective Measure, Ameren has also initiated a supplemental Corrective Measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective ion exchange. This treatment system became fully operational in February 2023 and began achieving target flow rates in September 2023. In July 2024, a Supplemental Remedy Selection Report was produced for the SEC (Haley & Aldrich, 2024), documenting that these Corrective Measures are effectively contributing to constituent mass reductions in groundwater near the SCPA. The supplemental Corrective Measures are ongoing.

2.5 November 2024 Sampling Event

Following the November 2024 Corrective Action sampling event conducted November 14 through 20, 2024, corrective action statistical methods were used to determine the following statistical exceedances of the GWPS:

- Cobalt at LMW-6S
- Lithium at LMW-5S, TP-2D, and TP-5D
- Molybdenum at LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

This ASD report further discusses the cobalt and lithium exceedances, and documents why these exceedances are naturally occurring and not caused by impacts originating from the SCPA.

3.0 EVIDENCE THAT STATISTICAL EXCEEDANCES OVER GWPS ORIGINATES FROM DIFFERENT SOURCE

Multiple lines of evidence indicate that the statistical exceedance(s) of the GWPS for cobalt or lithium at monitoring wells LMW-5S, LMW-6S, TP-2D, and TP-5D are not a result of a release from the SCPA but rather originate from an alternative source. The following lines of evidence support this ASD:

- A lack of correlation between key CCR indicators (boron and molybdenum) and exceedances of lithium and cobalt.

[1] The statistical testing method used to evaluate the Corrective Action monitoring data is the confidence interval method, which is the same method used during Assessment Monitoring, except the null hypothesis for the confidence intervals is reversed. For Corrective Action, the Unified Guidance states that the appropriate null hypothesis is that the groundwater population (mean) exceeds the GWPS for those constituents that exceed the GWPS under Assessment Monitoring program. Therefore, in Corrective Action the Upper Confidence Limit (UCL) is compared to the Groundwater Protection Standard instead of the Lower Confidence Limit (LCL) [as was used during Assessment Monitoring].

- The presence of lithium and cobalt at similar concentrations in groundwater samples collected upgradient of the SCPA.
- Cobalt concentrations at LMW-6S exceed those observed in potential sources at the SEC, including CCR unit porewater.
- The presence of naturally occurring cobalt and lithium in sediments in background locations at the SCPA.
- Cobalt and lithium are naturally occurring elements in soils and alluvial aquifer sediments that are derived from igneous and metamorphic rocks within the Missouri and Mississippi River watersheds.

3.1 CCR Indicators

Several types of CCR by-products are generated by coal-fired power plants. The different types of CCR typically display distinct geochemical signatures and indicator parameters. **Table 1** describes the different types of CCRs and their typical indicator parameters (USEPA 2018, EPRI 2011, EPRI 2012, and EPRI 2017).

Table 1: Types of CCR and Typical Indicator Parameters

Type of CCR	Description of CCR (USEPA 2018)	Key Indicators (EPRI 2011, 2012, 2017)
Fly Ash	Fine grained, powdery material composed mostly of silica made from the burning of finely ground coal in the boiler.	■ Boron ■ Molybdenum ■ Lithium ■ Sulfate ■ Bromide ■ Potassium ■ Sodium ■ Fluoride
Boiler Slag / Bottom Ash	Molten bottom ash from the slag tap and cyclone type furnaces that turns into pellets that have a smooth glassy appearance after quenching with water.	
Flue Gas Desulfurization Material (FGD)	A material leftover from the process of reducing sulfur dioxide emissions from a coal-fired boiler that can be a wet sludge consisting of calcium sulfite or calcium sulfate or a dry powdered material that is a mixture of sulfites and sulfates.	■ Sulfate ■ Fluoride ■ Calcium ■ Boron ■ Bromide ■ Chloride

Notes:

1) Fly ash and boiler slag/bottom ash typically have the same indicator parameters.
2) Definitions from USEPA website, available at https://www.epa.gov/coalash/coal-ash-basics.
3) Key indicators from EPRI 2011, 2012, and 2017.

3.2 Site Specific Key CCR Indicators

To be a key CCR Indicator parameter for a specific site, a constituent should be present in relatively high concentrations in the leachate (CCR porewater) when compared to background or other sources (nearby rivers, etc.), not be a common anthropogenic contaminant, and be mostly non-reactive and mobile in the site hydrogeological environment (EPRI 2012). In 2012, EPRI investigated which constituents are the best indicator parameters for coal ash impacts as outlined in **Table 1**. Of the key indicators listed in **Table 1** for fly ash and boiler slag/bottom ash, boron, molybdenum, lithium, sulfate, and fluoride are regularly sampled as part of the CCR Rule. Potassium and sodium are sampled periodically for major ion analysis and testing under the CCR Rule. Testing for bromide has not been completed at the site.

Table 2 provides a snapshot of the concentrations present onsite in the background, Mississippi River, Missouri River, and SCPA porewater for each of the constituents sampled on the key indicator list.

Table 2 – Summary of Potential CCR Impact Indicator Parameters at the Sioux Energy Center

Constituent (Units)		Back-ground	Mississippi River[2]	Missouri River[2]	SCPA Porewater	Advantages and Caveats as Key Indicator (from EPRI 2012)
Boron (µg/L)	Minimum	42.4	27.1	110	348	Typically present in leachate, non-reactive and mobile in common hydrogeologic environments, and not a common anthropogenic contaminant.
	Average	91.7	36.4	112.3	53,266	
	Maximum	240	59.9	117	111,000	
Sulfate (mg/L)	Minimum	12.3	29.9	188	48.5	Commonly analyzed and very mobile in all hydrogeologic environments. Concentration in impoundment leachate may in some cases be too low relative to background to be useful. Less useful in strongly reducing environments where sulfate can be reduced to hydrogen-sulfide gas.
	Average	30.6	34.08	192.1	1,088	
	Maximum	61.1	40.5	196	2,080	
Molybdenum (µg/L)	Minimum	ND (<0.52)	ND (<0.9)	2.6	26.5	Most useful for dry-managed coal ash. May be less mobile than boron in some hydrogeologic environments. Concentrations may be too low in impoundment leachate to be useful if background groundwater has detectable concentrations.
	Average	2.52	1.406	2.97	22,085	
	Maximum	9.3	2.3	3.6	56,600	
Lithium (µg/L)	Minimum	ND (<2.9)	ND (<2.9)	42.0	16.7	Useful for coal ash management sites where the power plant burned bituminous coal. Leachate concentrations are typically low in coal ash derived from subbituminous and lignite coal
	Average	12.7	6.694	43.17	56.16	
	Maximum	25.4	10.4	44.9	170	
Potassium (µg/L)	Minimum	ND (<500)	Not Sampled	Not Sampled	4,350	Commonly analyzed, although may be less mobile than boron and sulfate. Assure that leachate concentration is higher than background and that there are no anthropogenic sources such as agricultural fields where potassium may be applied in fertilizers.
	Average	1,763			34,350	
	Maximum	3,840			60,300	
Sodium (mg/L)	Minimum	4.58	Not Sampled	Not Sampled	13.9	Useful for coal ash management sites where the power plant injects trona or sodium bicarbonate or burned subbituminous coal. Absent dry sorbent injection, leachate concentrations are considerably lower in coal ash derived from bituminous coal, particularly at impoundments. Assure that leachate concentration is higher than background and that there are no anthropogenic sources such as agricultural fields, or major highways in northern climates where sodium may be applied in road salts.
	Average	5.87			59.36	
	Maximum	7.39			116	
Fluoride (mg/L)	Minimum	ND (<0.086)	0.16	0.43	0.22	Mobile and non-reactive in common hydrogeologic environments. Assure that leachate concentration is higher than background.
	Average	0.266	0.196	0.4435	1.142	
	Maximum	0.46	0.24	0.46	2.9	

Notes:

1) Unit abbreviations - mg/L – milligrams per liter, µg/L – micrograms per liter
2) ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.

[2] Mississippi and Missouri River samples collected September 21 & 22, 2017 and May 8, 2018. Results are available on Ameren's public website at https://www.ameren.com/company/environment-and-sustainability/managing-coal-combustion/ccr-compliance-reports/sioux-energy-center.

Based on the results of **Table 2**, boron has a much higher concentration in the CCR porewater than background groundwater and river water, plus it is non-reactive and highly mobile at the site. Sulfate and molybdenum have higher concentrations in the CCR porewater than background groundwater and river water; however, the distinction between background and porewater for sulfate is not as distinct as that for boron, and molybdenum is typically not as mobile as boron (EPRI, 2012). Porewater concentrations of fluoride are not significantly higher than background, and therefore it would be difficult to detect impacts using fluoride concentrations. Average lithium concentrations in the porewater are also not significantly elevated when compared to background groundwater samples or the Missouri River; therefore, determining the source of impacts would be difficult. Potassium and sodium are also not ideal indicators as many of the wells onsite are either near major roadways (Highway 94) or located within the agricultural fields around the plant, which may display elevated concentrations caused by anthropogenic sources (e.g., road salt, fertilizers, etc.).

Therefore, boron appears to be the best indicator parameter for CCR impacts at the SEC. Molybdenum also appears to be a good indicator but may not be present at the farthest extents of the plume. Boron and molybdenum concentrations are above background concentrations at each of the six monitoring wells used for Detection and Assessment Monitoring adjacent to the SCPA (Rocksmith 2024).

3.2.1 Lithium Concentrations

As indicated in **Table 1**, lithium can be a key indicator for fly ash and boiler slag/bottom ash impacts if it is present at elevated levels in the CCR porewater compared to background and is mobile at the site. However, as discussed in Section 3.2, boron and molybdenum are better CCR impact indicator parameters than lithium for the SEC, as most porewater lithium concentrations are not significantly higher than background concentrations. Four of the five CCR porewater samples collected in 2018 as a part of the SCPB ASD (available in the 2018 Annual Report for the SCPB, Golder 2019b) have lithium concentrations below those found naturally occurring in the Missouri River and the site-specific GWPS for lithium (40 µg/L), and at levels only 2 to 3 times the concentrations in background monitoring wells located closer to the Mississippi River (BMW-1S/D and BMW-3S/D). Additionally, lithium concentrations are below Missouri River levels in each of the six perimeter wells adjacent to the SCPA used for Detection and Assessment Monitoring. This further establishes that lithium is not a useful CCR impact indicator parameter for the SCPA and SEC area.

Table 3 – November 2024 Analytical Results of Key Constituents at Monitoring Wells with a Statistical Lithium Exceedance

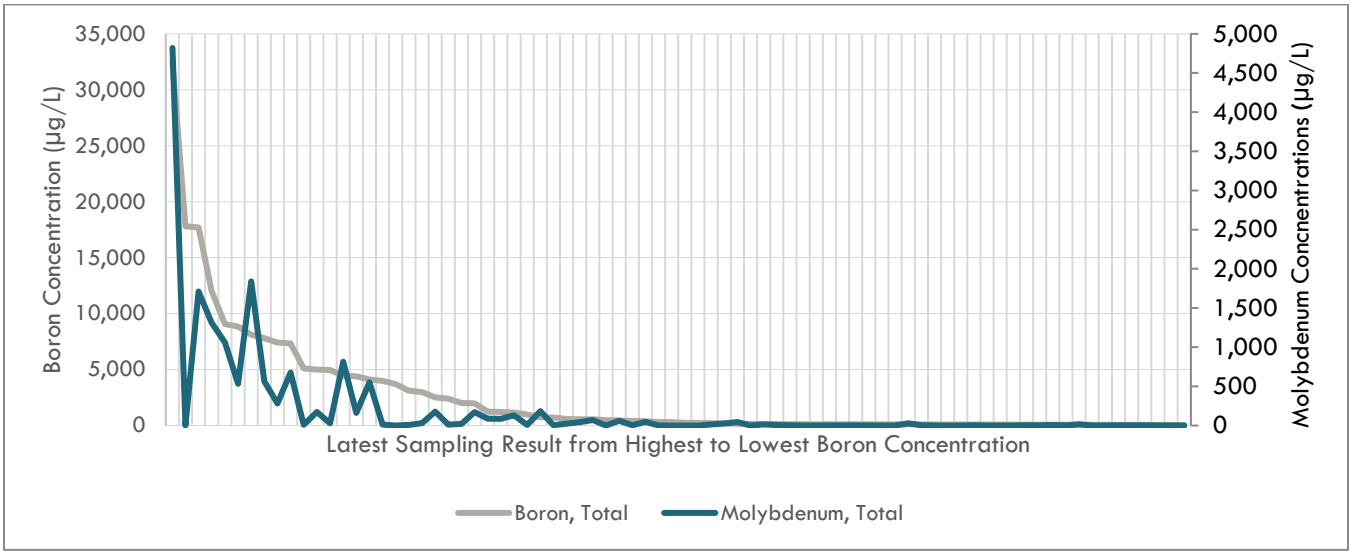
Well ID	Lithium (µg/L)	Boron (µg/L)	Molybdenum (µg/L)
LMW-5S	39.5	17,700	1,710
TP-2D	47.9	87.5 J	ND (<1.0)
TP-5D	40.7	7,800	564
BMW-1S (background)	7.2 J	61.9 J	2.5 J
BMW-3S (background)	8.4 J	57.3 J	3.4 J
BMW-1D (background)	14.2	116	ND (<1.0)
BMW-3D (background)	18.7	58.4 J	ND (<1.0)

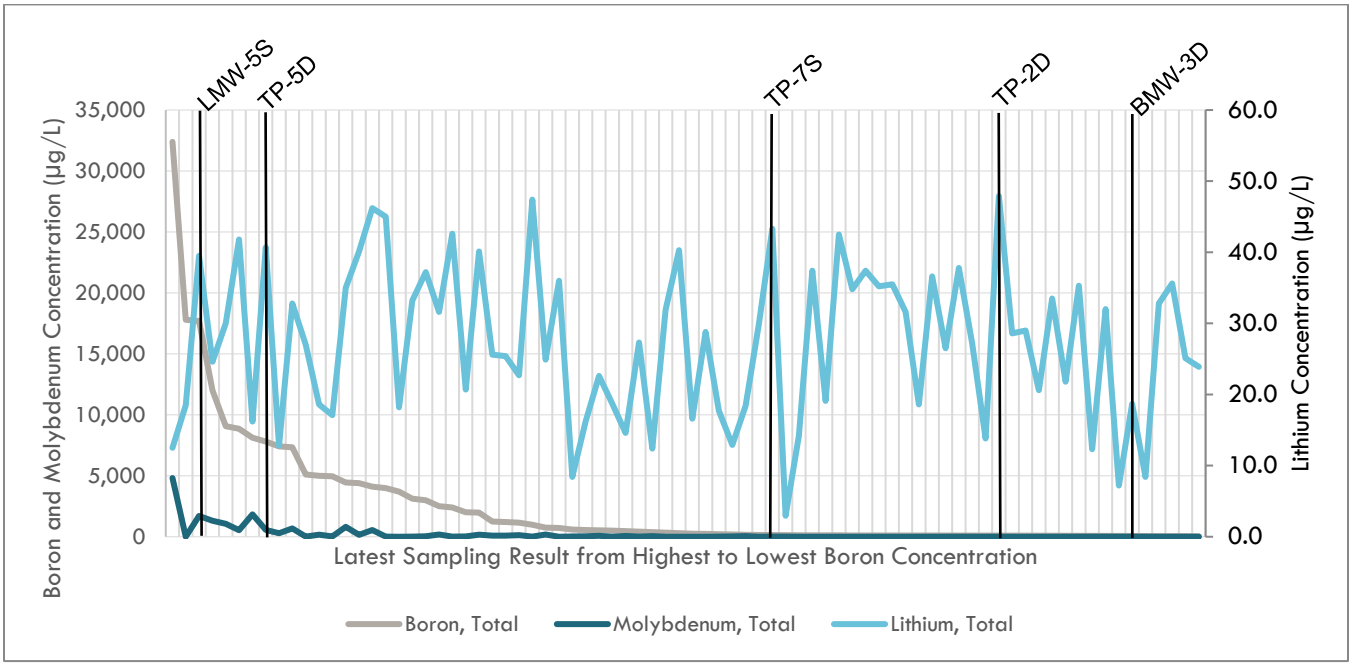
Notes:
1) µg/L – micrograms per liter.
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

As displayed in **Table 3**, of the three wells with a statistical exceedance for lithium, only LMW-5S and TP-5D have boron and molybdenum concentrations at a level above background levels for these constituents. This lack of strong correlation between key CCR Indicator parameters and elevated lithium concentrations indicates that elevated lithium concentrations are not associated with CCR impacts.

To further evaluate the correlation between key CCR indicators and lithium concentrations onsite, a graph that displays boron, lithium, and molybdenum concentrations from the most recent sampling result at each monitoring well is provided in **Figure 2** (data used for **Figure 2** provided in **Table 4**). As displayed on the first graph, molybdenum concentrations appear to correlate with boron concentrations, with elevated levels at similar monitoring wells. Lithium concentrations do not track with either boron or molybdenum concentrations but rather range between non-detect (<3.7) and 47.9 µg/L, indicating that lithium concentrations are not linked to impacts from the SCPA.

Figure 2 – Comparison of Boron, Molybdenum, and Lithium Concentrations



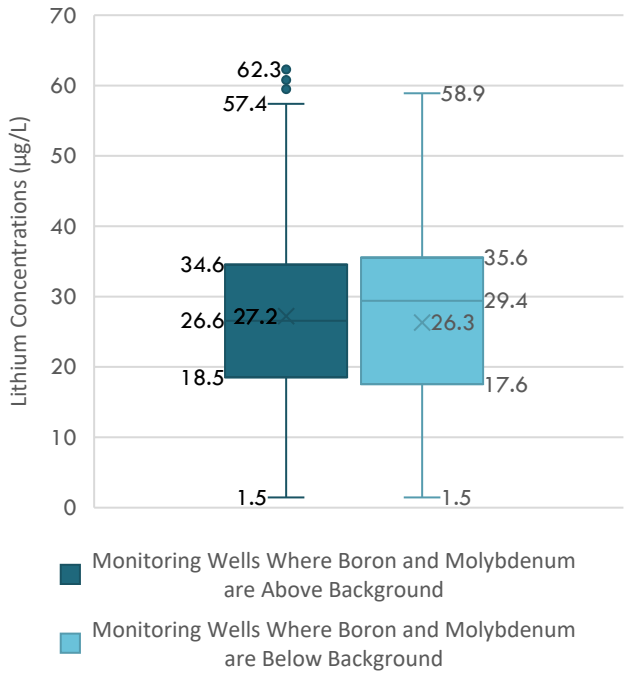


Notes:

1) µg/L – micrograms per liter.
2) Values displayed in order from highest to lowest boron concentrations. Data used in Figure 2 are provided in Table 4.
3) The upper graph displays boron and molybdenum concentrations, with molybdenum concentrations on the right axis.
4) The lower graph displays boron, molybdenum, and lithium concentrations, with boron and molybdenum concentrations on the left axis and lithium concentrations on the right axis.

As displayed in **Table 4**, there are 35 monitoring wells onsite where boron and/or molybdenum concentrations are below background limits (shown in blue) and 43 monitoring wells onsite where boron and/or molybdenum are above background limits (shown in red). Background limits are derived from the most recent updated statistical limits for the SCPA (Rocksmith 2023) and consider background groundwater quality upgradient of the site. **Figure 3** (right) displays box and whisker plots of lithium concentrations for the following datasets: 1) monitoring wells where the most recent result contains molybdenum and/or boron concentration above background (43 monitoring wells) and 2) monitoring wells where the most recent boron and molybdenum results are below background limits (35 monitoring wells). For this figure, historical datasets for each monitoring well were used to generate the plots. The box and whisker plots display a nearly identical distribution between the two datasets including minimum, lower quartile, median, upper quartile, and maximum values all within 4 µg/L of one another. The mean values of the two datasets are within 1 µg/L. These box and whisker plots further demonstrate that lithium concentrations at the site do not correspond with key CCR indicators (boron and molybdenum). Therefore, elevated lithium concentrations onsite are not related to CCR impacts.

Figure 3 – Distribution of Lithium Concentrations in Monitoring Wells with and Without Key CCR Indicators above Background Limits



Using the data identified in **Figure 3**, for those wells boron and molybdenum are below background limits, a non-parametric (highest value in the dataset) upper prediction limit of 58.9 µg/L was calculated, which is higher than the current Site GWPS of 40 µg/L. This demonstrates that elevated lithium concentration may occur at the site in wells without elevated CCR impact concentrations.

3.2.2 Sequential Extraction Data Confirms Presence of Naturally Occurring Lithium in Alluvial Sediments

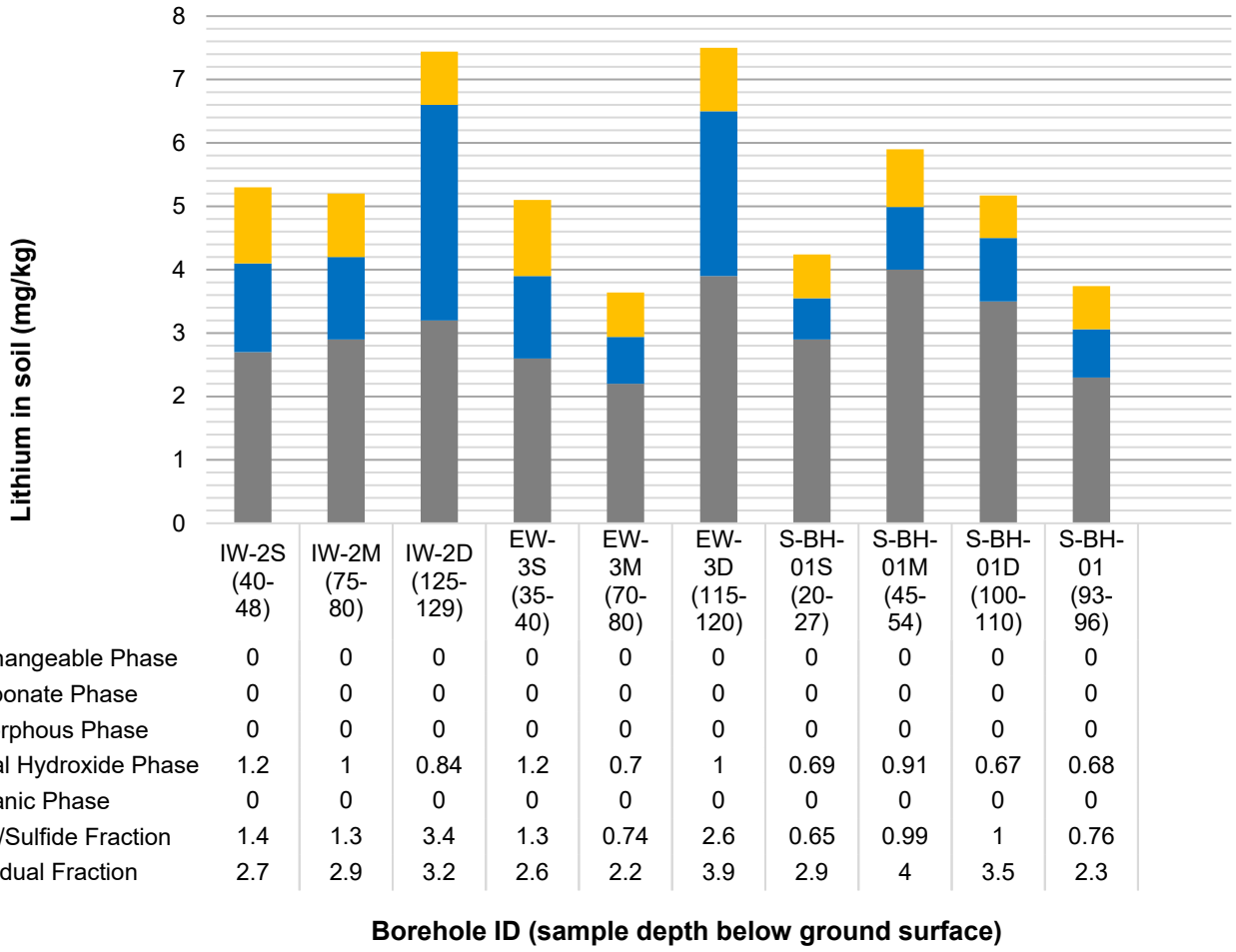
A seven-step sequential extraction method (SEP) based on Tessier et al. (1979) was used to identify the provenance of lithium in soils (i.e., the operationally defined fraction that contains the metal) and determine potential environmental mobility. The total concentration of a metal measured from the seven steps can be compared to the concentration determined from the total metal analysis for compositional accountability. The seven-step SEP is defined by specific extraction steps as follows in **Figure 4** (based on a modified Tessier et al. 1979 method):

Figure 4 – Sequential Extraction Procedure

SEQUENTIAL EXTRACTION PROCEDURE				
ENVIRONMENTALLY AVAILABLE (Increasing Availability)	Step 1	Increasing Extraction Strength	Exchangeable Fraction:	This extraction includes trace elements that are electrostatically adsorbed to overburden minerals
	Step 2		Carbonate Fraction:	This extraction targets trace elements that are adsorbed or otherwise bound to carbonate minerals
	Step 3		Non-Crystalline Materials Fraction:	This extraction targets trace elements that are complexed by amorphous minerals
	Step 4		Metal Hydroxide Fraction:	This extraction targets trace elements bound to hydroxides of iron, manganese, and/or aluminum
	Step 5		Organic Fraction:	This extraction targets trace elements strongly bound via chemisorption to organic material
NON-ENVIRONMENTALLY AVAILABLE	Step 6		Acid/Sulfide Fraction:	The extraction is used to identify trace elements precipitated as sulfide minerals
	Step 7		Residual Fraction:	Trace elements remaining in the overburden after the previous extractions will be distributed between silicates, phosphates, and refractory oxide

In 2021, samples were collected from three soil borings across the SEC for sequential extraction testing. The locations of the sequential extraction sample borings are provided in **Figure 1**. Results of the sequential extraction testing as displayed in **Figure 5** indicate the presence of naturally occurring lithium in soils at the SEC in fractions 6 and 7 in each of the soil borings, both directly adjacent to the SCPA and at background locations. Lithium is reported in soil at concentrations ranging from 3.6 to 7.4 milligrams per kilogram (mg/kg, from the SEP) and is predominantly (76 to 87%) present in the residual and sulfide component of the soil, i.e. the non-environmentally available fractions. The absence of lithium in the environmentally available fractions (specifically exchangeable and carbonate fractions) indicate a general lack of lithium transport and attenuation (e.g., through sorption and/or co-precipitation).

Figure 5 - Sequential Extraction of Lithium Results



Notes:

1) Detection with JB flags for the organic phase were not used for this evaluation, as these results were detected in the blank, are estimated, and are therefore not considered accurate for this evaluation.

2) Mg/kg – milligrams per kilogram.

3) Sample locations provided in **Figure 1.** BH-01 is near the background wells while IW-2 and EW-3 are located adjacent to the SCPA CCR Unit.

3.2.3 Leachability Testing

In a previous study completed by Haley & Aldrich in 2018, several leachability tests were completed at the site for the CCR materials in the SCPA and the SCPB.

1. Shake Extraction Tests (method ASTM D3987) were completed. This test consists of shaking the waste (CCR) with water to determine what constituents would be leached from the material. For this test, both the SCPA bottom ash and the SCPB fly ash had a result of non-detect for lithium (<0.018 mg/L).
2. Synthetic Precipitation Leaching Procedure (SPLP) tests were completed for both the SCPA bottom ash and the SCPB fly ash. This method is used to determine if constituents of concern are able to leach into groundwater from the waste (CCR). For this test, the bottom ash/boiler slag in SCPA was again at a non-detect level for lithium, while the fly ash in SCPB had a lithium concentration of 0.0087 mg/L. The lithium concentration of 0.0087 mg/L (8.7 µg/L) is at a similar level as background groundwater, and well below the site GWPS of 40 µg/L.

These results indicate that there is little leachable lithium present in the SCPA or SCPB CCR units.

3.2.4 Lithium at TP-2D

TP-2D is located approximately 3,000 feet to the northeast of the SCPA on the southern bank of the Mississippi River. Boron and molybdenum concentrations at this monitoring well are below background, indicating that CCR impacts are unlikely at this monitoring well. During the statistical evaluation of the November 2024 sampling event, a LCL of 43.09 µg/L and UCL of 52.08 µg/L were calculated. When compared to the UPL of 58.9 µg/L as discussed above, the UCL is below the calculated prediction limit for wells with boron and molybdenum below background limits. This, coupled with the clear indications that lithium concentrations are not correlated with CCR impacts, indicates that the elevated lithium at TP-2D is not from the SCPA, but rather is naturally occurring in the alluvial aquifer at this location.

3.2.5 Lithium at TP-5D

TP-5D is located approximately 1,500 feet southeast of the SCPA along the CCR haul road south of Dwiggins Road. Boron and molybdenum concentrations are elevated at TP-5D. During the statistical evaluation of the November 2024 sampling event, an LCL of 31.27 µg/L and UCL of 38.65 µg/L were calculated. Even though the UCL is below the site GWPS for lithium (40 µg/L), there is a statistical exceedance due to a statistically significant increasing trend, where the upper confidence band exceeds the GWPS. As of the date of this report, the preliminary lithium concentration from May 2025 at TP-5D is 29.1 µg/L, which eliminates the statistically significant increasing trend. Therefore, as of May 2025, lithium at TP-5D is no longer an exceedance.

3.2.6 Lithium at LMW-5S

LMW-5S is located approximately 2,000 feet to the southeast of the SCPA, near the southeastern perimeter of the SCPB. Boron and molybdenum concentrations are elevated at LMW-5S. During the statistical evaluation of the November 2024 sampling event, an LCL of 42.28 µg/L and UCL of 48.32 µg/L were calculated. When compared to the UPL of 58.9 µg/L as discussed above, the UCL is below the calculated prediction limit for wells with boron and molybdenum below background limits. This, coupled with the clear indications that lithium concentrations are not correlated with CCR impacts, indicates that the elevated lithium at LMW-5S is not from the SCPA, but rather is naturally occurring in the alluvial aquifer at this location.

3.2.7 Naturally Occurring Lithium Values at the SEC are Consistent with Upstream Sampling Results within the Missouri and Mississippi River Alluvial Aquifers

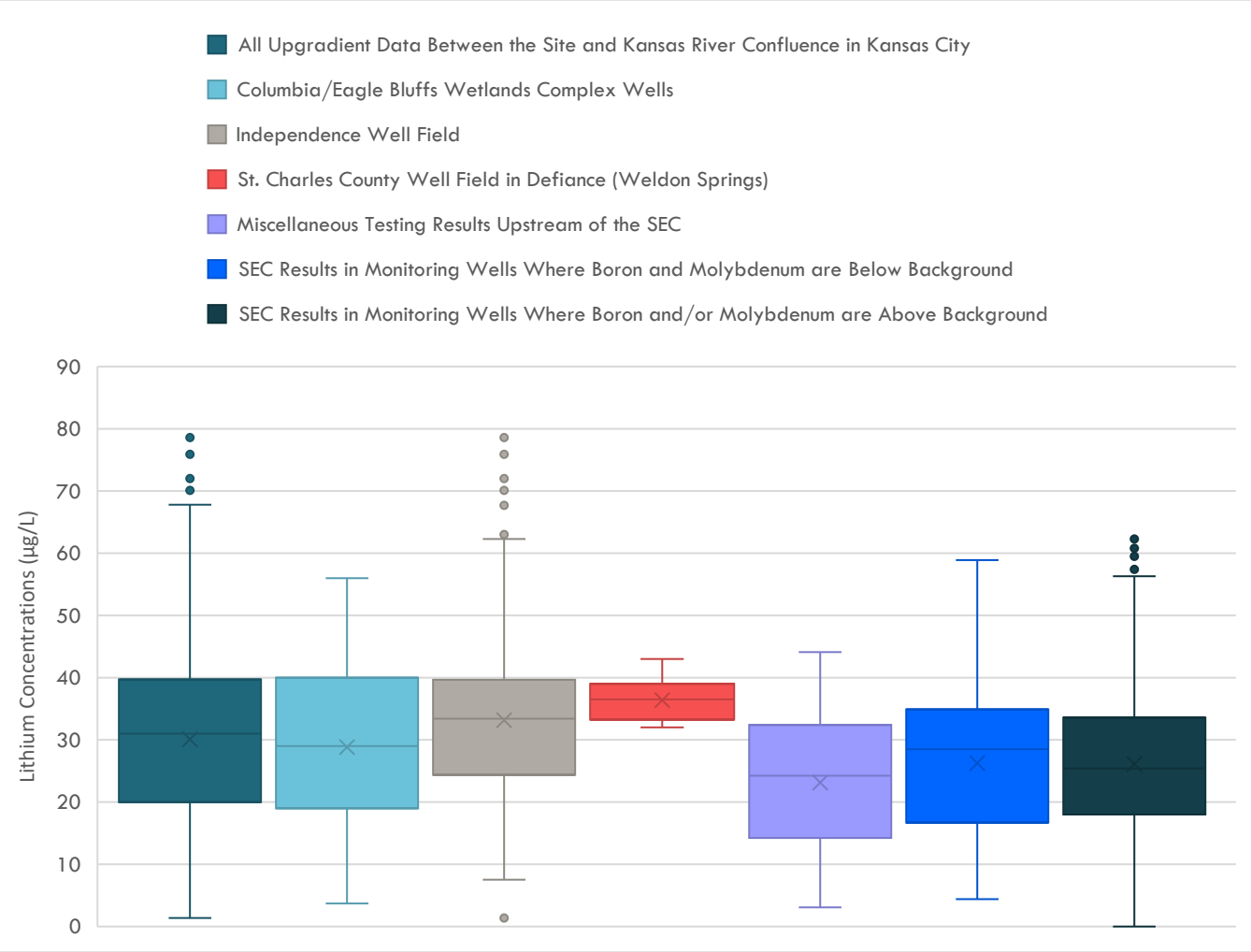
Naturally occurring lithium is present in groundwater across the United States (US), can be found in nearly all rock and soil types, and is most commonly found to be associated with silicate minerals (Tomazscak 2015). The weathering of silicate minerals is known to cause the release of naturally occurring lithium into groundwater (Tomazscak 2015). Site-specific test results (i.e., SEP results) confirm this finding for the SEC.

The National Water Quality Monitoring Council (NWQMC) Water Quality Portal (available at https://www.waterqualitydata.us/) summarizes data from USGS, USEPA, and NWQMC databases. A review of lithium results from within the Missouri and Mississippi River Alluvial Aquifer from the NWQMC database includes lithium results from a total of 1,347 groundwater sample results for wells located upgradient of the SEC within the Missouri River alluvial aquifer and one groundwater sample result for wells located upgradient of the SEC within the Mississippi River alluvial aquifer in the state of Missouri. To evaluate naturally occurring Missouri River Alluvial Aquifer concentrations of lithium, the database results were divided different groups as follows:

- Independence Well Field near Independence Missouri (Kelly 2010) – Total of 410 results.
- Columbia/Eagle Bluffs Wetland Complex Wells (Richards 1995, Richards 1999, Richards, 2002) – Total of 851 results.
- Weldon Spring Well Field (Kleeschulte, 1993) – Total of 32 results.
- Miscellaneous testing results upstream of the SEC – Total of 54 results
- Only 1 result was available within the Mississippi River alluvium upgradient of the SEC, a concentration of 14.7 µg/L near Wayland Missouri.

Figure 6 displays a box and whisker plot that compares the publicly available groundwater lithium concentration data in the upgradient alluvial aquifers to lithium concentrations at SEC as displayed in **Figure 4**.

Figure 6 – Comparison of Missouri River Alluvial Aquifer Groundwater Lithium Concentrations – Public Data and SEC Results



Overall, the results display a very similar distribution of lithium results across the state within the Missouri River Alluvium. In fact, lithium concentrations appear to be lower, on average, than those in Independence, Columbia/Eagle Bluffs Wetland Complex, and Weldon Spring. This consistency with upgradient alluvial aquifer samples demonstrates that the lithium concentrations onsite are not from the SCPA, but rather are naturally occurring within the alluvial aquifer.

3.3 Cobalt Evaluation

Cobalt is present at a level that is statistically above the GWPS of 6 µg/L using corrective action statistical evaluations at LMW-6S. LMW-6S is located approximately 1,800 feet southeast of the SCPA, on the eastern perimeter of the SCPB, approximately 750 feet northeast of LMW-5S discussed above. Cobalt concentrations were not analyzed across the site in November 2024 because results across all SEC monitoring wells in May 2024 were less than the PQL for cobalt (<5 µg/L). Therefore, the cobalt evaluation presented in Section 3.3 remains largely unchanged from the cobalt evaluation in the Alternative Source Demonstration for the May 2024 sampling event, included in the 2024 Annual Report for the SCPA (Rocksmith, 2025). As displayed in **Table 5**, boron is present at LMW-6S at a concentration above background, while molybdenum is detected below the Practical Quantitation Limit (PQL), similar to molybdenum concentrations at background wells.

Table 5 – May 2024 Analytical Results of Key Constituents at Monitoring Wells with a Statistical Cobalt Exceedance

Well ID	Cobalt (µg/L)	Boron (µg/L)	Molybdenum (µg/L)
LMW-6S	4.4 J	8,930	10.6 J
BMW-1S (background)	2.0 J	58.1 J	ND (<20)
BMW-3S (background)	ND (<1.2)	54.1 J	ND (<20)
BMW-1D (background)	ND (<1.2)	117	ND (<20)
BMW-3D (background)	ND (<1.2)	64.1 J	ND (<20)

Notes:
1) µg/L – micrograms per liter.
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

As displayed on **Table 1**, cobalt is not typically considered a key CCR indicator parameter because it is usually present at a low concentration in CCR leachate relative to typical background, has low mobility, and has a higher potential for reactivity (EPRI 2017). Based on the results of the Corrective Action Statistical Evaluation for the May 2024 sampling event, cobalt is present at LMW-6S at a level statistically above the GWPS (6 µg/L), with a LCL of 6.359 µg/L and a UCL of 9.621 µg/L. Since the installation of LMW-6S in 2016, cobalt concentrations have ranged from 4.4 J to 10.7 µg/L. **Table 6** provides a summary of minimum, average, and maximum cobalt concentrations in the different potential source areas: background groundwater, groundwater adjacent to the SCPA, CCR unit porewater, and the Missouri and Mississippi Rivers. As displayed on **Table 6**, cobalt concentrations at LMW-6S are greater than those present in background groundwater, nearby rivers, and porewater.

Table 6 – Summary of Cobalt Concentrations

Constituent (Units)		LMW-6S	Background	Assessment Monitoring Wells Adjacent to SCPA (UMW 1D-6D)	Mississippi River[3]	Missouri River[3]	SCPA Porewater	SCPB Porewater
Cobalt (µg/L)	Minimum	4.4 J	ND (<0.72)	ND (<0.72)	ND (<0.73)	ND (<0.73)	ND (<0.73)	ND (<0.73)
	Average	7.589	0.8031	0.4853	1.217	0.5065	0.652	ND (<0.73)
	Maximum	10.7	4.2 J	1.7 J	2.3 J	0.87 J	1.8 J	ND (<0.73)

Notes:
1) µg/L – micrograms per liter.
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

In January 2018, as part of the initial SCPB ASD, porewater was sampled in the SCPA and SCPB CCR units. Eight of the nine results from this analysis were non-detect (<0.73 µg/L) and one result at SCPA-2 was 1.8 J µg/L. This lack of cobalt in the CCR material has been confirmed in other studies, including the current NPDES permit (#MO-0000353), where cobalt is not listed as a Pollutant of Concern (POC) since the results collected from the SCPA and SCPB outfalls were non-detect. Lack of cobalt within the porewater of the SCPA and SCPB, coupled

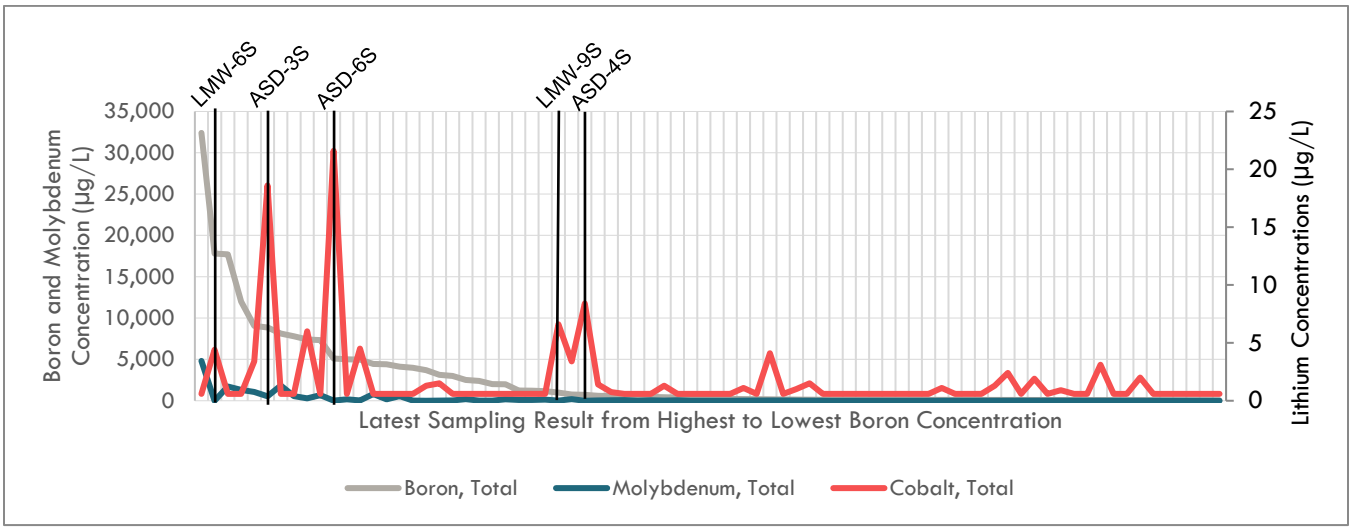
[3] Mississippi and Missouri River samples collected September 21 & 22, 2017 and May 8, 2018. Results are available on Ameren's public website at https://www.ameren.com/company/environment-and-sustainability/managing-coal-combustion/ccr-compliance-reports/sioux-energy-center.

with the lack of cobalt at a statistically significant level above the GWPS in any other monitoring well, indicates that cobalt is likely not from the SCPA, but rather, an alternative source.

Further evidence that the SCPA is not a source of elevated cobalt concentrations is the lack of cobalt in the groundwater monitoring wells directly adjacent to the CCR Unit used for Detection and Assessment Monitoring. These wells (UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D and UMW-6D, as displayed in **Figure 1**) show elevated concentrations for boron and molybdenum but do not have elevated cobalt concentrations. Of the 120 testing results for these six monitoring wells, only one result has a value over the method detection limit (MDL) at 1.7 J µg/L and is below the PQL. Therefore, over 99% of all cobalt results in monitoring wells located directly adjacent to the SCPA indicate cobalt is present at a non-detect level.

Like lithium, concentrations of cobalt do not closely track with key indicator parameters of boron or molybdenum. **Figure 7** is a graph that displays boron, cobalt, and molybdenum concentrations from the most recent sampling result at each monitoring well (data used to generate this graph is available in **Table 4**). As displayed previously in **Figure 2** and below in **Figure 7**, molybdenum concentrations appear to correlate with boron concentrations, with elevated levels at similar monitoring wells. Cobalt concentrations do not track closely with either boron or molybdenum concentrations, but rather range from non-detect (<0.73 µg/L) to 21.6 µg/L.

Figure 7 – Comparison of Boron, Molybdenum, and Cobalt Concentrations



Notes:

1) µg/L – micrograms per liter,
2) Values displayed in order from highest to lowest boron concentrations. Data used in Figure 7 are provided in Table 4.
3) Cobalt concentrations displayed on secondary axis, with values on the right side of the graph.

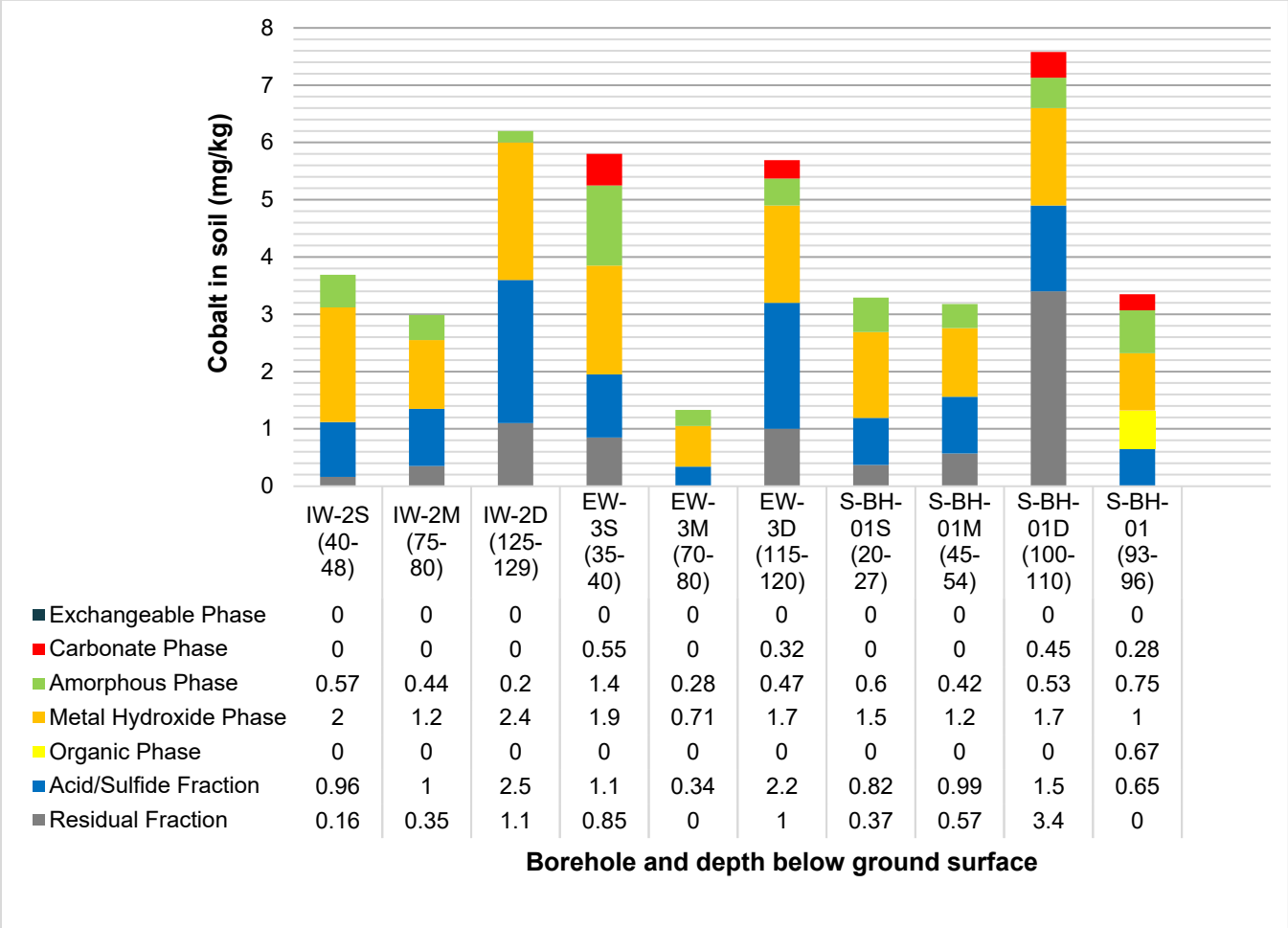
3.3.1 Sequential Extraction Data Confirms Presence of Naturally Occurring Cobalt in Sediments

As with lithium, a seven-step SEP based on Tessier et al. (1979) was used to identify the provenance of cobalt in soils (i.e. the operationally-defined fraction that contains the metal) and determine potential environmental mobility. The total concentration of a metal measured from the seven steps can be compared to the concentration determined from the total metal analysis for compositional accountability. The locations of the sequential extraction sample locations are provided in **Figure 1**.

Results of the sequential extraction testing are displayed below in **Figure 8**. The results indicate naturally occurring cobalt is present in soils at the SEC in fractions 6 and 7 of each of the soil borings, both directly adjacent to the SCPA and at background locations. Cobalt is reported at concentrations ranging from 1.3 to 7.6 milligrams per kilogram (mg/kg, from the SEP) and is present in the residual and sulfide component of the soil (35

to 81%), i.e., the non-environmentally available fractions. Background soil samples, outside of the impacts from the SCPA, display similar results as those soil samples collected adjacent to the CCR unit, indicating that cobalt is not from impacts from the CCR Unit, but rather is naturally occurring in the alluvial aquifer.

Figure 8 - Sequential Extraction of Cobalt Results



	IW-2S (40-48)	IW-2M (75-80)	IW-2D (125-129)	EW-3S (35-40)	EW-3M (70-80)	EW-3D (115-120)	S-BH-01S (20-27)	S-BH-01M (45-54)	S-BH-01D (100-110)	S-BH-01 (93-96)
Exchangeable Phase	0	0	0	0	0	0	0	0	0	0
Carbonate Phase	0	0	0	0.55	0	0.32	0	0	0.45	0.28
Amorphous Phase	0.57	0.44	0.2	1.4	0.28	0.47	0.6	0.42	0.53	0.75
Metal Hydroxide Phase	2	1.2	2.4	1.9	0.71	1.7	1.5	1.2	1.7	1
Organic Phase	0	0	0	0	0	0	0	0	0	0.67
Acid/Sulfide Fraction	0.96	1	2.5	1.1	0.34	2.2	0.82	0.99	1.5	0.65
Residual Fraction	0.16	0.35	1.1	0.85	0	1	0.37	0.57	3.4	0

Notes:

1) Mg/kg – milligrams per kilogram.

2) Sample locations provided in **Figure 1.** BH-01 is near the background wells while IW-2 and EW-3 are located adjacent to the SCPA CCR Unit.

3.3.2 Leachability Testing

As with lithium, leachability tests were completed at the site by Haley & Aldrich in 2018 for the CCR materials in the SCPA and the SCPB.

1. For the Shake Extraction Tests (method ASTM D3987), both the SCPA bottom ash and the SCPB fly ash results were non-detect (<0.0068 mg/L) for cobalt.
2. For the SPLP test, both the SCPA bottom ash and the SCPB fly ash were non-detect (<0.0027 mg/L) for cobalt.

This confirms the results of the porewater testing and indicate that little to no leachable cobalt is present in the SCPA or SCPB CCR units and they are not significant sources of cobalt in the alluvial aquifer groundwater.

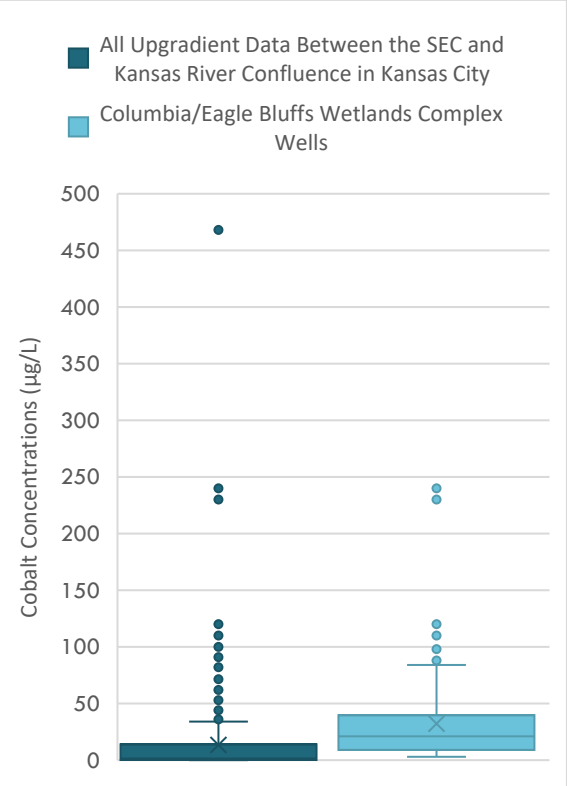
3.3.3 Naturally Occurring Cobalt Values at the SEC are Consistent with Upstream Sampling Results within the Missouri and Mississippi River Alluvial Aquifers

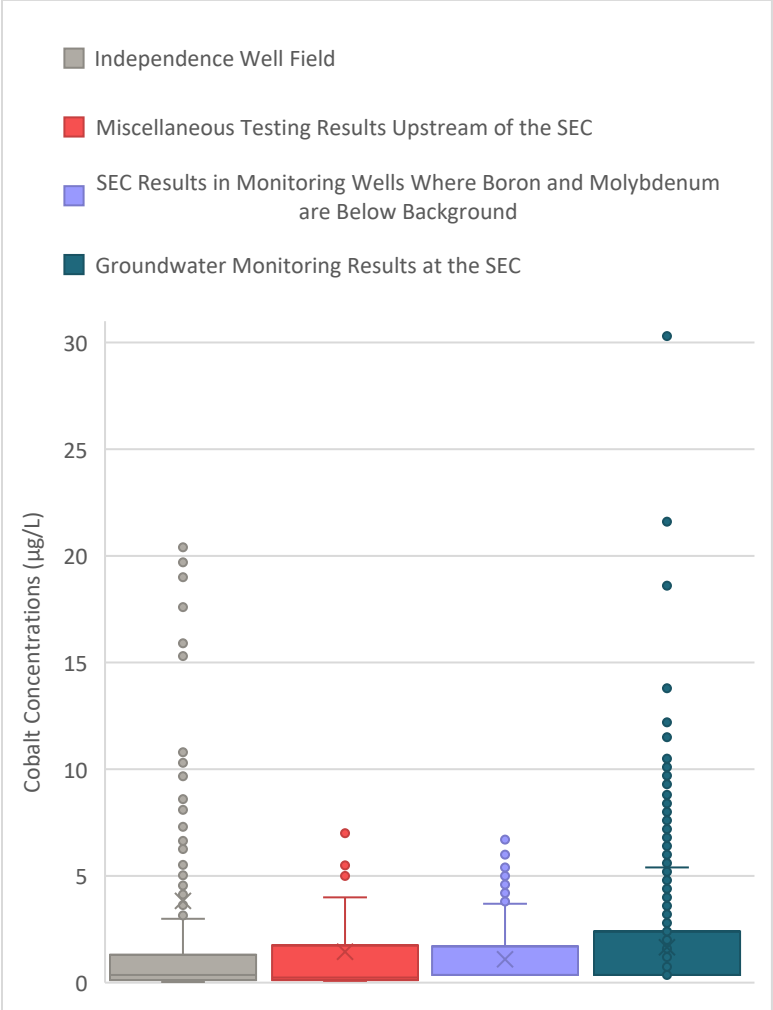
Cobalt may be present in mineral form as arsenides, carbonates, sulfides, and oxides (Hem, 1989; Smith and Carson, 1981). During weathering of these minerals (i.e., dissolution and/or oxidation), any cobalt is typically released and redistributed to iron or manganese (hydr)oxides (Butt et al., 2000) or other sorbent (e.g., clays, organic matter). The National Water Quality Monitoring Council (NWQMC) Water Quality Portal (available at https://www.waterqualitydata.us/) summarizes data from the USGS, USEPA, and NWQMC databases. A review of cobalt results from within the Missouri and Mississippi River Alluvial Aquifer from the NWQMC database includes cobalt results from a total of 515 groundwater sample results for wells located upgradient of the SEC within the Missouri River alluvial aquifer and one groundwater sample result for wells located upgradient of the SEC within the Mississippi River alluvial aquifer in the state of Missouri. To evaluate naturally occurring Missouri River Alluvial Aquifer concentrations of cobalt, the database results were divided into different groups as follows:

- Independence Well Field near Independence Missouri (Kelly 2010) – Total of 306 results.
- Columbia/Eagle Bluffs Wetland Complex Wells (Richards 1995, Richards 1999, Richards, 2002) – Total of 176 results.
- Miscellaneous testing results upstream of the SEC – Total of 33 results.
- Only 1 result available within the Mississippi River alluvium upgradient of the SEC, a concentration of 0.079 µg/L near Wayland Missouri.

Figure 9 displays a box and whisker plot that compares the publicly available groundwater cobalt data in the upgradient alluvial aquifers to those collected in monitoring wells at the SEC.

Figure 9 – Comparison of Missouri River Alluvial Aquifer Groundwater Cobalt Concentrations – Public Data and Sioux Results





Notes:

1) UG/L – micrograms per liter
2) Results from Columbia/Eagle Bluff are much higher than those at the other locations. Because of this, a different scale is used for displaying this dataset on the left side of Figure 10.

The cobalt concentrations from the Columbia/Eagle Bluffs Wetlands complex are much higher than those at the SEC and those farther upgradient at the Independence Well Field. It is unknown why these results are at such elevated concentrations; therefore, they are not used for this evaluation. Excluding the data from Columbia/Eagle Bluffs Wetlands Complex, the results display that the majority of cobalt concentrations across the Missouri River alluvial aquifer are below 4 µg/L with some outliers above 6 µg/L at each site. This is likely caused by the heterogeneous nature of the Missouri River Basin alluvial aquifer deposits, which are derived from a vast area of the United States including parts of Missouri, Iowa, Kansas, Nebraska, South Dakota, North Dakota, Montana, Wyoming, and Colorado. The sediments in the Missouri River Alluvial Aquifer at the site are made up of a mixture of sediments from all reaches of the Missouri River Basin. Cobalt deposits and many metamorphic and igneous rocks containing cobalt occur at numerous locations within the Missouri River Basin. Therefore, the alluvial aquifer sediments in the vicinity of LMW-6S (as well as other various locations within the Missouri River Alluvium) include localized zones of increased cobalt concentrations, and are likely the cause of the elevated concentrations observed at the SEC.

This inconsistency of upgradient alluvial aquifer samples and their origins indicates that the cobalt concentrations onsite, namely the exceedance at LMW-6S, are not influenced by the SCPA, but rather are naturally occurring within the aquifer groundwater.

4.0 SUMMARY

Based on the information presented in Section 3.0, the statistical exceedances for lithium and cobalt at the site using Corrective Action statistical methods are not the result of impacts from the SCPA, but instead are the result of natural geochemical variability of groundwater within the alluvial aquifer at the site. The natural geochemical sources for lithium and cobalt exceedances are supported by several factors including: (1) a lack of correlation between key CCR indicators (boron and molybdenum) and lithium and cobalt concentrations across the SEC, (2) cobalt concentrations at LMW-6S exceed those observed in potential sources at the SEC, including CCR unit porewater, (3) the presence of naturally occurring cobalt and lithium in sediments upgradient of the SCPA, and (4) cobalt and lithium have been shown to be naturally occurring elements in soils and alluvial aquifer sediments that are derived from geologic sources within the Missouri River watershed

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Tables

Table 4
Summary of Most Recent Sampling Results Across the SEC
Sioux Energy Center, St. Charles County, MO

Constituent	Boron		Molybdenum		Lithium		Cobalt	
Background Limit	240 µg/L		DQR (20 µg/L)		27.91 µg/L		DQR (5 µg/L)	
Groundwater Monitoring Wells	Date	µg/L	Date	µg/L	Date	µg/L	Date	µg/L
S-UMW-3D	11/18/2024	32,400	11/18/2024	4,820	11/18/2024	12.5	5/30/2024	ND
S-LMW-6S	11/15/2024	17,800	11/15/2024	2.5 J	11/15/2024	18.5	5/31/2024	4.4 J
S-LMW-5S	11/15/2024	17,700	11/15/2024	1,710	11/15/2024	39.5	5/31/2024	ND
S-UMW-2D	11/18/2024	12,000	11/18/2024	1,310	11/18/2024	24.6	5/30/2024	ND
S-LMW-2S	11/19/2024	9,060	11/19/2024	1,060	11/19/2024	30.0	5/29/2024	3.4 J
S-ASD-3S	1/25/2018	8,850	1/25/2018	532	1/25/2018	41.8	1/25/2018	18.6
S-PZ-1S	11/18/2024	8,120	11/18/2024	1,840	11/18/2024	16.2	5/30/2024	ND
S-TP-5D	11/14/2024	7,800	11/14/2024	564	11/14/2024	40.7	5/28/2024	ND
S-LMW-8S	11/15/2024	7,410	8/6/2019	282	8/6/2019	12.8	5/16/2018	6.0
S-ASD-3M	1/25/2018	7,330	1/25/2018	675	1/25/2018	32.8	1/25/2018	ND
S-ASD-6S	2/2/2018	5,100	2/2/2018	10.8 J	2/2/2018	27.0	2/2/2018	21.6
S-UMW-5D	11/18/2024	5,000	11/18/2024	173	11/18/2024	18.6	5/30/2024	ND
S-ASD-5S	2/8/2018	4,960	2/8/2018	27.7	2/8/2018	17.1	2/8/2018	4.5 J
S-ASD-3D	1/25/2018	4,450	1/25/2018	814	1/25/2018	35.0	1/25/2018	ND
S-ASD-4D	2/9/2018	4,400	2/9/2018	161	2/9/2018	40.1	2/9/2018	ND
S-ASD-6M	2/5/2018	4,110	2/5/2018	551	2/5/2018	46.2	2/5/2018	ND
S-ASD-5D	2/8/2018	3,990	2/8/2018	12.9 J	2/8/2018	45.0	2/8/2018	ND
S-LMW-7S	11/15/2024	3,700	8/5/2019	ND	8/5/2019	18.2	5/16/2018	1.3 J
S-TP-5M	8/2/2019	3,120	8/2/2019	7.6 J	8/2/2019	33.2	8/2/2019	1.5 J
S-ASD-4M	2/9/2018	2,990	2/9/2018	30.5	2/9/2018	37.2	2/9/2018	ND
S-AM-1D	11/19/2024	2,510	11/19/2024	178	11/19/2024	31.6	5/29/2024	ND
S-ASD-5M	2/8/2018	2,400	2/8/2018	10.9 J	2/8/2018	42.6	2/8/2018	ND
S-PZ-9D	11/18/2024	2,010	11/18/2024	19.6 J	11/18/2024	20.7	5/31/2024	ND
S-ASD-6D	2/5/2018	1,980	2/5/2018	172	2/5/2018	40.1	2/5/2018	ND
S-LMW-1S	11/14/2024	1,240	11/14/2024	87.0	11/14/2024	25.6	5/31/2024	ND
S-UMW-4D	11/18/2024	1,210	11/18/2024	85.4	11/18/2024	25.4	5/30/2024	ND
S-ASD-1D	1/31/2018	1,150	1/31/2018	131	1/31/2018	22.7	1/31/2018	ND
S-LMW-9S	11/15/2024	986	8/9/2019	8.7 J	8/9/2019	47.4	5/16/2018	6.6
S-ASD-2S	1/30/2018	744	1/30/2018	184	1/30/2018	24.9	1/30/2018	3.4 J
S-ASD-4S	2/9/2018	717	2/9/2018	3.0 J	2/9/2018	36.0	2/9/2018	8.4
S-ASD-1S	1/31/2018	588	1/31/2018	24.8	1/31/2018	8.4 J	1/31/2018	1.4 J
S-ASD-1M	1/31/2018	555	1/31/2018	43.3	1/31/2018	16.2	1/31/2018	0.74 J
S-UMW-1D	11/14/2024	548	11/14/2024	70.6	11/14/2024	22.6	5/31/2024	ND
S-TP-1D	8/6/2019	481	8/6/2019	ND	8/6/2019	18.7	8/6/2019	ND
S-ASD-2M	1/30/2018	451	1/30/2018	59.9	1/30/2018	14.6	1/30/2018	ND
S-UG-3	11/14/2024	418	11/14/2024	4.4 J	11/14/2024	27.3	5/28/2024	1.3 J
S-ASD-2D	1/30/2018	385	1/30/2018	46.3	1/30/2018	12.4	1/30/2018	ND
S-LMW-4S	11/19/2024	310	11/19/2024	1.2 J	11/19/2024	31.9	5/29/2024	ND
S-UG-1A	11/15/2024	307	8/19/2019	ND	8/19/2019	40.3	11/13/2019	ND
S-TP-1M	8/5/2019	246	8/5/2019	ND	8/5/2019	16.6	8/5/2019	ND
S-TP-2M	8/5/2019	238	8/5/2019	ND	8/5/2019	28.8	8/5/2019	ND
S-TP-5S	8/2/2019	211	8/2/2019	13.1 J	8/2/2019	17.7	8/2/2019	1.1 J
S-UMW-6D	11/18/2024	162	11/18/2024	26.0	11/18/2024	12.9	5/30/2024	ND
S-AM-1S	11/19/2024	158	11/19/2024	45.2	11/19/2024	18.4	5/29/2024	4.1 J
S-LMW-3S	11/19/2024	151	8/5/2019	ND	8/5/2019	29.9	5/16/2018	ND
S-TP-7S	8/6/2019	144	8/6/2019	14.1 J	8/6/2019	43.3	8/6/2019	1.0 J
S-TP-1S	8/5/2019	120	8/5/2019	5.4 J	8/5/2019	ND	8/5/2019	1.5 J
S-BMW-1D	11/20/2024	116	11/20/2024	ND	11/20/2024	14.2	5/28/2024	ND
S-TP-6S	11/14/2024	113	11/14/2024	3.6 J	11/14/2024	37.4	5/28/2024	ND
S-UG-2	11/14/2024	112	8/19/2019	ND	8/19/2019	19.1	11/13/2019	ND
S-TP-7D	8/6/2019	110	8/6/2019	ND	8/6/2019	42.5	8/6/2019	ND
S-DG-4	11/15/2024	109	8/19/2019	ND	8/19/2019	34.8	11/13/2019	ND
S-TMW-6	11/19/2024	106	7/25/2022	3.2 J	7/25/2022	37.4	7/25/2022	ND
S-DG-3	11/15/2024	105	8/19/2019	ND	8/19/2019	35.2	11/13/2019	ND
S-DG-2	11/15/2024	103	8/19/2019	ND	8/19/2019	35.5	11/13/2019	ND
S-DG-1	11/15/2024	101	8/19/2019	ND	8/19/2019	31.6	11/13/2019	ND
S-TP-4S	8/6/2019	101	8/6/2019	28.6	8/6/2019	18.6	8/6/2019	1.1 J
S-TMW-4	11/19/2024	100	7/25/2022	4.0 J	7/25/2022	36.6	7/25/2022	ND
S-TP-6D	11/14/2024	97.7 J	11/14/2024	ND	11/14/2024	26.5	5/28/2024	ND
S-TP-7M	8/6/2019	93.5 J	8/6/2019	ND	8/6/2019	37.8	8/6/2019	ND
S-TMW-3	11/19/2024	93.4 J	8/19/2019	ND	8/19/2019	27.2	6/6/2017	1.3 J
S-TP-2S	8/5/2019	88.5 J	8/5/2019	4.3 J	8/5/2019	13.8	8/5/2019	2.4 J
S-TP-2D	11/20/2024	87.5 J	11/20/2024	ND	11/20/2024	47.9	5/31/2024	ND
S-TMW-2	11/19/2024	87.2 J	8/19/2019	ND	8/19/2019	28.6	6/6/2017	1.9 J
S-TP-8M	8/5/2019	85.1 J	8/5/2019	ND	8/5/2019	29.0	8/5/2019	ND
S-TMW-1	11/20/2024	83.6 J	8/19/2019	3.1 J	8/19/2019	20.6	6/6/2017	0.91 J
S-TP-8D	11/18/2024	72.6 J	11/18/2024	1.1 J	11/18/2024	33.5	5/29/2024	ND
S-TP-8S	8/5/2019	72.6 J	8/5/2019	6.5 J	8/5/2019	21.8	8/5/2019	ND
S-TMW-5	11/19/2024	72.5 J	7/25/2022	2.1 J	7/25/2022	35.3	7/25/2022	3.1 J
S-TP-3S	8/7/2019	71.3 J	8/7/2019	16.8 J	8/7/2019	12.3	8/7/2019	ND
S-TP-4M	8/6/2019	66.8 J	8/6/2019	ND	8/6/2019	32.0	8/6/2019	ND
S-BMW-1S	11/20/2024	61.9 J	11/20/2024	2.5 J	11/20/2024	7.2 J	5/28/2024	2.0 J
S-BMW-3D	11/20/2024	58.4 J	11/20/2024	ND	11/20/2024	18.7	5/28/2024	ND
S-BMW-3S	11/20/2024	57.3 J	11/20/2024	3.4 J	11/20/2024	8.4 J	5/28/2024	ND
S-TP-4D	11/20/2024	56.8 J	11/20/2024	1.5 J	11/20/2024	32.8	5/29/2024	ND
S-TP-3D	11/20/2024	55.2 J	11/20/2024	ND	11/20/2024	35.6	5/31/2024	ND
S-TP-6M	8/6/2019	53.1 J	8/6/2019	ND	8/6/2019	25.1	8/6/2019	ND
S-TP-3M	8/7/2019	44.3 J	8/7/2019	ND	8/7/2019	23.9	8/7/2019	ND

Notes:

1.) Unit Abbreviations: µg/L.

2.) ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.

3.) J - Result is an estimated value.

4.) Date corresponds with most recent result for each analyte.

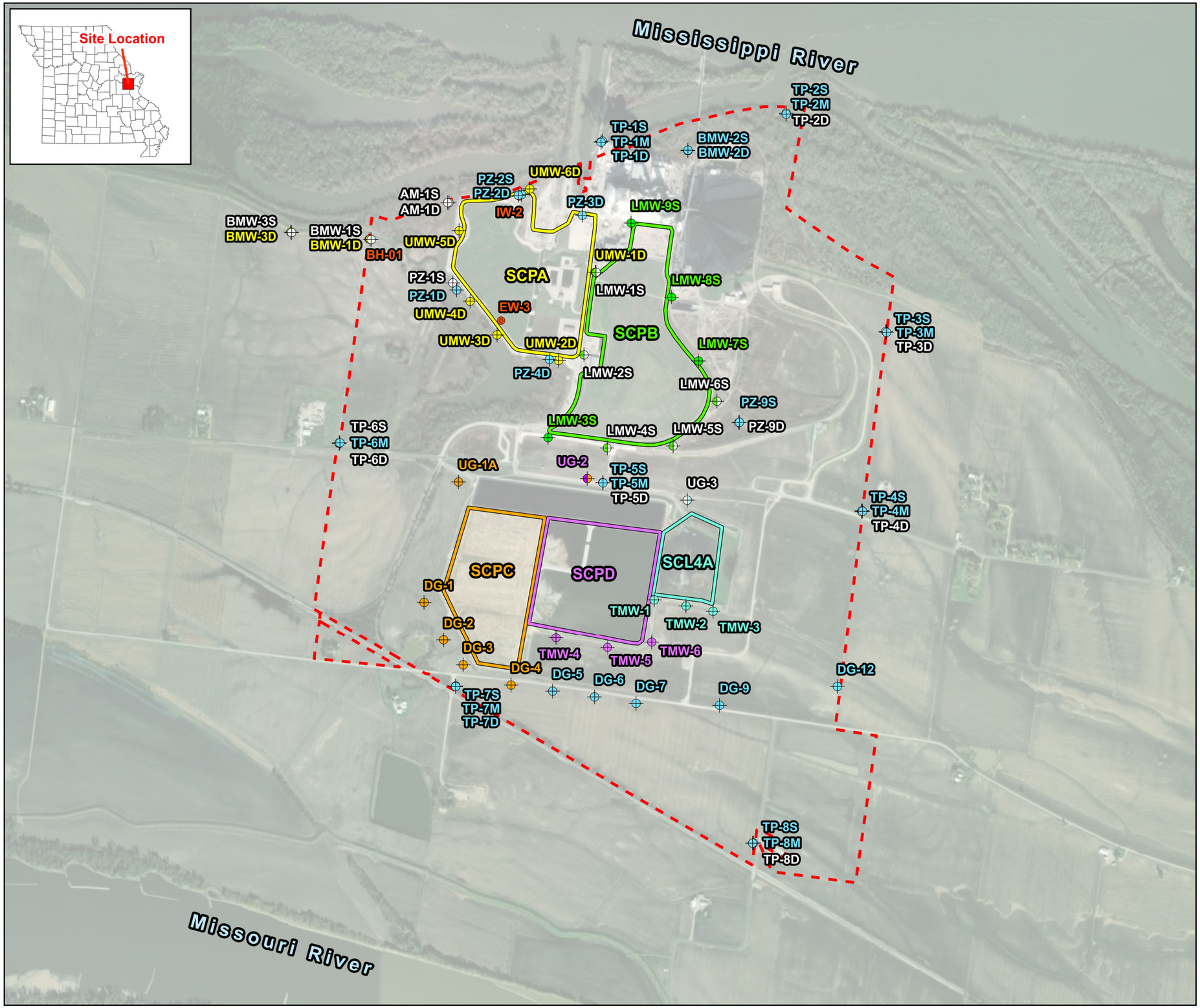
5.) Well ID's highlighted in light red have values above the background limit for boron or molybdenum. These values are used in the "concentrations with a boron or molybdenum value over background" for the box and whisker plots provided in Figure 3 and Figure 8. Well ID's in blue do not have a molybdenum or boron value above background, and these wells are used in the "concentrations without a boron or molybdenum value over background" column for the box and whisker plots provided in Figures 3, 6 and 9.

6.) If all background results are less than the PQL, the Double Quantification Rule (DQR) is used. In cases where DQR is the background value, the latest PQL is used for the background limit.

ROCKSMITH GEOENGINEERING

Prepared by: JTR
Checked by: GTM
Reviewed by: MNH

Figures



TITLE

SIOUX ENERGY CENTER GROUNDWATER MONITORING PROGRAMS AND SAMPLE LOCATION MAP

Legend

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)

Utility Waste Landfill Cells

- SCL4A - Dry CCR Disposal Area
- SCPC- FGD Surface Impoundment (Closed)
- SCPD - FGD Surface Impoundment

Monitoring Well Networks

- Corrective Action Monitoring Well
- SCPA Detection and Assessment Monitoring Well
- SCPB and Corrective Action Monitoring Well
- SCPB Detection Monitoring Well
- SCPC Detection Monitoring Well
- SCPD and SCPC Detection Monitoring Well
- SCPD Detection Monitoring Well
- SCL4A and Corrective Action Monitoring Well
- SCL4A Detection Monitoring Well
- Monitoring Well Used for Water Level Elevation Measurements Only
- Soil Boring Location for Sequential Extraction Samples

NOTES

1. All boundaries and locations are approximate.
2. FGD - Flue Gas Desulfurization.
3. CCR - Coal Combustion Residuals.

REFERENCES

1. St Charles County, Missouri Geo-Data & Mapping Hub, Parcel Dataset, Updated April 2025.

0 500 1,000 2,000 3,000 Feet

PROJECT
CCR RULE GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

ROCKSMITH GEOENGINEERING

DESIGN	JSI	YYYY-MM-DD	2025-05-20
PREPARED	GTM	PROJECT No.	23009-25
REVIEW	JSI		
APPROVED	MNH		

FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 1 in 0

Path: C:\Users\GrantMoney\Rocksmith Geoengineering LLC\23007 - Ameren GW - Documents\400 - Drawings_Figures\4.3-SECr4.3.2 - Production\2022\ASD\sf\Figure1-WellLocations.aprx

Appendix I

May 2025 Corrective Action Alternative Source Demonstration

REPORT

SCPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells

Sioux Energy Center, St. Charles County, Missouri, USA

December 24, 2025

Project Number: 23009-25

Submitted to:

Ameren Missouri
1901 Chouteau Ave,
St. Louis, MO 63103

Submitted by:

Rocksmith Geoengineering, LLC
2320 Creve Coeur Mill Rd
Maryland Heights, MO 63043



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Table 6 – Summary of Cobalt Concentrations across Potential Source Areas (in text)

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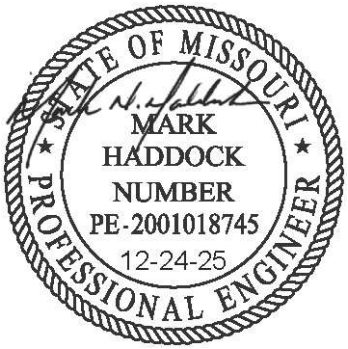
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Certification Statement

This *SCPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells, Sioux Energy Center, St. Charles County, Missouri, USA* has been prepared to comply with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule under the direction of a licensed professional engineer with Rocksmith Geoengineering, LLC.

I hereby certify that this S*CPA Corrective Action – Alternative Source Demonstration for Lithium and Cobalt Detections in Isolated Wells, Sioux Energy Center, St. Charles County, Missouri, USA* located at 8501 Missouri 94, West Alton, Missouri 63386 has been prepared to meet the requirements of 40 CFR §257.98(a)(1)(i) and 257.95(g)(3)(ii).

Rocksmith Geoengineering, LLC



_____

Mark Haddock, PE, RG
Principal Engineer, Senior Partner

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (CCR Rule or The Rule, USEPA 2015), this SCPA Corrective Action – Alternative Source Demonstration has been prepared to document an Alternative Source Demonstration (ASD) for statistical exceedances of the Groundwater Protection Standard (GWPS) calculated for Ameren Missouri's (Ameren) Sioux Energy Center (SEC) Bottom Ash Surface Impoundment (referred to as the SCPA) Corrective Action Monitoring Well Network. This document satisfies the requirements of §257.98(a)(1)(i) and 257.95(g)(3)(ii), which state that at a minimum, the Corrective Action program must meet the requirements of the Assessment Monitoring Program under 257.95. The Assessment Monitoring Program allows the owner or operator to demonstrate that a source other than the CCR Unit has caused a constituent to be at a statistical level exceeding the GWPS, and that the statistical exceedance was the result of an alternative source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

2.0 SITE DESCRIPTION AND BACKGROUND

The SEC (or Facility) is located approximately 12 miles west-northwest of the confluence of the Mississippi and Missouri Rivers in St. Charles County, Missouri. **Figure 1** depicts the location of the Facility and property boundary referenced to local features as well as the Mississippi and Missouri Rivers. The Facility encompasses approximately 1,100 acres and is located within the floodplain between the Mississippi and Missouri Rivers. The Facility is bounded to the north by wooded areas along the Mississippi River, to the south by a railroad, and to the east and west by agricultural fields.

2.1 Geological and Hydrogeological Setting

Hydrogeologically, the SCPA lies between the Mississippi River to the north and the Missouri River to the south. Flow and deposition from these rivers have resulted in thick alluvial deposits that lie unconformably on top of bedrock. These alluvial deposits, which can range from approximately 100 to 130 feet in thickness, make up the uppermost aquifer called the alluvial aquifer. Overall, this aquifer is described as a fining upwards sequence of stratified sands and gravels with varying amounts of silts and clays. Drilling in the alluvial aquifer identified different sub-units, including floodplain deposits, natural levee deposits, and channel deposits along with volumetrically less important loess deposits. Grain sizes of these alluvial deposits are highly variable.

Beneath the alluvial aquifer lies the bedrock aquifer. Bedrock in this region includes Mississippian-aged rocks of the Meramecian Series. Formations include primarily limestone, dolomite, and shale and are comprised of the Salem Formation overlying the Warsaw Formation and the Burlington-Keokuk Formation.

2.2 Coal Combustion Residuals (CCR) SCPA Surface Impoundment

The SCPA is constructed with perimeter berms at an elevation of approximately 446 feet above mean sea level (feet MSL). Both fly ash and bottom ash have historically been managed and stored in this CCR unit. Borings completed in the SCPA indicate a CCR thickness of up to approximately 75 feet below ground surface (bgs) (to about 370 feet MSL) in the center of the unit and thinning near the edges.

The SCPA is located to the southwest of the SEC plant facilities. The boundary of SCPA extends to within approximately 200 feet of the SEC and is approximately 47 acres in size, as shown in **Figure 1**. Directly to the east of the SCPA is a lined CCR unit called the Fly Ash Surface Impoundment (SCPB). Directly to the south of the SCPA is Highway 94 followed by the Utility Waste Landfill (UWL) and eventually the Missouri River. There are three CCR units currently in the UWL: Cell 1 (SCPC), Cell 2 (SCPD) and Cell 4A (SCL4A). Agricultural land is located west of the SCPA.. North of SCPA there are side channels from the adjacent Mississippi River.

2.3 CCR Rule Groundwater Monitoring

The CCR Rule was published in the Federal Register on April 17, 2015. This rule required CCR surface impoundments and landfills to monitor groundwater around these CCR units. Prior to the first major deadline of October 17, 2017, Ameren completed the following tasks: (1) installation of a groundwater monitoring well system; (2) a Statistical Method Certification; (3) a Groundwater Monitoring Plan (GMP) that details design, installation, development, sampling procedures, as well as statistical methods; and (4) eight baseline groundwater sampling

events for all Appendix III and Appendix IV parameters of the CCR Rule. In November 2017, the first Detection Monitoring event was completed.

The groundwater monitoring system for the SCPA consists of eight monitoring wells used for Detection Monitoring that are screened within the uppermost aquifer (alluvial aquifer), as shown on **Figure 1**. These wells were installed in 2015 and 2016. More information regarding the design and installation of the monitoring wells is provided in the SCPA GMP (Golder 2017) and the SCPA 2017 Annual Report (Golder 2018).

Between March 2016 and June 2017, eight baseline sampling events were completed for the SCPA. After baseline sampling, Detection Monitoring events have been completed twice a year generally in the second and fourth quarters. In January 2018, background results from the eight baseline sampling events were used to calculate statistical upper prediction limits (UPL). These UPLs were then compared to the Detection Monitoring results. The results of the analysis indicated that there were Statistically Significant Increases (SSIs), and Assessment Monitoring was initiated.

The Assessment Monitoring program was established at the SCPA on April 15, 2018. Since that time, groundwater sampling and statistical evaluations have been completed semi-annually to determine if there are any values at a Statistically Significant Level (SSL) over the site-specific Groundwater Protection Standard (GWPS). On October 11, 2018, it was determined that molybdenum was present at an SSL at several wells (UMW-2D, UMW-3D, UMW-4D, UMW-5D). The SSLs determined in Assessment Monitoring have remained the same since that time, and no new SSLs have been determined.

2.4 Corrective Action Background

On January 9, 2019, Ameren initiated its Corrective Measures Assessment (CMA) and posted the CMA report on May 20, 2019. A public meeting was held on May 31, 2019, and responses to public comments are posted on Ameren's CCR website. On August 30, 2019, Ameren published its "Remedy Selection Report – 40 CFR § 257.97 Rush Island, Labadie, Sioux and Meramec CCR Basins" (Remedy Selection Report, Ameren 2019) that identified source control through installation of a low permeability cover system, use of Monitored Natural Attenuation (MNA), and installation of Supplemental Corrective Measures as its chosen corrective action remedial plan. The Remedy Selection Report remedial plan consists of two phases as follows:

1) Source control, stabilization, and containment of CCR by installation of a low permeability geomembrane cap (a minimum 1 x 10^{-7} centimeters per second (cm/sec) versus 1 x 10^{-5} cm/sec required by the CCR Rule).
2) Once source control is achieved, monitor the natural attenuation of groundwater concentrations to address limited and localized CCR-related impacts. Ongoing monitoring and modelling evaluations will document that concentrations are decreasing as modelled. MNA occurs due to naturally occurring processes within the aquifer.

As required by the CCR Rule, the following were completed within 90 days of selecting the remedy (November 27 2019): (1) a groundwater monitoring well system was selected and certified by a Professional Engineer, (2) a Statistical Method Certification was prepared and certified by a Professional Engineer, and (3) a GMP was prepared recording the design, installation, development, sampling procedures, as well as statistical methods, and placed in the owner's operating record. The Corrective Action Monitoring Well Network consists of 19 groundwater monitoring wells, installed within the shallow, intermediate, and deep zones of the alluvial aquifer as shown in **Figure 1**.

In January 2021, Ameren commenced Phase 1 by initiating closure at the SCPA. Closure of the SCPA has been substantially completed with the completion of the liner cover system on December 21, 2021, and the first Corrective Action sampling event associated with Phase 2 of the Corrective Measures Remedial Plan was completed in April 2022.

On August 3, 2022, corrective action statistical methods[1] were used to determine the following statistical exceedances of the GWPS at individual monitoring wells:

- Cobalt at LMW-6S
- Lithium at LMW-5S, TP-2D, and TP-6S
- Molybdenum at LMW-1S, LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

Monitoring wells LMW-5S and LMW-6S were installed in December 2015 as part of the CCR Rule monitoring program for the SCPB fly ash surface impoundment. These wells are currently used for CCR Rule monitoring for the SCPB, as well as Corrective Action monitoring wells for the SCPA. Monitoring wells TP-2D and TP-6S were installed in July 2018 as part of the nature and extent evaluation completed under Assessment Monitoring and are currently used as Corrective Action monitoring wells.

In July 2024, a Monitored Natural Attenuation Evaluation for Molybdenum report was published to Ameren's public website (https://www.ameren.com/sustainability/waste/ccr/compliance-reports/sioux), concluding that molybdenum meets USEPA requirements to be viable as an MNA remedy application in combination with the capping and closure of the SCPA (Rocksmith, 2024). In addition to MNA as a Corrective Measure, Ameren has also initiated a supplemental Corrective Measure consisting of groundwater extraction, treatment, and re-injection using ex-situ treatment technologies with chemical precipitation and selective ion exchange. This treatment system became fully operational in February 2023 and began achieving target flow rates in September 2023. In July 2024, a Supplemental Remedy Selection Report was produced for the SEC (Haley & Aldrich, 2024), documenting that these Corrective Measures are effectively contributing to constituent mass reductions in groundwater near the SCPA. The supplemental Corrective Measures are ongoing.

2.5 May 2025 Sampling Event

Following the May 2025 Corrective Action sampling event conducted May 7 through 12, 2025, corrective action statistical methods were used to determine the following statistical exceedances of the GWPS:

- Cobalt at LMW-6S and AM-1S
- Lithium at LMW-5S and TP-2D
- Molybdenum at LMW-2S, LMW-5S, AM-1D, AM-1S, TP-5D, and PZ-1S

Cobalt at AM-1S is a new exceedance as of the statistical evaluation for the May 2025 sampling event. Lithium at TP-5D was previously identified as an exceedance during the statistical evaluation of the November 2024 sampling event but is no longer an exceedance. The cobalt exceedance at LMW-6S and lithium exceedances at LMW-5S and TP-2D have been examined in previous ASDs for the SCPA. This ASD report further discusses these cobalt and lithium exceedances, and documents why these exceedances are naturally occurring and not caused by impacts originating from the SCPA.

[1] The statistical testing method used to evaluate the Corrective Action monitoring data is the confidence interval method, which is the same method used during Assessment Monitoring, except the null hypothesis for the confidence intervals is reversed. For Corrective Action, the Unified Guidance states that the appropriate null hypothesis is that the groundwater population (mean) exceeds the GWPS for those constituents that exceed the GWPS under Assessment Monitoring program. Therefore, in Corrective Action the Upper Confidence Limit (UCL) is compared to the Groundwater Protection Standard instead of the Lower Confidence Limit (LCL) [as was used during Assessment Monitoring].

3.0 EVIDENCE THAT STATISTICAL EXCEEDANCES OVER GWPS ORIGINATES FROM DIFFERENT SOURCE

Multiple lines of evidence indicate that the statistical exceedance(s) of the GWPS for cobalt or lithium at monitoring wells LMW-5S, LMW-6S, AM-1S, and TP-2D are not a result of a release from the SCPA and originate from an alternative source. The following lines of evidence support this ASD:

- A lack of correlation between key CCR indicators (boron and molybdenum) and exceedances of lithium and cobalt.
- The presence of lithium and cobalt at similar concentrations in groundwater samples collected upgradient of the SCPA.
- Cobalt concentrations at LMW-6S and AM-1S exceed those observed in potential sources at the SEC, including CCR unit porewater.
- The presence of naturally occurring cobalt and lithium in sediments in background locations at the SCPA.
- Cobalt and lithium are naturally occurring elements in soils and alluvial aquifer sediments that are derived from igneous and metamorphic rocks within the Missouri and Mississippi River watersheds.

3.1 CCR Indicators

Several types of CCR by-products are generated by coal-fired power plants. The different types of CCR typically display distinct geochemical signatures and indicator parameters. **Table 1** describes the different types of CCRs and their typical indicator parameters (USEPA 2018, EPRI 2011, EPRI 2012, and EPRI 2017).

Table 1: Types of CCR and Typical Indicator Parameters

Type of CCR	Description of CCR (USEPA 2018)	Key Indicators (EPRI 2011, 2012, 2017)
Fly Ash	Fine grained, powdery material composed mostly of silica made from the burning of finely ground coal in the boiler.	■ Boron ■ Molybdenum ■ Lithium ■ Sulfate ■ Bromide ■ Potassium ■ Sodium ■ Fluoride
Boiler Slag / Bottom Ash	Molten bottom ash from the slag tap and cyclone type furnaces that turns into pellets that have a smooth glassy appearance after quenching with water.	
Flue Gas Desulfurization Material (FGD)	A material leftover from the process of reducing sulfur dioxide emissions from a coal-fired boiler that can be a wet sludge consisting of calcium sulfite or calcium sulfate or a dry powdered material that is a mixture of sulfites and sulfates.	■ Sulfate ■ Fluoride ■ Calcium ■ Boron ■ Bromide ■ Chloride

Notes:

1) Fly ash and boiler slag/bottom ash typically have the same indicator parameters.
2) Definitions from USEPA website, available at https://www.epa.gov/coalash/coal-ash-basics.
3) Key indicators from EPRI 2011, 2012, and 2017.

3.2 Site Specific Key CCR Indicators

To be a key CCR Indicator parameter for a specific site, a constituent should be present in relatively high concentrations in the leachate (CCR porewater) when compared to background or other sources (nearby rivers, etc.), not be a common anthropogenic contaminant, and be mostly non-reactive and mobile in the site hydrogeological environment (EPRI 2012). In 2012, EPRI investigated which constituents are the best indicator parameters for coal ash impacts as outlined in **Table 1**. Of the key indicators listed in **Table 1** for fly ash and boiler slag/bottom ash, boron, molybdenum, lithium, sulfate, and fluoride are regularly sampled as part of the CCR Rule. Potassium and sodium are sampled periodically for major ion analysis and testing under the CCR Rule. Testing for bromide has not been completed at the site.

Table 2 provides a snapshot of the concentrations present onsite in the background, Mississippi River, Missouri River, and SCPA porewater for each of the constituents sampled on the key indicator list.

Table 2 – Summary of Potential CCR Impact Indicator Parameters at the Sioux Energy Center

Constituent (Units)		Back-ground	Mississippi River[2]	Missouri River[2]	SCPA Porewater	Advantages and Caveats as Key Indicator (from EPRI 2012)
Boron (µg/L)	Minimum	42.4	27.1	110	348	Typically present in leachate, non-reactive and mobile in common hydrogeologic environments, and not a common anthropogenic contaminant.
	Average	91.4	36.4	112.3	53,266	
	Maximum	240	59.9	117	111,000	
Sulfate (mg/L)	Minimum	ND (<0.23)	29.9	188	48.5	Commonly analyzed and very mobile in all hydrogeologic environments. Concentration in impoundment leachate may in some cases be too low relative to background to be useful. Less useful in strongly reducing environments where sulfate can be reduced to hydrogen-sulfide gas.
	Average	30.07	34.08	192.1	1,088	
	Maximum	61.1	40.5	196	2,080	
Molybdenum (µg/L)	Minimum	ND (<0.52)	ND (<0.9)	2.6	26.5	Most useful for dry-managed coal ash. May be less mobile than boron in some hydrogeologic environments. Concentrations may be too low in impoundment leachate to be useful if background groundwater has detectable concentrations.
	Average	2.65	1.406	2.97	22,085	
	Maximum	9.3	2.3	3.6	56,600	
Lithium (µg/L)	Minimum	ND (<2.9)	ND (<2.9)	42.0	16.7	Useful for coal ash management sites where the power plant burned bituminous coal. Leachate concentrations are typically low in coal ash derived from subbituminous and lignite coal
	Average	13.6	6.694	43.17	56.16	
	Maximum	25.4	10.4	44.9	170	
Potassium (µg/L)	Minimum	ND (<500)	Not Sampled	Not Sampled	4,350	Commonly analyzed, although may be less mobile than boron and sulfate. Assure that leachate concentration is higher than background and that there are no anthropogenic sources such as agricultural fields where potassium may be applied in fertilizers.
	Average	1,761			34,350	
	Maximum	3,840			60,300	
Sodium (mg/L)	Minimum	4.58	Not Sampled	Not Sampled	13.9	Useful for coal ash management sites where the power plant injects trona or sodium bicarbonate or burned subbituminous coal. Absent dry sorbent injection, leachate concentrations are considerably lower in coal ash derived from bituminous coal, particularly at impoundments. Assure that leachate concentration is higher than background and that there are no anthropogenic sources such as agricultural fields, or major highways in northern climates where sodium may be applied in road salts.
	Average	5.89			59.36	
	Maximum	7.39			116	

[2] Mississippi and Missouri River samples collected September 21 & 22, 2017 and May 8, 2018. Results are available on Ameren's public website at https://www.ameren.com/sustainability/waste/ccr/compliance-reports/sioux

Constituent (Units)		Back-ground	Mississippi River[2]	Missouri River[2]	SCPA Porewater	Advantages and Caveats as Key Indicator (from EPRI 2012)
Fluoride (mg/L)	Minimum	ND (<0.086)	0.16	0.43	0.22	Mobile and non-reactive in common hydrogeologic environments. Assure that leachate concentration is higher than background.
	Average	0.266	0.196	0.4435	1.142	
	Maximum	0.46	0.24	0.46	2.9	

Notes:

1) Unit abbreviations - mg/L – milligrams per liter, µg/L – micrograms per liter
2) ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.

Based on the results of **Table 2**, boron has a much higher concentration in the CCR porewater than background groundwater and river water, plus it is non-reactive and highly mobile at the site. Sulfate and molybdenum have higher concentrations in the CCR porewater than background groundwater and river water; however, the distinction between background and porewater for sulfate is not as distinct as that for boron, and molybdenum is typically not as mobile as boron (EPRI, 2012). Porewater concentrations of fluoride are not significantly higher than background, and therefore it would be difficult to detect impacts using fluoride concentrations. Average lithium concentrations in the porewater are also not significantly elevated when compared to background groundwater samples or the Missouri River; therefore, determining the source of impacts would be difficult. Potassium and sodium are also not ideal indicators as many of the wells onsite are either near major roadways (Highway 94) or located within the agricultural fields around the plant, which may display elevated concentrations caused by other anthropogenic sources (e.g., road salt, fertilizers, etc.).

As a result, boron is the best indicator parameter for CCR impacts at the SEC. Molybdenum also appears to be a good indicator but may not be present at the farthest extents of the plume. Boron and molybdenum concentrations are above background concentrations at each of the six monitoring wells used for Detection and Assessment Monitoring adjacent to the SCPA (Rocksmith 2024).

3.2.1 Lithium Concentrations

As indicated in **Table 1**, lithium can be a key indicator for fly ash and boiler slag/bottom ash impacts if it is present at elevated levels in the CCR porewater compared to background and is mobile at the site. However, as discussed in Section 3.2, boron and molybdenum are better CCR impact indicator parameters than lithium for the SEC, as most porewater lithium concentrations are not significantly higher than background concentrations. Four of the five CCR porewater samples collected in 2018 as a part of the SCPB ASD (available in the 2018 Annual Report for the SCPB, Golder 2019b) have lithium concentrations below those found naturally occurring in the Missouri River and the site-specific GWPS for lithium (40 µg/L), and at levels only 2 to 3 times the concentrations in background monitoring wells located closer to the Mississippi River (BMW-1S/D and BMW-3S/D). Additionally, lithium concentrations are below Missouri River levels in each of the six perimeter wells adjacent to the SCPA used for Detection and Assessment Monitoring. This further establishes that lithium is not a useful CCR impact indicator parameter for the SCPA and SEC area.

Table 3 – May 2025 Analytical Results of Key Constituents at Monitoring Wells with a Statistical Lithium Exceedance

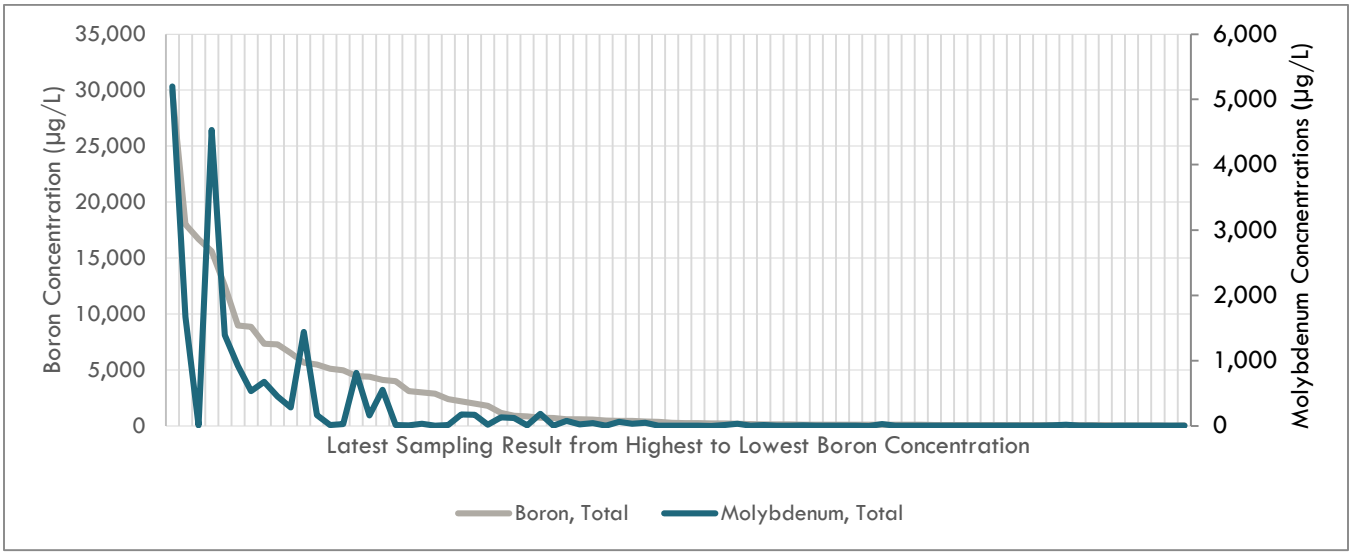
Well ID	Lithium (µg/L)	Boron (µg/L)	Molybdenum (µg/L)
LMW-5S	34.1	18,000	1,670
TP-2D	48.0	95.4 J	2.5 J
BMW-1S (background)	6.2 J	56.5 J	5.2 J
BMW-3S (background)	8.7 J	55.1 J	5.2 J
BMW-1D (background)	12.4	103	ND (<1.0)
BMW-3D (background)	22.2	61.8 J	ND (<1.0)

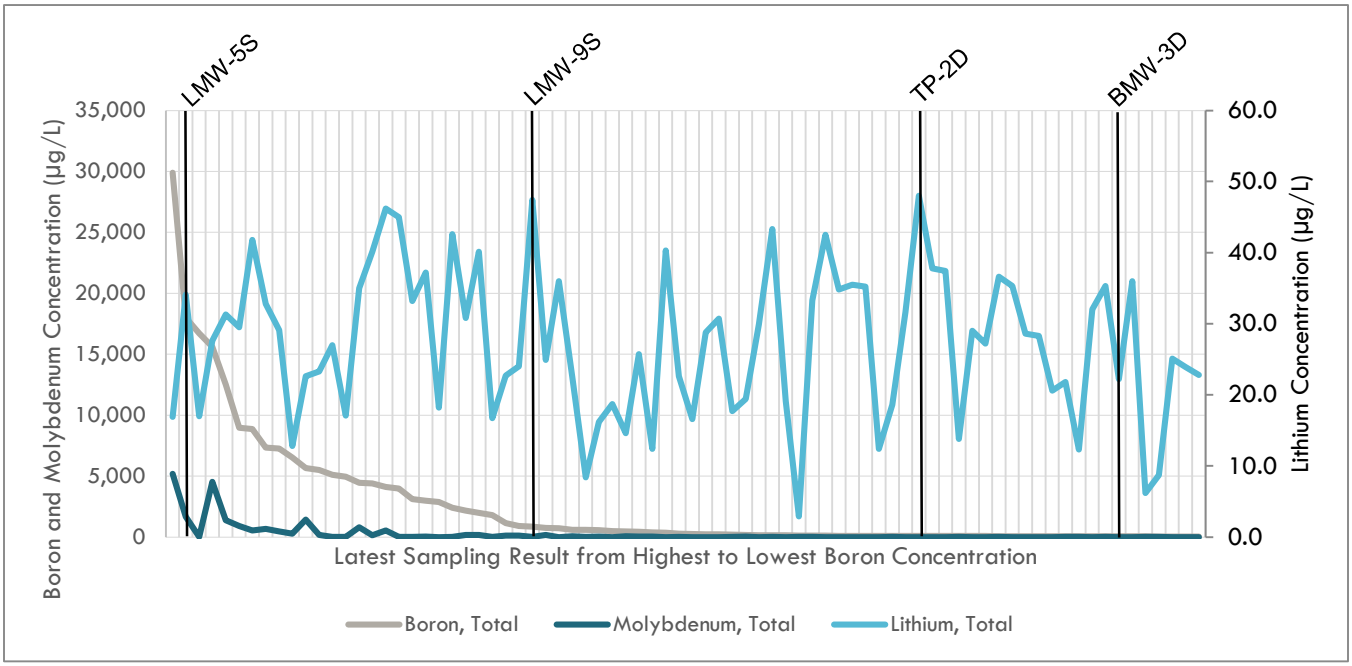
Notes:
1) µg/L – micrograms per liter.
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

As displayed in **Table 3**, of the two wells with a statistical exceedance for lithium, only LMW-5S has boron and molybdenum concentrations at a level above background levels for these constituents. This lack of strong correlation between key CCR Indicator parameters and elevated lithium concentrations indicates that elevated lithium concentrations are not associated with CCR impacts.

To further evaluate the correlation between key CCR indicators and lithium concentrations onsite, a graph that displays boron, lithium, and molybdenum concentrations from the most recent sampling result at each monitoring well is provided in **Figure 2** (data used for **Figure 2** provided in **Table 4**). As displayed on the first graph, molybdenum concentrations appear to correlate with boron concentrations, with elevated levels at similar monitoring wells. Lithium concentrations do not track with either boron or molybdenum concentrations but rather range between non-detect (<3.7) and 47.9 µg/L, indicating that lithium concentrations are not linked to impacts from the SCPA.

Figure 2 – Comparison of Boron, Molybdenum, and Lithium Concentrations





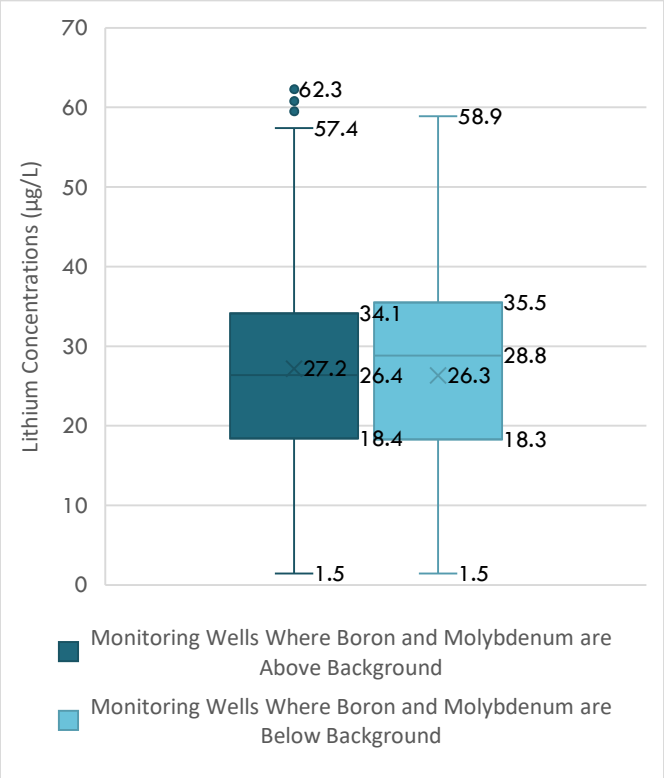
Notes:
1) µg/L – micrograms per liter.
2) Values displayed in order from highest to lowest boron concentrations. Data used in Figure 2 are provided in Table 4.
3) The upper graph displays boron and molybdenum concentrations, with molybdenum concentrations on the right axis.
4) The lower graph displays boron, molybdenum, and lithium concentrations, with boron and molybdenum concentrations on the left axis and lithium concentrations on the right axis.

As displayed in **Table 4**, there are 36 monitoring wells onsite where boron and/or molybdenum concentrations are below background limits (shown in blue) and 42 monitoring wells onsite where boron and/or molybdenum are above background limits (shown in red). Background limits are derived from the most recent updated statistical

limits for the SCPA (Rocksmith 2025) and consider background groundwater quality upgradient of the site. **Figure 3** (right) displays box and whisker plots of lithium concentrations for the following datasets: 1) monitoring wells where the most recent result contains molybdenum and/or boron concentration above background (42 monitoring wells) and 2) monitoring wells where the most recent boron and molybdenum results are below background limits (36 monitoring wells). For this figure, historical datasets for each monitoring well were used to generate the plots. The box and whisker plots display a nearly identical distribution between the two datasets including minimum, lower quartile, median, upper quartile, and maximum values all within 4 µg/L of one another. The mean values of the two datasets are within 1 µg/L. These box and whisker plots further demonstrate that lithium concentrations at the site do not correspond with key CCR indicators (boron and molybdenum). Therefore, elevated lithium concentrations onsite are not related to CCR impacts.

Using the data identified in **Figure 3**, for those wells boron and molybdenum are below background limits, a non-parametric (highest value in the dataset) upper prediction limit of 58.9 µg/L was calculated, which is higher than the current Site GWPS of 40 µg/L. This demonstrates that elevated lithium concentration may occur at the site in wells without elevated concentrations of CCR impact parameters.

Figure 3 – Distribution of Lithium Concentrations in Monitoring Wells with and Without Key CCR Indicators above Background Limits



3.2.2 Sequential Extraction Data Confirms Presence of Naturally Occurring Lithium in Alluvial Sediments

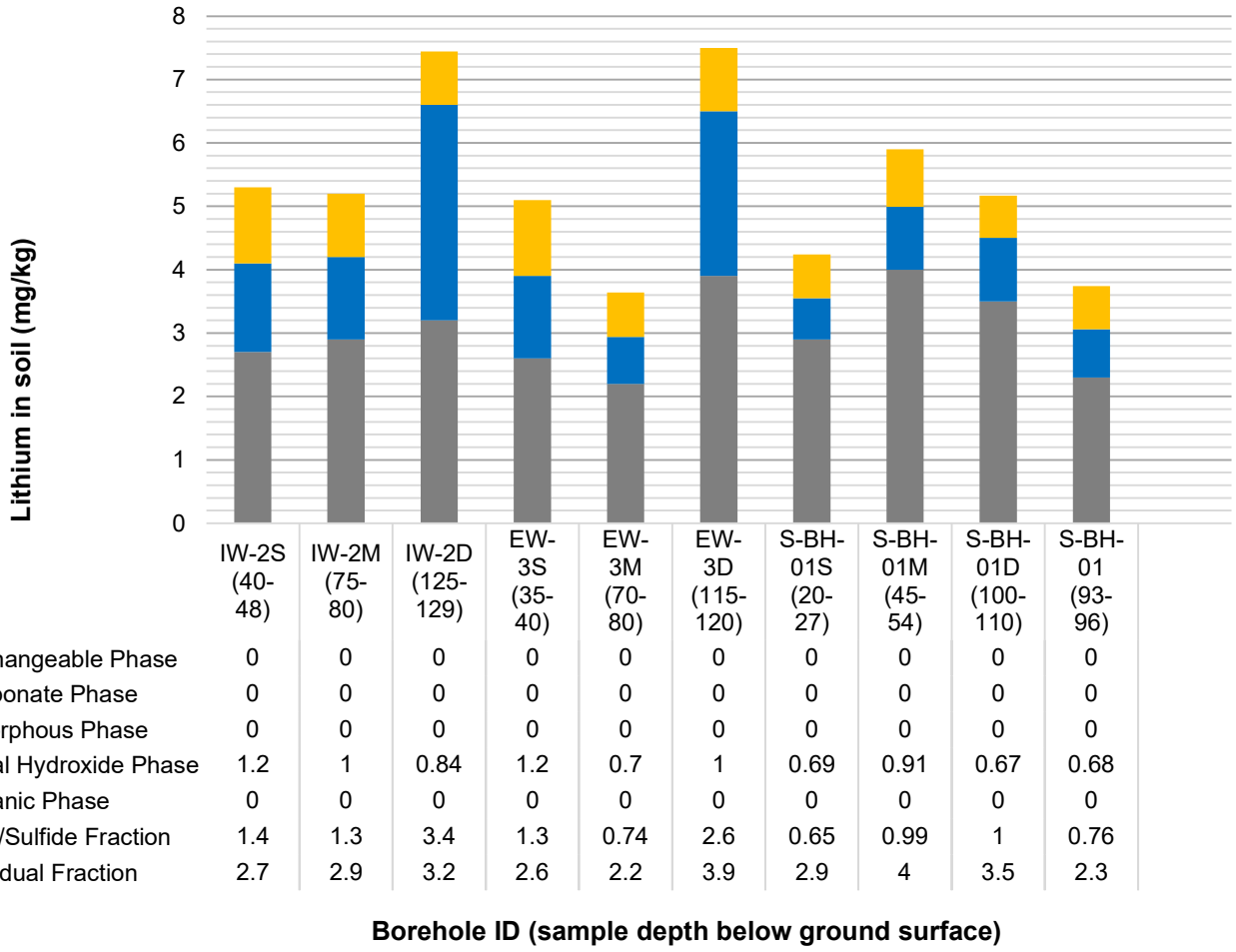
A seven-step sequential extraction method (SEP) based on Tessier et al. (1979) was used to identify the provenance of lithium in soils (i.e., the operationally defined fraction that contains the metal) and determine potential environmental mobility. The total concentration of a metal measured from the seven steps can be compared to the concentration determined from the total metal analysis for compositional accountability. The seven-step SEP is defined by specific extraction steps as follows in **Figure 4** (based on a modified Tessier et al. 1979 method):

Figure 4 – Sequential Extraction Procedure

SEQUENTIAL EXTRACTION PROCEDURE				
ENVIRONMENTALLY AVAILABLE (Increasing Availability)	Step 1	Increasing Extraction Strength	Exchangeable Fraction:	This extraction includes trace elements that are electrostatically adsorbed to overburden minerals
	Step 2		Carbonate Fraction:	This extraction targets trace elements that are adsorbed or otherwise bound to carbonate minerals
	Step 3		Non-Crystalline Materials Fraction:	This extraction targets trace elements that are complexed by amorphous minerals
	Step 4		Metal Hydroxide Fraction:	This extraction targets trace elements bound to hydroxides of iron, manganese, and/or aluminum
	Step 5		Organic Fraction:	This extraction targets trace elements strongly bound via chemisorption to organic material
NON-ENVIRONMENTALLY AVAILABLE	Step 6		Acid/Sulfide Fraction:	The extraction is used to identify trace elements precipitated as sulfide minerals
	Step 7		Residual Fraction:	Trace elements remaining in the overburden after the previous extractions will be distributed between silicates, phosphates, and refractory oxide

In 2021, samples were collected from three soil borings across the SEC for sequential extraction testing. The locations of the sequential extraction sample borings are provided in **Figure 1**. Results of the sequential extraction testing as displayed in **Figure 5** indicate the presence of naturally occurring lithium in soils at the SEC in fractions 6 and 7 in each of the soil borings, both directly adjacent to the SCPA and at background locations. Lithium is reported in soil at concentrations ranging from 3.6 to 7.4 milligrams per kilogram (mg/kg, from the SEP) and is predominantly (76 to 87%) present in the residual and sulfide component of the soil, i.e. the non-environmentally available fractions. The absence of lithium in the environmentally available fractions (specifically exchangeable and carbonate fractions) indicate a general lack of lithium transport and attenuation (e.g., through sorption and/or co-precipitation).

Figure 5 - Sequential Extraction of Lithium Results



	IW-2S (40-48)	IW-2M (75-80)	IW-2D (125-129)	EW-3S (35-40)	EW-3M (70-80)	EW-3D (115-120)	S-BH-01S (20-27)	S-BH-01M (45-54)	S-BH-01D (100-110)	S-BH-01 (93-96)
Exchangeable Phase	0	0	0	0	0	0	0	0	0	0
Carbonate Phase	0	0	0	0	0	0	0	0	0	0
Amorphous Phase	0	0	0	0	0	0	0	0	0	0
Metal Hydroxide Phase	1.2	1	0.84	1.2	0.7	1	0.69	0.91	0.67	0.68
Organic Phase	0	0	0	0	0	0	0	0	0	0
Acid/Sulfide Fraction	1.4	1.3	3.4	1.3	0.74	2.6	0.65	0.99	1	0.76
Residual Fraction	2.7	2.9	3.2	2.6	2.2	3.9	2.9	4	3.5	2.3

Notes:

1) Detection with JB flags for the organic phase were not used for this evaluation, as these results were detected in the blank, are estimated, and are therefore not considered accurate for this evaluation.

2) Mg/kg – milligrams per kilogram.

3) Sample locations provided in **Figure 1.** BH-01 is near the background wells while IW-2 and EW-3 are located adjacent to the SCPA CCR Unit.

3.2.3 Leachability Testing

In a previous study completed by Haley & Aldrich in 2018, several leachability tests were completed at the site for the CCR materials in the SCPA and the SCPB.

1. Shake Extraction Tests (method ASTM D3987) were completed. This test consists of shaking the waste (CCR) with water to determine what constituents would be leached from the material. For this test, both the SCPA bottom ash and the SCPB fly ash had a result of non-detect for lithium (<0.018 mg/L).
2. Synthetic Precipitation Leaching Procedure (SPLP) tests were completed for both the SCPA bottom ash and the SCPB fly ash. This method is used to determine if constituents of concern are able to leach into groundwater from the waste (CCR). For this test, the bottom ash/boiler slag in SCPA was again at a non-detect level for lithium, while the fly ash in SCPB had a lithium concentration of 0.0087 mg/L. The lithium concentration of 0.0087 mg/L (8.7 µg/L) is at a similar level as background groundwater, and well below the site GWPS of 40 µg/L.

These results indicate that there is little leachable lithium present in the SCPA or SCPB CCR units.

3.2.4 Lithium at LMW-5S

LMW-5S is located approximately 2,000 feet to the southeast of the SCPA, near the southeastern perimeter of the SCPB. Boron and molybdenum concentrations are elevated at LMW-5S. During the statistical evaluation of the May 2025 sampling event, an LCL of 40.07 µg/L and UCL of 48.29 µg/L were calculated. This UCL is below the calculated upper prediction limit (UPL) for wells with boron and molybdenum below background limits (58.9 µg/L). This, coupled with the clear indications that lithium concentrations are not correlated with CCR impacts, indicates that the elevated lithium at LMW-5S is not from the SCPA, but rather is naturally occurring in the alluvial aquifer at this location.

3.2.5 Lithium at TP-2D

TP-2D is located approximately 3,000 feet to the northeast of the SCPA on the southern bank of the Mississippi River. Boron and molybdenum concentrations at this monitoring well are below background, indicating that CCR impacts are unlikely at this monitoring well. During the statistical evaluation of the May 2025 sampling event, an LCL of 43.584 µg/L and UCL of 51.657 µg/L were calculated. When compared to the UPL of 58.9 µg/L discussed above, the UCL is below the calculated prediction limit for wells with boron and molybdenum below background limits. This, coupled with the clear indications that lithium concentrations are not correlated with CCR impacts, indicates that the elevated lithium at TP-2D is not from the SCPA, but rather is naturally occurring in the alluvial aquifer at this location.

3.2.6 Naturally Occurring Lithium Values at the SEC are Consistent with Upstream Sampling Results within the Missouri and Mississippi River Alluvial Aquifers

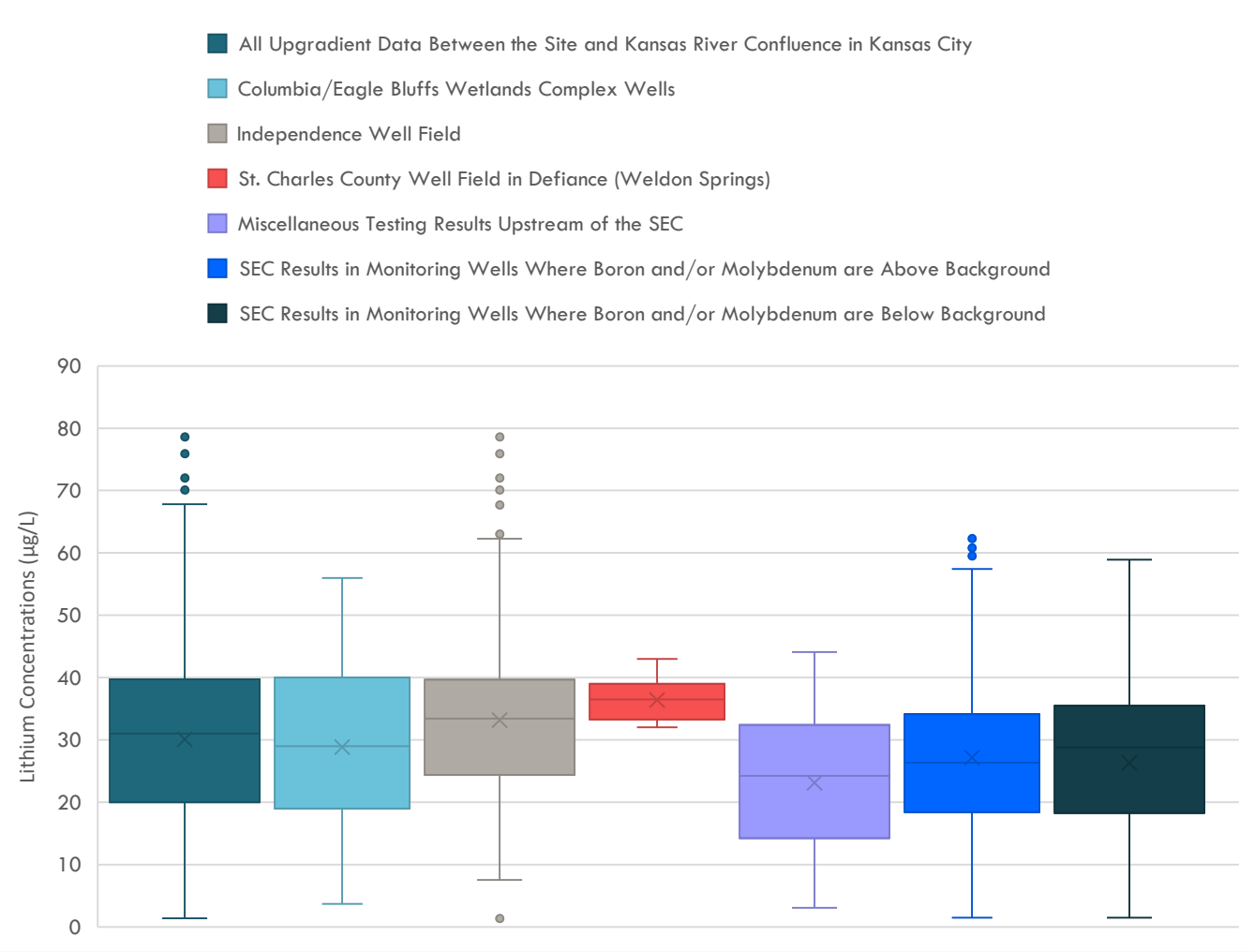
Naturally occurring lithium is present in groundwater across the United States (US), can be found in nearly all rock and soil types, and is most commonly found to be associated with silicate minerals (Tomazscak 2015). The weathering of silicate minerals is known to cause the release of naturally occurring lithium into groundwater (Tomazscak 2015). Site-specific test results (i.e., SEP results) confirm this finding for the SEC.

The National Water Quality Monitoring Council (NWQMC) Water Quality Portal (available at https://www.waterqualitydata.us/) summarizes data from United States Geological Survey (USGS), USEPA, and NWQMC databases. A review of lithium results from within the Missouri and Mississippi River Alluvial Aquifer from the NWQMC Water Quality Portal includes lithium results from a total of 1,347 groundwater sample results for wells located upgradient of the SEC within the Missouri River alluvial aquifer and one groundwater sample result for wells located upgradient of the SEC within the Mississippi River alluvial aquifer in the state of Missouri. To evaluate naturally occurring Missouri River Alluvial Aquifer concentrations of lithium, the database results were divided different groups as follows:

- Independence Well Field near Independence Missouri (Kelly 2010) – Total of 410 results.
- Columbia/Eagle Bluffs Wetland Complex Wells (Richards 1995, Richards 1999, Richards, 2002) – Total of 851 results.
- Weldon Spring Well Field (Kleeschulte, 1993) – Total of 32 results.
- Miscellaneous testing results upstream of the SEC – Total of 54 results
- Only 1 result was available within the Mississippi River alluvium upgradient of the SEC, a concentration of 14.7 µg/L near Wayland Missouri.

Figure 6 displays a box and whisker plot that compares the publicly available groundwater lithium concentration data in the upgradient alluvial aquifers to lithium concentrations at SEC as displayed in **Figure 4**.

Figure 6 – Comparison of Missouri River Alluvial Aquifer Groundwater Lithium Concentrations – Public Data and SEC Results



Overall, the results display a very similar distribution of lithium results across the state within the Missouri River Alluvium. In fact, lithium concentrations appear to be lower, on average, than those in Independence, Columbia/Eagle Bluffs Wetland Complex, and Weldon Spring. This consistency with upgradient alluvial aquifer samples demonstrates that the lithium concentrations onsite are not from the SCPA and are naturally occurring within the alluvial aquifer.

3.3 Cobalt Evaluation

Cobalt is present at a level that is statistically above the GWPS of 6 µg/L at LMW-6S and AM-1S using corrective action statistical methods. LMW-6S is located approximately 1,800 feet southeast of the SCPA, on the eastern perimeter of the SCPB. AM-1S is located approximately 150 feet northwest of the SCPA. As displayed in **Table 5**, boron is present at LMW-6S at a concentration above background, while molybdenum is detected below the Practical Quantitation Limit (PQL), similar to molybdenum concentrations at background wells. At AM-1S, both boron and molybdenum concentrations exceed those measured at background wells.

Table 5 – May 2025 Analytical Results of Key Constituents at Monitoring Wells with a Statistical Cobalt Exceedance

Well ID	Cobalt (µg/L)	Boron (µg/L)	Molybdenum (µg/L)
LMW-6S	7.9	16,700	6.7 J
AM-1S	7.4	440	34.9
BMW-1S (background)	ND (<1.2)	56.5	5.2 J
BMW-3S (background)	ND (<1.2)	55.1	5.2 J
BMW-1D (background)	ND (<1.2)	103	ND (<20)
BMW-3D (background)	ND (<1.2)	61.8 J	ND (<20)

Notes:
1) µg/L – micrograms per liter.
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

As displayed on **Table 1**, cobalt is not typically considered a key CCR indicator parameter because it is usually present at a low concentration in CCR leachate relative to typical background groundwater. Cobalt also has low mobility and has a higher potential for reactivity (EPRI 2017). Based on the results of the Corrective Action Statistical Evaluation for the May 2025 sampling event, cobalt is present at LMW-6S at a level statistically above the GWPS (6 µg/L), with an LCL of 6.5362 µg/L and a UCL of 9.4275 µg/L. Since the installation of LMW-6S in 2016, cobalt concentrations have ranged from 4.4 J to 10.7 µg/L. At AM-1S, the LCL and UCL for cobalt are 1.5375 and 4.2988 µg/L, which are below the GWPS. Cobalt at AM-1S was identified as an exceedance of the GWPS using Corrective Action statistical methods due to the presence of a statistically significant increasing trend, whereby the upper confidence band now exceeds the GWPS. Of all the cobalt results collected at AM-1S, only the May 2025 result exceeds the GWPS.

Table 6 provides a summary of minimum, average, and maximum cobalt concentrations in the different potential source areas: background groundwater, groundwater adjacent to the SCPA, CCR unit porewater, and the Missouri and Mississippi Rivers. As displayed on **Table 6**, cobalt concentrations at LMW-6S and AM-1S are typically greater than those present in background groundwater, nearby rivers, and CCR unit porewater.

Table 6 – Summary of Cobalt Concentrations across Potential Source Areas

Constituent (Units)		LMW-6S	AM-1S	Background	Assessment Monitoring Wells Adjacent to SCPA (UMW 1D-6D)	Mississippi River[3]	Missouri River[3]	SCPA Porewater	SCPB Porewater
Cobalt (µg/L)	Minimum	4.4 J	ND (<1.5)	ND (<0.72)	ND (<0.72)	ND (<0.73)	ND (<0.73)	ND (<0.73)	ND (<0.73)
	Average	7.605	2.529	0.7893	0.4853	1.217	0.5065	0.652	ND (<0.73)
	Maximum	10.7	7.4	4.2 J	1.7 J	2.3 J	0.87 J	1.8 J	ND (<0.73)

Notes:
1) µg/L – micrograms per liter.

[3] Mississippi and Missouri River samples collected September 21 & 22, 2017 and May 8, 2018. Results are available on Ameren's public website at https://www.ameren.com/company/environment-and-sustainability/managing-coal-combustion/ccr-compliance-reports/sioux-energy-center.

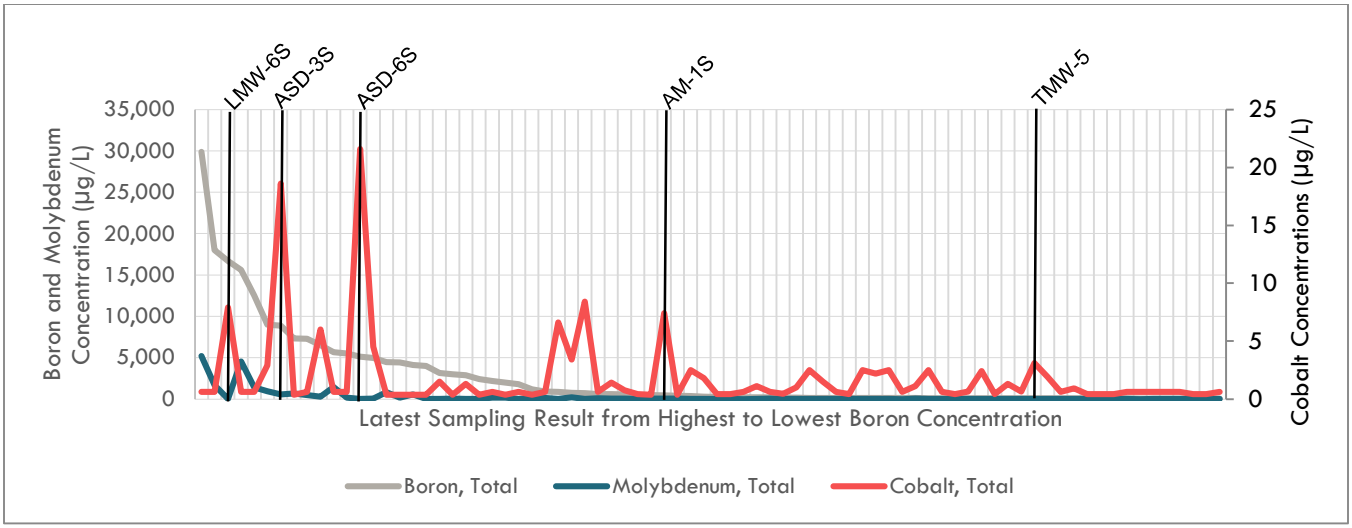
2) J - Result is an estimated value.
3) ND – Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect.

In January 2018, as part of the initial SCPB ASD, porewater was sampled in the SCPA and SCPB CCR units. Eight of the nine results from this analysis were non-detect (<0.73 µg/L) and one result at SCPA-2 was 1.8 J µg/L. This lack of cobalt in the CCR material has been confirmed in other studies, including the current SEC National Pollutant Discharge Elimination System (NPDES) operating permit (MO-0000353), where cobalt is not listed as a Pollutant of Concern (POC) since the results collected from the SCPA and SCPB outfalls were non-detect. Lack of cobalt within the porewater of the SCPA and SCPB, coupled with the lack of cobalt at a statistically significant level above the GWPS in any other monitoring wells, indicates that the cobalt exceedances at LMW-6S and AM-1S are not from the SCPA and come from an alternative source.

Further evidence that the SCPA is not a source of elevated cobalt concentrations is the lack of cobalt in the groundwater monitoring wells directly adjacent to the CCR Unit used for Detection and Assessment Monitoring. These wells (UMW-1D, UMW-2D, UMW-3D, UMW-4D, UMW-5D, and UMW-6D, as displayed in **Figure 1**) show elevated concentrations for boron and molybdenum but do not have elevated cobalt concentrations. Of the 126 testing results for these six monitoring wells, only one result has a value over the method detection limit (MDL) at 1.7 J µg/L and is below the PQL. Therefore, over 99% of all results from monitoring wells located directly adjacent to the SCPA indicate cobalt is present at a non-detect level.

Like lithium, cobalt concentrations do not closely track with key indicator parameters, boron or molybdenum. **Figure 7** is a graph that displays boron, molybdenum, and cobalt concentrations from the most recent sampling result at each monitoring well (data used to generate this graph is available in **Table 4**). As displayed previously in **Figure 2** and below in **Figure 7**, molybdenum concentrations appear to correlate with boron concentrations, with elevated levels at similar monitoring wells. Cobalt concentrations do not track closely with either boron or molybdenum concentrations, but rather range from non-detect (<0.73 µg/L) to 21.6 µg/L.

Figure 7 – **Comparison of Boron, Molybdenum, and Cobalt Concentrations**



Notes:

1) µg/L – micrograms per liter,
2) Values displayed in order from highest to lowest boron concentrations. Data used in Figure 7 are provided in Table 4.
3) Cobalt concentrations displayed on secondary axis, with values on the right side of the graph.

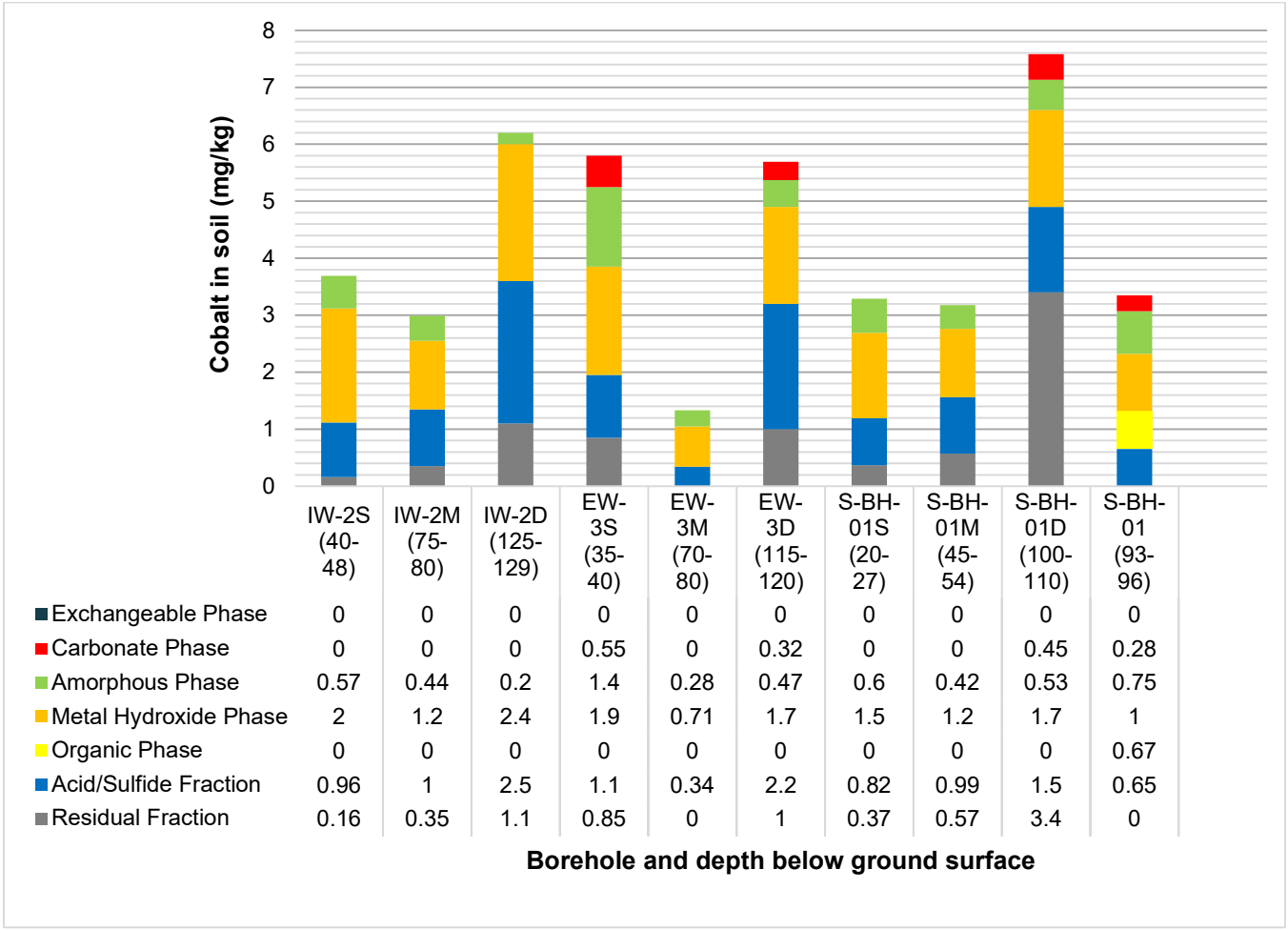
3.3.1 Sequential Extraction Data Confirms Presence of Naturally Occurring Cobalt in Sediments

As with lithium, a seven-step SEP based on Tessier et al. (1979) was used to identify the provenance of cobalt in soils (i.e. the operationally-defined fraction that contains the metal) and determine potential environmental

mobility. The total concentration of a metal measured from the seven steps can be compared to the concentration determined from the total metal analysis for compositional accountability. The locations of the sequential extraction sample locations are provided in **Figure 1**.

Results of the sequential extraction testing are displayed below in **Figure 8**. The results indicate naturally occurring cobalt is present in soils at the SEC in fractions 6 and 7 of each of the soil borings, both directly adjacent to the SCPA and at background locations. Cobalt is reported at concentrations ranging from 1.3 to 7.6 mg/kg (from the SEP) and is present in the residual and sulfide component of the soil (35 to 81%), i.e., the non-environmentally available fractions. Background soil samples, outside of the impacts from the SCPA, display similar results as those soil samples collected adjacent to the CCR unit, indicating that cobalt is not from impacts from the CCR Unit and is naturally occurring in the alluvial aquifer.

Figure 8 - Sequential Extraction of Cobalt Results



	IW-2S (40-48)	IW-2M (75-80)	IW-2D (125-129)	EW-3S (35-40)	EW-3M (70-80)	EW-3D (115-120)	S-BH-01S (20-27)	S-BH-01M (45-54)	S-BH-01D (100-110)	S-BH-01 (93-96)
Exchangeable Phase	0	0	0	0	0	0	0	0	0	0
Carbonate Phase	0	0	0	0.55	0	0.32	0	0	0.45	0.28
Amorphous Phase	0.57	0.44	0.2	1.4	0.28	0.47	0.6	0.42	0.53	0.75
Metal Hydroxide Phase	2	1.2	2.4	1.9	0.71	1.7	1.5	1.2	1.7	1
Organic Phase	0	0	0	0	0	0	0	0	0	0.67
Acid/Sulfide Fraction	0.96	1	2.5	1.1	0.34	2.2	0.82	0.99	1.5	0.65
Residual Fraction	0.16	0.35	1.1	0.85	0	1	0.37	0.57	3.4	0

Notes:

1) Mg/kg – milligrams per kilogram.

2) Sample locations provided in **Figure 1.** BH-01 is near the background wells while IW-2 and EW-3 are located adjacent to the SCPA CCR Unit.

3.3.2 Leachability Testing

As with lithium, leachability tests were completed at the site by Haley & Aldrich in 2018 for the CCR materials in the SCPA and the SCPB.

1. For the Shake Extraction Tests (method ASTM D3987), both the SCPA bottom ash and the SCPB fly ash results were non-detect (<0.0068 mg/L) for cobalt.

2. For the SPLP test, both the SCPA bottom ash and the SCPB fly ash were non-detect (<0.0027 mg/L) for cobalt.

This confirms the results of the porewater testing and indicate that little to no leachable cobalt is present in the SCPA or SCPB CCR units and they are not significant sources of cobalt in the alluvial aquifer groundwater.

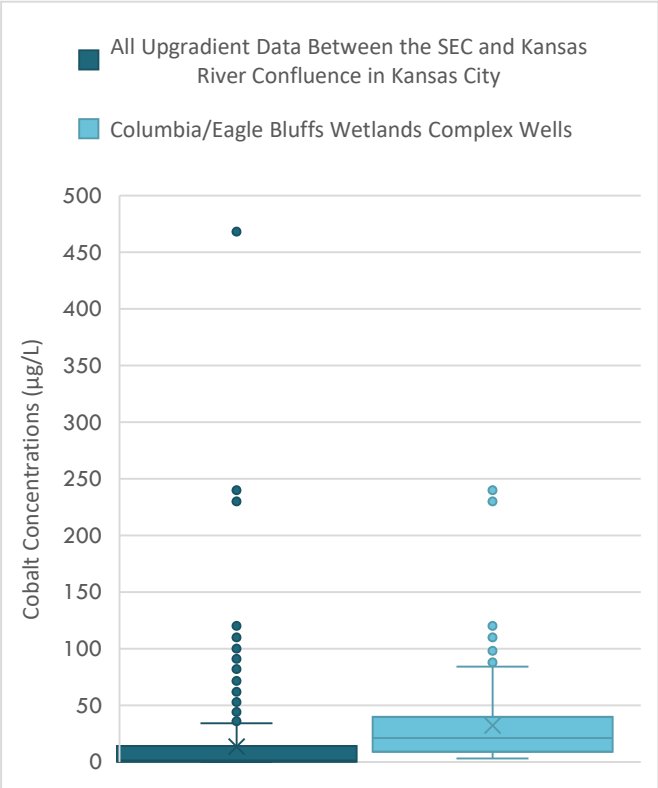
3.3.3 Naturally Occurring Cobalt Values at the SEC are Consistent with Upstream Sampling Results within the Missouri and Mississippi River Alluvial Aquifers

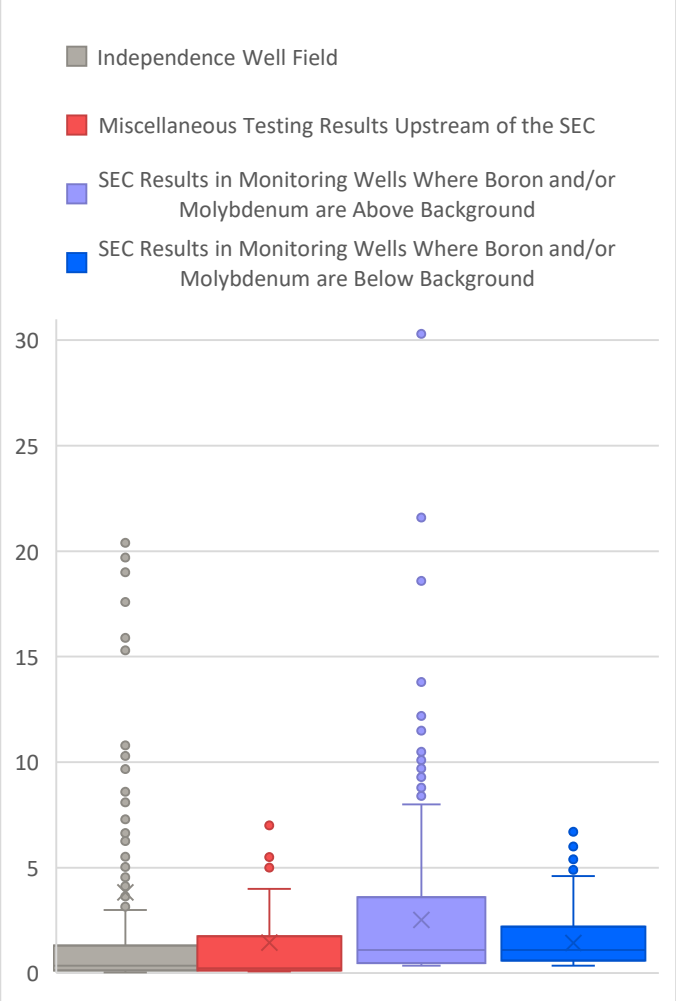
Cobalt may be present in mineral form as arsenides, carbonates, sulfides, and oxides (Hem, 1989; Smith and Carson, 1981). During weathering of these minerals (i.e., dissolution and/or oxidation), any cobalt is typically released and redistributed to iron or manganese (hydr)oxides (Butt et al., 2000) or other sorbent (e.g., clays, organic matter). The NWQMC Water Quality Portal (available at https://www.waterqualitydata.us/) summarizes data from the USGS, USEPA, and NWQMC databases. A review of cobalt results from within the Missouri and Mississippi River Alluvial Aquifer from the NWQMC database includes cobalt results from a total of 515 groundwater sample results for wells located upgradient of the SEC within the Missouri River alluvial aquifer and one groundwater sample result for wells located upgradient of the SEC within the Mississippi River alluvial aquifer in the state of Missouri. To evaluate naturally occurring Missouri River Alluvial Aquifer concentrations of cobalt, the database results were divided into different groups as follows:

- Independence Well Field near Independence Missouri (Kelly 2010) – Total of 306 results.
- Columbia/Eagle Bluffs Wetland Complex Wells (Richards 1995, Richards 1999, Richards, 2002) – Total of 176 results.
- Miscellaneous testing results upstream of the SEC – Total of 33 results.
- Only 1 result available within the Mississippi River alluvium upgradient of the SEC, a concentration of 0.079 µg/L near Wayland Missouri.

Figure 9 displays a box and whisker plot that compares the publicly available groundwater cobalt data in the upgradient alluvial aquifers to those collected in monitoring wells at the SEC.

Figure 9 – Comparison of Missouri River Alluvial Aquifer Groundwater Cobalt Concentrations – Public Data and Sioux Results





Notes:

1) UG/L – micrograms per liter
2) Results from Columbia/Eagle Bluff are much higher than those at the other locations. Because of this, a different scale is used for displaying this dataset on the left side of Figure 9.

The cobalt concentrations from the Columbia/Eagle Bluffs Wetlands complex are much higher than those at the SEC and those farther upgradient at the Independence Well Field. It is unknown why these results are at such elevated concentrations; therefore, they are not used for this evaluation. Excluding the data from Columbia/Eagle Bluffs Wetlands Complex, the results display that the majority of cobalt concentrations across the Missouri River alluvial aquifer are below 4 µg/L with some outliers above 6 µg/L at each site. This is likely caused by the heterogeneous nature of the Missouri River Basin alluvial aquifer deposits, which are derived from a vast area of the United States including parts of Missouri, Iowa, Kansas, Nebraska, South Dakota, North Dakota, Montana, Wyoming, and Colorado. The sediments in the Missouri River Alluvial Aquifer at the site are made up of a mixture of sediments from all reaches of the Missouri River Basin. Cobalt deposits and many metamorphic and igneous rocks containing cobalt occur at numerous locations within the Missouri River Basin. Therefore, the alluvial aquifer sediments in the vicinity of LMW-6S and AM-1S (as well as other various locations within the Missouri River Alluvium) include localized zones of increased cobalt concentrations, and are likely the cause of the elevated concentrations observed at the SEC.

This inconsistency of upgradient alluvial aquifer samples and their origins indicates that the cobalt concentrations onsite, namely the isolated exceedances at LMW-6S and AM-1S, are not influenced by the SCPA, and are naturally occurring within the aquifer groundwater.

4.0 SUMMARY

Based on the information presented in Section 3.0, the statistical exceedances for lithium and cobalt at the site using Corrective Action statistical methods are not the result of impacts from the SCPA, but instead are the result of natural geochemical variability of groundwater within the alluvial aquifer at the site. The natural geochemical sources for lithium and cobalt exceedances are supported by several factors including: (1) a lack of correlation between key CCR indicators (boron and molybdenum) and lithium and cobalt concentrations across the SEC, (2) cobalt concentrations at LMW-6S and AM-1S exceed those observed in potential sources at the SEC, including CCR unit porewater, (3) the presence of naturally occurring cobalt and lithium in sediments upgradient of the SCPA, and (4) cobalt and lithium have been shown to be naturally occurring elements in soils and alluvial aquifer sediments that are derived from geologic sources within the Missouri River watershed.

5.0 REFERENCES

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Tables

Table 4
Summary of Most Recent Sampling Results Across the SEC SCPA Surface Impoundment
Sioux Energy Center, St. Charles County, MO

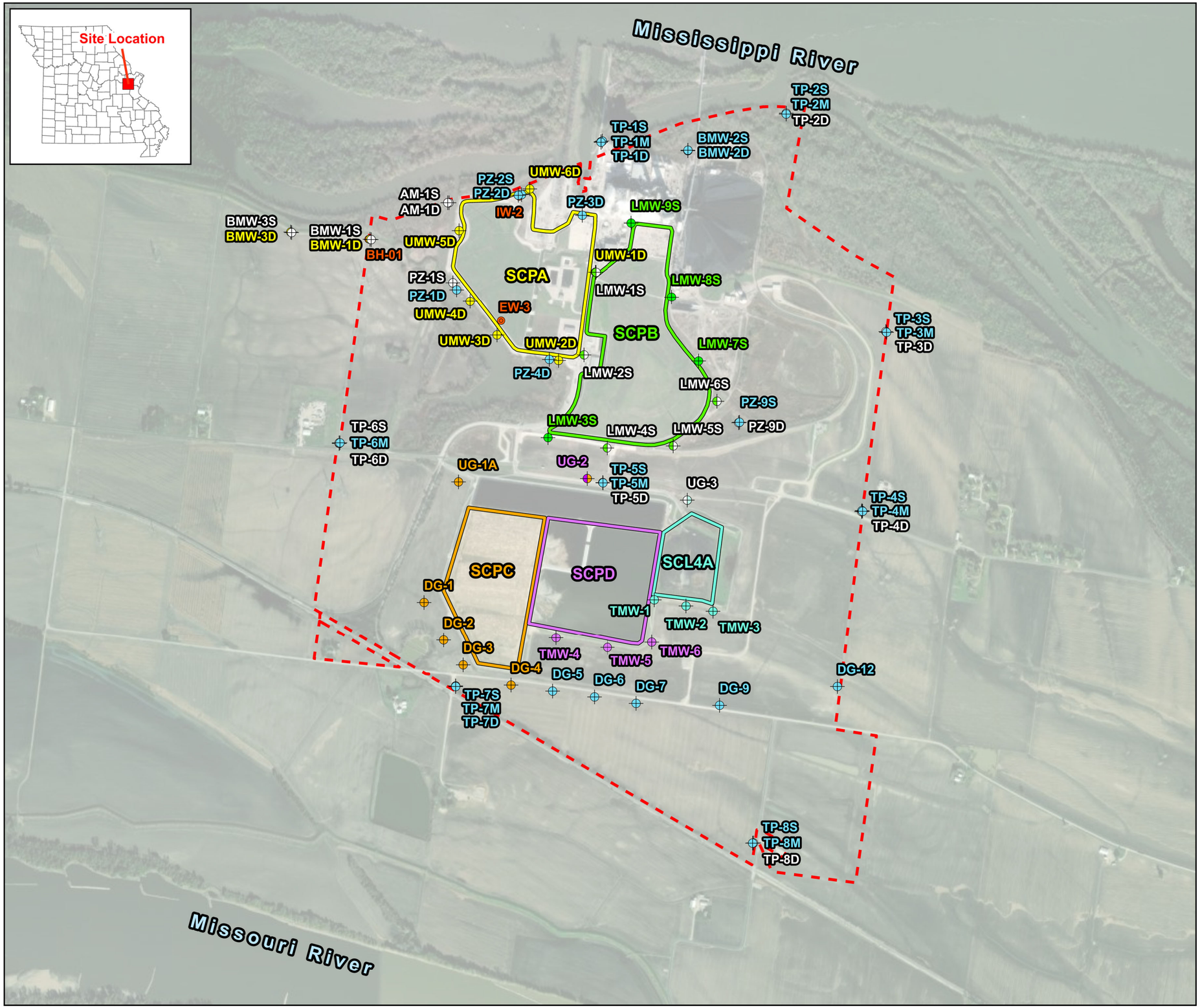
Constituent	Boron		Molybdenum		Lithium		Cobalt	
Background Limit	240 µg/L		DQR (20 µg/L)		30.509 µg/L		DQR (5 µg/L)	
Groundwater Monitoring Wells	Date	µg/L	Date	µg/L	Date	µg/L	Date	µg/L
S-UMW-3D	5/8/2025	29,900	5/8/2025	5,200	5/8/2025	16.9	5/8/2025	ND
S-LMW-5S	5/12/2025	18,000	5/12/2025	1,670	5/12/2025	34.1	5/12/2025	ND
S-LMW-6S	5/12/2025	16,700	5/12/2025	6.7 J	5/12/2025	17.0	5/12/2025	7.9
S-UMW-4D	5/8/2025	15,600	5/8/2025	4,530	5/8/2025	27.6	5/8/2025	ND
S-UMW-2D	5/8/2025	12,500	5/8/2025	1,390	5/8/2025	31.3	5/8/2025	ND
S-LMW-2S	5/7/2025	8,970	5/7/2025	920	5/7/2025	29.5	5/7/2025	2.9 J
S-ASD-3S	1/25/2018	8,850	1/25/2018	532	1/25/2018	41.8	1/25/2018	18.6
S-ASD-3M	1/25/2018	7,330	1/25/2018	675	1/25/2018	32.8	1/25/2018	ND
S-TP-5D	5/8/2025	7,270	5/8/2025	450	5/8/2025	29.1	5/8/2025	ND
S-LMW-8S	5/12/2025	6,520	8/6/2019	282	8/6/2019	12.8	5/16/2018	6.0
S-PZ-1S	5/8/2025	5,660	5/8/2025	1,440	5/8/2025	22.6	5/8/2025	ND
S-UMW-5D	5/8/2025	5,490	5/8/2025	167	5/8/2025	23.3	5/8/2025	ND
S-ASD-6S	2/2/2018	5,100	2/2/2018	10.8 J	2/2/2018	27.0	2/2/2018	21.6
S-ASD-5S	2/8/2018	4,960	2/8/2018	27.7	2/8/2018	17.1	2/8/2018	4.5 J
S-ASD-3D	1/25/2018	4,450	1/25/2018	814	1/25/2018	35.0	1/25/2018	ND
S-ASD-4D	2/9/2018	4,400	2/9/2018	161	2/9/2018	40.1	2/9/2018	ND
S-ASD-6M	2/5/2018	4,110	2/5/2018	551	2/5/2018	46.2	2/5/2018	ND
S-ASD-5D	2/8/2018	3,990	2/8/2018	12.9 J	2/8/2018	45.0	2/8/2018	ND
S-TP-5M	8/2/2019	3,120	8/2/2019	7.6 J	8/2/2019	33.2	8/2/2019	1.5 J
S-ASD-4M	2/9/2018	2,990	2/9/2018	30.5	2/9/2018	37.2	2/9/2018	ND
S-LMW-7S	5/12/2025	2,870	8/5/2019	ND	8/5/2019	18.2	5/16/2018	1.3 J
S-ASD-5M	2/8/2018	2,400	2/8/2018	10.9 J	2/8/2018	42.6	2/8/2018	ND
S-AM-1D	5/7/2025	2,180	5/7/2025	174	5/7/2025	30.8	5/7/2025	ND
S-ASD-6D	2/5/2018	1,980	2/5/2018	172	2/5/2018	40.1	2/5/2018	ND
S-PZ-9D	5/12/2025	1,800	5/12/2025	19.9 J	5/12/2025	16.7	5/12/2025	ND
S-ASD-1D	1/31/2018	1,150	1/31/2018	131	1/31/2018	22.7	1/31/2018	ND
S-LMW-1S	5/12/2025	900	5/12/2025	120	5/12/2025	24.0	5/12/2025	ND
S-LMW-9S	5/9/2025	853	8/9/2019	8.7 J	8/9/2019	47.4	5/16/2018	6.6
S-ASD-2S	1/30/2018	744	1/30/2018	184	1/30/2018	24.9	1/30/2018	3.4 J
S-ASD-4S	2/9/2018	717	2/9/2018	3.0 J	2/9/2018	36.0	2/9/2018	8.4
S-UMW-1D	5/12/2025	598	5/12/2025	77.0	5/12/2025	22.5	5/12/2025	ND
S-ASD-1S	1/31/2018	588	1/31/2018	24.8	1/31/2018	8.4 J	1/31/2018	1.4 J
S-ASD-1M	1/31/2018	555	1/31/2018	43.3	1/31/2018	16.2	1/31/2018	0.74 J
S-TP-1D	8/6/2019	481	8/6/2019	ND	8/6/2019	18.7	8/6/2019	ND
S-ASD-2M	1/30/2018	451	1/30/2018	59.9	1/30/2018	14.6	1/30/2018	ND
S-AM-1S	5/7/2025	440	5/7/2025	34.9	5/7/2025	25.7	5/7/2025	7.4
S-ASD-2D	1/30/2018	385	1/30/2018	46.3	1/30/2018	12.4	1/30/2018	ND
S-UG-1A	5/8/2025	365	8/19/2019	ND	8/19/2019	40.3	11/7/2023	ND
S-UG-3	5/8/2025	282	5/8/2025	4.2 J	5/8/2025	22.6	5/8/2025	1.8 J
S-TP-1M	8/5/2019	246	8/5/2019	ND	8/5/2019	16.6	8/5/2019	ND
S-TP-2M	8/5/2019	238	8/5/2019	ND	8/5/2019	28.8	8/5/2019	ND
S-LMW-4S	5/9/2025	216	5/9/2025	ND	5/9/2025	30.7	5/9/2025	ND
S-TP-5S	8/2/2019	211	8/2/2019	13.1 J	8/2/2019	17.7	8/2/2019	1.1 J
S-UMW-6D	5/8/2025	187	5/8/2025	33.1	5/8/2025	19.4	5/8/2025	ND
S-LMW-3S	5/8/2025	153	8/5/2019	ND	8/5/2019	29.9	5/16/2018	ND
S-TP-7S	8/6/2019	144	8/6/2019	14.1 J	8/6/2019	43.3	8/6/2019	1.0 J
S-UG-2	5/8/2025	137	8/19/2019	ND	8/19/2019	19.1	11/7/2023	ND
S-TP-1S	8/5/2019	120	8/5/2019	5.4 J	8/5/2019	ND	8/5/2019	1.5 J
S-TP-6S	5/8/2025	112	5/8/2025	8.0 J	5/8/2025	33.3	5/8/2025	ND
S-TP-7D	8/6/2019	110	8/6/2019	ND	8/6/2019	42.5	8/6/2019	ND
S-DG-4	5/9/2025	108	8/19/2019	ND	8/19/2019	34.8	11/7/2023	ND
S-DG-2	5/9/2025	105	8/19/2019	ND	8/19/2019	35.5	11/7/2023	2.2 J
S-DG-3	5/9/2025	105	8/19/2019	ND	8/19/2019	35.2	11/7/2023	ND
S-BMW-1D	5/7/2025	103	5/7/2025	ND	5/7/2025	12.4	5/7/2025	ND
S-TP-4S	8/6/2019	101	8/6/2019	28.6	8/6/2019	18.6	8/6/2019	1.1 J
S-DG-1	5/9/2025	97.1 J	8/19/2019	ND	8/19/2019	31.6	11/7/2023	ND
S-TP-2D	5/9/2025	95.4 J	5/9/2025	2.5 J	5/9/2025	48.0	5/9/2025	ND
S-TP-7M	8/6/2019	93.5 J	8/6/2019	ND	8/6/2019	37.8	8/6/2019	ND
S-TMW-6	5/12/2025	88.9 J	7/25/2022	3.2 J	7/25/2022	37.4	7/25/2022	ND
S-TP-2S	8/5/2019	88.5 J	8/5/2019	4.3 J	8/5/2019	13.8	8/5/2019	2.4 J
S-TP-8M	8/5/2019	85.1 J	8/5/2019	ND	8/5/2019	29.0	8/5/2019	ND
S-TMW-3	5/9/2025	83.5 J	8/19/2019	ND	8/19/2019	27.2	6/6/2017	1.3 J
S-TMW-4	5/12/2025	81.4 J	7/25/2022	4.0 J	7/25/2022	36.6	7/25/2022	ND
S-TMW-5	5/12/2025	78.4 J	7/25/2022	2.1 J	7/25/2022	35.3	7/25/2022	3.1 J
S-TMW-2	5/9/2025	78.4 J	8/19/2019	ND	8/19/2019	28.6	6/6/2017	1.9 J
S-TP-8D	5/12/2025	77.2 J	5/12/2025	1.6 J	5/12/2025	28.3	5/12/2025	ND
S-TMW-1	5/8/2025	75.3 J	8/19/2019	3.1 J	8/19/2019	20.6	6/6/2017	0.91 J
S-TP-8S	8/5/2019	72.6 J	8/5/2019	6.5 J	8/5/2019	21.8	8/5/2019	ND
S-TP-3S	8/7/2019	71.3 J	8/7/2019	16.8 J	8/7/2019	12.3	8/7/2019	ND
S-TP-4M	8/6/2019	66.8 J	8/6/2019	ND	8/6/2019	32.0	8/6/2019	ND
S-TP-4D	5/9/2025	62.5 J	5/9/2025	4.0 J	5/9/2025	35.3	5/9/2025	ND
S-BMW-3D	5/7/2025	61.8 J	5/7/2025	ND	5/7/2025	22.2	5/7/2025	ND
S-TP-3D	5/9/2025	57.5 J	5/9/2025	1.7 J	5/9/2025	36.0	5/9/2025	ND
S-BMW-1S	5/7/2025	56.5 J	5/7/2025	5.2 J	5/7/2025	6.2 J	5/7/2025	ND
S-BMW-3S	5/7/2025	55.1 J	5/7/2025	5.2 J	5/7/2025	8.7 J	5/7/2025	ND
S-TP-6M	8/6/2019	53.1 J	8/6/2019	ND	8/6/2019	25.1	8/6/2019	ND
S-TP-3M	8/7/2019	44.3 J	8/7/2019	ND	8/7/2019	23.9	8/7/2019	ND
S-TP-6D	5/8/2025	ND	5/8/2025	2.8 J	5/8/2025	22.8	5/8/2025	ND

Notes:
1.) Unit Abbreviations: µg/L.
2.) ND - Constituent was analyzed but was not detected above the Method Detection Limit (MDL) or the adjusted Practical Quantitation Limit (PQL) based on data validation and is considered a non-detect. Values displayed as ND.
3.) J - Result is an estimated value.
4.) Date corresponds with most recent result for each analyte.
5.) Well ID's highlighted in light red have values above the background limit for boron or molybdenum. These values are used in the "concentrations with a boron or molybdenum value over background" for the box and whisker plots provided in Figure 3 and Figure 8. Well ID's in blue do not have a molybdenum or boron value above background, and these wells are used in the "concentrations without a boron or molybdenum value over background" column for the box and whisker plots provided in Figures 3 and 9.
6.) If all background results are less than the PQL, the Double Quantification Rule (DQR) is used. In cases where DQR is the background value, the latest PQL is used for the background limit.

ROCKSMITH GEOENGINEERING

Prepared by: GTM
Checked by: JDQ
Reviewed by: JSI

Figures



TITLE

SIOUX ENERGY CENTER GROUNDWATER MONITORING PROGRAMS AND SAMPLE LOCATION MAP

Legend

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)

Utility Waste Landfill Cells

- SCL4A - Dry CCR Disposal Area
- SCPC- FGD Surface Impoundment (Closed)
- SCPD - FGD Surface Impoundment

Monitoring Well Networks

- Corrective Action Monitoring Well
- SCPA Detection and Assessment Monitoring Well
- SCPB and Corrective Action Monitoring Well
- SCPB Detection Monitoring Well
- SCPC Detection Monitoring Well
- SCPD and SCPC Detection Monitoring Well
- SCPD Detection Monitoring Well
- SCL4A and Corrective Action Monitoring Well
- SCL4A Detection Monitoring Well
- Monitoring Well Used for Water Level Elevation Measurements Only
- Soil Boring Location for Sequential Extraction Samples

NOTES

1. All boundaries and locations are approximate.
2. FGD - Flue Gas Desulfurization.
3. CCR - Coal Combustion Residuals.

REFERENCES

1. St Charles County, Missouri Geo-Data & Mapping Hub, Parcel Dataset, Updated April 2025.

0 500 1,000 2,000 3,000 Feet

PROJECT
CCR RULE GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

ROCKSMITH GEOENGINEERING

DESIGN	JSI	YYYY-MM-DD	2025-05-20
PREPARED	GTM	PROJECT No.	23009-25
REVIEW	JSI		
APPROVED	MNH		

FIGURE 1

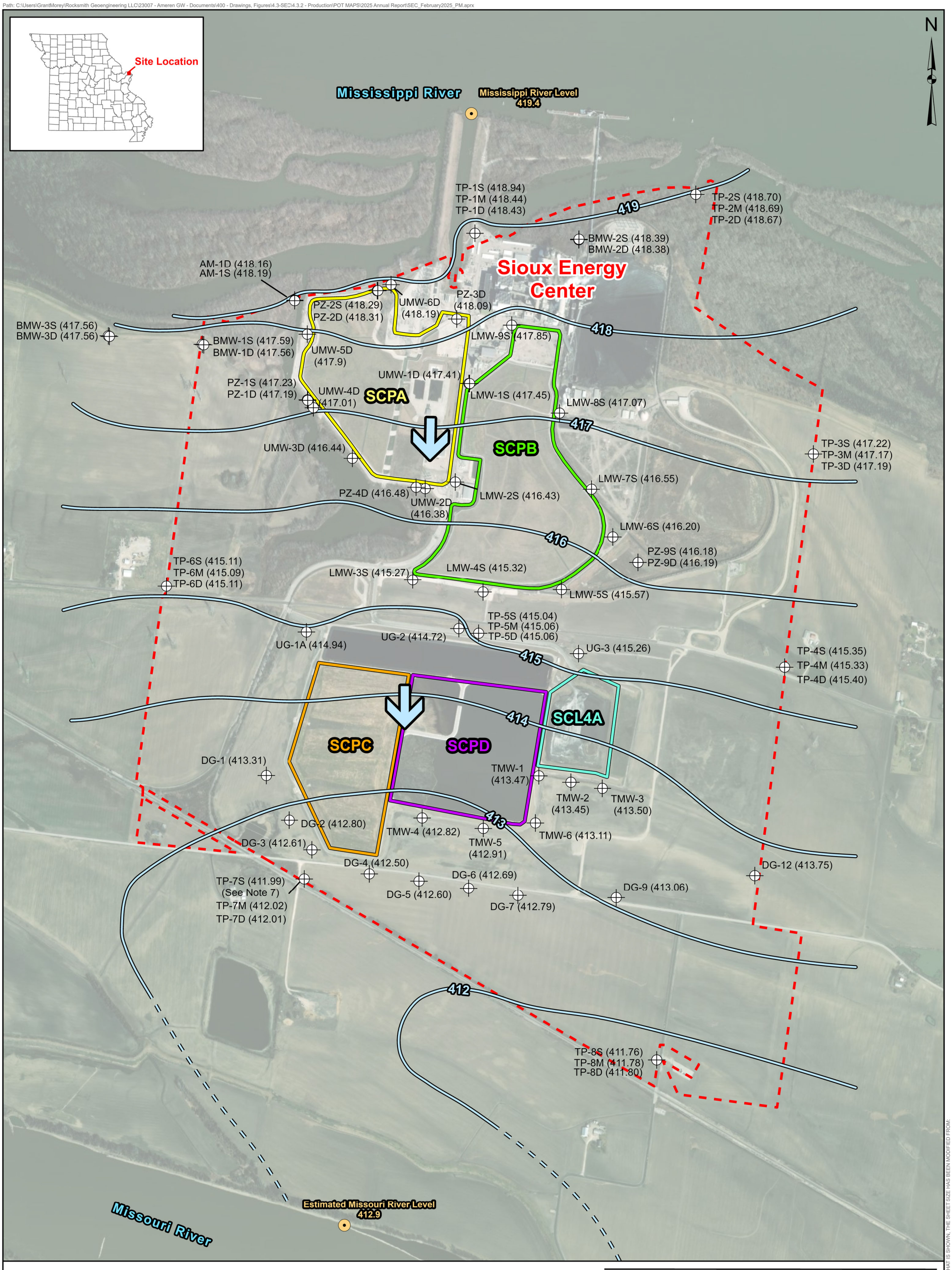
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 1 in 0

Path: C:\Users\GrantMoney\Rocksmith Geoengineering LLC\23007 - Ameren GW - Documents\400 - Drawings_Figures\4.3-SECr4.3.2 - Production\2022\ASD\sf\Figure1-WellLocations.aprx

Appendix J

2025 Potentiometric Surface Maps

Path: C:\Users\GrantMorey\Rocksmith Geoengineering LLC\23007 - Ameren GW - Documents\400 - Drawings, Figures\4.3-SEC\4.3.2 - Production\POT MAPS\2025 Annual Report\SEC_February2025_PM.aprx



LEGEND

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)
- SCPC - WFGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Groundwater Elevation Contour (FT MSL)

- Groundwater Elevation Contour (FT MSL)
- Inferred Groundwater Elevation Contour (FT MSL)

Ground/Surface Water Measurement Locations

- River Gauge Location
- Monitoring Well or Piezometer
- Groundwater Flow Direction

NOTES

1.) ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2.) GROUNDWATER AND SURFACE WATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FT MSL).
3.) GROUNDWATER ELEVATION MEASUREMENTS OBTAINED BY ROCKSMITH.
4.) MISSOURI RIVER ELEVATION ESTIMATED BASED ON NEARBY UNITED STATES GEOLOGICAL SURVEY (USGS) RIVER GAUGING LOCATIONS.
5.) MISSISSIPPI RIVER ELEVATION PROVIDED BY AMEREN MISSOURI.
6.) FGD - FLUE GAS DESULFURIZATION.
7.) WELL TP-7S NOT USED IN POTENTIOMETRIC SURFACE CONTOURING DUE TO LOCALIZED VERTICAL GRADIENT.

REFERENCES

1.) ST CHARLES COUNTY, MISSOURI GEO-DATA & MAPPING HUB, PARCEL DATASET, UPDATED APRIL 2025.
2.) COORDINATE SYSTEM: NAD 1983 STATE PLANE MISSOURI EAST FIPS 2,401 FEET.
3.) USGS NATIONAL WATER INFORMATION SYSTEM, USGS GAUGES 06935965 (ST. CHARLES), 07010000 (ST. LOUIS), 05587498 (ALTON), GRAFTON (05587450).

0 500 1,000 1,500 2,000 Feet

TITLE

FEBRUARY 6, 2025 POTENTIOMETRIC SURFACE MAP

PROJECT
CCR GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

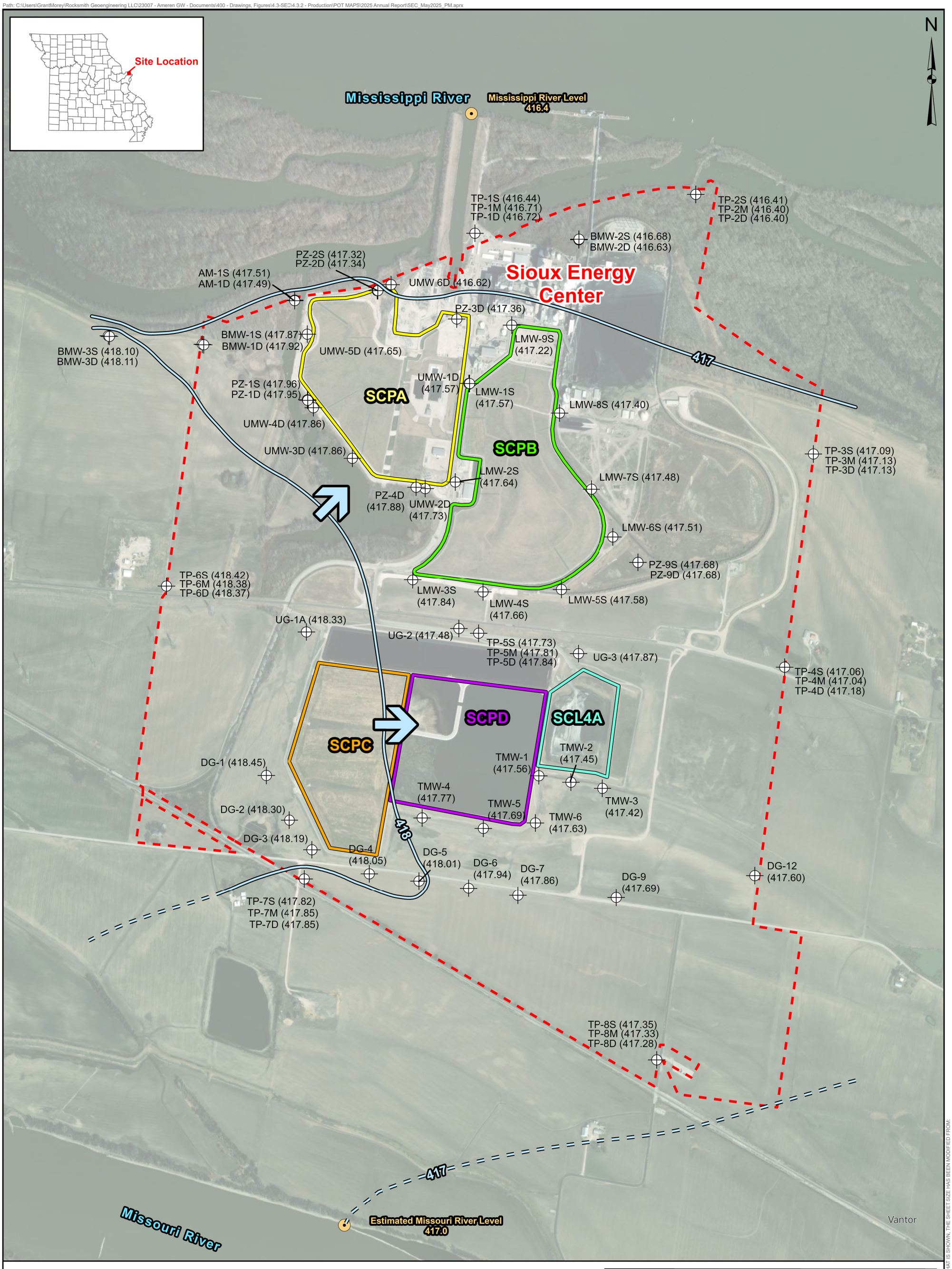
ROCKSMITH GEOENGINEERING

DESIGN	GTM	YYYY-MM-DD	2025-03-28
PREPARED	JTR	PROJECT No.	23009-25
REVIEW	JDQ		
APPROVED	MNH		

FIGURE J1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 1 in 0

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LEGEND

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)
- SCPC - WFGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Groundwater Elevation Contour (FT MSL)

- Groundwater Elevation Contour (FT MSL)
- Inferred Groundwater Elevation Contour (FT MSL)

Ground/Surface Water Measurement Locations

- River Gauge Location
- Monitoring Well or Piezometer
- Groundwater Flow Direction

NOTES

1.) ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2.) GROUNDWATER AND SURFACE WATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FT MSL).
3.) GROUNDWATER ELEVATION MEASUREMENTS OBTAINED BY ROCKSMITH.
4.) MISSOURI RIVER ELEVATION ESTIMATED BASED ON NEARBY UNITED STATES GEOLOGICAL SURVEY (USGS) RIVER GAUGING LOCATIONS.
5.) MISSISSIPPI RIVER ELEVATION PROVIDED BY AMEREN MISSOURI.
6.) FGD - FLUE GAS DESULFURIZATION.

REFERENCES

1.) ST CHARLES COUNTY, MISSOURI GEO-DATA & MAPPING HUB, PARCEL DATASET, UPDATED APRIL 2025.
2.) COORDINATE SYSTEM: NAD 1983 STATE PLANE MISSOURI EAST FIPS 2,401 FEET.
3.) USGS NATIONAL WATER INFORMATION SYSTEM, USGS GAUGES 06935965 (ST. CHARLES), 07010000 (ST. LOUIS), 05587498 (ALTON), GRAFTON (05587450).

0 500 1,000 1,500 2,000 Feet

TITLE
MAY 7, 2025 POTENTIOMETRIC SURFACE MAP

PROJECT
CCR GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

ROCKSMITH GEOENGINEERING

DESIGN	GTM	YYYY-MM-DD	2025-05-19
PREPARED	JDQ	PROJECT No.	23009-25
REVIEW	JTR		
APPROVED	MNH		

FIGURE J2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 1 in 0

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N

Mississippi River

Mississippi River Level
417.9

Sioux Energy Center

TP-1S (417.64)
TP-1M (417.80)
TP-1D (417.80)

TP-2S (417.68)
TP-2M (417.67)
TP-2D (417.66)

BMW-2S (417.75)
BMW-2D (417.72)

PZ-2S (418.26)
PZ-2D (418.30)

AM-1S (418.31)
AM-1D (418.31)

418

UMW-6D
(418.11)

LMW-9S (417.95)

BMW-3S (418.79)
BMW-3D (418.78)

BMW-1S (418.43)
BMW-1D (418.46)

UMW-5D
(418.38)

PZ-3D
(418.17)

PZ-1S
(418.59)

PZ-1D
(418.55)

SCPA

UMW-4D
(418.47)

UMW-1D
(418.23)

LMW-1S
(418.33)

LMW-8S (417.98)

SCPB

UMW-3D
(418.52)

LMW-2S
(418.39)

PZ-4D
(418.73)

UMW-2D
(418.58)

LMW-7S
(418.27)

TP-3S (418.00)
TP-3M (418.07)
TP-3D (418.06)

LMW-6S
(418.93)

PZ-9S
(419.91)

TP-6S (419.34)
TP-6M (419.36)
TP-6D (419.33)

LMW-3S
(419.24)

LMW-4S
(419.00)

LMW-5S (419.17)

UG-1A (419.59)

UG-2
(418.85)

TP-5S (419.22)
TP-5M (418.84)
TP-5D (419.27)

UG-3 (419.41)

TP-4S (417.91) (See note 7)
TP-4M (418.25)
TP-4D (418.28)

SCPC

SCPD

SCL4A

DG-1
(420.22)

TMW-1
(418.99)

TMW-2
(418.88)

TMW-4
(419.33)

TMW-5
(419.21)

TMW-3
(418.85)

DG-2
(420.48)

TMW-6
(419.15)

DG-3
(420.13)

DG-5
(419.75)

DG-6
(419.62)

DG-7
(419.57)

DG-12
(419.13)

DG-4
(419.83)

DG-9 (419.22)

420

TP-7S (419.74)
TP-7M (419.75)
TP-7D (419.77)

TP-8S (418.93)
TP-8M (418.95)
TP-8D (418.96)

419

Missouri River

Estimated Missouri River Level
418.4

Vantor

LEGEND

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)
- SCPC - WFGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Groundwater Elevation Contour (FT MSL)

- Groundwater Elevation Contour (FT MSL)
- Inferred Groundwater Elevation Contour (FT MSL)

Ground/Surface Water Measurement Locations

- River Gauge Location
- Monitoring Well or Piezometer
- Groundwater Flow Direction

NOTES

1.) ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2.) GROUNDWATER AND SURFACE WATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FT MSL).
3.) GROUNDWATER ELEVATION MEASUREMENTS OBTAINED BY ROCKSMITH.
4.) MISSOURI RIVER ELEVATION ESTIMATED BASED ON NEARBY UNITED STATES GEOLOGICAL SURVEY (USGS) RIVER GAUGING LOCATIONS.
5.) MISSISSIPPI RIVER ELEVATION PROVIDED BY AMEREN MISSOURI.
6.) FGD - FLUE GAS DESULFURIZATION.
7.) TP-4S NOT USED IN POTENTIOMETRIC SURFACE CALCULATION DUE TO LOCALIZED VERTICAL GRADIENT.

REFERENCES

1.) ST CHARLES COUNTY, MISSOURI GEO-DATA & MAPPING HUB, PARCEL DATASET, UPDATED APRIL 2025.
2.) COORDINATE SYSTEM: NAD 1983 STATE PLANE MISSOURI EAST FIPS 2,401 FEET.
3.) USGS NATIONAL WATER INFORMATION SYSTEM, USGS GAUGES 06935965 (ST. CHARLES), 07010000 (ST. LOUIS), 05587498 (ALTON), GRAFTON (05587450).

0 500 1,000 1,500 2,000 Feet

TITLE
JULY 9, 2025 POTENTIOMETRIC SURFACE MAP

PROJECT
CCR GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

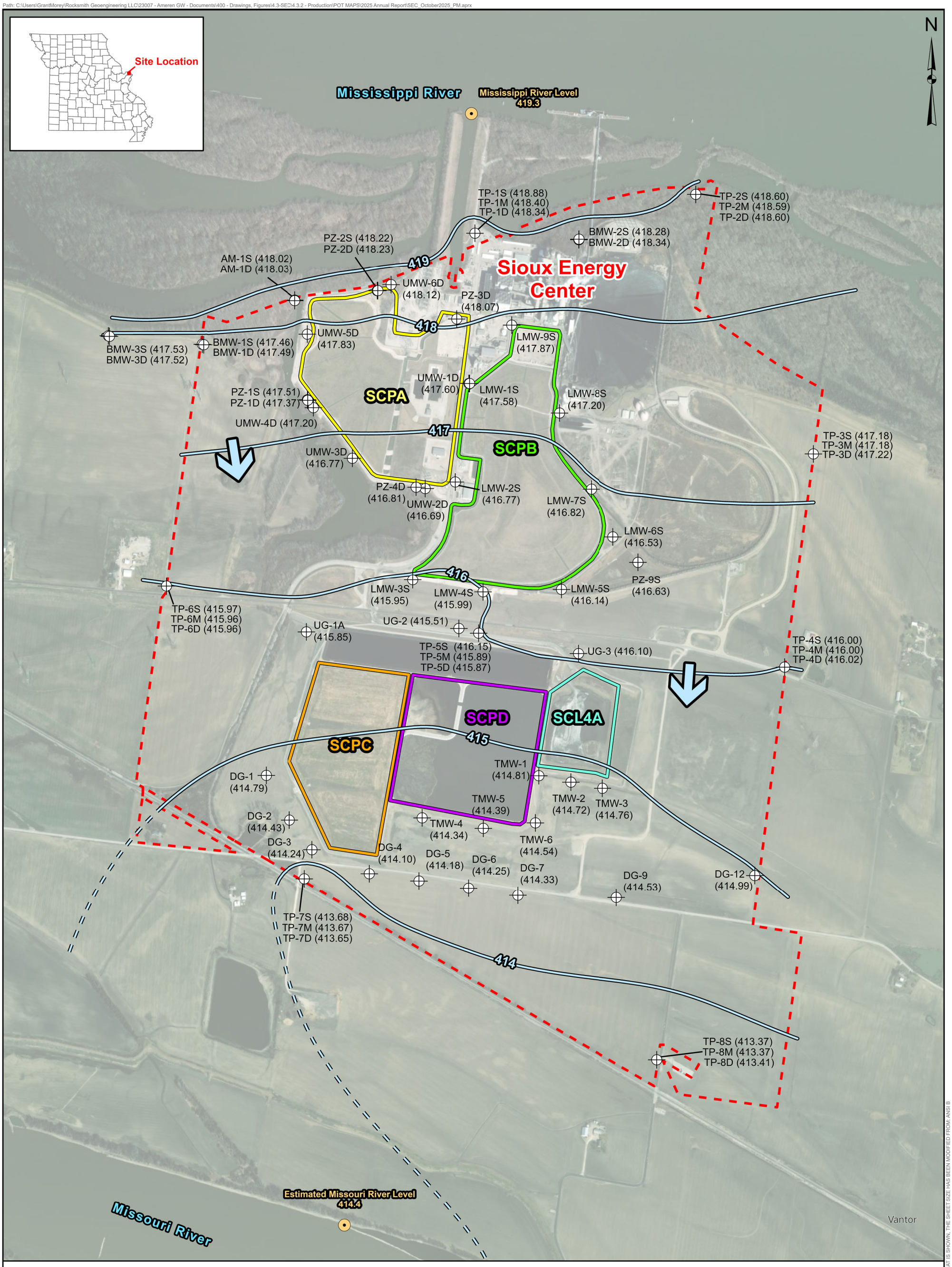
ROCKSMITH GEOENGINEERING

DESIGN	GTM	YYYY-MM-DD	2025-08-15
PREPARED	JDQ	PROJECT No.	23009-25
REVIEW	JTR		
APPROVED	MNH		

FIGURE J3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
1 in
0

Path: C:\Users\GrantMorey\Rocksmith Geoengineering LLC\23007 - Ameren GW - Documents\400 - Drawings, Figures\4.3-SEC\4.3.2 - Production\POT MAPS\2025 Annual Report\SEC_October2025_PM.aprx



LEGEND

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)
- SCPC - WFGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Groundwater Elevation Contour (FT MSL)

- Groundwater Elevation Contour (FT MSL)
- Inferred Groundwater Elevation Contour (FT MSL)

Ground/Surface Water Measurement Locations

- River Gauge Location
- Monitoring Well or Piezometer
- Groundwater Flow Direction

NOTES

1.) ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2.) GROUNDWATER AND SURFACE WATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FT MSL).
3.) GROUNDWATER ELEVATION MEASUREMENTS OBTAINED BY ROCKSMITH.
4.) MISSOURI RIVER ELEVATION ESTIMATED BASED ON NEARBY UNITED STATES GEOLOGICAL SURVEY (USGS) RIVER GAUGING LOCATIONS.
5.) MISSISSIPPI RIVER ELEVATION PROVIDED BY AMEREN MISSOURI.
6.) FGD - FLUE GAS DESULFURIZATION.

REFERENCES

1.) ST CHARLES COUNTY, MISSOURI GEO-DATA & MAPPING HUB, PARCEL DATASET, UPDATED APRIL 2025.
2.) COORDINATE SYSTEM: NAD 1983 STATE PLANE MISSOURI EAST FIPS 2,401 FEET.
3.) USGS NATIONAL WATER INFORMATION SYSTEM, USGS GAUGES 06935965 (ST. CHARLES), 07010000 (ST. LOUIS), 05587498 (ALTON), GRAFTON (05587450).

0 500 1,000 1,500 2,000 Feet

TITLE
OCTOBER 2, 2025 POTENTIOMETRIC SURFACE MAP

PROJECT
CCR GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

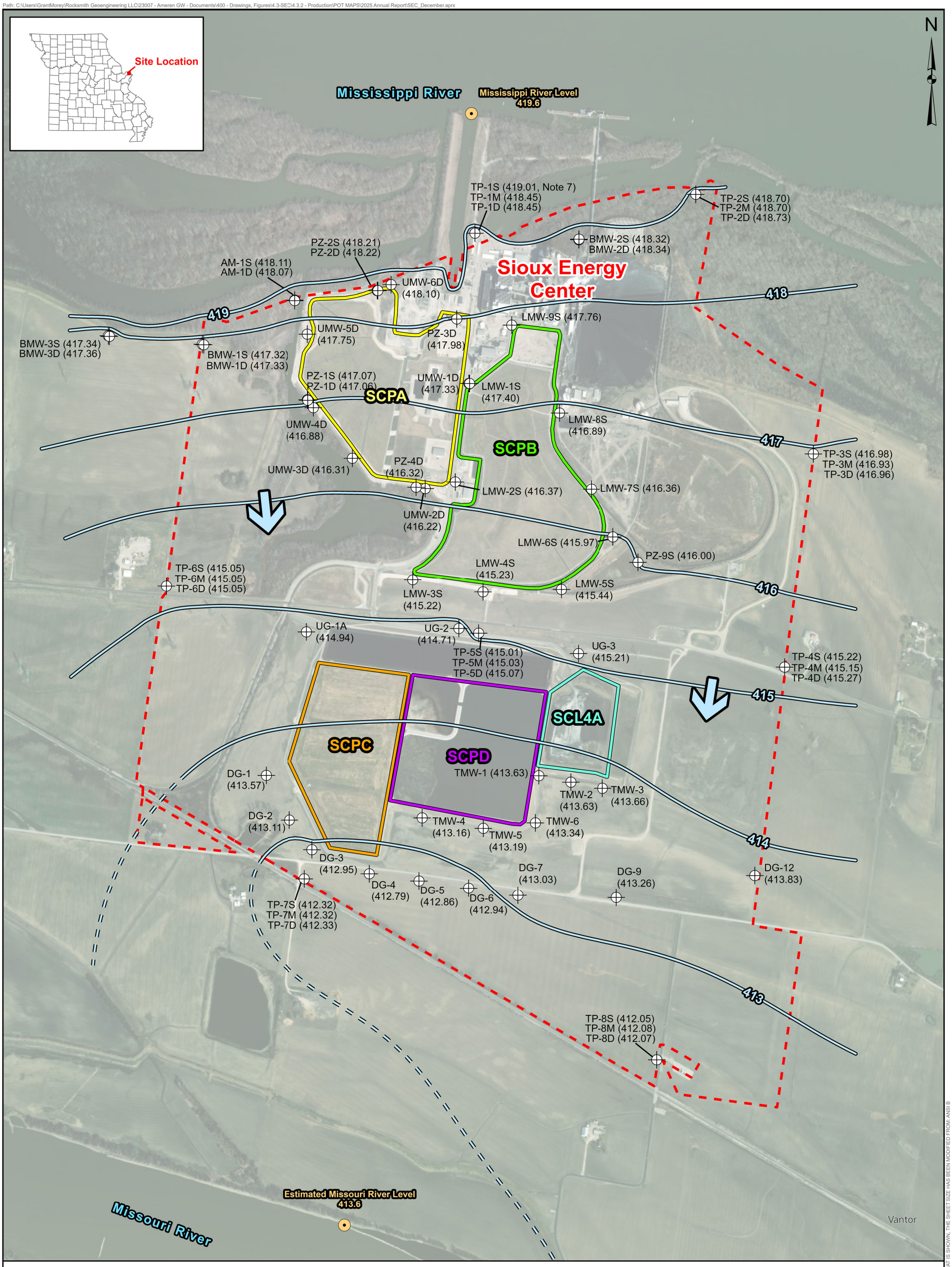
ROCKSMITH GEOENGINEERING

DESIGN	GTM	YYYY-MM-DD	2025-12-18
PREPARED	JDQ	PROJECT No.	23009-25
REVIEW	JTR		
APPROVED	MNH		

FIGURE J4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
1 in
0

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LEGEND

- Sioux Energy Center Property Boundary

CCR Units

- SCPA - Bottom Ash Surface Impoundment (Closed)
- SCPB - Fly Ash Surface Impoundment (Closed)
- SCPC - WFGD Surface Impoundment (Closed)
- SCL4A - Dry CCR Disposal Area
- SCPD - FGD Surface Impoundment

Groundwater Elevation Contour (FT MSL)

- Groundwater Elevation Contour (FT MSL)
- Inferred Groundwater Elevation Contour (FT MSL)

Ground/Surface Water Measurement Locations

- River Gauge Location
- Monitoring Well or Piezometer
- Groundwater Flow Direction

NOTES

1.) ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
2.) GROUNDWATER AND SURFACE WATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FT MSL).
3.) GROUNDWATER ELEVATION MEASUREMENTS OBTAINED BY ROCKSMITH.
4.) MISSOURI RIVER ELEVATION ESTIMATED BASED ON NEARBY UNITED STATES GEOLOGICAL SURVEY (USGS) RIVER GAUGING LOCATIONS.
5.) MISSISSIPPI RIVER ELEVATION PROVIDED BY AMEREN MISSOURI.
6.) FGD - FLUE GAS DESULFURIZATION.
7.) TP-1S IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.

REFERENCES

1.) ST CHARLES COUNTY, MISSOURI GEO-DATA & MAPPING HUB, PARCEL DATASET, UPDATED APRIL 2025.
2.) COORDINATE SYSTEM: NAD 1983 STATE PLANE MISSOURI EAST FIPS 2,401 FEET.
3.) USGS NATIONAL WATER INFORMATION SYSTEM, USGS GAUGES 06935965 (ST. CHARLES), 07010000 (ST. LOUIS), 05587498 (ALTON), GRAFTON (05587450).

0 500 1,000 1,500 2,000 Feet

TITLE
DECEMBER 2, 2025 POTENTIOMETRIC SURFACE MAP

PROJECT
CCR GROUNDWATER MONITORING PROGRAM

CLIENT
AMEREN MISSOURI
SIOUX ENERGY CENTER

ROCKSMITH GEOENGINEERING

DESIGN	GTM	YYYY-MM-DD	2025-12-11
PREPARED	JDQ	PROJECT No.	23009-25
REVIEW	GTM		
APPROVED	MNH		

FIGURE J5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
1 in
0