SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	WC,CY25 Env Comp&On-Call,Loess Hills,IA 27225095.01	DATE:	2/2/2026
SUBJECT:	Loess Hills Regional Sanitary Landfill - 65-SDP-01-72P - 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report	TRANSMITTAL ID:	00003
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

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TO

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REMARKS:

Mike -

Please find for download the Loess Hills Regional Sanitary Landfill 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report . Please let us know if you have any questions or comments.

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Transmittal

DATE: 2/2/2026
TRANSMITTAL ID: 00003

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	2/2/2026	Loess Hills Regional Sanitary Landfill - 65-SDP-01-72P - 2025 AWQR.LCSPER.MMR 02.02.2026.pdf	

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February 2, 2026
File No. 27225095.01

Mr. Mike Smith, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Re: 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Dear Mr. Smith:

SCS Engineers, on behalf of Iowa Waste Services, LLC. (IWS), has completed the required groundwater monitoring and statistical analyses for the Loess Hills municipal solid waste landfill unit at the Loess Hills Regional Sanitary Landfill for the year 2025. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113 and the current requirements for implementation of the Hydrologic Monitoring System Plan for the site. Please find attached a copy of the 2025 Annual Water Quality Report.

Additionally, the 2025 Leachate Control System Performance Evaluation Report, prepared by SCS, and the 2025 Landfill Gas Annual Report, prepared by IWS, for the site are included as appendices to the Annual Water Quality Report.

Should you have any questions or need clarification, please contact Sean Marczewski at (712) 661-9682.

Sincerely,

Sean Marczewski
Senior Project Professional
SCS Engineers

Timothy C. Buelow, P.E.
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SAM/TCB

Enclosure
copy: Ms. Rachel Hanigan, Iowa Waste Services, LLC.
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Mr. Kelly Danielson, Iowa Waste Services, LLC.

2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report

Loess Hills Regional Sanitary Landfill
Malvern, Iowa
Solid Waste Permit No. 65-SDP-01-72P

Prepared for:

Iowa Waste Services, LLC

SCS ENGINEERS

27225095.01 | January 2026

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CERTIFICATION

Prepared by:  Date: February 2, 2026

Typed: Sean Marczewski

Reviewed by:  Date: February 2, 2026

Typed: Timothy C. Buelow, P.E.

Certification page (PE or groundwater scientist signature) **113.10(1)"d"**

For the purposes of this rule, a "qualified groundwater scientist" means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

The period of report coverage is from January – December 2025 and includes the May and November 2025 semi-annual sampling events.

ES.2 REPORT PRIORITY

The following summarizes report priorities associated with groundwater compliance at the Loess Hills Regional Sanitary Landfill (Landfill).

- Department review urgency:
  - Discontinuing sampling for sulfide in monitoring wells MW-8R, MW-11R, and MW-14 is recommended. See Section 6.2 for justification.
  - Monitoring point GU-1 is treated with leachate. It is recommended that the sampling frequency be reduced from semi-annual to annual.
  - Reduce the natural attenuation parameter sampling in corrective action monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, and MW-28, and bracketing monitoring well MW-31 from semi-annual to biennial. See Section 6.2 for justification.
  - Monitoring well MW-25 has been consistently dry, and it is recommended that the monitoring point be removed from the HMSP. See Section 6.3 for justification.
  - Monitoring wells MW-16, MW-17, and MW-28 will be reviewed for efficacy at their installed depths and possibly replaced. See Section 6.3 for justification.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 SITE STATUS AND APPLICABLE RULES

- Landfill Status: Active
- Types of waste accepted: MSW, C&D, Special Wastes
- Applicable IAC rules: 2009 567-113.10

ES.4 COMMENTS

The following summarizes points of special emphasis:

- There were four newly identified and thirty ongoing monitoring well/detected constituent pairs with indicated statistically significant increases (SSIs) above background. The monitoring wells are in assessment or corrective action monitoring and do not require a resample; therefore, the SSIs were not confirmed.
- Trending of the SSL (statistically significant level) constituents, as shown in **Table 11**, are generally decreasing. Arsenic in monitoring well MW-8R has been non-detect for the last 10 sampling events, resulting in a stable trend. Cobalt in monitoring wells MW-26R, MW-27R, and MW-28 exhibited decreasing trends during the 2nd 2025 semi-annual statistical

evaluation. Vinyl chloride had a decreasing trend in monitoring well MW-11R. This is a further indication that natural attenuation is likely occurring. The decreasing trends in the SSL parameters may be an indication that the installed GCCS (gas collection and control system) is successful in contributing to a decrease in gas migration.

- In two subsurface methane monitoring points on the south side of the Landfill, methane was detected during the 1st quarterly monitoring event, and in one subsurface monitoring point on the west side of the Landfill during each quarterly monitoring event except for the third quarter. Methane concentrations were below 100% of the LEL in each instance.

ACRONYMS/ABBREVIATIONS

ACM = Assessment of Corrective Measures
CAMP = Corrective Action Groundwater Monitoring Program
C&D = Construction and Demolition
CCV = Continuing Calibration Verification
CL = Control Limit - Mean plus Two Standard Deviations
COC = Chain of Custody
DNR = Iowa Department of Natural Resources
DO = Dissolved Oxygen
DQR = Double Quantification Rule
GWPS = Groundwater Protection Standard
LEL = Lower Explosive Limit
LCL = Lower Confidence Limit
LCS = Laboratory Control Sample
LN = Lognormal
MCL = EPA Maximum Contaminant Level
MSW = Municipal Solid Waste
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PL = Prediction Limit
RL = Reporting Limit
SWS = DNR Statewide Standard for a protected groundwater source
SSI = Statistically Significant Increase above background
SSL = Statistically Significant Level above groundwater protection standard
SSS = Site-Specific Standard (Site-Specific GWPS)
TSS = Total Suspended Solids
UCL = Upper Confidence Limit
VOC = Volatile Organic Compound

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Landfill property is depicted in **Figure 1**, Approved Monitoring Network. The Landfill is located approximately three miles west-northwest of Malvern; more specifically described as the NW ¼ of the SE ¼, the NE ¼ of the SE ¼, and the South ½ of the NE ¼, and the SE ¼ of the NW ¼ of Section 23, Township 72 North, Range 42 West, in Mills County, Iowa.

1.2 FACILITY

The Landfill property has been used for waste disposal since 1972. According to the county assessor's website, the property is currently zoned Industrial. The northern portion of the current property was purchased by Iowa Waste Systems, Inc. after acquiring the original landfill property owned by Nishna Sanitary Services, Inc. The Landfill was subsequently acquired by Iowa Waste Services, LLC, additional property to the east was purchased, and an east expansion of the Landfill was permitted. No development of the east expansion has occurred to date and landfilling activities continue in the western portion of the Landfill property. Prior to landfilling activities, the land was used for agricultural purposes.

1.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

Previous assessments indicate that the regional stratigraphy located within the Landfill area is Wisconsin age Peorian loess underlain by Illinoisan age Loveland loess. The loess is approximately 60 feet thick and ranges up to 150 feet thick near the Missouri River bluffs. Below the loess, glacial drift of Kansan and Nebraskan age is present. The glacial drift sequence consists of Kansan age deposits overlying Nebraskan age deposits. The first bedrock encountered is of the Pennsylvanian period at an approximate elevation of 875 to 950 feet above mean sea level (ft. amsl). The bedrock surface generally consists of the Pennsylvanian age Waubonsie group of the Virgil series. The lithology of the Waubonsie group generally includes shale with some limestone, siltstone, and minor sandstone units.

A notable feature in the area is the Fremont Channel, an erosional drainage channel that was filled with glacial deposits to a thickness of 500 feet and may be a useful groundwater source. The United States Geological Survey (USGS) bedrock topographic map indicates this structure is located approximately two miles east of the Landfill (Terracon, 1992).

The area near the Landfill consists of relatively well-drained, hilly terrain resulting primarily from fluvial erosion of loess deposits. The drainage of the area surrounding the Landfill is generally to the unnamed creek located to the south of the Landfill property. This creek discharges into Silver Creek approximately two miles to the east. Silver Creek then discharges into the West Nishnabotna River at a point approximately four miles south of Malvern or approximately six miles from the Landfill property.

The ground surface and upland divides range from approximately 1,180 ft. amsl in the western portion of the Landfill property to approximately 1,010 ft. amsl in the eastern portion of the Landfill property.

The geology of the Landfill property was described in the Mills County Landfill Hydrogeologic Assessment, Malvern, Iowa, (July 6, 1992, prepared by Terracon Environmental, Inc.). In general, the soil borings in the report indicated that the upland areas of the Landfill property are covered with a

loess mantle from the Wisconsin and Illinoisan ages, with thicknesses ranging from 8 to 43 feet. The loess deposits are generally thickest at the borings advanced in the higher elevation areas of the property. The loess deposits were generally described as light brown clay silt with a trace of sand. The loess is underlain by glacial till mainly from the Kansan and Nebraskan ages. The till was described as brown and gray, lean to fat clay containing varying amounts of sand and gravel. Sand and gravel seams were observed in several of the borings.

The Hydrologic Monitoring System Plan (1992 HMSP by Terracon Environmental, Inc.) stated that the water table surface is generally coincidental with the uppermost aquifer across the Landfill property. It was observed in the hydrogeologic study that the lower unoxidized glacial till unit has a horizontal conductivity significantly lower than the overlying oxidized glacial till and loess soils, thereby resulting in significant horizontal versus vertical flow above the unoxidized glacial till unit.

2.0 FIGURES DISCUSSION

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The western portion of the Landfill property, hydrological monitoring system plan (HMSP) monitoring network, and impact delineation monitoring points are depicted in **Figure 1**. **Figure 1** indicates the respective monitoring programs of the HMSP monitoring points as of the beginning of this reporting period.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on groundwater levels measured during the November 2025 sampling event is included as **Figure 2**. Groundwater gradients beneath the Landfill have remained generally consistent over the last several reporting periods. Review of groundwater contours indicates the gradient is generally to the southeast toward natural ravines south and southeast of the Landfill property boundary. A southwesterly flow component is present in the southwest corner of the property.

3.0 STANDARDS HISTORY GRAPHS

Standards history graphs are included in **Appendix G**. Standards history graphs for the following parameters are included:

- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Nickel
- Selenium
- Silver
- Vanadium
- Zinc

In all instances, the prediction limit was below the GWPS.

4.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Landfill follows similar protocols as included in the HMSP. Data validation procedures were performed on analytical results for laboratory quality control samples and a quality assurance assessment of the data was conducted as the data

were generated. The QA review procedure provided documentation of the accuracy and precision of the analytical data and confirmed that the analyses were sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasible with the laboratory method utilized. SCS then conducted QA/QC data validation of the produced data, which included review of sample handling, analytical sensitivity, blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation can be found in **Appendices B-1**, Laboratory Data, and **B-2**, Data Validation, respectively. The QA/QC review indicated that the data was acceptable.

5.0 ANALYTICAL DATA EVALUATION AND SUMMARY

Assessment/corrective action monitoring statistical analyses in accordance with the requirements of IAC 567-113.10(6) were conducted for the groundwater analytical data collected during the 2025 reporting period sampling events. The statistical evaluation for samples collected during this reporting period are located in Attachments A and B (1st and 2nd 2025 Semi-Annual Statistical outputs, respectively) of **Appendix D**, Statistical Methodology and Statistical Output of this report.

Groundwater monitoring for the Landfill consists of sixteen monitoring points, with background wells MW-14 and MW-17 located northwest and west of the Landfill, respectively. Compliance monitoring points are located along the east, southeast, south, and southwest boundaries.

5.1 ANALYTICAL DATA EVALUATION

Multiple volatile organic compounds (VOCs) and metals were detected during the 2025 semi-annual sampling events. GWPS exceedances at SSLs occurred in monitoring wells south, southeast, and east of the Landfill. A majority of the site-wide maximum inorganic concentrations were measured in groundwater underdrain GU-1, located southeast of the Landfill, with four, followed by monitoring well MW-11R with three. It should be noted that groundwater underdrain GU-1 is treated with leachate, and the total suspended solids concentrations were 768 and 569 mg/L during the semi-annual sampling events this reporting period, which likely contributed to the elevated inorganic concentrations. Inorganic GWPS exceedances for cobalt were measured in monitoring wells south (MW-26R and MW-27R) and southeast (MW-11R) of the Landfill, and for arsenic in two monitoring wells south (MW-26R) and southeast (MW-11R) of the Landfill.

A majority of the site-wide maximum VOC concentrations were measured in monitoring well MW-27R, located south of the Landfill, with four, followed by monitoring well MW-11R with two. VOCs were detected in monitoring wells along the south-southeastern side of the unlined closed portion of the Landfill; however, all measured VOC concentrations were below their respective GWPSs.

5.2 TRENDING IN ASSESSMENT/CORRECTIVE ACTION MONITORING WELLS

Statistical trend evaluations were completed for monitoring well – constituent pairs by Mann-Kendall analysis during this reporting period. The trend evaluations are included in the 1st and 2nd 2025 Semi-Annual Statistical Outputs included as Attachments A and B, respectively, in **Appendix D**. The statistically significant trends were as follows:

Monitoring Point	Constituent	Trend
1st 2025 Semi-Annual		
MW-26R	1,1-Dichloroethane	Decreasing
	cis-1,2-Dichloroethene	Decreasing
MW-27R	1,1-Dichloroethane	Increasing
	cis-1,2-Dichloroethene	Increasing
	Trichloroethene	Increasing
2nd 2025 Semi-Annual		
MW-26R	Nickel	Increasing
MW-27R	1,1-Dichloroethane	Increasing
	Trichloroethene	Increasing

It should be noted that monitoring wells MW-26R and MW-27R were both dry during the spring sampling event, therefore, the 1st 2025 semi-annual sampling trend evaluation did not contain any new data and therefore is identical to the 2nd 2024 trend evaluation previously reported. VOC concentrations measured in the fall 2025 sample from monitoring well MW-27R were generally lower than the previous sampling event concentrations, which, if continued, would in time eliminate the increasing trends.

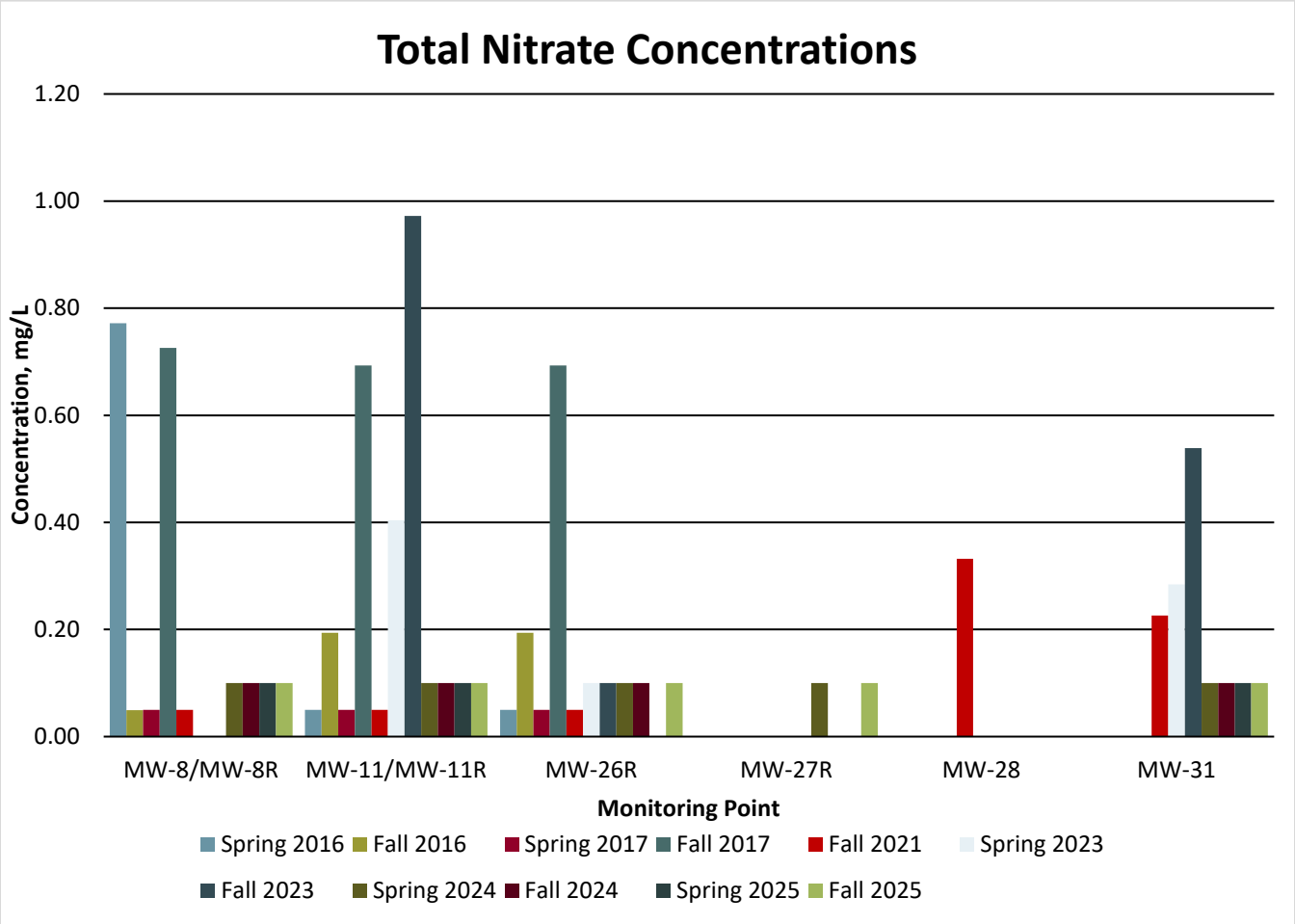
5.3 CORRECTIVE ACTION GROUNDWATER MONITORING PROGRAM REMEDY DISCUSSION

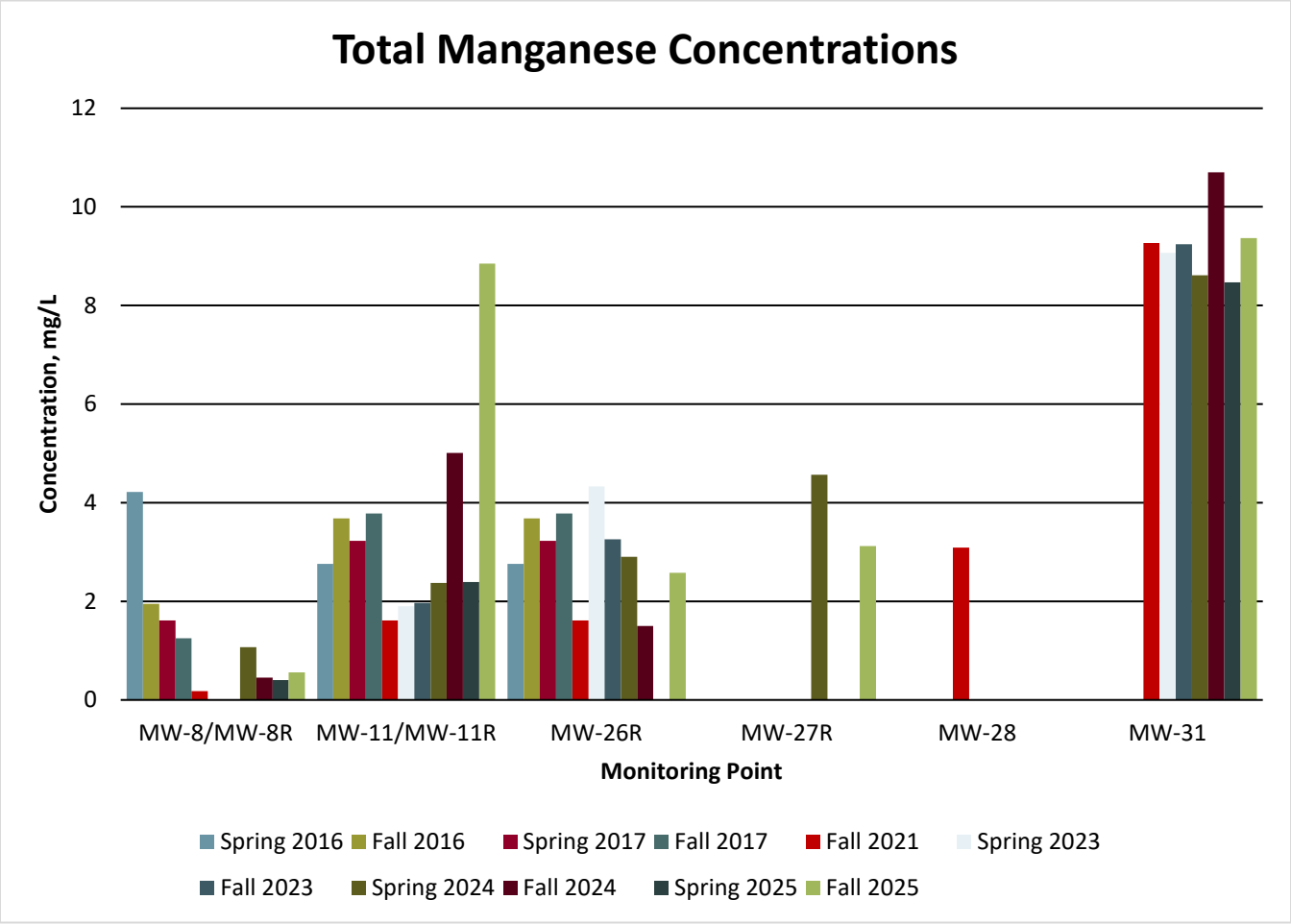
An Assessment of Corrective Measures (ACM) Report was submitted on December 20, 2019 (Doc #96653) and approved in permit correspondence dated June 29, 2020 (Doc #97988). The Selection of Remedy and Corrective Action Groundwater Monitoring Program (CAMP) were submitted on October 30, 2020 (Doc #98833) and approved in the permit renewal documentation dated December 10, 2020 (Doc #99104). The selected remedy was source control by landfill gas venting and monitored natural attenuation. The 2nd Quarter 2021 Methane Monitoring Exceedance notification submitted by SCS Engineers dated June 22, 2021 (Doc #100718) requested to utilize the gas collection and control system (GCCS) installed in fall 2020 as the source control portion of the remedy and was approved in permit correspondence dated June 24, 2021 (Doc #100735).

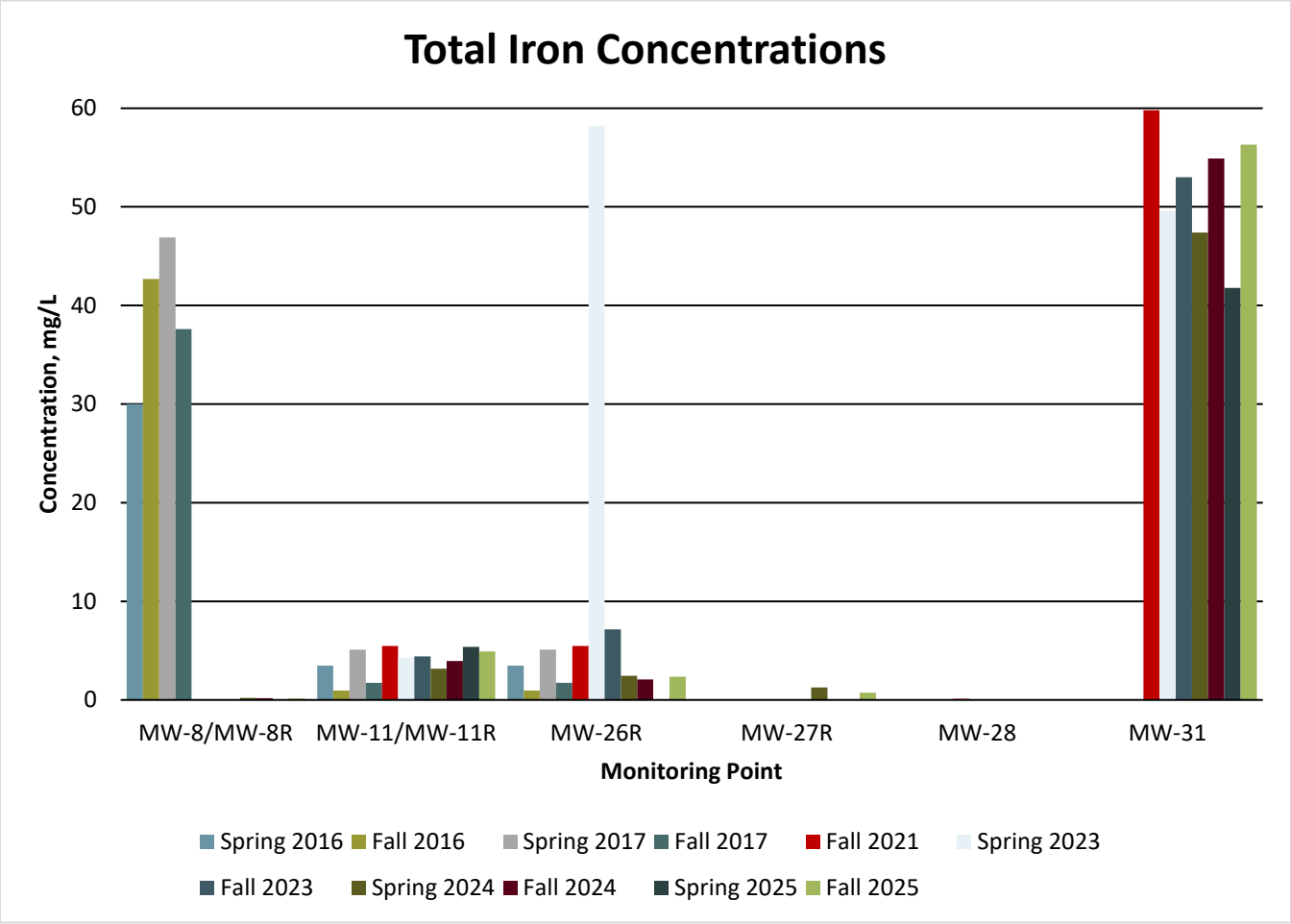
The GCCS is currently in place and operational. Methane exceedances at the site have reduced in number and frequency, coinciding with the installation and expansion of the GCCS. An expansion of the GCCS was completed on September 21, 2024, as noted in the Construction Observation Report submitted by SCS Engineers dated November 19, 2024 (Doc #111341).

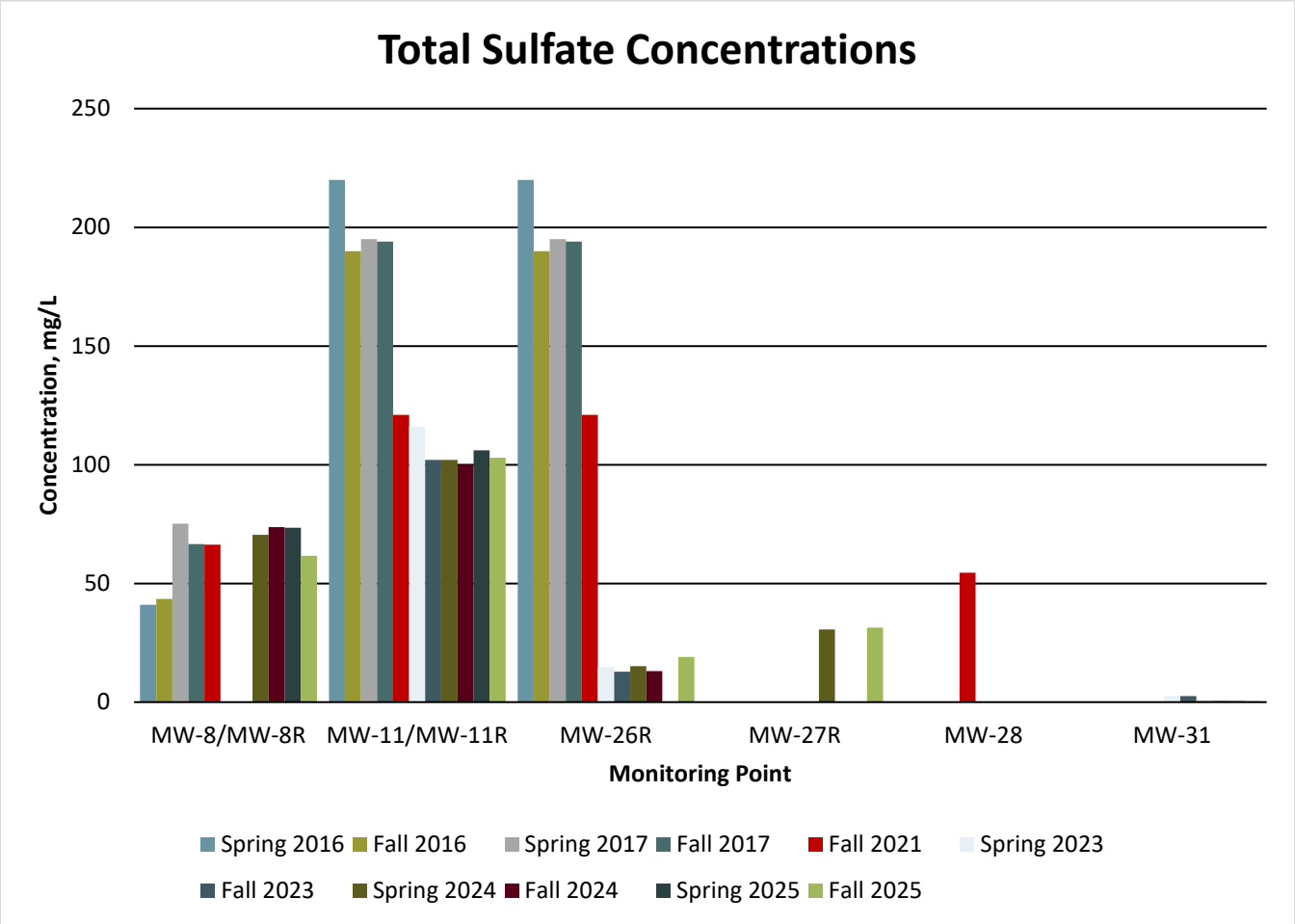
Natural attenuation processes are a component of the remedy to address groundwater impact at the Landfill. Semi-annual natural attenuation sampling was approved in the CAMP for monitoring wells MW-8R, MW-11R, MW-26R, MW-28, and bracketing monitoring well MW-31. Semi-annual natural attenuation sampling was approved on May 10, 2024 for monitoring well MW-27R (Doc #110023). A natural attenuation sample was obtained from monitoring wells MW-8R, MW-11R, and MW-31 during the 1st 2025 semi-annual sampling events and monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, and MW-31. Monitoring wells MW-26R and MW-27R were dry during the 1st 2025 sampling event and monitoring well MW-28 was dry during both semi-annual sampling events. The Reporting Period Summary of Groundwater Chemistry, located in **Appendix C**, summarizes the reporting period

cobalt and Natural Attenuation constituent concentrations for bracketing monitoring well MW-31 and Corrective Action monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, and MW-28. The reporting period arsenic and vinyl chloride concentrations can be found in the Reporting Period Summary of Groundwater Chemistry in **Appendix C**. Monitoring well MW-27R measured cobalt at an SSL for the first time during the 2023 reporting period. Therefore, sampling for natural attenuation parameters semi-annually in MW-27R began with the June 2024 semi-annual sampling event. The following graphs illustrate total nitrate, total manganese, total iron, and sulfate concentrations in monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, MW-28, and MW-31.




Total Manganese Concentrations
12
10
8
6
4
2
0
Concentration, mg/L
MW-8/MW-8R
MW-11/MW-11R
MW-26R
MW-27R
MW-28
MW-31
Monitoring Point
Spring 2016
Fall 2016
Spring 2017
Fall 2017
Fall 2021
Spring 2023
Fall 2023
Spring 2024
Fall 2024
Spring 2025
Fall 2025


Total Iron Concentrations
60
50
40
30
20
10
0
Concentration, mg/L
MW-8/MW-8R
MW-11/MW-11R
MW-26R
MW-27R
MW-28
MW-31
Monitoring Point
Spring 2016
Fall 2016
Spring 2017
Fall 2017
Fall 2021
Spring 2023
Fall 2023
Spring 2024
Fall 2024
Spring 2025
Fall 2025



The above graphs indicate varying degrees of reducing conditions at the individual monitoring wells, with electron acceptor availability remaining to sustain natural attenuation.

Trending

Trending of the SSL (statistically significant level) constituents, as shown in **Table 11**, is generally decreasing. Arsenic in monitoring well MW-8R has been non-detect for the last 10 sampling events, resulting in a stable trend. Cobalt in monitoring wells MW-26R, MW-27R, and MW-28 exhibited decreasing trends during the 2nd 2025 semi-annual statistical evaluation. Vinyl chloride had a decreasing trend in monitoring well MW-11R. This is a further indication that natural attenuation is likely occurring. The decreasing trends in the SSL parameters may be an indication that the installed GCCS (gas collection and control system) is successful in contributing to a decrease in gas migration.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

- Limited impact in the form of elevated arsenic concentrations is present to the south of the Landfill in the vicinity of corrective action monitoring well MW-26R. Based on geochemical evaluation, increased arsenic concentrations are likely due to landfill gas. A landfill gas collection and control (GCCS) system was installed in 2020 (see Doc

#97645). Arsenic was initially measured at an SSL during the 1st 2022 semi-annual statistical evaluation in monitoring well MW-26R and the 2nd 2018 semi-annual statistical evaluation in monitoring well MW-8R. Recent arsenic concentrations at monitoring well MW-8R have been non-detects, resulting in the upper confidence limit for arsenic in monitoring well MW-8R falling below the GWPS, and the well is now tracking against the remedy completion criteria for this parameter.

- Impact from cobalt is present to the south, southeast, and east of the Landfill in the vicinity of corrective action monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, and MW-28. Based on geochemical evaluation, increased cobalt concentrations are likely due to landfill gas. Monitoring wells MW-8R and MW-11R were installed with pre-pack screens in September 2020. Recent cobalt concentrations at monitoring well MW-8R have been non-detects, except for the 1st 2024 semi-annual sampling event, resulting in the upper confidence limit for cobalt in monitoring well MW-8R falling below the GWPS, and the well is now tracking against the remedy completion criteria for this parameter. Bracketing well MW-31 was installed in September 2020 to bracket southeast of monitoring well MW-28. Since installation, six samples have been obtained from bracketing monitoring well MW-31, all of which have measured above the groundwater protection standard (GWPS). However, as noted in the 2021 AWQR (Doc #102166), the location of monitoring well MW-31 is located near a lowland area that accumulates standing water. This area appears to have other geochemical influences occurring based on the concentrations of the natural attenuation constituents, which may be influencing cobalt concentrations.

- Vinyl chloride impact is present to the southeast of the Landfill in corrective action monitoring well MW-11R. It should be noted that all vinyl chloride concentrations measured in corrective action monitoring well MW-11R since September 2020 have been below the GWPS. This likely indicates improvement of water quality in the vicinity of MW-11R. Additionally, as indicated above, geochemical evaluation indicated that landfill gas is likely the cause of the elevated vinyl chloride concentrations. Vinyl chloride concentrations at monitoring well MW-11R have been non-detects during the last two reporting periods, resulting in the upper confidence limit for vinyl chloride in monitoring well MW-11R falling below the GWPS, and the well is now tracking against the remedy completion criteria for this parameter.

6.2 PROPOSED MONITORING

The following changes are recommended to the monitoring program:

- Discontinue sampling for sulfide in monitoring wells MW-8R, MW-11R, and MW-14. Sulfide has not been detected above the laboratory reporting limit in these monitoring wells since 2018, 2019, and 2017, respectively. Sulfide will continue to be sampled in these wells at a five-year frequency associated with the full set of Appendix II analyses.
- Reduce the natural attenuation parameter sampling in corrective action monitoring wells MW-8R, MW-11R, MW-26R, MW-27R, and MW-28, and bracketing monitoring well MW-31 from semi-annual to biennial. A sufficient history of natural attenuation parameters has been established, and a reduced sampling frequency should be sufficient for tracking these parameters.

Anticipated groundwater sampling for the 2026 reporting period is shown in **Table 2**.

6.3 PROPOSED MONITORING WELL CHANGES

The following monitoring well changes/considerations are recommended:

1. Remove monitoring well MW-25 from the HMSP monitoring network. The monitoring well has only produced one sample since 2021, as the well is frequently dry. Based on a review of historical analytical data, monitoring well MW-25 does not appear to be impacted. Due to topographic limitations, the well is located more than 400 feet from the waste boundary and is bounded by monitoring wells MW-7 and MW-8R for continued monitoring of this area of the site.
2. Review the efficacy of monitoring wells MW-16, MW-17, and MW-28 at their installed depths. Monitoring wells MW-16 and MW-17 were drying during both 2025 sampling events. Excavation and cell construction on the west side of the site have likely lowered groundwater levels in the area of these monitoring wells. Monitoring well MW-28 has been dry for the past three years and may need to be replaced with a deeper monitoring well.

No other changes to the monitoring wells are recommended at this time.

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Table 1
Monitoring Program Summary Table
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	SSIs[2]	Constituents with Current and/or Historical SSLs	Total Number of Samples in Each Monitoring Program		
						Detection inorganic/organic	Assessment inorganic/organic	Corrective Action inorganic/organic
HMSP Monitoring Points								
MW-14	Sandy/gravelly clay	Background	No change	Not Applicable	Not applicable	19/19		
MW-17	Sandy clay	Background	No change	Not Applicable	Not applicable	8/17		
MW-7	Till	Assessment	No change	Barium, cis-1,2-Dichloroethene	None		21/38	
MW-8R	Till	Corrective Action	No change	Barium, Nickel, Zinc, cis-1,2-Dichloroethene	None			20/35
MW-10R	Sandy lean clay	Assessment	No change	Barium, 1,1-Dichloroethane, cis-1,2-Dichloroethene	None		21/37	
MW-11R	Till/ Red sandy clay and gray/brown silty clay	Corrective Action	No change	Arsenic, Barium, Cobalt, Lead, Nickel, Vanadium, 1,4-Dichlorobenzene, Benzene, Chlorobenzene, cis-1,2-Dichloroethene	Cobalt			18/31
MW-16	Sandy clay	Detection	No change	None	None	0/0		
MW-25	Till	Assessment	No change	None	None		12/17	
MW-26R	Silty sandy clay/ Brown clayey sand	Corrective Action	No change	Arsenic, Barium, Chromium, Cobalt, Copper, Lead, Nickel, cis-1,2-Dichloroethene	Arsenic, Cobalt		11/11	
MW-27R	Silty sandy clay/ Brown silty sandy clay and brown clayey sand	Corrective Action	No change	Barium, Cobalt, Nickel, 1,1-Dichloroethane, Chlorobenzene, cis-1,2-Dichloroethene, Trichloroethene	Cobalt		10/11	
MW-28	Till	Corrective Action	No change	None	Cobalt			18/29
MW-29	Till	Detection	No change	None	Not applicable	21/33		
GU-1	NA	Treated with Leachate	No change	N/A	Not Applicable		20/20	
SW-4	NA	Detection	No change	None	Not Applicable	10/10		
MW-16	Sandy Clay	Detection	No change	N/A	Not applicable	0/0		
GU-C1	NA	Detection	No change	N/A	Not applicable	1/1		
Other Monitoring Points								
MW-2	Loess	Water Level						
MW-3	Silty clay	Water Level						
MW-9R	Till	Water Level						
MW-15	Sandy clay	Water Level						
MW-18	Sandy clay	Water Level						
MW-19	Sandy/gravelly clay	Water Level						
MW-20	Sandy clay	Water Level						
MW-21	Sandy clay	Water Level						
MW-31	Brown/dark gray lean clay and dark brown lean clay	Bracketing						

Notes:

[1] Obtained from screened interval on boring logs.

[2] A single detection of a VOC in the most recent reporting period, is recorded above as an SSI.

[3] Samples were unable to be obtained from monitoring wells MW-17, MW-25, and MW-28 during this reporting period; therefore, prediction limit analysis was not performed on these monitoring wells during the 2025 reporting period.

SSI = Statistically Significant Increase above background.

SSL = Statistically Significant Level above groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
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Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents					Full Appendix II Sample Dates	
	May 2025	November 2025	Background	1st 2026 Semi-Annual	Background	2nd 2026 Semi-Annual	Background	Previously Collected	Next Event
HMSP									
MW-14	Appendix I, Mercury, Sulfide, TSS	Appendix I, Mercury, Sulfide, TSS		Appendix I, Mercury, Sulfide*, TSS		Appendix I, Mercury, Sulfide*, TSS		Not applicable	Not applicable
MW-17	Not Sampled - Dry	Not Sampled - Dry		Appendix I, TSS		Appendix I, TSS		Not applicable	Not applicable
MW-7	Appendix I, TSS	Appendix I, TSS		Appendix I, TSS		Appendix I, TSS		1/23/2013, 9/4/2014, 4/10/2019, 6/19/2024	2029
MW-8R	Appendix I, Sulfide, Nitrate, Iron, Manganese, Sulfate, TSS	Appendix I, Sulfide, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Mercury, Sulfide*, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Mercury, Sulfide*, Nitrate, Iron, Manganese, Sulfate, TSS		6/24/2010, 9/25/2013, 3/19/2018, 9/13/2023	2028
MW-10R	Appendix I, TSS	Appendix I, TSS		Appendix I, TSS		Appendix I, TSS		1/23/2013, 9/4/2014, 4/10/2019, 6/19/2024	2029
MW-11R	Appendix I, Sulfide, Nitrate, Iron, Manganese, Sulfate, TSS	Appendix I, Sulfide, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Sulfide*, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Sulfide*, Nitrate, Iron, Manganese, Sulfate, TSS		6/24/2010, 9/25/2013, 4/10/2019, 6/19/2024	2029
MW-25	Not Sampled - Dry	Not Sampled - Dry		Appendix II, TSS		Appendix I+, TSS		4/10/2019, 11/21/2019	2026
MW-26R	Not Sampled - Dry	Appendix I, Sulfide, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Nitrate, Iron, Manganese, Sulfate, TSS		6/14/2021, 3/8/2022, 8/8/2022	2027
MW-27R	Not Sampled - Dry	Appendix I, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I, Nitrate, Iron, Manganese, Sulfate, TSS		6/14/202, 9/13/2023	2028
MW-28	Not Sampled - Dry	Not Sampled - Dry		Appendix II, Nitrate, Iron, Manganese, Sulfate, TSS		Appendix I+, Beta-BHC, Nitrate, Iron, Manganese, Sulfate, TSS		4/10/2019, 11/21/2019	2026
MW-29	Appendix I, TSS	Appendix I, TSS		Appendix I, TSS		Appendix I, TSS		Not applicable	Not applicable
GU-1	Appendix I, TSS	Appendix I, TSS		Appendix I, TSS		Sampled Annually*		Not applicable	Not applicable
SW-4	Appendix I, TSS	Not Sampled - Dry		Appendix I, TSS		Appendix I, TSS		Not applicable	Not applicable
MW-16	Not Sampled - Dry	Not Sampled - Dry	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
GU-C1	Not Installed	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS		Not applicable	Not applicable
Supplemental									
MW-31	Nitrate, Iron, Manganese, Sulfate, TSS	Cobalt, Nitrate, Iron, Manganese, Sulfate, TSS		Cobalt, Nitrate, Iron, Manganese, Sulfate, TSS		Cobalt, Nitrate, Iron, Manganese, Sulfate, TSS		Not applicable	Not applicable

Notes:

1) An insufficient amount of water was present in monitoring wells MW-25 and MW-28 to fill the full Appendix II sample bottle set during the 2025 sampling events; therefore, an Appendix II sample will be collected during the 1st 2026 sampling event.

2) Appendix I+ parameters include parameters outside the Appendix I list.

3) Natural attenuation parameters include iron, manganese, nitrate, and sulfate.

TSS - Total Suspended Solids

*- Pending DNR review and approval.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
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Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Compliance with:	2023	2024	2025	2026
567 IAC 113.10(2)"f"(1) high and low water levels		Completed		Scheduled
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included[(1)]	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included[(2)]	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry		Completed		Scheduled
Waste separation from ground water 113.6(2)i	Completed	Completed	Included[(2)]	Scheduled

Notes:

[(1)] See Section 2.2 of this report.

[(2)] See Table 4.

Comments:

None.

Table 4
Monitoring Well Performance and Maintenance Summary
2025 Annual Water Quality Report
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Permit No. 65-SDP-01-72P

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)
					5/5/2025	11/19/2025	
MW-14	1177.81	1105.7	82.5	Groundwater Level (ft)	57.85	56.71	-0.7
				Groundwater Elevation (ft MSL)	1119.96	1121.10	
				Measured Well Depth (ft)	83.2	NM	
				Submerged screen	Y	Y	
MW-17	1140.64	1117.4	33.3	Groundwater Level (ft)	>28.89	Dry	-0.1
				Groundwater Elevation (ft MSL)	<1111.75	NA	
				Measured Well Depth (ft)	NM	33.4	
				Submerged screen	N	N	
MW-7	1116.60	1093.4	38.2	Groundwater Level (ft)	24.50	23.85	-0.5
				Groundwater Elevation (ft MSL)	1092.10	1092.75	
				Measured Well Depth (ft)	38.7	37.8	
				Submerged screen	N	N	
MW-8R	1113.68	1090.9	37.8	Groundwater Level (ft)	25.82	25.10	6.7
				Groundwater Elevation (ft MSL)	1087.86	1088.58	
				Measured Well Depth (ft)	31.0	37.9	
				Submerged screen	N	N	
MW-10R	1127.21	1075.7	64.1	Groundwater Level (ft)	55.99	55.55	0.0
				Groundwater Elevation (ft MSL)	1071.22	1071.66	
				Measured Well Depth (ft)	NM	64.1	
				Submerged screen	N	N	
MW-11R	1098.59	1065.0	47.6	Groundwater Level (ft)	34.01	31.40	-1.0
				Groundwater Elevation (ft MSL)	1064.58	1067.19	
				Measured Well Depth (ft)	NM	48.6	
				Submerged screen	N	Y	
MW-25	1095.92	1082.9	22.8	Groundwater Level (ft)	Dry	Dry	0.2
				Groundwater Elevation (ft MSL)	NA	NA	
				Measured Well Depth (ft)	22.6	22.7	
				Submerged screen	N	N	
MW-26R	1125.58	1092.4	47.2	Groundwater Level (ft)	>43.98	39.28	-0.1
				Groundwater Elevation (ft MSL)	<1081.6	1086.30	
				Measured Well Depth (ft)	47.2	47.3	
				Submerged screen	N	N	
MW-27R	1113.88	1071.3	57.6	Groundwater Level (ft)	49.29	46.75	NA
				Groundwater Elevation (ft MSL)	1064.59	1067.13	
				Measured Well Depth (ft)	NM	NM	
				Submerged screen	N	N	
MW-28	1085.67	1072.7	32.8	Groundwater Level (ft)	Dry	Dry	10.8
				Groundwater Elevation (ft MSL)	NA	NA	
				Measured Well Depth (ft)	22.0	NM	
				Submerged screen	N	N	
MW-29	1087.33	1064.3	32.8	Groundwater Level (ft)	23.00	20.90	-0.3
				Groundwater Elevation (ft MSL)	1064.33	1066.43	
				Measured Well Depth (ft)	33.1	33.1	
				Submerged screen	Y	Y	
MW-16	1129.90	1111.9	28.5	Groundwater Level (ft)	Dry	Dry	0.3
				Groundwater Elevation (ft MSL)	NA	NA	
				Measured Well Depth (ft)	28.6	28.2	
				Submerged screen	N	N	

Notes:

NM - Not Measured.

NA - Not Available; monitoring point was not measured.

Comments:

1) Monitoring wells with submersible pumps are only required to be measured once every 5 years. All monitoring wells with submersible pumps installed were measured during the 2022 reporting period and are required to be measured next during the 2027 reporting period.

2) Measured well depths were within 1.0 foot of the installed depth with the following exceptions:

MW-8R: Monitoring well MW-8R measured 6.7 feet shallower than the installed depth during the spring 2025 semi-annual sampling events. This measurement appears anomalous, as the well depth was verified during the fall sampling to be within 0.1 foot of the installed depth.

MW-28: The measured total depth of MW 28 decreased by approximately 10 feet in 2023 and has remained consistent since.

Well		Date of Measurements	
		5/5/2025	11/19/2025
MW-28	Bottom of waste (feet MSL)	1074.51	
	Groundwater Elevation (feet MSL)	< 1052.87 (Dry)	< 1052.87 (Dry)
	Separation distance compliant?	Yes	Yes

Table 5
Background and GWPS Summary Tables
2025 Annual Water Quality Report
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Interwell Background/GWPS (MW-14 and MW-17)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	27	5	0.0004*	0.002695	0.00086126	0.002695	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	27	3	0.0008*	0.00188	0.00102281	0.00188	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	27	27	0.158	0.3	0.25890741	0.3324	PL (P)	2.0	MCL
Beryllium (Be)	mg/L	27	3	0.000082*	0.0005 (1/2 RL)	0.00046074	0.0005	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	27	6	0.000038*	0.000506	0.00012694	0.000506	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	27	6	0.00111*	0.0025 (1/2 RL)	0.00232259	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	27	8	0.000187*	0.000915	0.00032715	0.000915	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	27	3	0.00162*	0.00432	0.00252593	0.00432	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	27	10	0.00025 (1/2 RL)	0.00144	0.00050530	0.00144	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	27	3	0.000861*	0.0025 (1/2 RL)	0.00239189	0.0025	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	27	4	0.001125*	0.0025 (1/2 RL)	0.00227056	0.0025	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	27	1	0.000158*	0.0005 (1/2 RL)	0.00047807	0.0005	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	27	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00051852	< 0.002	DQR	0.002	MCL
Vanadium (V)	mg/L	27	9	0.0022*	0.00531	0.00298833	0.00531	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	27	3	0.005 (1/2 RL)	0.0247	0.01020963	0.0247	PL (NP)	2.0	SWS

Intrawell Background/GWPS (SW-4)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	1	0.001 (1/2 RL)	0.00379	0.00209875	0.00379	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	8	6	0.001 (1/2 RL)	0.0788	0.01301875	0.2613	PL (P)	0.2613	SSGWPS
Barium (Ba)	mg/L	8	8	0.238	1.97	0.73300000	3.937	PL (P)	3.9	SSGWPS
Beryllium (Be)	mg/L	8	2	0.0005 (1/2 RL)	0.00612	0.00133625	0.00612	PL (NP)	0.00612	SSGWPS
Cadmium (Cd)	mg/L	8	4	0.00005 (1/2 RL)	0.00556	0.00098425	0.01194	PL (P)	0.01194	SSGWPS
Chromium (Cr)	mg/L	8	1	0.0025 (1/2 RL)	0.0302	0.00877500	0.0302	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	6	6	0.000698	0.016	0.00593517	0.07646	PL (P)	0.07646	SSGWPS
Copper (Cu)	mg/L	8	4	0.0025 (1/2 RL)	0.0728	0.01834500	0.1306	PL (P)	1.3	MCL
Lead (Pb)	mg/L	8	6	0.00025 (1/2 RL)	0.109	0.02155213	0.2195	PL (P)	0.2195	SSGWPS
Nickel (Ni)	mg/L	8	6	0.00643	0.2	0.04528375	0.3627	PL (P)	0.3627	SSGWPS
Selenium (Se)	mg/L	8	1	0.0025 (1/2 RL)	0.012	0.00368750	0.012	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.01 (1/2 RL)	0.00406250	< 0.02	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00068750	< 0.002	DQR	0.002	MCL
Vanadium (V)	mg/L	8	1	0.0025 (1/2 RL)	0.0361	0.01513750	0.0361	PL (NP)	0.0361	SSGWPS
Zinc (Zn)	mg/L	8	8	0.0215	0.524	0.16408750	0.8013	PL (P)	2.0	SWS

Notes:

1) Background levels based on calculated prediction limits or reporting limit, as applicable.
2) * - J-flag detection.

Acronyms/Abbreviations:

RL = Reporting Limit
PL = Prediction Limit
GWPS = Groundwater Protection Standard (mg/L)
MCL = EPA Maximum Contaminant Level
DQR = Double Quantification Rule
NP = Non-Parametric
SSS = Site-Specific GWPS
P = Parametric
SWS = Statewide Standard

Comments:

1) **Water quality results and effectiveness of the statistical data evaluation criteria:** Statistical evaluations consist of prediction limits, double quantification rule, and confidence intervals/confidence bands, as appropriate. Data from the background wells is not used for development of the confidence intervals or confidence bands.
2) **Changes to the previous statistical method during reporting period:** There were no changes to the statistical method during the 2025 reporting period.
3) **Re-sampling strategy:** Retesting is performed on a 1-of-2 scheme.
4) **Justification for data exclusion:** Due to the effect of elevated TSS on inorganic concentrations, data obtained prior to the implementation of low-flow sampling (low-flow sampling began with the 2nd 2015 semi-annual sampling event) was removed from statistical consideration.

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
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Well	Constituent	Units	Most Recent Result	Background Standard
MW-7	Barium	mg/L	0.405	0.3324
MW-8R	Zinc	mg/L	0.027	0.0247
MW-11R	Chlorobenzene	µg/L	1.87	< 1
MW-26R	Chromium	mg/L	0.00708	0.0025

Notes:

1) Criteria for inclusion in this table is a well/constituent pair with a statistically significant increase above background (SSI) during this current reporting period and no SSI in the immediately preceding reporting period or the nearest preceding reporting period in which samples were collected.
2) A single exceedance in an assessment/corrective action monitoring well is recorded above as an SSI. Retesting is not performed as these wells are not in the detection monitoring program.
3) A single detection of a VOC in the most recent reporting period, and not in the immediately preceding reporting period, is recorded above as an SSI.

Comments:

1) **Problems with the current detection network:** Monitoring point SW-4 monitors the lagoon underdrain at the site, therefore the background value for groundwater is not applicable for the SW-4 monitoring point. Samples were unable to be obtained from monitoring wells MW-16, MW-17, MW-25, and MW-28 due to insufficient water.
2) **Schedule to implement remedies:** None.
3) **Alternative constituent or sample frequency changes:** None.
4) **Significant changes to calculated prediction limits:** None.
5) **Resampling strategy:** Retesting is performed on a 1-of-2 retesting scheme.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-7	Barium	mg/L	0.405	0.3324	0.2999	2	5/5/2025	NM	10/24/2017
	cis-1,2-Dichloroethene	µg/L	7.16	< 1	5.201	70	9/27/2016	NM	12/30/2009
MW-8R	Barium	mg/L	0.39	0.3324	0.3774	2	4/27/2023	NM	10/24/2017
	Nickel	mg/L	0.00674	0.0025	0.004701	0.1	4/27/2023	NM	10/24/2017
	Zinc	mg/L	0.027	0.0247	0.01	2	11/19/2025	NM	10/24/2017
	cis-1,2-Dichloroethene	µg/L	5.74	< 1	4.807	70	4/28/2009	NM	12/30/2009
MW-10R	Barium	mg/L	0.534	0.3324	0.5108	2	4/27/2023	NM	9/18/2018
	1,1-Dichloroethane	µg/L	1.87	< 1	1.349	140	4/23/2012	NM	12/30/2009
	cis-1,2-Dichloroethene	µg/L	9.51	< 1	8.792	70	1/23/2013	NM	12/30/2009
MW-11R	Arsenic	mg/L	0.0615	0.00188	0.001	0.01	9/13/2023	NM	9/18/2018
	Barium	mg/L	0.428	0.3324	0.5088	2	4/27/2023	NM	9/18/2018
	Cobalt	mg/L	0.0406	0.000915	0.0406	0.0021	6/18/2024	NM	9/18/2018
	Lead	mg/L	0.00167	0.00144	0.00025	0.015	11/12/2024	NM	9/18/2018
	Nickel	mg/L	0.057	0.0025	0.00008613	0.1	6/18/2024	NM	9/18/2018
	Vanadium	mg/L	0.00729	0.00531	0.0025	0.035	11/12/2024	NM	10/24/2017
	1,4-Dichlorobenzene	µg/L	1.26	< 1	0.8404	75	10/24/2017	NM	12/30/2009
	Benzene	µg/L	1.86	< 0.5	0.6431	5	7/8/2009	NM	12/30/2009
	Chlorobenzene	µg/L	1.87	< 1	0.5	100	11/19/2025	NM	12/30/2009
	cis-1,2-Dichloroethene	µg/L	1.94	< 1	1.219	70	12/30/2009	NM	12/30/2009
MW-25	None								
MW-26R	Arsenic	mg/L	0.0245	0.00188	0.0245	0.01	4/27/2023	NM	3/8/2022
	Barium	mg/L	0.968	0.3324	0.6495	2	4/27/2023	NM	3/8/2022
	Chromium	mg/L	0.00708	0.0025	0.0025	0.1	11/19/2025	NM	3/8/2022
	Cobalt	mg/L	0.00361	0.000915	0.004521	0.0021	4/27/2023	NM	3/8/2022
	Copper	mg/L	0.00573	0.00432	0.0025	1.3	11/12/2024	NM	3/8/2022
	Lead	mg/L	0.00223	0.00144	0.00025	0.015	4/27/2023	NM	3/8/2022
	Nickel	mg/L	0.0249	0.0025	TS	0.1	4/27/2023	NM	3/8/2022
	cis-1,2-Dichloroethene	µg/L	16	< 1	9.52	70	10/27/2020	5/10/2021	3/8/2022
MW-27R	Barium	mg/L	0.75	0.3324	0.1	2	9/13/2023	NM	10/27/2020
	Cobalt	mg/L	0.00547	0.000915	0.005159	0.0021	9/13/2023	10/27/2020	10/27/2020
	Nickel	mg/L	0.0207	0.0025	0.01001	0.1	9/13/2023	10/27/2020	10/27/2020
	1,1-Dichloroethane	µg/L	3.25	< 1	TS	140	10/27/2020	NM	10/27/2020
	Chlorobenzene	µg/L	2.35	< 1	0.8874	100	5/10/2021	NM	10/27/2020
	cis-1,2-Dichloroethene	µg/L	28.9	< 1	14.64	70	5/10/2021	NM	10/27/2020
	Trichloroethene	µg/L	3.41	< 1	TS	5	5/10/2021	NM	10/27/2020
MW-28	None								
MW-29	None								
GU-1	None								
SW-4	None								
MW-16	None								
GU-C1	None								

Notes:

1) A single exceedance in an assessment/corrective action monitoring well is recorded above as an SSI. Retesting is not performed as the monitoring well is not in the detection monitoring program.
2) Ongoing SSI is defined as one or more SSIs for a monitoring well/constituent pair in both the previous and current reporting periods.
3) Shaded rows denote constituent/well pairs with SSIs indicated in 2025 but not in 2024. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2024 and 2025 reporting periods.

NM - Not Measured; Resampling of constituents with indicated statistically significant increases (SSIs) above background was not part of the statistical methodology performed based on current monitoring program as the monitoring well was in either the assessment or corrective action monitoring programs.

TS - Theil Sen; Due to a statistically significant trend, Theil Sen analysis was performed in lieu of Confidence Interval analysis. Therefore, a lower confidence limit is unavailable.

Comments:

1) **Problems with the current assessment network:** Monitoring wells MW-16, MW-17, MW-25, and MW-28 are consistently/frequently dry.
2) **Proposed remedies:** Review the efficacy of the monitoring wells at their installed depths and possibly replace the wells. Remove MW-25 from the HMSP.
3) **Alternative constituent or sample frequency changes:** None.
4) **Plume delineation strategies:** See Section 6 of this report.
5) **Property owner notifications:** Off-site access for plume delineation denied by adjacent property owner (See Doc #96653).

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS					
							1st Year		2nd Year		3rd Year	
MW-8R	Arsenic	mg/L	< 0.002	N/A	0.01	2018*	11/24	5/25	11/25	NA	NA	NA
	Cobalt	mg/L	< 0.0005	0.000829	0.0021	2018*	6/24	11/24	5/25	11/25	NA	NA
MW-11R	Cobalt	mg/L	0.0406	0.0406	0.0021	2018*	NA	NA	NA	NA	NA	NA
	Vinyl Chloride	µg/L	< 1.00	1.43	2	2013	6/24	11/24	5/25	11/25	NA	NA
MW-26R	Arsenic	mg/L	0.0245	0.572	0.01	2022	NA	NA	NA	NA	NA	NA
	Cobalt	mg/L	0.00361	0.007229	0.0021	2022	NA	NA	NA	NA	NA	NA
MW-27R	Cobalt	mg/L	0.00547	0.01331	0.0021	2023	NA	NA	NA	NA	NA	NA
MW-28	Cobalt	mg/L	0.0048	0.009771	0.0021	2019	NA	NA	NA	NA	NA	NA

Notes:

NA - Indicates that the constituent-monitoring point dataset has not satisfied the statistical requirements of IAC 567-113.10(9)"e"(2), which is identified by the entire confidence interval or any portion of the upper confidence band, as appropriate, being below the GWPS.

N/A - Not available, due to the previous eight sampling events being non-detects, an upper confidence limit could not be calculated.

* - Inorganic data obtained prior to the implementation of low-flow sampling was removed from statistical consideration. Therefore, the initial exceedance is considered the 2nd 2018 semi-annual sampling event although the SSL measurement precedes 2018.

Table 9
Reporting Period Summary of Groundwater Chemistry
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

The Reporting Period Summary of Groundwater Chemistry is located in Appendix C.

Analytical data prior to 2025 is available in the 2024 Annual Water Quality Report dated January 30, 2025 (Doc #112123).

Table 10
Historical SSI and SSL
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Key
SSI
SSL

Well	Constituent	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023*	Fall 2023*	Spring 2024	Fall 2024	Spring 2025	Fall 2025
MW-7	Barium												
	Benzene												
	cis-1,2-Dichloroethene												
MW-8R	Arsenic												
	Barium												
	Cobalt												
	Copper												
	Mercury												
	Nickel												
	Vanadium												
	Zinc												
	cis-1,2-Dichloroethene												
MW-10R	Barium												
	1,1-Dichloroethane												
	cis-1,2-Dichloroethene												
MW-11R	Arsenic												
	Barium												
	Cobalt												
	Lead												
	Nickel												
	Vanadium												
	Zinc												
	1,4-Dichlorobenzene												
	Benzene												
	Chlorobenzene												
	cis-1,2-Dichloroethene												
	Vinyl Chloride												
MW-25	Barium				NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-26R	Arsenic	NS	NA									NS	
	Barium											NS	
	Cadmium											NS	
	Chromium											NS	
	Cobalt	NS	NA									NS	
	Copper											NS	
	Lead											NS	
	Nickel											NS	
	Thallium											NS	
	Vanadium											NS	
	Zinc											NS	
	1,1-Dichloroethane											NS	
	Benzene											NS	
	cis-1,2-Dichloroethene											NS	
MW-27R	Arsenic	NS			NS	NS	NS	NI			NS	NS	
	Barium	NS			NS	NS	NS	NI			NS	NS	
	Cobalt	NS			NS	NS	NS	NI			NS	NS	
	Lead	NS			NS	NS	NS	NI			NS	NS	
	Nickel	NS			NS	NS	NS	NI			NS	NS	
	1,1-Dichloroethane	NS			NS	NS	NS	NI			NS	NS	
	1,2-Dichloropropane	NS			NS	NS	NS				NS	NS	
	Acetone	NS			NS	NS	NS				NS	NS	
	Carbon Disulfide	NS			NS	NS	NS	NI			NS	NS	
	Chlorobenzene	NS			NS	NS	NS	NI			NS	NS	
	cis-1,2-Dichloroethene	NS			NS	NS	NS	NI			NS	NS	
	Trichloroethene	NS			NS	NS	NS	NI			NS	NS	
MW-28	Cobalt							NS	NS	NS	NS	NS	NS
MW-29	Barium**												

Notes:

1) Inorganic data obtained prior to the implementation of low-flow sampling was removed from the background dataset beginning with the 2021 reporting period due to the effect that high TSS concentrations could have had on concentrations of inorganics. Therefore, SSIs and/or SSLs measured prior to the 1st 2021 semi-annual statistical evaluation are no longer considered.
2) Retesting is not performed in assessment and corrective action monitoring wells as these monitoring wells are not in the detection monitoring program. Therefore, indicated SSIs included in the table above are not confirmed.

* - For the 2022 reporting period and earlier, only initial confirmed SSIs were recorded on this table for inorganic compounds. Beginning in the 2023 reporting period, indicated inorganic SSIs are included in this table.

** - As noted and approved in the 2020 AWQR (Doc #99637) barium concentrations around monitoring well MW-29 are likely the result of natural variation in the groundwater rather than a release from the landfill. Therefore, barium is not considered a confirmed SSI at this monitoring point.

NS - Not Sampled during sampling event due to insufficient water, a dry well, or pump failure; therefore, statistical analyses were not performed.

NI - As noted in the 2023 SSN (Doc #107762), the total suspended solids concentration in monitoring well MW-27R was 504 mg/L during the April 2023 sampling event. Therefore, the inorganic data from monitoring well MW-27R during the April 2023 sampling event was considered not representative and not included in the statistical analysis.

Table 11
Corrective Action Trend Analysis
2025 Annual Water Quality Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

Well	Current SSL	Trend	Calculated S	Critical S	Total N	Projected Date to Completion*
MW-8R	Arsenic	N/A	N/A	N/A	8	2027**
	Cobalt	Increasing	1	21	8	2026**
MW-11R	Cobalt	Increasing	16	21	8	NA
	Vinyl Chloride	Decreasing	-8	-21	8	2026**
MW-26R	Arsenic	Decreasing	-8	-21	8	2032[(2)]
	Cobalt	Decreasing	-10	-21	8	2089[(2)]
MW-27R	Cobalt	Decreasing	-8	-21	8	2033[(2)]
MW-28	Cobalt	Decreasing	-4	-21	8	2036[(1)]

Notes:

N - Number of Samples

S - Mann-Kendall Statistic

NA - Projected date to completion unable to be calculated due to the increasing slope.

N/A- Not Applicable, trend test unable to be calculated due to non-detects during the previous eight sampling events.

* - To satisfy IAC 113.10(9)"e"; Projected Date to Completion was based on utilizing the Sen's slope calculation to determine when the concentration would be below the GWPS for eight sampling events and remain there for three consecutive years.

**- Slope was zero, therefore the confidence interval fell below the GWPS and the completion date is the confidence interval below the GWPS for three consecutive years.

(1)- Samples were unable to be obtained; therefore, the projected date to completion is from the previous reporting period.

(2)- Samples were obtained across the 2024 and 2025 reporting periods, due to dry sampling events.

Comments:

1) An Assessment of Corrective Measures report was submitted on December 20, 2019 (Doc #96653) and approved in permit correspondence dated June 29, 2020 (Doc #97988). The Selection of Remedy and Corrective Action Groundwater Monitoring Plan was submitted October 30, 2020 (Doc #98833) and approved in the Permit Renewal Documentation dated December 10, 2020 (Doc #99104).

Figures

1 Approved Monitoring Network
2 Groundwater Contours

Path: C:\Users\bmadson\OneDrive - SCS Engineers\Desktop\GIS\Mans\Iowa Office\Site Mans\LWLHS\2023 AWOR\LoessHills-2023-AWOR_v2.aprx
User: bmadson
Date Saved: 1/29/2026 12:15 PM



HMSP Point	Current Monitoring Program
MW-14	Background
MW-17	Background
MW-7	Assessment
MW-8R	Corrective Action
MW-10R	Assessment
MW-11R	Corrective Action
MW-25	Assessment
MW-26R	Corrective Action
MW-27R	Assessment
MW-28	Corrective Action
MW-29	Detection
GU-1	Treated with Leachate
SW-4	Detection
MW-16	Detection
GU-C1	Detection

SCS ENGINEERS
environmental consultants and contractors

Approved Monitoring Network

Legend

- HMSP Groundwater Underdrain
- HMSP Monitoring Point
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Piezometer
- Located Waste Boundary
- Approximate Waste Boundary
- Future Waste Boundary
- Approximate Property Boundary

Loess Hills Regional Sanitary Landfill
Malvern, Iowa
Project No: 27225095.01
Drawing Date: January 2026

N W E S

0 170 340 680 1,020 Feet

Figure 1

Source: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

Path: C:\Users\bmadson\OneDrive - SCS Engineers\Desktop\GIS\Mans\Iowa Office\Site Mans\WLHS\2023 AWOR\LoessHills-2023-AWOR_v2.aprx
User: bmadson
Date Saved: 1/29/2026 12:15 PM

MW-14
1121.10
MW-19
MW-15
1085.23
MW-20
1133.74
MW-18
1130
1120
1110
GU-C1
LPZ-1
MW-17
MW-16
1100
1090
MW-7
1092.75
MW-25
MW-3
MW-2
1072.02
1071.81
MW-8
MW-8R
1088.58
MW-26R
1086.30
MW-9R
MW-10R
1071.66
1070
MW-27R
1067.13
1080
MW-21
MW-28
GWPZ-E
Cell D East
GU-1
SW-4
MW-31
1060.81
MW-50
MW-29
1066.43
LPZ-7
LW-6
MW-11
MW-11R
1067.19

Groundwater Contours

Legend

- Approximate Groundwater Contour Based on Field Measurments Take November 19, 2025
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Piezometer
- Future Waste Boundary
- Located Waste Boundary
- Approximate Waste Boundary
- Approximate Property Boundary

Loess Hills Regional Sanitary Landfill
Malvern, Iowa
Project No: 27225095.01
Drawing Date: January 2026

Figure 2

N W E S

0 170 340 680 1,020 Feet

SCS ENGINEERS
environmental consultants and contractors

Source: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**IWLHS**		
Monitoring Well/Piezometer ID:	**MW-7**	Date:	**5/6/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	38.7
Initial Static Water Level (feet):	24.50
Initial Groundwater Elevation (ft-amsl):	1092.10
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:46 AM	Purging start time.						
11:49 AM	15.3	0.8	1932.5	6.26	146.2	4.7	
11:52 AM	15.3	0.4	1936.9	6.28	145.6	4.0	
11:55 AM	15.3	0.2	1939.5	6.29	143.8	4.0	
11:58 AM	15.8	0.2	1936.9	6.30	141.9	3.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes	
If yes, explain:	Well label required.	

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-8R**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	31.0
Initial Static Water Level (feet):	25.82
Initial Groundwater Elevation (ft-amsl):	1087.86
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:11 PM	Purging start time.						
2:14 PM	18.1	1.0	1658.9	6.23	174.1	25.0	
2:17 PM	18.1	0.7	1674.2	6.26	170.3	26.5	
2:20 PM	17.2	0.5	1648.6	6.29	161.5	25.4	
2:23 PM	17.1	0.4	1660.5	6.31	153.5	23.1	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	241.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Cloudy, Translucent Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-10R**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	55.99
Initial Groundwater Elevation (ft-amsl):	1071.22
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:25 AM	Purging start time.						
10:28 AM	14.8	0.9	1264.3	6.45	143.3	12.3	
10:31 AM	15.0	0.7	1262.8	6.45	127.1	10.5	
10:34 AM	15.7	0.6	1264.0	6.45	116.5	9.3	
10:37 AM	15.7	0.6	1262.3	6.45	106.3	8.7	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear - slight brown tint Odor: None Duplicate sample collected.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-11R**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	34.01
Initial Groundwater Elevation (ft-amsl):	1065.39
Equipment Used:	Non-dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:18 PM	Purging start time.						
3:21 PM	18.5	0.7	2034.7	6.10	-39.2	313.3	
3:24 PM	19.2	0.9	2010.2	6.12	-45.3	301.3	
3:27 PM	15.4	1.0	2033.5	6.14	-47.5	335.0	
3:30 PM	16.1	2.1	2014.6	6.17	-47.9	332.0	
3:33 PM	16.1	2.5	2009.5	6.18	-47.6	311.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	180.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes	
If yes, explain:	New submersible pump needed	

Additional Comments:	Color: Cloudy, tan Odor: Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.6
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:	Brush cleared, can back gator all the way to well. Be cautious of small stumps from brush, may pose tripping hazard.	

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-17**	Date:	**5/6/2025**
Gradient:	Up	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	No water above the top of the pump at 28.89 ft.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-25**	Date:	**5/6/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	22.6
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-26R**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	No water above the top of the pump at 43.98 ft.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-27R**	Date:	**5/6/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	49.29
Initial Groundwater Elevation (ft-amsl):	1063.88
Equipment Used:	Non-dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.2
Was well pumped/bailed dry?	Yes
Total Amount of Time Purged (minutes:seconds):	9:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well ran dry while stabilizing. Color: Gray Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-28**	Date:	**5/5/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	22.0
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-29**	Date:	**5/6/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	33.1
Initial Static Water Level (feet):	23.00
Initial Groundwater Elevation (ft-amsl):	1064.33
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:33 AM	Purging start time.						
9:36 AM	14.6	3.1	1152.7	6.63	118.2	52.6	
9:39 AM	14.4	2.5	1138.8	6.57	127.9	34.8	
9:42 AM	14.4	2.4	1137.6	6.56	132.3	30.0	
9:45 AM	14.4	2.4	1135.4	6.56	134.3	28.2	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Cloudy, clearish, reddish Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-31**	Date:	**5/5/2025**
Gradient:	Supp	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.6
Initial Static Water Level (feet):	16.58
Initial Groundwater Elevation (ft-amsl):	1060.02
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
5:46 PM	Purging start time.						
5:49 PM	15.1	0.3	1345.6	6.72	-122.4	57.1	
5:52 PM	14.7	0.2	1341.8	6.72	-126.4	49.1	
5:55 PM	14.2	0.1	1337.0	6.72	-128.3	43.7	
5:58 PM	14.3	0.1	1334.2	6.72	-129.6	49.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear with orange-brown tint Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**5/20/2025**
Gradient:	Up	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	83.2
Initial Static Water Level (feet):	57.21
Initial Groundwater Elevation (ft-amsl):	1120.60
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
8:01 PM	Purging start time.						
8:04 PM	11.6	1.4	712.7	7.29	247.2	163.3	
8:07 PM	11.7	3.1	712.0	7.24	252.0	127.0	
8:10 PM	12.3	1.6	711.3	7.18	254.2	82.3	
8:13 PM	13.0	2.4	712.2	7.17	255.5	48.2	
8:16 PM	13.1	4.4	712.5	7.19	257.6	35.9	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	146.67

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill
Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: GU-1
Date: 5-6-25
Name of Person Sampling: GTH

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	
Drainage Ditch		Other	X

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	X

C. MONITORING POINT CONDITIONS/LOCATION

Groundwater underdrain southeast of Cell F east.

Was monitoring point dry?	no	Too little water to sample?	
Was water flowing?	yes a pump	If yes, estimate quantity (cfs)	
Standing Water?	no	If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?	yes		
Does water have odor?	~~no~~ yes		
Was ground discolored?	yes		
Litter present?	yes		

D. FIELD MEASUREMENTS

Weather Conditions: 75° & Sunny
Time: 16:34
Field Measurements:

Temperature	19.8°C	Units	Celsius
Equipment Used			
pH	6.89	Units	Standard units
Equipment Used			
Spec.Conductance	1074	Units	uS/cm
Equipment Used			

COMMENTS: Extremely dirty

IDNR Form 542-1324

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill
Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: SW-4
Date: 5-6-25
Name of Person Sampling: GTH

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	
Drainage Ditch		Other	X

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	X

C. MONITORING POINT CONDITIONS/LOCATION

Lagoon underdrain outlet.

Was monitoring point dry?		Too little water to sample?	
Was water flowing?		If yes, estimate quantity (cfs)	
Standing Water?		If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?			
Does water have odor?			
Was ground discolored?			
Litter present?			

D. FIELD MEASUREMENTS

Weather Conditions:

Time:

Field Measurements:

Temperature		Units	Celsius
Equipment Used			
pH		Units	Standard units
Equipment Used			
Spec.Conductance		Units	uS/cm
Equipment Used			

COMMENTS: Did not Sample, Panel Latches in Poor Condition, Panel Covered in Poison ivy growth, Poison ivy growing inside panel near window sensor we or Site will need to spray

IDNR Form 542-1324

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill — Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: SW-4 — Date: 5/20/2025
Name of Person Sampling: Garrett Hovis

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	
Drainage Ditch		Other	x

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	x

C. MONITORING POINT CONDITIONS/LOCATION

Lagoon underdrain outlet

Was monitoring point dry?	NO	Too little water to sample?	
Was water flowing?	yes	If yes, estimate quantity (cfs)	Water flowed w somewhat high pressure from pump/hose
Standing Water?		If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?	tan/beige		
Does water have odor?	Leachate/garbage		
Was ground discolored?	NO		
Litter present?	NO		

D. FIELD MEASUREMENTS

Weather Conditions: Partly Cloudy 65°F
Time: 7:30 pm
Field Measurements:

Temperature	12.3	Units	Celsius
Equipment Used	Pro-DSS		
pH	7.26	Units	Standard units
Equipment Used			
Spec.Conductance	740	Units	uS/cm
Equipment Used			

COMMENTS: none

IDNR Form 542-1324

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-7**	Date:	**11/19/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	37.8
Initial Static Water Level (feet):	23.85
Initial Groundwater Elevation (ft-amsl):	1092.75
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:55 PM	Purging start time.						
3:58 PM	12.8	1.9	1550.3	6.50	151.3	4.2	
4:01 PM	12.6	1.5	1524.1	6.46	163.1	3.6	
4:04 PM	12.4	1.4	1517.4	6.45	171.3	3.2	
4:07 PM	12.2	1.3	1512.5	6.44	177.6	2.9	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-8R**	Date:	**11/21/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	37.9
Initial Static Water Level (feet):	25.10
Initial Groundwater Elevation (ft-amsl):	1088.58
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:36 PM	Purging start time.						
12:39 PM	12.4	1.6	1286.0	6.70	17.2	27.8	
12:42 PM	12.9	0.8	1298.4	6.58	15.9	22.6	
12:45 PM	13.3	0.6	1304.6	6.55	17.0	22.3	
12:48 PM	13.2	0.7	1308.4	6.54	19.0	25.5	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-10R**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	64.1
Initial Static Water Level (feet):	55.55
Initial Groundwater Elevation (ft-amsl):	1071.66
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:26 PM	Purging start time.						
1:29 PM	13.2	1.5	1570.9	6.23	142.3	99.1	
1:32 PM	13.5	0.8	1598.5	6.16	126.3	100.7	
1:35 PM	13.7	0.6	1614.4	6.14	110.3	121.0	
1:38 PM	13.8	0.5	1623.6	6.13	96.4	121.3	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.4
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	200.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Tan Odor: None Duplicate sample collected.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-11R**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	48.6
Initial Static Water Level (feet):	31.40
Initial Groundwater Elevation (ft-amsl):	1068.00
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:26 PM	Purging start time.						
1:29 PM	12.8	0.9	1018.2	6.73	184.4	12.2	
1:32 PM	13.1	0.6	1023.4	6.67	181.5	7.0	
1:35 PM	13.3	0.5	1026.9	6.64	178.2	6.9	
1:38 PM	13.4	0.4	1025.4	6.63	174.9	6.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Tan Odor: Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**11/20/2025**
Gradient:	Up	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	56.71
Initial Groundwater Elevation (ft-amsl):	1121.10
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:14 AM	Purging start time.						
9:17 AM	11.4	2.3	622.9	7.60	145.9	1204.5	
9:20 AM	11.6	2.0	621.8	7.38	159.6	801.8	
9:23 AM	11.7	2.2	617.4	7.30	168.2	534.6	
9:26 AM	12.1	2.8	615.8	7.26	174.8	349.6	
9:29 AM	12.3	3.3	613.9	7.23	180.2	238.5	
9:32 AM	12.3	3.9	613.5	7.22	185.7	150.8	
9:35 AM	12.3	4.3	612.9	7.21	190.8	101.5	
9:38 AM	12.4	4.6	612.1	7.20	195.5	73.4	
9:41 AM	12.7	4.8	612.9	7.20	199.7	54.0	
9:44 AM	12.8	5.3	613.3	7.20	203.9	35.3	
9:47 AM	12.8	5.7	613.5	7.20	208.1	26.2	
9:50 AM	12.6	5.7	612.9	7.20	212.1	22.7	
9:53 AM	12.6	5.7	612.6	7.20	215.5	21.9	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	5.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	39:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.2
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-17**	Date:	**11/20/2025**
Gradient:	Up	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	33.4
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-25**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	22.7
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	Yes	
If yes, explain:	Lock needed.	

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-26R**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	47.3
Initial Static Water Level (feet):	39.28
Initial Groundwater Elevation (ft-amsl):	1085.97
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:45 AM	Purging start time.						
11:48 AM	13.2	1.3	1228.0	6.49	273.6	652.8	
11:51 AM	13.3	1.0	1241.1	6.47	264.1	523.9	
11:54 AM	13.3	0.9	1247.7	6.46	248.2	413.8	
11:57 AM	13.6	0.7	1252.1	6.45	228.3	298.3	
12:00 PM	13.6	0.6	1260.2	6.44	204.8	217.4	
12:03 PM	14.2	0.6	1266.0	6.43	180.1	156.2	
12:06 PM	13.2	0.6	1268.1	6.44	157.8	118.4	
12:09 PM	12.8	8.6	15.4	6.83	141.7	9.1	
12:12 PM	14.6	1.2	1271.5	6.46	135.5	121.9	
12:15 PM	14.4	0.8	1281.3	6.43	118.6	88.6	
12:18 PM	14.5	0.7	1281.0	6.42	106.4	61.9	
12:21 PM	14.2	9.0	12.3	6.93	113.2	9.1	
12:24 PM	14.9	1.2	1289.0	6.47	110.1	41.1	
12:27 PM	14.8	0.8	1289.3	6.44	99.5	34.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	6.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	42:00
Average Purge Rate (mL/min):	142.86

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-27R**	Date:	**11/21/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	46.75
Initial Groundwater Elevation (ft-amsl):	1066.42
Equipment Used:	Dedicated Bailer

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:39 AM	Purging start time.						
9:42 AM	12.2	1.4	1339.2	6.51	195.6	175.1	
9:45 AM	11.2	0.7	1345.4	6.42	194.4	173.8	
9:48 AM	11.2	0.6	1344.6	6.40	184.8	141.4	
9:51 AM	11.1	0.5	1350.2	6.39	173.2	92.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-28**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

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

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	NA
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry, no sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-29**	Date:	**11/20/2025**
Gradient:	Down	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	33.1
Initial Static Water Level (feet):	20.90
Initial Groundwater Elevation (ft-amsl):	1066.43
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:20 PM	Purging start time.						
3:23 PM	10.2	4.4	945.6	6.91	245.8	40.1	
3:26 PM	11.3	3.2	922.6	6.82	246.8	14.4	
3:29 PM	11.8	2.5	931.9	6.77	246.9	5.8	
3:32 PM	11.9	2.4	931.4	6.74	246.9	4.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Loess Hills Regional Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-31**	Date:	**11/21/2025**
Gradient:	Supp	Sampler:	Garrett Horak

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.6
Initial Static Water Level (feet):	15.79
Initial Groundwater Elevation (ft-amsl):	1060.81
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:48 AM	Purging start time.						
10:51 AM	11.3	1.8	1141.9	6.70	83.3	11.4	
10:54 AM	11.6	0.8	1119.4	6.74	-25.1	4.2	
10:57 AM	11.6	0.5	1115.1	6.77	-60.7	3.9	
11:00 AM	11.7	0.4	1108.6	6.78	-79.2	4.0	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color: Clear Odor: None

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill
Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: GU-1
Date:

Name of Person Sampling: Garrett Horak

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	
Drainage Ditch		Other	X

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	X

C. MONITORING POINT CONDITIONS/LOCATION

Groundwater underdrain southeast of Cell F east.

Was monitoring point dry?	no	Too little water to sample?	no
Was water flowing?	yes	If yes, estimate quantity (cfs)	
Standing Water?	—	If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?	Initially		
Does water have odor?	no		
Was ground discolored?	no		
Litter present?	—		

D. FIELD MEASUREMENTS

Weather Conditions: 40°F Cloudy, windy

Time: 1600

Field Measurements:

Temperature	14.2°C	Units	Celsius
Equipment Used	YSI ProDSS		
pH	7.19	Units	Standard units
Equipment Used			
Spec.Conductance	701	Units	uS/cm
Equipment Used			

COMMENTS

IDNR Form 542-1324

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill
Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: GU-C1
Date:
Name of Person Sampling: Garrett Horak

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	X
Drainage Ditch		Other	X

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	X

C. MONITORING POINT CONDITIONS/LOCATION

Groundwater underdrain south of Cell H.

Was monitoring point dry?	NO	Too little water to sample?	—
Was water flowing?	—	If yes, estimate quantity (cfs)	
Standing Water?	—	If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?	NO		
Does water have odor?	NO		
Was ground discolored?	NO		
Litter present?	NO		

D. FIELD MEASUREMENTS

Weather Conditions: 45 °F Cloudy light rain, windy
Time: 1222
Field Measurements:

Temperature	13.9	Units	Celsius
Equipment Used	YSI Pro [illegible]		
pH	6.4	Units	Standardunits
Equipment Used			
Spec.Conductance	1250	Units	uS/cm
Equipment Used			

COMMENTS

IDNR Form 542-1324

FORM FOR SURFACE WATER SAMPLING

Site Name: Loess Hills Sanitary Landfill
Permit No.: 65-SDP-01-74P
Surface Monitoring Point No.: SW-4
Date:
Name of Person Sampling: Garrett Horaus

A. TYPE OF MOINITORING POINT

Stream		Open Tile	
Road Ditch		Tile with Riser	
Drainage Ditch		Other	X

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	
Within Landfill		Other	X

C. MONITORING POINT CONDITIONS/LOCATION

Lagoon underdrain outlet.

Was monitoring point dry?		Too little water to sample?	
Was water flowing?		If yes, estimate quantity (cfs)	
Standing Water?		If yes, estimate depth (inches)	
		If yes, estimate width (inches)	
Was water discolored?			
Does water have odor?			
Was ground discolored?			
Litter present?			

No Sample

D. FIELD MEASUREMENTS

Weather Conditions:
Time:
Field Measurements:

Temperature		Units	Celsius
Equipment Used			
pH		Units	Standard units
Equipment Used			
Spec.Conductance		Units	uS/cm
Equipment Used			

COMMENTS: Turned Pump on, tried Valve in Both positions to be Sure, Checked pipe #6 both times, no flow

IDNR Form 542-1324

Appendix B-1

Laboratory Analytical Data Sheets

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/14/2025 3:04:00 PM

JOB DESCRIPTION

1st 2025 Semi-Annual Sampling (HMSP)
Loess Hills Regional Landfill

JOB NUMBER

310-305674-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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

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Authorization



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Authorized for release by
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Job ID: 310-305674-1 Eurofins Cedar Falls

Job Narrative
310-305674-1

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

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

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

Receipt
The samples were received on 5/6/2025 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.6°C and 1.4°C.

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

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

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

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

Sample Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-305674-1	MW-8R	Ground Water	05/05/25 14:50	05/06/25 16:05
310-305674-2	MW-11R	Ground Water	05/05/25 15:54	05/06/25 16:05
310-305674-3	Trip Blank	Trip Blank	05/05/25 00:00	05/06/25 16:05
310-305674-4	MW-31	Groundwater	05/05/25 18:16	05/06/25 16:05

Detection Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Client Sample ID: MW-8R — Lab Sample ID: 310-305674-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.80		1.00		ug/L	1		8260D	Total/NA
Sulfate	73.4		1.00		mg/L	1		9056A	Total/NA
Barium	0.382		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.405		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00831		0.00500		mg/L	1		6020B	Total/NA
Total Suspended Solids	4.6		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-11R — Lab Sample ID: 310-305674-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.01		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.16		1.00		ug/L	1		8260D	Total/NA
Sulfate	106		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00731		0.00200		mg/L	1		6020B	Total/NA
Barium	0.708		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000221		0.000200		mg/L	1		6020B	Total/NA
Cobalt	0.00541		0.000500		mg/L	1		6020B	Total/NA
Iron	5.39		0.100		mg/L	1		6020B	Total/NA
Lead	0.00332		0.000500		mg/L	1		6020B	Total/NA
Manganese	2.39		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.0195		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.00925		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0203		0.0200		mg/L	1		6020B	Total/NA
Total Suspended Solids	384		30.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-305674-3

No Detections.

Client Sample ID: MW-31 — Lab Sample ID: 310-305674-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	41.8		0.100		mg/L	1		6020B	Total/NA
Manganese	8.47		0.0100		mg/L	1		6020B	Total/NA
Total Suspended Solids	45.0		15.0		mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-8R
Date Collected: 05/05/25 14:50
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-1
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/08/25 20:36	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/08/25 20:36	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/08/25 20:36	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 20:36	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/08/25 20:36	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 20:36	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/08/25 20:36	1
2-Hexanone	<10.0		10.0		ug/L			05/08/25 20:36	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/08/25 20:36	1
Acetone	<10.0		10.0		ug/L			05/08/25 20:36	1
Acrylonitrile	<5.00		5.00		ug/L			05/08/25 20:36	1
Benzene	<0.500		0.500		ug/L			05/08/25 20:36	1
Bromochloromethane	<5.00		5.00		ug/L			05/08/25 20:36	1
Bromodichloromethane	<1.00		1.00		ug/L			05/08/25 20:36	1
Bromoform	<5.00		5.00		ug/L			05/08/25 20:36	1
Bromomethane	<4.00		4.00		ug/L			05/08/25 20:36	1
Carbon disulfide	<1.00		1.00		ug/L			05/08/25 20:36	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/08/25 20:36	1
Chlorobenzene	<1.00		1.00		ug/L			05/08/25 20:36	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/08/25 20:36	1
Chloroethane	<4.00		4.00		ug/L			05/08/25 20:36	1
Chloroform	<3.00		3.00		ug/L			05/08/25 20:36	1
Chloromethane	<3.00		3.00		ug/L			05/08/25 20:36	1
cis-1,2-Dichloroethene	**7.80**		1.00		ug/L			05/08/25 20:36	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 20:36	1
Dibromomethane	<1.00		1.00		ug/L			05/08/25 20:36	1
Ethylbenzene	<1.00		1.00		ug/L			05/08/25 20:36	1
Iodomethane	<10.0		10.0		ug/L			05/08/25 20:36	1
Methylene Chloride	<5.00		5.00		ug/L			05/08/25 20:36	1
Styrene	<1.00		1.00		ug/L			05/08/25 20:36	1
Tetrachloroethene	<1.00		1.00		ug/L			05/08/25 20:36	1
Toluene	<1.00		1.00		ug/L			05/08/25 20:36	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 20:36	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 20:36	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/08/25 20:36	1
Trichloroethene	<1.00		1.00		ug/L			05/08/25 20:36	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/08/25 20:36	1
Vinyl acetate	<10.0		10.0		ug/L			05/08/25 20:36	1
Vinyl chloride	<1.00		1.00		ug/L			05/08/25 20:36	1
Xylenes, Total	<3.00		3.00		ug/L			05/08/25 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*109*		*76 - 130*		*05/08/25 20:36*	*1*

Client Sample ID: MW-8R
Date Collected: 05/05/25 14:50
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-1
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/08/25 20:36*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/08/25 20:36*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200		mg/L			05/07/25 10:02	1
Sulfate	**73.4**		1.00		mg/L			05/07/25 10:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/09/25 07:15	05/09/25 15:11	1
Arsenic	<0.00200		0.00200		mg/L		05/09/25 07:15	05/09/25 15:11	1
Barium	**0.382**		0.00200		mg/L		05/09/25 07:15	05/09/25 15:11	1
Beryllium	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 15:11	1
Cadmium	<0.000200		0.000200		mg/L		05/09/25 07:15	05/09/25 15:11	1
Chromium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Cobalt	<0.000500		0.000500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Copper	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Iron	<0.100		0.100		mg/L		05/09/25 07:15	05/09/25 15:11	1
Lead	<0.000500		0.000500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Manganese	**0.405**		0.0100		mg/L		05/09/25 07:15	05/09/25 15:11	1
Nickel	**0.00831**		0.00500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Selenium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Silver	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 15:11	1
Thallium	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 15:11	1
Vanadium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 15:11	1
Zinc	<0.0200		0.0200		mg/L		05/09/25 07:15	05/09/25 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			05/12/25 07:45	1
Total Suspended Solids (USGS I-3765-85)	**4.6**		1.9		mg/L			05/07/25 16:21	1

Client Sample ID: MW-11R

Date Collected: 05/05/25 15:54
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-2

Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/08/25 20:59	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/08/25 20:59	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/08/25 20:59	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 20:59	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/08/25 20:59	1
1,4-Dichlorobenzene	**1.01**		1.00		ug/L			05/08/25 20:59	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/08/25 20:59	1
2-Hexanone	<10.0		10.0		ug/L			05/08/25 20:59	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/08/25 20:59	1
Acetone	<10.0		10.0		ug/L			05/08/25 20:59	1
Acrylonitrile	<5.00		5.00		ug/L			05/08/25 20:59	1
Benzene	<0.500		0.500		ug/L			05/08/25 20:59	1
Bromochloromethane	<5.00		5.00		ug/L			05/08/25 20:59	1
Bromodichloromethane	<1.00		1.00		ug/L			05/08/25 20:59	1
Bromoform	<5.00		5.00		ug/L			05/08/25 20:59	1
Bromomethane	<4.00		4.00		ug/L			05/08/25 20:59	1
Carbon disulfide	<1.00		1.00		ug/L			05/08/25 20:59	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/08/25 20:59	1
Chlorobenzene	<1.00		1.00		ug/L			05/08/25 20:59	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/08/25 20:59	1
Chloroethane	<4.00		4.00		ug/L			05/08/25 20:59	1
Chloroform	<3.00		3.00		ug/L			05/08/25 20:59	1
Chloromethane	<3.00		3.00		ug/L			05/08/25 20:59	1
cis-1,2-Dichloroethene	**1.16**		1.00		ug/L			05/08/25 20:59	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 20:59	1
Dibromomethane	<1.00		1.00		ug/L			05/08/25 20:59	1
Ethylbenzene	<1.00		1.00		ug/L			05/08/25 20:59	1
Iodomethane	<10.0		10.0		ug/L			05/08/25 20:59	1
Methylene Chloride	<5.00		5.00		ug/L			05/08/25 20:59	1
Styrene	<1.00		1.00		ug/L			05/08/25 20:59	1
Tetrachloroethene	<1.00		1.00		ug/L			05/08/25 20:59	1
Toluene	<1.00		1.00		ug/L			05/08/25 20:59	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 20:59	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 20:59	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/08/25 20:59	1
Trichloroethene	<1.00		1.00		ug/L			05/08/25 20:59	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/08/25 20:59	1
Vinyl acetate	<10.0		10.0		ug/L			05/08/25 20:59	1
Vinyl chloride	<1.00		1.00		ug/L			05/08/25 20:59	1
Xylenes, Total	<3.00		3.00		ug/L			05/08/25 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*109*		*76 - 130*		*05/08/25 20:59*	*1*

Client Sample ID: MW-11R
Date Collected: 05/05/25 15:54
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-2
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/08/25 20:59*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/08/25 20:59*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200		mg/L			05/07/25 10:16	1
Sulfate	**106**		5.00		mg/L			05/07/25 15:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 13:22	1
Arsenic	**0.00731**		0.00200		mg/L		05/12/25 08:00	05/14/25 13:22	1
Barium	**0.708**		0.00200		mg/L		05/12/25 08:00	05/14/25 13:22	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 13:22	1
Cadmium	**0.000221**		0.000200		mg/L		05/12/25 08:00	05/14/25 13:22	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Cobalt	**0.00541**		0.000500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Iron	**5.39**		0.100		mg/L		05/12/25 08:00	05/14/25 13:22	1
Lead	**0.00332**		0.000500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Manganese	**2.39**		0.0100		mg/L		05/12/25 08:00	05/14/25 13:22	1
Nickel	**0.0195**		0.00500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 13:22	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 13:22	1
Vanadium	**0.00925**		0.00500		mg/L		05/12/25 08:00	05/14/25 13:22	1
Zinc	**0.0203**		0.0200		mg/L		05/12/25 08:00	05/14/25 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			05/12/25 07:45	1
Total Suspended Solids (USGS I-3765-85)	**384**		30.0		mg/L			05/07/25 18:48	1

Client Sample ID: Trip Blank

Date Collected: 05/05/25 00:00
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-3

Matrix: Trip Blank

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/08/25 16:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/08/25 16:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/08/25 16:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 16:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/08/25 16:55	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 16:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/08/25 16:55	1
2-Hexanone	<10.0		10.0		ug/L			05/08/25 16:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/08/25 16:55	1
Acetone	<10.0		10.0		ug/L			05/08/25 16:55	1
Acrylonitrile	<5.00		5.00		ug/L			05/08/25 16:55	1
Benzene	<0.500		0.500		ug/L			05/08/25 16:55	1
Bromochloromethane	<5.00		5.00		ug/L			05/08/25 16:55	1
Bromodichloromethane	<1.00		1.00		ug/L			05/08/25 16:55	1
Bromoform	<5.00		5.00		ug/L			05/08/25 16:55	1
Bromomethane	<4.00		4.00		ug/L			05/08/25 16:55	1
Carbon disulfide	<1.00		1.00		ug/L			05/08/25 16:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/08/25 16:55	1
Chlorobenzene	<1.00		1.00		ug/L			05/08/25 16:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/08/25 16:55	1
Chloroethane	<4.00		4.00		ug/L			05/08/25 16:55	1
Chloroform	<3.00		3.00		ug/L			05/08/25 16:55	1
Chloromethane	<3.00		3.00		ug/L			05/08/25 16:55	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 16:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 16:55	1
Dibromomethane	<1.00		1.00		ug/L			05/08/25 16:55	1
Ethylbenzene	<1.00		1.00		ug/L			05/08/25 16:55	1
Iodomethane	<10.0		10.0		ug/L			05/08/25 16:55	1
Methylene Chloride	<5.00		5.00		ug/L			05/08/25 16:55	1
Styrene	<1.00		1.00		ug/L			05/08/25 16:55	1
Tetrachloroethene	<1.00		1.00		ug/L			05/08/25 16:55	1
Toluene	<1.00		1.00		ug/L			05/08/25 16:55	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 16:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 16:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/08/25 16:55	1
Trichloroethene	<1.00		1.00		ug/L			05/08/25 16:55	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/08/25 16:55	1
Vinyl acetate	<10.0		10.0		ug/L			05/08/25 16:55	1
Vinyl chloride	<1.00		1.00		ug/L			05/08/25 16:55	1
Xylenes, Total	<3.00		3.00		ug/L			05/08/25 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*110*		*76 - 130*		*05/08/25 16:55*	*1*

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Client Sample ID: Trip Blank
Date Collected: 05/05/25 00:00
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-3
Matrix: Trip Blank

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/08/25 16:55*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/08/25 16:55*	*1*

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Client Sample ID: MW-31
Date Collected: 05/05/25 18:16
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-4
Matrix: Groundwater

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200		mg/L			05/07/25 10:29	1
Sulfate	<1.00		1.00		mg/L			05/07/25 10:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**41.8**		0.100		mg/L		05/09/25 07:15	05/09/25 14:27	1
Manganese	**8.47**		0.0100		mg/L		05/09/25 07:15	05/09/25 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**45.0**		15.0		mg/L			05/07/25 16:21	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Qualifiers

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-305674-1	MW-8R	109	96	102
310-305674-2	MW-11R	109	96	102

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Trip Blank — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-305674-3	Trip Blank	110	96	106

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
LCS 310-454146/7	Lab Control Sample	97	100	100
LCS 310-454146/8	Lab Control Sample	105	99	102
MB 310-454146/6	Method Blank	104	97	103

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-454146/6
Matrix: Water
Analysis Batch: 454146

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/08/25 15:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/08/25 15:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/08/25 15:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 15:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/08/25 15:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/08/25 15:04	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/08/25 15:04	1
2-Hexanone	<10.0		10.0		ug/L			05/08/25 15:04	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/08/25 15:04	1
Acetone	<10.0		10.0		ug/L			05/08/25 15:04	1
Acrylonitrile	<5.00		5.00		ug/L			05/08/25 15:04	1
Benzene	<0.500		0.500		ug/L			05/08/25 15:04	1
Bromochloromethane	<5.00		5.00		ug/L			05/08/25 15:04	1
Bromodichloromethane	<1.00		1.00		ug/L			05/08/25 15:04	1
Bromoform	<5.00		5.00		ug/L			05/08/25 15:04	1
Bromomethane	<4.00		4.00		ug/L			05/08/25 15:04	1
Carbon disulfide	<1.00		1.00		ug/L			05/08/25 15:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/08/25 15:04	1
Chlorobenzene	<1.00		1.00		ug/L			05/08/25 15:04	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/08/25 15:04	1
Chloroethane	<4.00		4.00		ug/L			05/08/25 15:04	1
Chloroform	<3.00		3.00		ug/L			05/08/25 15:04	1
Chloromethane	<3.00		3.00		ug/L			05/08/25 15:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 15:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 15:04	1
Dibromomethane	<1.00		1.00		ug/L			05/08/25 15:04	1
Ethylbenzene	<1.00		1.00		ug/L			05/08/25 15:04	1
Iodomethane	<10.0		10.0		ug/L			05/08/25 15:04	1
Methylene Chloride	<5.00		5.00		ug/L			05/08/25 15:04	1
Styrene	<1.00		1.00		ug/L			05/08/25 15:04	1
Tetrachloroethene	<1.00		1.00		ug/L			05/08/25 15:04	1
Toluene	<1.00		1.00		ug/L			05/08/25 15:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/08/25 15:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/08/25 15:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/08/25 15:04	1
Trichloroethene	<1.00		1.00		ug/L			05/08/25 15:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/08/25 15:04	1
Vinyl acetate	<10.0		10.0		ug/L			05/08/25 15:04	1
Vinyl chloride	<1.00		1.00		ug/L			05/08/25 15:04	1
Xylenes, Total	<3.00		3.00		ug/L			05/08/25 15:04	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-454146/6
Matrix: Water
Analysis Batch: 454146

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*104*		*76 - 130*		*05/08/25 15:04*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/08/25 15:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/08/25 15:04*	*1*

Lab Sample ID: LCS 310-454146/7
Matrix: Water
Analysis Batch: 454146

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	16.66		ug/L		83	70 - 121
1,1,1-Trichloroethane	20.0	18.16		ug/L		91	69 - 130
1,1,2,2-Tetrachloroethane	20.0	17.28		ug/L		86	70 - 122
1,1,2-Trichloroethane	20.0	16.90		ug/L		84	75 - 121
1,1-Dichloroethane	20.0	17.46		ug/L		87	69 - 127
1,1-Dichloroethene	20.0	18.32		ug/L		92	64 - 134
1,2,3-Trichloropropane	20.0	18.34		ug/L		92	70 - 122
1,2-Dibromo-3-Chloropropane	20.0	19.72		ug/L		99	62 - 132
1,2-Dibromoethane (EDB)	20.0	17.39		ug/L		87	74 - 122
1,2-Dichlorobenzene	20.0	18.16		ug/L		91	74 - 120
1,2-Dichloroethane	20.0	16.30		ug/L		82	68 - 125
1,2-Dichloropropane	20.0	17.42		ug/L		87	72 - 128
1,4-Dichlorobenzene	20.0	18.21		ug/L		91	72 - 120
2-Butanone (MEK)	40.0	35.56		ug/L		89	60 - 134
2-Hexanone	40.0	39.02		ug/L		98	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	35.78		ug/L		89	62 - 136
Acetone	40.0	37.15		ug/L		93	59 - 136
Acrylonitrile	200	175.6		ug/L		88	50 - 150
Benzene	20.0	17.20		ug/L		86	71 - 125
Bromochloromethane	20.0	18.02		ug/L		90	69 - 131
Bromodichloromethane	20.0	17.04		ug/L		85	70 - 122
Bromoform	20.0	17.34		ug/L		87	62 - 122
Carbon disulfide	20.0	17.72		ug/L		89	58 - 137
Carbon tetrachloride	20.0	19.05		ug/L		95	63 - 136
Chlorobenzene	20.0	17.44		ug/L		87	74 - 120
Chlorodibromomethane	20.0	18.37		ug/L		92	69 - 121
Chloroform	20.0	16.87		ug/L		84	72 - 122
cis-1,2-Dichloroethene	20.0	17.48		ug/L		87	72 - 123
cis-1,3-Dichloropropene	20.0	17.36		ug/L		87	72 - 123
Dibromomethane	20.0	16.05		ug/L		80	72 - 122
Ethylbenzene	20.0	17.28		ug/L		86	75 - 120
Iodomethane	20.0	15.94		ug/L		80	18 - 150
Methylene Chloride	20.0	16.40		ug/L		82	72 - 128
Styrene	20.0	17.30		ug/L		86	74 - 122
Tetrachloroethene	20.0	19.33		ug/L		97	70 - 128
Toluene	20.0	17.73		ug/L		89	74 - 120
trans-1,2-Dichloroethene	20.0	17.77		ug/L		89	67 - 127
trans-1,3-Dichloropropene	20.0	16.57		ug/L		83	67 - 123
trans-1,4-Dichloro-2-butene	20.0	15.69		ug/L		78	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-454146/7
Matrix: Water
Analysis Batch: 454146

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	17.70		ug/L		88	70 - 128
Vinyl acetate	40.0	33.75		ug/L		84	50 - 150
Xylenes, Total	40.0	34.22		ug/L		86	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*76 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

Lab Sample ID: LCS 310-454146/8
Matrix: Water
Analysis Batch: 454146

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	16.62		ug/L		83	33 - 138
Chloroethane	20.0	17.89		ug/L		89	59 - 139
Chloromethane	20.0	19.32		ug/L		97	52 - 146
Trichlorofluoromethane	20.0	21.04		ug/L		105	55 - 150
Vinyl chloride	20.0	19.83		ug/L		99	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*76 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-454090/3
Matrix: Water
Analysis Batch: 454090

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200		mg/L			05/06/25 14:04	1

Lab Sample ID: LCS 310-454090/4
Matrix: Water
Analysis Batch: 454090

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.00	2.043		mg/L		102	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-454185/1-A
Matrix: Water
Analysis Batch: 454355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/09/25 07:15	05/09/25 13:46	1

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

Lab Sample ID: MB 310-454185/1-A
Matrix: Water
Analysis Batch: 454355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/09/25 07:15	05/09/25 13:46	1
Barium	<0.00200		0.00200		mg/L		05/09/25 07:15	05/09/25 13:46	1
Beryllium	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 13:46	1
Cadmium	<0.000200		0.000200		mg/L		05/09/25 07:15	05/09/25 13:46	1
Chromium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Cobalt	<0.000500		0.000500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Copper	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Iron	<0.100		0.100		mg/L		05/09/25 07:15	05/09/25 13:46	1
Lead	<0.000500		0.000500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Manganese	<0.0100		0.0100		mg/L		05/09/25 07:15	05/09/25 13:46	1
Nickel	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Selenium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Silver	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 13:46	1
Thallium	<0.00100		0.00100		mg/L		05/09/25 07:15	05/09/25 13:46	1
Vanadium	<0.00500		0.00500		mg/L		05/09/25 07:15	05/09/25 13:46	1
Zinc	<0.0200		0.0200		mg/L		05/09/25 07:15	05/09/25 13:46	1

Lab Sample ID: LCS 310-454185/2-A
Matrix: Water
Analysis Batch: 454355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1989		mg/L		99	80 - 120
Arsenic	0.200	0.1959		mg/L		98	80 - 120
Barium	0.100	0.1002		mg/L		100	80 - 120
Beryllium	0.100	0.09350		mg/L		93	80 - 120
Cadmium	0.100	0.09641		mg/L		96	80 - 120
Chromium	0.100	0.09606		mg/L		96	80 - 120
Cobalt	0.100	0.09746		mg/L		97	80 - 120
Copper	0.200	0.1938		mg/L		97	80 - 120
Iron	0.200	0.1983		mg/L		99	80 - 120
Lead	0.200	0.1979		mg/L		99	80 - 120
Manganese	0.100	0.09406		mg/L		94	80 - 120
Nickel	0.200	0.1940		mg/L		97	80 - 120
Selenium	0.400	0.3661		mg/L		92	80 - 120
Silver	0.100	0.1133		mg/L		113	80 - 120
Thallium	0.100	0.08950		mg/L		89	80 - 120
Vanadium	0.100	0.09403		mg/L		94	80 - 120
Zinc	0.200	0.1882		mg/L		94	80 - 120

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 11:57	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 11:57	1
Barium	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 11:57	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 11:57	1

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

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 11:57	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Iron	<0.100		0.100		mg/L		05/12/25 08:00	05/14/25 11:57	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Manganese	<0.0100		0.0100		mg/L		05/12/25 08:00	05/14/25 11:57	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 11:57	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 11:57	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 11:57	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 11:57	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1953		mg/L		98	80 - 120
Arsenic	0.200	0.1940		mg/L		97	80 - 120
Barium	0.100	0.09632		mg/L		96	80 - 120
Beryllium	0.100	0.09521		mg/L		95	80 - 120
Cadmium	0.100	0.09622		mg/L		96	80 - 120
Chromium	0.100	0.09984		mg/L		100	80 - 120
Cobalt	0.100	0.1016		mg/L		102	80 - 120
Copper	0.200	0.2004		mg/L		100	80 - 120
Iron	0.200	0.1981		mg/L		99	80 - 120
Lead	0.200	0.1965		mg/L		98	80 - 120
Manganese	0.100	0.09492		mg/L		95	80 - 120
Nickel	0.200	0.2005		mg/L		100	80 - 120
Selenium	0.400	0.3783		mg/L		95	80 - 120
Silver	0.100	0.1159		mg/L		116	80 - 120
Thallium	0.100	0.09225		mg/L		92	80 - 120
Vanadium	0.100	0.09787		mg/L		98	80 - 120
Zinc	0.200	0.1869		mg/L		93	80 - 120

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 410-642542/1
Matrix: Water
Analysis Batch: 642542

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.00		2.00		mg/L			05/12/25 07:45	1

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 410-642542/2
Matrix: Water
Analysis Batch: 642542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	20.1	18.17		mg/L		91	77 - 110

Lab Sample ID: LCSD 410-642542/3
Matrix: Water
Analysis Batch: 642542

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	20.1	18.56		mg/L		93	77 - 110	2	10

Lab Sample ID: MRL 410-642542/4
Matrix: Water
Analysis Batch: 642542

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	2.01	1.962	J	mg/L		98	

Lab Sample ID: 310-305674-2 DU
Matrix: Ground Water
Analysis Batch: 642542

Client Sample ID: MW-11R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	<2.00		<2.00		mg/L		NC	10

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

Lab Sample ID: MB 310-454047/1
Matrix: Water
Analysis Batch: 454047

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			05/07/25 16:21	1

Lab Sample ID: LCS 310-454047/2
Matrix: Water
Analysis Batch: 454047

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	110.0		mg/L		110	81 - 116

Lab Sample ID: MB 310-454054/1
Matrix: Water
Analysis Batch: 454054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			05/07/25 18:48	1

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

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

Lab Sample ID: LCS 310-454054/2
Matrix: Water
Analysis Batch: 454054

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	102.0		mg/L		102	81 - 116

GC/MS VOA

Analysis Batch: 454146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	8260D	
310-305674-2	MW-11R	Total/NA	Ground Water	8260D	
310-305674-3	Trip Blank	Total/NA	Trip Blank	8260D	
MB 310-454146/6	Method Blank	Total/NA	Water	8260D	
LCS 310-454146/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-454146/8	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 454090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	9056A	
310-305674-2	MW-11R	Total/NA	Ground Water	9056A	
310-305674-2	MW-11R	Total/NA	Ground Water	9056A	
310-305674-4	MW-31	Total/NA	Groundwater	9056A	
MB 310-454090/3	Method Blank	Total/NA	Water	9056A	
LCS 310-454090/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 454185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	3005A	
310-305674-4	MW-31	Total/NA	Groundwater	3005A	
MB 310-454185/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-454185/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 454303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-2	MW-11R	Total/NA	Ground Water	3005A	
MB 310-454303/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-454303/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 454355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	6020B	454185
310-305674-4	MW-31	Total/NA	Groundwater	6020B	454185
MB 310-454185/1-A	Method Blank	Total/NA	Water	6020B	454185
LCS 310-454185/2-A	Lab Control Sample	Total/NA	Water	6020B	454185

Analysis Batch: 454713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-2	MW-11R	Total/NA	Ground Water	6020B	454303
MB 310-454303/1-A	Method Blank	Total/NA	Water	6020B	454303
LCS 310-454303/2-A	Lab Control Sample	Total/NA	Water	6020B	454303

General Chemistry

Analysis Batch: 454047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	I-3765-85	
310-305674-4	MW-31	Total/NA	Groundwater	I-3765-85	

General Chemistry (Continued)

Analysis Batch: 454047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-454047/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-454047/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 454054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-2	MW-11R	Total/NA	Ground Water	I-3765-85	
MB 310-454054/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-454054/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 642542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305674-1	MW-8R	Total/NA	Ground Water	9034	
310-305674-2	MW-11R	Total/NA	Ground Water	9034	
MB 410-642542/1	Method Blank	Total/NA	Water	9034	
LCS 410-642542/2	Lab Control Sample	Total/NA	Water	9034	
LCSD 410-642542/3	Lab Control Sample Dup	Total/NA	Water	9034	
MRL 410-642542/4	Lab Control Sample	Total/NA	Water	9034	
310-305674-2 DU	MW-11R	Total/NA	Ground Water	9034	

Lab Chronicle

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Client Sample ID: MW-8R
Date Collected: 05/05/25 14:50
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454146	WSE8	EET CF	05/08/25 20:36
Total/NA	Analysis	9056A		1	454090	QTZ5	EET CF	05/07/25 10:02
Total/NA	Prep	3005A			454185	Y3EC	EET CF	05/09/25 07:15
Total/NA	Analysis	6020B		1	454355	ZRI4	EET CF	05/09/25 15:11
Total/NA	Analysis	9034		1	642542	USAE	ELLE	05/12/25 07:45
Total/NA	Analysis	I-3765-85		1	454047	MDU9	EET CF	05/07/25 16:21

Client Sample ID: MW-11R
Date Collected: 05/05/25 15:54
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454146	WSE8	EET CF	05/08/25 20:59
Total/NA	Analysis	9056A		1	454090	QTZ5	EET CF	05/07/25 10:16
Total/NA	Analysis	9056A		5	454090	QTZ5	EET CF	05/07/25 15:44
Total/NA	Prep	3005A			454303	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454713	ZRI4	EET CF	05/14/25 13:22
Total/NA	Analysis	9034		1	642542	USAE	ELLE	05/12/25 07:45
Total/NA	Analysis	I-3765-85		1	454054	MDU9	EET CF	05/07/25 18:48

Client Sample ID: Trip Blank
Date Collected: 05/05/25 00:00
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-3
Matrix: Trip Blank

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454146	WSE8	EET CF	05/08/25 16:55

Client Sample ID: MW-31
Date Collected: 05/05/25 18:16
Date Received: 05/06/25 16:05

Lab Sample ID: 310-305674-4
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	454090	QTZ5	EET CF	05/07/25 10:29
Total/NA	Prep	3005A			454185	Y3EC	EET CF	05/09/25 07:15
Total/NA	Analysis	6020B		1	454355	ZRI4	EET CF	05/09/25 14:27
Total/NA	Analysis	I-3765-85		1	454047	MDU9	EET CF	05/07/25 16:21

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-305674-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)
SDG: Loess Hills Regional Landfill

Laboratory: Eurofins Cedar Falls

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

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

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	361	03-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9034		Ground Water	Sulfide

Method Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305674-1
SDG: Loess Hills Regional Landfill

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	ELLE
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

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

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

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

eurofins | Environment Testing America

310-305674 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 5-6-25 | TIME 1605 | Received By: CGC

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID.

Multiple Coolers? ☑ Yes ☑ No CCC *If yes:* Cooler # 1 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 1.4 | Corrected Temp (°C): 1.4

• Sample Container Temperature

Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 5.6.25 | TIME 1605 | Received By. CGC

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID.

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? HCl + unpreserved ☑ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓ All

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.6 | Corrected Temp (°C): 0.6

• **Sample Container Temperature**

Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls IA
50613

Chain of Custody Record

TestAmerica Omaha SC
268
eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date.	COC No
SCS Engineers	Email bmadson@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	1 of 2 COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler
West Des Moines IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name.1st 2025 Semi-Annual Sampling (HMSP)	☐ 2 weeks			
Site. Loess Hills Regional Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225091 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Appendix II	Sulfide	Natural Attenuation	TSS	Mercury	Trip Blank	Sample Specific Notes
~~MW-14~~			G	GW				X		X		X	X		
~~MW-16~~			G	GW				X				X			
~~MW-17~~			G	GW				X		X		X	X		
~~MW-7~~			G	GW				X				X			
MW-8R	5-5	1450	G	GW				X		X	X	X			Natural Attenuation: Iron Manganese Nitrate and Sulfate
~~MW-10R~~			G	GW				X				X			
MW-11R	5-5	1554	G	GW				X		X	X	X			
~~MW-25~~			G	GW					X			X			
~~MW-26R~~			G	GW				X		X	X	X			
Trip Blank														X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Natural Attenuation: Iron Manganese, Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No. _____		
Relinquished by: Garrett Harvey	Company: SCS	Date/Time: 5-5 1700	Received by:	Company:	Date/Time: 5-6-25 0700
Relinquished by:	Company:	Date/Time: 5-6 0700	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: Eurofins	Date/Time: 5.6.25 1605

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

5/14/2025

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA
50613

Chain of Custody Record

TestAmerica Omaha SC
268 eurofins

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

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date.	COC No
SCS Engineers	Email bmadson@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	1 of 1 COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler:
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:_____			Lab Sampling
Project Name 1st 2025 Semi-Annual Sampling (HMSP)	☐ 2 weeks			
Site Loess Hills Regional Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225091 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Natural Attenuation	TSS	Cobalt	Trip Blank	Sample Specific Notes
MW-31	5-5	18:16	G	GW				X	X			Natural Attenuation Iron Manganese Nitrate and Sulfate
Trip Blank											X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments.

Natural Attenuation. Iron Manganese Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp. (°C): Obs'd _____ Corr'd _____		Therm ID No _____
Relinquished by: Garrett Hurvitz	Company: SCS	Date/Time: 5-5 1700	Received by:	Company:	Date/Time: 5-6-25 0700
Relinquished by:	Company:	Date/Time: 5-6 0700	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: CLC	Company: Eurofins	Date/Time: 5.6.25 1605

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

5/14/2025

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller, Samuel	Carrier Tracking No(s): N/A	COC No: 310-82796.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-305674-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 5/19/2025			
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: 1st 2025 Semi-Annual Sampling (HMSP)	Project #: 31013424			
Site: 310-SCS Loess Hills	SSOW#: N/A			

Analysis Requested

Preservation Codes:
-

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9034/ Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-8R (310-305674-1)	5/5/25	14:50 Central	G	Water			X	1	
MW-11R (310-305674-2)	5/5/25	15:54 Central	G	Water			X	1	

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
		5/7/25 1210				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: Anastasia Kuz	Date/Time: 05/08/25 0000	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 1.2 C: 1.2

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-305674-1
SDG Number: Loess Hills Regional Landfill

Login Number: 305674
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-305674-1
SDG Number: Loess Hills Regional Landfill

Login Number: 305674
List Number: 2
Creator: Arroyo, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/08/25 02:09 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/15/2025 10:24:26 AM

JOB DESCRIPTION

1st 2025 Semi-Annual Sampling (HMSP)

JOB NUMBER

310-305779-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

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

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

Authorization



Generated
5/15/2025 10:24:26 AM

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

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Job ID: 310-305779-1 Eurofins Cedar Falls

Job Narrative
310-305779-1

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

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

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

Receipt
The samples were received on 5/7/2025 3:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8°C and 3.6°C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-454123 recovered outside of the control limits for Bromomethane (-22.9%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-454123/4).

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

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

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

Sample Summary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-305779-1	MW-14	Ground Water	05/06/25 14:28	05/07/25 15:40
310-305779-2	MW-7	Ground Water	05/06/25 10:50	05/07/25 15:40
310-305779-3	MW-10R	Ground Water	05/06/25 12:39	05/07/25 15:40
310-305779-4	Trip Blank Cooler 1	Water	05/06/25 00:00	05/07/25 15:40
310-305779-5	MW-29	Ground Water	05/06/25 10:01	05/07/25 15:40
310-305779-6	GU-1	Ground Water	05/06/25 16:39	05/07/25 15:40
310-305779-7	MW-D	Ground Water	05/06/25 10:50	05/07/25 15:40
310-305779-8	Trip Blank Cooler 2	Water	05/06/25 00:00	05/07/25 15:40

Detection Summary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-14 — Lab Sample ID: 310-305779-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.276		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.000570		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000904		0.000500		mg/L	1		6020B	Total/NA
Total Suspended Solids	53.0		5.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 310-305779-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.05		1.00		ug/L	1		8260D	Total/NA
Barium	0.361		0.00200		mg/L	1		6020B	Total/NA

Client Sample ID: MW-10R — Lab Sample ID: 310-305779-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.26		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	10.9		1.00		ug/L	1		8260D	Total/NA
Barium	0.489		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	5.9		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank Cooler 1 — Lab Sample ID: 310-305779-4

No Detections.

Client Sample ID: MW-29 — Lab Sample ID: 310-305779-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.303		0.00200		mg/L	1		6020B	Total/NA
Lead	0.000519		0.000500		mg/L	1		6020B	Total/NA
Total Suspended Solids	23.3		3.8		mg/L	1		I-3765-85	Total/NA

Client Sample ID: GU-1 — Lab Sample ID: 310-305779-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0148		0.00200		mg/L	1		6020B	Total/NA
Barium	0.546		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000793		0.000200		mg/L	1		6020B	Total/NA
Chromium	0.00631		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.0179		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0131		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00967		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0450		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.0185		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0621		0.0200		mg/L	1		6020B	Total/NA
Total Suspended Solids	768		30.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-305779-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.08		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	11.2		1.00		ug/L	1		8260D	Total/NA
Barium	0.499		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	2.1		1.9		mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: Trip Blank Cooler 2 **Lab Sample ID: 310-305779-8**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14
Lab Sample ID: 310-305779-1
Date Collected: 05/06/25 14:28
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 14:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 14:02	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 14:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:02	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 14:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 14:02	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 14:02	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 14:02	1
Acetone	<10.0		10.0		ug/L			05/09/25 14:02	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 14:02	1
Benzene	<0.500		0.500		ug/L			05/09/25 14:02	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 14:02	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 14:02	1
Bromoform	<5.00		5.00		ug/L			05/09/25 14:02	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 14:02	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 14:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 14:02	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 14:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 14:02	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 14:02	1
Chloroform	<3.00		3.00		ug/L			05/09/25 14:02	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 14:02	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 14:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:02	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 14:02	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 14:02	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 14:02	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 14:02	1
Styrene	<1.00		1.00		ug/L			05/09/25 14:02	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 14:02	1
Toluene	<1.00		1.00		ug/L			05/09/25 14:02	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 14:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:02	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 14:02	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 14:02	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 14:02	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 14:02	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 14:02	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*76 - 130*		*05/09/25 14:02*	*1*

Client Sample ID: MW-14
Lab Sample ID: 310-305779-1
Date Collected: 05/06/25 14:28
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/09/25 14:02*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/09/25 14:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:51	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:51	1
Barium	**0.276**		0.00200		mg/L		05/12/25 08:00	05/14/25 16:51	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:51	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 16:51	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Cobalt	**0.000570**		0.000500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Lead	**0.000904**		0.000500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:51	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:51	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:51	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 16:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		05/14/25 08:46	05/14/25 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			05/12/25 07:45	1
Total Suspended Solids (USGS I-3765-85)	**53.0**		5.0		mg/L			05/08/25 14:34	1

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-7
Lab Sample ID: 310-305779-2
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 14:25	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 14:25	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 14:25	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:25	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 14:25	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:25	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 14:25	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 14:25	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 14:25	1
Acetone	<10.0		10.0		ug/L			05/09/25 14:25	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 14:25	1
Benzene	<0.500		0.500		ug/L			05/09/25 14:25	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 14:25	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 14:25	1
Bromoform	<5.00		5.00		ug/L			05/09/25 14:25	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 14:25	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 14:25	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 14:25	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 14:25	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 14:25	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 14:25	1
Chloroform	<3.00		3.00		ug/L			05/09/25 14:25	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 14:25	1
cis-1,2-Dichloroethene	**9.05**		1.00		ug/L			05/09/25 14:25	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:25	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 14:25	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 14:25	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 14:25	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 14:25	1
Styrene	<1.00		1.00		ug/L			05/09/25 14:25	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 14:25	1
Toluene	<1.00		1.00		ug/L			05/09/25 14:25	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 14:25	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:25	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 14:25	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 14:25	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 14:25	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 14:25	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 14:25	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*76 - 130*		*05/09/25 14:25*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-7
Lab Sample ID: 310-305779-2
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/09/25 14:25*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/09/25 14:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:05	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:05	1
Barium	**0.361**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:05	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:05	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:05	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:05	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:05	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:05	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.9		1.9		mg/L			05/08/25 14:34	1

Client Sample ID: MW-10R
Lab Sample ID: 310-305779-3
Date Collected: 05/06/25 12:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,1-Dichloroethane	**1.26**		1.00		ug/L			05/09/25 14:47	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 14:47	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 14:47	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 14:47	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:47	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 14:47	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 14:47	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 14:47	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 14:47	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 14:47	1
Acetone	<10.0		10.0		ug/L			05/09/25 14:47	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 14:47	1
Benzene	<0.500		0.500		ug/L			05/09/25 14:47	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 14:47	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 14:47	1
Bromoform	<5.00		5.00		ug/L			05/09/25 14:47	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 14:47	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 14:47	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 14:47	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 14:47	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 14:47	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 14:47	1
Chloroform	<3.00		3.00		ug/L			05/09/25 14:47	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 14:47	1
cis-1,2-Dichloroethene	**10.9**		1.00		ug/L			05/09/25 14:47	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:47	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 14:47	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 14:47	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 14:47	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 14:47	1
Styrene	<1.00		1.00		ug/L			05/09/25 14:47	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 14:47	1
Toluene	<1.00		1.00		ug/L			05/09/25 14:47	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 14:47	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 14:47	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 14:47	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 14:47	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 14:47	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 14:47	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 14:47	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*76 - 130*		*05/09/25 14:47*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-10R
Lab Sample ID: 310-305779-3
Date Collected: 05/06/25 12:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/09/25 14:47*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/09/25 14:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:07	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:07	1
Barium	**0.489**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:07	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:07	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:07	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:07	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:07	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:07	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**5.9**		1.9		mg/L			05/08/25 14:34	1

Client Sample ID: Trip Blank Cooler 1
Lab Sample ID: 310-305779-4
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 10:39	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 10:39	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 10:39	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 10:39	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 10:39	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 10:39	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 10:39	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 10:39	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 10:39	1
Acetone	<10.0		10.0		ug/L			05/09/25 10:39	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 10:39	1
Benzene	<0.500		0.500		ug/L			05/09/25 10:39	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 10:39	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 10:39	1
Bromoform	<5.00		5.00		ug/L			05/09/25 10:39	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 10:39	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 10:39	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 10:39	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 10:39	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 10:39	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 10:39	1
Chloroform	<3.00		3.00		ug/L			05/09/25 10:39	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 10:39	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 10:39	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 10:39	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 10:39	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 10:39	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 10:39	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 10:39	1
Styrene	<1.00		1.00		ug/L			05/09/25 10:39	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 10:39	1
Toluene	<1.00		1.00		ug/L			05/09/25 10:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 10:39	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 10:39	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 10:39	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 10:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 10:39	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 10:39	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 10:39	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*112*		*76 - 130*		*05/09/25 10:39*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: Trip Blank Cooler 1
Lab Sample ID: 310-305779-4
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/09/25 10:39*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/09/25 10:39*	*1*

Client Sample ID: MW-29
Lab Sample ID: 310-305779-5
Date Collected: 05/06/25 10:01
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 15:10	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 15:10	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 15:10	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:10	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 15:10	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:10	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 15:10	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 15:10	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 15:10	1
Acetone	<10.0		10.0		ug/L			05/09/25 15:10	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 15:10	1
Benzene	<0.500		0.500		ug/L			05/09/25 15:10	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 15:10	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 15:10	1
Bromoform	<5.00		5.00		ug/L			05/09/25 15:10	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 15:10	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 15:10	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 15:10	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 15:10	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 15:10	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 15:10	1
Chloroform	<3.00		3.00		ug/L			05/09/25 15:10	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 15:10	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 15:10	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:10	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 15:10	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 15:10	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 15:10	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 15:10	1
Styrene	<1.00		1.00		ug/L			05/09/25 15:10	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 15:10	1
Toluene	<1.00		1.00		ug/L			05/09/25 15:10	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 15:10	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:10	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 15:10	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 15:10	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 15:10	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 15:10	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 15:10	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*76 - 130*		*05/09/25 15:10*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-29
Lab Sample ID: 310-305779-5
Date Collected: 05/06/25 10:01
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/09/25 15:10*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/09/25 15:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:10	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:10	1
Barium	**0.303**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:10	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:10	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:10	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Lead	**0.000519**		0.000500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:10	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:10	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:10	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 17:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**23.3**		3.8		mg/L			05/08/25 14:34	1

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: GU-1
Lab Sample ID: 310-305779-6
Date Collected: 05/06/25 16:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 15:32	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 15:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 15:32	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:32	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 15:32	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:32	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 15:32	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 15:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 15:32	1
Acetone	<10.0		10.0		ug/L			05/09/25 15:32	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 15:32	1
Benzene	<0.500		0.500		ug/L			05/09/25 15:32	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 15:32	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 15:32	1
Bromoform	<5.00		5.00		ug/L			05/09/25 15:32	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 15:32	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 15:32	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 15:32	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 15:32	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 15:32	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 15:32	1
Chloroform	<3.00		3.00		ug/L			05/09/25 15:32	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 15:32	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 15:32	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:32	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 15:32	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 15:32	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 15:32	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 15:32	1
Styrene	<1.00		1.00		ug/L			05/09/25 15:32	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 15:32	1
Toluene	<1.00		1.00		ug/L			05/09/25 15:32	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 15:32	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 15:32	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 15:32	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 15:32	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 15:32	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 15:32	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*76 - 130*		*05/09/25 15:32*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: GU-1
Lab Sample ID: 310-305779-6
Date Collected: 05/06/25 16:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/09/25 15:32*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/09/25 15:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:12	1
Arsenic	**0.0148**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:12	1
Barium	**0.546**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:12	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:12	1
Cadmium	**0.000793**		0.000200		mg/L		05/12/25 08:00	05/14/25 17:12	1
Chromium	**0.00631**		0.00500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Cobalt	**0.0179**		0.000500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Copper	**0.0131**		0.00500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Lead	**0.00967**		0.000500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Nickel	**0.0450**		0.00500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:12	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:12	1
Vanadium	**0.0185**		0.00500		mg/L		05/12/25 08:00	05/14/25 17:12	1
Zinc	**0.0621**		0.0200		mg/L		05/12/25 08:00	05/14/25 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**768**		30.0		mg/L			05/08/25 14:34	1

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-D
Lab Sample ID: 310-305779-7
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,1-Dichloroethane	**1.08**		1.00		ug/L			05/09/25 15:55	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 15:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 15:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 15:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 15:55	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 15:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 15:55	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 15:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 15:55	1
Acetone	<10.0		10.0		ug/L			05/09/25 15:55	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 15:55	1
Benzene	<0.500		0.500		ug/L			05/09/25 15:55	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 15:55	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 15:55	1
Bromoform	<5.00		5.00		ug/L			05/09/25 15:55	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 15:55	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 15:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 15:55	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 15:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 15:55	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 15:55	1
Chloroform	<3.00		3.00		ug/L			05/09/25 15:55	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 15:55	1
cis-1,2-Dichloroethene	**11.2**		1.00		ug/L			05/09/25 15:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:55	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 15:55	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 15:55	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 15:55	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 15:55	1
Styrene	<1.00		1.00		ug/L			05/09/25 15:55	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 15:55	1
Toluene	<1.00		1.00		ug/L			05/09/25 15:55	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 15:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 15:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 15:55	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 15:55	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 15:55	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 15:55	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 15:55	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*76 - 130*		*05/09/25 15:55*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-D
Lab Sample ID: 310-305779-7
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/09/25 15:55*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/09/25 15:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:15	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 17:15	1
Barium	**0.499**		0.00200		mg/L		05/12/25 08:00	05/14/25 17:15	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:15	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 17:15	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:15	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 17:15	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 17:15	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.1**		1.9		mg/L			05/08/25 14:34	1

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: Trip Blank Cooler 2
Lab Sample ID: 310-305779-8
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 11:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 11:02	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 11:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 11:02	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 11:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 11:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 11:02	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 11:02	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 11:02	1
Acetone	<10.0		10.0		ug/L			05/09/25 11:02	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 11:02	1
Benzene	<0.500		0.500		ug/L			05/09/25 11:02	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 11:02	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 11:02	1
Bromoform	<5.00		5.00		ug/L			05/09/25 11:02	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 11:02	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 11:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 11:02	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 11:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 11:02	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 11:02	1
Chloroform	<3.00		3.00		ug/L			05/09/25 11:02	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 11:02	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 11:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 11:02	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 11:02	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 11:02	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 11:02	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 11:02	1
Styrene	<1.00		1.00		ug/L			05/09/25 11:02	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 11:02	1
Toluene	<1.00		1.00		ug/L			05/09/25 11:02	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 11:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 11:02	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 11:02	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 11:02	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 11:02	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 11:02	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 11:02	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*76 - 130*		*05/09/25 11:02*	*1*

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: Trip Blank Cooler 2
Lab Sample ID: 310-305779-8
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/09/25 11:02*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/09/25 11:02*	*1*

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Qualifiers

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-305779-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-305779-1	MW-14	106	97	100
310-305779-2	MW-7	111	98	105
310-305779-3	MW-10R	107	97	104
310-305779-5	MW-29	107	101	99
310-305779-6	GU-1	106	96	103
310-305779-7	MW-D	111	97	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-305779-4	Trip Blank Cooler 1	112	98	100
310-305779-8	Trip Blank Cooler 2	115	97	102
LCS 310-454123/7	Lab Control Sample	97	103	99
LCS 310-454123/8	Lab Control Sample	111	96	103
MB 310-454123/6	Method Blank	108	99	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-454123/6
Matrix: Water
Analysis Batch: 454123

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/09/25 09:31	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/09/25 09:31	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/09/25 09:31	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 09:31	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/09/25 09:31	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/09/25 09:31	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/09/25 09:31	1
2-Hexanone	<10.0		10.0		ug/L			05/09/25 09:31	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/09/25 09:31	1
Acetone	<10.0		10.0		ug/L			05/09/25 09:31	1
Acrylonitrile	<5.00		5.00		ug/L			05/09/25 09:31	1
Benzene	<0.500		0.500		ug/L			05/09/25 09:31	1
Bromochloromethane	<5.00		5.00		ug/L			05/09/25 09:31	1
Bromodichloromethane	<1.00		1.00		ug/L			05/09/25 09:31	1
Bromoform	<5.00		5.00		ug/L			05/09/25 09:31	1
Bromomethane	<4.00		4.00		ug/L			05/09/25 09:31	1
Carbon disulfide	<1.00		1.00		ug/L			05/09/25 09:31	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/09/25 09:31	1
Chlorobenzene	<1.00		1.00		ug/L			05/09/25 09:31	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/09/25 09:31	1
Chloroethane	<4.00		4.00		ug/L			05/09/25 09:31	1
Chloroform	<3.00		3.00		ug/L			05/09/25 09:31	1
Chloromethane	<3.00		3.00		ug/L			05/09/25 09:31	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 09:31	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 09:31	1
Dibromomethane	<1.00		1.00		ug/L			05/09/25 09:31	1
Ethylbenzene	<1.00		1.00		ug/L			05/09/25 09:31	1
Iodomethane	<10.0		10.0		ug/L			05/09/25 09:31	1
Methylene Chloride	<5.00		5.00		ug/L			05/09/25 09:31	1
Styrene	<1.00		1.00		ug/L			05/09/25 09:31	1
Tetrachloroethene	<1.00		1.00		ug/L			05/09/25 09:31	1
Toluene	<1.00		1.00		ug/L			05/09/25 09:31	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/09/25 09:31	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/09/25 09:31	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/09/25 09:31	1
Trichloroethene	<1.00		1.00		ug/L			05/09/25 09:31	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/09/25 09:31	1
Vinyl acetate	<10.0		10.0		ug/L			05/09/25 09:31	1
Vinyl chloride	<1.00		1.00		ug/L			05/09/25 09:31	1
Xylenes, Total	<3.00		3.00		ug/L			05/09/25 09:31	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-454123/6
Matrix: Water
Analysis Batch: 454123

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*108*		*76 - 130*		*05/09/25 09:31*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/09/25 09:31*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/09/25 09:31*	*1*

Lab Sample ID: LCS 310-454123/7
Matrix: Water
Analysis Batch: 454123

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.99		ug/L		95	70 - 121
1,1,1-Trichloroethane	20.0	19.66		ug/L		98	69 - 130
1,1,2,2-Tetrachloroethane	20.0	16.76		ug/L		84	70 - 122
1,1,2-Trichloroethane	20.0	17.91		ug/L		90	75 - 121
1,1-Dichloroethane	20.0	20.48		ug/L		102	69 - 127
1,1-Dichloroethene	20.0	20.62		ug/L		103	64 - 134
1,2,3-Trichloropropane	20.0	17.13		ug/L		86	70 - 122
1,2-Dibromo-3-Chloropropane	20.0	19.15		ug/L		96	62 - 132
1,2-Dibromoethane (EDB)	20.0	16.80		ug/L		84	74 - 122
1,2-Dichlorobenzene	20.0	18.62		ug/L		93	74 - 120
1,2-Dichloroethane	20.0	20.44		ug/L		102	68 - 125
1,2-Dichloropropane	20.0	19.93		ug/L		100	72 - 128
1,4-Dichlorobenzene	20.0	17.71		ug/L		89	72 - 120
2-Butanone (MEK)	40.0	42.31		ug/L		106	60 - 134
2-Hexanone	40.0	38.30		ug/L		96	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	40.88		ug/L		102	62 - 136
Acetone	40.0	38.95		ug/L		97	59 - 136
Acrylonitrile	200	199.5		ug/L		100	50 - 150
Benzene	20.0	19.68		ug/L		98	71 - 125
Bromochloromethane	20.0	20.16		ug/L		101	69 - 131
Bromodichloromethane	20.0	18.47		ug/L		92	70 - 122
Bromoform	20.0	16.84		ug/L		84	62 - 122
Carbon disulfide	20.0	20.39		ug/L		102	58 - 137
Carbon tetrachloride	20.0	20.58		ug/L		103	63 - 136
Chlorobenzene	20.0	18.39		ug/L		92	74 - 120
Chlorodibromomethane	20.0	17.06		ug/L		85	69 - 121
Chloroform	20.0	20.49		ug/L		102	72 - 122
cis-1,2-Dichloroethene	20.0	20.06		ug/L		100	72 - 123
cis-1,3-Dichloropropene	20.0	18.66		ug/L		93	72 - 123
Dibromomethane	20.0	20.16		ug/L		101	72 - 122
Ethylbenzene	20.0	19.10		ug/L		95	75 - 120
Iodomethane	20.0	13.38		ug/L		67	18 - 150
Methylene Chloride	20.0	21.06		ug/L		105	72 - 128
Styrene	20.0	17.18		ug/L		86	74 - 122
Tetrachloroethene	20.0	18.78		ug/L		94	70 - 128
Toluene	20.0	20.32		ug/L		102	74 - 120
trans-1,2-Dichloroethene	20.0	20.29		ug/L		101	67 - 127
trans-1,3-Dichloropropene	20.0	17.81		ug/L		89	67 - 123
trans-1,4-Dichloro-2-butene	20.0	18.91		ug/L		95	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-454123/7
Matrix: Water
Analysis Batch: 454123

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	17.68		ug/L		88	70 - 128
Vinyl acetate	40.0	33.63		ug/L		84	50 - 150
Xylenes, Total	40.0	38.23		ug/L		96	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*76 - 130*
Toluene-d8 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: LCS 310-454123/8
Matrix: Water
Analysis Batch: 454123

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	14.68		ug/L		73	33 - 138
Chloroethane	20.0	17.98		ug/L		90	59 - 139
Chloromethane	20.0	18.72		ug/L		94	52 - 146
Trichlorofluoromethane	20.0	17.53		ug/L		88	55 - 150
Vinyl chloride	20.0	17.24		ug/L		86	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*111*		*76 - 130*
Toluene-d8 (Surr)	*96*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Arsenic	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Barium	<0.00200		0.00200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Beryllium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:36	1
Cadmium	<0.000200		0.000200		mg/L		05/12/25 08:00	05/14/25 16:36	1
Chromium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Cobalt	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Copper	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Lead	<0.000500		0.000500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Nickel	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Selenium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Silver	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:36	1
Thallium	<0.00100		0.00100		mg/L		05/12/25 08:00	05/14/25 16:36	1
Vanadium	<0.00500		0.00500		mg/L		05/12/25 08:00	05/14/25 16:36	1
Zinc	<0.0200		0.0200		mg/L		05/12/25 08:00	05/14/25 16:36	1

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

Lab Sample ID: LCS 310-454302/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 454752
Prep Batch: 454302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2230		mg/L		111	80 - 120
Arsenic	0.200	0.2014		mg/L		101	80 - 120
Barium	0.100	0.09962		mg/L		100	80 - 120
Beryllium	0.100	0.09123		mg/L		91	80 - 120
Cadmium	0.100	0.09749		mg/L		97	80 - 120
Chromium	0.100	0.09644		mg/L		96	80 - 120
Cobalt	0.100	0.1054		mg/L		105	80 - 120
Copper	0.200	0.2028		mg/L		101	80 - 120
Lead	0.200	0.2018		mg/L		101	80 - 120
Nickel	0.200	0.1963		mg/L		98	80 - 120
Selenium	0.400	0.3736		mg/L		93	80 - 120
Silver	0.100	0.1176		mg/L		118	80 - 120
Thallium	0.100	0.09590		mg/L		96	80 - 120
Vanadium	0.100	0.09712		mg/L		97	80 - 120
Zinc	0.200	0.1857		mg/L		93	80 - 120

Lab Sample ID: 310-305779-1 MS
Client Sample ID: MW-14
Matrix: Ground Water
Prep Type: Total/NA
Analysis Batch: 454752
Prep Batch: 454302

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2224		mg/L		111	75 - 125
Arsenic	<0.00200		0.200	0.2101		mg/L		105	75 - 125
Barium	0.276		0.100	0.3745		mg/L		99	75 - 125
Beryllium	<0.00100		0.100	0.09974		mg/L		100	75 - 125
Cadmium	<0.000200		0.100	0.09930		mg/L		99	75 - 125
Chromium	<0.00500		0.100	0.1011		mg/L		98	75 - 125
Cobalt	0.000570		0.100	0.1035		mg/L		103	75 - 125
Copper	<0.00500		0.200	0.2011		mg/L		101	75 - 125
Lead	0.000904		0.200	0.2065		mg/L		103	75 - 125
Nickel	<0.00500		0.200	0.1989		mg/L		98	75 - 125
Selenium	<0.00500		0.400	0.3919		mg/L		98	75 - 125
Silver	<0.00100		0.100	0.1171		mg/L		117	75 - 125
Thallium	<0.00100		0.100	0.08894		mg/L		89	75 - 125
Vanadium	<0.00500		0.100	0.1047		mg/L		100	75 - 125
Zinc	<0.0200		0.200	0.2001		mg/L		100	75 - 125

Lab Sample ID: 310-305779-1 MSD
Client Sample ID: MW-14
Matrix: Ground Water
Prep Type: Total/NA
Analysis Batch: 454752
Prep Batch: 454302

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2210		mg/L		111	75 - 125	1	20
Arsenic	<0.00200		0.200	0.2100		mg/L		104	75 - 125	0	20
Barium	0.276		0.100	0.3712		mg/L		95	75 - 125	1	20
Beryllium	<0.00100		0.100	0.09959		mg/L		100	75 - 125	0	20
Cadmium	<0.000200		0.100	0.09797		mg/L		98	75 - 125	1	20
Chromium	<0.00500		0.100	0.1010		mg/L		98	75 - 125	0	20
Cobalt	0.000570		0.100	0.1033		mg/L		103	75 - 125	0	20

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

Lab Sample ID: 310-305779-1 MSD — **Client Sample ID: MW-14**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 454752 — **Prep Batch: 454302**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	<0.00500		0.200	0.2016		mg/L		101	75 - 125	0	20
Lead	0.000904		0.200	0.2074		mg/L		103	75 - 125	0	20
Nickel	<0.00500		0.200	0.1986		mg/L		98	75 - 125	0	20
Selenium	<0.00500		0.400	0.3919		mg/L		98	75 - 125	0	20
Silver	<0.00100		0.100	0.1170		mg/L		117	75 - 125	0	20
Thallium	<0.00100		0.100	0.09047		mg/L		90	75 - 125	2	20
Vanadium	<0.00500		0.100	0.1034		mg/L		99	75 - 125	1	20
Zinc	<0.0200		0.200	0.1960		mg/L		98	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-454513/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454718 — **Prep Batch: 454513**

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

Lab Sample ID: LCS 310-454513/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454718 — **Prep Batch: 454513**

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

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 410-642542/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 642542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.00		2.00		mg/L			05/12/25 07:45	1

Lab Sample ID: LCS 410-642542/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 642542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	20.1	18.17		mg/L		91	77 - 110

Lab Sample ID: LCSD 410-642542/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 642542

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	20.1	18.56		mg/L		93	77 - 110	2	10

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: MRL 410-642542/4
Matrix: Water
Analysis Batch: 642542

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			2.01	1.962	J	mg/L		98			

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

Lab Sample ID: MB 310-454168/1
Matrix: Water
Analysis Batch: 454168

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			05/08/25 14:34	1

Lab Sample ID: LCS 310-454168/2
Matrix: Water
Analysis Batch: 454168

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	100.0		mg/L		100	81 - 116		

GC/MS VOA

Analysis Batch: 454123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	8260D	
310-305779-2	MW-7	Total/NA	Ground Water	8260D	
310-305779-3	MW-10R	Total/NA	Ground Water	8260D	
310-305779-4	Trip Blank Cooler 1	Total/NA	Water	8260D	
310-305779-5	MW-29	Total/NA	Ground Water	8260D	
310-305779-6	GU-1	Total/NA	Ground Water	8260D	
310-305779-7	MW-D	Total/NA	Ground Water	8260D	
310-305779-8	Trip Blank Cooler 2	Total/NA	Water	8260D	
MB 310-454123/6	Method Blank	Total/NA	Water	8260D	
LCS 310-454123/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-454123/8	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 454302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	3005A	
310-305779-2	MW-7	Total/NA	Ground Water	3005A	
310-305779-3	MW-10R	Total/NA	Ground Water	3005A	
310-305779-5	MW-29	Total/NA	Ground Water	3005A	
310-305779-6	GU-1	Total/NA	Ground Water	3005A	
310-305779-7	MW-D	Total/NA	Ground Water	3005A	
MB 310-454302/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-454302/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-305779-1 MS	MW-14	Total/NA	Ground Water	3005A	
310-305779-1 MSD	MW-14	Total/NA	Ground Water	3005A	

Prep Batch: 454513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	7470A	
MB 310-454513/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-454513/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 454718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	7470A	454513
MB 310-454513/1-A	Method Blank	Total/NA	Water	7470A	454513
LCS 310-454513/2-A	Lab Control Sample	Total/NA	Water	7470A	454513

Analysis Batch: 454752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	6020B	454302
310-305779-2	MW-7	Total/NA	Ground Water	6020B	454302
310-305779-3	MW-10R	Total/NA	Ground Water	6020B	454302
310-305779-5	MW-29	Total/NA	Ground Water	6020B	454302
310-305779-6	GU-1	Total/NA	Ground Water	6020B	454302
310-305779-7	MW-D	Total/NA	Ground Water	6020B	454302
MB 310-454302/1-A	Method Blank	Total/NA	Water	6020B	454302
LCS 310-454302/2-A	Lab Control Sample	Total/NA	Water	6020B	454302
310-305779-1 MS	MW-14	Total/NA	Ground Water	6020B	454302
310-305779-1 MSD	MW-14	Total/NA	Ground Water	6020B	454302

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

General Chemistry

Analysis Batch: 454168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	I-3765-85	
310-305779-2	MW-7	Total/NA	Ground Water	I-3765-85	
310-305779-3	MW-10R	Total/NA	Ground Water	I-3765-85	
310-305779-5	MW-29	Total/NA	Ground Water	I-3765-85	
310-305779-6	GU-1	Total/NA	Ground Water	I-3765-85	
310-305779-7	MW-D	Total/NA	Ground Water	I-3765-85	
MB 310-454168/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-454168/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 642542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-305779-1	MW-14	Total/NA	Ground Water	9034	
MB 410-642542/1	Method Blank	Total/NA	Water	9034	
LCS 410-642542/2	Lab Control Sample	Total/NA	Water	9034	
LCSD 410-642542/3	Lab Control Sample Dup	Total/NA	Water	9034	
MRL 410-642542/4	Lab Control Sample	Total/NA	Water	9034	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: MW-14
Lab Sample ID: 310-305779-1
Date Collected: 05/06/25 14:28
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 14:02
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 16:51
Total/NA	Prep	7470A			454513	F5MW	EET CF	05/14/25 08:46
Total/NA	Analysis	7470A		1	454718	F5MW	EET CF	05/14/25 14:45
Total/NA	Analysis	9034		1	642542	USAE	ELLE	05/12/25 07:45
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Client Sample ID: MW-7
Lab Sample ID: 310-305779-2
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 14:25
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:05
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Client Sample ID: MW-10R
Lab Sample ID: 310-305779-3
Date Collected: 05/06/25 12:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 14:47
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:07
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Client Sample ID: Trip Blank Cooler 1
Lab Sample ID: 310-305779-4
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 10:39

Client Sample ID: MW-29
Lab Sample ID: 310-305779-5
Date Collected: 05/06/25 10:01
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 15:10
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:10
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Lab Chronicle

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Client Sample ID: GU-1
Lab Sample ID: 310-305779-6
Date Collected: 05/06/25 16:39
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 15:32
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:12
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Client Sample ID: MW-D
Lab Sample ID: 310-305779-7
Date Collected: 05/06/25 10:50
Matrix: Ground Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 15:55
Total/NA	Prep	3005A			454302	QTZ5	EET CF	05/12/25 08:00
Total/NA	Analysis	6020B		1	454752	NFT2	EET CF	05/14/25 17:15
Total/NA	Analysis	I-3765-85		1	454168	HE7K	EET CF	05/08/25 14:34

Client Sample ID: Trip Blank Cooler 2
Lab Sample ID: 310-305779-8
Date Collected: 05/06/25 00:00
Matrix: Water
Date Received: 05/07/25 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454123	WSE8	EET CF	05/09/25 11:02

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Laboratory: Eurofins Cedar Falls

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

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

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	361	03-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9034		Ground Water	Sulfide

Method Summary

Client: SCS Engineers
Job ID: 310-305779-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	ELLE
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

eurofins | Environment Testing America

310-305779 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS			
City/State: CITY W. Des Moines	STATE IA	Project:	
Receipt Information			
Date/Time Received: DATE 5/7/25	TIME 1540	Received By: XB	

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes ☐ No	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present?	☐ Yes ☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☒ Yes ☐ No	*If yes:* Which VOA samples are in cooler? ↓

WTB1, MW-14, MW-7

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: 2	Correction Factor (°C): 0

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

Uncorrected Temp (°C): 0.8	Corrected Temp (°C): 0.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY W. Des Moines STATE IA | Project:

Receipt Information

Date/Time Received: DATE 5/7/25 TIME 1540 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 2 of 2

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☒ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓

WTB 2, MW10R, MW29, GW1, MWD

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 3.6 | Corrected Temp (°C): 3.6

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Des Moines SC
214

Chain of Custody Record

eurofins

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA
50613

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurof

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No:
SCS Engineers	Email: bmadson@scsengineers com	Lab Contact: Samuel Miller	Carrier:	1 of 2 C
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler:
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name:1st 2025 Semi-Annual Sampling (HMSP)	☐ 2 weeks			
Site Loess Hills Regional Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225091 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Appendix II	Sulfide	Natural Attenuation	TSS	Mercury	Trip Blank	Sample Specific
MW-14 ✓	5-6	14:28	G	GW				X		X		X	X		
~~MW-16~~			G	GW				X				X			
~~MW-17~~			G	GW				X		X		X	X		
MW-7 ✓	5 6	10:50	G	GW				X				X			
~~MW-8R~~			G	GW				X		X	X	X			Natural Attenuation: Iron Mang Sulfate
MW-10R ✓	5-6	12:39	G	GW				X				X			
~~MW-11R~~			G	GW				X		X	X	X			
~~MW-25~~			G	GW					X			X			
~~MW-26R~~			G	GW				X		X	X	X			
Trip Blank														X	Include trip blanks in every VOC sample cont

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Natural Attenuation: Iron Manganese, Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No	5-6 1730	Cooler Temp. (°C): Obs'd _____ Corr'd _____ Therm ID No. _____		
Relinquished by: Garrett Houk	Company: SCS	Date/Time: 5-6 1730	Received by:	Company: EA	Date/Time: 5-7 0700
Relinquished by:	Company: EA	Date/Time: 5-7 0800	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 5/7/25 1540

Form No. CA-C-WI-002, Rev. 4.23,

5/15/2025

Des Moines SC
214

Chain of Custody Record

eurofins

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA
50613

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica Laboratories, Inc. d/b/a Eurof

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email bmadson@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	2 of 2
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐CALENDAR DAYS ☐WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name 1st 2025 Semi-Annual Sampling (HMSP)	☐ 2 weeks			
Site. Loess Hills Regional Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225091 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Natural Attenuation	TSS	Appendix II	Beta-BHC	Trip Blank	Sample Specific
~~MW-27R~~			G	GW				X	X	X				Natural Attenuation: Iron Mang Sulfate
~~MW-28~~			G	GW					X	X	X	X		
MW-29	5-6	10:01	G	GW				X		X				
GU-1	5-6	16:34	G	GW				X		X				
~~SW-4~~			G	GW				X		X				
MW-D	5-6	10:50	G	GW				X		X				
Trip Blank													X	Include trip blanks in every VOC sample cont

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐Non-Hazard ☐Flammable ☐Skin Irritant ☑Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Natural Attenuation: Iron, Manganese, Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd	Corr'd	Therm ID No
Relinquished by: Garrett Hrach	Company: SCS	Date/Time: 5-6 1730	Received by:	Company: EL	Date/Time: 5-7 0700
Relinquished by:	Company: EL	Date/Time: 5-7 0740	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time	Received in Laboratory by: KB	Company:	Date/Time: 5/7/25 1540

Form No. CA-C-WI-002, Rev. 4.23, d

5/15/2025

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller, Samuel	Carrier Tracking No(s): N/A	COC No: 310-82840.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-305779-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 5/20/2025			
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: 1st 2025 Semi-Annual Sampling (HMSP)	Project #: 31013424			
Site: 310-SCS Loess Hills	SSOW#: N/A			

Analysis Requested

Preservation Codes:
-

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9034/ Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-14 (310-305779-1)	5/6/25	14.28 Central	G	Water			X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 5625 1715	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/9/25 1000	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 4.5	4.4

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-305779-1
SDG Number:

Login Number: 305779
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-305779-1
SDG Number:

Login Number: 305779
List Number: 2
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/10/25 09:58 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

1st 2025 Semi-Annual Sampling (HMSP)
Loess Hills Regional Sanitary Landfill

JOB NUMBER

310-306962-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

Authorization



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Job ID: 310-306962-1 Eurofins Cedar Falls

Job Narrative
310-306962-1

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

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

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

Receipt
The samples were received on 5/21/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C.

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

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

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

Sample Summary

Client: SCS Engineers
Job ID: 310-306962-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)
SDG: Loess Hills Regional Sanitary Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-306962-1	MW-14	Water	05/20/25 20:30	05/21/25 16:00
310-306962-2	SW-4	Water	05/20/25 19:30	05/21/25 16:00

Detection Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-306962-1
SDG: Loess Hills Regional Sanitary Landfill

Client Sample ID: MW-14 — Lab Sample ID: 310-306962-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.241		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	19.8		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: SW-4 — Lab Sample ID: 310-306962-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00246		0.00200		mg/L	1		6020B	Total/NA
Barium	0.262		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.00219		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00716		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00507		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.00589		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.00513		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0762		0.0200		mg/L	1		6020B	Total/NA
Total Suspended Solids	336		15.0		mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14
Lab Sample ID: 310-306962-1
Date Collected: 05/20/25 20:30
Matrix: Water
Date Received: 05/21/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/23/25 04:06	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/23/25 04:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/23/25 04:06	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/23/25 04:06	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/23/25 04:06	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/23/25 04:06	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/23/25 04:06	1
2-Hexanone	<10.0		10.0		ug/L			05/23/25 04:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/23/25 04:06	1
Acetone	<10.0		10.0		ug/L			05/23/25 04:06	1
Acrylonitrile	<5.00		5.00		ug/L			05/23/25 04:06	1
Benzene	<0.500		0.500		ug/L			05/23/25 04:06	1
Bromochloromethane	<5.00		5.00		ug/L			05/23/25 04:06	1
Bromodichloromethane	<1.00		1.00		ug/L			05/23/25 04:06	1
Bromoform	<5.00		5.00		ug/L			05/23/25 04:06	1
Bromomethane	<4.00		4.00		ug/L			05/23/25 04:06	1
Carbon disulfide	<1.00		1.00		ug/L			05/23/25 04:06	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/23/25 04:06	1
Chlorobenzene	<1.00		1.00		ug/L			05/23/25 04:06	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/23/25 04:06	1
Chloroethane	<4.00		4.00		ug/L			05/23/25 04:06	1
Chloroform	<3.00		3.00		ug/L			05/23/25 04:06	1
Chloromethane	<3.00		3.00		ug/L			05/23/25 04:06	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/23/25 04:06	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/23/25 04:06	1
Dibromomethane	<1.00		1.00		ug/L			05/23/25 04:06	1
Ethylbenzene	<1.00		1.00		ug/L			05/23/25 04:06	1
Iodomethane	<10.0		10.0		ug/L			05/23/25 04:06	1
Methylene Chloride	<5.00		5.00		ug/L			05/23/25 04:06	1
Styrene	<1.00		1.00		ug/L			05/23/25 04:06	1
Tetrachloroethene	<1.00		1.00		ug/L			05/23/25 04:06	1
Toluene	<1.00		1.00		ug/L			05/23/25 04:06	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/23/25 04:06	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/23/25 04:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/23/25 04:06	1
Trichloroethene	<1.00		1.00		ug/L			05/23/25 04:06	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/23/25 04:06	1
Vinyl acetate	<10.0		10.0		ug/L			05/23/25 04:06	1
Vinyl chloride	<1.00		1.00		ug/L			05/23/25 04:06	1
Xylenes, Total	<3.00		3.00		ug/L			05/23/25 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*114*		*76 - 130*		*05/23/25 04:06*	*1*

Client Sample ID: MW-14
Lab Sample ID: 310-306962-1
Date Collected: 05/20/25 20:30
Matrix: Water
Date Received: 05/21/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*05/23/25 04:06*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/23/25 04:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/23/25 09:30	05/29/25 15:22	1
Arsenic	<0.00200		0.00200		mg/L		05/23/25 09:30	05/28/25 20:01	1
Barium	**0.241**		0.00200		mg/L		05/23/25 09:30	05/28/25 20:01	1
Beryllium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:01	1
Cadmium	<0.000200		0.000200		mg/L		05/23/25 09:30	05/28/25 20:01	1
Chromium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Cobalt	<0.000500		0.000500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Copper	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Lead	<0.000500		0.000500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Nickel	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Selenium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Silver	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:01	1
Thallium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:01	1
Vanadium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:01	1
Zinc	<0.0200		0.0200		mg/L		05/23/25 09:30	05/28/25 20:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		06/02/25 09:55	06/02/25 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			05/27/25 08:53	1
Total Suspended Solids (USGS I-3765-85)	**19.8**		1.9		mg/L			05/22/25 15:05	1

Client Sample ID: SW-4
Date Collected: 05/20/25 19:30
Date Received: 05/21/25 16:00

Lab Sample ID: 310-306962-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/24/25 02:52	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/24/25 02:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/24/25 02:52	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/24/25 02:52	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/24/25 02:52	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/24/25 02:52	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/24/25 02:52	1
2-Hexanone	<10.0		10.0		ug/L			05/24/25 02:52	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/24/25 02:52	1
Acetone	<10.0		10.0		ug/L			05/24/25 02:52	1
Acrylonitrile	<5.00		5.00		ug/L			05/24/25 02:52	1
Benzene	<0.500		0.500		ug/L			05/24/25 02:52	1
Bromochloromethane	<5.00		5.00		ug/L			05/24/25 02:52	1
Bromodichloromethane	<1.00		1.00		ug/L			05/24/25 02:52	1
Bromoform	<5.00		5.00		ug/L			05/24/25 02:52	1
Bromomethane	<4.00		4.00		ug/L			05/24/25 02:52	1
Carbon disulfide	<1.00		1.00		ug/L			05/24/25 02:52	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/24/25 02:52	1
Chlorobenzene	<1.00		1.00		ug/L			05/24/25 02:52	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/24/25 02:52	1
Chloroethane	<4.00		4.00		ug/L			05/24/25 02:52	1
Chloroform	<3.00		3.00		ug/L			05/24/25 02:52	1
Chloromethane	<3.00		3.00		ug/L			05/24/25 02:52	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/24/25 02:52	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/24/25 02:52	1
Dibromomethane	<1.00		1.00		ug/L			05/24/25 02:52	1
Ethylbenzene	<1.00		1.00		ug/L			05/24/25 02:52	1
Iodomethane	<10.0		10.0		ug/L			05/27/25 14:15	1
Methylene Chloride	<5.00		5.00		ug/L			05/24/25 02:52	1
Styrene	<1.00		1.00		ug/L			05/24/25 02:52	1
Tetrachloroethene	<1.00		1.00		ug/L			05/24/25 02:52	1
Toluene	<1.00		1.00		ug/L			05/24/25 02:52	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/24/25 02:52	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/24/25 02:52	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/24/25 02:52	1
Trichloroethene	<1.00		1.00		ug/L			05/24/25 02:52	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/24/25 02:52	1
Vinyl acetate	<10.0		10.0		ug/L			05/24/25 02:52	1
Vinyl chloride	<1.00		1.00		ug/L			05/24/25 02:52	1
Xylenes, Total	<3.00		3.00		ug/L			05/24/25 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*112*		*76 - 130*		*05/24/25 02:52*	*1*

Client Sample ID: SW-4
Lab Sample ID: 310-306962-2
Date Collected: 05/20/25 19:30
Matrix: Water
Date Received: 05/21/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*76 - 130*		*05/27/25 14:15*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*05/24/25 02:52*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/27/25 14:15*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/24/25 02:52*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/27/25 14:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/23/25 09:30	05/29/25 15:25	1
Arsenic	**0.00246**		0.00200		mg/L		05/23/25 09:30	05/28/25 20:09	1
Barium	**0.262**		0.00200		mg/L		05/23/25 09:30	05/28/25 20:09	1
Beryllium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:09	1
Cadmium	<0.000200		0.000200		mg/L		05/23/25 09:30	05/28/25 20:09	1
Chromium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Cobalt	**0.00219**		0.000500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Copper	**0.00716**		0.00500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Lead	**0.00507**		0.000500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Nickel	**0.00589**		0.00500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Selenium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Silver	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:09	1
Thallium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 20:09	1
Vanadium	**0.00513**		0.00500		mg/L		05/23/25 09:30	05/28/25 20:09	1
Zinc	**0.0762**		0.0200		mg/L		05/23/25 09:30	05/28/25 20:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**336**		15.0		mg/L			05/22/25 16:07	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-306962-1
SDG: Loess Hills Regional Sanitary Landfill

Qualifiers

Metals

Qualifier	Qualifier Description
E	Result exceeded calibration range.

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-306962-1
SDG: Loess Hills Regional Sanitary Landfill

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-306962-1	MW-14	114	93	103
310-306962-2	SW-4	112	94	102
310-306962-2	SW-4	100	98	101
310-306962-2 MS	SW-4	94	98	99
310-306962-2 MSD	SW-4	91	97	102
LCS 310-455442/7	Lab Control Sample	99	98	96
LCS 310-455442/8	Lab Control Sample	117	95	97
LCS 310-455664/7	Lab Control Sample	100	104	96
LCS 310-455664/8	Lab Control Sample	114	95	101
LCS 310-455746/6	Lab Control Sample	83	101	107
LCS 310-455746/7	Lab Control Sample	93	99	104
MB 310-455442/6	Method Blank	115	94	103
MB 310-455664/6	Method Blank	114	94	100
MB 310-455746/5	Method Blank	93	101	105

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-455442/6
Matrix: Water
Analysis Batch: 455442

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/22/25 21:42	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/22/25 21:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/22/25 21:42	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/22/25 21:42	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/22/25 21:42	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/22/25 21:42	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/22/25 21:42	1
2-Hexanone	<10.0		10.0		ug/L			05/22/25 21:42	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/22/25 21:42	1
Acetone	<10.0		10.0		ug/L			05/22/25 21:42	1
Acrylonitrile	<5.00		5.00		ug/L			05/22/25 21:42	1
Benzene	<0.500		0.500		ug/L			05/22/25 21:42	1
Bromochloromethane	<5.00		5.00		ug/L			05/22/25 21:42	1
Bromodichloromethane	<1.00		1.00		ug/L			05/22/25 21:42	1
Bromoform	<5.00		5.00		ug/L			05/22/25 21:42	1
Bromomethane	<4.00		4.00		ug/L			05/22/25 21:42	1
Carbon disulfide	<1.00		1.00		ug/L			05/22/25 21:42	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/22/25 21:42	1
Chlorobenzene	<1.00		1.00		ug/L			05/22/25 21:42	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/22/25 21:42	1
Chloroethane	<4.00		4.00		ug/L			05/22/25 21:42	1
Chloroform	<3.00		3.00		ug/L			05/22/25 21:42	1
Chloromethane	<3.00		3.00		ug/L			05/22/25 21:42	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/22/25 21:42	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/22/25 21:42	1
Dibromomethane	<1.00		1.00		ug/L			05/22/25 21:42	1
Ethylbenzene	<1.00		1.00		ug/L			05/22/25 21:42	1
Iodomethane	<10.0		10.0		ug/L			05/22/25 21:42	1
Methylene Chloride	<5.00		5.00		ug/L			05/22/25 21:42	1
Styrene	<1.00		1.00		ug/L			05/22/25 21:42	1
Tetrachloroethene	<1.00		1.00		ug/L			05/22/25 21:42	1
Toluene	<1.00		1.00		ug/L			05/22/25 21:42	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/22/25 21:42	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/22/25 21:42	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/22/25 21:42	1
Trichloroethene	<1.00		1.00		ug/L			05/22/25 21:42	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/22/25 21:42	1
Vinyl acetate	<10.0		10.0		ug/L			05/22/25 21:42	1
Vinyl chloride	<1.00		1.00		ug/L			05/22/25 21:42	1
Xylenes, Total	<3.00		3.00		ug/L			05/22/25 21:42	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-455442/6
Matrix: Water
Analysis Batch: 455442

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*115*		*76 - 130*		*05/22/25 21:42*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*05/22/25 21:42*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/22/25 21:42*	*1*

Lab Sample ID: LCS 310-455442/7
Matrix: Water
Analysis Batch: 455442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.30		ug/L		91	70 - 121
1,1,1-Trichloroethane	20.0	19.67		ug/L		98	69 - 130
1,1,2,2-Tetrachloroethane	20.0	17.28		ug/L		86	70 - 122
1,1,2-Trichloroethane	20.0	16.71		ug/L		84	75 - 121
1,1-Dichloroethane	20.0	18.54		ug/L		93	69 - 127
1,1-Dichloroethene	20.0	19.20		ug/L		96	64 - 134
1,2,3-Trichloropropane	20.0	17.01		ug/L		85	70 - 122
1,2-Dibromo-3-Chloropropane	20.0	16.71		ug/L		84	62 - 132
1,2-Dibromoethane (EDB)	20.0	16.84		ug/L		84	74 - 122
1,2-Dichlorobenzene	20.0	18.47		ug/L		92	74 - 120
1,2-Dichloroethane	20.0	21.04		ug/L		105	68 - 125
1,2-Dichloropropane	20.0	17.86		ug/L		89	72 - 128
1,4-Dichlorobenzene	20.0	18.20		ug/L		91	72 - 120
2-Butanone (MEK)	40.0	37.74		ug/L		94	60 - 134
2-Hexanone	40.0	34.60		ug/L		87	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	36.82		ug/L		92	62 - 136
Acetone	40.0	41.46		ug/L		104	59 - 136
Acrylonitrile	200	175.2		ug/L		88	50 - 150
Benzene	20.0	18.15		ug/L		91	71 - 125
Bromochloromethane	20.0	19.44		ug/L		97	69 - 131
Bromodichloromethane	20.0	18.88		ug/L		94	70 - 122
Bromoform	20.0	17.45		ug/L		87	62 - 122
Carbon disulfide	20.0	18.85		ug/L		94	58 - 137
Carbon tetrachloride	20.0	21.77		ug/L		109	63 - 136
Chlorobenzene	20.0	18.15		ug/L		91	74 - 120
Chlorodibromomethane	20.0	17.43		ug/L		87	69 - 121
Chloroform	20.0	20.70		ug/L		104	72 - 122
cis-1,2-Dichloroethene	20.0	19.47		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	16.57		ug/L		83	72 - 123
Dibromomethane	20.0	20.45		ug/L		102	72 - 122
Ethylbenzene	20.0	18.90		ug/L		95	75 - 120
Iodomethane	20.0	14.66		ug/L		73	18 - 150
Methylene Chloride	20.0	18.67		ug/L		93	72 - 128
Styrene	20.0	16.82		ug/L		84	74 - 122
Tetrachloroethene	20.0	18.83		ug/L		94	70 - 128
Toluene	20.0	19.56		ug/L		98	74 - 120
trans-1,2-Dichloroethene	20.0	19.64		ug/L		98	67 - 127
trans-1,3-Dichloropropene	20.0	16.83		ug/L		84	67 - 123
trans-1,4-Dichloro-2-butene	20.0	17.89		ug/L		89	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-455442/7
Matrix: Water
Analysis Batch: 455442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	17.65		ug/L		88	70 - 128
Vinyl acetate	40.0	30.89		ug/L		77	50 - 150
Xylenes, Total	40.0	37.38		ug/L		93	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 310-455442/8
Matrix: Water
Analysis Batch: 455442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	20.70		ug/L		104	33 - 138
Chloroethane	20.0	20.27		ug/L		101	59 - 139
Chloromethane	20.0	18.31		ug/L		92	52 - 146
Trichlorofluoromethane	20.0	25.45		ug/L		127	55 - 150
Vinyl chloride	20.0	20.20		ug/L		101	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*117*		*76 - 130*
Toluene-d8 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

Lab Sample ID: MB 310-455664/6
Matrix: Water
Analysis Batch: 455664

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/23/25 22:43	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			05/23/25 22:43	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/23/25 22:43	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/23/25 22:43	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/23/25 22:43	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/23/25 22:43	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/23/25 22:43	1
2-Hexanone	<10.0		10.0		ug/L			05/23/25 22:43	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			05/23/25 22:43	1
Acetone	<10.0		10.0		ug/L			05/23/25 22:43	1
Acrylonitrile	<5.00		5.00		ug/L			05/23/25 22:43	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-455664/6
Matrix: Water
Analysis Batch: 455664

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			05/23/25 22:43	1
Bromochloromethane	<5.00		5.00		ug/L			05/23/25 22:43	1
Bromodichloromethane	<1.00		1.00		ug/L			05/23/25 22:43	1
Bromoform	<5.00		5.00		ug/L			05/23/25 22:43	1
Bromomethane	<4.00		4.00		ug/L			05/23/25 22:43	1
Carbon disulfide	<1.00		1.00		ug/L			05/23/25 22:43	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/23/25 22:43	1
Chlorobenzene	<1.00		1.00		ug/L			05/23/25 22:43	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/23/25 22:43	1
Chloroethane	<4.00		4.00		ug/L			05/23/25 22:43	1
Chloroform	<3.00		3.00		ug/L			05/23/25 22:43	1
Chloromethane	<3.00		3.00		ug/L			05/23/25 22:43	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/23/25 22:43	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/23/25 22:43	1
Dibromomethane	<1.00		1.00		ug/L			05/23/25 22:43	1
Ethylbenzene	<1.00		1.00		ug/L			05/23/25 22:43	1
Methylene Chloride	<5.00		5.00		ug/L			05/23/25 22:43	1
Styrene	<1.00		1.00		ug/L			05/23/25 22:43	1
Tetrachloroethene	<1.00		1.00		ug/L			05/23/25 22:43	1
Toluene	<1.00		1.00		ug/L			05/23/25 22:43	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/23/25 22:43	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/23/25 22:43	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			05/23/25 22:43	1
Trichloroethene	<1.00		1.00		ug/L			05/23/25 22:43	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/23/25 22:43	1
Vinyl acetate	<10.0		10.0		ug/L			05/23/25 22:43	1
Vinyl chloride	<1.00		1.00		ug/L			05/23/25 22:43	1
Xylenes, Total	<3.00		3.00		ug/L			05/23/25 22:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*114*		*76 - 130*		*05/23/25 22:43*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*05/23/25 22:43*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/23/25 22:43*	*1*

Lab Sample ID: LCS 310-455664/7
Matrix: Water
Analysis Batch: 455664

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	20.37		ug/L		102	70 - 121
1,1,1-Trichloroethane	20.0	21.52		ug/L		108	69 - 130
1,1,2,2-Tetrachloroethane	20.0	20.12		ug/L		101	70 - 122
1,1,2-Trichloroethane	20.0	19.92		ug/L		100	75 - 121
1,1-Dichloroethane	20.0	19.53		ug/L		98	69 - 127
1,1-Dichloroethene	20.0	20.40		ug/L		102	64 - 134
1,2,3-Trichloropropane	20.0	20.87		ug/L		104	70 - 122
1,2-Dibromo-3-Chloropropane	20.0	19.53		ug/L		98	62 - 132
1,2-Dibromoethane (EDB)	20.0	19.35		ug/L		97	74 - 122

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-455664/7
Matrix: Water
Analysis Batch: 455664

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichlorobenzene	20.0	20.38		ug/L		102	74 - 120
1,2-Dichloroethane	20.0	19.41		ug/L		97	68 - 125
1,2-Dichloropropane	20.0	20.32		ug/L		102	72 - 128
1,4-Dichlorobenzene	20.0	19.55		ug/L		98	72 - 120
2-Butanone (MEK)	40.0	37.47		ug/L		94	60 - 134
2-Hexanone	40.0	37.86		ug/L		95	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	38.30		ug/L		96	62 - 136
Acetone	40.0	41.13		ug/L		103	59 - 136
Acrylonitrile	200	189.2		ug/L		95	50 - 150
Benzene	20.0	19.56		ug/L		98	71 - 125
Bromochloromethane	20.0	21.50		ug/L		108	69 - 131
Bromodichloromethane	20.0	19.94		ug/L		100	70 - 122
Bromoform	20.0	19.26		ug/L		96	62 - 122
Carbon disulfide	20.0	20.29		ug/L		101	58 - 137
Carbon tetrachloride	20.0	21.96		ug/L		110	63 - 136
Chlorobenzene	20.0	19.48		ug/L		97	74 - 120
Chlorodibromomethane	20.0	19.31		ug/L		97	69 - 121
Chloroform	20.0	19.06		ug/L		95	72 - 122
cis-1,2-Dichloroethene	20.0	19.43		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	19.91		ug/L		100	72 - 123
Dibromomethane	20.0	18.75		ug/L		94	72 - 122
Ethylbenzene	20.0	20.03		ug/L		100	75 - 120
Methylene Chloride	20.0	22.56		ug/L		113	72 - 128
Styrene	20.0	20.96		ug/L		105	74 - 122
Tetrachloroethene	20.0	20.00		ug/L		100	70 - 128
Toluene	20.0	19.52		ug/L		98	74 - 120
trans-1,2-Dichloroethene	20.0	19.53		ug/L		98	67 - 127
trans-1,3-Dichloropropene	20.0	18.13		ug/L		91	67 - 123
trans-1,4-Dichloro-2-butene	20.0	20.92		ug/L		105	50 - 150
Trichloroethene	20.0	20.34		ug/L		102	70 - 128
Vinyl acetate	40.0	37.02		ug/L		93	50 - 150
Xylenes, Total	40.0	40.93		ug/L		102	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*76 - 130*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 310-455664/8
Matrix: Water
Analysis Batch: 455664

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	17.38		ug/L		87	33 - 138
Chloroethane	20.0	19.49		ug/L		97	59 - 139
Chloromethane	20.0	19.63		ug/L		98	52 - 146
Trichlorofluoromethane	20.0	21.49		ug/L		107	55 - 150
Vinyl chloride	20.0	18.27		ug/L		91	60 - 142

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-455664/8
Matrix: Water
Analysis Batch: 455664

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	114		76 - 130
Toluene-d8 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: MB 310-455746/5
Matrix: Water
Analysis Batch: 455746

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	<10.0		10.0		ug/L			05/27/25 11:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	93		76 - 130		05/27/25 11:42	1
Toluene-d8 (Surr)	101		80 - 120		05/27/25 11:42	1
4-Bromofluorobenzene (Surr)	105		80 - 120		05/27/25 11:42	1

Lab Sample ID: LCS 310-455746/6
Matrix: Water
Analysis Batch: 455746

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iodomethane			20.0	14.87		ug/L		74	18 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	83		76 - 130
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	107		80 - 120

Lab Sample ID: LCS 310-455746/7
Matrix: Water
Analysis Batch: 455746

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromomethane			20.0	6.634		ug/L		33	33 - 138		
Chloroethane			20.0	18.24		ug/L		91	59 - 139		
Chloromethane			20.0	14.30		ug/L		72	52 - 146		
Trichlorofluoromethane			20.0	16.76		ug/L		84	55 - 150		
Vinyl chloride			20.0	17.61		ug/L		88	60 - 142		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	93		76 - 130
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-306962-2 MS
Matrix: Water
Analysis Batch: 455746

Client Sample ID: SW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iodomethane	<10.0		25.0	14.38		ug/L		58	18 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-306962-2 MSD
Matrix: Water
Analysis Batch: 455746

Client Sample ID: SW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iodomethane	<10.0		25.0	14.39		ug/L		58	18 - 150	0	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*91*		*76 - 130*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-455526/1-A
Matrix: Water
Analysis Batch: 456023

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/23/25 09:30	05/28/25 18:58	1
Barium	<0.00200		0.00200		mg/L		05/23/25 09:30	05/28/25 18:58	1
Beryllium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 18:58	1
Cadmium	<0.000200		0.000200		mg/L		05/23/25 09:30	05/28/25 18:58	1
Chromium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Cobalt	<0.000500		0.000500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Copper	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Lead	<0.000500		0.000500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Nickel	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Selenium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Silver	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 18:58	1
Thallium	<0.00100		0.00100		mg/L		05/23/25 09:30	05/28/25 18:58	1
Vanadium	<0.00500		0.00500		mg/L		05/23/25 09:30	05/28/25 18:58	1
Zinc	<0.0200		0.0200		mg/L		05/23/25 09:30	05/28/25 18:58	1

Lab Sample ID: MB 310-455526/1-A
Matrix: Water
Analysis Batch: 456144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		05/23/25 09:30	05/29/25 14:47	1

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

Lab Sample ID: LCS 310-455526/2-A
Matrix: Water
Analysis Batch: 456023

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.600	0.5660		mg/L		94	80 - 120
Barium	0.300	0.2707		mg/L		90	80 - 120
Beryllium	0.300	0.2571		mg/L		86	80 - 120
Cadmium	0.300	0.2721		mg/L		91	80 - 120
Chromium	0.300	0.2781		mg/L		93	80 - 120
Cobalt	0.300	0.2834		mg/L		94	80 - 120
Copper	0.600	0.5619		mg/L		94	80 - 120
Lead	0.600	0.5544		mg/L		92	80 - 120
Nickel	0.600	0.5896		mg/L		98	80 - 120
Selenium	1.20	1.053	E	mg/L		88	80 - 120
Silver	0.300	0.2782		mg/L		93	80 - 120
Thallium	0.300	0.2534		mg/L		84	80 - 120
Vanadium	0.300	0.2814		mg/L		94	80 - 120
Zinc	0.600	0.5399		mg/L		90	80 - 120

Lab Sample ID: LCS 310-455526/2-A
Matrix: Water
Analysis Batch: 456144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.600	0.5920	E	mg/L		99	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-455943/1-A
Matrix: Water
Analysis Batch: 456380

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		06/02/25 09:55	06/02/25 15:03	1

Lab Sample ID: LCS 310-455943/2-A
Matrix: Water
Analysis Batch: 456380

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001666		mg/L		100	80 - 120

Lab Sample ID: 310-306962-1 MS
Matrix: Water
Analysis Batch: 456380

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 455943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001714		mg/L		103	80 - 120

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

Lab Sample ID: 310-306962-1 MSD — **Client Sample ID: MW-14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 456380 — **Prep Batch: 455943**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001698		mg/L		102	80 - 120	1	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 410-649043/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 649043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.00		2.00		mg/L			05/27/25 08:53	1

Lab Sample ID: LCS 410-649043/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 649043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	20.0	17.84		mg/L		89	77 - 110

Lab Sample ID: MRL 410-649043/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 649043

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	2.00	1.755	J	mg/L		88	

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

Lab Sample ID: MB 310-455500/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455500

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			05/22/25 15:05	1

Lab Sample ID: LCS 310-455500/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455500

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	99.00		mg/L		99	81 - 116

Lab Sample ID: MB 310-455515/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			05/22/25 16:07	1

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

Lab Sample ID: LCS 310-455515/2
Matrix: Water
Analysis Batch: 455515

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	99.00		mg/L		99	81 - 116

GC/MS VOA

Analysis Batch: 455442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	8260D	
MB 310-455442/6	Method Blank	Total/NA	Water	8260D	
LCS 310-455442/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-455442/8	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 455664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-2	SW-4	Total/NA	Water	8260D	
MB 310-455664/6	Method Blank	Total/NA	Water	8260D	
LCS 310-455664/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-455664/8	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 455746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-2	SW-4	Total/NA	Water	8260D	
MB 310-455746/5	Method Blank	Total/NA	Water	8260D	
LCS 310-455746/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-455746/7	Lab Control Sample	Total/NA	Water	8260D	
310-306962-2 MS	SW-4	Total/NA	Water	8260D	
310-306962-2 MSD	SW-4	Total/NA	Water	8260D	

Metals

Prep Batch: 455526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	3005A	
310-306962-2	SW-4	Total/NA	Water	3005A	
MB 310-455526/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-455526/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 455943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	7470A	
MB 310-455943/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-455943/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-306962-1 MS	MW-14	Total/NA	Water	7470A	
310-306962-1 MSD	MW-14	Total/NA	Water	7470A	

Analysis Batch: 456023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	6020B	455526
310-306962-2	SW-4	Total/NA	Water	6020B	455526
MB 310-455526/1-A	Method Blank	Total/NA	Water	6020B	455526
LCS 310-455526/2-A	Lab Control Sample	Total/NA	Water	6020B	455526

Analysis Batch: 456144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	6020B	455526
310-306962-2	SW-4	Total/NA	Water	6020B	455526
MB 310-455526/1-A	Method Blank	Total/NA	Water	6020B	455526
LCS 310-455526/2-A	Lab Control Sample	Total/NA	Water	6020B	455526

QC Association Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)

Job ID: 310-306962-1
SDG: Loess Hills Regional Sanitary Landfill

Metals

Analysis Batch: 456380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	7470A	455943
MB 310-455943/1-A	Method Blank	Total/NA	Water	7470A	455943
LCS 310-455943/2-A	Lab Control Sample	Total/NA	Water	7470A	455943
310-306962-1 MS	MW-14	Total/NA	Water	7470A	455943
310-306962-1 MSD	MW-14	Total/NA	Water	7470A	455943

General Chemistry

Analysis Batch: 455500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	I-3765-85	
MB 310-455500/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-455500/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 455515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-2	SW-4	Total/NA	Water	I-3765-85	
MB 310-455515/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-455515/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 649043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-306962-1	MW-14	Total/NA	Water	9034	
MB 410-649043/1	Method Blank	Total/NA	Water	9034	
LCS 410-649043/2	Lab Control Sample	Total/NA	Water	9034	
MRL 410-649043/3	Lab Control Sample	Total/NA	Water	9034	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-306962-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)
SDG: Loess Hills Regional Sanitary Landfill

Client Sample ID: MW-14
Lab Sample ID: 310-306962-1
Date Collected: 05/20/25 20:30
Matrix: Water
Date Received: 05/21/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	455442	WSE8	EET CF	05/23/25 04:06
Total/NA	Prep	3005A			455526	QTZ5	EET CF	05/23/25 09:30
Total/NA	Analysis	6020B		1	456023	NFT2	EET CF	05/28/25 20:01
Total/NA	Prep	3005A			455526	QTZ5	EET CF	05/23/25 09:30
Total/NA	Analysis	6020B		1	456144	NFT2	EET CF	05/29/25 15:22
Total/NA	Prep	7470A			455943	F5MW	EET CF	06/02/25 09:55
Total/NA	Analysis	7470A		1	456380	QTZ5	EET CF	06/02/25 15:07
Total/NA	Analysis	9034		1	649043	UML5	ELLE	05/27/25 08:53
Total/NA	Analysis	I-3765-85		1	455500	WZC8	EET CF	05/22/25 15:05

Client Sample ID: SW-4
Lab Sample ID: 310-306962-2
Date Collected: 05/20/25 19:30
Matrix: Water
Date Received: 05/21/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	455746	WSE8	EET CF	05/27/25 14:15
Total/NA	Analysis	8260D		1	455664	WSE8	EET CF	05/24/25 02:52
Total/NA	Prep	3005A			455526	QTZ5	EET CF	05/23/25 09:30
Total/NA	Analysis	6020B		1	456023	NFT2	EET CF	05/28/25 20:09
Total/NA	Prep	3005A			455526	QTZ5	EET CF	05/23/25 09:30
Total/NA	Analysis	6020B		1	456144	NFT2	EET CF	05/29/25 15:25
Total/NA	Analysis	I-3765-85		1	455515	WZC8	EET CF	05/22/25 16:07

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-306962-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)
SDG: Loess Hills Regional Sanitary Landfill

Laboratory: Eurofins Cedar Falls

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

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

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	361	03-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9034		Water	Sulfide

Method Summary

Client: SCS Engineers
Job ID: 310-306962-1
Project/Site: 1st 2025 Semi-Annual Sampling (HMSP)
SDG: Loess Hills Regional Sanitary Landfill

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	ELLE
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

eurofins | Environment Testing America

310-306962 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY West Des Moines STATE IA | Project

Receipt Information

Date/Time Received: DATE 5/21/25 TIME 1600 | Received By: BP

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes.* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID: 2 | Correction Factor (°C): 0

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

Uncorrected Temp (°C): | Corrected Temp (°C):

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:	pl 1L unpreserved	
Uncorrected Temp (°C):	5.3	
Corrected Temp (°C):	5.3	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Bottles labeled MW-27R or MW-25 they are for MW-14 per note rcvd w/ paperwork - attached

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls IA
50613

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email: bmadson@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	1 of 2 COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler:
West Des Moines IA 50265	Analysis Turnaround Time			For Lab Use Only:
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling
Project Name. 1st 2025 Semi-Annual Sampling (HMSP)				Job / SDG No.
Site. Loess Hills Regional Sanitary Landfill				
P O # 27225091 01				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Appendix I	Appendix II	Sulfide	Natural Attenuation	TSS	Mercury	Trip Blank	Sample Specific Notes.
MW-14	5-20	20:50	G	GW				X		X		X	X		Sample set made from dry well bottles
~~MW-16~~	~	~	G	GW				X				X			Not present
~~MW-17~~	~	~	G	GW				X		X		X	X		
~~MW-7~~	~	~	G	GW				X				X			
~~MW-8R~~	~	~	G	GW				X		X	X	X			Natural Attenuation: Iron Manganese Nitrate and Sulfate
~~MW-10R~~	~	~	G	GW				X				X			
~~MW-11R~~	~	~	G	GW				X		X	X	X			
~~MW-25~~	~	~	G	GW					X			X			
~~MW-26R~~	~	~	G	GW				X		X	X	X			
Trip Blank	~	~												X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Natural Attenuation: Iron Manganese Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No._____

Relinquished by: Garrett Honas	Company: SCS	Date/Time: 5-21 11:03	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time.	Received by:	Company:	Date/Time.
Relinquished by:	Company:	Date/Time.	Received in Laboratory by: BP	Company: Eurofins	Date/Time. 5/21/25 1600

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls IA
50613

Chain of Custody Record

eurofins

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email. bmadson@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	2 of 2 COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name.1st 2025 Semi-Annual Sampling (HMSP)	☐ 2 weeks			
Site. Loess Hills Regional Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225091 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Natural Attenuation	TSS	Appendix II	Beta-BHC	Trip Blank	Sample Specific Notes
~~MW-27R~~			G	GW				X	X	X				Natural Attenuation. Iron Manganese, Nitrate, and Sulfate
~~MW-28~~			G	GW					X	X	X	X		Not Present
~~MW-29~~			G	GW				X		X				
~~GU-1~~			G	GW				X		X				
SW-4	5-20	1930	G	GW				X		X				
~~MW-D~~			G	GW				X		X				Not Present
Trip Blank													X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments.

Natural Attenuation. Iron Manganese Nitrate and Sulfate

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ | Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Garrett Hoerig	SCS	5/21 11:03			
Relinquished by	Company	Date/Time.	Received by	Company	Date/Time
Relinquished by	Company	Date/Time.	Received in Laboratory by: BP	Company: Eurofins	Date/Time: 5/21/25 1600

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller, Samuel	Carrier Tracking No(s): N/A	COC No: 310-83295.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-306962-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 6/4/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: 1st 2025 Semi-Annual Sampling (HMSP)	Project #: 31013424			
Site: 310-SCS Loess Hills	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwwater, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9034/ Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-14 (310-306962-1)	5/20/25	20:30 Central	G	Water			X	1	

Analysis Requested

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 5/22/25 1350	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: 5/23/25 1000	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 1.7 C: 1.4

SF

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-306962-1
SDG Number: Loess Hills Regional Sanitary Landfill

Login Number: 306962
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-306962-1
SDG Number: Loess Hills Regional Sanitary Landfill

Login Number: 306962
List Number: 2
Creator: Fuehrer, Stephanie

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/23/25 11:04 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/10/2025 10:02:00 AM

JOB DESCRIPTION

Loess Hills - 2nd 2025 Semi-Annual GW

JOB NUMBER

310-321200-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

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

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

Authorization



Generated
12/10/2025 10:02:00 AM

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

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Job ID: 310-321200-1 Eurofins Cedar Falls

Job Narrative
310-321200-1

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

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

Receipt
The samples were received on 11/22/2025 5:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5°C, 2.3°C and 3.9°C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475120 recovered above the upper control limit for Carbon tetrachloride (24%D) and 1,1,2-Trichloroethane (24%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-475120/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475332 recovered above the upper control limit for Carbon tetrachloride (29%D). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-475332/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474771 recovered above the upper control limit for Carbon tetrachloride (22%D). The LCS associated with this CCV passed CCV criteria for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-474771/3).

Method 8260D: Internal standard (ISTD) response for the following samples were outside of acceptance limits: GU-1 (310-321200-9) and MW-D (310-321200-12). The reported analytes associated with the failing internal standards are: 4-Bromofluorobenzene (Surr). The sample was not re-analyzed due to holding time expired.

Method 8260D: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container: Trip Blank 1 (310-321200-13) and Trip Blank 3 (310-321200-15).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474956 recovered outside of the control limits for 1,2-Dibromo-3-Chloropropane (-21%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-474956/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474956 recovered outside of the control limits for Carbon disulfide (-22%D), Bromoform (-21%D), 1,2-Dichloropropane (-21%D), and 1,1-Dichloroethane (-21%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-474956/3).

Method 8260D: Internal standard (ISTD) response for the following sample was outside of acceptance limits: GU-C1 (310-321200-11). The reported analytes associated with the failing internal standards are: 4-Bromofluorobenzene (Surr). The sample was not re-analyzed due to holding time expired.

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474959 recovered outside of the control limits for 1,2-Dibromo-3-Chloropropane (-24%D) and Bromoform (-21%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-474959/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474959 recovered outside of the control limits for 2-Hexanone (-25%D) and Carbon disulfide (-21%D). A CCV standard at or below the reporting limit (RL) was analyzed

with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-474959/3).

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

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

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

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

Job ID: 310-321200-2 Eurofins Cedar Falls

Job Narrative
310-321200-2

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

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

Receipt
The samples were received on 11/22/2025 5:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5°C, 2.3°C and 3.9°C.

HPLC/IC
Method 9056A_ORGFM_48H: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-8R (310-321200-3), MW-11R (310-321200-5), MW-26R (310-321200-6), MW-27R (310-321200-7) and MW-31 (310-321200-10).

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

Sample Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-321200-1	MW-14	Ground Water	11/21/25 10:07	11/22/25 05:30	Iowa
310-321200-2	MW-7	Ground Water	11/19/25 16:24	11/22/25 05:30	Iowa
310-321200-3	MW-8R	Ground Water	11/21/25 12:58	11/22/25 05:30	Iowa
310-321200-4	MW-10R	Ground Water	11/20/25 14:00	11/22/25 05:30	Iowa
310-321200-5	MW-11R	Ground Water	11/21/25 13:50	11/22/25 05:30	Iowa
310-321200-6	MW-26R	Ground Water	11/20/25 12:58	11/22/25 05:30	Iowa
310-321200-7	MW-27R	Ground Water	11/21/25 10:25	11/22/25 05:30	Iowa
310-321200-8	MW-29	Ground Water	11/20/25 15:47	11/22/25 05:30	Iowa
310-321200-9	GU-1	Ground Water	11/20/25 16:00	11/22/25 05:30	Iowa
310-321200-10	MW-31	Ground Water	11/21/25 11:15	11/22/25 05:30	Iowa
310-321200-11	GU-C1	Ground Water	11/21/25 12:00	11/22/25 05:30	Iowa
310-321200-12	MW-D	Ground Water	11/20/25 14:00	11/22/25 05:30	Iowa
310-321200-13	Trip Blank 1	Water	11/20/25 00:00	11/22/25 05:30	Iowa
310-321200-14	Trip Blank 2	Water	11/20/25 00:00	11/22/25 05:30	Iowa
310-321200-15	Trip Blank 3	Water	11/20/25 00:00	11/22/25 05:30	Iowa

Detection Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-14 — Lab Sample ID: 310-321200-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.00247		0.00200		mg/L	1		6020B	Total/NA
Barium	0.297		0.00200		mg/L	1		6020B	Total/NA
Vanadium	0.00508		0.00500		mg/L	1		6020B	Total/NA
Total Suspended Solids	17.9		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 310-321200-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.16		1.00		ug/L	1		8260D	Total/NA
Barium	0.405		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	1.9		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-8R — Lab Sample ID: 310-321200-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.74		1.00		ug/L	1		8260D	Total/NA
Sulfate	61.6		1.00		mg/L	1		9056A	Total/NA
Barium	0.390		0.00200		mg/L	1		6020B	Total/NA
Lead	0.000683		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.00674		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.00529		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0270		0.0200		mg/L	1		6020B	Total/NA
Iron	0.142		0.100		mg/L	1		6020B	Total/NA
Manganese	0.562		0.0100		mg/L	1		6020B	Total/NA
Total Suspended Solids	12.3		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-10R — Lab Sample ID: 310-321200-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.20		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	10.0		1.00		ug/L	1		8260D	Total/NA
Barium	0.544		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	6.0		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-11R — Lab Sample ID: 310-321200-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.26		1.00		ug/L	1		8260D	Total/NA
Benzene	1.86		0.500		ug/L	1		8260D	Total/NA
Chlorobenzene	1.87		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.94		1.00		ug/L	1		8260D	Total/NA
Sulfate	103		20.0		mg/L	20		9056A	Total/NA
Arsenic	0.0615		0.00200		mg/L	1		6020B	Total/NA
Barium	0.428		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.0406		0.000500		mg/L	1		6020B	Total/NA
Lead	0.00167		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0570		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.00729		0.00500		mg/L	1		6020B	Total/NA
Iron	4.91		0.100		mg/L	1		6020B	Total/NA
Manganese	8.85		0.0100		mg/L	1		6020B	Total/NA
Total Suspended Solids	162		7.5		mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-26R — Lab Sample ID: 310-321200-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	16.0		1.00		ug/L	1		8260D	Total/NA
Sulfate	19.0		1.00		mg/L	1		9056A	Total/NA
Arsenic	0.0245		0.00200		mg/L	1		6020B	Total/NA
Barium	0.968		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000230		0.000200		mg/L	1		6020B	Total/NA
Chromium	0.00708		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.00361		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00573		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00223		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0249		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0208		0.0200		mg/L	1		6020B	Total/NA
Iron	2.35		0.100		mg/L	1		6020B	Total/NA
Manganese	2.58		0.0100		mg/L	1		6020B	Total/NA
Total Suspended Solids	65.0		15.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-27R — Lab Sample ID: 310-321200-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.25		1.00		ug/L	1		8260D	Total/NA
Chlorobenzene	2.35		1.00		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	28.9		1.00		ug/L	1		8260D	Total/NA
Trichloroethene	3.41		1.00		ug/L	1		8260D	Total/NA
Sulfate	31.4		1.00		mg/L	1		9056A	Total/NA
Barium	0.750		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.00547		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0207		0.00500		mg/L	1		6020B	Total/NA
Iron	0.731		0.100		mg/L	1		6020B	Total/NA
Manganese	3.12		0.0100		mg/L	1		6020B	Total/NA
Total Suspended Solids	12.3		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 310-321200-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.318		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	3.5		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: GU-1 — Lab Sample ID: 310-321200-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00643		0.00200		mg/L	1		6020B	Total/NA
Barium	0.347		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000217		0.000200		mg/L	1		6020B	Total/NA
Cobalt	0.00429		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00575		0.00500		mg/L	1		6020B	Total/NA
Lead	0.00557		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.00790		0.00500		mg/L	1		6020B	Total/NA
Vanadium	0.0105		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0241		0.0200		mg/L	1		6020B	Total/NA
Total Suspended Solids	569		15.0		mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-31 — Lab Sample ID: 310-321200-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00319		0.000500		mg/L	1		6020B	Total/NA
Iron	56.3		0.100		mg/L	1		6020B	Total/NA
Manganese	9.37		0.0400		mg/L	4		6020B	Total/NA
Total Suspended Solids	98.0		15.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: GU-C1 — Lab Sample ID: 310-321200-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00607		0.00200		mg/L	1		6020B	Total/NA
Barium	0.147		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.00579		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0243		0.00500		mg/L	1		6020B	Total/NA
Total Suspended Solids	14.3		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-321200-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.01		1.00		ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.87		1.00		ug/L	1		8260D	Total/NA
Barium	0.524		0.00200		mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank 1 — Lab Sample ID: 310-321200-13

No Detections.

Client Sample ID: Trip Blank 2 — Lab Sample ID: 310-321200-14

No Detections.

Client Sample ID: Trip Blank 3 — Lab Sample ID: 310-321200-15

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14
Lab Sample ID: 310-321200-1
Date Collected: 11/21/25 10:07
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 19:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 19:11	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 19:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 19:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 19:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 19:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 19:11	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 19:11	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 19:11	1
Acetone	<10.0		10.0		ug/L			11/26/25 19:11	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 19:11	1
Benzene	<0.500		0.500		ug/L			11/26/25 19:11	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 19:11	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 19:11	1
Bromoform	<5.00		5.00		ug/L			11/26/25 19:11	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 19:11	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 19:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 19:11	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 19:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 19:11	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 19:11	1
Chloroform	<3.00		3.00		ug/L			11/26/25 19:11	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 19:11	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 19:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:11	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 19:11	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 19:11	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 19:11	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 19:11	1
Styrene	<1.00		1.00		ug/L			11/26/25 19:11	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 19:11	1
Toluene	<1.00		1.00		ug/L			11/26/25 19:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 19:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:11	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 19:11	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 19:11	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 19:11	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 19:11	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 19:11	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*122*		*76 - 130*		*11/26/25 19:11*	*1*

Client Sample ID: MW-14
Date Collected: 11/21/25 10:07
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-1
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/26/25 19:11*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*11/26/25 19:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00247**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:34	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:34	1
Barium	**0.297**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:34	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:34	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:34	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:34	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:34	1
Vanadium	**0.00508**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:34	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		11/26/25 13:30	12/01/25 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			11/26/25 10:24	1
Total Suspended Solids (USGS I-3765-85)	**17.9**		1.9		mg/L			11/25/25 10:08	1

Client Sample ID: MW-7
Date Collected: 11/19/25 16:24
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-2
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 04:58	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 04:58	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 04:58	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 04:58	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 04:58	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 04:58	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 04:58	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 04:58	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 04:58	1
Acetone	<10.0		10.0		ug/L			11/26/25 04:58	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 04:58	1
Benzene	<0.500		0.500		ug/L			11/26/25 04:58	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 04:58	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 04:58	1
Bromoform	<5.00		5.00		ug/L			11/26/25 04:58	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 04:58	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 04:58	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 04:58	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 04:58	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 04:58	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 04:58	1
Chloroform	<3.00		3.00		ug/L			11/26/25 04:58	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 04:58	1
cis-1,2-Dichloroethene	**7.16**		1.00		ug/L			11/26/25 04:58	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 04:58	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 04:58	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 04:58	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 04:58	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 04:58	1
Styrene	<1.00		1.00		ug/L			11/26/25 04:58	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 04:58	1
Toluene	<1.00		1.00		ug/L			11/26/25 04:58	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 04:58	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 04:58	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 04:58	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 04:58	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 04:58	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 04:58	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 04:58	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*120*		*76 - 130*		*11/26/25 04:58*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-7
Lab Sample ID: 310-321200-2
Date Collected: 11/19/25 16:24
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*80 - 120*		*11/26/25 04:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/26/25 04:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:37	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:37	1
Barium	**0.405**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:37	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:37	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:37	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:37	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:37	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:37	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**1.9**		1.9		mg/L			11/24/25 11:41	1

Client Sample ID: MW-8R
Date Collected: 11/21/25 12:58
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-3
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 19:33	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 19:33	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 19:33	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 19:33	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 19:33	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 19:33	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 19:33	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 19:33	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 19:33	1
Acetone	<10.0		10.0		ug/L			11/26/25 19:33	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 19:33	1
Benzene	<0.500		0.500		ug/L			11/26/25 19:33	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 19:33	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 19:33	1
Bromoform	<5.00		5.00		ug/L			11/26/25 19:33	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 19:33	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 19:33	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 19:33	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 19:33	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 19:33	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 19:33	1
Chloroform	<3.00		3.00		ug/L			11/26/25 19:33	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 19:33	1
cis-1,2-Dichloroethene	**5.74**		1.00		ug/L			11/26/25 19:33	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:33	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 19:33	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 19:33	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 19:33	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 19:33	1
Styrene	<1.00		1.00		ug/L			11/26/25 19:33	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 19:33	1
Toluene	<1.00		1.00		ug/L			11/26/25 19:33	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 19:33	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:33	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 19:33	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 19:33	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 19:33	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 19:33	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 19:33	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*128*		*76 - 130*		*11/26/25 19:33*	*1*

Client Sample ID: MW-8R
Lab Sample ID: 310-321200-3
Date Collected: 11/21/25 12:58
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/26/25 19:33*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*11/26/25 19:33*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H F1	0.200		mg/L			11/24/25 13:19	1
Sulfate	**61.6**		1.00		mg/L			11/24/25 13:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:40	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:40	1
Barium	**0.390**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:40	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:40	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:40	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Lead	**0.000683**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Nickel	**0.00674**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:40	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:40	1
Vanadium	**0.00529**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:40	1
Zinc	**0.0270**		0.0200		mg/L		11/25/25 08:00	12/08/25 15:40	1
Iron	**0.142**		0.100		mg/L		11/25/25 08:00	12/08/25 15:40	1
Manganese	**0.562**		0.0100		mg/L		11/25/25 08:00	12/08/25 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			11/26/25 10:24	1
Total Suspended Solids (USGS I-3765-85)	**12.3**		1.9		mg/L			11/25/25 10:08	1

Client Sample ID: MW-10R
Date Collected: 11/20/25 14:00
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-4
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,1-Dichloroethane	**2.20**		1.00		ug/L			11/26/25 04:35	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 04:35	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 04:35	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 04:35	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 04:35	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 04:35	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 04:35	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 04:35	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 04:35	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 04:35	1
Acetone	<10.0		10.0		ug/L			11/26/25 04:35	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 04:35	1
Benzene	<0.500		0.500		ug/L			11/26/25 04:35	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 04:35	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 04:35	1
Bromoform	<5.00		5.00		ug/L			11/26/25 04:35	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 04:35	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 04:35	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 04:35	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 04:35	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 04:35	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 04:35	1
Chloroform	<3.00		3.00		ug/L			11/26/25 04:35	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 04:35	1
cis-1,2-Dichloroethene	**10.0**		1.00		ug/L			11/26/25 04:35	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 04:35	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 04:35	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 04:35	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 04:35	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 04:35	1
Styrene	<1.00		1.00		ug/L			11/26/25 04:35	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 04:35	1
Toluene	<1.00		1.00		ug/L			11/26/25 04:35	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 04:35	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 04:35	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 04:35	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 04:35	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 04:35	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 04:35	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 04:35	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*119*		*76 - 130*		*11/26/25 04:35*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-10R
Lab Sample ID: 310-321200-4
Date Collected: 11/20/25 14:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*80 - 120*		*11/26/25 04:35*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*11/26/25 04:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:43	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:43	1
Barium	**0.544**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:43	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:43	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:43	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:43	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:43	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:43	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.0**		1.9		mg/L			11/25/25 10:08	1

Client Sample ID: MW-11R
Date Collected: 11/21/25 13:50
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-5
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 19:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 19:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 19:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 19:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 19:55	1
1,4-Dichlorobenzene	**1.26**		1.00		ug/L			11/26/25 19:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 19:55	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 19:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 19:55	1
Acetone	<10.0		10.0		ug/L			11/26/25 19:55	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 19:55	1
Benzene	**1.86**		0.500		ug/L			11/26/25 19:55	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 19:55	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 19:55	1
Bromoform	<5.00		5.00		ug/L			11/26/25 19:55	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 19:55	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 19:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 19:55	1
Chlorobenzene	**1.87**		1.00		ug/L			11/26/25 19:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 19:55	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 19:55	1
Chloroform	<3.00		3.00		ug/L			11/26/25 19:55	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 19:55	1
cis-1,2-Dichloroethene	**1.94**		1.00		ug/L			11/26/25 19:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:55	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 19:55	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 19:55	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 19:55	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 19:55	1
Styrene	<1.00		1.00		ug/L			11/26/25 19:55	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 19:55	1
Toluene	<1.00		1.00		ug/L			11/26/25 19:55	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 19:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 19:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 19:55	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 19:55	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 19:55	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 19:55	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 19:55	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*119*		*76 - 130*		*11/26/25 19:55*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-11R
Lab Sample ID: 310-321200-5
Date Collected: 11/21/25 13:50
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/26/25 19:55*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*11/26/25 19:55*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H	0.200		mg/L			11/24/25 13:56	1
Sulfate	**103**		20.0		mg/L			11/24/25 21:04	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:46	1
Arsenic	**0.0615**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:46	1
Barium	**0.428**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:46	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:46	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:46	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Cobalt	**0.0406**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Lead	**0.00167**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Nickel	**0.0570**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:46	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:46	1
Vanadium	**0.00729**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:46	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:46	1
Iron	**4.91**		0.100		mg/L		11/25/25 08:00	12/08/25 15:46	1
Manganese	**8.85**		0.0100		mg/L		11/25/25 08:00	12/08/25 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			11/26/25 10:24	1
Total Suspended Solids (USGS I-3765-85)	**162**		7.5		mg/L			11/25/25 11:15	1

Client Sample ID: MW-26R
Date Collected: 11/20/25 12:58
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-6
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 20:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 20:17	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 20:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 20:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 20:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 20:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 20:17	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 20:17	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 20:17	1
Acetone	<10.0		10.0		ug/L			11/26/25 20:17	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 20:17	1
Benzene	<0.500		0.500		ug/L			11/26/25 20:17	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 20:17	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 20:17	1
Bromoform	<5.00		5.00		ug/L			11/26/25 20:17	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 20:17	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 20:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 20:17	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 20:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 20:17	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 20:17	1
Chloroform	<3.00		3.00		ug/L			11/26/25 20:17	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 20:17	1
cis-1,2-Dichloroethene	**16.0**		1.00		ug/L			11/26/25 20:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 20:17	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 20:17	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 20:17	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 20:17	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 20:17	1
Styrene	<1.00		1.00		ug/L			11/26/25 20:17	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 20:17	1
Toluene	<1.00		1.00		ug/L			11/26/25 20:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 20:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 20:17	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 20:17	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 20:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 20:17	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 20:17	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 20:17	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*126*		*76 - 130*		*11/26/25 20:17*	*1*

Client Sample ID: MW-26R
Date Collected: 11/20/25 12:58
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-6
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*80 - 120*		*11/26/25 20:17*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*11/26/25 20:17*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H	0.200		mg/L			11/24/25 14:08	1
Sulfate	**19.0**		1.00		mg/L			11/24/25 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:49	1
Arsenic	**0.0245**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:49	1
Barium	**0.968**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:49	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:49	1
Cadmium	**0.000230**		0.000200		mg/L		11/25/25 08:00	12/08/25 15:49	1
Chromium	**0.00708**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Cobalt	**0.00361**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Copper	**0.00573**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Lead	**0.00223**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Nickel	**0.0249**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:49	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:49	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:49	1
Zinc	**0.0208**		0.0200		mg/L		11/25/25 08:00	12/08/25 15:49	1
Iron	**2.35**		0.100		mg/L		11/25/25 08:00	12/08/25 15:49	1
Manganese	**2.58**		0.0100		mg/L		11/25/25 08:00	12/08/25 15:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<2.00		2.00		mg/L			11/26/25 10:24	1
Total Suspended Solids (USGS I-3765-85)	**65.0**		15.0		mg/L			11/25/25 10:08	1

Client Sample ID: MW-27R
Date Collected: 11/21/25 10:25
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-7
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,1-Dichloroethane	**3.25**		1.00		ug/L			11/26/25 20:39	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 20:39	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 20:39	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 20:39	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 20:39	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 20:39	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 20:39	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 20:39	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 20:39	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 20:39	1
Acetone	<10.0		10.0		ug/L			11/26/25 20:39	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 20:39	1
Benzene	<0.500		0.500		ug/L			11/26/25 20:39	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 20:39	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 20:39	1
Bromoform	<5.00		5.00		ug/L			11/26/25 20:39	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 20:39	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 20:39	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 20:39	1
Chlorobenzene	**2.35**		1.00		ug/L			11/26/25 20:39	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 20:39	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 20:39	1
Chloroform	<3.00		3.00		ug/L			11/26/25 20:39	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 20:39	1
cis-1,2-Dichloroethene	**28.9**		1.00		ug/L			11/26/25 20:39	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 20:39	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 20:39	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 20:39	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 20:39	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 20:39	1
Styrene	<1.00		1.00		ug/L			11/26/25 20:39	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 20:39	1
Toluene	<1.00		1.00		ug/L			11/26/25 20:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 20:39	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 20:39	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 20:39	1
Trichloroethene	**3.41**		1.00		ug/L			11/26/25 20:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 20:39	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 20:39	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 20:39	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*124*		*76 - 130*		*11/26/25 20:39*	*1*

Client Sample ID: MW-27R
Date Collected: 11/21/25 10:25
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-7
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/26/25 20:39*	*1*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*11/26/25 20:39*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H	0.200		mg/L			11/24/25 14:20	1
Sulfate	**31.4**		1.00		mg/L			11/24/25 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:51	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:51	1
Barium	**0.750**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:51	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:51	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:51	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Cobalt	**0.00547**		0.000500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Nickel	**0.0207**		0.00500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:51	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:51	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:51	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:51	1
Iron	**0.731**		0.100		mg/L		11/25/25 08:00	12/08/25 15:51	1
Manganese	**3.12**		0.0100		mg/L		11/25/25 08:00	12/08/25 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**12.3**		1.9		mg/L			11/25/25 11:15	1

Client Sample ID: MW-29
Date Collected: 11/20/25 15:47
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-8
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 21:01	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 21:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 21:01	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 21:01	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 21:01	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 21:01	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 21:01	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 21:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 21:01	1
Acetone	<10.0		10.0		ug/L			11/26/25 21:01	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 21:01	1
Benzene	<0.500		0.500		ug/L			11/26/25 21:01	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 21:01	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 21:01	1
Bromoform	<5.00		5.00		ug/L			11/26/25 21:01	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 21:01	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 21:01	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 21:01	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 21:01	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 21:01	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 21:01	1
Chloroform	<3.00		3.00		ug/L			11/26/25 21:01	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 21:01	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 21:01	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 21:01	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 21:01	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 21:01	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 21:01	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 21:01	1
Styrene	<1.00		1.00		ug/L			11/26/25 21:01	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 21:01	1
Toluene	<1.00		1.00		ug/L			11/26/25 21:01	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 21:01	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 21:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 21:01	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 21:01	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 21:01	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 21:01	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 21:01	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*129*		*76 - 130*		*11/26/25 21:01*	*1*

Client Sample ID: MW-29
Date Collected: 11/20/25 15:47
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-8
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/26/25 21:01*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*11/26/25 21:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:54	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:54	1
Barium	**0.318**		0.00200		mg/L		11/25/25 08:00	12/08/25 15:54	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:54	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:54	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:54	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:54	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:54	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**3.5**		1.9		mg/L			11/25/25 10:08	1

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: GU-1
Lab Sample ID: 310-321200-9
Date Collected: 11/20/25 16:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/03/25 11:23	1
Benzene	<0.500		0.500		ug/L			12/03/25 11:23	1
Bromochloromethane	<5.00		5.00		ug/L			12/03/25 11:23	1
Bromodichloromethane	<1.00		1.00		ug/L			12/03/25 11:23	1
Bromoform	<5.00		5.00		ug/L			12/03/25 11:23	1
Bromomethane	<4.00		4.00		ug/L			12/03/25 11:23	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/03/25 11:23	1
Carbon disulfide	<1.00		1.00		ug/L			12/03/25 11:23	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/03/25 11:23	1
Chlorobenzene	<1.00		1.00		ug/L			12/03/25 11:23	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/03/25 11:23	1
Chloroethane	<4.00		4.00		ug/L			12/03/25 11:23	1
Chloroform	<3.00		3.00		ug/L			12/03/25 11:23	1
Chloromethane	<3.00		3.00		ug/L			12/03/25 11:23	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/03/25 11:23	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 21:23	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 11:23	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/03/25 11:23	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/03/25 11:23	1
Dibromomethane	<1.00		1.00		ug/L			12/03/25 11:23	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 11:23	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 11:23	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/03/25 11:23	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/03/25 11:23	1
Ethylbenzene	<1.00		1.00		ug/L			12/03/25 11:23	1
2-Hexanone	<10.0		10.0		ug/L			12/03/25 11:23	1
Iodomethane	<10.0		10.0		ug/L			12/03/25 11:23	1
Methylene Chloride	<5.00		5.00		ug/L			12/03/25 11:23	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/03/25 11:23	1
Styrene	<1.00		1.00		ug/L			12/03/25 11:23	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
Tetrachloroethene	<1.00		1.00		ug/L			12/03/25 11:23	1
Toluene	<1.00		1.00		ug/L			12/03/25 11:23	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/03/25 11:23	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/03/25 11:23	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 11:23	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/03/25 11:23	1
Trichloroethene	<1.00		1.00		ug/L			12/03/25 11:23	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/03/25 11:23	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/03/25 11:23	1
Vinyl acetate	<10.0		10.0		ug/L			12/03/25 11:23	1
Vinyl chloride	<1.00		1.00		ug/L			12/03/25 11:23	1
Xylenes, Total	<3.00		3.00		ug/L			12/03/25 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*80 - 120*		*12/03/25 11:23*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: GU-1
Lab Sample ID: 310-321200-9
Date Collected: 11/20/25 16:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*76 - 130*		*12/03/25 11:23*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/03/25 11:23*	*1*
Dibromofluoromethane (Surr)	*123*		*76 - 130*		*11/26/25 21:23*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*11/26/25 21:23*	*1*
4-Bromofluorobenzene (Surr)	*108*	**3*	*80 - 120*		*11/26/25 21:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 16:00	1
Arsenic	**0.00643**		0.00200		mg/L		11/25/25 08:00	12/08/25 16:00	1
Barium	**0.347**		0.00200		mg/L		11/25/25 08:00	12/08/25 16:00	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:00	1
Cadmium	**0.000217**		0.000200		mg/L		11/25/25 08:00	12/08/25 16:00	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Cobalt	**0.00429**		0.000500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Copper	**0.00575**		0.00500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Lead	**0.00557**		0.000500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Nickel	**0.00790**		0.00500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:00	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:00	1
Vanadium	**0.0105**		0.00500		mg/L		11/25/25 08:00	12/08/25 16:00	1
Zinc	**0.0241**		0.0200		mg/L		11/25/25 08:00	12/08/25 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**569**		15.0		mg/L			11/25/25 10:08	1

Client Sample ID: MW-31
Date Collected: 11/21/25 11:15
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-10
Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H	0.200		mg/L			11/24/25 14:32	1
Sulfate	<1.00		1.00		mg/L			11/24/25 14:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.00319**		0.000500		mg/L		11/25/25 08:00	12/08/25 16:08	1
Iron	**56.3**		0.100		mg/L		11/25/25 08:00	12/08/25 16:08	1
Manganese	**9.37**		0.0400		mg/L		11/25/25 08:00	12/09/25 17:34	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**98.0**		15.0		mg/L			11/25/25 10:08	1

Client Sample ID: GU-C1
Date Collected: 11/21/25 12:00
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-11
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/01/25 22:33	1
Benzene	<0.500		0.500		ug/L			12/01/25 22:33	1
Bromochloromethane	<5.00		5.00		ug/L			12/01/25 22:33	1
Bromodichloromethane	<1.00		1.00		ug/L			12/01/25 22:33	1
Bromoform	<5.00		5.00		ug/L			12/01/25 22:33	1
Bromomethane	<4.00		4.00		ug/L			12/01/25 22:33	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/01/25 22:33	1
Carbon disulfide	<1.00		1.00		ug/L			12/01/25 22:33	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/01/25 22:33	1
Chlorobenzene	<1.00		1.00		ug/L			12/01/25 22:33	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/01/25 22:33	1
Chloroethane	<4.00		4.00		ug/L			12/01/25 22:33	1
Chloroform	<3.00		3.00		ug/L			12/01/25 22:33	1
Chloromethane	<3.00		3.00		ug/L			12/01/25 22:33	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/01/25 22:33	1
Acrylonitrile	<5.00		5.00		ug/L			11/27/25 05:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/01/25 22:33	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/01/25 22:33	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/01/25 22:33	1
Dibromomethane	<1.00		1.00		ug/L			12/01/25 22:33	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/01/25 22:33	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/01/25 22:33	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/01/25 22:33	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/01/25 22:33	1
Ethylbenzene	<1.00		1.00		ug/L			12/01/25 22:33	1
2-Hexanone	<10.0		10.0		ug/L			12/01/25 22:33	1
Iodomethane	<10.0		10.0		ug/L			12/01/25 22:33	1
Methylene Chloride	<5.00		5.00		ug/L			12/01/25 22:33	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/01/25 22:33	1
Styrene	<1.00		1.00		ug/L			12/01/25 22:33	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
Tetrachloroethene	<1.00		1.00		ug/L			12/01/25 22:33	1
Toluene	<1.00		1.00		ug/L			12/01/25 22:33	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/01/25 22:33	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/01/25 22:33	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/01/25 22:33	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/01/25 22:33	1
Trichloroethene	<1.00		1.00		ug/L			12/01/25 22:33	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/01/25 22:33	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/01/25 22:33	1
Vinyl acetate	<10.0		10.0		ug/L			12/01/25 22:33	1
Vinyl chloride	<1.00		1.00		ug/L			12/01/25 22:33	1
Xylenes, Total	<3.00		3.00		ug/L			12/01/25 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*12/01/25 22:33*	*1*

Client Sample ID: GU-C1
Lab Sample ID: 310-321200-11

Date Collected: 11/21/25 12:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*110*		*76 - 130*		*12/01/25 22:33*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/01/25 22:33*	*1*
Dibromofluoromethane (Surr)	*126*		*76 - 130*		*11/27/25 05:48*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*11/27/25 05:48*	*1*
4-Bromofluorobenzene (Surr)	*103*	**3*	*80 - 120*		*11/27/25 05:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 16:11	1
Arsenic	**0.00607**		0.00200		mg/L		11/25/25 08:00	12/08/25 16:11	1
Barium	**0.147**		0.00200		mg/L		11/25/25 08:00	12/08/25 16:11	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:11	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 16:11	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Cobalt	**0.00579**		0.000500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Nickel	**0.0243**		0.00500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:11	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:11	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:11	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**14.3**		1.9		mg/L			11/25/25 10:08	1

Client Sample ID: MW-D
Date Collected: 11/20/25 14:00
Date Received: 11/22/25 05:30

Lab Sample ID: 310-321200-12
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/03/25 11:46	1
Benzene	<0.500		0.500		ug/L			12/03/25 11:46	1
Bromochloromethane	<5.00		5.00		ug/L			12/03/25 11:46	1
Bromodichloromethane	<1.00		1.00		ug/L			12/03/25 11:46	1
Bromoform	<5.00		5.00		ug/L			12/03/25 11:46	1
Bromomethane	<4.00		4.00		ug/L			12/03/25 11:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/03/25 11:46	1
Carbon disulfide	<1.00		1.00		ug/L			12/03/25 11:46	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/03/25 11:46	1
Chlorobenzene	<1.00		1.00		ug/L			12/03/25 11:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/03/25 11:46	1
Chloroethane	<4.00		4.00		ug/L			12/03/25 11:46	1
Chloroform	<3.00		3.00		ug/L			12/03/25 11:46	1
Chloromethane	<3.00		3.00		ug/L			12/03/25 11:46	1
cis-1,2-Dichloroethene	**9.01**		1.00		ug/L			12/03/25 11:46	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 21:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 11:46	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/03/25 11:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/03/25 11:46	1
Dibromomethane	<1.00		1.00		ug/L			12/03/25 11:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 11:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 11:46	1
1,1-Dichloroethane	**1.87**		1.00		ug/L			12/03/25 11:46	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/03/25 11:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/03/25 11:46	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/03/25 11:46	1
Ethylbenzene	<1.00		1.00		ug/L			12/03/25 11:46	1
2-Hexanone	<10.0		10.0		ug/L			12/03/25 11:46	1
Iodomethane	<10.0		10.0		ug/L			12/03/25 11:46	1
Methylene Chloride	<5.00		5.00		ug/L			12/03/25 11:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/03/25 11:46	1
Styrene	<1.00		1.00		ug/L			12/03/25 11:46	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 11:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 11:46	1
Tetrachloroethene	<1.00		1.00		ug/L			12/03/25 11:46	1
Toluene	<1.00		1.00		ug/L			12/03/25 11:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/03/25 11:46	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/03/25 11:46	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 11:46	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/03/25 11:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/03/25 11:46	1
Trichloroethene	<1.00		1.00		ug/L			12/03/25 11:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/03/25 11:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/03/25 11:46	1
Vinyl acetate	<10.0		10.0		ug/L			12/03/25 11:46	1
Vinyl chloride	<1.00		1.00		ug/L			12/03/25 11:46	1
Xylenes, Total	<3.00		3.00		ug/L			12/03/25 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*		*12/03/25 11:46*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-D
Lab Sample ID: 310-321200-12
Date Collected: 11/20/25 14:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*76 - 130*		*12/03/25 11:46*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/03/25 11:46*	*1*
Dibromofluoromethane (Surr)	*127*		*76 - 130*		*11/26/25 21:45*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*11/26/25 21:45*	*1*
4-Bromofluorobenzene (Surr)	*106*	**3*	*80 - 120*		*11/26/25 21:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 16:14	1
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 16:14	1
Barium	**0.524**		0.00200		mg/L		11/25/25 08:00	12/08/25 16:14	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:14	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 16:14	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:14	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 16:14	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 16:14	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.9		1.9		mg/L			11/25/25 10:08	1

Client Sample ID: Trip Blank 1
Lab Sample ID: 310-321200-13

Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 15:32	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 15:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 15:32	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 15:32	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 15:32	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 15:32	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 15:32	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 15:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 15:32	1
Acetone	<10.0		10.0		ug/L			11/26/25 15:32	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 15:32	1
Benzene	<0.500		0.500		ug/L			11/26/25 15:32	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 15:32	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 15:32	1
Bromoform	<5.00		5.00		ug/L			11/26/25 15:32	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 15:32	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 15:32	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 15:32	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 15:32	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 15:32	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 15:32	1
Chloroform	<3.00		3.00		ug/L			11/26/25 15:32	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 15:32	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 15:32	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 15:32	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 15:32	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 15:32	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 15:32	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 15:32	1
Styrene	<1.00		1.00		ug/L			11/26/25 15:32	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 15:32	1
Toluene	<1.00		1.00		ug/L			11/26/25 15:32	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 15:32	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 15:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 15:32	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 15:32	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 15:32	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 15:32	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 15:32	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*76 - 130*		*11/26/25 15:32*	*1*

Client Sample ID: Trip Blank 1
Lab Sample ID: 310-321200-13
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		11/26/25 15:32	1
4-Bromofluorobenzene (Surr)	107		80 - 120		11/26/25 15:32	1

Client Sample ID: Trip Blank 2
Lab Sample ID: 310-321200-14

Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 15:54	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 15:54	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 15:54	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 15:54	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 15:54	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 15:54	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 15:54	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 15:54	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 15:54	1
Acetone	<10.0		10.0		ug/L			11/26/25 15:54	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 15:54	1
Benzene	<0.500		0.500		ug/L			11/26/25 15:54	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 15:54	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 15:54	1
Bromoform	<5.00		5.00		ug/L			11/26/25 15:54	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 15:54	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 15:54	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 15:54	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 15:54	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 15:54	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 15:54	1
Chloroform	<3.00		3.00		ug/L			11/26/25 15:54	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 15:54	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 15:54	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 15:54	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 15:54	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 15:54	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 15:54	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 15:54	1
Styrene	<1.00		1.00		ug/L			11/26/25 15:54	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 15:54	1
Toluene	<1.00		1.00		ug/L			11/26/25 15:54	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 15:54	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 15:54	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 15:54	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 15:54	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 15:54	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 15:54	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 15:54	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*121*		*76 - 130*		*11/26/25 15:54*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: Trip Blank 2
Lab Sample ID: 310-321200-14
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		11/26/25 15:54	1
4-Bromofluorobenzene (Surr)	107		80 - 120		11/26/25 15:54	1

Client Sample ID: Trip Blank 3
Lab Sample ID: 310-321200-15

Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 16:16	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 16:16	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 16:16	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 16:16	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 16:16	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 16:16	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 16:16	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 16:16	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 16:16	1
Acetone	<10.0		10.0		ug/L			11/26/25 16:16	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 16:16	1
Benzene	<0.500		0.500		ug/L			11/26/25 16:16	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 16:16	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 16:16	1
Bromoform	<5.00		5.00		ug/L			11/26/25 16:16	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 16:16	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 16:16	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 16:16	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 16:16	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 16:16	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 16:16	1
Chloroform	<3.00		3.00		ug/L			11/26/25 16:16	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 16:16	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 16:16	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 16:16	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 16:16	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 16:16	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 16:16	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 16:16	1
Styrene	<1.00		1.00		ug/L			11/26/25 16:16	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 16:16	1
Toluene	<1.00		1.00		ug/L			11/26/25 16:16	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 16:16	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 16:16	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 16:16	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 16:16	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 16:16	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 16:16	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 16:16	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*119*		*76 - 130*		*11/26/25 16:16*	*1*

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: Trip Blank 3
Lab Sample ID: 310-321200-15
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		11/26/25 16:16	1
4-Bromofluorobenzene (Surr)	102		80 - 120		11/26/25 16:16	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
F2	MS/MSD RPD exceeds control limits

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Glossary

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

Surrogate Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-321200-1	MW-14	122	92	107
310-321200-2	MW-7	120	88	100
310-321200-3	MW-8R	128	93	104
310-321200-4	MW-10R	119	91	103
310-321200-5	MW-11R	119	95	102
310-321200-6	MW-26R	126	91	105
310-321200-7	MW-27R	124	93	108
310-321200-8	MW-29	129	93	104
310-321200-9	GU-1	123	90	108 *3
310-321200-9	GU-1	102	94	117
310-321200-11	GU-C1	126	91	103 *3
310-321200-11	GU-C1	110	92	105
310-321200-11 MS	GU-C1	96	98	97
310-321200-11 MSD	GU-C1	97	98	97
310-321200-12	MW-D	127	90	106 *3
310-321200-12	MW-D	105	95	115

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-321200-13	Trip Blank 1	116	91	107
310-321200-14	Trip Blank 2	121	91	107
310-321200-15	Trip Blank 3	119	91	102
LCS 310-474771/6	Lab Control Sample	107	98	96
LCS 310-474771/7	Lab Control Sample	109	91	102
LCS 310-474956/8	Lab Control Sample	96	97	99
LCS 310-474956/9	Lab Control Sample	116	95	101
LCS 310-474959/8	Lab Control Sample	99	96	97
LCS 310-474959/9	Lab Control Sample	117	94	103
LCS 310-475120/6	Lab Control Sample	101	100	100
LCS 310-475120/7	Lab Control Sample	105	95	107
LCS 310-475332/6	Lab Control Sample	105	102	103
LCS 310-475332/7	Lab Control Sample	103	95	111
MB 310-474771/5	Method Blank	109	93	104
MB 310-474956/7	Method Blank	119	92	104
MB 310-474959/7	Method Blank	122	92	101
MB 310-475120/5	Method Blank	102	95	109
MB 310-475332/5	Method Blank	102	96	114

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-474771/5
Matrix: Water
Analysis Batch: 474771

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			11/25/25 20:41	1
Acetone	<10.0		10.0		ug/L			11/25/25 20:41	1
Acrylonitrile	<5.00		5.00		ug/L			11/25/25 20:41	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/25/25 20:41	1
Benzene	<0.500		0.500		ug/L			11/25/25 20:41	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/25/25 20:41	1
Bromochloromethane	<5.00		5.00		ug/L			11/25/25 20:41	1
Bromodichloromethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Bromoform	<5.00		5.00		ug/L			11/25/25 20:41	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/25/25 20:41	1
Bromomethane	<4.00		4.00		ug/L			11/25/25 20:41	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/25/25 20:41	1
Carbon disulfide	<1.00		1.00		ug/L			11/25/25 20:41	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/25/25 20:41	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Chlorobenzene	<1.00		1.00		ug/L			11/25/25 20:41	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/25/25 20:41	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/25/25 20:41	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/25/25 20:41	1
Chloroethane	<4.00		4.00		ug/L			11/25/25 20:41	1
Chloroform	<3.00		3.00		ug/L			11/25/25 20:41	1
2-Hexanone	<10.0		10.0		ug/L			11/25/25 20:41	1
Chloromethane	<3.00		3.00		ug/L			11/25/25 20:41	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/25/25 20:41	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/25/25 20:41	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/25/25 20:41	1
Dibromomethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Ethylbenzene	<1.00		1.00		ug/L			11/25/25 20:41	1
Iodomethane	<10.0		10.0		ug/L			11/25/25 20:41	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Methylene Chloride	<5.00		5.00		ug/L			11/25/25 20:41	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Styrene	<1.00		1.00		ug/L			11/25/25 20:41	1
Tetrachloroethene	<1.00		1.00		ug/L			11/25/25 20:41	1
Toluene	<1.00		1.00		ug/L			11/25/25 20:41	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/25/25 20:41	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/25/25 20:41	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/25/25 20:41	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/25/25 20:41	1
Trichloroethene	<1.00		1.00		ug/L			11/25/25 20:41	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/25/25 20:41	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/25/25 20:41	1
Vinyl acetate	<10.0		10.0		ug/L			11/25/25 20:41	1
Vinyl chloride	<1.00		1.00		ug/L			11/25/25 20:41	1
Xylenes, Total	<3.00		3.00		ug/L			11/25/25 20:41	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-474771/5
Matrix: Water
Analysis Batch: 474771

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*109*		*76 - 130*		*11/25/25 20:41*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/25/25 20:41*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*11/25/25 20:41*	*1*

Lab Sample ID: LCS 310-474771/6
Matrix: Water
Analysis Batch: 474771

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	33.60		ug/L		84	60 - 134
Acetone	40.0	47.85		ug/L		120	59 - 136
Acrylonitrile	200	230.9		ug/L		115	50 - 150
1,2-Dibromo-3-Chloropropane	20.0	17.91		ug/L		90	62 - 132
Benzene	20.0	19.54		ug/L		98	71 - 125
1,2-Dibromoethane (EDB)	20.0	17.82		ug/L		89	74 - 122
Bromochloromethane	20.0	21.42		ug/L		107	69 - 131
Bromodichloromethane	20.0	19.83		ug/L		99	70 - 122
Bromoform	20.0	17.89		ug/L		89	62 - 122
1,2-Dichlorobenzene	20.0	19.25		ug/L		96	74 - 120
1,4-Dichlorobenzene	20.0	20.62		ug/L		103	72 - 120
Carbon disulfide	20.0	21.08		ug/L		105	58 - 137
1,1-Dichloroethane	20.0	20.96		ug/L		105	69 - 127
Carbon tetrachloride	20.0	22.20		ug/L		111	63 - 136
1,2-Dichloroethane	20.0	20.06		ug/L		100	68 - 125
Chlorobenzene	20.0	19.20		ug/L		96	74 - 120
1,1-Dichloroethene	20.0	20.79		ug/L		104	64 - 134
Chlorodibromomethane	20.0	17.79		ug/L		89	69 - 121
1,2-Dichloropropane	20.0	18.40		ug/L		92	72 - 128
Chloroform	20.0	20.45		ug/L		102	72 - 122
2-Hexanone	40.0	36.36		ug/L		91	62 - 139
cis-1,2-Dichloroethene	20.0	20.79		ug/L		104	72 - 123
cis-1,3-Dichloropropene	20.0	17.48		ug/L		87	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	35.08		ug/L		88	62 - 136
Dibromomethane	20.0	20.75		ug/L		104	72 - 122
Ethylbenzene	20.0	18.99		ug/L		95	75 - 120
Iodomethane	20.0	17.51		ug/L		88	18 - 150
1,1,1,2-Tetrachloroethane	20.0	19.00		ug/L		95	70 - 121
Methylene Chloride	20.0	23.27		ug/L		116	72 - 128
1,1,2,2-Tetrachloroethane	20.0	19.04		ug/L		95	70 - 122
Styrene	20.0	19.20		ug/L		96	74 - 122
Tetrachloroethene	20.0	19.71		ug/L		99	70 - 128
Toluene	20.0	19.49		ug/L		97	74 - 120
trans-1,2-Dichloroethene	20.0	21.24		ug/L		106	67 - 127
trans-1,3-Dichloropropene	20.0	16.65		ug/L		83	67 - 123
trans-1,4-Dichloro-2-butene	20.0	17.71		ug/L		89	50 - 150
1,1,1-Trichloroethane	20.0	21.64		ug/L		108	69 - 130
1,1,2-Trichloroethane	20.0	19.98		ug/L		100	75 - 121
Trichloroethene	20.0	18.62		ug/L		93	70 - 128

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-474771/6
Matrix: Water
Analysis Batch: 474771

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	19.62		ug/L		98	70 - 122
Vinyl acetate	40.0	34.17		ug/L		85	50 - 150
Xylenes, Total	40.0	38.28		ug/L		96	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 310-474771/7
Matrix: Water
Analysis Batch: 474771

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	18.74		ug/L		94	33 - 138
Chloroethane	20.0	20.58		ug/L		103	59 - 139
Chloromethane	20.0	21.66		ug/L		108	52 - 146
Trichlorofluoromethane	20.0	21.14		ug/L		106	55 - 150
Vinyl chloride	20.0	21.30		ug/L		107	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*109*		*76 - 130*
Toluene-d8 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 310-474956/7
Matrix: Water
Analysis Batch: 474956

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			11/26/25 14:04	1
Acetone	<10.0		10.0		ug/L			11/26/25 14:04	1
Acrylonitrile	<5.00		5.00		ug/L			11/26/25 14:04	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/26/25 14:04	1
Benzene	<0.500		0.500		ug/L			11/26/25 14:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/26/25 14:04	1
Bromochloromethane	<5.00		5.00		ug/L			11/26/25 14:04	1
Bromodichloromethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Bromoform	<5.00		5.00		ug/L			11/26/25 14:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 14:04	1
Bromomethane	<4.00		4.00		ug/L			11/26/25 14:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/26/25 14:04	1
Carbon disulfide	<1.00		1.00		ug/L			11/26/25 14:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/26/25 14:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Chlorobenzene	<1.00		1.00		ug/L			11/26/25 14:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/26/25 14:04	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-474956/7
Matrix: Water
Analysis Batch: 474956

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	<5.00		5.00		ug/L			11/26/25 14:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/26/25 14:04	1
Chloroethane	<4.00		4.00		ug/L			11/26/25 14:04	1
Chloroform	<3.00		3.00		ug/L			11/26/25 14:04	1
2-Hexanone	<10.0		10.0		ug/L			11/26/25 14:04	1
Chloromethane	<3.00		3.00		ug/L			11/26/25 14:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 14:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 14:04	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/26/25 14:04	1
Dibromomethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Ethylbenzene	<1.00		1.00		ug/L			11/26/25 14:04	1
Iodomethane	<10.0		10.0		ug/L			11/26/25 14:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Methylene Chloride	<5.00		5.00		ug/L			11/26/25 14:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Styrene	<1.00		1.00		ug/L			11/26/25 14:04	1
Tetrachloroethene	<1.00		1.00		ug/L			11/26/25 14:04	1
Toluene	<1.00		1.00		ug/L			11/26/25 14:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/26/25 14:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/26/25 14:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/26/25 14:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/26/25 14:04	1
Trichloroethene	<1.00		1.00		ug/L			11/26/25 14:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/26/25 14:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/26/25 14:04	1
Vinyl acetate	<10.0		10.0		ug/L			11/26/25 14:04	1
Vinyl chloride	<1.00		1.00		ug/L			11/26/25 14:04	1
Xylenes, Total	<3.00		3.00		ug/L			11/26/25 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*119*		*76 - 130*		*11/26/25 14:04*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/26/25 14:04*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*11/26/25 14:04*	*1*

Lab Sample ID: LCS 310-474956/8
Matrix: Water
Analysis Batch: 474956

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	38.81		ug/L		97	60 - 134
Acetone	40.0	34.78		ug/L		87	59 - 136
Acrylonitrile	200	181.2		ug/L		91	50 - 150
1,2-Dibromo-3-Chloropropane	20.0	15.97		ug/L		80	62 - 132
Benzene	20.0	19.98		ug/L		100	71 - 125
1,2-Dibromoethane (EDB)	20.0	18.34		ug/L		92	74 - 122
Bromochloromethane	20.0	21.41		ug/L		107	69 - 131
Bromodichloromethane	20.0	16.98		ug/L		85	70 - 122

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-474956/8
Matrix: Water
Analysis Batch: 474956

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromoform	20.0	17.23		ug/L		86	62 - 122
1,2-Dichlorobenzene	20.0	19.69		ug/L		98	74 - 120
1,4-Dichlorobenzene	20.0	20.07		ug/L		100	72 - 120
Carbon disulfide	20.0	17.00		ug/L		85	58 - 137
1,1-Dichloroethane	20.0	16.91		ug/L		85	69 - 127
Carbon tetrachloride	20.0	18.91		ug/L		95	63 - 136
1,2-Dichloroethane	20.0	17.77		ug/L		89	68 - 125
Chlorobenzene	20.0	18.64		ug/L		93	74 - 120
1,1-Dichloroethene	20.0	18.95		ug/L		95	64 - 134
Chlorodibromomethane	20.0	18.56		ug/L		93	69 - 121
1,2-Dichloropropane	20.0	16.99		ug/L		85	72 - 128
Chloroform	20.0	20.40		ug/L		102	72 - 122
2-Hexanone	40.0	31.61		ug/L		79	62 - 139
cis-1,2-Dichloroethene	20.0	18.57		ug/L		93	72 - 123
cis-1,3-Dichloropropene	20.0	17.23		ug/L		86	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	33.57		ug/L		84	62 - 136
Dibromomethane	20.0	19.89		ug/L		99	72 - 122
Ethylbenzene	20.0	19.43		ug/L		97	75 - 120
Iodomethane	20.0	19.51		ug/L		98	18 - 150
1,1,1,2-Tetrachloroethane	20.0	18.00		ug/L		90	70 - 121
Methylene Chloride	20.0	20.08		ug/L		100	72 - 128
1,1,2,2-Tetrachloroethane	20.0	18.15		ug/L		91	70 - 122
Styrene	20.0	20.59		ug/L		103	74 - 122
Tetrachloroethene	20.0	19.35		ug/L		97	70 - 128
Toluene	20.0	18.23		ug/L		91	74 - 120
trans-1,2-Dichloroethene	20.0	17.94		ug/L		90	67 - 127
trans-1,3-Dichloropropene	20.0	17.23		ug/L		86	67 - 123
trans-1,4-Dichloro-2-butene	20.0	16.76		ug/L		84	50 - 150
1,1,1-Trichloroethane	20.0	18.29		ug/L		91	69 - 130
1,1,2-Trichloroethane	20.0	18.30		ug/L		92	75 - 121
Trichloroethene	20.0	18.30		ug/L		91	70 - 128
1,2,3-Trichloropropane	20.0	20.37		ug/L		102	70 - 122
Vinyl acetate	40.0	39.85		ug/L		100	50 - 150
Xylenes, Total	40.0	40.29		ug/L		101	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*76 - 130*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: LCS 310-474956/9
Matrix: Water
Analysis Batch: 474956

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	16.88		ug/L		84	33 - 138
Chloroethane	20.0	18.56		ug/L		93	59 - 139
Chloromethane	20.0	17.76		ug/L		89	52 - 146

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-474956/9
Matrix: Water
Analysis Batch: 474956

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichlorofluoromethane	20.0	18.81		ug/L		94	55 - 150
Vinyl chloride	20.0	18.29		ug/L		91	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*116*		*76 - 130*
Toluene-d8 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 310-474959/7
Matrix: Water
Analysis Batch: 474959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			11/27/25 01:24	1
Acetone	<10.0		10.0		ug/L			11/27/25 01:24	1
Acrylonitrile	<5.00		5.00		ug/L			11/27/25 01:24	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			11/27/25 01:24	1
Benzene	<0.500		0.500		ug/L			11/27/25 01:24	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/27/25 01:24	1
Bromochloromethane	<5.00		5.00		ug/L			11/27/25 01:24	1
Bromodichloromethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Bromoform	<5.00		5.00		ug/L			11/27/25 01:24	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/27/25 01:24	1
Bromomethane	<4.00		4.00		ug/L			11/27/25 01:24	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/27/25 01:24	1
Carbon disulfide	<1.00		1.00		ug/L			11/27/25 01:24	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/27/25 01:24	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Chlorobenzene	<1.00		1.00		ug/L			11/27/25 01:24	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/27/25 01:24	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/27/25 01:24	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/27/25 01:24	1
Chloroethane	<4.00		4.00		ug/L			11/27/25 01:24	1
Chloroform	<3.00		3.00		ug/L			11/27/25 01:24	1
2-Hexanone	<10.0		10.0		ug/L			11/27/25 01:24	1
Chloromethane	<3.00		3.00		ug/L			11/27/25 01:24	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/27/25 01:24	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/27/25 01:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/27/25 01:24	1
Dibromomethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Ethylbenzene	<1.00		1.00		ug/L			11/27/25 01:24	1
Iodomethane	<10.0		10.0		ug/L			11/27/25 01:24	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Methylene Chloride	<5.00		5.00		ug/L			11/27/25 01:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Styrene	<1.00		1.00		ug/L			11/27/25 01:24	1
Tetrachloroethene	<1.00		1.00		ug/L			11/27/25 01:24	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-474959/7
Matrix: Water
Analysis Batch: 474959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/27/25 01:24	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/27/25 01:24	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/27/25 01:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			11/27/25 01:24	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/27/25 01:24	1
Trichloroethene	<1.00		1.00		ug/L			11/27/25 01:24	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/27/25 01:24	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/27/25 01:24	1
Vinyl acetate	<10.0		10.0		ug/L			11/27/25 01:24	1
Vinyl chloride	<1.00		1.00		ug/L			11/27/25 01:24	1
Xylenes, Total	<3.00		3.00		ug/L			11/27/25 01:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*122*		*76 - 130*		*11/27/25 01:24*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/27/25 01:24*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*11/27/25 01:24*	*1*

Lab Sample ID: LCS 310-474959/8
Matrix: Water
Analysis Batch: 474959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	38.06		ug/L		95	60 - 134
Acetone	40.0	33.99		ug/L		85	59 - 136
Acrylonitrile	200	168.4		ug/L		84	50 - 150
1,2-Dibromo-3-Chloropropane	20.0	16.06		ug/L		80	62 - 132
Benzene	20.0	18.33		ug/L		92	71 - 125
1,2-Dibromoethane (EDB)	20.0	16.58		ug/L		83	74 - 122
Bromochloromethane	20.0	20.34		ug/L		102	69 - 131
Bromodichloromethane	20.0	16.18		ug/L		81	70 - 122
Bromoform	20.0	17.02		ug/L		85	62 - 122
1,2-Dichlorobenzene	20.0	17.48		ug/L		87	74 - 120
1,4-Dichlorobenzene	20.0	17.68		ug/L		88	72 - 120
Carbon disulfide	20.0	14.87		ug/L		74	58 - 137
1,1-Dichloroethane	20.0	15.59		ug/L		78	69 - 127
Carbon tetrachloride	20.0	16.87		ug/L		84	63 - 136
1,2-Dichloroethane	20.0	16.42		ug/L		82	68 - 125
Chlorobenzene	20.0	16.83		ug/L		84	74 - 120
1,1-Dichloroethene	20.0	17.14		ug/L		86	64 - 134
Chlorodibromomethane	20.0	17.57		ug/L		88	69 - 121
1,2-Dichloropropane	20.0	15.65		ug/L		78	72 - 128
Chloroform	20.0	18.96		ug/L		95	72 - 122
2-Hexanone	40.0	27.97		ug/L		70	62 - 139
cis-1,2-Dichloroethene	20.0	17.12		ug/L		86	72 - 123
cis-1,3-Dichloropropene	20.0	15.80		ug/L		79	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	29.24		ug/L		73	62 - 136
Dibromomethane	20.0	18.54		ug/L		93	72 - 122

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-474959/8
Matrix: Water
Analysis Batch: 474959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	20.0	17.18		ug/L		86	75 - 120
Iodomethane	20.0	18.14		ug/L		91	18 - 150
1,1,1,2-Tetrachloroethane	20.0	16.72		ug/L		84	70 - 121
Methylene Chloride	20.0	18.32		ug/L		92	72 - 128
1,1,2,2-Tetrachloroethane	20.0	17.40		ug/L		87	70 - 122
Styrene	20.0	17.93		ug/L		90	74 - 122
Tetrachloroethene	20.0	17.30		ug/L		86	70 - 128
Toluene	20.0	16.10		ug/L		80	74 - 120
trans-1,2-Dichloroethene	20.0	16.69		ug/L		83	67 - 127
trans-1,3-Dichloropropene	20.0	15.46		ug/L		77	67 - 123
trans-1,4-Dichloro-2-butene	20.0	15.25		ug/L		76	50 - 150
1,1,1-Trichloroethane	20.0	16.92		ug/L		85	69 - 130
1,1,2-Trichloroethane	20.0	16.54		ug/L		83	75 - 121
Trichloroethene	20.0	16.26		ug/L		81	70 - 128
1,2,3-Trichloropropane	20.0	18.39		ug/L		92	70 - 122
Vinyl acetate	40.0	35.92		ug/L		90	50 - 150
Xylenes, Total	40.0	34.97		ug/L		87	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*76 - 130*
Toluene-d8 (Surr)	*96*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

Lab Sample ID: LCS 310-474959/9
Matrix: Water
Analysis Batch: 474959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	17.89		ug/L		89	33 - 138
Chloroethane	20.0	20.65		ug/L		103	59 - 139
Chloromethane	20.0	18.87		ug/L		94	52 - 146
Trichlorofluoromethane	20.0	20.86		ug/L		104	55 - 150
Vinyl chloride	20.0	20.28		ug/L		101	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*117*		*76 - 130*
Toluene-d8 (Surr)	*94*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Lab Sample ID: 310-321200-11 MS
Matrix: Ground Water
Analysis Batch: 474959

Client Sample ID: GU-C1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	<10.0		50.0	42.14		ug/L		84	46 - 134
Acetone	<10.0		50.0	45.18		ug/L		90	39 - 141
Acrylonitrile	<5.00		250	203.8		ug/L		82	41 - 150
1,2-Dibromo-3-Chloropropane	<5.00	*3	25.0	19.02		ug/L		76	44 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-321200-11 MS
Matrix: Ground Water
Analysis Batch: 474959

Client Sample ID: GU-C1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.500	F2	25.0	22.00		ug/L		88	48 - 125
1,2-Dibromoethane (EDB)	<1.00		25.0	20.23		ug/L		81	60 - 122
Bromochloromethane	<5.00	F2	25.0	22.38		ug/L		90	55 - 131
Bromodichloromethane	<1.00	F2	25.0	19.43		ug/L		78	53 - 122
Bromoform	<5.00		25.0	19.90		ug/L		80	47 - 122
1,2-Dichlorobenzene	<1.00	*3	25.0	22.21		ug/L		89	60 - 120
1,4-Dichlorobenzene	<1.00	*3	25.0	22.71		ug/L		91	58 - 120
Carbon disulfide	<1.00	F2	25.0	18.66		ug/L		75	45 - 137
1,1-Dichloroethane	<1.00	F2	25.0	18.48		ug/L		74	53 - 127
Carbon tetrachloride	<2.00	F2	25.0	19.41		ug/L		78	45 - 136
1,2-Dichloroethane	<1.00		25.0	19.86		ug/L		79	48 - 128
Chlorobenzene	<1.00	F2	25.0	21.21		ug/L		85	59 - 120
1,1-Dichloroethene	<2.00	F2	25.0	19.46		ug/L		78	51 - 134
Chlorodibromomethane	<5.00	F2	25.0	21.57		ug/L		86	53 - 121
1,2-Dichloropropane	<1.00	F2	25.0	18.82		ug/L		75	59 - 128
Chloroform	<3.00	F2	25.0	22.50		ug/L		90	52 - 122
2-Hexanone	<10.0		50.0	38.60		ug/L		77	46 - 141
cis-1,2-Dichloroethene	<1.00	F2	25.0	19.89		ug/L		80	51 - 123
cis-1,3-Dichloropropene	<5.00	F2	25.0	19.18		ug/L		77	55 - 123
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	40.75		ug/L		81	49 - 138
Dibromomethane	<1.00	F2	25.0	22.87		ug/L		91	57 - 122
Ethylbenzene	<1.00		25.0	21.61		ug/L		86	53 - 120
Iodomethane	<10.0		25.0	20.95		ug/L		84	18 - 150
1,1,1,2-Tetrachloroethane	<1.00		25.0	20.51		ug/L		82	55 - 121
Methylene Chloride	<5.00	F2	25.0	21.33		ug/L		85	59 - 128
1,1,2,2-Tetrachloroethane	<1.00	F2	25.0	23.39		ug/L		94	55 - 123
Styrene	<1.00	F2	25.0	23.56		ug/L		94	50 - 125
Tetrachloroethene	<1.00		25.0	20.27		ug/L		81	51 - 128
Toluene	<1.00	F2	25.0	19.56		ug/L		78	52 - 120
trans-1,2-Dichloroethene	<1.00	F2	25.0	19.42		ug/L		78	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	19.25		ug/L		77	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	18.94		ug/L		76	28 - 150
1,1,1-Trichloroethane	<1.00	F2	25.0	19.30		ug/L		77	53 - 130
1,1,2-Trichloroethane	<1.00	F2	25.0	21.76		ug/L		87	60 - 121
Trichloroethene	<1.00		25.0	19.23		ug/L		77	50 - 128
1,2,3-Trichloropropane	<1.00	F2	25.0	23.91		ug/L		96	56 - 122
Vinyl acetate	<10.0		50.0	24.24		ug/L		48	31 - 150
Xylenes, Total	<3.00	F2	50.0	43.44		ug/L		87	50 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-321200-11 MSD
Matrix: Ground Water
Analysis Batch: 474959

Client Sample ID: GU-C1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	35.45		ug/L		71	46 - 134	17	23
Acetone	<10.0		50.0	37.69		ug/L		75	39 - 141	18	23
Acrylonitrile	<5.00		250	169.5		ug/L		68	41 - 150	18	20
1,2-Dibromo-3-Chloropropane	<5.00	*3	25.0	15.34		ug/L		61	44 - 138	21	24
Benzene	<0.500	F2	25.0	17.39	F2	ug/L		70	48 - 125	23	20
1,2-Dibromoethane (EDB)	<1.00		25.0	16.75		ug/L		67	60 - 122	19	20
Bromochloromethane	<5.00	F2	25.0	17.52	F2	ug/L		70	55 - 131	24	21
Bromodichloromethane	<1.00	F2	25.0	15.72	F2	ug/L		63	53 - 122	21	20
Bromoform	<5.00		25.0	16.26		ug/L		65	47 - 122	20	20
1,2-Dichlorobenzene	<1.00	*3	25.0	18.48		ug/L		74	60 - 120	18	20
1,4-Dichlorobenzene	<1.00	*3	25.0	18.78		ug/L		75	58 - 120	19	20
Carbon disulfide	<1.00	F2	25.0	14.49	F2	ug/L		58	45 - 137	25	24
1,1-Dichloroethane	<1.00	F2	25.0	14.93	F2	ug/L		60	53 - 127	21	20
Carbon tetrachloride	<2.00	F2	25.0	15.48	F2	ug/L		62	45 - 136	23	20
1,2-Dichloroethane	<1.00		25.0	16.27		ug/L		65	48 - 128	20	20
Chlorobenzene	<1.00	F2	25.0	16.73	F2	ug/L		67	59 - 120	24	20
1,1-Dichloroethene	<2.00	F2	25.0	15.63	F2	ug/L		63	51 - 134	22	20
Chlorodibromomethane	<5.00	F2	25.0	17.27	F2	ug/L		69	53 - 121	22	20
1,2-Dichloropropane	<1.00	F2	25.0	14.88	F2	ug/L		60	59 - 128	23	20
Chloroform	<3.00	F2	25.0	17.88	F2	ug/L		72	52 - 122	23	20
2-Hexanone	<10.0		50.0	32.37		ug/L		65	46 - 141	18	20
cis-1,2-Dichloroethene	<1.00	F2	25.0	15.94	F2	ug/L		64	51 - 123	22	20
cis-1,3-Dichloropropene	<5.00	F2	25.0	15.06	F2	ug/L		60	55 - 123	24	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	33.71		ug/L		67	49 - 138	19	20
Dibromomethane	<1.00	F2	25.0	17.67	F2	ug/L		71	57 - 122	26	20
Ethylbenzene	<1.00		25.0	17.72		ug/L		71	53 - 120	20	20
Iodomethane	<10.0		25.0	20.10		ug/L		80	18 - 150	4	32
1,1,1,2-Tetrachloroethane	<1.00		25.0	16.96		ug/L		68	55 - 121	19	20
Methylene Chloride	<5.00	F2	25.0	16.71	F2	ug/L		67	59 - 128	24	20
1,1,2,2-Tetrachloroethane	<1.00	F2	25.0	18.36	F2	ug/L		73	55 - 123	24	20
Styrene	<1.00	F2	25.0	18.50	F2	ug/L		74	50 - 125	24	20
Tetrachloroethene	<1.00		25.0	16.64		ug/L		67	51 - 128	20	20
Toluene	<1.00	F2	25.0	15.72	F2	ug/L		63	52 - 120	22	20
trans-1,2-Dichloroethene	<1.00	F2	25.0	15.58	F2	ug/L		62	53 - 127	22	20
trans-1,3-Dichloropropene	<5.00		25.0	15.74		ug/L		63	50 - 123	20	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	15.49		ug/L		62	28 - 150	20	24
1,1,1-Trichloroethane	<1.00	F2	25.0	15.16	F2	ug/L		61	53 - 130	24	20
1,1,2-Trichloroethane	<1.00	F2	25.0	16.98	F2	ug/L		68	60 - 121	25	20
Trichloroethene	<1.00		25.0	15.89		ug/L		64	50 - 128	19	20
1,2,3-Trichloropropane	<1.00	F2	25.0	18.90	F2	ug/L		76	56 - 122	23	21
Vinyl acetate	<10.0		50.0	19.00		ug/L		38	31 - 150	24	25
Xylenes, Total	<3.00	F2	50.0	35.35	F2	ug/L		71	50 - 122	21	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-475120/5
Matrix: Water
Analysis Batch: 475120

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			12/01/25 21:03	1
Acetone	<10.0		10.0		ug/L			12/01/25 21:03	1
Acrylonitrile	<5.00		5.00		ug/L			12/01/25 21:03	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/01/25 21:03	1
Benzene	<0.500		0.500		ug/L			12/01/25 21:03	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/01/25 21:03	1
Bromochloromethane	<5.00		5.00		ug/L			12/01/25 21:03	1
Bromodichloromethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Bromoform	<5.00		5.00		ug/L			12/01/25 21:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/01/25 21:03	1
Bromomethane	<4.00		4.00		ug/L			12/01/25 21:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/01/25 21:03	1
Carbon disulfide	<1.00		1.00		ug/L			12/01/25 21:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/01/25 21:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Chlorobenzene	<1.00		1.00		ug/L			12/01/25 21:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/01/25 21:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/01/25 21:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/01/25 21:03	1
Chloroethane	<4.00		4.00		ug/L			12/01/25 21:03	1
Chloroform	<3.00		3.00		ug/L			12/01/25 21:03	1
2-Hexanone	<10.0		10.0		ug/L			12/01/25 21:03	1
Chloromethane	<3.00		3.00		ug/L			12/01/25 21:03	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/01/25 21:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/01/25 21:03	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/01/25 21:03	1
Dibromomethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Ethylbenzene	<1.00		1.00		ug/L			12/01/25 21:03	1
Iodomethane	<10.0		10.0		ug/L			12/01/25 21:03	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Methylene Chloride	<5.00		5.00		ug/L			12/01/25 21:03	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Styrene	<1.00		1.00		ug/L			12/01/25 21:03	1
Tetrachloroethene	<1.00		1.00		ug/L			12/01/25 21:03	1
Toluene	<1.00		1.00		ug/L			12/01/25 21:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/01/25 21:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/01/25 21:03	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/01/25 21:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/01/25 21:03	1
Trichloroethene	<1.00		1.00		ug/L			12/01/25 21:03	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/01/25 21:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/01/25 21:03	1
Vinyl acetate	<10.0		10.0		ug/L			12/01/25 21:03	1
Vinyl chloride	<1.00		1.00		ug/L			12/01/25 21:03	1
Xylenes, Total	<3.00		3.00		ug/L			12/01/25 21:03	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-475120/5
Matrix: Water
Analysis Batch: 475120

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*102*		*76 - 130*		*12/01/25 21:03*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/01/25 21:03*	*1*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*		*12/01/25 21:03*	*1*

Lab Sample ID: LCS 310-475120/6
Matrix: Water
Analysis Batch: 475120

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	38.33		ug/L		96	60 - 134
Acetone	40.0	42.77		ug/L		107	59 - 136
Acrylonitrile	200	229.0		ug/L		115	50 - 150
1,2-Dibromo-3-Chloropropane	20.0	19.08		ug/L		95	62 - 132
Benzene	20.0	20.06		ug/L		100	71 - 125
1,2-Dibromoethane (EDB)	20.0	19.65		ug/L		98	74 - 122
Bromochloromethane	20.0	21.07		ug/L		105	69 - 131
Bromodichloromethane	20.0	20.85		ug/L		104	70 - 122
Bromoform	20.0	19.18		ug/L		96	62 - 122
1,2-Dichlorobenzene	20.0	20.39		ug/L		102	74 - 120
1,4-Dichlorobenzene	20.0	21.76		ug/L		109	72 - 120
Carbon disulfide	20.0	20.87		ug/L		104	58 - 137
1,1-Dichloroethane	20.0	20.27		ug/L		101	69 - 127
Carbon tetrachloride	20.0	22.91		ug/L		115	63 - 136
1,2-Dichloroethane	20.0	20.49		ug/L		102	68 - 125
Chlorobenzene	20.0	19.54		ug/L		98	74 - 120
1,1-Dichloroethene	20.0	20.02		ug/L		100	64 - 134
Chlorodibromomethane	20.0	19.09		ug/L		95	69 - 121
1,2-Dichloropropane	20.0	20.24		ug/L		101	72 - 128
Chloroform	20.0	20.26		ug/L		101	72 - 122
2-Hexanone	40.0	40.88		ug/L		102	62 - 139
cis-1,2-Dichloroethene	20.0	20.09		ug/L		100	72 - 123
cis-1,3-Dichloropropene	20.0	19.57		ug/L		98	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	37.03		ug/L		93	62 - 136
Dibromomethane	20.0	21.42		ug/L		107	72 - 122
Ethylbenzene	20.0	19.37		ug/L		97	75 - 120
Iodomethane	20.0	13.90		ug/L		70	18 - 150
1,1,1,2-Tetrachloroethane	20.0	20.27		ug/L		101	70 - 121
Methylene Chloride	20.0	23.27		ug/L		116	72 - 128
1,1,2,2-Tetrachloroethane	20.0	20.49		ug/L		102	70 - 122
Styrene	20.0	20.04		ug/L		100	74 - 122
Tetrachloroethene	20.0	20.95		ug/L		105	70 - 128
Toluene	20.0	20.18		ug/L		101	74 - 120
trans-1,2-Dichloroethene	20.0	21.28		ug/L		106	67 - 127
trans-1,3-Dichloropropene	20.0	17.73		ug/L		89	67 - 123
trans-1,4-Dichloro-2-butene	20.0	18.12		ug/L		91	50 - 150
1,1,1-Trichloroethane	20.0	21.57		ug/L		108	69 - 130
1,1,2-Trichloroethane	20.0	22.55		ug/L		113	75 - 121
Trichloroethene	20.0	19.45		ug/L		97	70 - 128

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-475120/6
Matrix: Water
Analysis Batch: 475120

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	20.82		ug/L		104	70 - 122
Vinyl acetate	40.0	36.69		ug/L		92	50 - 150
Xylenes, Total	40.0	39.11		ug/L		98	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*76 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

Lab Sample ID: LCS 310-475120/7
Matrix: Water
Analysis Batch: 475120

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	16.81		ug/L		84	33 - 138
Chloroethane	20.0	18.33		ug/L		92	59 - 139
Chloromethane	20.0	19.40		ug/L		97	52 - 146
Trichlorofluoromethane	20.0	19.65		ug/L		98	55 - 150
Vinyl chloride	20.0	19.52		ug/L		98	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*76 - 130*
Toluene-d8 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*

Lab Sample ID: MB 310-475332/5
Matrix: Water
Analysis Batch: 475332

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			12/03/25 07:59	1
Acetone	<10.0		10.0		ug/L			12/03/25 07:59	1
Acrylonitrile	<5.00		5.00		ug/L			12/03/25 07:59	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/03/25 07:59	1
Benzene	<0.500		0.500		ug/L			12/03/25 07:59	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/03/25 07:59	1
Bromochloromethane	<5.00		5.00		ug/L			12/03/25 07:59	1
Bromodichloromethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Bromoform	<5.00		5.00		ug/L			12/03/25 07:59	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 07:59	1
Bromomethane	<4.00		4.00		ug/L			12/03/25 07:59	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/03/25 07:59	1
Carbon disulfide	<1.00		1.00		ug/L			12/03/25 07:59	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/03/25 07:59	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Chlorobenzene	<1.00		1.00		ug/L			12/03/25 07:59	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/03/25 07:59	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-475332/5
Matrix: Water
Analysis Batch: 475332

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	<5.00		5.00		ug/L			12/03/25 07:59	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/03/25 07:59	1
Chloroethane	<4.00		4.00		ug/L			12/03/25 07:59	1
Chloroform	<3.00		3.00		ug/L			12/03/25 07:59	1
2-Hexanone	<10.0		10.0		ug/L			12/03/25 07:59	1
Chloromethane	<3.00		3.00		ug/L			12/03/25 07:59	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/03/25 07:59	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 07:59	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/03/25 07:59	1
Dibromomethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Ethylbenzene	<1.00		1.00		ug/L			12/03/25 07:59	1
Iodomethane	<10.0		10.0		ug/L			12/03/25 07:59	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Methylene Chloride	<5.00		5.00		ug/L			12/03/25 07:59	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Styrene	<1.00		1.00		ug/L			12/03/25 07:59	1
Tetrachloroethene	<1.00		1.00		ug/L			12/03/25 07:59	1
Toluene	<1.00		1.00		ug/L			12/03/25 07:59	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/03/25 07:59	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/03/25 07:59	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/03/25 07:59	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/03/25 07:59	1
Trichloroethene	<1.00		1.00		ug/L			12/03/25 07:59	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/03/25 07:59	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/03/25 07:59	1
Vinyl acetate	<10.0		10.0		ug/L			12/03/25 07:59	1
Vinyl chloride	<1.00		1.00		ug/L			12/03/25 07:59	1
Xylenes, Total	<3.00		3.00		ug/L			12/03/25 07:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*76 - 130*		*12/03/25 07:59*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/03/25 07:59*	*1*
4-Bromofluorobenzene (Surr)	*114*		*80 - 120*		*12/03/25 07:59*	*1*

Lab Sample ID: LCS 310-475332/6
Matrix: Water
Analysis Batch: 475332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	35.00		ug/L		88	60 - 134
Acetone	40.0	47.07		ug/L		118	59 - 136
Acrylonitrile	200	211.9		ug/L		106	50 - 150
1,2-Dibromo-3-Chloropropane	20.0	20.59		ug/L		103	62 - 132
Benzene	20.0	19.33		ug/L		97	71 - 125
1,2-Dibromoethane (EDB)	20.0	19.97		ug/L		100	74 - 122
Bromochloromethane	20.0	22.41		ug/L		112	69 - 131
Bromodichloromethane	20.0	21.68		ug/L		108	70 - 122

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-475332/6
Matrix: Water
Analysis Batch: 475332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromoform	20.0	19.24		ug/L		96	62 - 122
1,2-Dichlorobenzene	20.0	20.39		ug/L		102	74 - 120
1,4-Dichlorobenzene	20.0	20.80		ug/L		104	72 - 120
Carbon disulfide	20.0	19.60		ug/L		98	58 - 137
1,1-Dichloroethane	20.0	20.10		ug/L		101	69 - 127
Carbon tetrachloride	20.0	23.48		ug/L		117	63 - 136
1,2-Dichloroethane	20.0	21.90		ug/L		109	68 - 125
Chlorobenzene	20.0	19.92		ug/L		100	74 - 120
1,1-Dichloroethene	20.0	20.77		ug/L		104	64 - 134
Chlorodibromomethane	20.0	20.08		ug/L		100	69 - 121
1,2-Dichloropropane	20.0	19.44		ug/L		97	72 - 128
Chloroform	20.0	20.97		ug/L		105	72 - 122
2-Hexanone	40.0	39.89		ug/L		100	62 - 139
cis-1,2-Dichloroethene	20.0	20.42		ug/L		102	72 - 123
cis-1,3-Dichloropropene	20.0	19.67		ug/L		98	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	36.31		ug/L		91	62 - 136
Dibromomethane	20.0	22.38		ug/L		112	72 - 122
Ethylbenzene	20.0	19.61		ug/L		98	75 - 120
Iodomethane	20.0	19.62		ug/L		98	18 - 150
1,1,1,2-Tetrachloroethane	20.0	21.47		ug/L		107	70 - 121
Methylene Chloride	20.0	23.30		ug/L		117	72 - 128
1,1,2,2-Tetrachloroethane	20.0	19.75		ug/L		99	70 - 122
Styrene	20.0	20.35		ug/L		102	74 - 122
Tetrachloroethene	20.0	20.38		ug/L		102	70 - 128
Toluene	20.0	19.58		ug/L		98	74 - 120
trans-1,2-Dichloroethene	20.0	20.73		ug/L		104	67 - 127
trans-1,3-Dichloropropene	20.0	17.99		ug/L		90	67 - 123
trans-1,4-Dichloro-2-butene	20.0	17.14		ug/L		86	50 - 150
1,1,1-Trichloroethane	20.0	22.84		ug/L		114	69 - 130
1,1,2-Trichloroethane	20.0	22.41		ug/L		112	75 - 121
Trichloroethene	20.0	19.01		ug/L		95	70 - 128
1,2,3-Trichloropropane	20.0	20.43		ug/L		102	70 - 122
Vinyl acetate	40.0	36.92		ug/L		92	50 - 150
Xylenes, Total	40.0	40.46		ug/L		101	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*76 - 130*
Toluene-d8 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Lab Sample ID: LCS 310-475332/7
Matrix: Water
Analysis Batch: 475332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	18.61		ug/L		93	33 - 138
Chloroethane	20.0	20.25		ug/L		101	59 - 139
Chloromethane	20.0	18.76		ug/L		94	52 - 146

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-475332/7
Matrix: Water
Analysis Batch: 475332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichlorofluoromethane	20.0	21.73		ug/L		109	55 - 150
Vinyl chloride	20.0	20.00		ug/L		100	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*76 - 130*
Toluene-d8 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-474758/3
Matrix: Water
Analysis Batch: 474758

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200		mg/L			11/24/25 12:55	1
Sulfate	<1.00		1.00		mg/L			11/24/25 12:55	1

Lab Sample ID: LCS 310-474758/4
Matrix: Water
Analysis Batch: 474758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.00	1.869		mg/L		93	90 - 110
Sulfate	10.0	9.252		mg/L		93	90 - 110

Lab Sample ID: 310-321200-3 MS
Matrix: Ground Water
Analysis Batch: 474758

Client Sample ID: MW-8R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	<0.200	H F1	1.00	0.6173	F1	mg/L		62	80 - 120
Sulfate	61.6		5.00	66.10	4	mg/L		89	80 - 120

Lab Sample ID: 310-321200-3 MSD
Matrix: Ground Water
Analysis Batch: 474758

Client Sample ID: MW-8R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	<0.200	H F1	1.00	0.6254	F1	mg/L		63	80 - 120	1	15
Sulfate	61.6		5.00	66.50	4	mg/L		97	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-474688/1-A
Matrix: Water
Analysis Batch: 475867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474688

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:03	1

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

Lab Sample ID: MB 310-474688/1-A
Matrix: Water
Analysis Batch: 475867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474688

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:03	1
Barium	<0.00200		0.00200		mg/L		11/25/25 08:00	12/08/25 15:03	1
Beryllium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:03	1
Cadmium	<0.000200		0.000200		mg/L		11/25/25 08:00	12/08/25 15:03	1
Chromium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Cobalt	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Copper	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Lead	<0.000500		0.000500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Nickel	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Selenium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Silver	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:03	1
Thallium	<0.00100		0.00100		mg/L		11/25/25 08:00	12/08/25 15:03	1
Vanadium	<0.00500		0.00500		mg/L		11/25/25 08:00	12/08/25 15:03	1
Zinc	<0.0200		0.0200		mg/L		11/25/25 08:00	12/08/25 15:03	1
Iron	<0.100		0.100		mg/L		11/25/25 08:00	12/08/25 15:03	1
Manganese	<0.0100		0.0100		mg/L		11/25/25 08:00	12/08/25 15:03	1

Lab Sample ID: LCS 310-474688/2-A
Matrix: Water
Analysis Batch: 475867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474688

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2138		mg/L		107	80 - 120
Arsenic	0.200	0.1958		mg/L		98	80 - 120
Barium	0.100	0.1054		mg/L		105	80 - 120
Beryllium	0.100	0.09398		mg/L		94	80 - 120
Cadmium	0.100	0.09534		mg/L		95	80 - 120
Chromium	0.100	0.09835		mg/L		98	80 - 120
Cobalt	0.100	0.09692		mg/L		97	80 - 120
Copper	0.200	0.2103		mg/L		105	80 - 120
Lead	0.200	0.2279		mg/L		114	80 - 120
Nickel	0.200	0.2051		mg/L		103	80 - 120
Selenium	0.400	0.3837		mg/L		96	80 - 120
Silver	0.100	0.1145		mg/L		114	80 - 120
Thallium	0.100	0.1058		mg/L		106	80 - 120
Vanadium	0.100	0.1001		mg/L		100	80 - 120
Zinc	0.200	0.1948		mg/L		97	80 - 120
Iron	0.200	0.1979		mg/L		99	80 - 120
Manganese	0.100	0.1023		mg/L		102	80 - 120

Lab Sample ID: 310-321200-8 DU
Matrix: Ground Water
Analysis Batch: 475867

Client Sample ID: MW-29
Prep Type: Total/NA
Prep Batch: 474688

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Barium	0.318		0.3270		mg/L		3	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20

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

Lab Sample ID: 310-321200-8 DU
Matrix: Ground Water
Analysis Batch: 475867

Client Sample ID: MW-29
Prep Type: Total/NA
Prep Batch: 474688

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cadmium	<0.000200			<0.000200		mg/L				NC	20
Chromium	<0.00500			<0.00500		mg/L				NC	20
Cobalt	<0.000500			<0.000500		mg/L				NC	20
Copper	<0.00500			<0.00500		mg/L				NC	20
Lead	<0.000500			<0.000500		mg/L				NC	20
Nickel	<0.00500			<0.00500		mg/L				NC	20
Selenium	<0.00500			<0.00500		mg/L				NC	20
Silver	<0.00100			<0.00100		mg/L				NC	20
Thallium	<0.00100			<0.00100		mg/L				NC	20
Vanadium	<0.00500			<0.00500		mg/L				NC	20
Zinc	<0.0200			<0.0200		mg/L				NC	20
Iron	<0.100			<0.100		mg/L				NC	20
Manganese	<0.0100			<0.0100		mg/L				NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-474987/1-A
Matrix: Water
Analysis Batch: 475188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		11/26/25 13:30	12/01/25 10:08	1

Lab Sample ID: LCS 310-474987/2-A
Matrix: Water
Analysis Batch: 475188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474987

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001598		mg/L		96	80 - 120		

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 410-736011/1
Matrix: Water
Analysis Batch: 736011

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.00		2.00		mg/L			11/26/25 10:24	1

Lab Sample ID: LCS 410-736011/2
Matrix: Water
Analysis Batch: 736011

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			20.0	18.81		mg/L		94	77 - 110		

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCSD 410-736011/3
Matrix: Water
Analysis Batch: 736011

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			20.0	19.00		mg/L		95	77 - 110	1	10

Lab Sample ID: MRL 410-736011/4
Matrix: Water
Analysis Batch: 736011

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			2.00	2.182		mg/L		109	-		

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

Lab Sample ID: MB 310-474633/1
Matrix: Water
Analysis Batch: 474633

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			11/24/25 11:41	1

Lab Sample ID: LCS 310-474633/2
Matrix: Water
Analysis Batch: 474633

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	94.00		mg/L		94	82 - 117		

Lab Sample ID: MB 310-474762/1
Matrix: Water
Analysis Batch: 474762

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			11/25/25 10:08	1

Lab Sample ID: LCS 310-474762/2
Matrix: Water
Analysis Batch: 474762

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	95.00		mg/L		95	82 - 117		

Lab Sample ID: 310-321200-10 DU
Matrix: Ground Water
Analysis Batch: 474762

Client Sample ID: MW-31
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	98.0			94.00		mg/L				4	35

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

Lab Sample ID: MB 310-474779/1
Matrix: Water
Analysis Batch: 474779

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			11/25/25 11:15	1

Lab Sample ID: LCS 310-474779/2
Matrix: Water
Analysis Batch: 474779

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	93.00		mg/L		93	82 - 117

GC/MS VOA

Analysis Batch: 474771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-2	MW-7	Total/NA	Ground Water	8260D	
310-321200-4	MW-10R	Total/NA	Ground Water	8260D	
MB 310-474771/5	Method Blank	Total/NA	Water	8260D	
LCS 310-474771/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-474771/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 474956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	8260D	
310-321200-3	MW-8R	Total/NA	Ground Water	8260D	
310-321200-5	MW-11R	Total/NA	Ground Water	8260D	
310-321200-6	MW-26R	Total/NA	Ground Water	8260D	
310-321200-7	MW-27R	Total/NA	Ground Water	8260D	
310-321200-8	MW-29	Total/NA	Ground Water	8260D	
310-321200-9	GU-1	Total/NA	Ground Water	8260D	
310-321200-12	MW-D	Total/NA	Ground Water	8260D	
310-321200-13	Trip Blank 1	Total/NA	Water	8260D	
310-321200-14	Trip Blank 2	Total/NA	Water	8260D	
310-321200-15	Trip Blank 3	Total/NA	Water	8260D	
MB 310-474956/7	Method Blank	Total/NA	Water	8260D	
LCS 310-474956/8	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-474956/9	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 474959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-11	GU-C1	Total/NA	Ground Water	8260D	
MB 310-474959/7	Method Blank	Total/NA	Water	8260D	
LCS 310-474959/8	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-474959/9	Lab Control Sample	Total/NA	Water	8260D	
310-321200-11 MS	GU-C1	Total/NA	Ground Water	8260D	
310-321200-11 MSD	GU-C1	Total/NA	Ground Water	8260D	

Analysis Batch: 475120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-11	GU-C1	Total/NA	Ground Water	8260D	
MB 310-475120/5	Method Blank	Total/NA	Water	8260D	
LCS 310-475120/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-475120/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 475332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-9	GU-1	Total/NA	Ground Water	8260D	
310-321200-12	MW-D	Total/NA	Ground Water	8260D	
MB 310-475332/5	Method Blank	Total/NA	Water	8260D	
LCS 310-475332/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-475332/7	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 474758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-3	MW-8R	Total/NA	Ground Water	9056A	
310-321200-5	MW-11R	Total/NA	Ground Water	9056A	
310-321200-5	MW-11R	Total/NA	Ground Water	9056A	
310-321200-6	MW-26R	Total/NA	Ground Water	9056A	
310-321200-7	MW-27R	Total/NA	Ground Water	9056A	
310-321200-10	MW-31	Total/NA	Ground Water	9056A	
MB 310-474758/3	Method Blank	Total/NA	Water	9056A	
LCS 310-474758/4	Lab Control Sample	Total/NA	Water	9056A	
310-321200-3 MS	MW-8R	Total/NA	Ground Water	9056A	
310-321200-3 MSD	MW-8R	Total/NA	Ground Water	9056A	

Metals

Prep Batch: 474688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	3005A	
310-321200-2	MW-7	Total/NA	Ground Water	3005A	
310-321200-3	MW-8R	Total/NA	Ground Water	3005A	
310-321200-4	MW-10R	Total/NA	Ground Water	3005A	
310-321200-5	MW-11R	Total/NA	Ground Water	3005A	
310-321200-6	MW-26R	Total/NA	Ground Water	3005A	
310-321200-7	MW-27R	Total/NA	Ground Water	3005A	
310-321200-8	MW-29	Total/NA	Ground Water	3005A	
310-321200-9	GU-1	Total/NA	Ground Water	3005A	
310-321200-10	MW-31	Total/NA	Ground Water	3005A	
310-321200-11	GU-C1	Total/NA	Ground Water	3005A	
310-321200-12	MW-D	Total/NA	Ground Water	3005A	
MB 310-474688/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-474688/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-321200-8 DU	MW-29	Total/NA	Ground Water	3005A	

Prep Batch: 474987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	7470A	
MB 310-474987/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-474987/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 475188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	7470A	474987
MB 310-474987/1-A	Method Blank	Total/NA	Water	7470A	474987
LCS 310-474987/2-A	Lab Control Sample	Total/NA	Water	7470A	474987

Analysis Batch: 475867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	6020B	474688
310-321200-2	MW-7	Total/NA	Ground Water	6020B	474688
310-321200-3	MW-8R	Total/NA	Ground Water	6020B	474688
310-321200-4	MW-10R	Total/NA	Ground Water	6020B	474688
310-321200-5	MW-11R	Total/NA	Ground Water	6020B	474688
310-321200-6	MW-26R	Total/NA	Ground Water	6020B	474688

Metals (Continued)

Analysis Batch: 475867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-7	MW-27R	Total/NA	Ground Water	6020B	474688
310-321200-8	MW-29	Total/NA	Ground Water	6020B	474688
310-321200-9	GU-1	Total/NA	Ground Water	6020B	474688
310-321200-10	MW-31	Total/NA	Ground Water	6020B	474688
310-321200-11	GU-C1	Total/NA	Ground Water	6020B	474688
310-321200-12	MW-D	Total/NA	Ground Water	6020B	474688
MB 310-474688/1-A	Method Blank	Total/NA	Water	6020B	474688
LCS 310-474688/2-A	Lab Control Sample	Total/NA	Water	6020B	474688
310-321200-8 DU	MW-29	Total/NA	Ground Water	6020B	474688

Analysis Batch: 476004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-10	MW-31	Total/NA	Ground Water	6020B	474688

General Chemistry

Analysis Batch: 474633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-2	MW-7	Total/NA	Ground Water	I-3765-85	
MB 310-474633/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-474633/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 474762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	I-3765-85	
310-321200-3	MW-8R	Total/NA	Ground Water	I-3765-85	
310-321200-4	MW-10R	Total/NA	Ground Water	I-3765-85	
310-321200-6	MW-26R	Total/NA	Ground Water	I-3765-85	
310-321200-8	MW-29	Total/NA	Ground Water	I-3765-85	
310-321200-9	GU-1	Total/NA	Ground Water	I-3765-85	
310-321200-10	MW-31	Total/NA	Ground Water	I-3765-85	
310-321200-11	GU-C1	Total/NA	Ground Water	I-3765-85	
310-321200-12	MW-D	Total/NA	Ground Water	I-3765-85	
MB 310-474762/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-474762/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-321200-10 DU	MW-31	Total/NA	Ground Water	I-3765-85	

Analysis Batch: 474779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-5	MW-11R	Total/NA	Ground Water	I-3765-85	
310-321200-7	MW-27R	Total/NA	Ground Water	I-3765-85	
MB 310-474779/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-474779/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 736011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-321200-1	MW-14	Total/NA	Ground Water	9034	
310-321200-3	MW-8R	Total/NA	Ground Water	9034	
310-321200-5	MW-11R	Total/NA	Ground Water	9034	
310-321200-6	MW-26R	Total/NA	Ground Water	9034	
MB 410-736011/1	Method Blank	Total/NA	Water	9034	

General Chemistry (Continued)

Analysis Batch: 736011 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-736011/2	Lab Control Sample	Total/NA	Water	9034	
LCSD 410-736011/3	Lab Control Sample Dup	Total/NA	Water	9034	
MRL 410-736011/4	Lab Control Sample	Total/NA	Water	9034	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-14
Lab Sample ID: 310-321200-1
Date Collected: 11/21/25 10:07
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 19:11
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:34
Total/NA	Prep	7470A			474987	RLT9	EET CF	11/26/25 13:30
Total/NA	Analysis	7470A		1	475188	RLT9	EET CF	12/01/25 10:46
Total/NA	Analysis	9034		1	736011	USE1	ELLE	11/26/25 10:24
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: MW-7
Lab Sample ID: 310-321200-2
Date Collected: 11/19/25 16:24
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474771	WSE8	EET CF	11/26/25 04:58
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:37
Total/NA	Analysis	I-3765-85		1	474633	DGU1	EET CF	11/24/25 11:41

Client Sample ID: MW-8R
Lab Sample ID: 310-321200-3
Date Collected: 11/21/25 12:58
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 19:33
Total/NA	Analysis	9056A		1	474758	HE7K	EET CF	11/24/25 13:19
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:40
Total/NA	Analysis	9034		1	736011	USE1	ELLE	11/26/25 10:24
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: MW-10R
Lab Sample ID: 310-321200-4
Date Collected: 11/20/25 14:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474771	WSE8	EET CF	11/26/25 04:35
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:43
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Lab Chronicle

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: MW-11R
Lab Sample ID: 310-321200-5
Date Collected: 11/21/25 13:50
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 19:55
Total/NA	Analysis	9056A		1	474758	HE7K	EET CF	11/24/25 13:56
Total/NA	Analysis	9056A		20	474758	HE7K	EET CF	11/24/25 21:04
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:46
Total/NA	Analysis	9034		1	736011	USE1	ELLE	11/26/25 10:24
Total/NA	Analysis	I-3765-85		1	474779	DGU1	EET CF	11/25/25 11:15

Client Sample ID: MW-26R
Lab Sample ID: 310-321200-6
Date Collected: 11/20/25 12:58
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 20:17
Total/NA	Analysis	9056A		1	474758	HE7K	EET CF	11/24/25 14:08
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:49
Total/NA	Analysis	9034		1	736011	USE1	ELLE	11/26/25 10:24
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: MW-27R
Lab Sample ID: 310-321200-7
Date Collected: 11/21/25 10:25
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 20:39
Total/NA	Analysis	9056A		1	474758	HE7K	EET CF	11/24/25 14:20
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:51
Total/NA	Analysis	I-3765-85		1	474779	DGU1	EET CF	11/25/25 11:15

Client Sample ID: MW-29
Lab Sample ID: 310-321200-8
Date Collected: 11/20/25 15:47
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 21:01
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 15:54
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Lab Chronicle

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: GU-1
Lab Sample ID: 310-321200-9
Date Collected: 11/20/25 16:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 21:23
Total/NA	Analysis	8260D		1	475332	WSE8	EET CF	12/03/25 11:23
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 16:00
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: MW-31
Lab Sample ID: 310-321200-10
Date Collected: 11/21/25 11:15
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	474758	HE7K	EET CF	11/24/25 14:32
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 16:08
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		4	476004	NFT2	EET CF	12/09/25 17:34
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: GU-C1
Lab Sample ID: 310-321200-11
Date Collected: 11/21/25 12:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474959	WSE8	EET CF	11/27/25 05:48
Total/NA	Analysis	8260D		1	475120	WSE8	EET CF	12/01/25 22:33
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 16:11
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Client Sample ID: MW-D
Lab Sample ID: 310-321200-12
Date Collected: 11/20/25 14:00
Matrix: Ground Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 21:45
Total/NA	Analysis	8260D		1	475332	WSE8	EET CF	12/03/25 11:46
Total/NA	Prep	3005A			474688	RLT9	EET CF	11/25/25 08:00
Total/NA	Analysis	6020B		1	475867	NFT2	EET CF	12/08/25 16:14
Total/NA	Analysis	I-3765-85		1	474762	DGU1	EET CF	11/25/25 10:08

Lab Chronicle

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Client Sample ID: Trip Blank 1
Lab Sample ID: 310-321200-13
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 15:32

Client Sample ID: Trip Blank 2
Lab Sample ID: 310-321200-14
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 15:54

Client Sample ID: Trip Blank 3
Lab Sample ID: 310-321200-15
Date Collected: 11/20/25 00:00
Matrix: Water
Date Received: 11/22/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	474956	WSE8	EET CF	11/26/25 16:16

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Laboratory: Eurofins Cedar Falls

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

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

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	361	03-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9034		Ground Water	Sulfide

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

Method Summary

Client: SCS Engineers
Job ID: 310-321200-1
Project/Site: Loess Hills - 2nd 2025 Semi-Annual GW

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	ELLE
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

eurofins | Environment Testing America

310-321200 Chain of Custody

Cooler/Sample Receipt and Temperature Log

Client Information

Client: SCS

City/State. CITY: | STATE: IA | Project.

Receipt Information

Date/Time Received: DATE: 11/24/25 | TIME: 0530 | Received By: M

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 1 of 3

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes.* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☒ Yes ☐ No *If yes.* Which VOA samples are in cooler? ↓

26R, 7, 14, GW C1

Temperature Record

Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: CC | Correction Factor (°C). +0.0

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

Uncorrected Temp (°C): 0.5 | Corrected Temp (°C): 0.5

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C)		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 11/24/25 | TIME 0530 | Received By: M

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 2 of 3

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☒ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓

8R, 11R, 27R, GW-C1

Temperature Record

Coolant: ☐ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. _____ ☐ NONE

Thermometer ID: CC | Correction Factor (°C): +0.0

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

Uncorrected Temp (°C): 3.9 | Corrected Temp (°C): 3.9

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 11/24/25 | TIME 0530 | Received By.

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 3 of 3

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☒ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓

10R, 29, GW-1, MW-D

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID CC | Correction Factor (°C): +0.0

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

Uncorrected Temp (°C): 2.3 | Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls IA 50613-6907
phone 319 277 2401 fax 319.277 2425

estAmerica Omaha SC
268

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager:	Site Contact: Sean Marczewski	Date: 11/12/2025	COC No
SCS Engineers	Email smarczewski@scsengineers.com	Lab Contact: Sam Miller	Carrier:	____ of ____ COCs
1690 All-State Court, Suite 100	Cell 712-661-9682			Sampler:
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
712-661-9682	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name Loess Hills - 2nd 2025 Semi-Annual GW	☐ 2 weeks			
Site Loess Hills Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225095 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Total Suspended Solids	Mercury	Sulfide	Nitrate	Iron	Manganese	Sulfate	Appendix II	Sample Specific Notes
MW-14	11-21	1007	C	GW				X	X	X	X						
MW-17	—	—	—	—				X	X	X	X						No Sample
MW-7	11-19 ~~11-20~~	1624	C	GW				X	X								
MW-8R	11-21	1258	C	GW				X	X		X	X	X	X	X		
MW-10R	11-20	1400	C	GW				X	X								
MW-11R	11-21	1350	C	GW				X	X		X	X	X	X	X		
MW-25	—	—	—	—					X							X	No Sample
MW-26R	11-20	1258	C	GW				X	X		X	X	X	X	X		
MW-27R	11-21	1025	C	GW				X	X			X	X	X	X		
MW-28									X			X	X	X	X	X	
MW-29	11-20	1547	C	GW				X	X								
GU-1	1600	11-20	G	GW				X	X								

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____
Relinquished by: Garrett Hoggs	Company: SCS	Date/Time: 11-21 ~~0755~~	Received by:	Company: ET	Date/Time: 11-21-25 1525
Relinquished by:	Company: ET	Date/Time: 11-24 0830	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 11/24/25 0530

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

12/10/2025

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

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

TestAmerica Omaha SC 26

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager:	Site Contact: Sean Marczewski	Date: 11/12/2025	COC No
SCS Engineers	Email smarczewski@scsengineers com	Lab Contact: Sam Miller	Carrier:	_____ of _____ COCs
1690 All-State Court, Suite 100	Cell 712-661-9682			Sampler
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
712-661-9682	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other _____			Lab Sampling
Project Name Loess Hills - 2nd 2025 Semi-Annual GW	☐ 2 weeks			
Site Loess Hills Sanitary Landfill	☐ 1 week			Job / SDG No
P O # 27225095 01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Total Suspended Solids	Cobalt	Nitrate	Iron	Manganese	Sulfate	Trip Blank	Sample Specific Notes
SW-4	~~11-20~~	—	—	—	—			X	X							NO Sample
MW-31	11-21	1115	~~G~~ C	GW					X	X	X	X	X	X		
GU-C1	11-21	1200	G	GW				X	X							
MW-D	11-20	1400	C	GW				X	X							
Trip Blank															X	Please include trip blanks in each cooler containing VOC containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____
Relinquished by Garrett Horath	Company SCS	Date/Time 11-21 1515	Received by	Company CH2	Date/Time 11-21-25 1525
Relinquished by	Company CH2	Date/Time 11-22 0800	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time 11/24/25 0530

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

12/10/2025

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller, Samuel	Carrier Tracking No(s): N/A	COC No: 310-89395.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-321200-1
Address: 2425 New Holland Pike,	Due Date Requested: 12/9/2025			
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Loess Hills - 2nd 2025 Semi-Annual GW	Project #: 31013424			
Site: 310-SCS Loess Hills	SSOW#: N/A			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9034Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-14 (310-321200-1)	11/21/25	10:07 Central	G	Water			X	1	
MW-8R (310-321200-3)	11/21/25	12:58 Central	G	Water			X	1	
MW-11R (310-321200-5)	11/21/25	13:50 Central	G	Water			X	1	
MW-26R (310-321200-6)	11/20/25	12:58 Central	G	Water			X	1	

Analysis Requested

Preservation Codes: -

Other: N/A

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		11/24/25 1225				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/25/25 1130	Company ECLNS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 1.3 C: 1.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-321200-1

Login Number: 321200
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-321200-1

Login Number: 321200
List Number: 2
Creator: Bui, Anthony

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 11/25/25 01:03 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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

Appendix B-2

Data Validation

Completed by: Michael Morgan
Date of Sampling: 5/5/2025
Lab Report Date: 5/14/2025
Site Name: Loess Hills Regional Sanitary Landfill
Project Type: HMSP - 1st Semi-Annual Sampling Event
Lab Report Number: 310-305674-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			No detections
Trip Blank Detections	X			No detections
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Michael Morgan
Date of Sampling: 5/6/2025
Lab Report Date: 5/15/2025
Site Name: Loess Hills Regional Sanitary Landfill
Project Type: HMSP - 1st Semi-Annual Sampling Event
Lab Report Number: 310-305779-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections	X			No detections.
Accuracy				
ICV/CCV		X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-454123 recovered outside of the control limits for Bromomethane (-22.9 D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-454123/4).
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-10R and duplicate sample MW-D had less than 50% RPD for analyzed parameters.

Completed by: Michael Morgan
Date of Sampling: 5/20/2025
Lab Report Date: 6/3/2025
Site Name: Loess Hills Regional Sanitary Landfill
Project Type: HMSP - 1st Semi-Annual Sampling Event
Lab Report Number: 310-306962-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature		X		Temprerature of the cooler upon arrival was 5.3°C.
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Michael Morgan
Date of Sampling: 11/20/2025
Lab Report Date: 12/10/2025
Site Name: Loess Hills Regional Sanitary Landfill
Project Type: HMSP - 2nd Semi-Annual Sampling Event
Lab Report Number: 310-321200-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition		X		Method 8260D: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container: Trip Blank 1 (310-321200-13) and Trip Blank 3 (310-321200-15).
Case Narrative		X		Method 8260D: Internal standard (ISTD) response for the following samples were outside of acceptance limits: GU-1 (310-321200-9) and MW-D (310-321200-12). The reported analytes associated with the failing internal standards are: 4-Bromofluorobenzene (Surr). The sample was not re-analyzed due to holding time expired.
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections	X			No detections.
Accuracy				
ICV/CCV		X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475120 recovered above the upper control limit for Carbon tetrachloride (24%D) and 1,1,2-Trichloroethane (24%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-475120/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475332 recovered above the upper control limit for Carbon tetrachloride (29%D). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-475332/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474771 recovered above the upper control limit for Carbon tetrachloride (22%D). The LCS associated with this CCV passed CCV criteria for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-474771/3).

ICV/CCV		X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474956 recovered outside of the control limits for 1,2-Dibromo-3-Chloropropane (-21%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-474956/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474956 recovered outside of the control limits for Carbon disulfide (-22%D), Bromoform (-21%D), 1,2-Dichloropropane (-21%D), and 1,1-Dichloroethane (-21%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-474956/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474959 recovered outside of the control for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-474959/3).
		X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-474959 recovered outside of the control limits for 2-Hexanone (-25%D) and Carbon disulfide (-21%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-474959/3).
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			

Precision

QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-10R and duplicate sample MW-D had less than 50% RPD for analyzed parameters.

Appendix C

Reporting Period Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Total Metals Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	5/5/2025	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002
	11/19/2025	**0.00247**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	5/5/2025	< 0.002	**0.0148**	N/A	< 0.002	< 0.002	< 0.002	**0.00731**	N/A	N/A	< 0.002	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00246**
	11/19/2025	< 0.002	**0.00643**	**0.00607**	< 0.002	< 0.002	< 0.002	**0.0615**	**0.0245**	< 0.002	< 0.002	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	5/5/2025	0.276	**0.546**	N/A	**0.361**	**0.382**	**0.499**	**0.708**	N/A	N/A	**0.303**	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	**0.489**	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	**0.241**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.262**
	11/19/2025	**0.297**	**0.347**	**0.147**	**0.405**	**0.39**	**0.524**	**0.428**	**0.968**	**0.75**	**0.318**	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	**0.544**	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	5/5/2025	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/19/2025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	5/5/2025	< 0.0002	**0.000793**	N/A	< 0.0002	< 0.0002	< 0.0002	**0.000221**	N/A	N/A	< 0.0002	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002
	11/19/2025	< 0.0002	**0.000217**	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	**0.00023**	< 0.0002	< 0.0002	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	5/5/2025	< 0.005	**0.00631**	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/19/2025	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.00708**	< 0.005	< 0.005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	5/5/2025	0.00057	**0.0179**	N/A	< 0.0005	< 0.0005	< 0.0005	**0.00541**	N/A	N/A	< 0.0005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00219**
	11/19/2025	< 0.0005	**0.00429**	**0.00579**	< 0.0005	< 0.0005	< 0.0005	**0.0406**	**0.00361**	**0.00547**	< 0.0005	**0.00319**	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	5/5/2025	< 0.005	**0.0131**	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00716**
	11/19/2025	< 0.005	**0.00575**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.00573**	< 0.005	< 0.005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	5/5/2025	0.000904	**0.00967**	N/A	< 0.0005	< 0.0005	< 0.0005	**0.00332**	N/A	N/A	**0.000519**	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00507**
	11/19/2025	< 0.0005	**0.00557**	< 0.0005	< 0.0005	**0.000683**	< 0.0005	**0.00167**	**0.00223**	< 0.0005	< 0.0005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, mg/L (CAS NO - 7439-97-6)	5/5/2025	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/19/2025	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	5/5/2025	< 0.005	**0.045**	N/A	< 0.005	**0.00831**	< 0.005	**0.0195**	N/A	N/A	< 0.005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00589**
	11/19/2025	< 0.005	**0.0079**	**0.0243**	< 0.005	**0.00674**	< 0.005	**0.057**	**0.0249**	**0.0207**	< 0.005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	5/5/2025	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/19/2025	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	5/5/2025	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/19/2025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	5/5/2025	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/19/2025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	5/5/2025	< 0.005	**0.0185**	N/A	< 0.005	< 0.005	< 0.005	**0.00925**	N/A	N/A	< 0.005	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.00513**
	11/19/2025	**0.00508**	**0.0105**	< 0.005	< 0.005	**0.00529**	< 0.005	**0.00729**	< 0.005	< 0.005	< 0.005	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	5/5/2025	< 0.02	**0.0621**	N/A	< 0.02	< 0.02	< 0.02	**0.0203**	N/A	N/A	< 0.02	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0762**
	11/19/2025	< 0.02	**0.0241**	< 0.02	< 0.02	**0.027**	< 0.02	< 0.02	**0.0208**	< 0.02	< 0.02	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Total Metals Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	5/5/2025	53	**768**	N/A	**1.9**	**4.6**	**5.9**	**384**	N/A	N/A	**23.3**	**45**	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	**2.1**	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	**19.8**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**336**
	11/19/2025	**17.9**	**569**	**14.3**	**1.9**	**12.3**	**6**	**162**	**65**	**12.3**	**3.5**	**98**	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1.9	N/A	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Appendix I VOC Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	5/5/2025	< 1	< 1	N/A	< 1	< 1	1.26	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	1.08	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	1.87	< 1	< 1	3.25	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	2.2	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	5/5/2025	< 2	< 2	N/A	< 2	< 2	< 2	< 2	N/A	N/A	< 2	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2
	11/19/2025	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	1.01	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	1.26	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Appendix I VOC Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
Acetone, ug/L (CAS NO - 67-64-1)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
Benzene, ug/L (CAS NO - 71-43-2)	5/5/2025	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	< 0.5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5
	11/19/2025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.86**	< 0.5	< 0.5	< 0.5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
Bromomethane, ug/L (CAS NO - 74-83-9)	5/5/2025	< 4	< 4	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4
	11/19/2025	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	5/5/2025	< 2	< 2	N/A	< 2	< 2	< 2	< 2	N/A	N/A	< 2	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2
	11/19/2025	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	**1.87**	< 1	**2.35**	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	5/5/2025	< 4	< 4	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4
	11/19/2025	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	5/5/2025	< 3	< 3	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3
	11/19/2025	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	5/5/2025	< 3	< 3	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3
	11/19/2025	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	5/5/2025	< 1	< 1	N/A	**9.05**	**7.8**	**10.9**	**1.16**	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	**11.2**	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	**7.16**	**5.74**	**9.01**	**1.94**	**16**	**28.9**	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	**10**	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Appendix I VOC Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Bromide, ug/L (CAS NO - 74-95-3)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	5/5/2025	< 5	< 5	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	11/19/2025	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3.41**	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	5/5/2025	< 4	< 4	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4
	11/19/2025	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	5/5/2025	< 10	< 10	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10
	11/19/2025	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	5/5/2025	< 1	< 1	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1
	11/19/2025	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	5/5/2025	< 3	< 3	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	5/5/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3
	11/19/2025	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A
	11/19/2025	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry

Loess Hills Regional Sanitary Landfill - 65-SDP-01-72

Other Constituents	Sample Date	MW-14 UPG	GU-1 DNG	GU-C1 DNG	MW-7 DNG	MW-8R DNG	MW-10R DNG	MW-11R DNG	MW-26R DNG	MW-27R DNG	MW-29 DNG	MW-31 DNG	SW-4 DNG
Sulfide, mg/L (CAS NO - 18496-25-8)	5/5/2025	< 2	N/A	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	5/20/2025	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/19/2025	< 2	N/A	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A
Iron, Total, mg/L (CAS NO - 7439-89-6)	5/5/2025	N/A	N/A	N/A	N/A	< 0.1	N/A	**5.39**	N/A	N/A	N/A	**41.8**	N/A
	11/19/2025	N/A	N/A	N/A	N/A	**0.142**	N/A	**4.91**	**2.35**	**0.731**	N/A	**56.3**	N/A
Manganese, mg/L (CAS NO - 7439-96-5)	5/5/2025	N/A	N/A	N/A	N/A	**0.405**	N/A	**2.39**	N/A	N/A	N/A	**8.47**	N/A
	11/19/2025	N/A	N/A	N/A	N/A	**0.562**	N/A	**8.85**	**2.58**	**3.12**	N/A	**9.37**	N/A
Nitrate (NO3), mg/L (CAS NO - 14797-55-8)	5/5/2025	N/A	N/A	N/A	N/A	< 0.2	N/A	< 0.2	N/A	N/A	N/A	< 0.2	N/A
	11/19/2025	N/A	N/A	N/A	N/A	< 0.2	N/A	< 0.2	< 0.2	< 0.2	N/A	< 0.2	N/A
Sulfate, mg/L (CAS NO - 14808-79-8)	5/5/2025	N/A	N/A	N/A	N/A	**73.4**	N/A	**106**	N/A	N/A	N/A	< 1	N/A
	11/19/2025	N/A	N/A	N/A	N/A	**61.6**	N/A	**103**	**19**	**31.4**	N/A	< 1	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix D

Statistical Methodology and Statistical Output

STATISTICAL METHODOLOGY

PURPOSE

The purpose of this document is to provide the statistical evaluation of groundwater analytical data collected from the groundwater monitoring network of the Loess Hills Regional Sanitary Landfill (Landfill).

STATISTICAL METHOD

Diagnostic and Exploratory Evaluations and Tests of Assumptions

Both the detection and assessment/corrective action monitoring statistical programs included diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for identification of outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset were managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data were non-detects, simple substitution was used, where non-detect values were assigned a concentration of one-half (½) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data were non-detects, the Kaplan-Meier estimator was used to define the distribution of the dataset. If non-detects comprised greater than 50% of the available data, non-parametric statistical methods were used.

Management of Outliers

Background datasets were evaluated for outliers using the Ohio EPA Method included in the Sanitas™ statistical software program and described below, which included the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contained less than 75% of the measured concentrations below the PQL. Outliers were not confirmed unless a physical cause or explanation for the outlier was determined.

Management of Data (ND data < 75%)

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

- A parametric dataset with $n < 20$ was evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ was evaluated with the Rosner's outlier test.
- A non-parametric dataset was evaluated with the Tukey's outlier test.

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

Management of Data (ND data ≥ 75%)

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

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

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program – Monitoring Wells

The detection monitoring statistical program for monitoring wells at the Landfill is defined by Iowa Administrative Code (IAC) 567-113.10(4)"g". Interwell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in background. Prediction limits were established using the process below. Data from the most recent sampling event was compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset had a normal distribution (or could be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits were calculated if at least five datasets had been collected from the background monitoring point(s).
- If the dataset did not have a normal distribution (and could not be transformed to a normal distribution using Ladder of Powers) or had greater than 50% non-detects, nonparametric interwell prediction limits were calculated if at least five datasets had been collected from the background monitoring point(s).
- If an SSI above the prediction limit was indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If all of the retesting results are above the prediction limit, the SSI is

confirmed, and the monitoring point should be placed into the assessment monitoring program. If any retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Detection Monitoring Statistical Program – SW-4

The detection monitoring statistical program for surface monitoring point SW-4 is defined by Iowa Administrative Code (IAC) 567-113.10(4)"g". Intrawell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Intrawell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric intrawell prediction limits are calculated if at least eight datasets have been collected from the background dataset.

- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, non-parametric intrawell prediction limits are calculated if at least eight datasets had been collected from the background dataset.

- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme are collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting results are above the prediction limit, the SSI is confirmed, and the monitoring point is placed into the assessment monitoring program or the discharge treated with the leachate for groundwater underdrains. If any retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Updating the Background Dataset for Intrawell Prediction Limits

Following the collection of the eighth background sample, if no SSI is confirmed for any two-year period, the intrawell background dataset will be updated using the following procedure:

- Test the new dataset for normal distribution either outright or through a transformation using Ladder of Powers using the Shapiro-Wilk test.

- Test the new dataset for statistically significant outliers using the Ohio EPA Method and remove the confirmed outliers (see the "Management of Outliers" section).

- Test the new dataset for statistically significant trends using the Mann-Kendall/Sen's Slope trend test. If a statistically significantly increasing trend is detected, the monitoring point is placed into the assessment monitoring program or the discharge treated with the leachate, whichever is appropriate.

- If the dataset has a normal distribution and no statistically significant increasing trend is present, a two-sample Welch's t-test at a 0.01 significance level is performed to compare current background to the most recent two years of detection monitoring data. If the Welch's t-test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated and the monitoring point will be placed into the assessment monitoring program or the discharge treated with the leachate, whichever is appropriate.

- If the dataset does not have a normal distribution and no statistically significant increasing trend is present, a two-sample non-parametric Wilcoxon rank-sum test (also known as the Mann-Whitney test) at a 0.01 significance level is performed to compare current background to the most recent two years of detection monitoring data. If the Wilcoxon rank-sum test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated and the monitoring point will be placed into the assessment monitoring program or the discharge treated with the leachate, whichever is appropriate.

- If the Welch's t-test or the Wilcoxon rank-sum tests are not significant, the most recent two years of detection data will be added to the intrawell background dataset.

The process will repeat every two years (4 sampling events) in which an SSI is not confirmed.

Double Quantification Method

The quasi-statistical "double quantification" method was used for constituents not detected in the background monitoring points. If a constituent was detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/ Corrective Action Statistical Program

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment/corrective action monitoring statistical evaluations were performed using the most recent eight samples or all samples if less than eight samples were available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation were established using the process below. Transformation of the distribution was not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean was calculated if the dataset had a normal distribution and no statistically significant trend was present.

- A non-parametric confidence interval around a median was calculated if the dataset did not have a normal distribution and no statistically significant trend was present.

- Non-parametric confidence bands around a Theil-Sen trend line were calculated if the dataset had a statistically significant trend.

In the event that the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required. An ACM was submitted on December 20, 2019 (Doc #96653) and approved in DNR Response letter dated June 29, 2020 (Doc #97988). The Selection of Remedy and Corrective Action Groundwater Monitoring Program (CAMP) were submitted on October 30, 2020 (Doc #98833) and approved in the permit renewal documentation dated December 10, 2020 (Doc #99104).

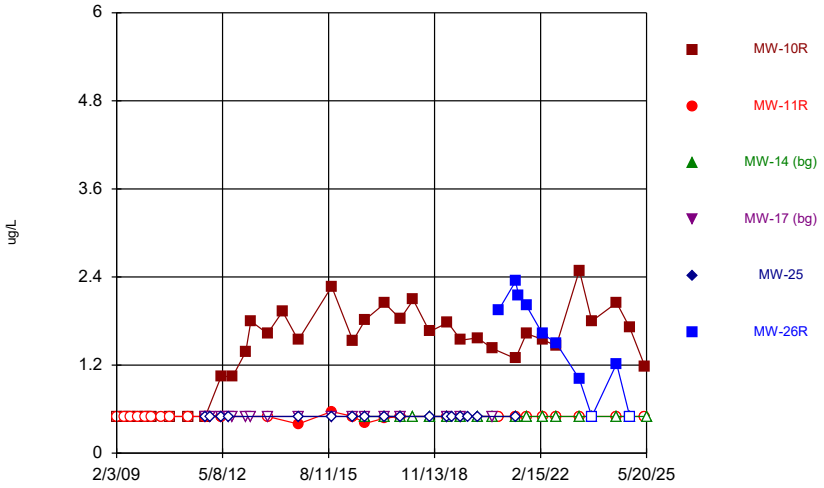
Attachment A

1st 2025 Semi-Annual Statistical Output

Time Series Graphs

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

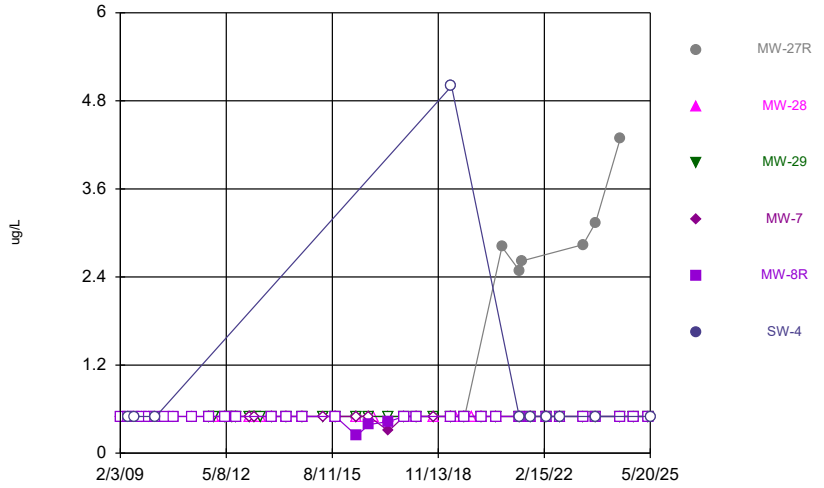
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 10/6/2025 3:13 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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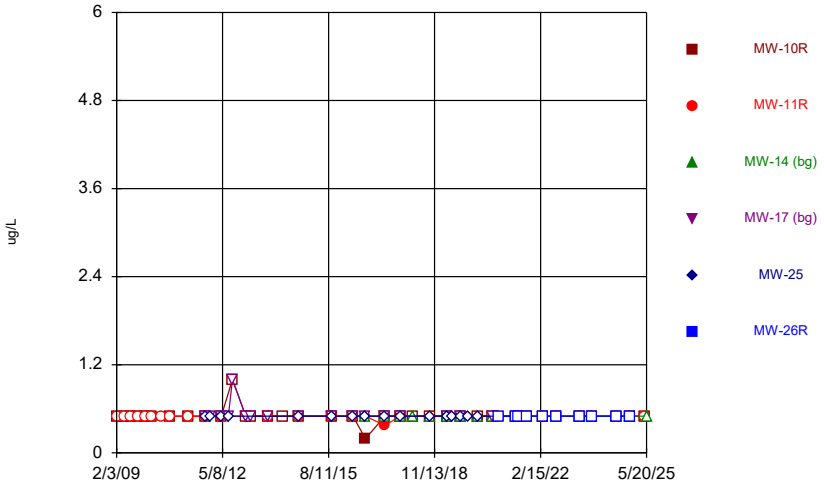
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Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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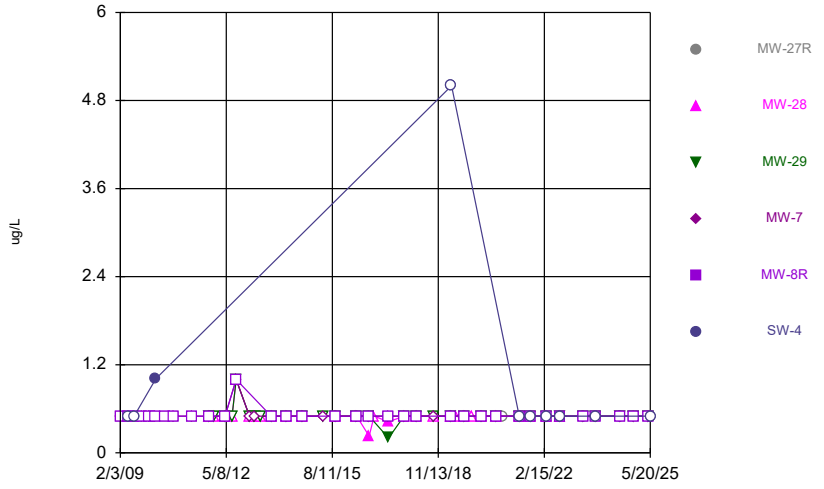
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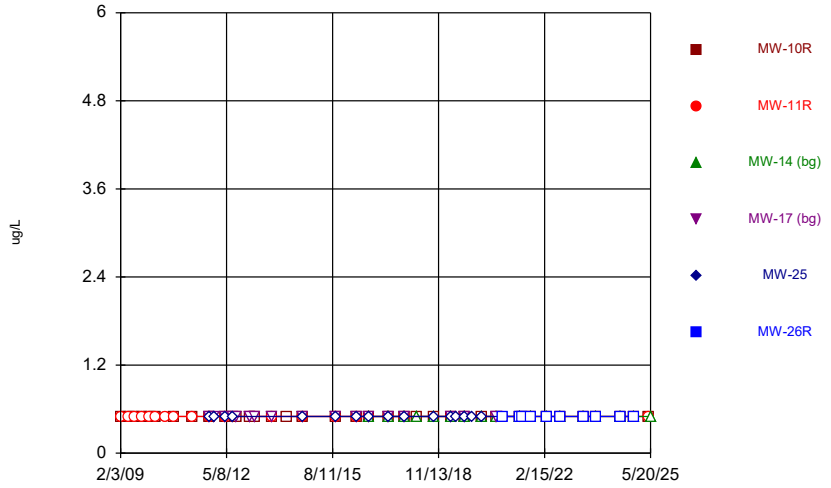
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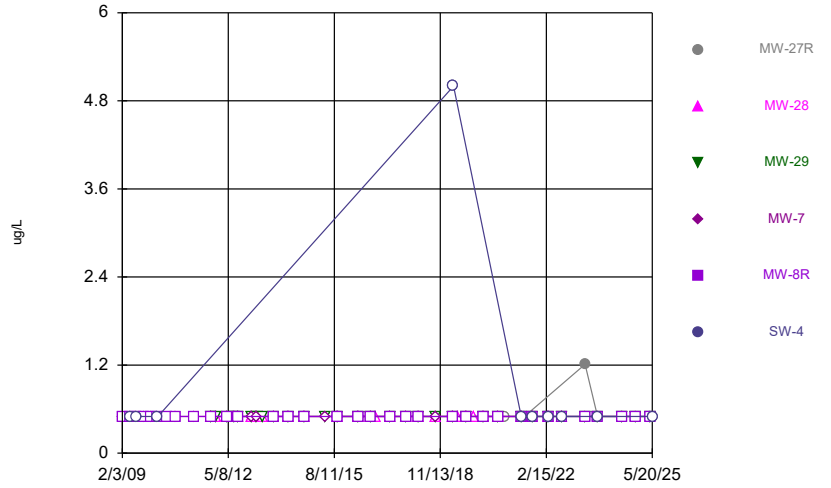
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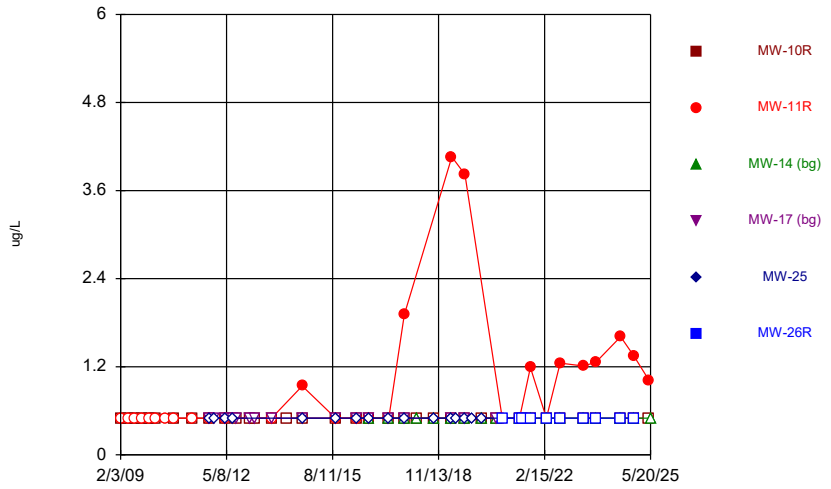
Time Series



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Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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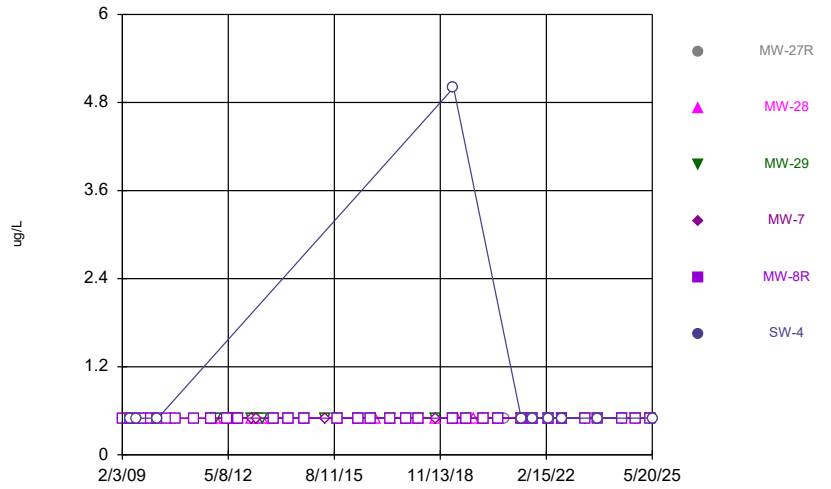
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Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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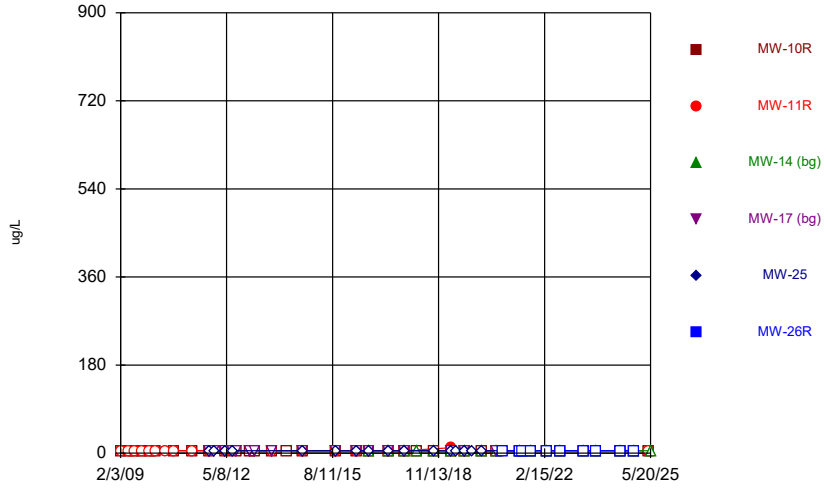
Time Series



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Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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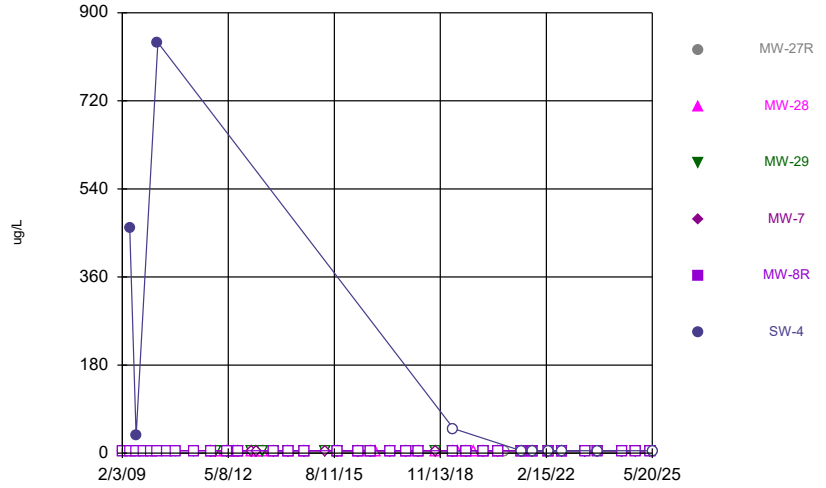
Time Series



Constituent: 2-Butanone Analysis Run 10/6/2025 3:13 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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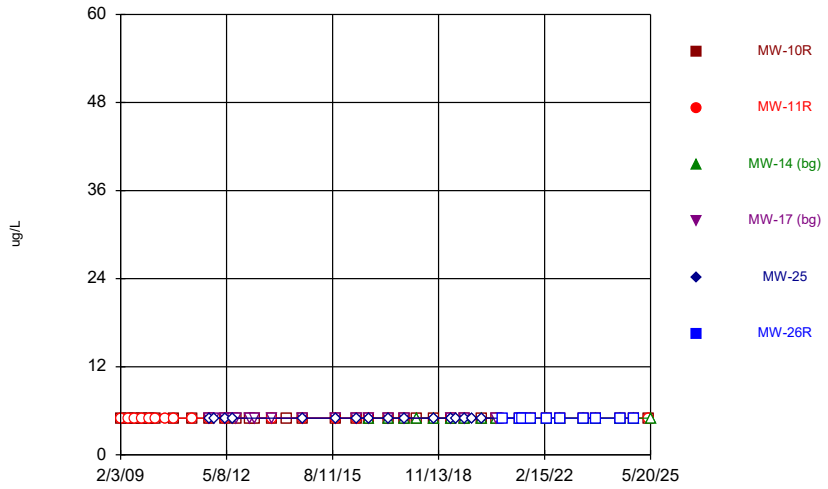
Time Series



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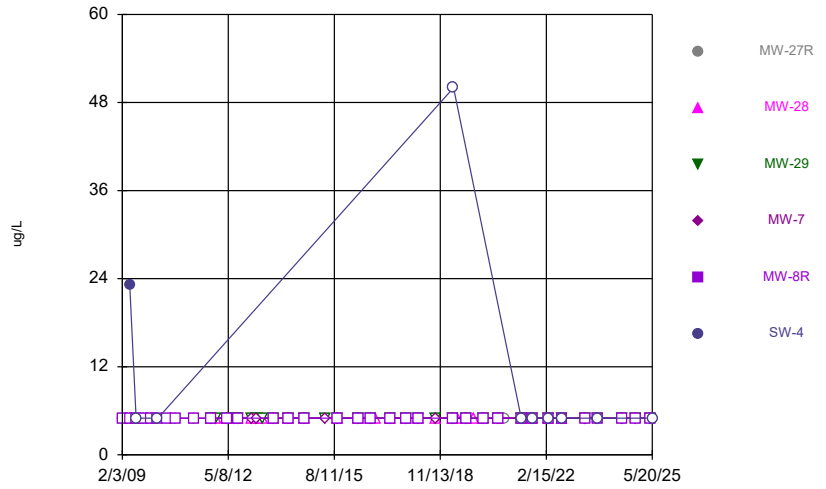
Time Series



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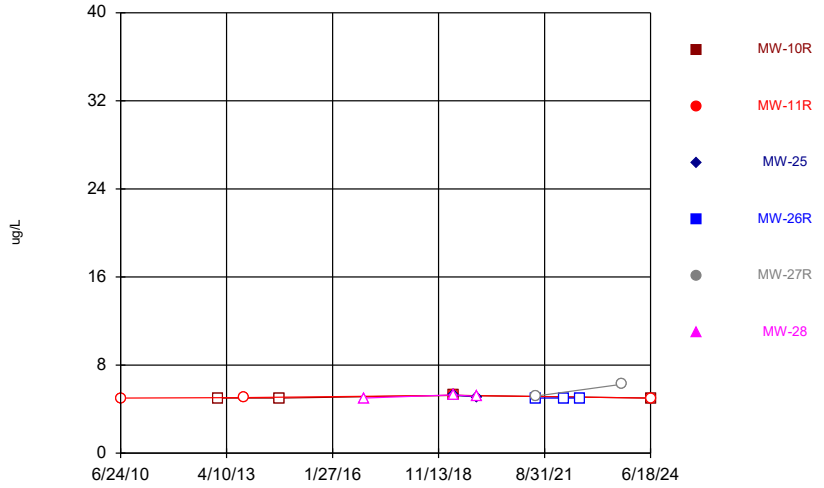
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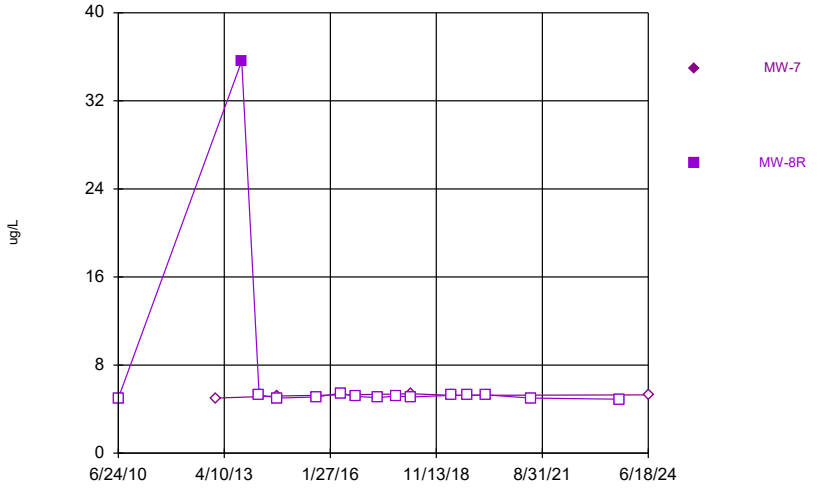
Time Series



Constituent: 3/4-Methylphenol Analysis Run 10/6/2025 3:13 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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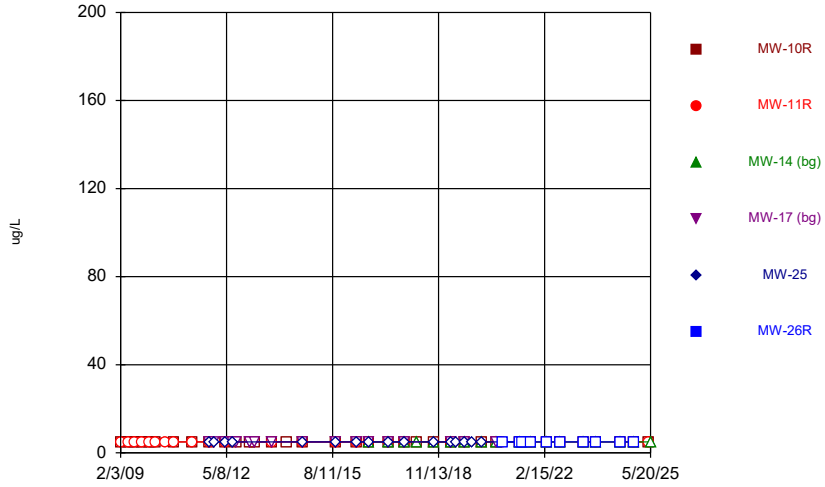
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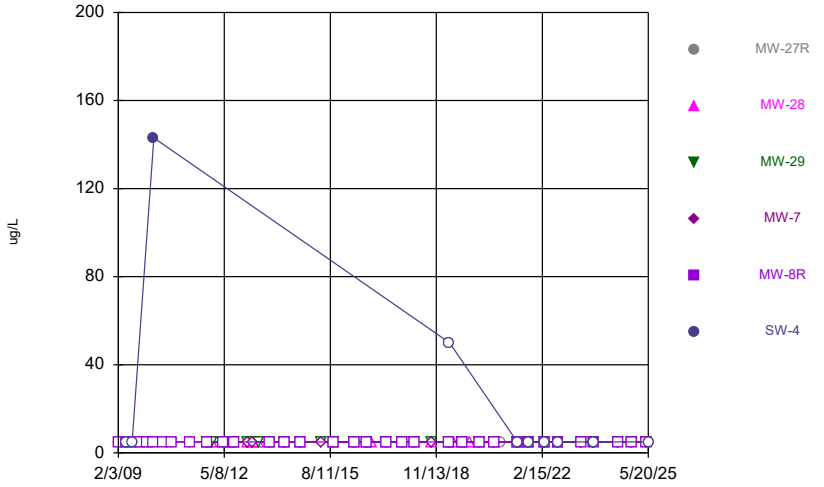
Time Series



Constituent: 4-Methyl-2-pentanone Analysis Run 10/6/2025 3:13 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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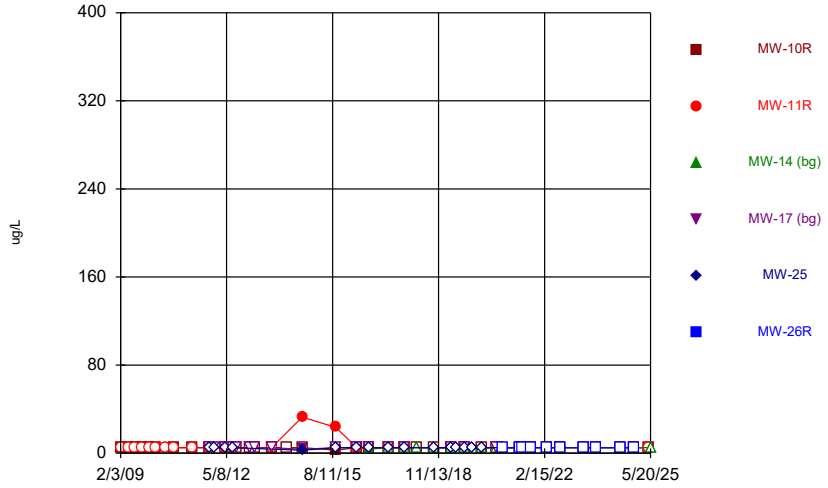
Time Series



Constituent: 4-Methyl-2-pentanone Analysis Run 10/6/2025 3:13 PM View: 2025_SSN-Time_Series
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Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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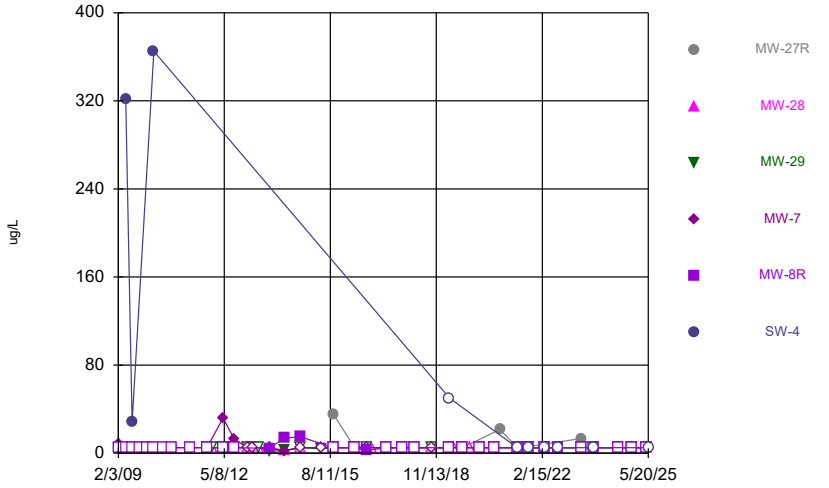
Time Series



Constituent: Acetone Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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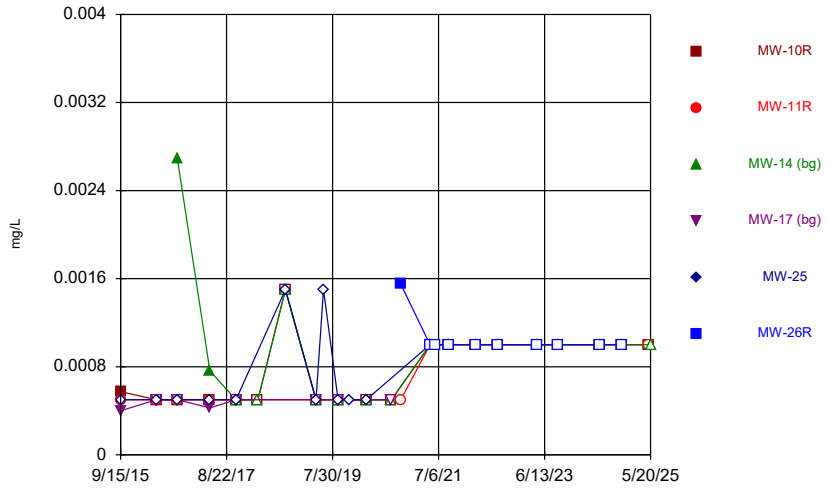
Time Series



Constituent: Acetone Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

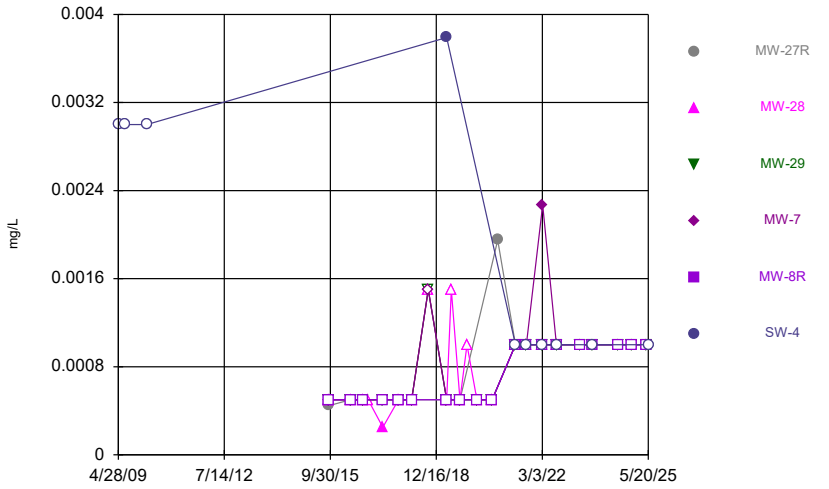
Time Series



Constituent: Antimony Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

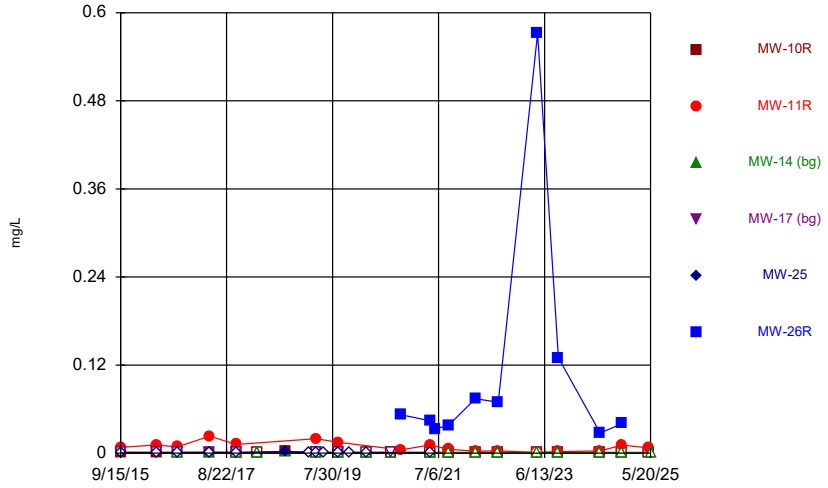
Time Series



Constituent: Antimony Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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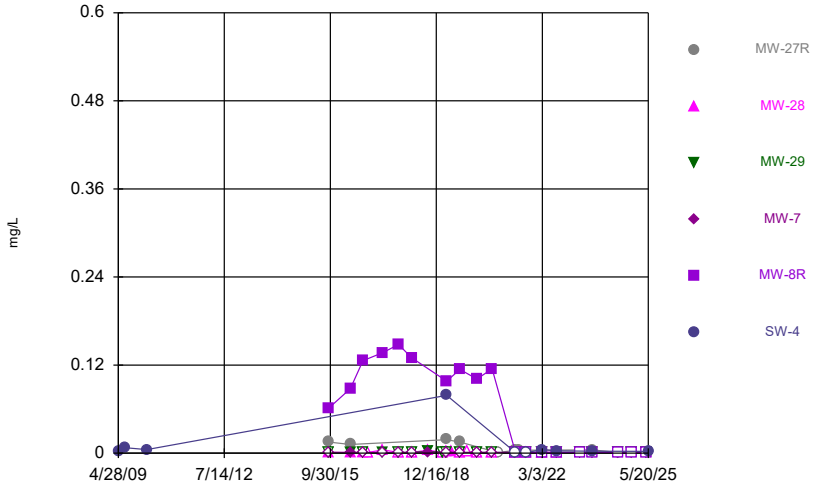
Time Series



Constituent: Arsenic Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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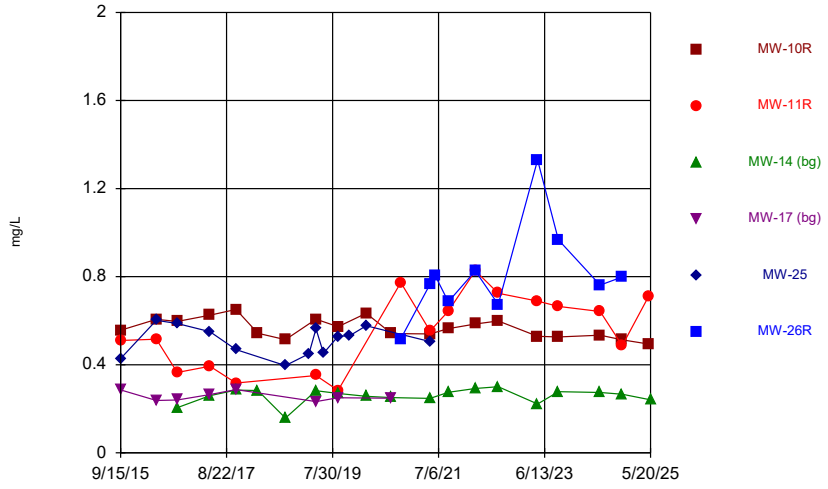
Time Series



Constituent: Arsenic Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

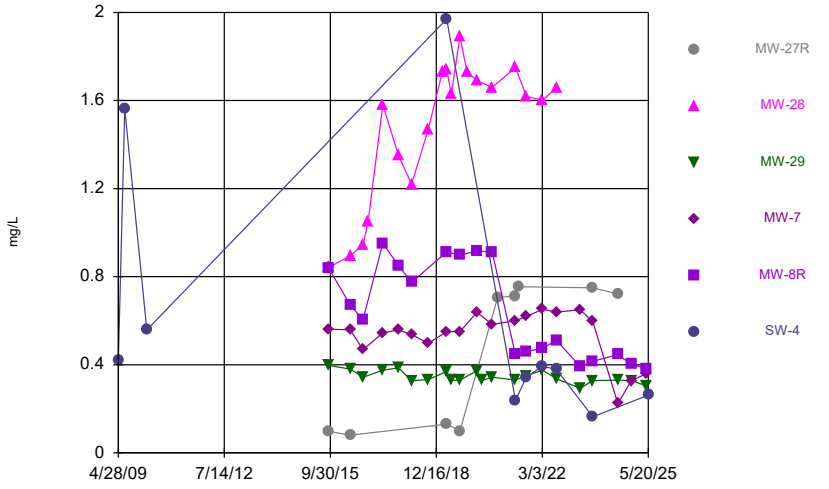
Time Series



Constituent: Barium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

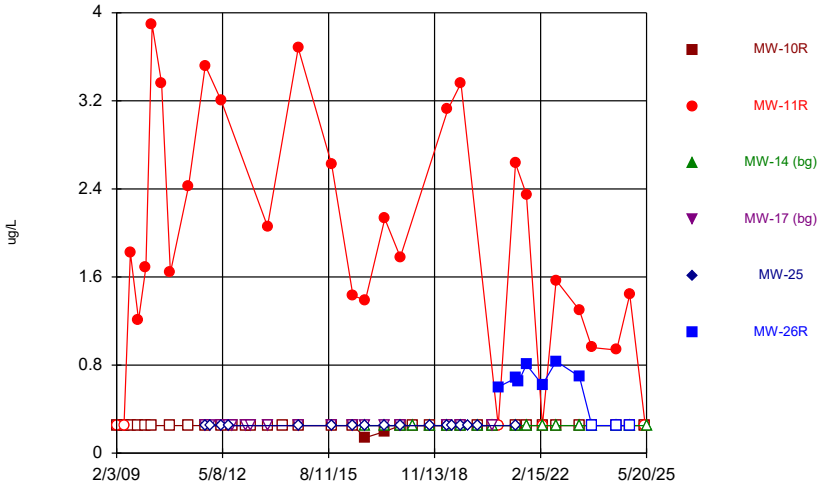
Time Series



Constituent: Barium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

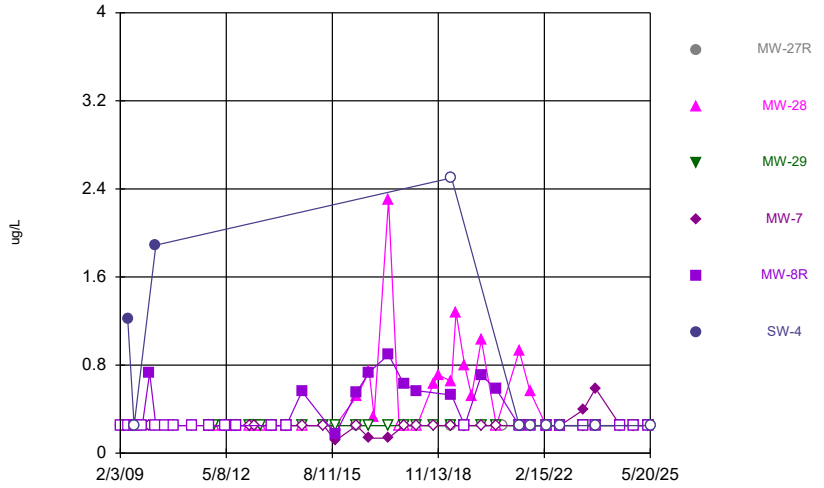
Time Series



Constituent: Benzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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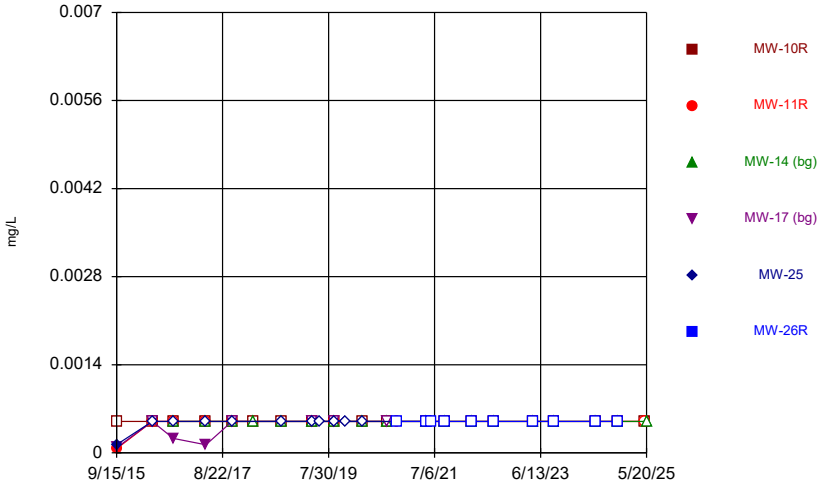
Time Series



Constituent: Benzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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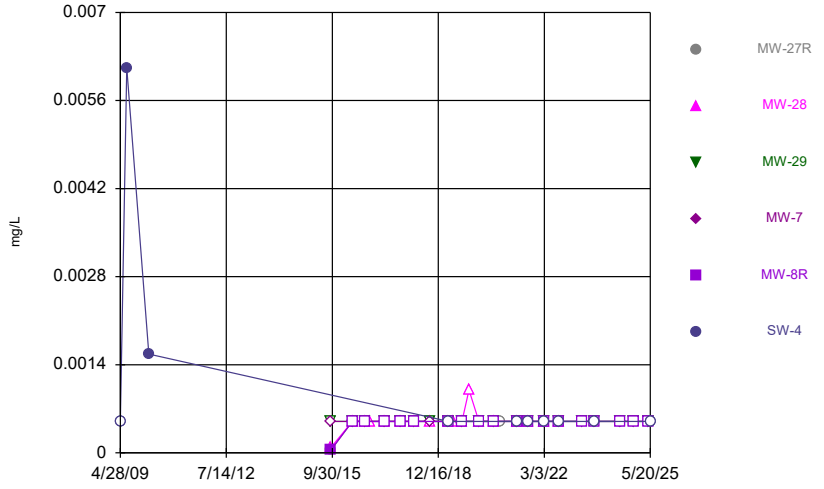
Time Series



Constituent: Beryllium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

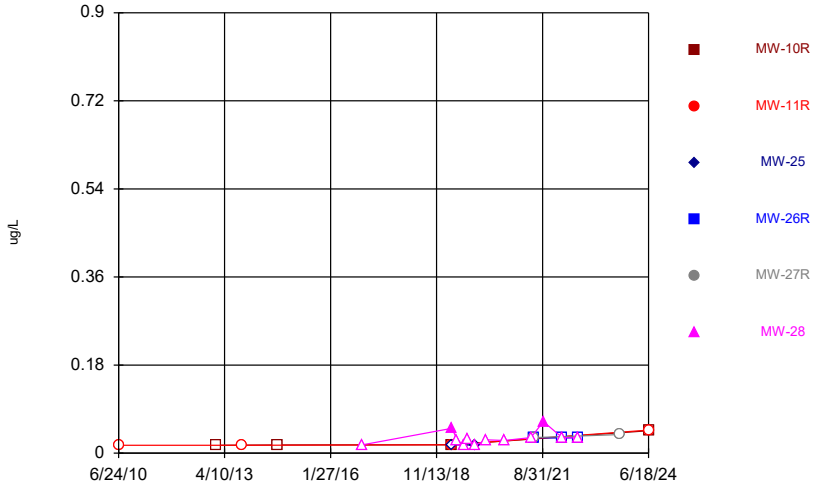
Time Series



Constituent: Beryllium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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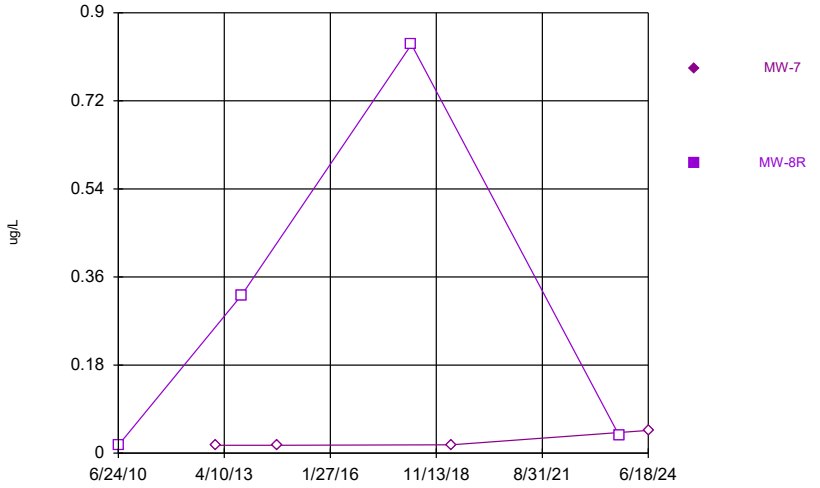
Time Series



Constituent: beta-BHC Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

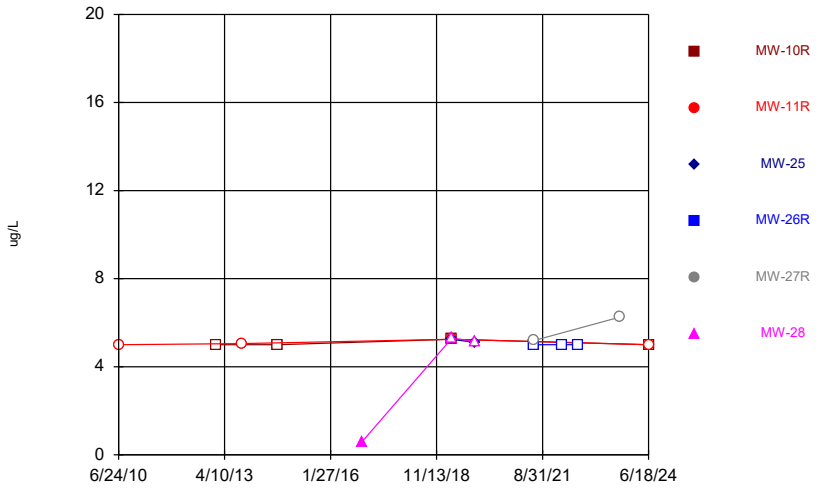
Time Series



Constituent: beta-BHC Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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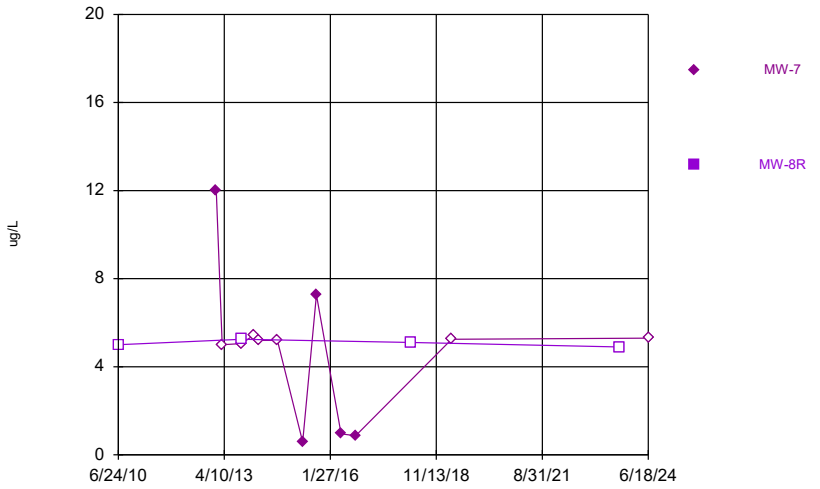
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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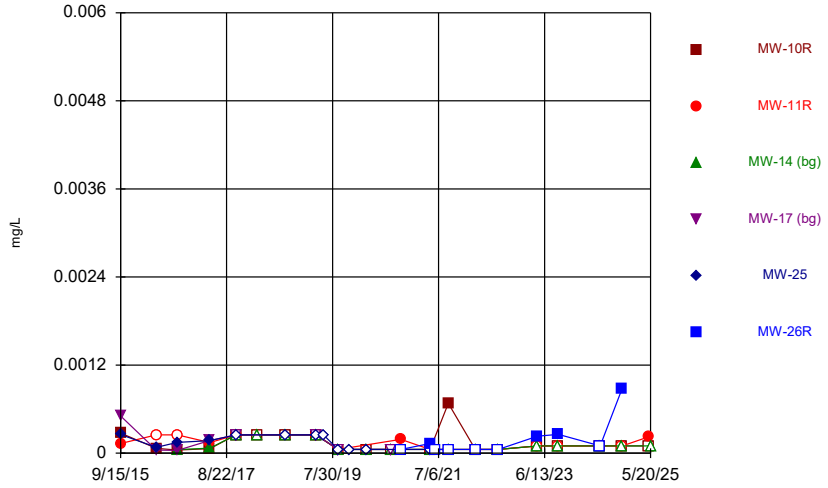
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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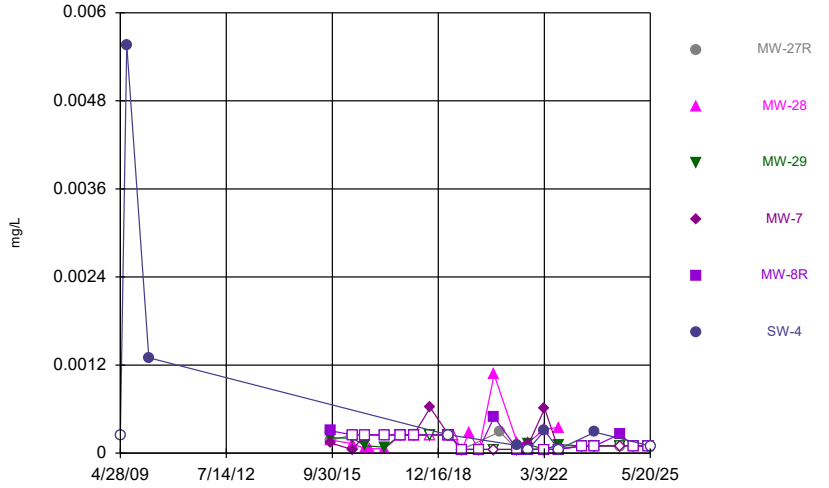
Time Series



Constituent: Cadmium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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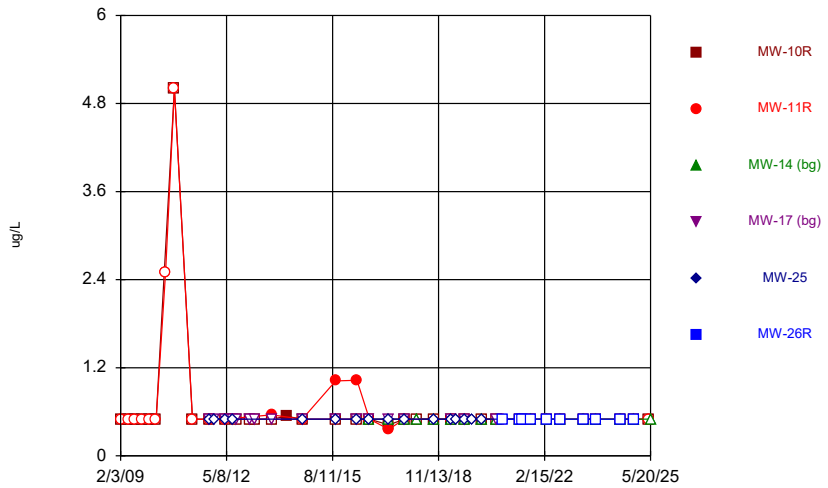
Time Series



Constituent: Cadmium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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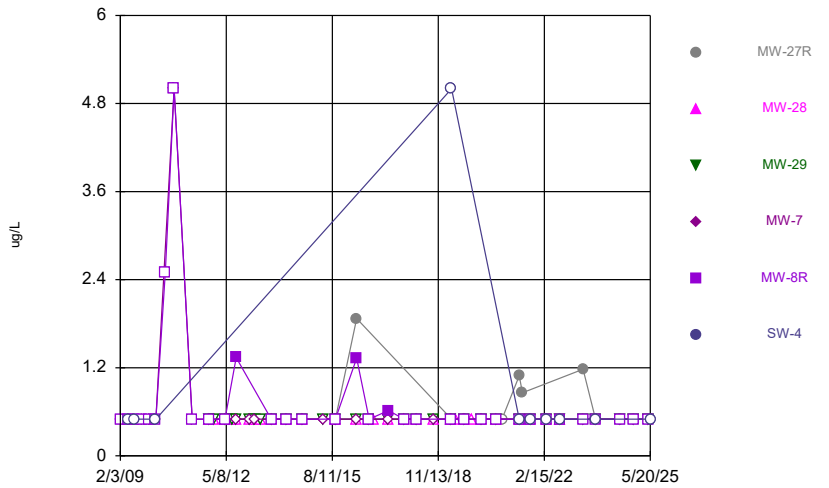
Time Series



Constituent: Carbon disulfide Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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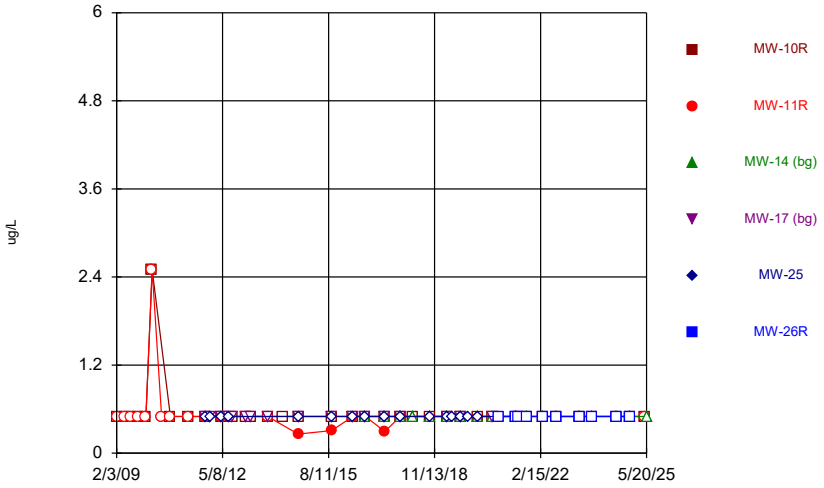
Time Series



Constituent: Carbon disulfide Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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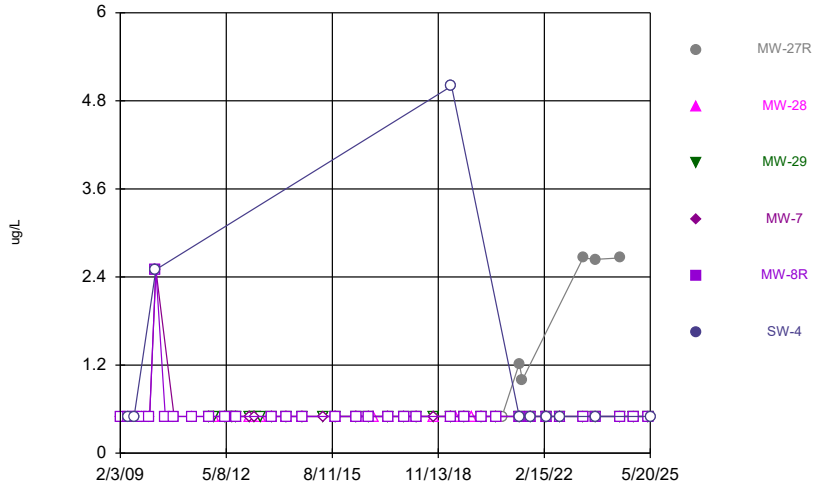
Time Series



Constituent: Chlorobenzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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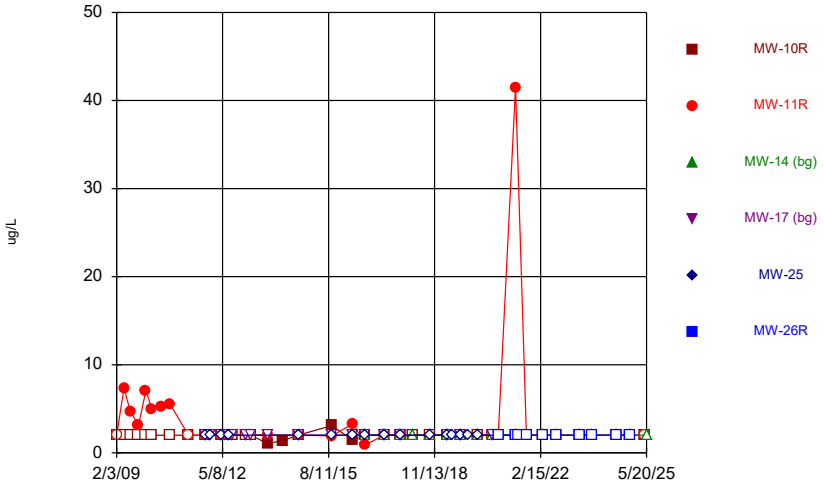
Time Series



Constituent: Chlorobenzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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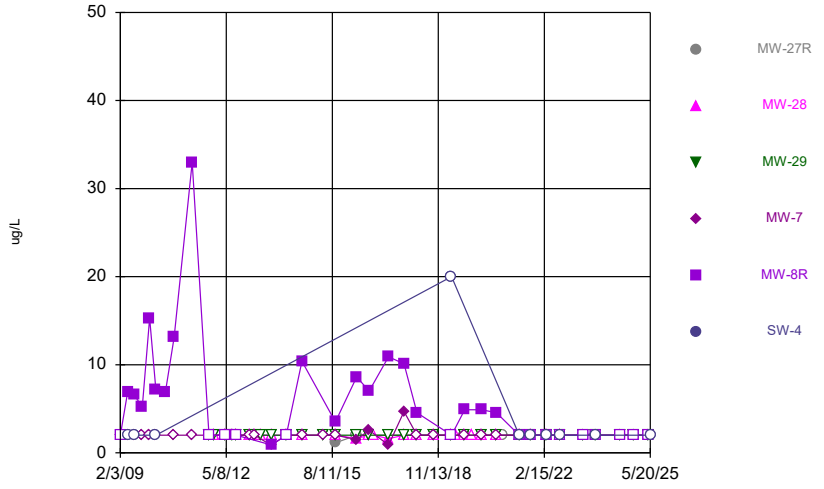
Time Series



Constituent: Chloroethane Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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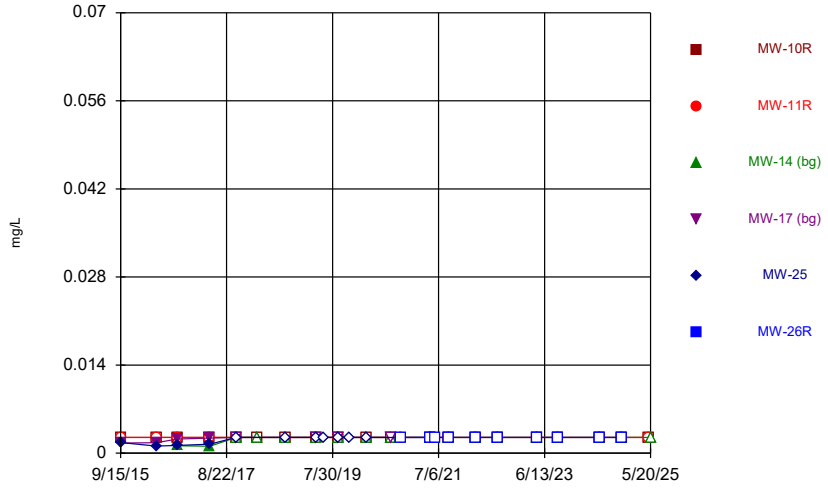
Time Series



Constituent: Chloroethane Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
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Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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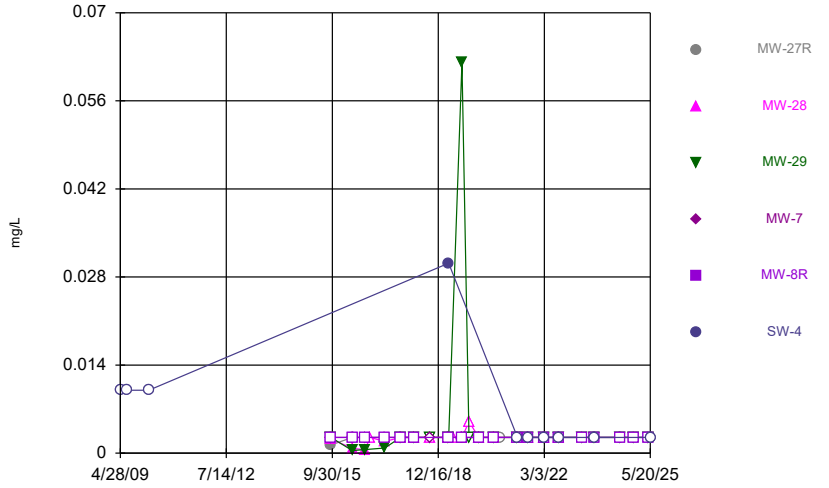
Time Series



Constituent: Chromium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

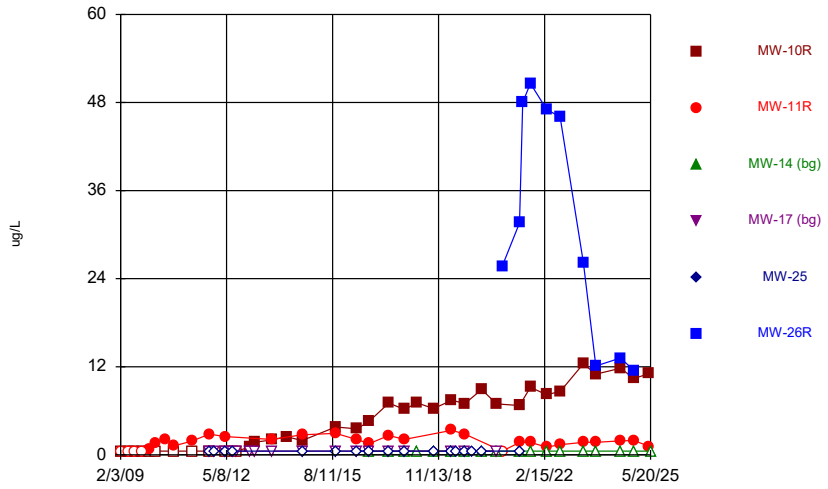
Time Series



Constituent: Chromium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

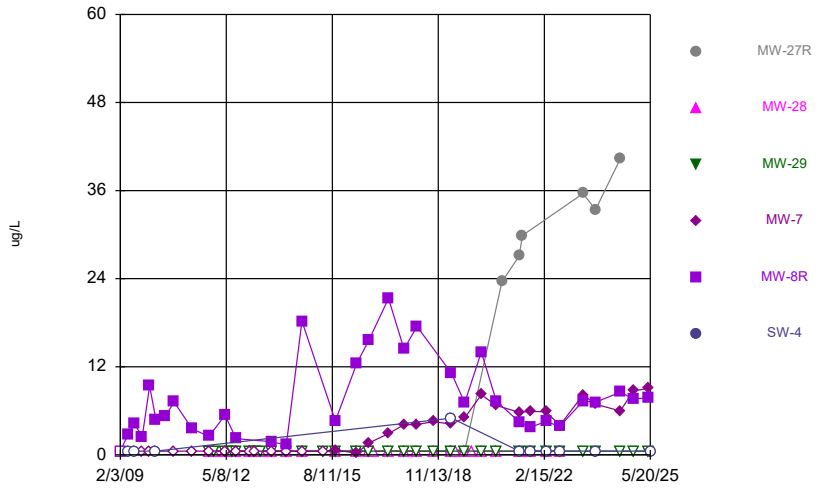
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

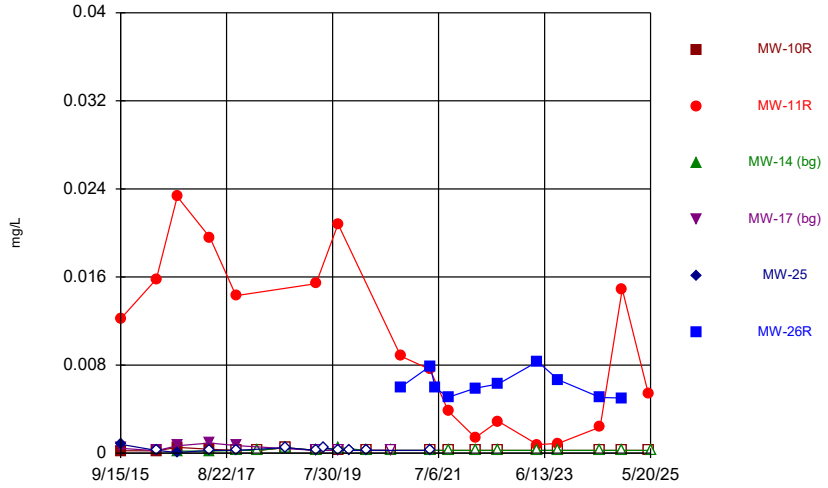
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

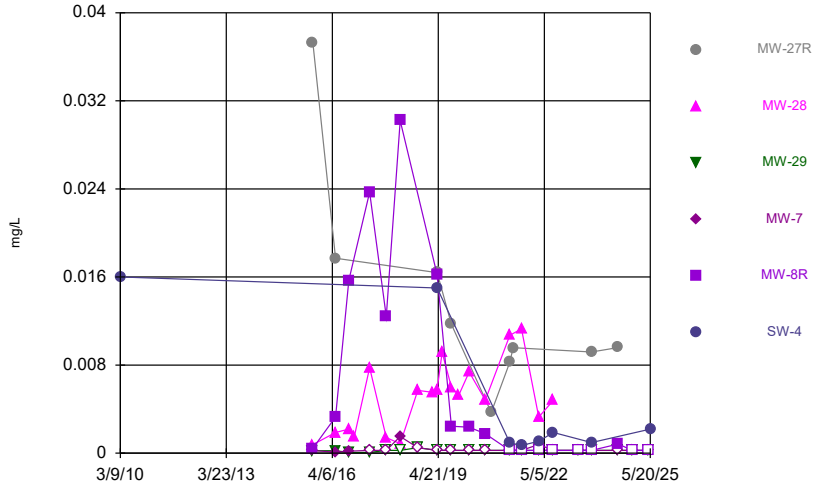
Time Series



Constituent: Cobalt Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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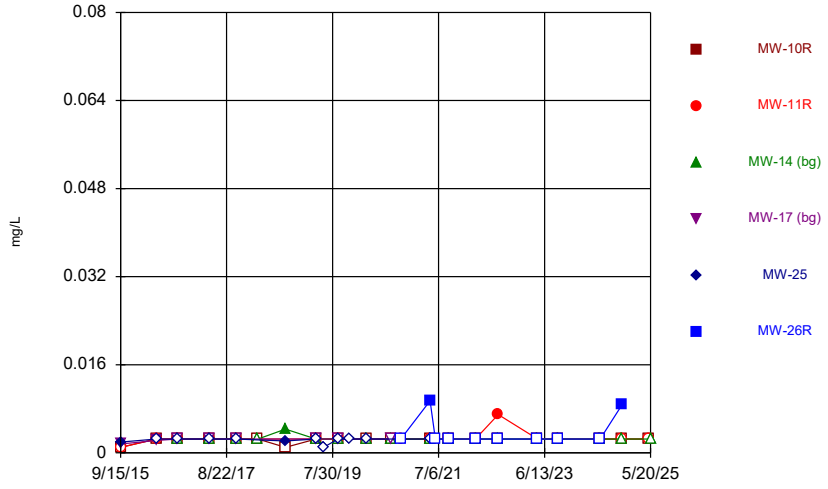
Time Series



Constituent: Cobalt Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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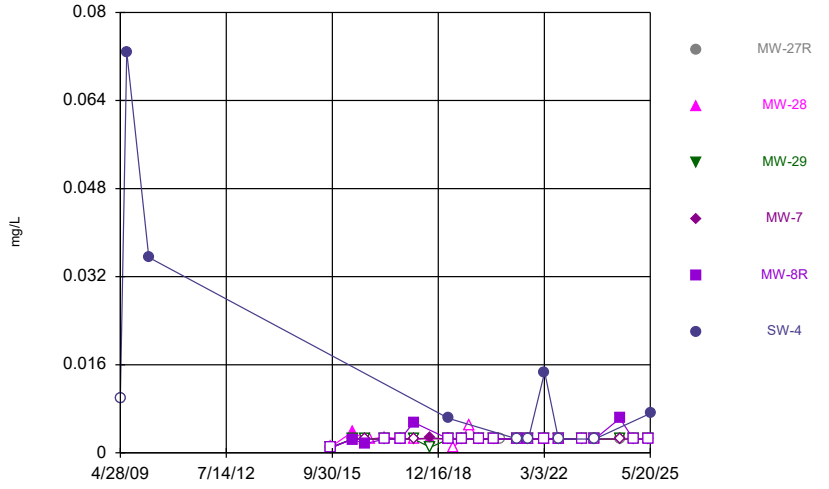
Time Series



Constituent: Copper Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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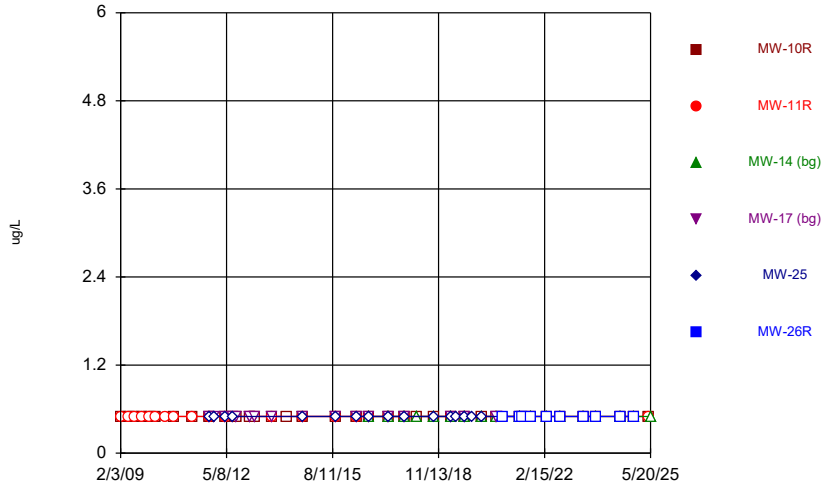
Time Series



Constituent: Copper Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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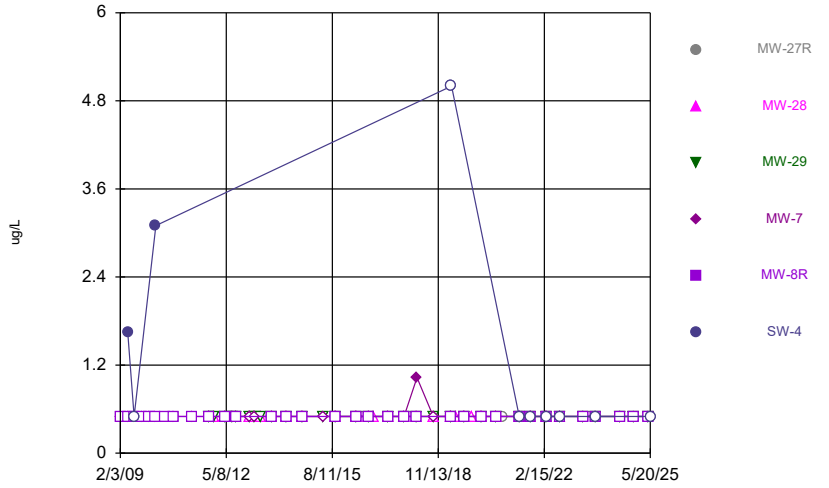
Time Series



Constituent: Ethylbenzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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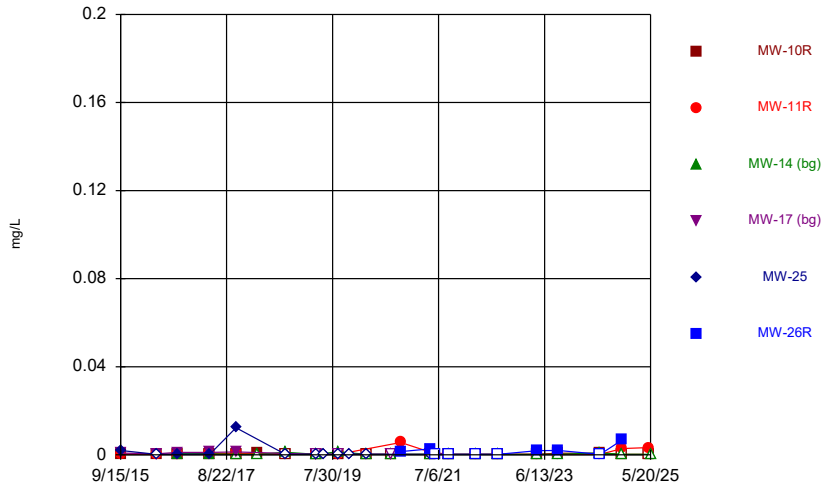
Time Series



Constituent: Ethylbenzene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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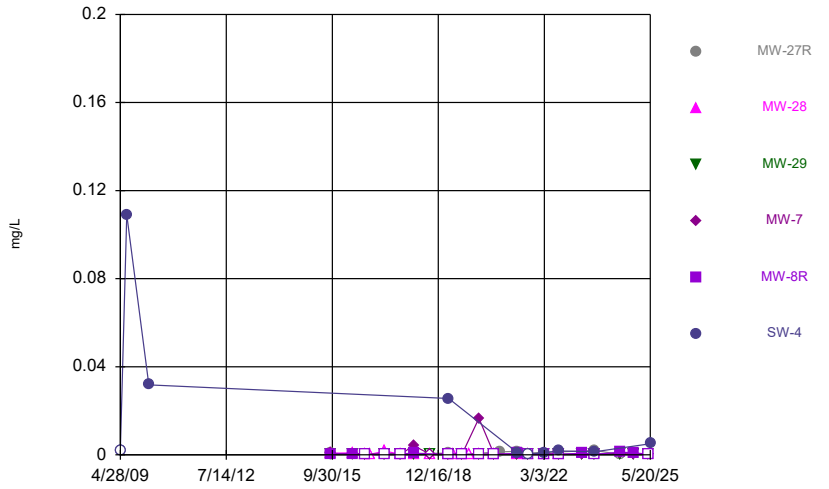
Time Series



Constituent: Lead Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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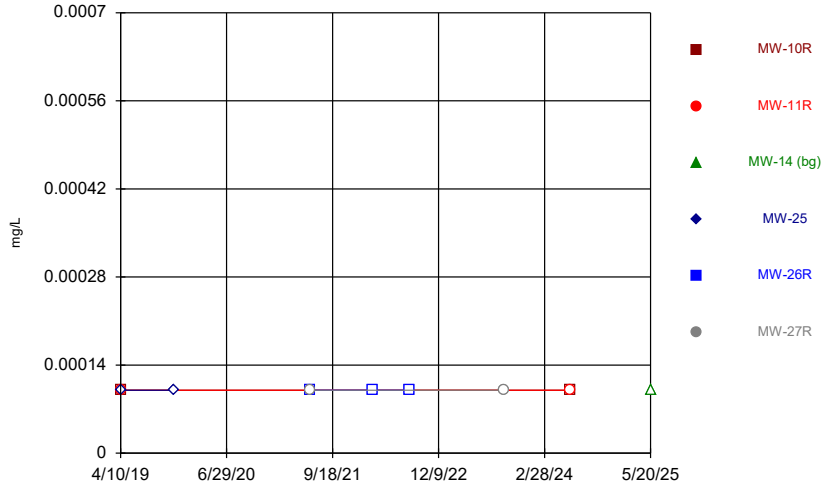
Time Series



Constituent: Lead Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
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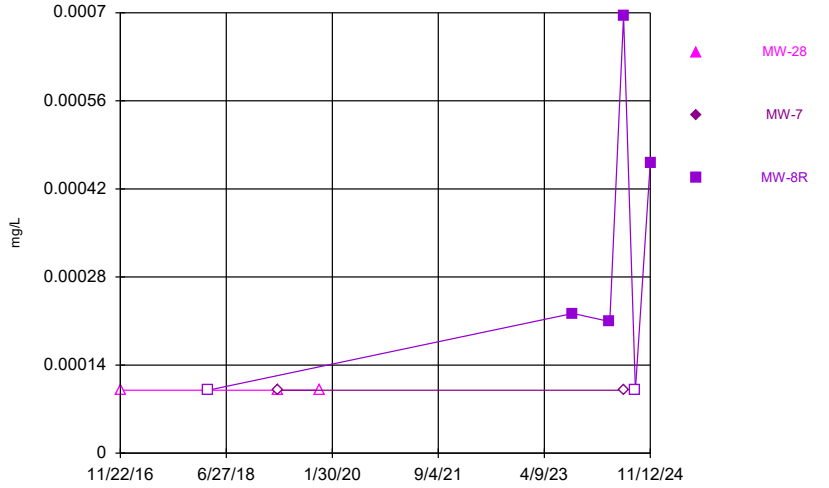
Time Series



Constituent: Mercury Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

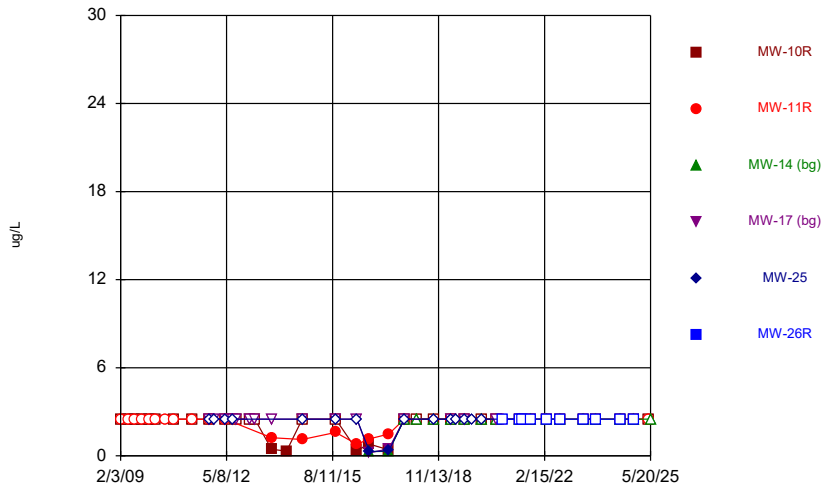
Time Series



Constituent: Mercury Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

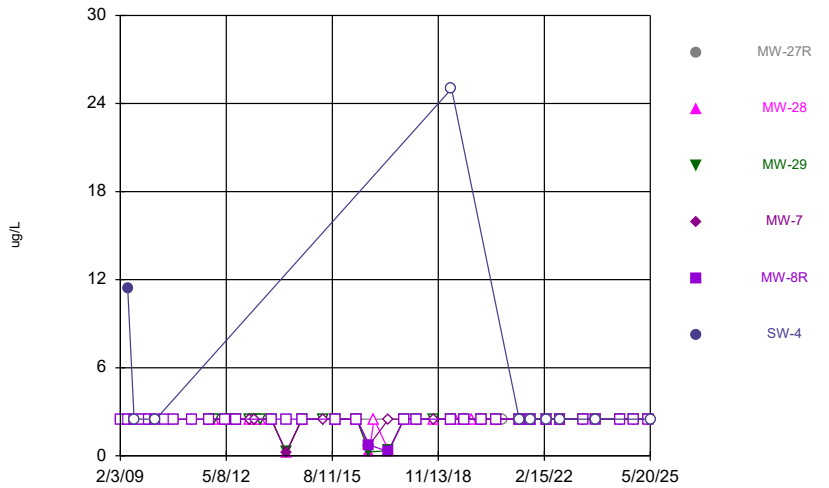
Time Series



Constituent: Methylene Chloride Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

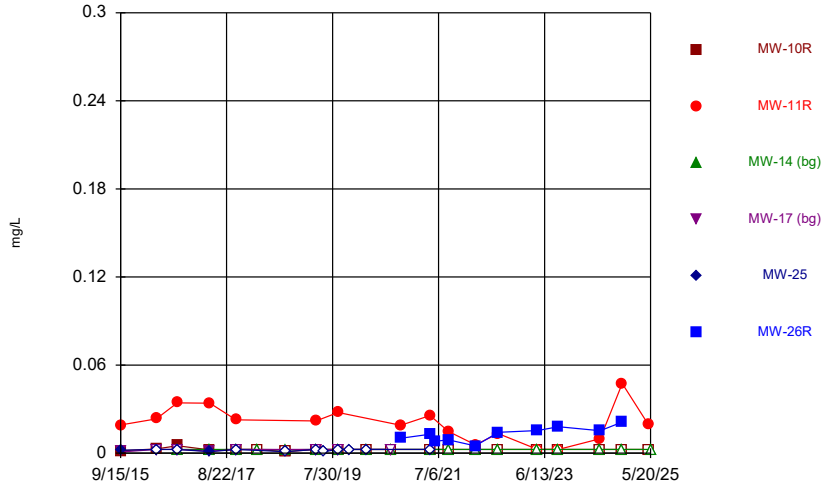
Time Series



Constituent: Methylene Chloride Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

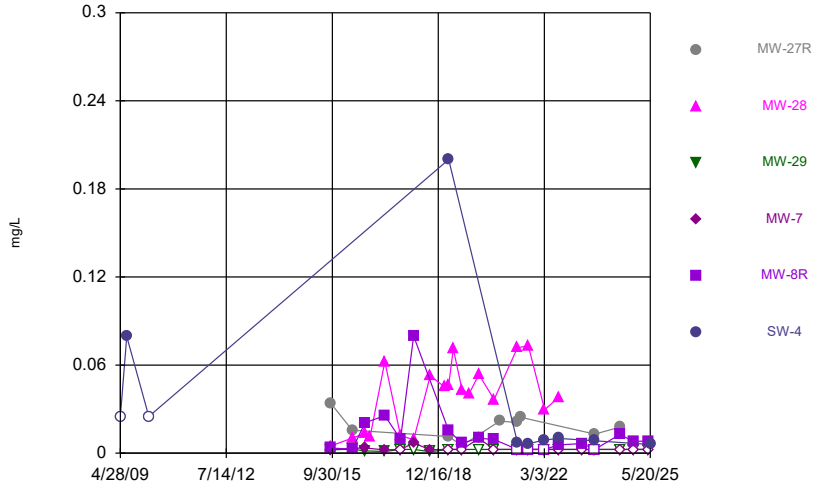
Time Series



Constituent: Nickel Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

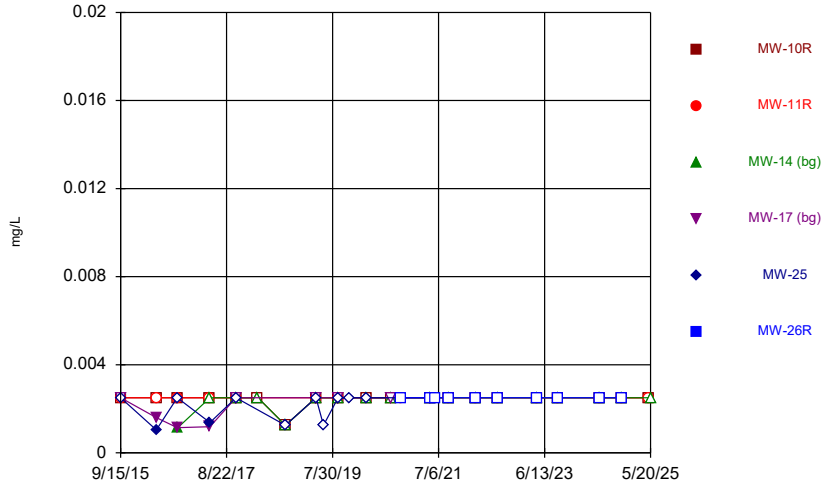
Time Series



Constituent: Nickel Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

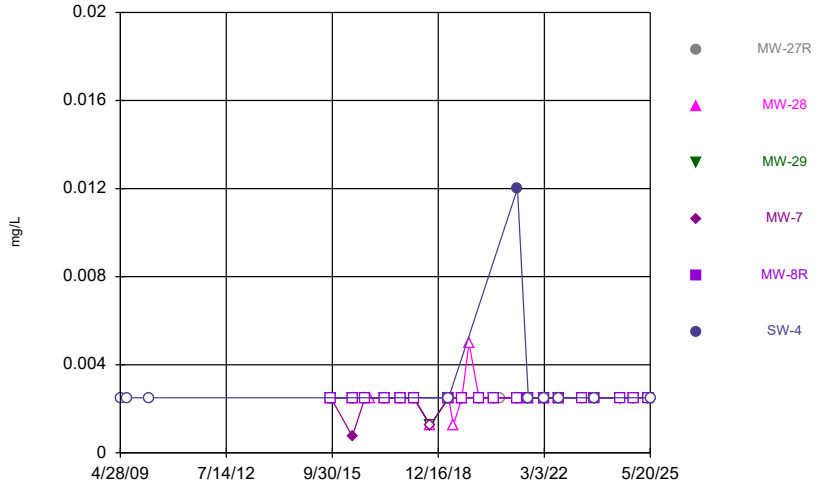
Time Series



Constituent: Selenium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

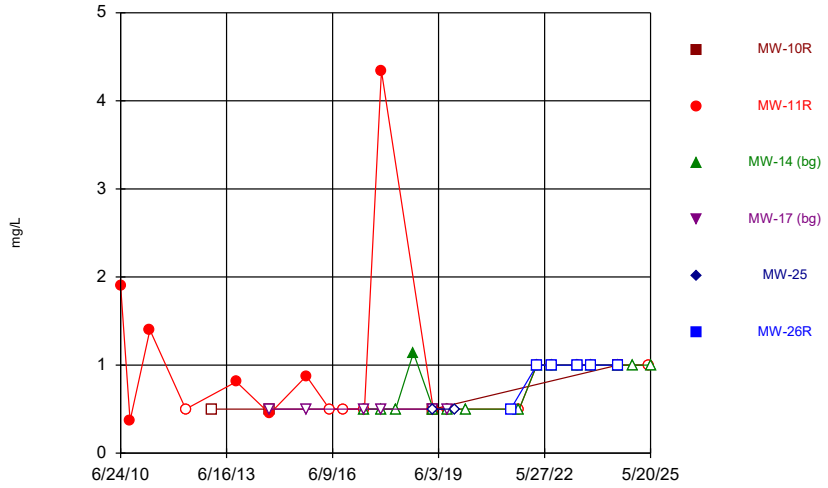
Time Series



Constituent: Selenium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

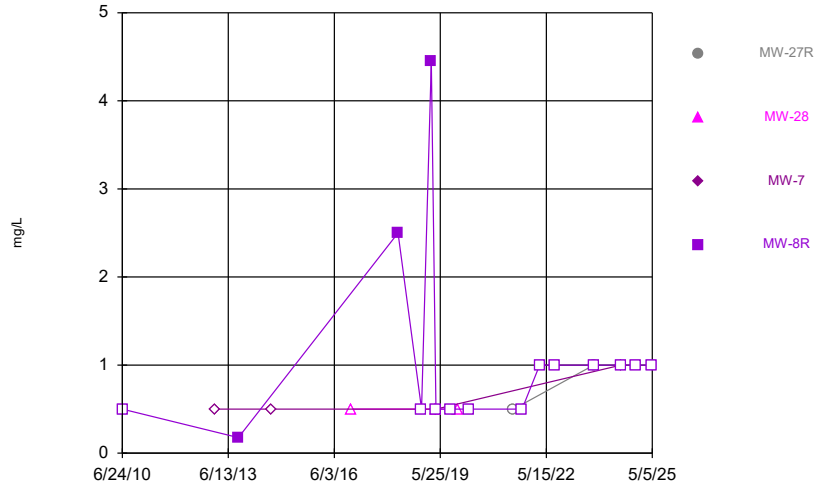
Time Series



Constituent: Sulfide Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

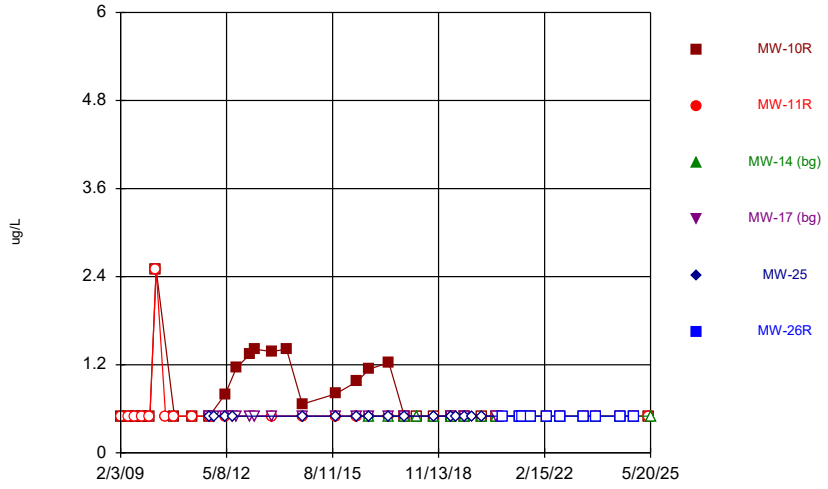
Time Series



Constituent: Sulfide Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

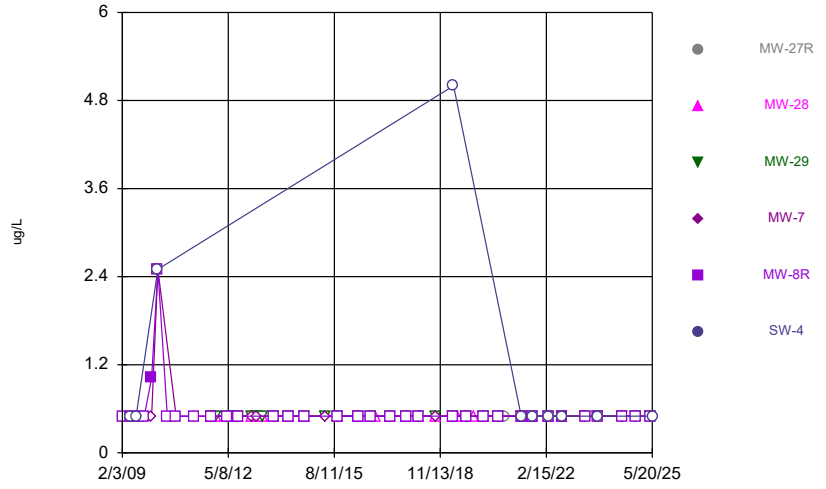
Time Series



Constituent: Tetrachloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

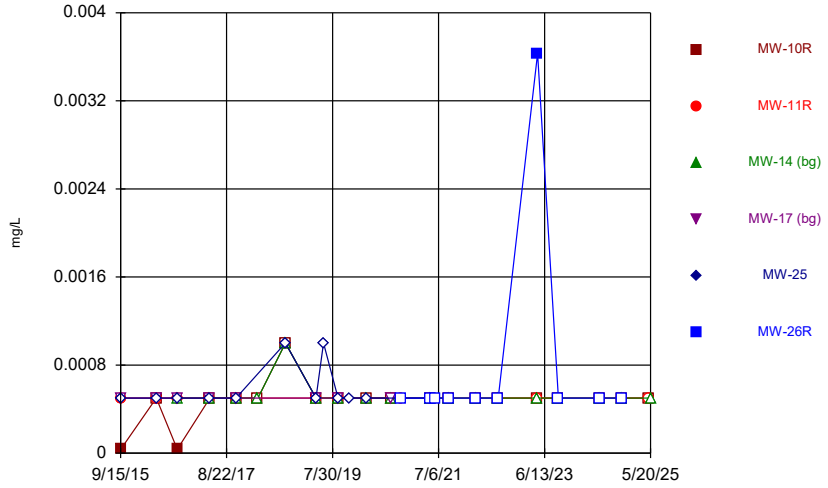
Time Series



Constituent: Tetrachloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

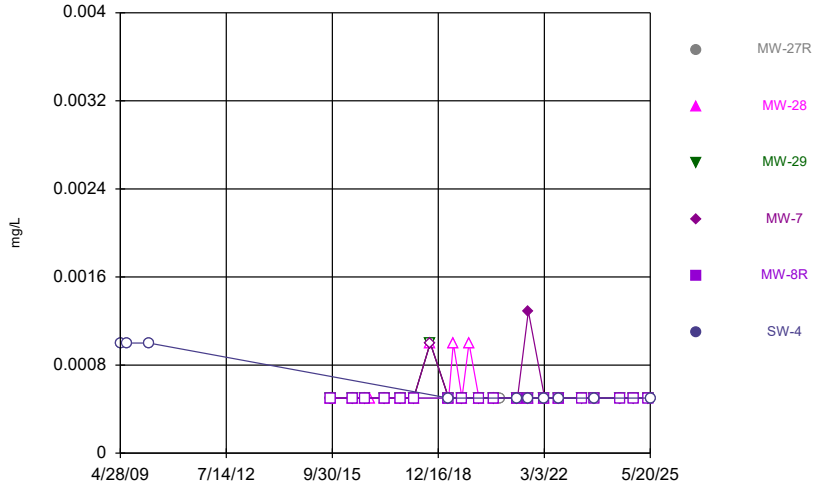
Time Series



Constituent: Thallium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

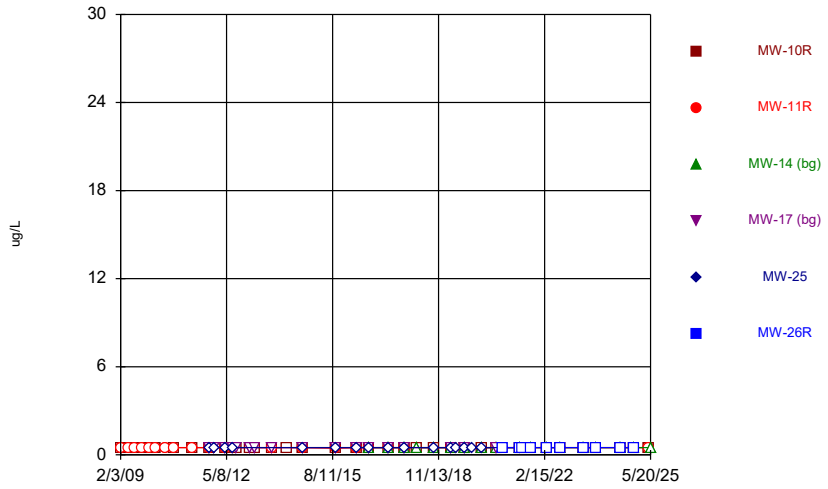
Time Series



Constituent: Thallium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

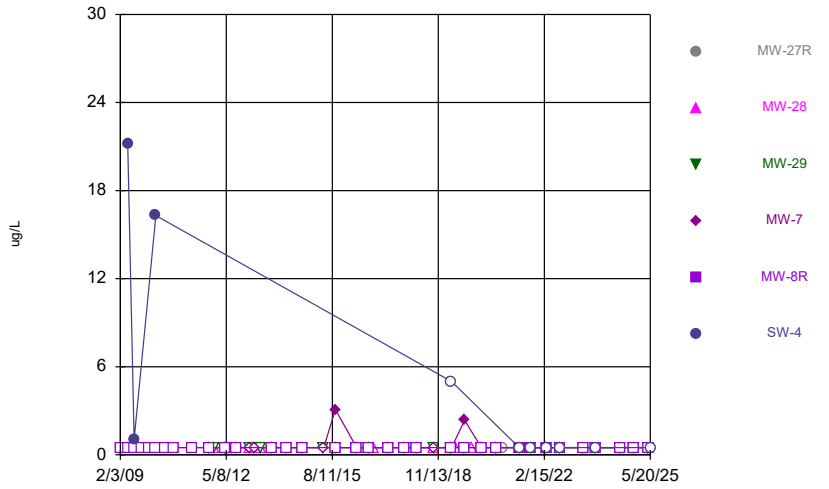
Time Series



Constituent: Toluene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

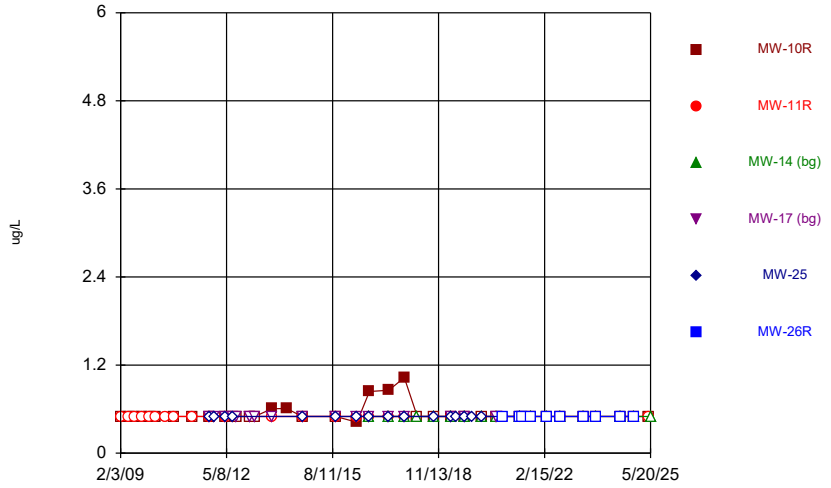
Time Series



Constituent: Toluene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

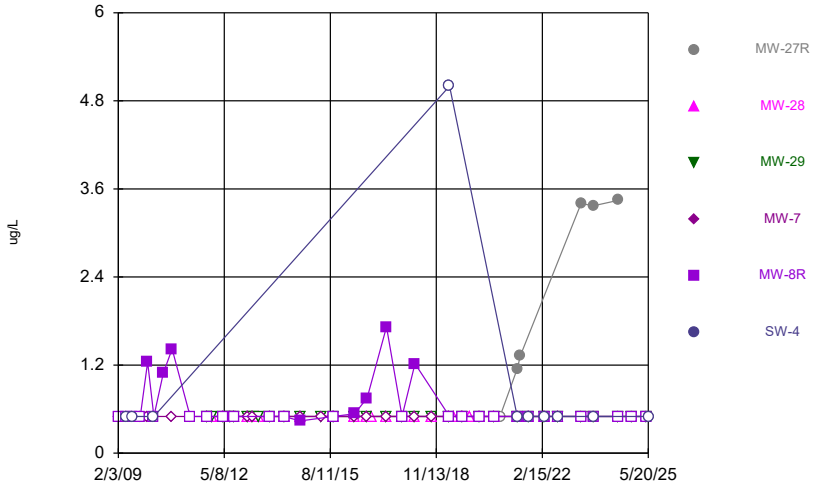
Time Series



Constituent: Trichloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

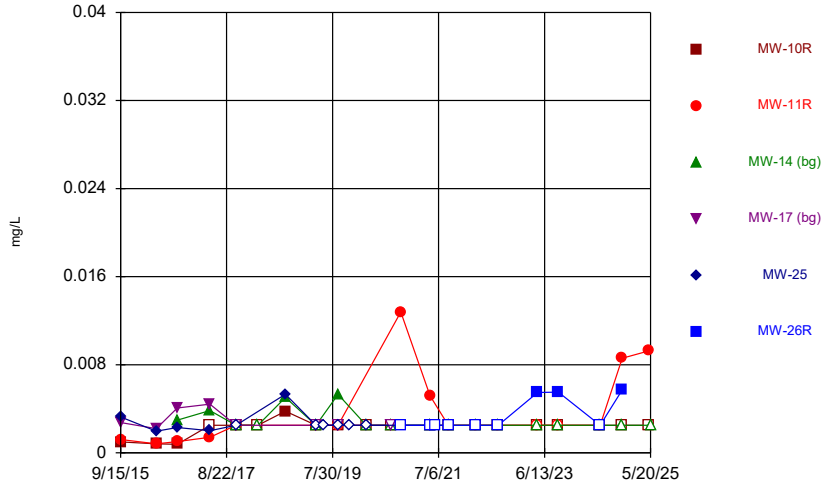
Time Series



Constituent: Trichloroethene Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

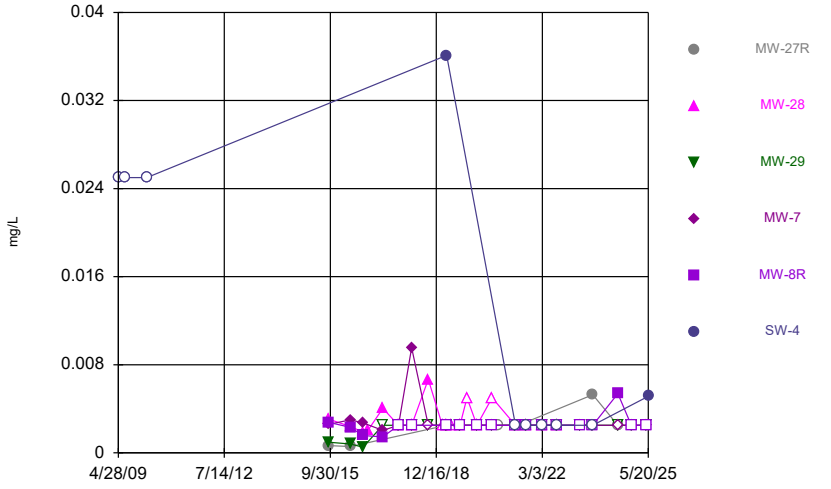
Time Series



Constituent: Vanadium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

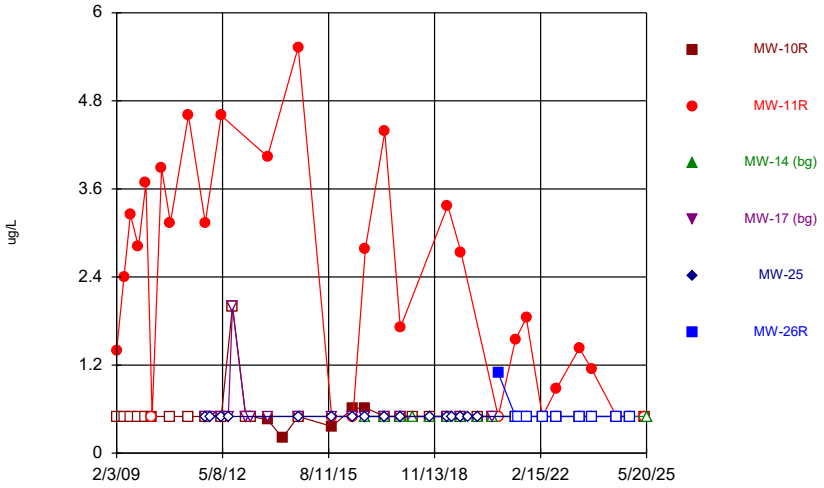
Time Series



Constituent: Vanadium Analysis Run 10/6/2025 3:14 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

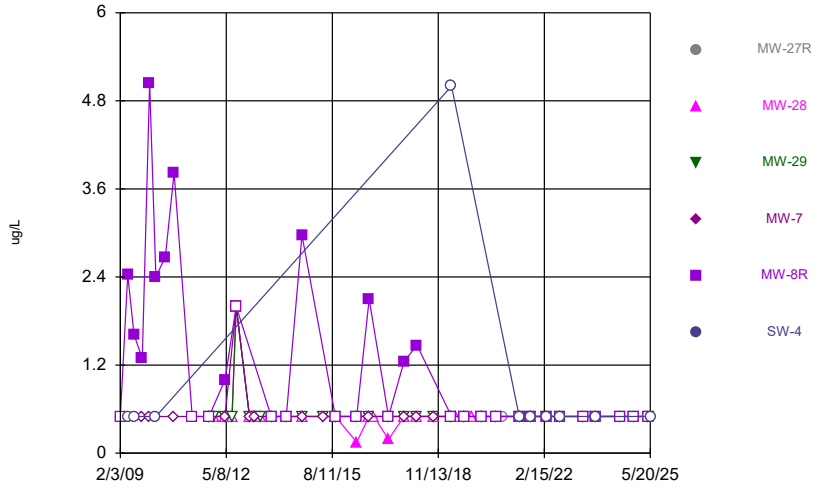
Time Series



Constituent: Vinyl chloride Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

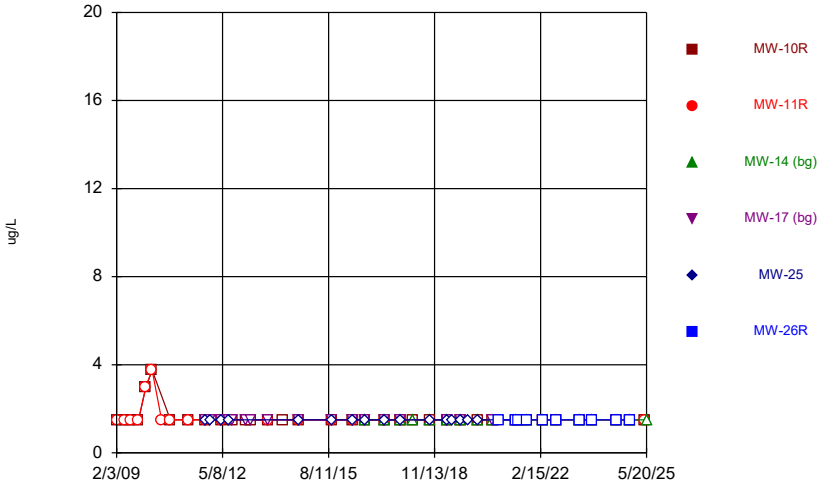
Time Series



Constituent: Vinyl chloride Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

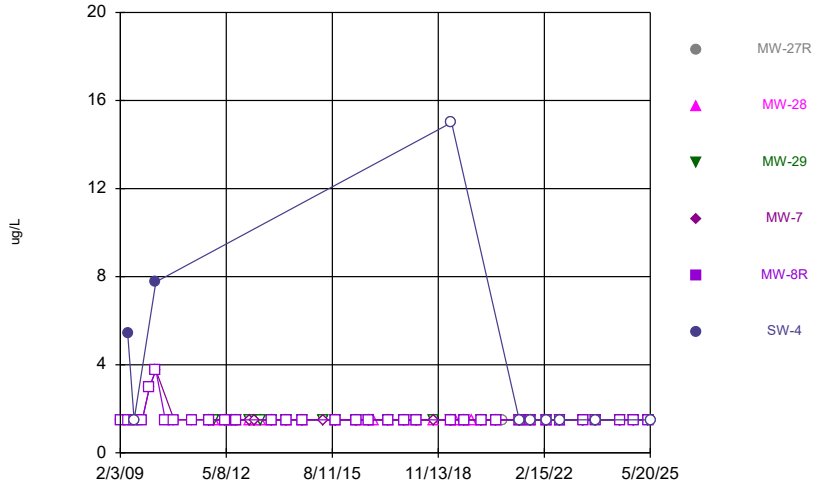
Time Series



Constituent: Xylenes, total Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

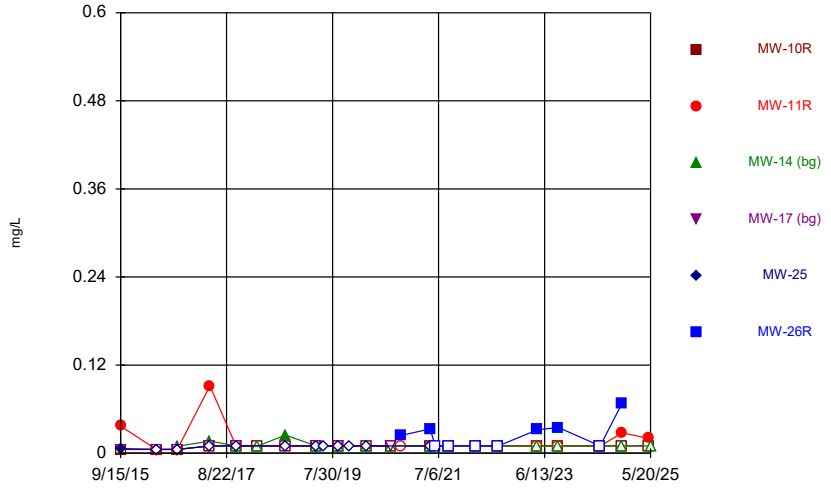
Time Series



Constituent: Xylenes, total Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

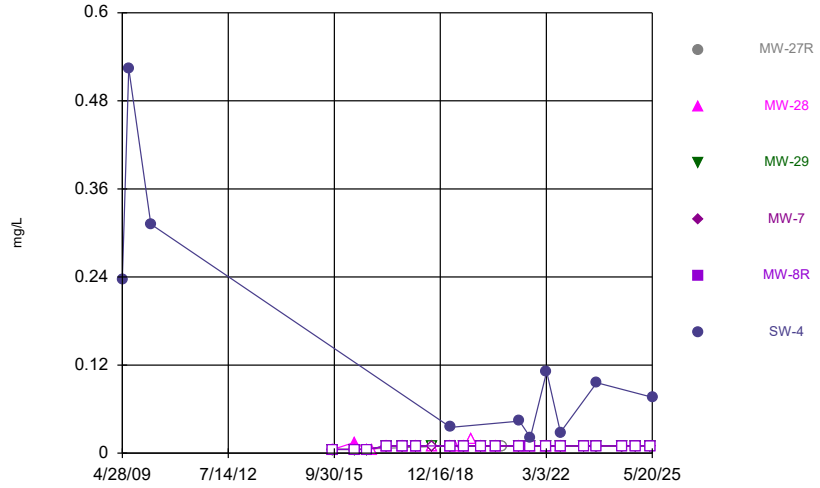
Time Series



Constituent: Zinc Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 10/6/2025 3:15 PM View: 2025_SSN-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Outliers Table and Graphs

BG Outlier Analysis

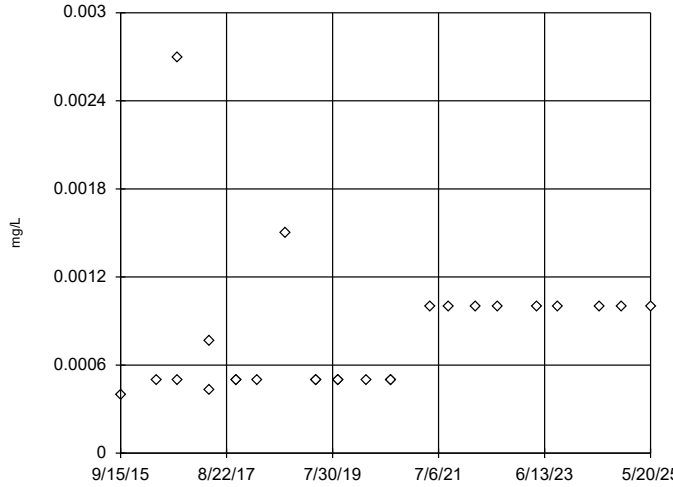
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 10/15/2025, 8:40 AM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.0007994	0.0004826	n/a	n/a
Arsenic (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.001024	0.0001793	n/a	n/a
Barium (mg/L)	**MW-14,MW-17**	**Yes**	**0.158**	**n/a w/combined bg**	**Rosner/OH**	**0.01**	**26**	**0.2574**	**0.03079**	**normal**	**ShapiroWilk**
Beryllium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.0004592	0.0001171	n/a	n/a
Cadmium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.000128	0.0001128	n/a	n/a
Chromium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.002316	0.0004188	n/a	n/a
Cobalt (mg/L)	**MW-14,MW-17**	**Yes**	**0.000671,0.000915,0.000687**	**n/a w/combined bg**	**NP (nrm)/OH**	**NaN**	**26**	**0.0003301**	**0.000181**	**unknown**	**ShapiroWilk**
Copper (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.002527	0.0004062	n/a	n/a
Lead (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	26	0.0005151	0.0004075	unknown	ShapiroWilk
Nickel (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.002388	0.0003795	n/a	n/a
Selenium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.002262	0.0005041	n/a	n/a
Silver (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.0004772	0.00008148	n/a	n/a
Vanadium (mg/L)	**MW-14,MW-17**	**Yes**	**0.00503,0.00531,0.00407,0.00443**	**n/a w/combined bg**	**NP (nrm)/OH**	**NaN**	**26**	**0.002908**	**0.0008564**	**unknown**	**ShapiroWilk**
Zinc (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	26	0.01022	0.003639	n/a	n/a

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

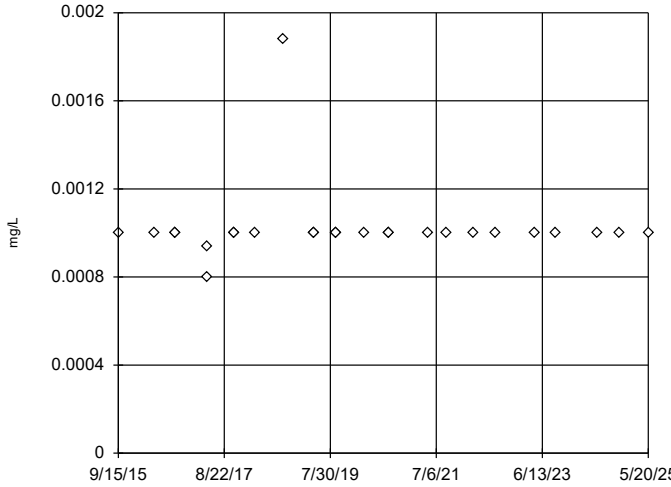
Constituent: Antimony Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

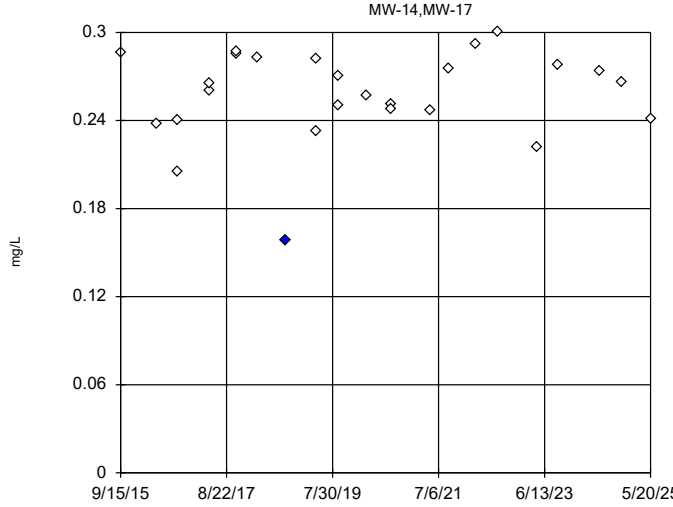
Constituent: Arsenic Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Rosner's Outlier Test / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

Statistical outlier is drawn as solid.

k = 1
r = 3.23
Tabulated value = 2.856
Alpha = 0.01

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9684
Critical = 0.888
The distribution, after removal of suspect value, was found to be normally distributed.

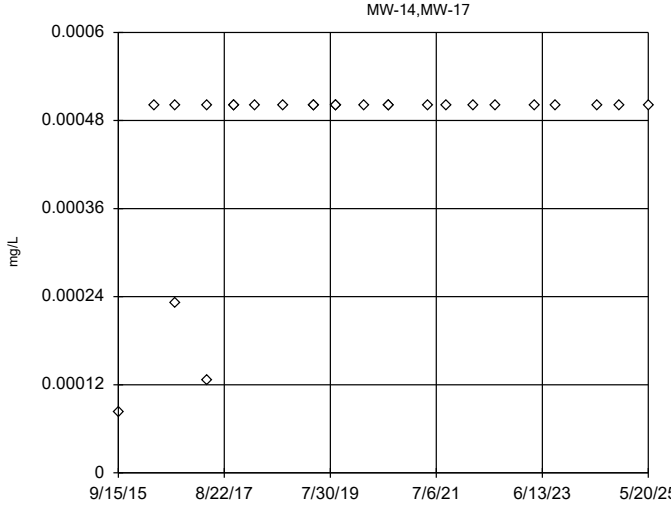
Constituent: Barium Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

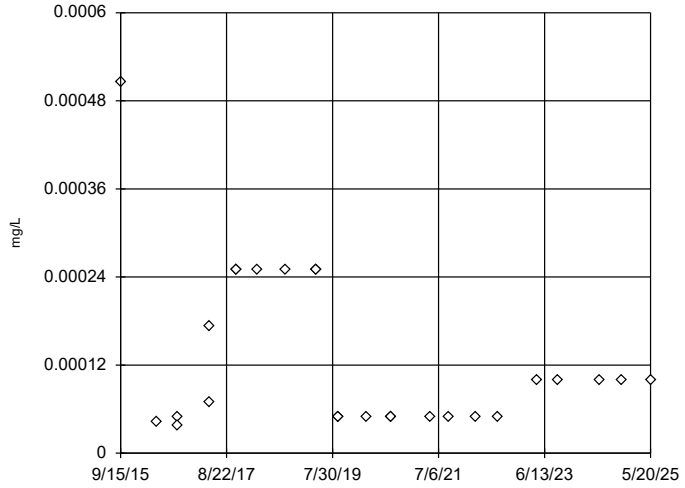
Constituent: Beryllium Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

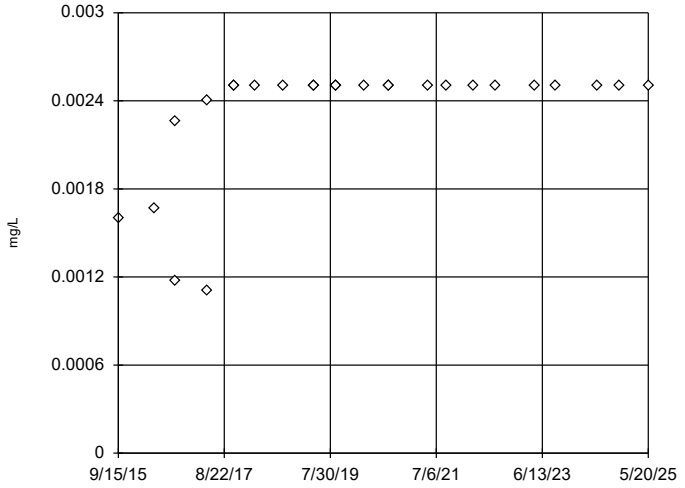
Constituent: Cadmium Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

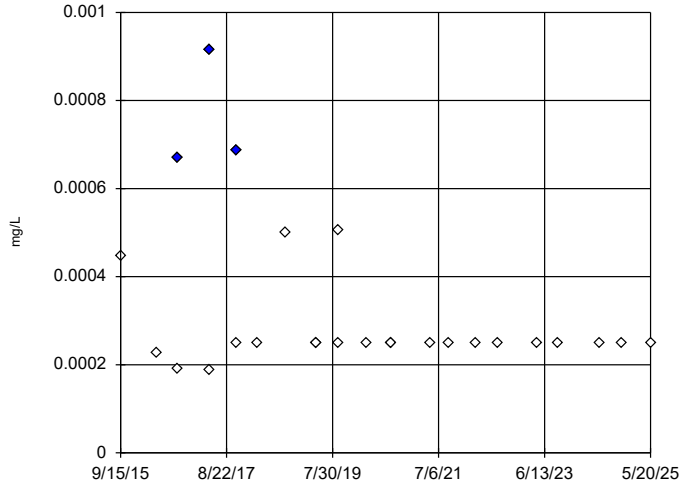
Constituent: Chromium Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.000646, low cutoff = -0.000047, based on IQR multiplier of 3.

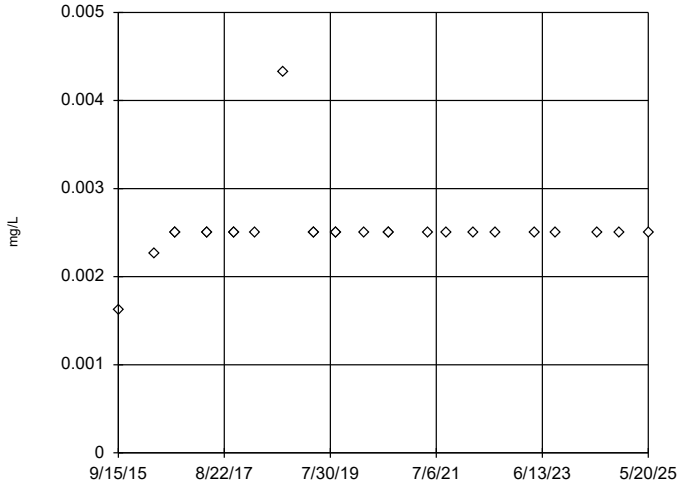
Constituent: Cobalt Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

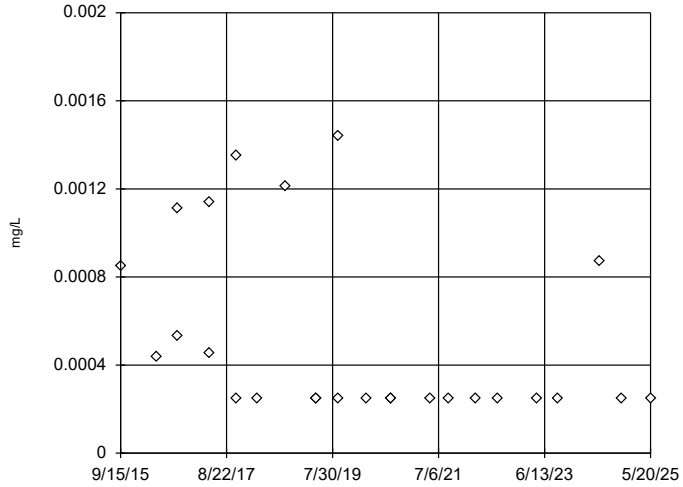
Constituent: Copper Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

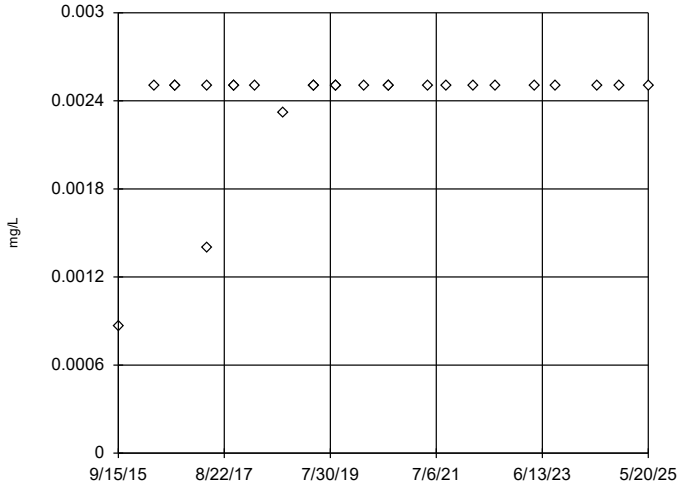
High cutoff = 0.00269, low cutoff = -0.00158, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

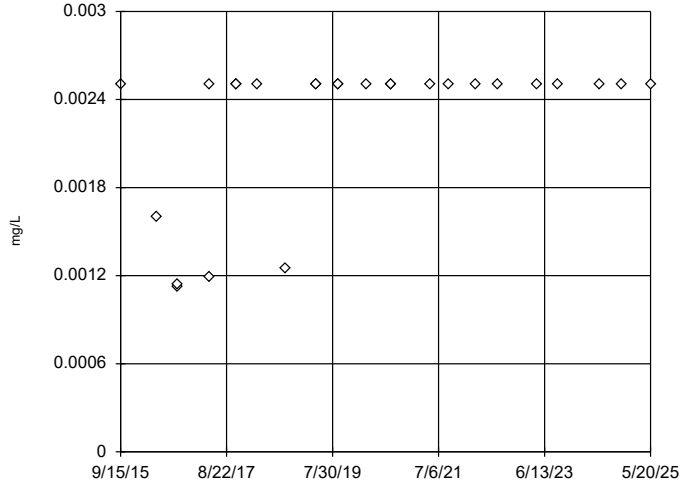
No statistical outliers.

Constituent: Nickel Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

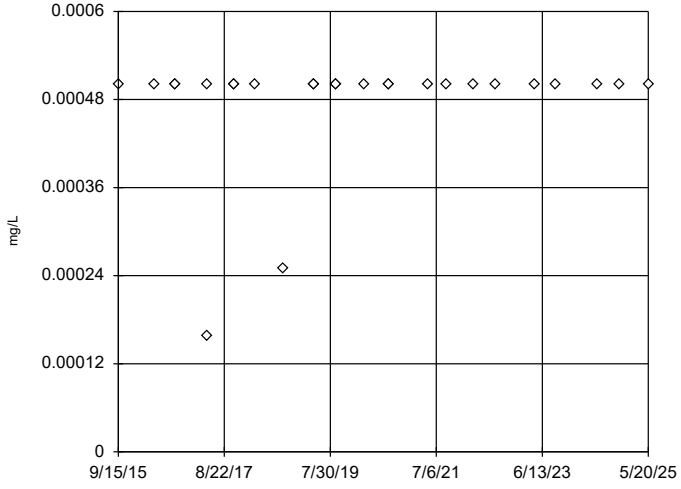
No statistical outliers.

Constituent: Selenium Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



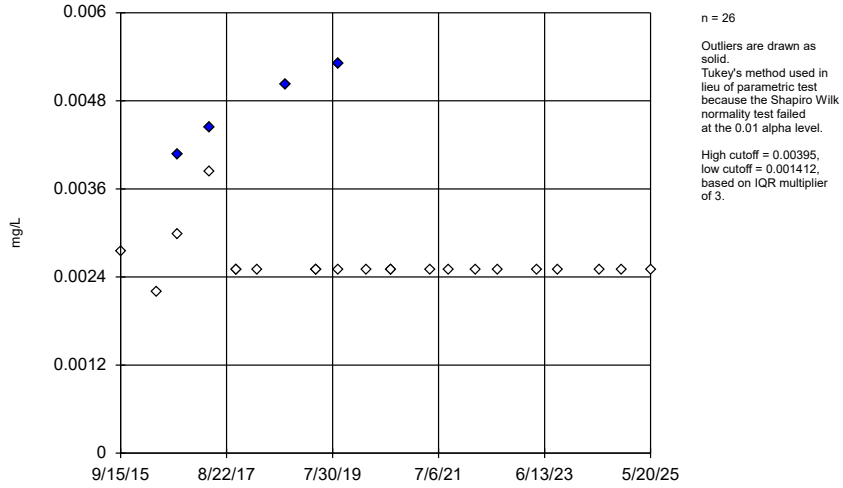
n = 26

No statistical outliers.

Constituent: Silver Analysis Run 10/15/2025 8:36 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

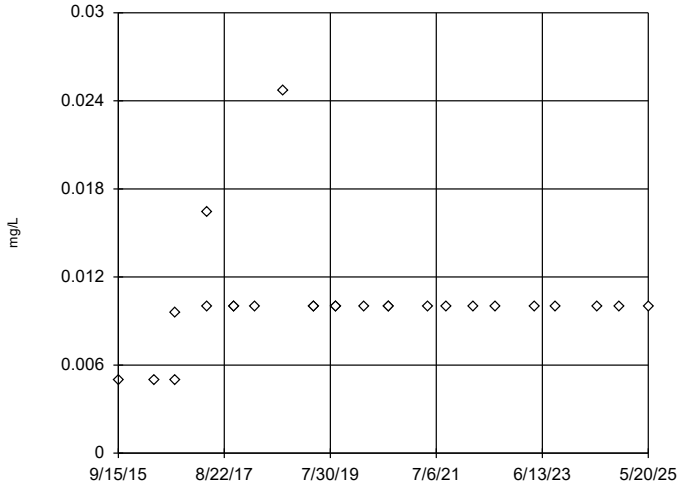
High cutoff = 0.00395, low cutoff = 0.001412, based on IQR multiplier of 3.

Constituent: Vanadium Analysis Run 10/15/2025 8:37 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 26

No statistical outliers.

Constituent: Zinc Analysis Run 10/15/2025 8:37 AM View: 2025_SSN-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Outlier Analysis

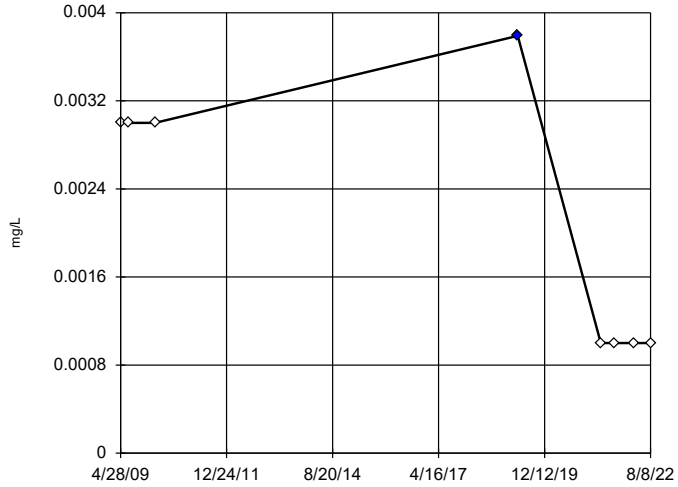
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 10/7/2025, 3:18 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	**SW-4**	**Yes**	**0.00379**	**4/10/2019**	**OH**	**NaN**	**8**	**0.002099**	**0.001203**	**n/a**	**n/a**
Arsenic (mg/L)	**SW-4**	**Yes**	**0.0788**	**4/10/2019**	**Dixon/OH**	**0.01**	**8**	**0.01302**	**0.02667**	**normal**	**ShapiroWilk**
Barium (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.733	0.6523	ln(x)	ShapiroWilk
Beryllium (mg/L)	**SW-4**	**Yes**	**0.00612**	**7/8/2009**	**OH**	**NaN**	**8**	**0.001336**	**0.001969**	**n/a**	**n/a**
Cadmium (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.0009843	0.001893	ln(x)	ShapiroWilk
Chromium (mg/L)	**SW-4**	**Yes**	**0.0302**	**4/10/2019**	**OH**	**NaN**	**8**	**0.008775**	**0.009419**	**n/a**	**n/a**
Cobalt (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	6	0.005935	0.007426	ln(x)	ShapiroWilk
Copper (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.01834	0.02462	ln(x)	ShapiroWilk
Lead (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.02155	0.03749	ln(x)	ShapiroWilk
Nickel (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.04528	0.06702	ln(x)	ShapiroWilk
Selenium (mg/L)	**SW-4**	**Yes**	**0.012**	**5/10/2021**	**OH**	**NaN**	**8**	**0.003687**	**0.003359**	**n/a**	**n/a**
Vanadium (mg/L)	**SW-4**	**Yes**	**0.0361**	**4/10/2019**	**OH**	**NaN**	**8**	**0.01514**	**0.01399**	**n/a**	**n/a**
Zinc (mg/L)	SW-4	No	n/a	n/a	EPA/OH	0.05	8	0.1641	0.181	normal	ShapiroWilk

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Ohio EPA 0715 Outlier Algorithm

SW-4



n = 8

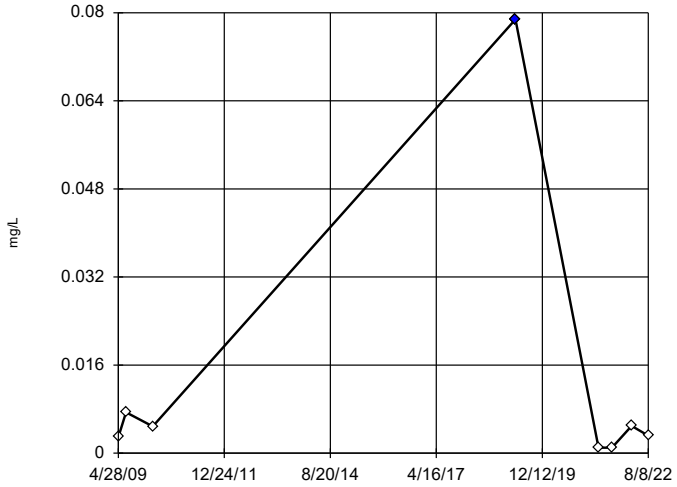
Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Antimony Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm

SW-4



n = 8

Statistical outliers are drawn as solid.
Outliers per both outlier test and Ohio method.
Testing for 1 high outlier.
Mean = 0.01302.
Std. Dev. = 0.02667.
0.0788: c = 0.9174
tabl = 0.683.
Alpha = 0.01.

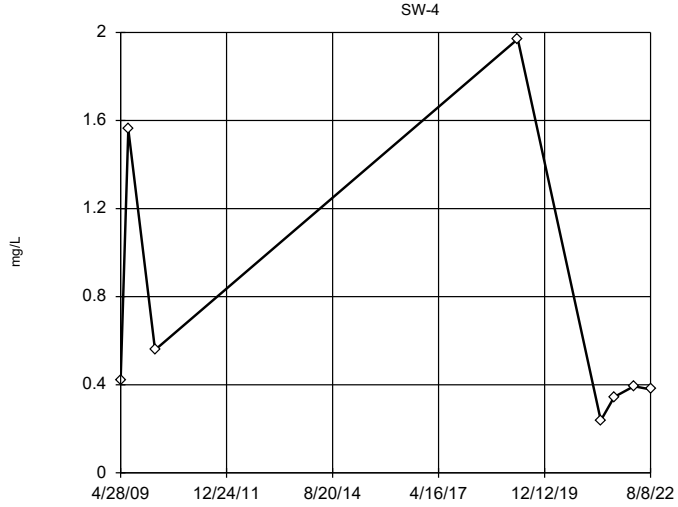
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9305
Critical = 0.73
The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: Arsenic Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.733, std. dev. 0.6523, critical Tn 2.032

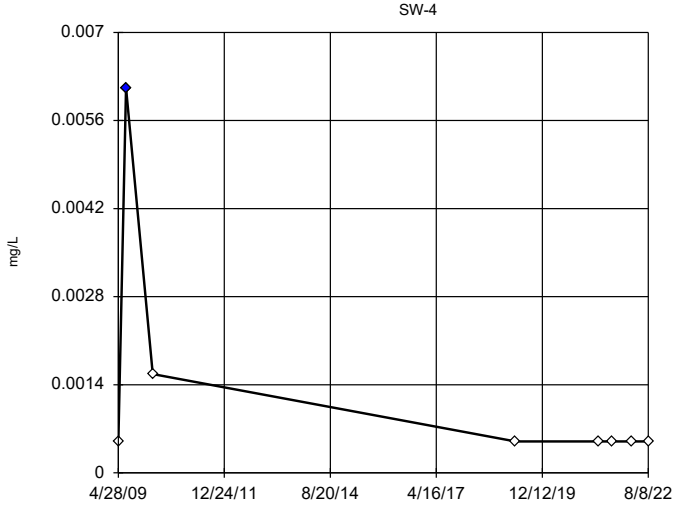
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8443
Critical = 0.749 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Barium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm

SW-4



n = 8

Statistical outlier is drawn as solid.
Outlier per Ohio method.

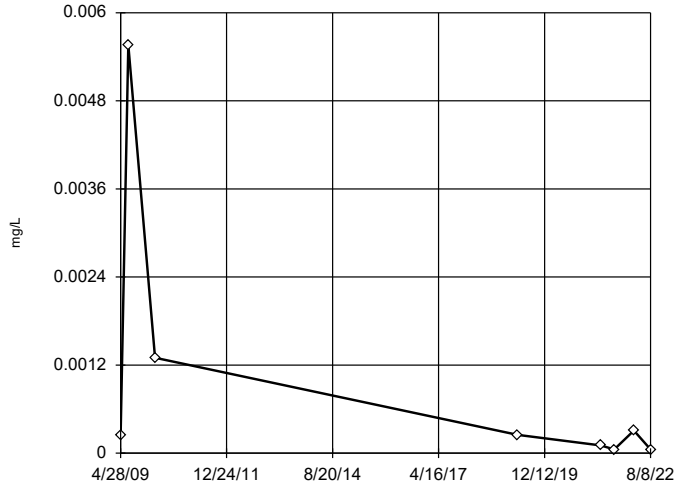
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8443
Critical = 0.749 (after natural log transformation)
The distribution, after removal of suspect value, was found to be log-normal.

Constituent: Beryllium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0009843, std. dev. 0.001893, critical Tn 2.032

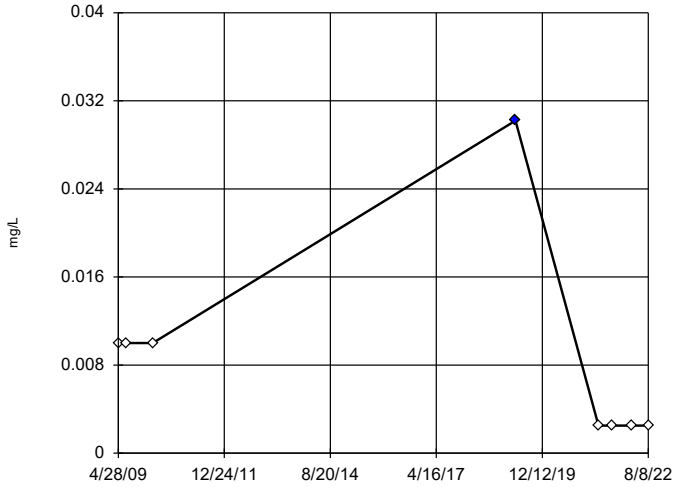
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9092
Critical = 0.749 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cadmium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm

SW-4



n = 8

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Chromium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 6

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.005935, std. dev. 0.007426, critical Tn 1.822

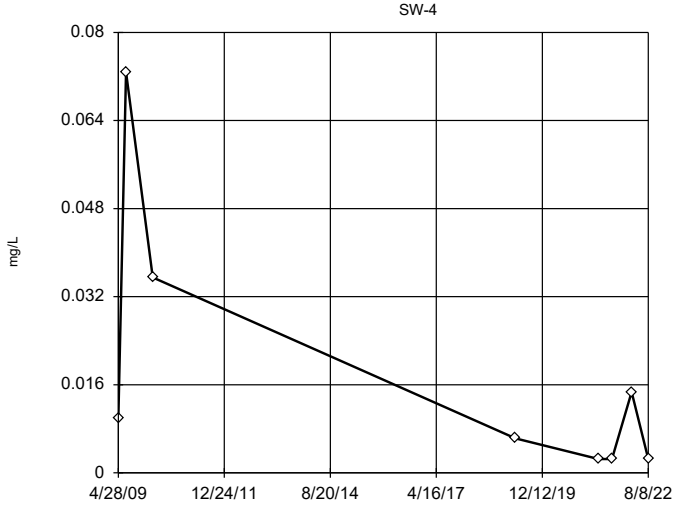
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8055
Critical = 0.713 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cobalt Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.01834, std. dev. 0.02462, critical Tn 2.032

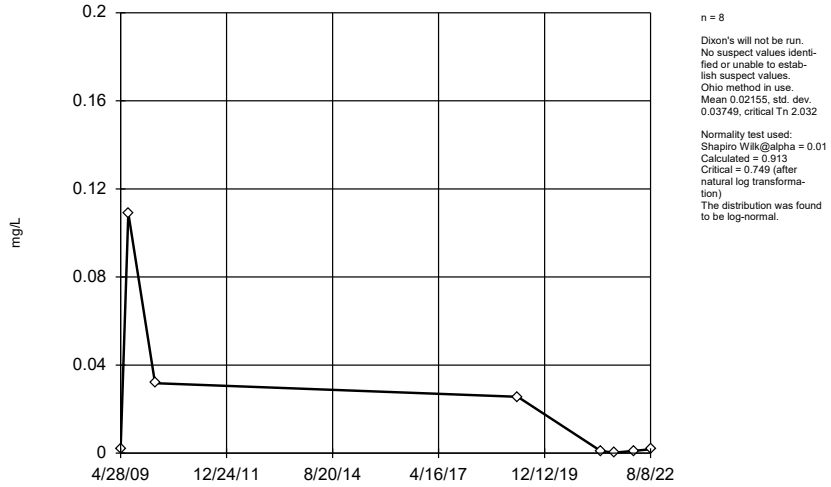
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8944
Critical = 0.749 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Copper Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.02155, std. dev. 0.03749, critical Tn 2.032

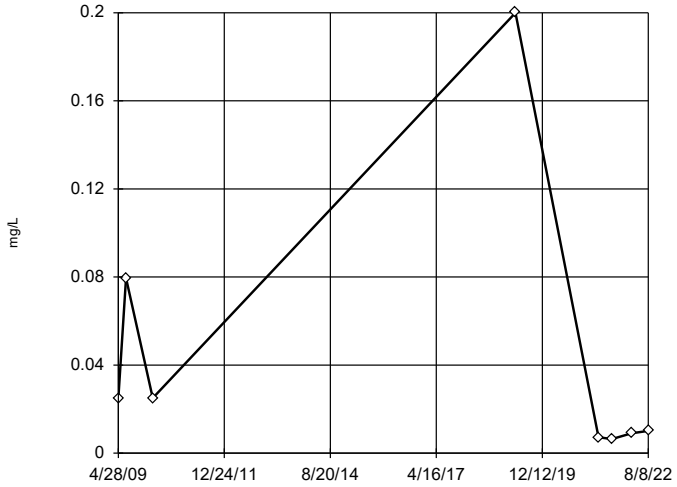
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.913
Critical = 0.749 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Lead Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.04528, std. dev. 0.06702, critical Tn 2.032

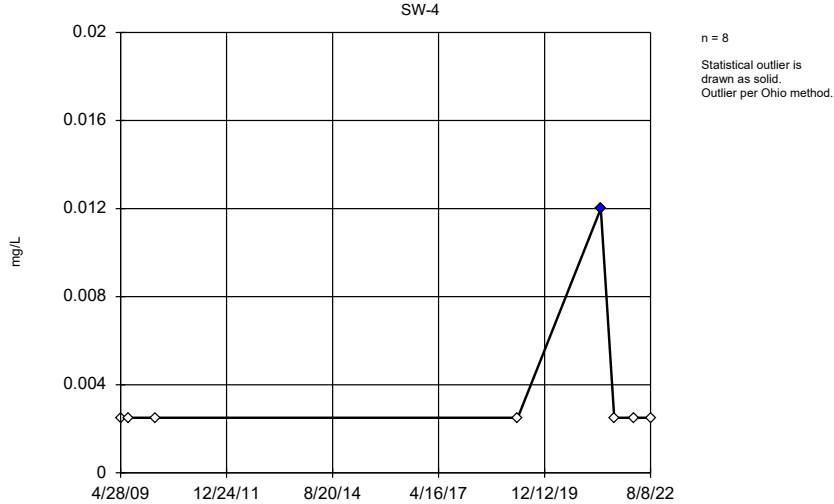
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8794
Critical = 0.749 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Nickel Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm

SW-4



n = 8

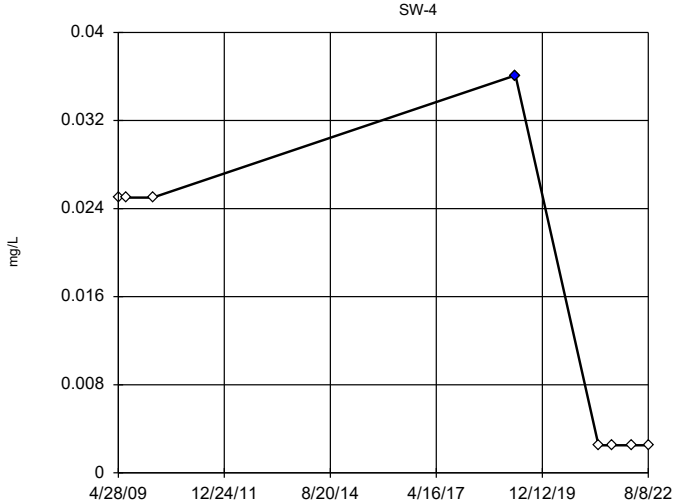
Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Selenium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Ohio EPA 0715 Outlier Algorithm

SW-4



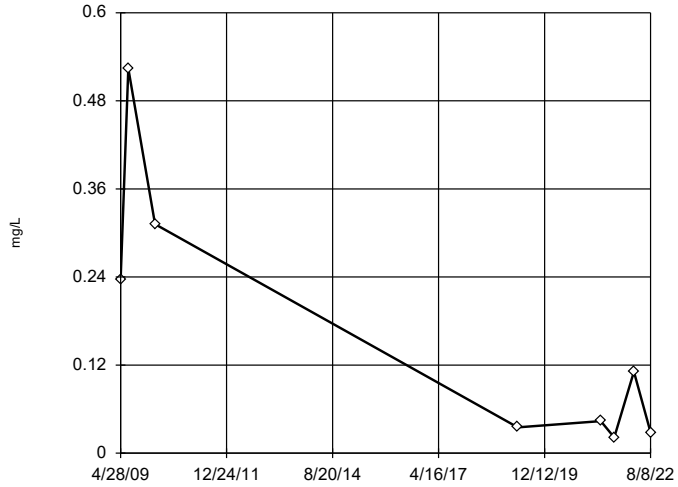
n = 8

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Vanadium Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

EPA Screening (suspected outliers for Dixon's Test)

SW-4



n = 8

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.1641, std. dev. 0.181, critical Tn 2.032

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8165
Critical = 0.749
The distribution was found to be normally distributed.

Constituent: Zinc Analysis Run 10/7/2025 3:07 PM View: 2025_SSN-SW-4_Outliers

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Prediction Limit Table and Graphs

Prediction Limit

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 10/15/2025, 8:33 AM

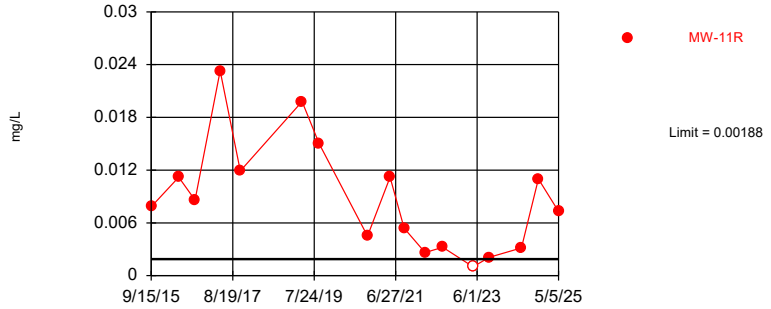
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**MW-11R**	**0.00188**	**n/a**	**5/5/2025**	**0.00731**	**Yes**	**26**	**88.46**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Barium (mg/L)	**MW-10R**	**0.3299**	**n/a**	**5/5/2025**	**0.494**	**Yes**	**26**	**0**	**No**	**0.0004052**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-11R**	**0.3299**	**n/a**	**5/5/2025**	**0.708**	**Yes**	**26**	**0**	**No**	**0.0004052**	**Param Inter 1 of 2**
Barium (mg/L)	MW-29	0.3299	n/a	5/5/2025	0.303	No	26	0	No	0.0004052	Param Inter 1 of 2
Barium (mg/L)	**MW-7**	**0.3299**	**n/a**	**5/5/2025**	**0.361**	**Yes**	**26**	**0**	**No**	**0.0004052**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-8R**	**0.3299**	**n/a**	**5/5/2025**	**0.382**	**Yes**	**26**	**0**	**No**	**0.0004052**	**Param Inter 1 of 2**
Cadmium (mg/L)	MW-11R	0.000506	n/a	5/5/2025	0.000221	No	26	76.92	n/a	0.002433	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	**MW-11R**	**0.000915**	**n/a**	**5/5/2025**	**0.00541**	**Yes**	**26**	**69.23**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	**MW-11R**	**0.00144**	**n/a**	**5/5/2025**	**0.00332**	**Yes**	**26**	**61.54**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	MW-29	0.00144	n/a	5/5/2025	0.000519	No	26	61.54	n/a	0.002433	NP Inter (NDs) 1 of 2
Nickel (mg/L)	**MW-11R**	**0.0025**	**n/a**	**5/5/2025**	**0.0195**	**Yes**	**26**	**88.46**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Nickel (mg/L)	**MW-8R**	**0.0025**	**n/a**	**5/5/2025**	**0.00831**	**Yes**	**26**	**88.46**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Vanadium (mg/L)	**MW-11R**	**0.00531**	**n/a**	**5/5/2025**	**0.00925**	**Yes**	**26**	**69.23**	**n/a**	**0.002433**	**NP Inter (NDs) 1 of 2**
Zinc (mg/L)	MW-11R	0.0247	n/a	5/5/2025	0.0203	No	26	88.46	n/a	0.002433	NP Inter (NDs) 1 of 2

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 88.46% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Assumes 9 future values.

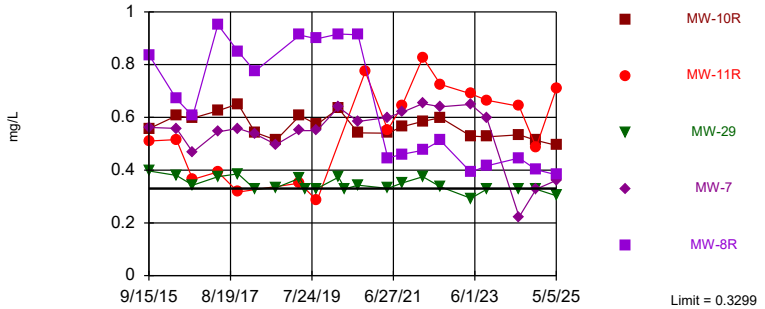
Constituent: Arsenic Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Exceeds Limit: MW-10R, MW-11R, MW-7, MW-8R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.2574, Std. Dev.=0.03079, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9004, critical = 0.891. Kappa = 2.352 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.004044. Individual comparison alpha = 0.0004052. Comparing 5 points to limit. Assumes 5 future values.

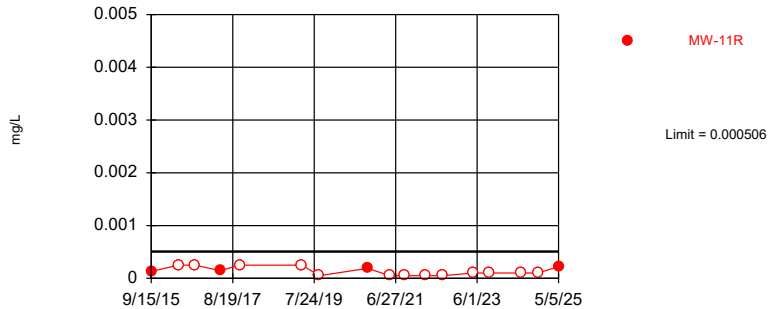
Constituent: Barium Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 76.92% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Assumes 9 future values.

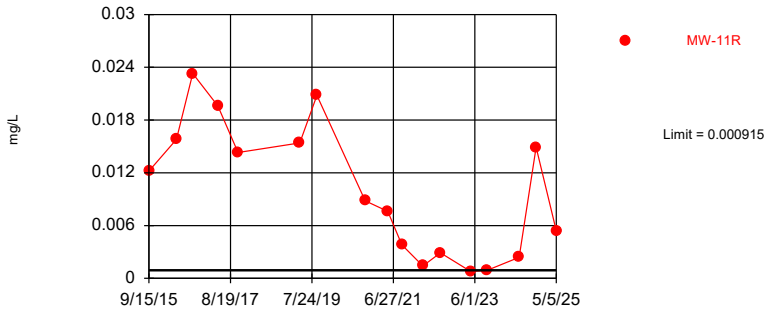
Constituent: Cadmium Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 69.23% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Assumes 9 future values.

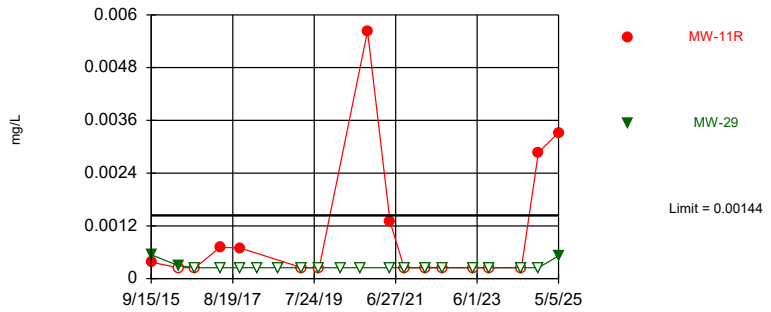
Constituent: Cobalt Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 61.54% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

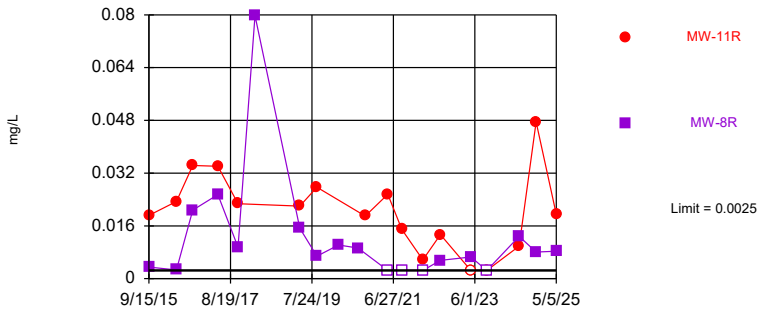
Constituent: Lead Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R, MW-8R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 88.46% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

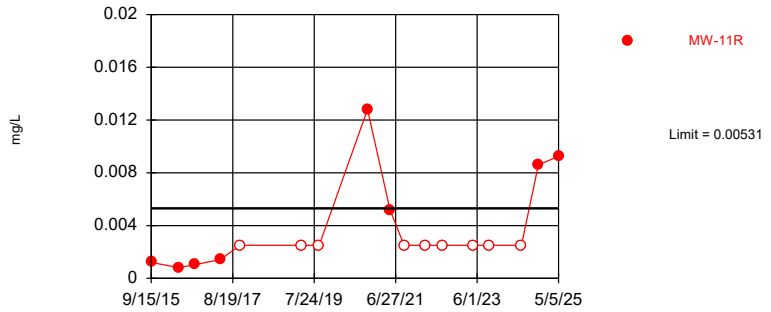
Constituent: Nickel Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 69.23% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Assumes 9 future values.

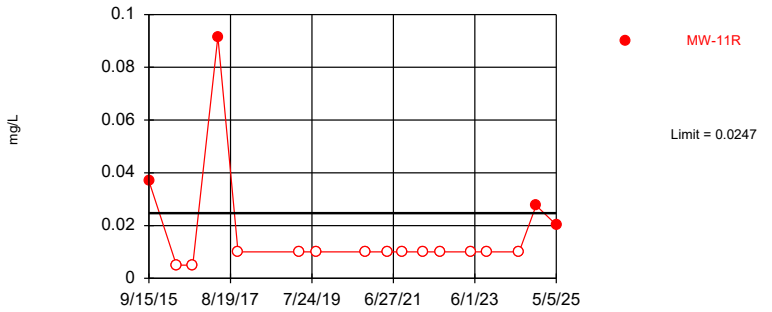
Constituent: Vanadium Analysis Run 10/15/2025 8:31 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 88.46% NDs. Annual per-constituent alpha = 0.04755. Individual comparison alpha = 0.002433 (1 of 2). Assumes 9 future values.

Constituent: Zinc Analysis Run 10/15/2025 8:32 AM View: 2025_SSN-DM-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

SW-4 Intra Prediction Limit

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 10/7/2025, 3:33 PM

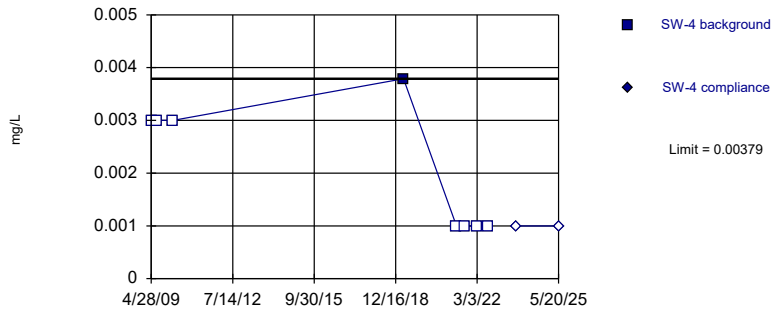
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	SW-4	0.00379	n/a	5/20/2025	0.001ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	SW-4	0.2613	n/a	5/20/2025	0.00246	No	8	25	ln(x)	0.0004052	Param Intra 1 of 2
Barium (mg/L)	SW-4	3.937	n/a	5/20/2025	0.262	No	8	0	sqrt(x)	0.0004052	Param Intra 1 of 2
Beryllium (mg/L)	SW-4	0.00612	n/a	5/20/2025	0.0005ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	SW-4	0.01194	n/a	5/20/2025	0.0001ND	No	8	50	x^(1/3)	0.0004052	Param Intra 1 of 2
Chromium (mg/L)	SW-4	0.0302	n/a	5/20/2025	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	SW-4	0.07646	n/a	5/20/2025	0.00219	No	6	0	sqrt(x)	0.0004052	Param Intra 1 of 2
Copper (mg/L)	SW-4	0.1306	n/a	5/20/2025	0.00716	No	8	50	sqrt(x)	0.0004052	Param Intra 1 of 2
Lead (mg/L)	SW-4	0.2195	n/a	5/20/2025	0.00507	No	8	25	sqrt(x)	0.0004052	Param Intra 1 of 2
Nickel (mg/L)	SW-4	0.3627	n/a	5/20/2025	0.00589	No	8	25	sqrt(x)	0.0004052	Param Intra 1 of 2
Selenium (mg/L)	SW-4	0.012	n/a	5/20/2025	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	SW-4	0.0361	n/a	5/20/2025	0.00513	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Zinc (mg/L)	SW-4	0.8013	n/a	5/20/2025	0.0762	No	8	0	No	0.0004052	Param Intra 1 of 2

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

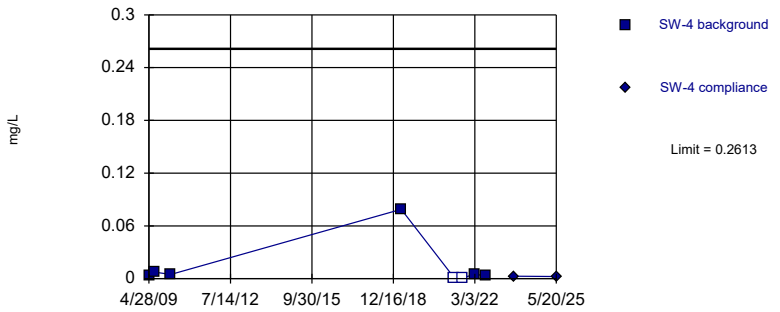
Constituent: Antimony Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-5.261, Std. Dev.=1.113, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8663, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

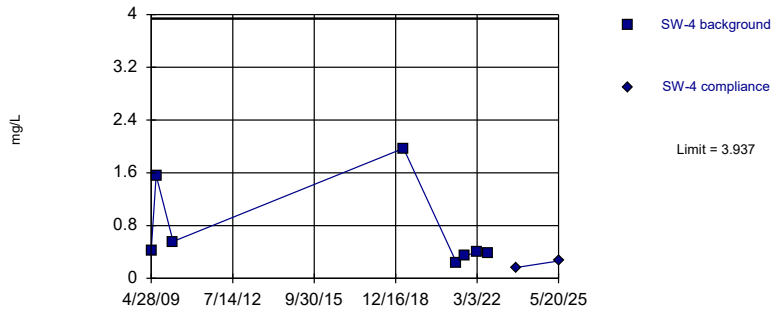
Constituent: Arsenic Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.7958, Std. Dev.=0.3376, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7774, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

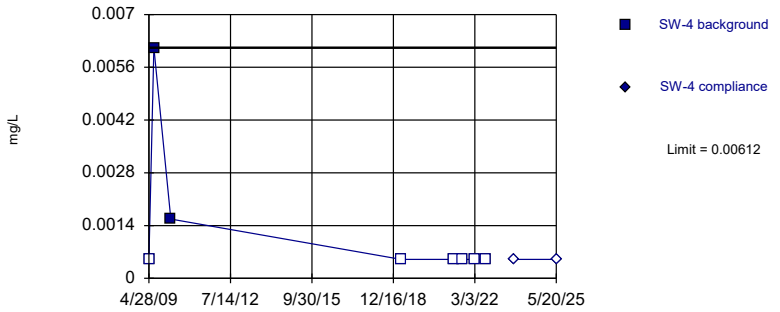
Constituent: Barium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

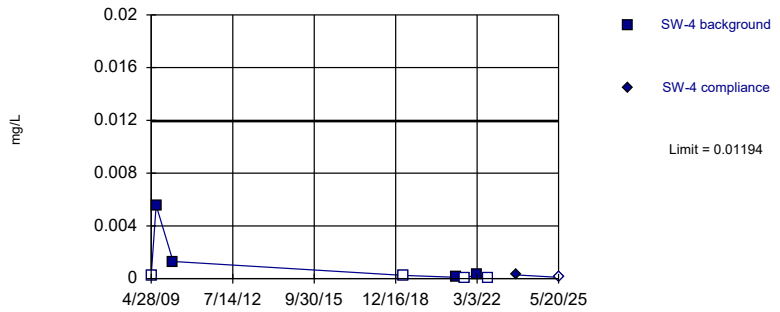
Constituent: Beryllium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.07473, Std. Dev.=0.04371, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7931, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

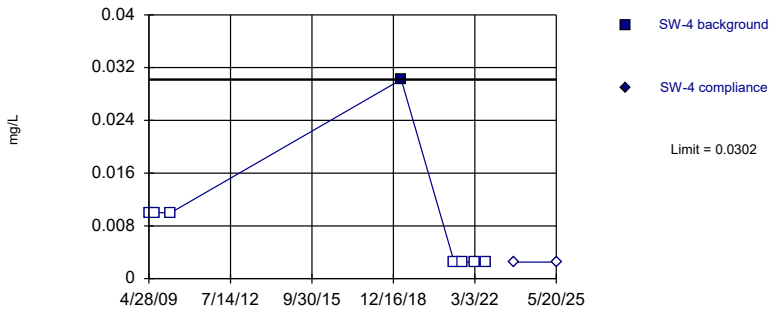
Constituent: Cadmium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

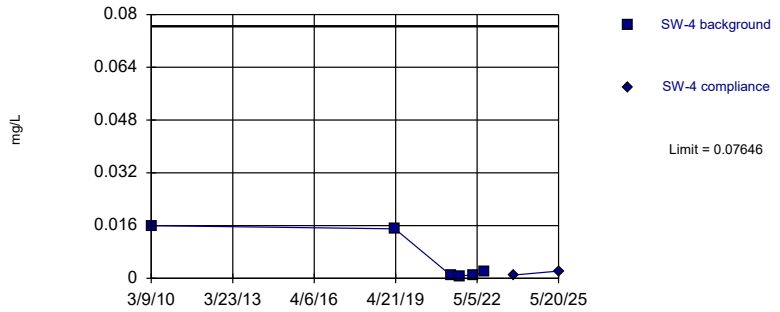
Constituent: Chromium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.06375, Std. Dev.=0.04739, n=6. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7371, critical = 0.713. Kappa = 4.49 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

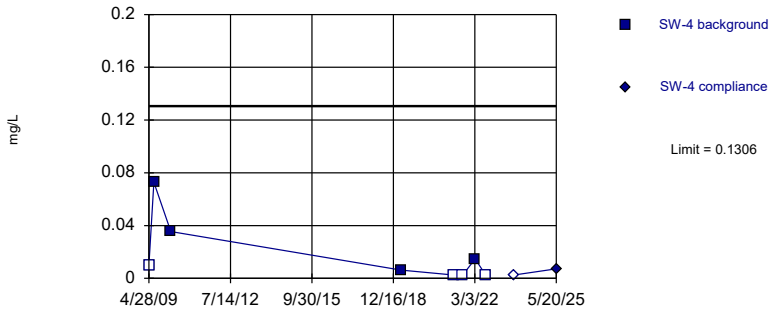
Constituent: Cobalt Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1192, Std. Dev.=0.0688, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8322, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

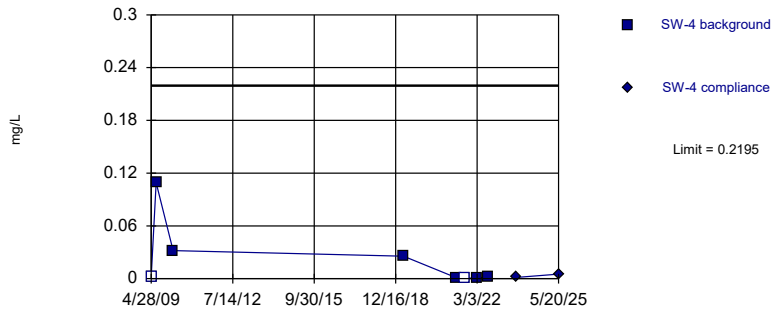
Constituent: Copper Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1035, Std. Dev.=0.1037, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.787, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

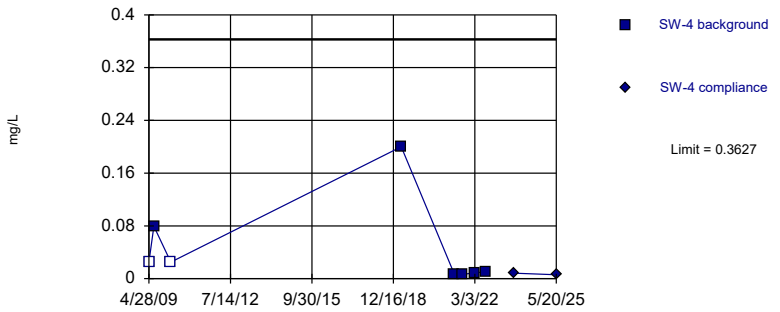
Constituent: Lead Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1588, Std. Dev.=0.126, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7747, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

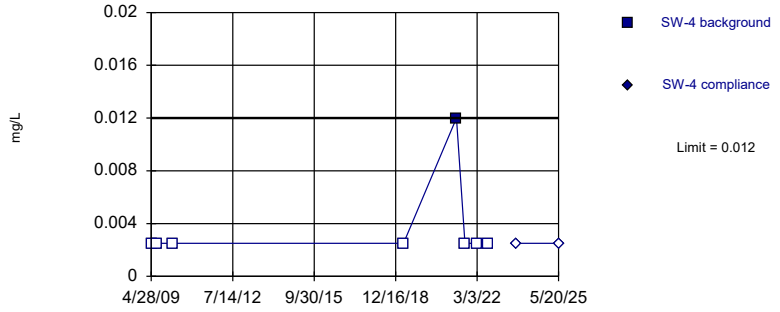
Constituent: Nickel Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

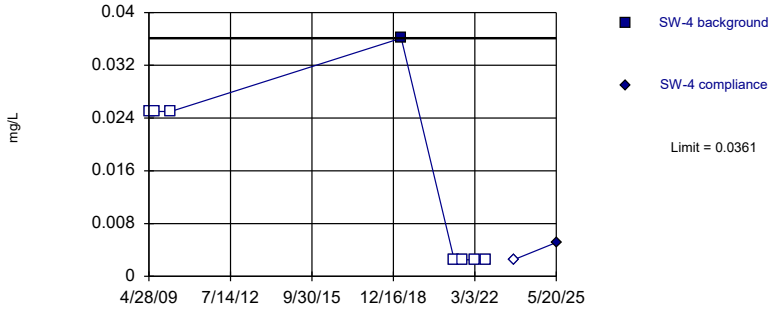
Constituent: Selenium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

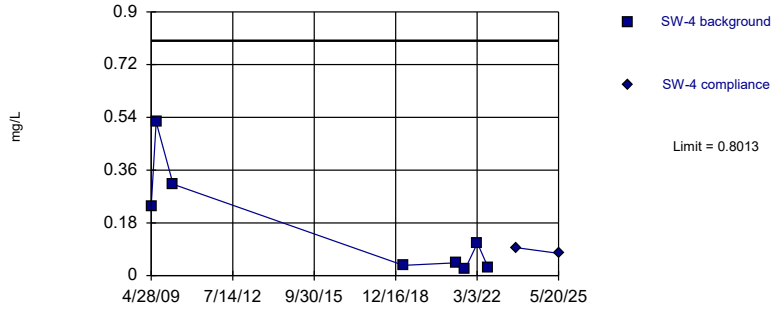
Constituent: Vanadium Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1641, Std. Dev.=0.181, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8165, critical = 0.749. Kappa = 3.52 (c=13, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004052.

Constituent: Zinc Analysis Run 10/7/2025 3:30 PM View: 2025SSN SW-4 Intra PL

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Mann-Kendall Trend Table and Graphs

Trend Test

Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio Printed 10/15/2025, 8:47 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-10R	-0.09143	-2	-21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	**MW-26R**	**-0.5522**	**-23**	**-21**	**Yes**	**8**	**25**	**0.01**	**NP**
1,1-Dichloroethane (ug/L)	**MW-27R**	**0.619**	**23**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**
1,2-Dichloropropane (ug/L)	MW-27R	0	3	21	No	8	87.5	0.01	NP
1,4-Dichlorobenzene (ug/L)	MW-11R	0.05806	10	21	No	8	12.5	0.01	NP
Acetone (ug/L)	MW-27R	0	-1	-21	No	8	75	0.01	NP
Antimony (mg/L)	MW-7	0	-5	-21	No	8	87.5	0.01	NP
Antimony (mg/L)	MW-27R	0.00006484	11	21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-11R	0.001422	6	21	No	8	12.5	0.01	NP
Arsenic (mg/L)	MW-25	0	-5	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-26R	0.01006	4	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-27R	-0.001585	-11	-21	No	8	25	0.01	NP
Barium (mg/L)	MW-7	-0.0918	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-8R	-0.02161	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-10R	-0.02047	-18	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-11R	-0.0428	-10	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-25	0.08692	14	21	No	8	0	0.01	NP
Barium (mg/L)	MW-26R	0.02941	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-27R	0.1025	20	21	No	8	0	0.01	NP
Barium (mg/L)	MW-28	-0.05882	-17	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-7	0	1	21	No	8	75	0.01	NP
Benzene (ug/L)	MW-11R	-0.358	-11	-21	No	8	25	0.01	NP
Benzene (ug/L)	MW-26R	-0.1504	-13	-21	No	8	37.5	0.01	NP
Benzene (ug/L)	MW-28	-0.1525	-11	-21	No	8	37.5	0.01	NP
beta-BHC (ug/L)	MW-28	0.002654	11	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-7	0	-6	-21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-8R	0.00001702	15	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-10R	0	3	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-11R	0.00002347	19	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-26R	0.00009423	18	21	No	8	62.5	0.01	NP
Cadmium (mg/L)	MW-27R	-0.000009245	-5	-21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-28	0.00005769	13	21	No	8	25	0.01	NP
Carbon disulfide (ug/L)	MW-27R	0	4	21	No	8	62.5	0.01	NP
Chlorobenzene (ug/L)	MW-27R	0.4731	20	21	No	8	37.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-7	0.8703	16	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-8R	1.18	20	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-10R	0.8527	10	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-11R	0.09983	9	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	**MW-26R**	**-11.99**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**MW-27R**	**7.549**	**25**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**
Cobalt (mg/L)	MW-7	0	-5	-21	No	8	87.5	0.01	NP
Cobalt (mg/L)	MW-8R	0	3	21	No	8	87.5	0.01	NP
Cobalt (mg/L)	MW-11R	0.0006774	6	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-26R	-0.00003993	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-27R	-0.001079	-10	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-28	-0.0002915	-4	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-8R	0	3	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-11R	0	-3	-21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-25	0	5	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-26R	0	7	21	No	8	87.5	0.01	NP

Trend Test

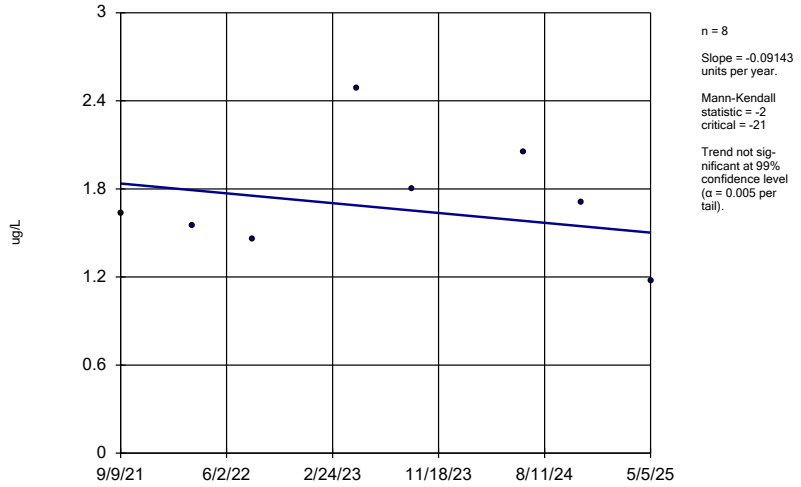
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio Printed 10/15/2025, 8:47 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Lead (mg/L)	MW-7	0	-1	-21	No	8	75	0.01	NP
Lead (mg/L)	MW-8R	0	8	21	No	8	62.5	0.01	NP
Lead (mg/L)	MW-10R	0	3	21	No	8	75	0.01	NP
Lead (mg/L)	MW-11R	0	13	21	No	8	75	0.01	NP
Lead (mg/L)	MW-25	0	-7	-21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-26R	0.00081	14	21	No	8	62.5	0.01	NP
Lead (mg/L)	MW-27R	0.0001341	5	21	No	8	25	0.01	NP
Mercury (mg/L)	MW-8R	0.00002222	4	14	No	6	33.33	0.01	NP
Nickel (mg/L)	MW-8R	0.001668	17	21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-11R	0.002039	5	21	No	8	25	0.01	NP
Nickel (mg/L)	MW-26R	0.003848	20	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-27R	0.001131	6	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-28	-0.001365	-2	-21	No	8	0	0.01	NP
Thallium (mg/L)	MW-7	0	-7	-21	No	8	87.5	0.01	NP
Thallium (mg/L)	MW-26R	0	1	21	No	8	87.5	0.01	NP
Trichloroethene (ug/L)	**MW-27R**	**0.7074**	**23**	**21**	**Yes**	**8**	**37.5**	**0.01**	**NP**
Vanadium (mg/L)	MW-8R	0	3	21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-11R	0	13	21	No	8	75	0.01	NP
Vanadium (mg/L)	MW-25	0	-5	-21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-26R	0.0001567	14	21	No	8	62.5	0.01	NP
Vanadium (mg/L)	MW-27R	0	11	21	No	8	75	0.01	NP
Vinyl chloride (ug/L)	MW-11R	-0.2251	-12	-21	No	8	50	0.01	NP
Zinc (mg/L)	MW-11R	0	11	21	No	8	75	0.01	NP
Zinc (mg/L)	MW-26R	0.01142	14	21	No	8	62.5	0.01	NP

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Sen's Slope Estimator

MW-10R



n = 8

Slope = -0.09143 units per year.

Mann-Kendall statistic = -2 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 10/15/2025 8:43 AM View: 2025_SSN-Mann_Kendall

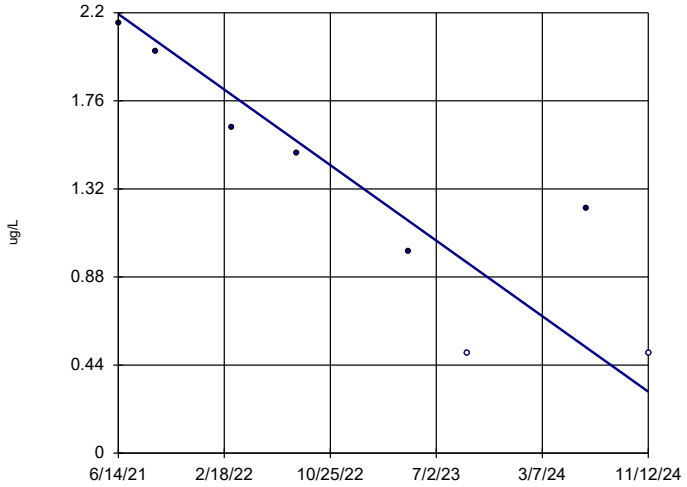
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.5522 units per year.

Mann-Kendall statistic = -23 critical = -21

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 10/15/2025 8:43 AM View: 2025_SSN-Mann_Kendall

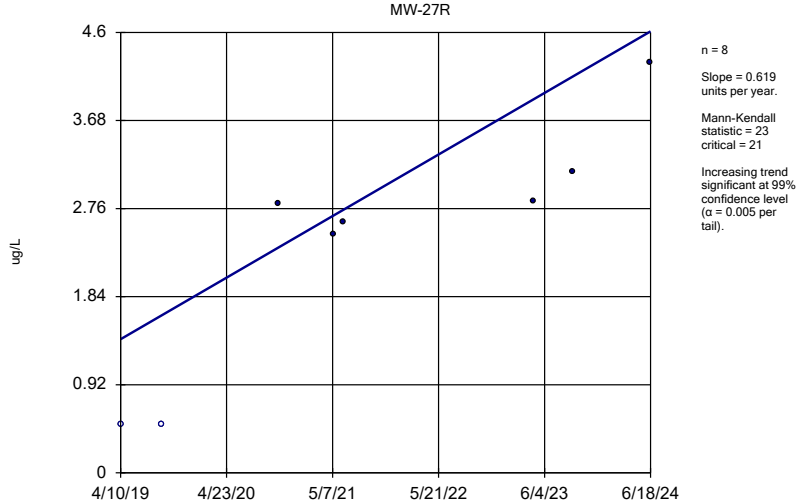
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.619 units per year.

Mann-Kendall statistic = 23 critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall

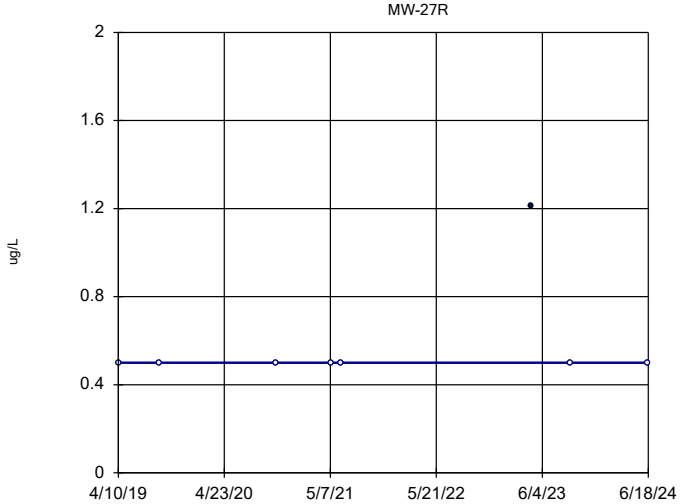
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-27R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

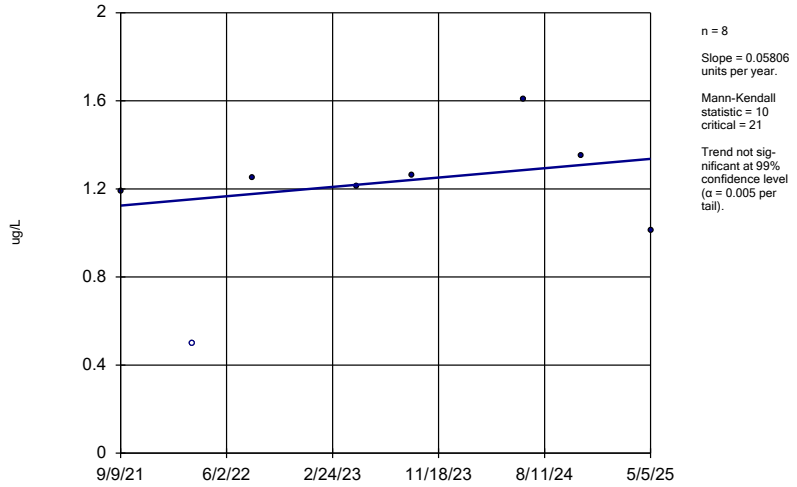
Constituent: 1,2-Dichloropropane Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall

Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.05806 units per year.

Mann-Kendall statistic = 10
critical = 21

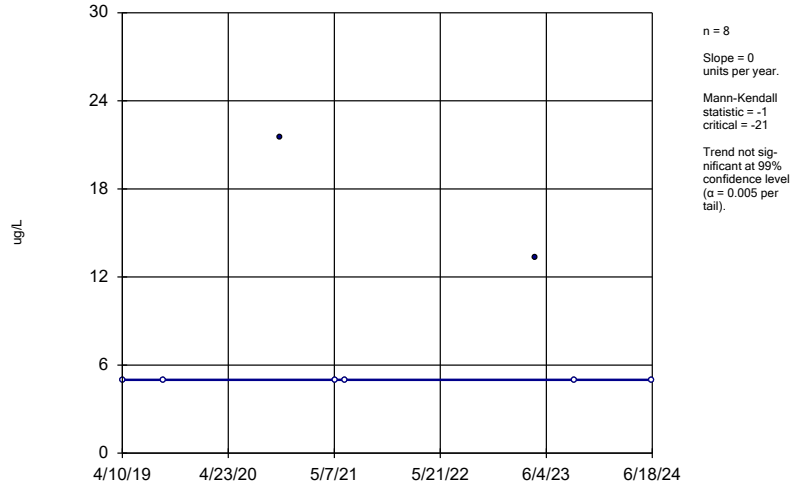
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,4-Dichlorobenzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-27R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -21

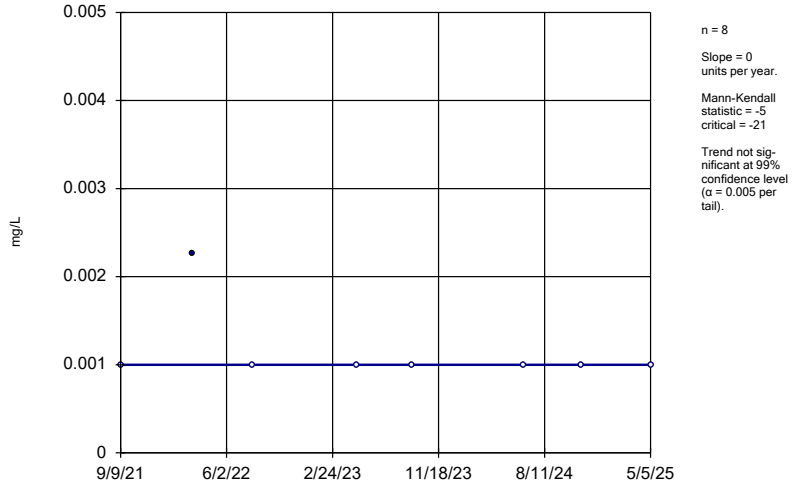
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Acetone Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-7



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -21

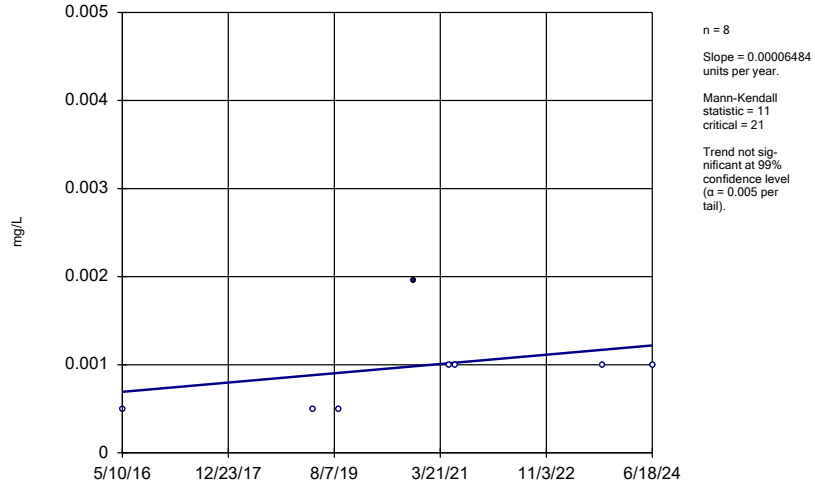
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Antimony Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.00006484 units per year.

Mann-Kendall statistic = 11
critical = 21

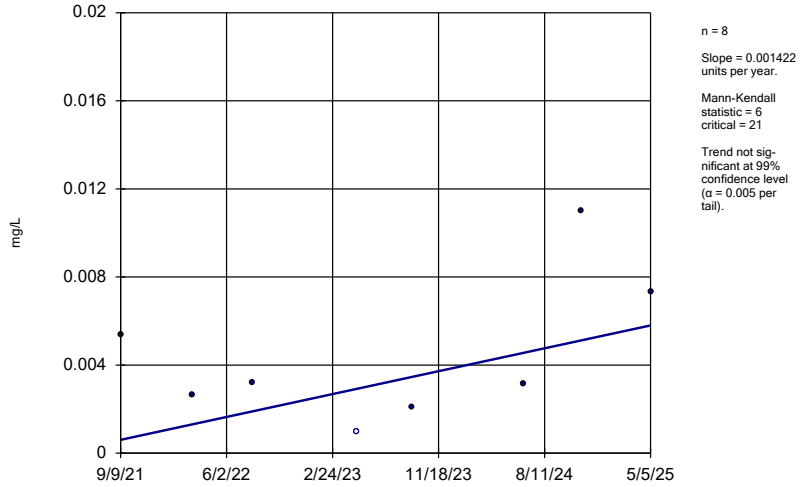
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Antimony Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.001422 units per year.

Mann-Kendall statistic = 6
critical = 21

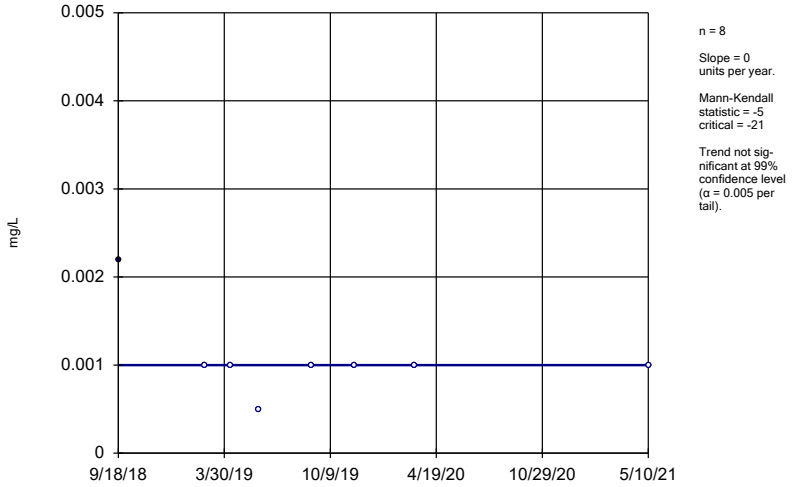
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-25



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -21

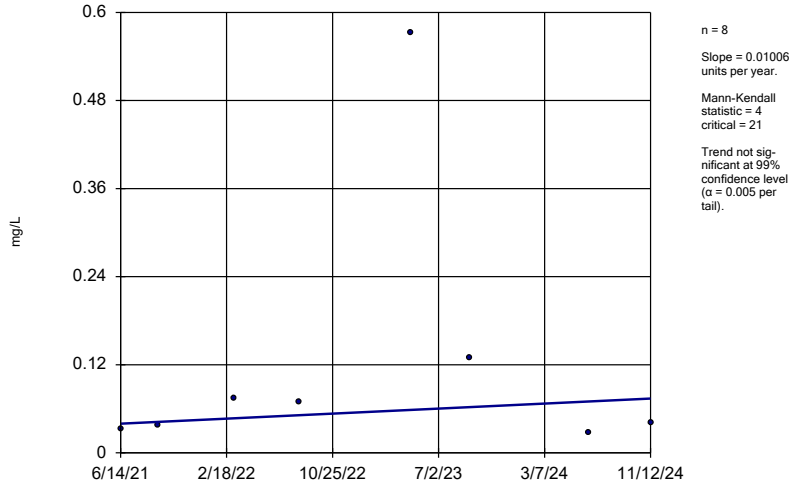
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.01006 units per year.

Mann-Kendall statistic = 4
critical = 21

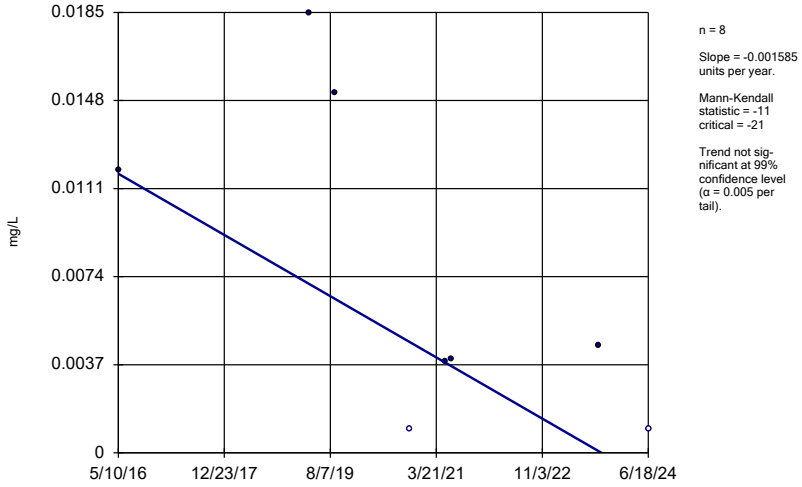
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = -0.001585 units per year.

Mann-Kendall statistic = -11
critical = -21

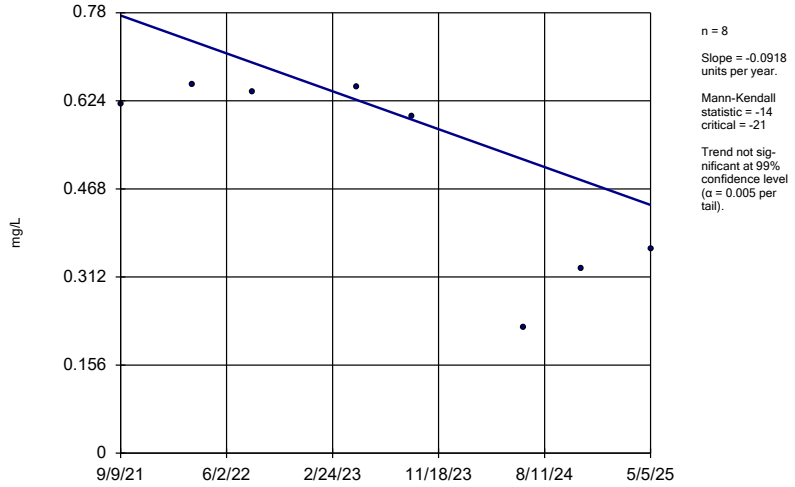
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-7



n = 8

Slope = -0.0918 units per year.

Mann-Kendall statistic = -14
critical = -21

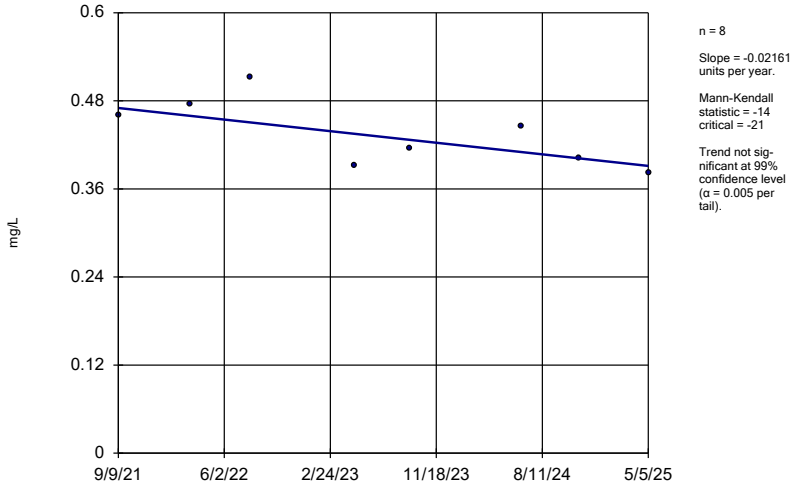
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-8R



n = 8

Slope = -0.02161 units per year.

Mann-Kendall statistic = -14
critical = -21

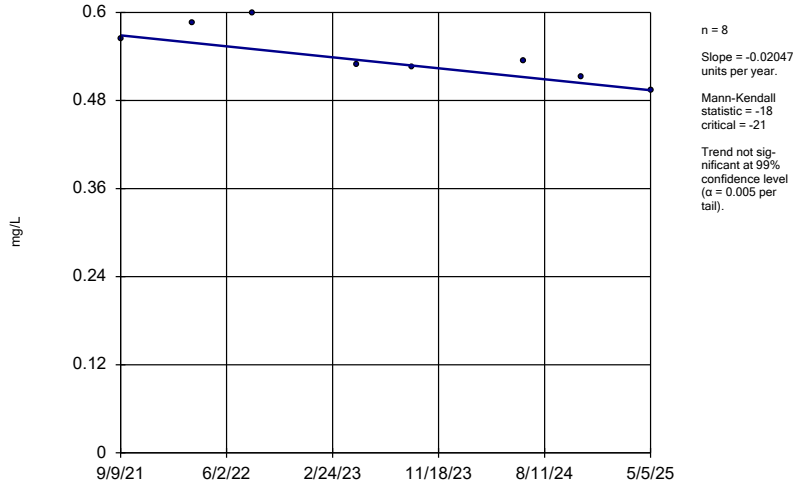
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-10R



n = 8

Slope = -0.02047 units per year.

Mann-Kendall statistic = -18
critical = -21

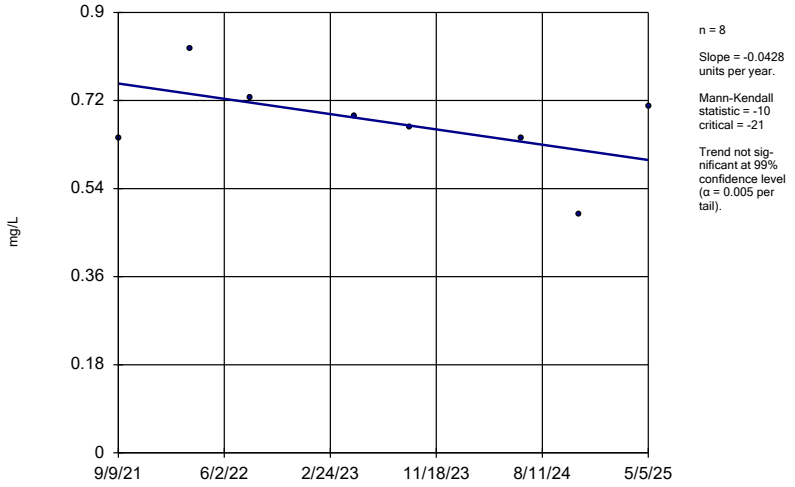
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-11R



n = 8

Slope = -0.0428 units per year.

Mann-Kendall statistic = -10
critical = -21

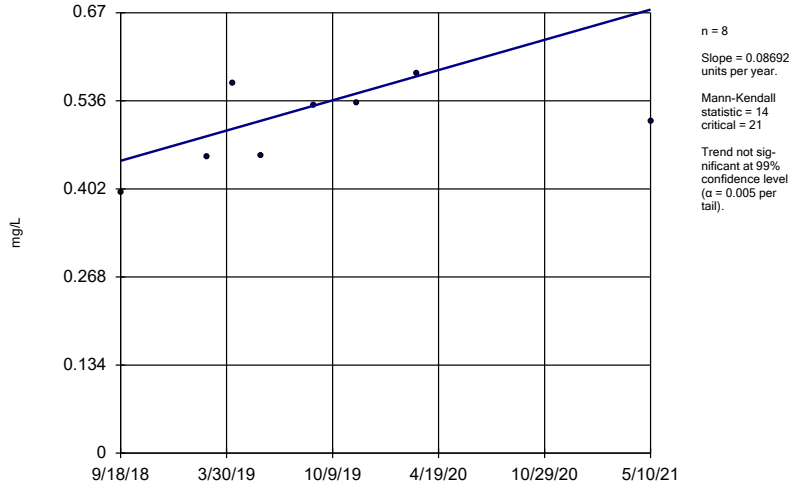
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-25



n = 8

Slope = 0.08692 units per year.

Mann-Kendall statistic = 14 critical = 21

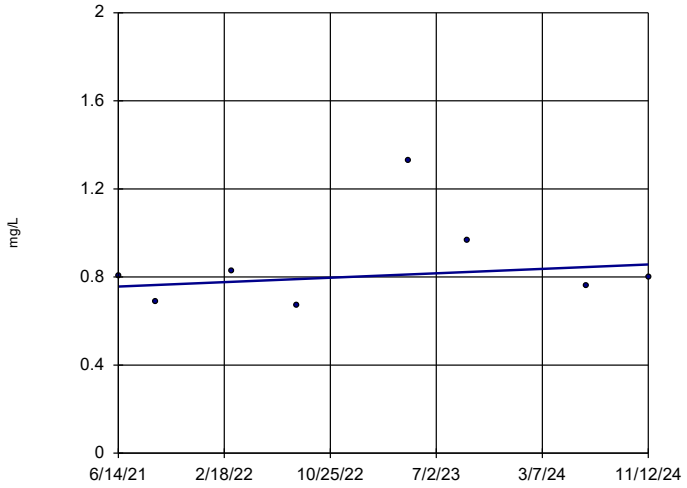
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.02941 units per year.

Mann-Kendall statistic = 2 critical = 21

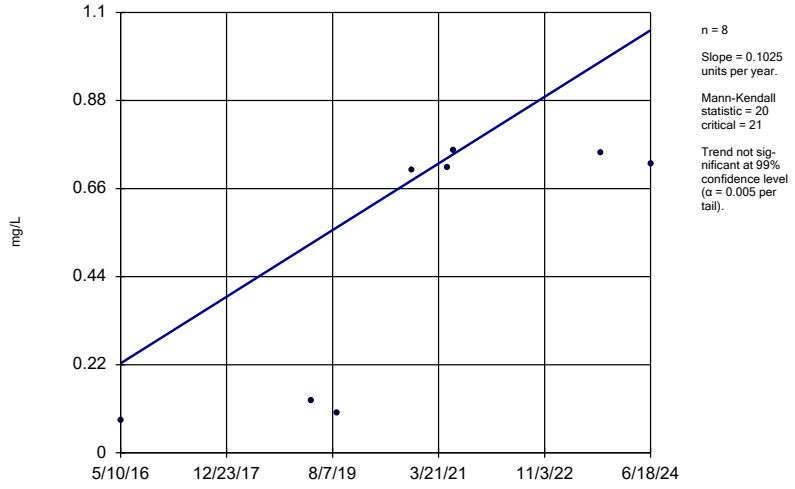
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.1025 units per year.

Mann-Kendall statistic = 20 critical = 21

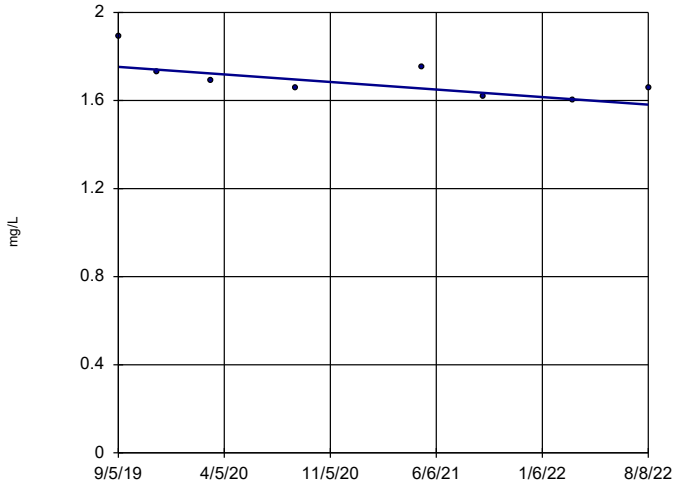
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-28



n = 8

Slope = -0.05882 units per year.

Mann-Kendall statistic = -17 critical = -21

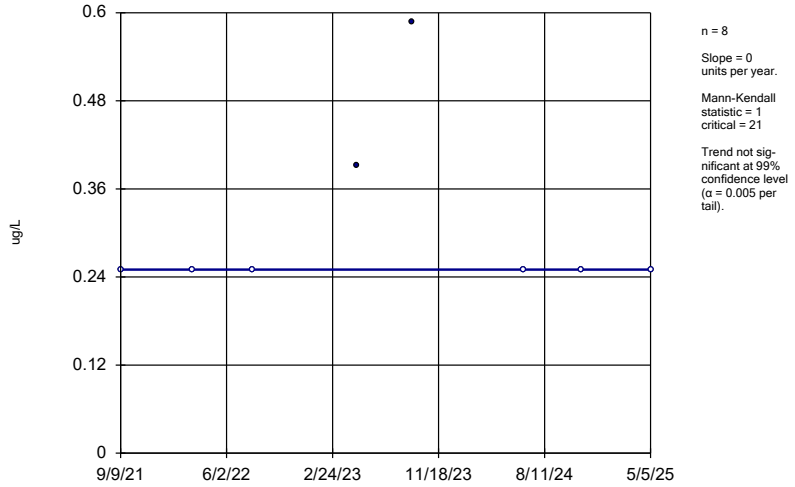
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

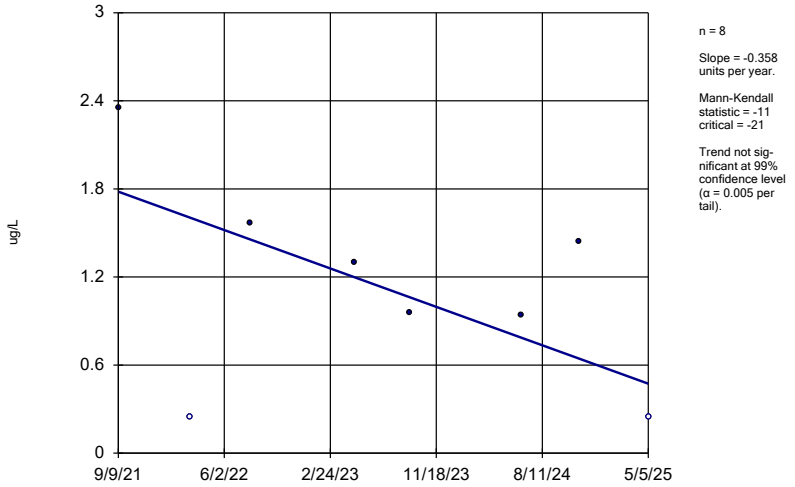


Constituent: Benzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

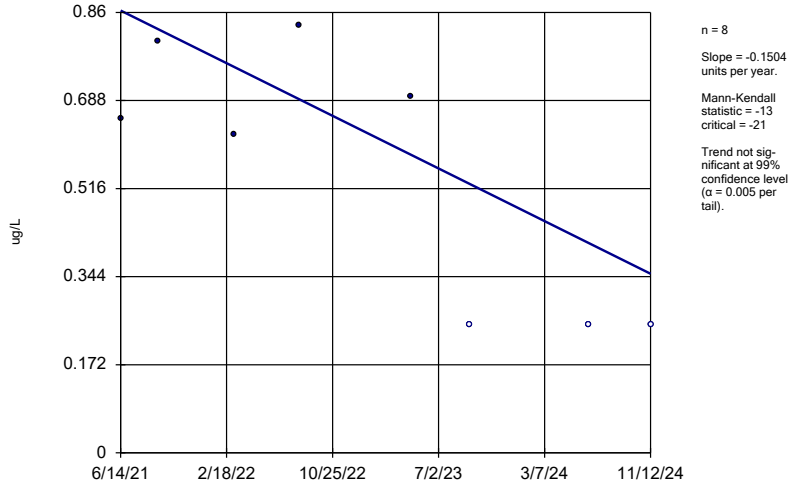


Constituent: Benzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

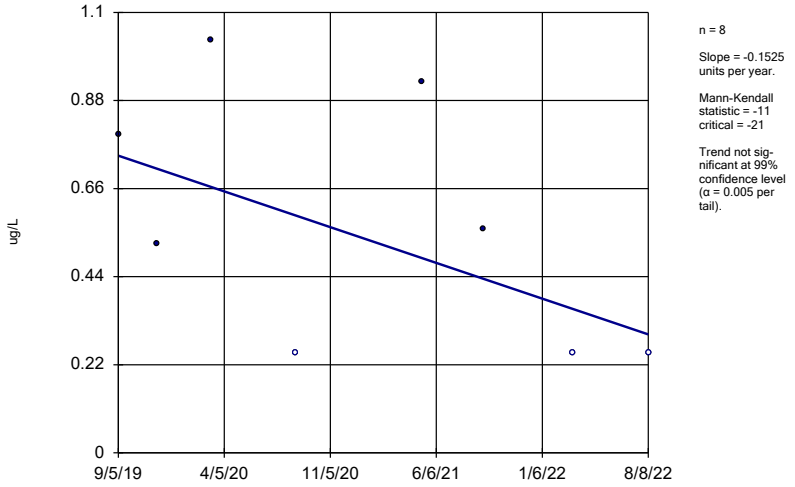


Constituent: Benzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28

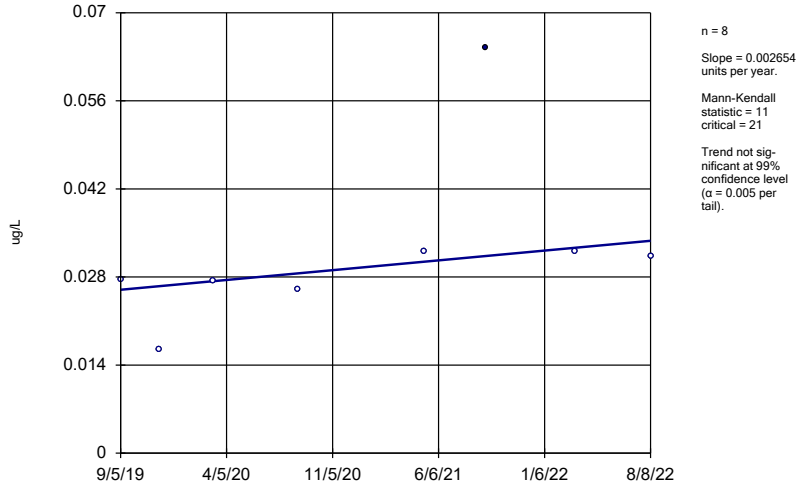


Constituent: Benzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28

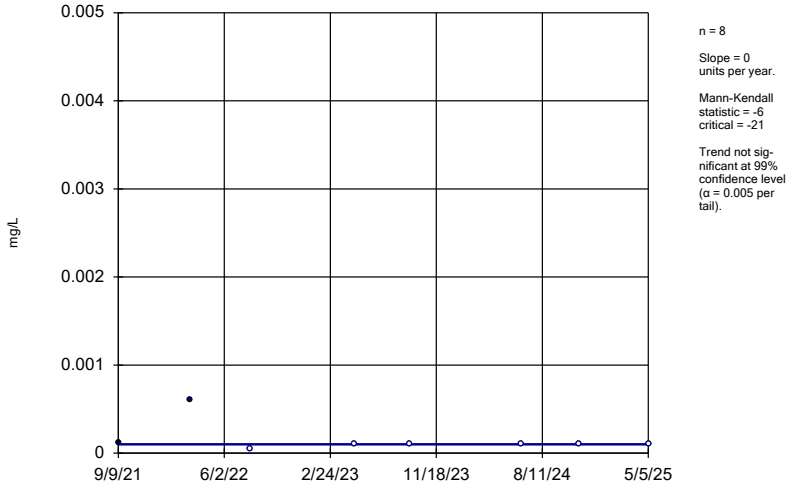


Constituent: beta-BHC Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

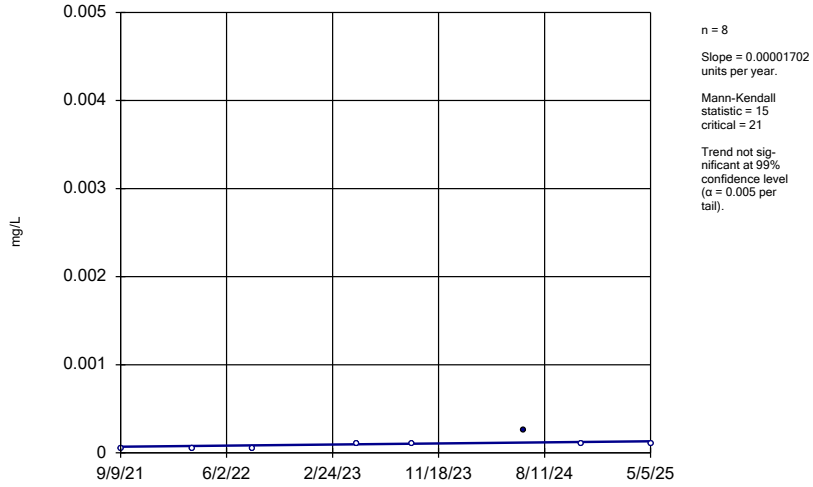


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

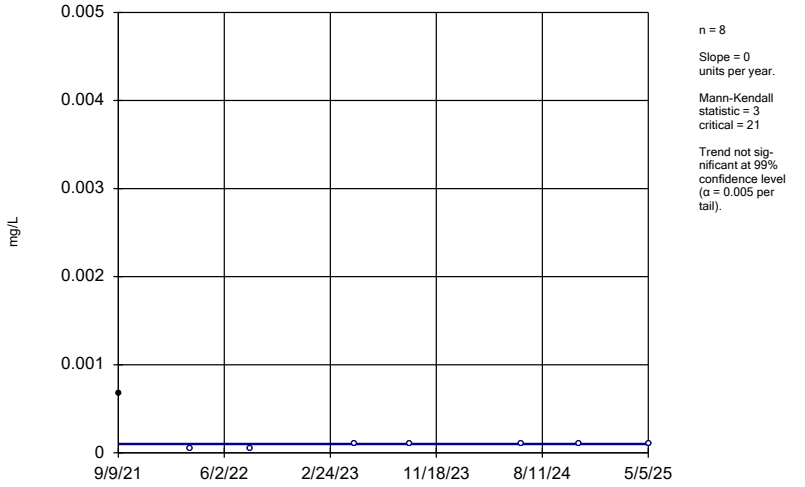


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-10R

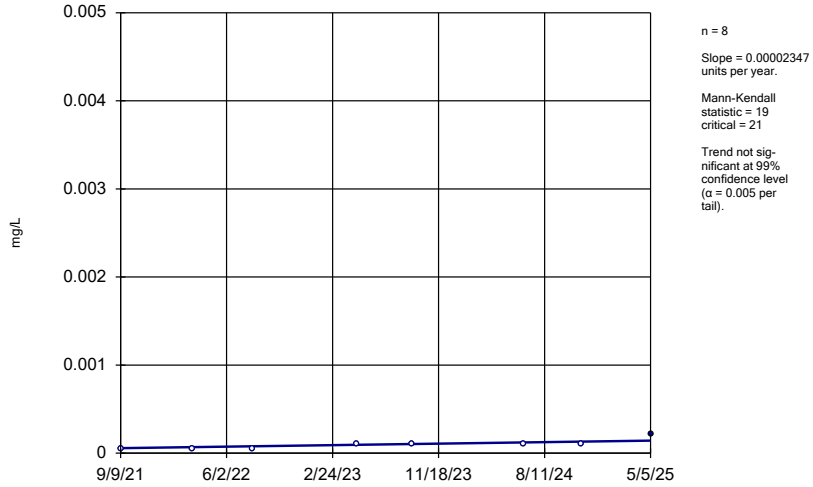


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

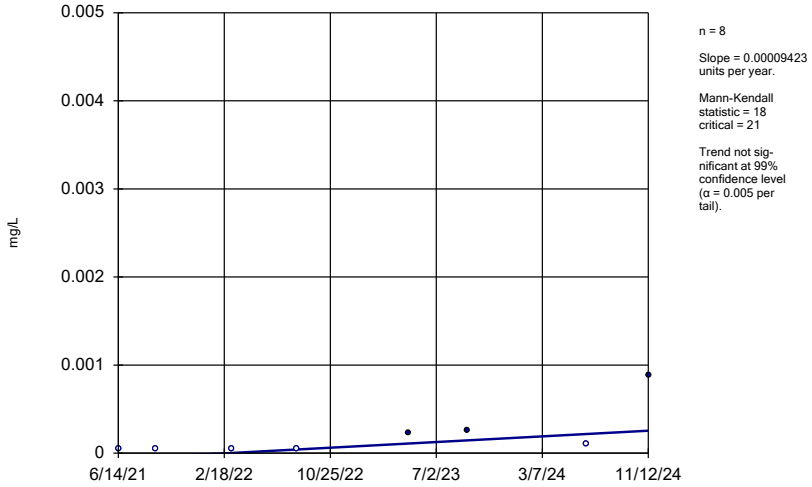


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

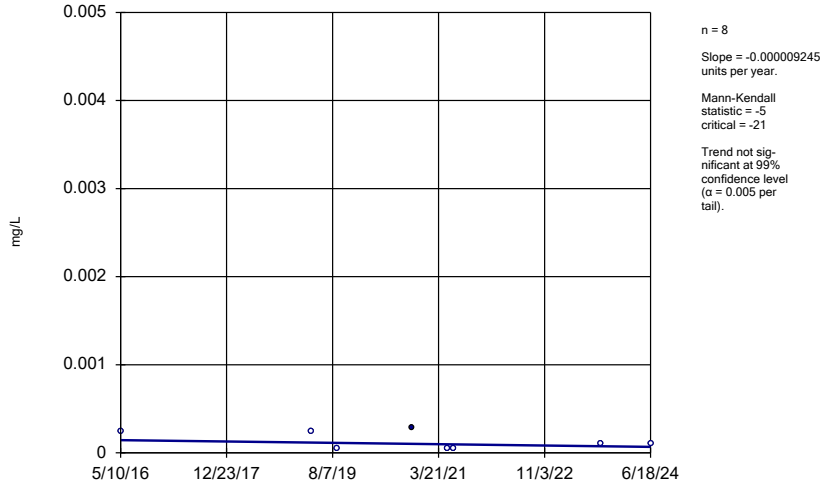


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

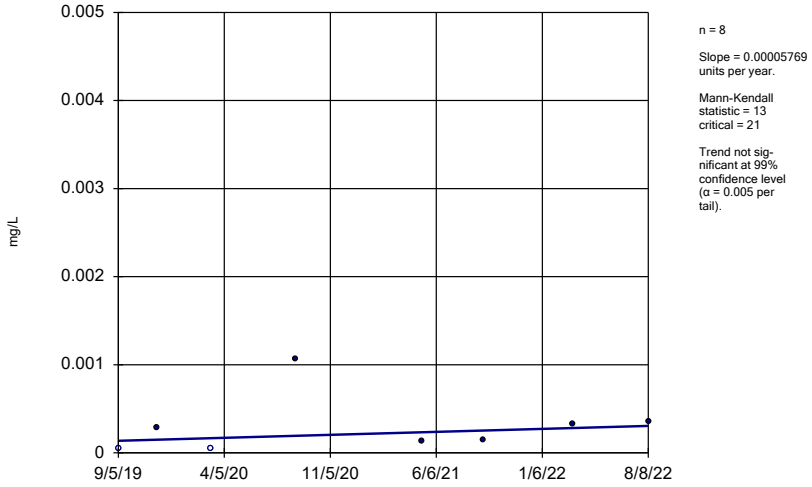


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28

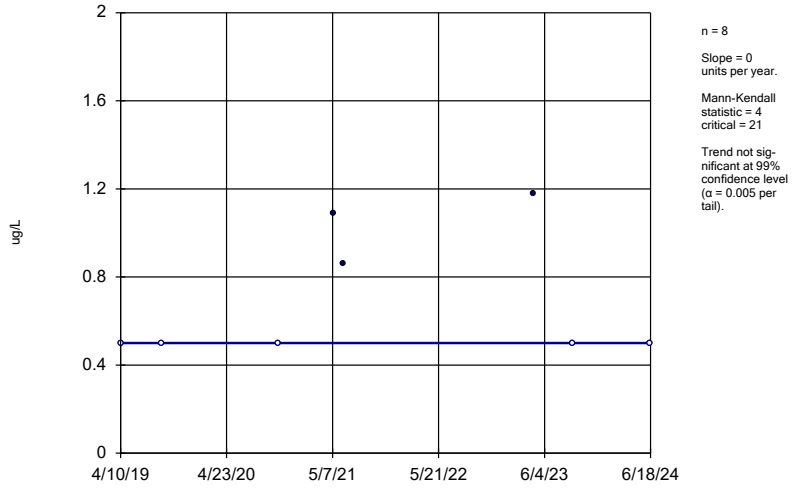


Constituent: Cadmium Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

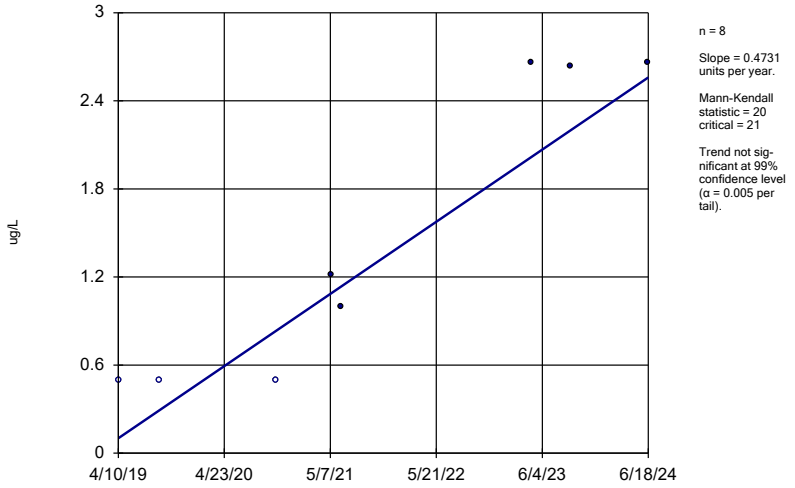


Constituent: Carbon disulfide Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

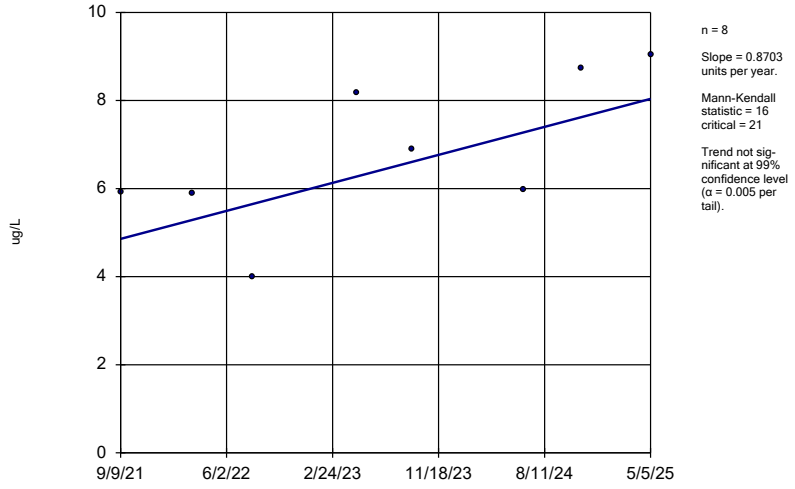


Constituent: Chlorobenzene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7

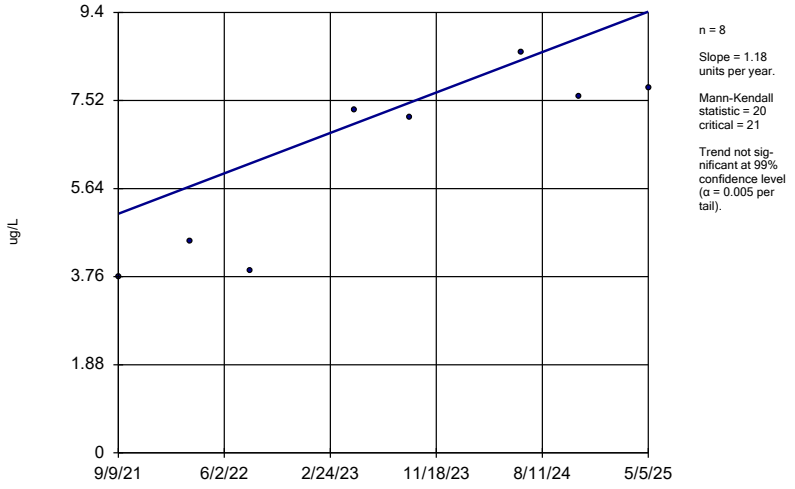


Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8R

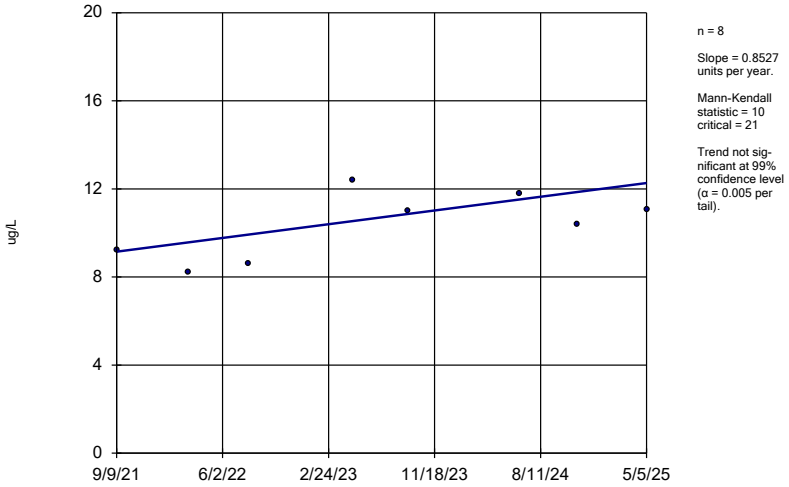


Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-10R



n = 8

Slope = 0.8527 units per year.

Mann-Kendall statistic = 10 critical = 21

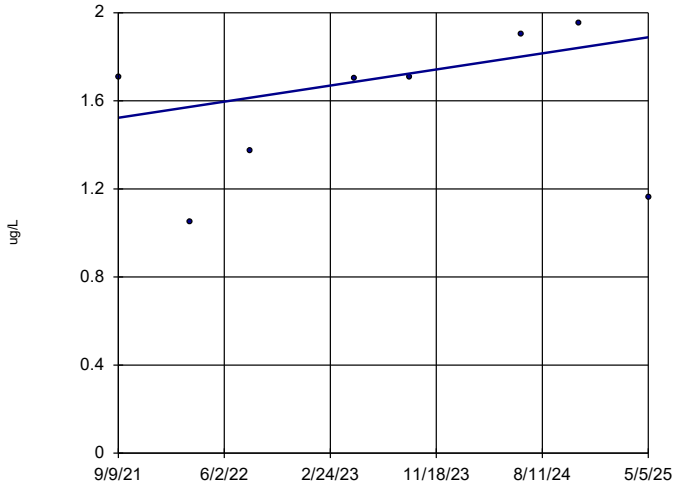
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.09983 units per year.

Mann-Kendall statistic = 9 critical = 21

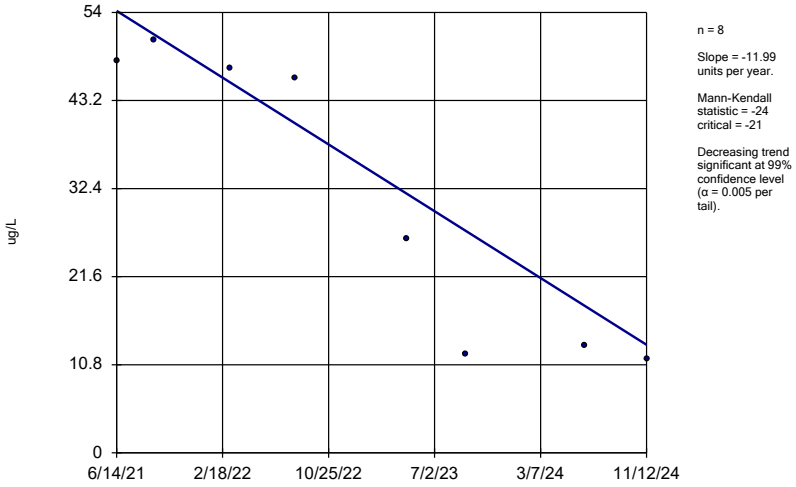
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-26R



n = 8

Slope = -11.99 units per year.

Mann-Kendall statistic = -24 critical = -21

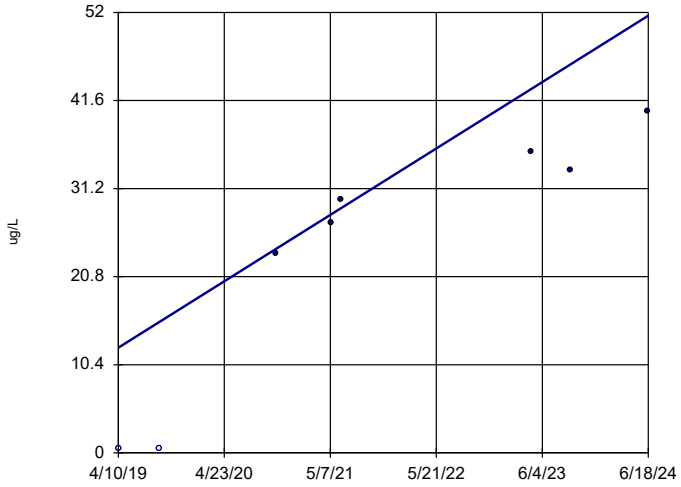
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 7.549 units per year.

Mann-Kendall statistic = 25 critical = 21

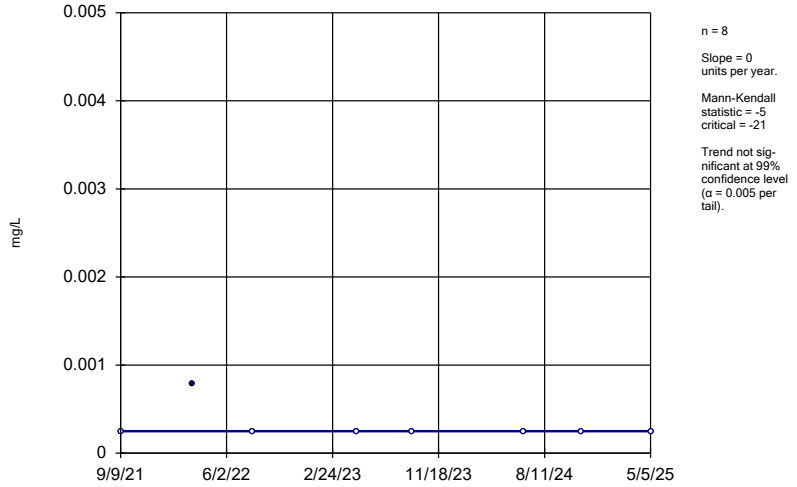
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -5
critical = -21

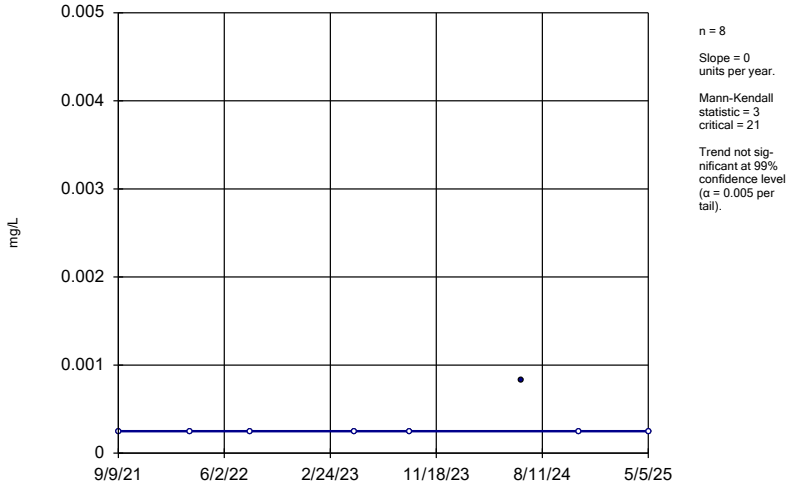
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 3
critical = 21

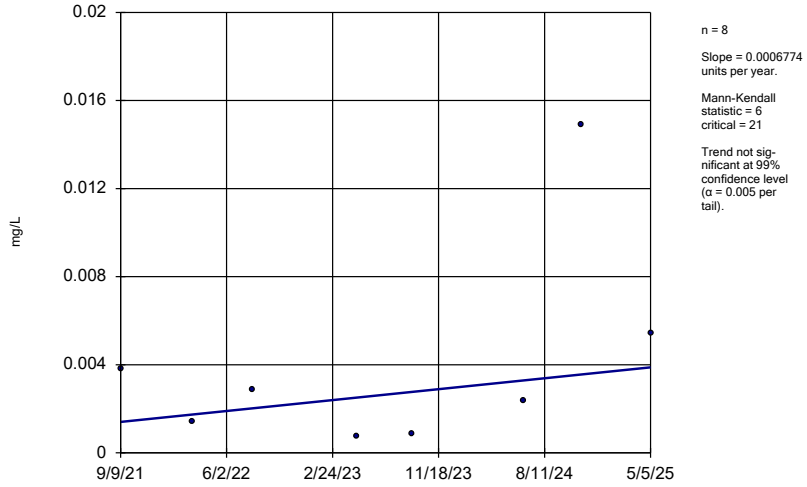
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.0006774
units per year.

Mann-Kendall
statistic = 6
critical = 21

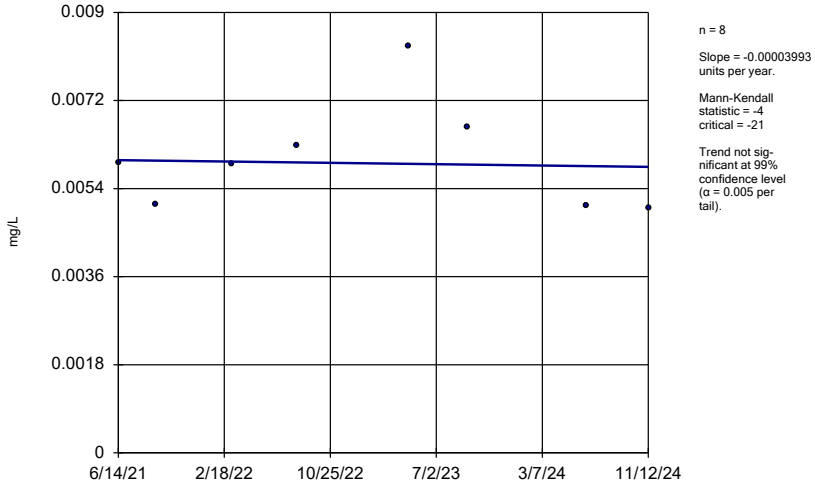
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.00003993
units per year.

Mann-Kendall
statistic = -4
critical = -21

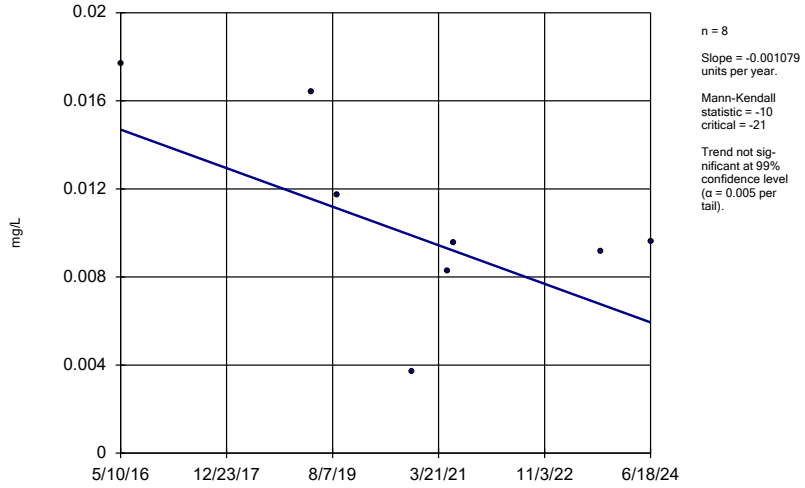
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-27R



n = 8

Slope = -0.001079 units per year.

Mann-Kendall statistic = -10
critical = -21

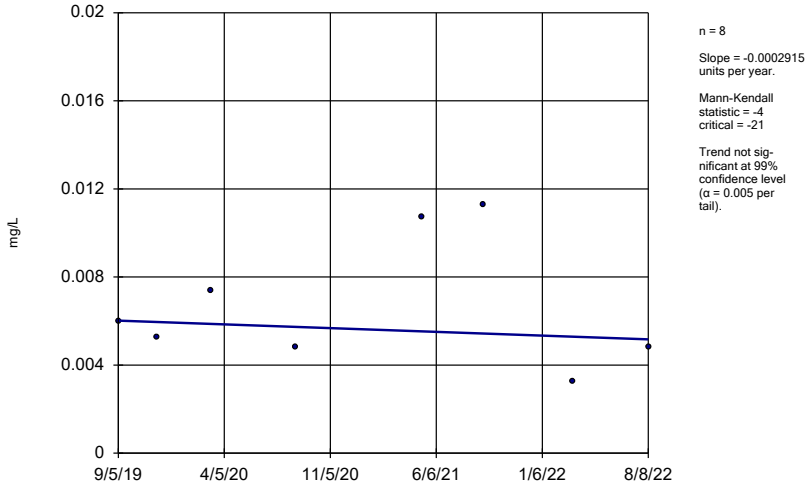
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope Estimator

MW-28



n = 8

Slope = -0.0002915 units per year.

Mann-Kendall statistic = -4
critical = -21

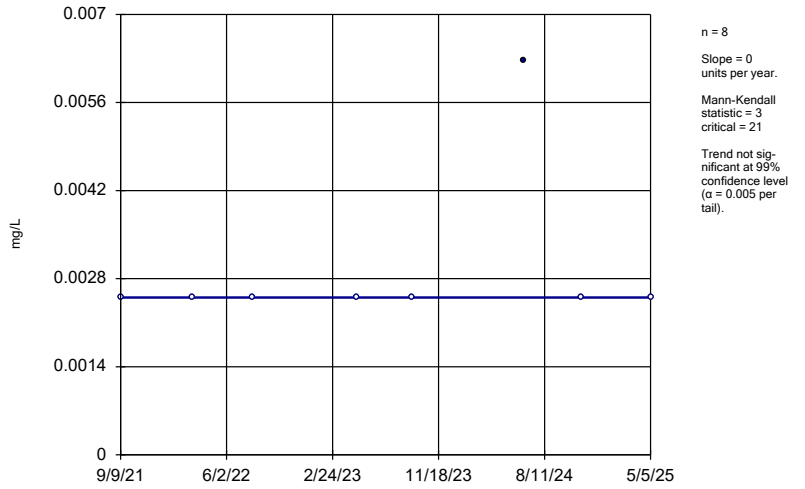
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 21

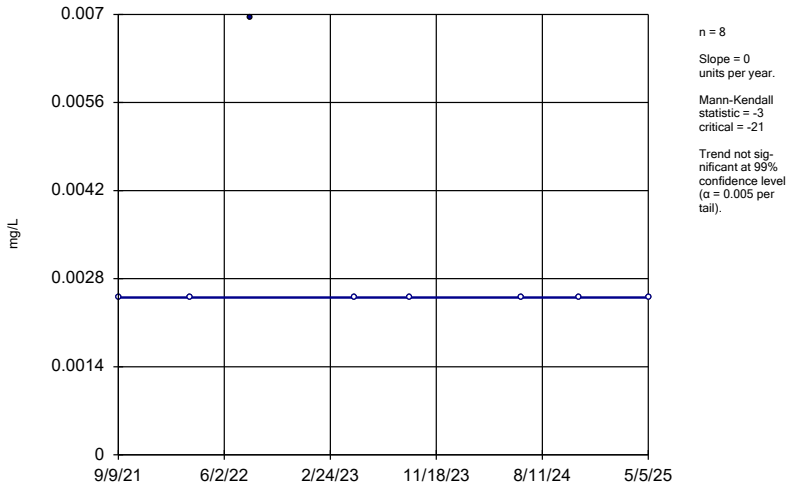
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Copper Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -3
critical = -21

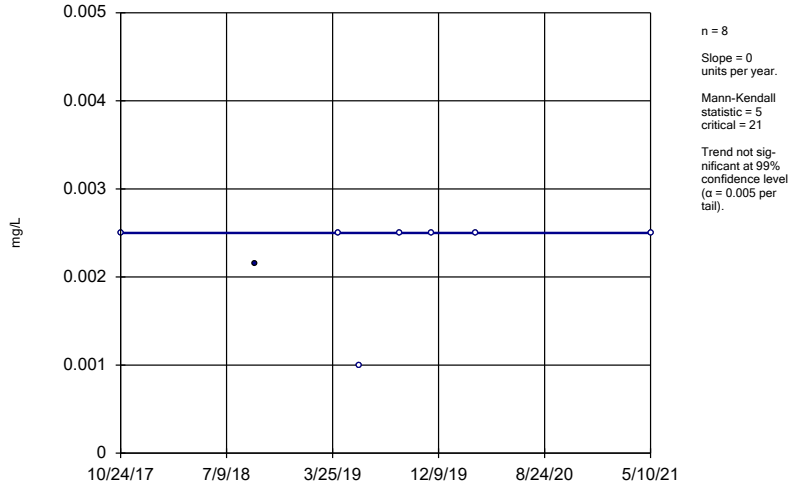
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Copper Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

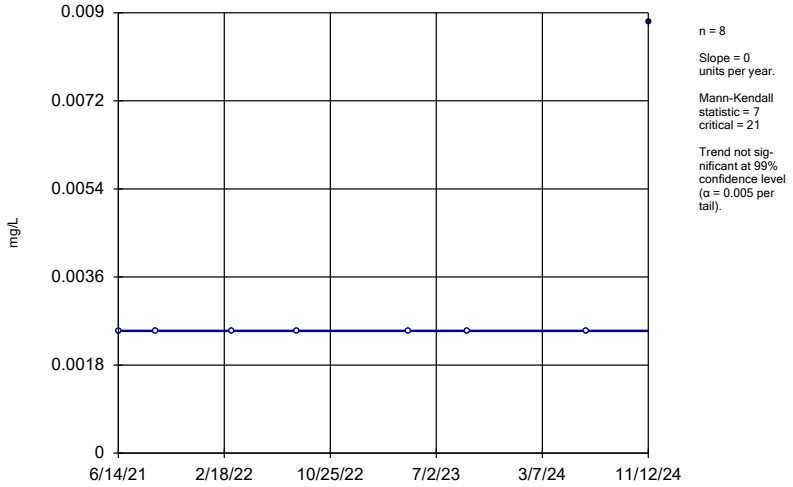


Constituent: Copper Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

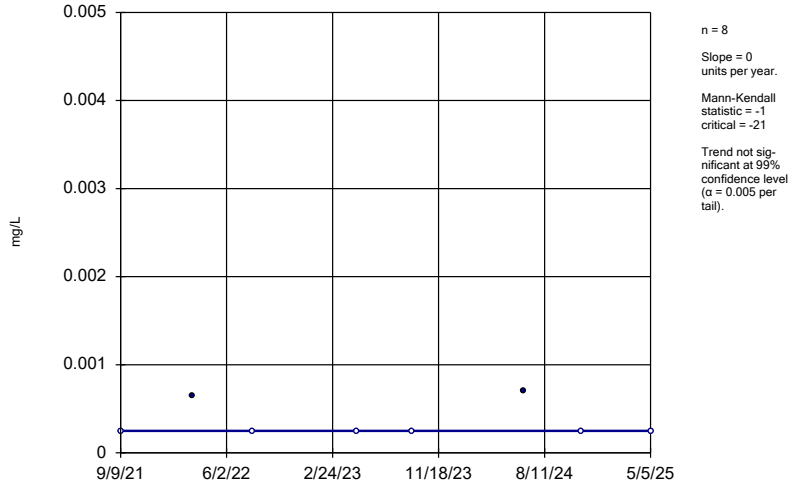


Constituent: Copper Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

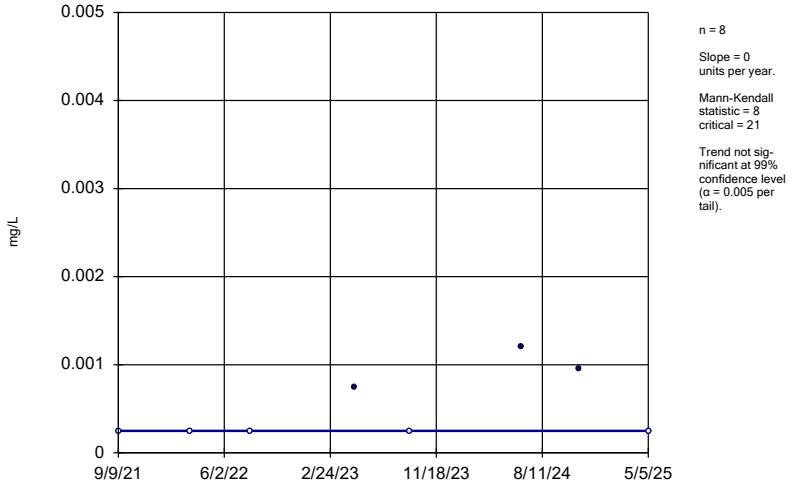


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

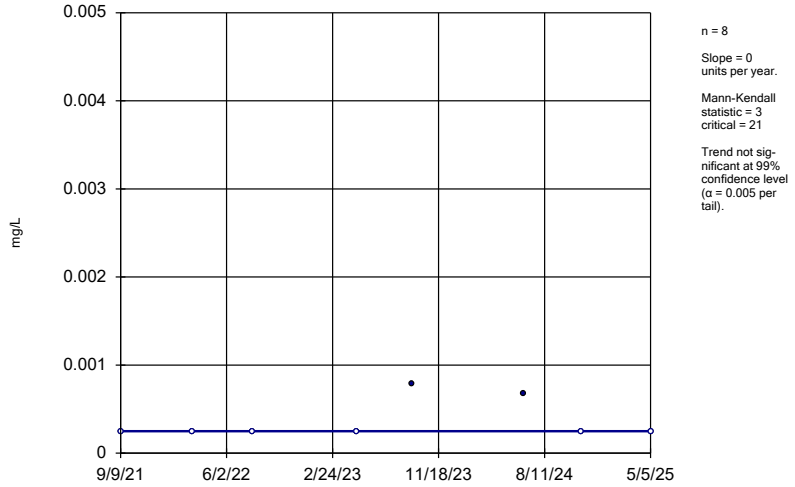


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-10R

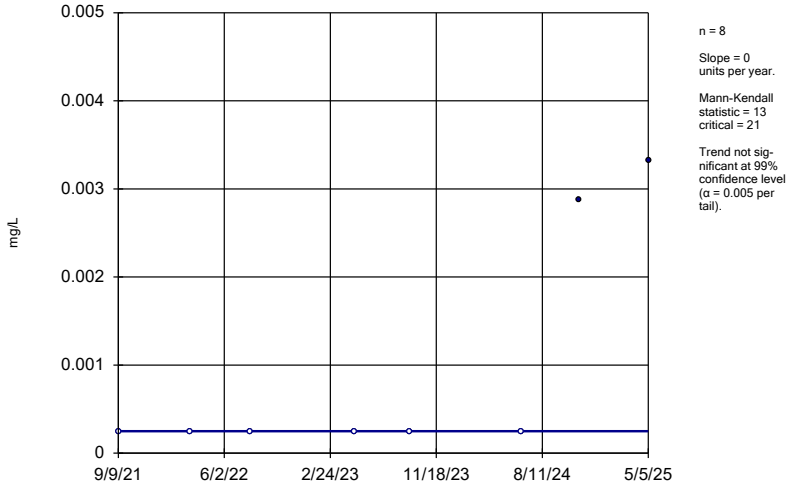


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

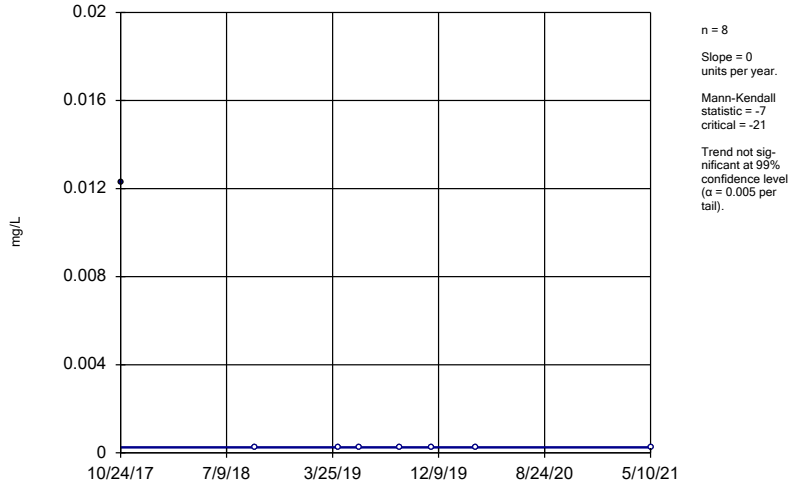


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

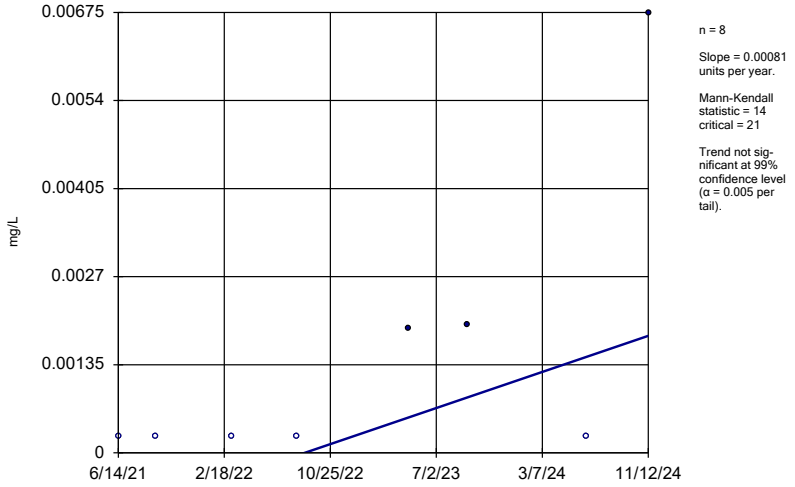


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

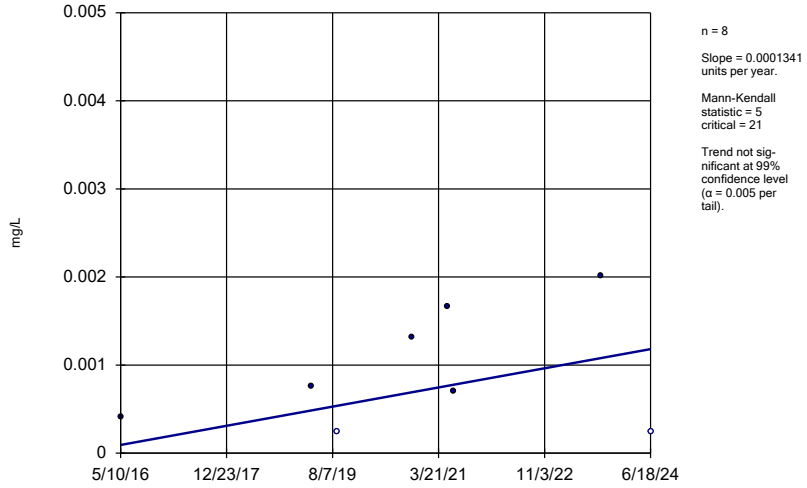


Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.0001341 units per year.

Mann-Kendall statistic = 5
critical = 21

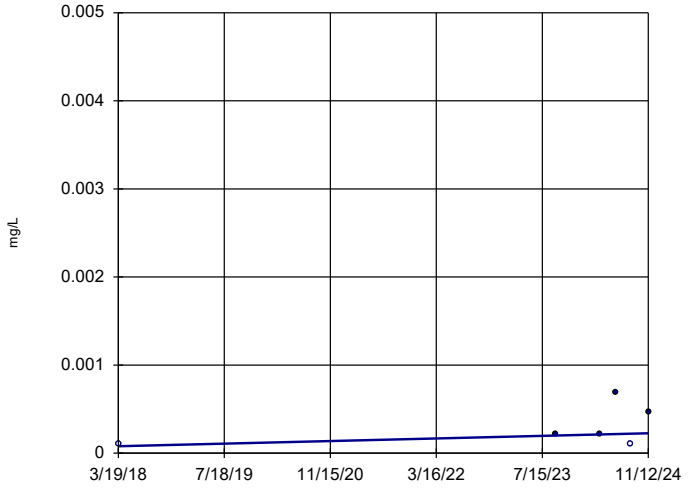
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 6

Slope = 0.00002222 units per year.

Mann-Kendall statistic = 4
critical = 14

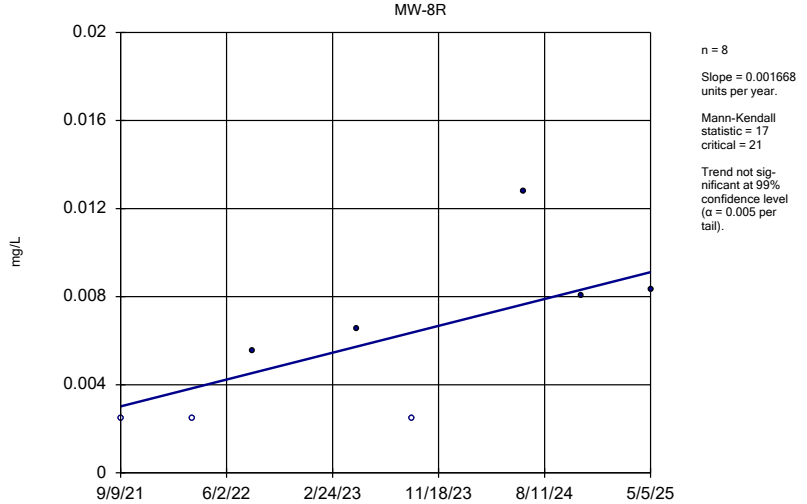
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Mercury Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0.001668 units per year.

Mann-Kendall statistic = 17
critical = 21

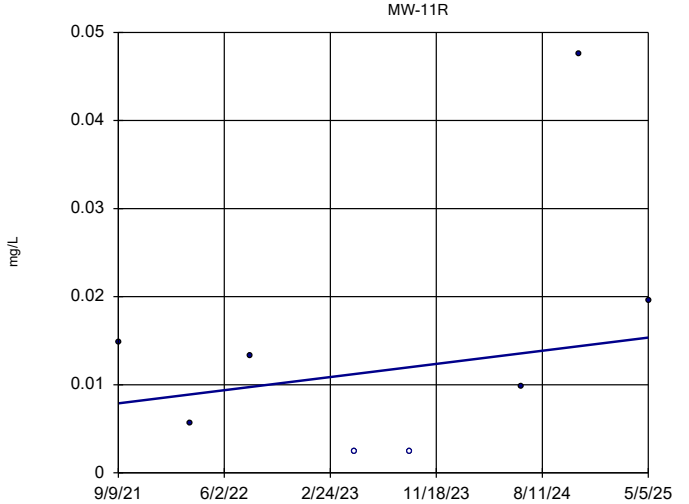
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 10/15/2025 8:44 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.002039 units per year.

Mann-Kendall statistic = 5
critical = 21

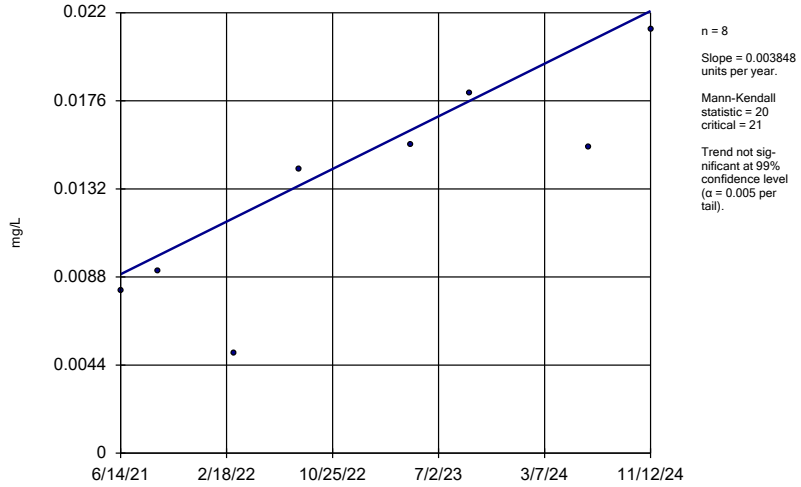
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-26R

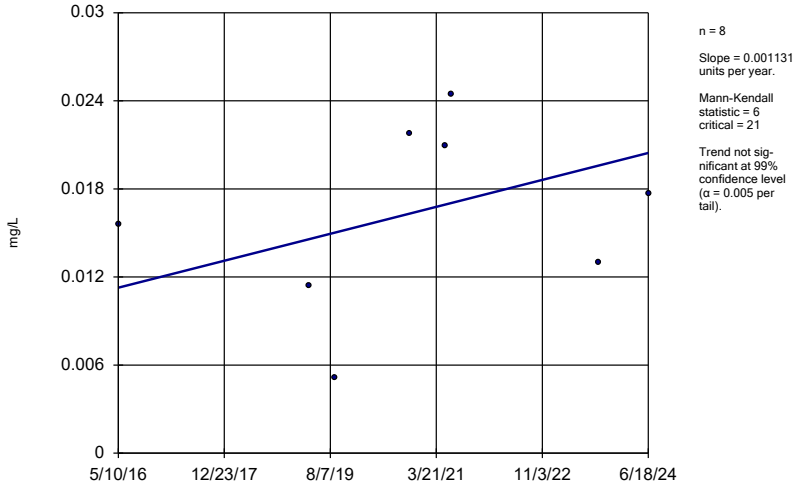


Constituent: Nickel Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-27R

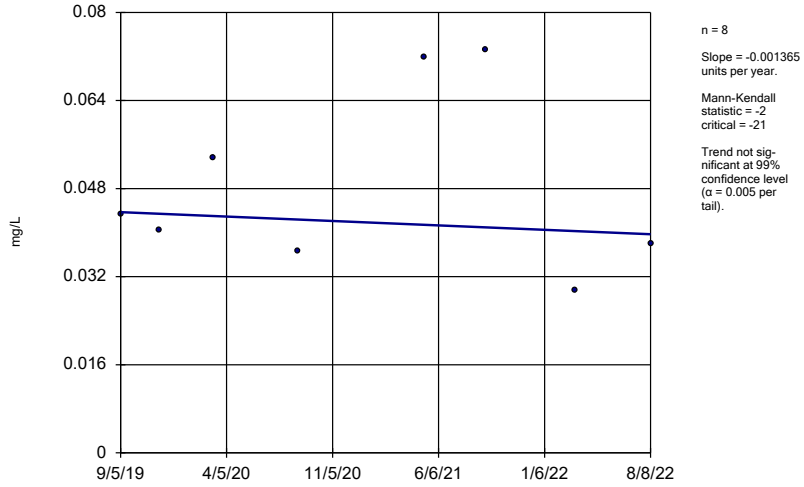


Constituent: Nickel Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-28

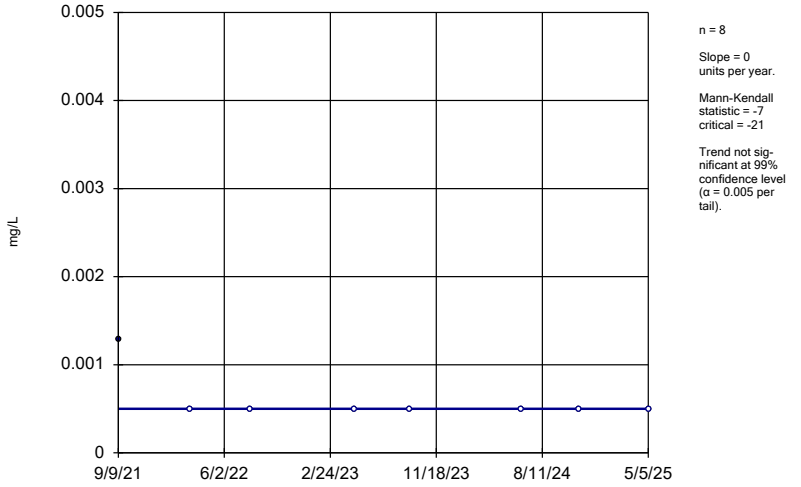


Constituent: Nickel Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

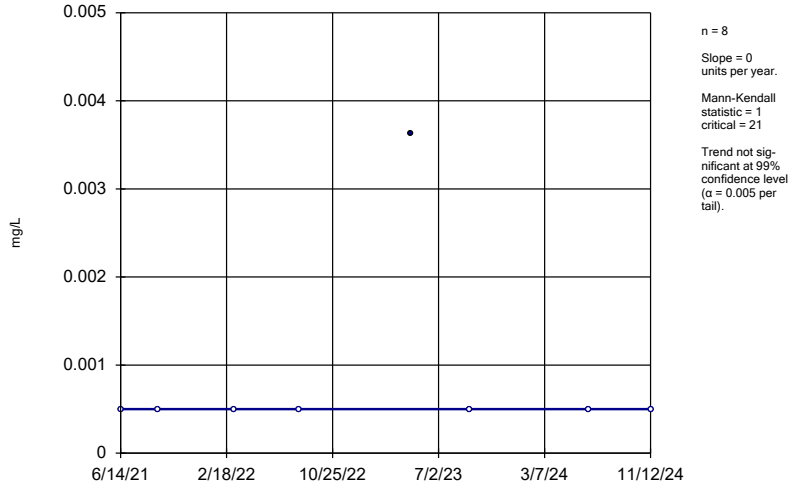


Constituent: Thallium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

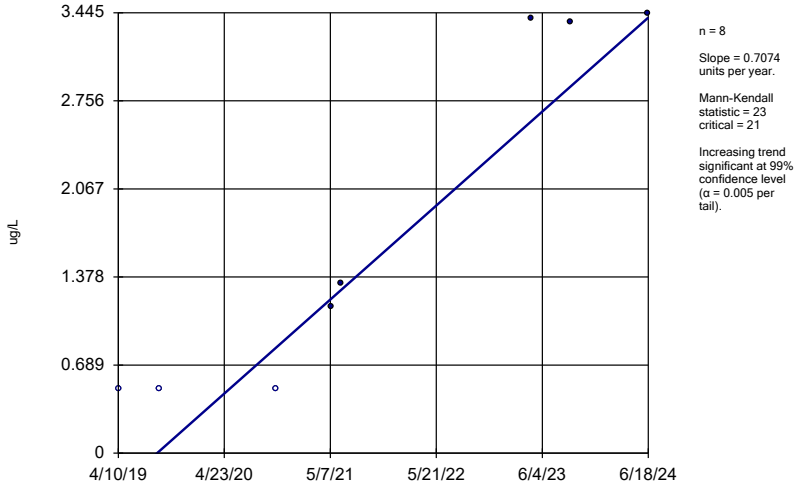


Constituent: Thallium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

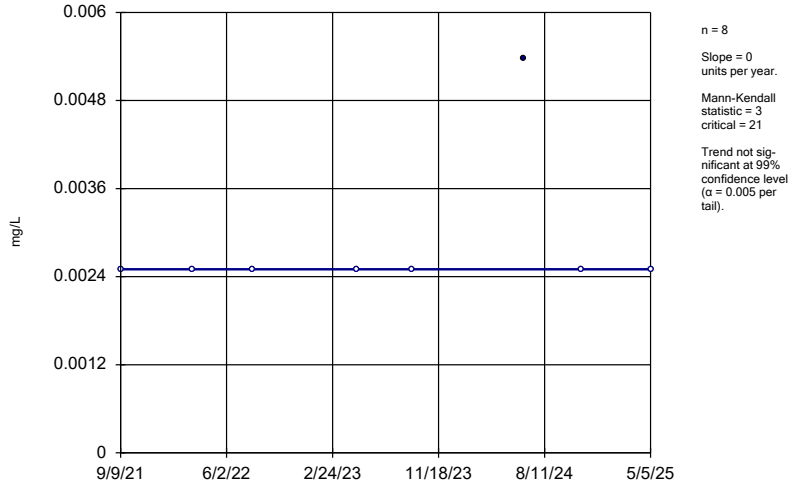


Constituent: Trichloroethene Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

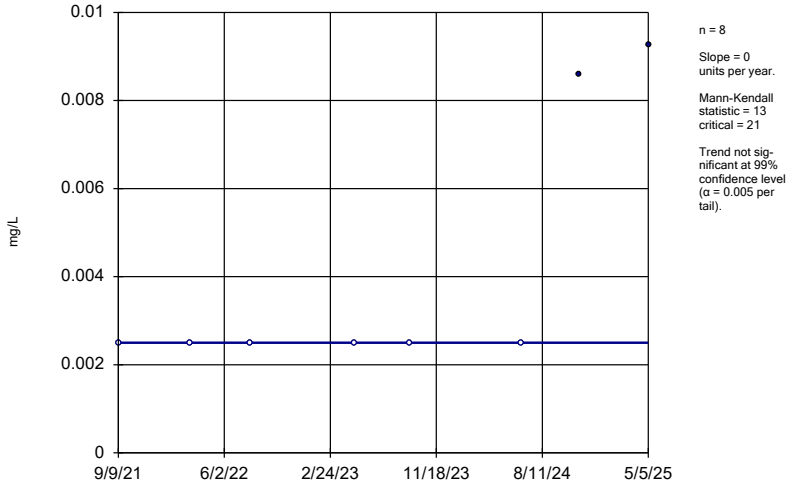


Constituent: Vanadium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

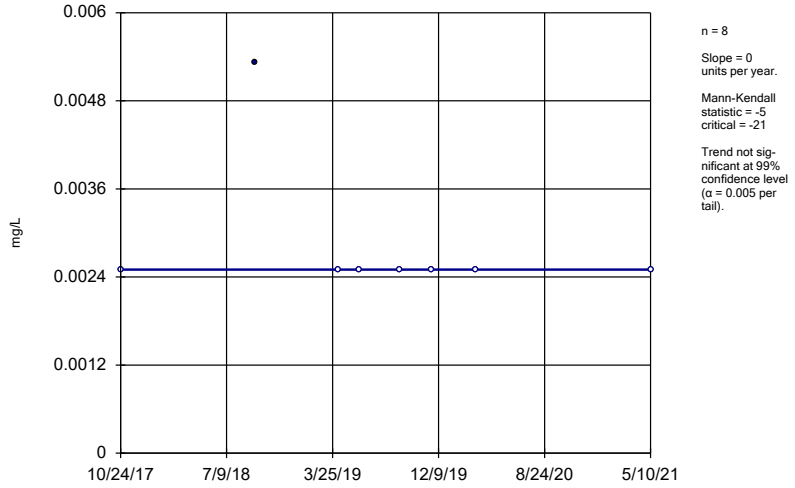


Constituent: Vanadium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

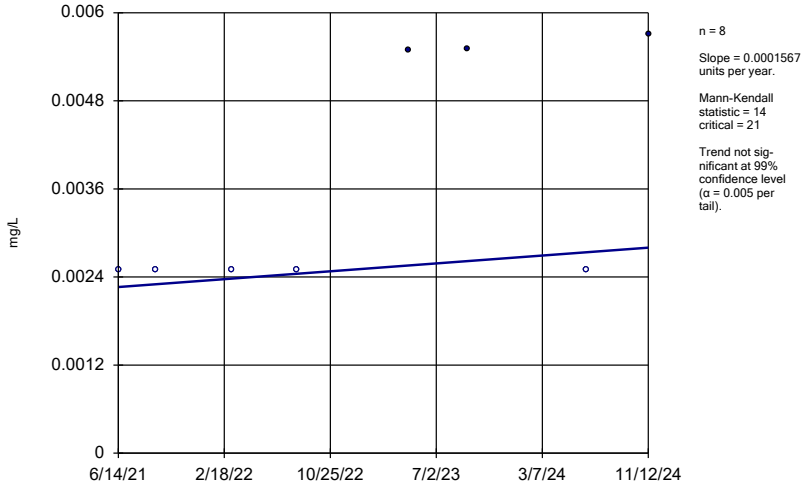


Constituent: Vanadium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

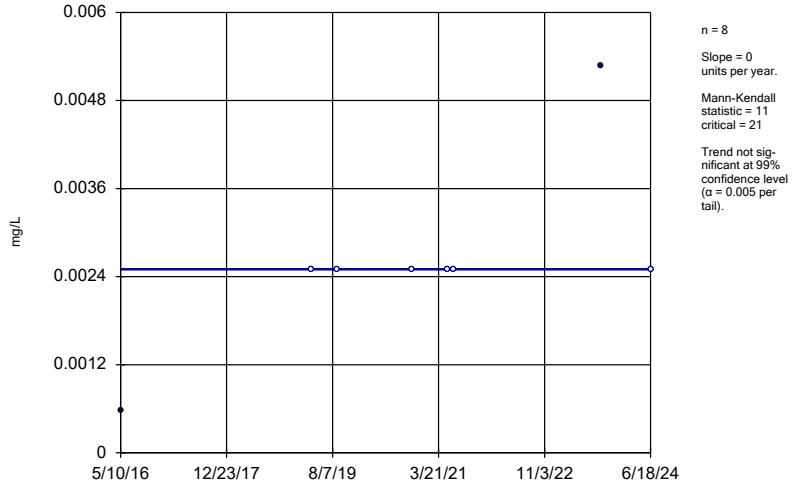


Constituent: Vanadium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

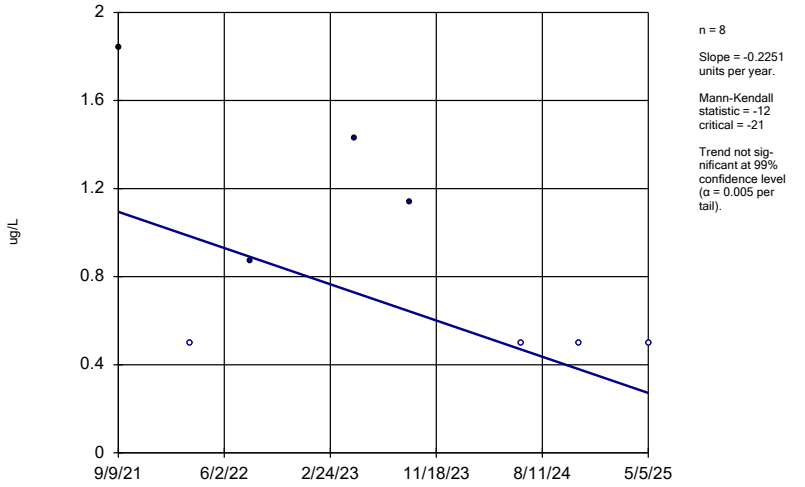


Constituent: Vanadium Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

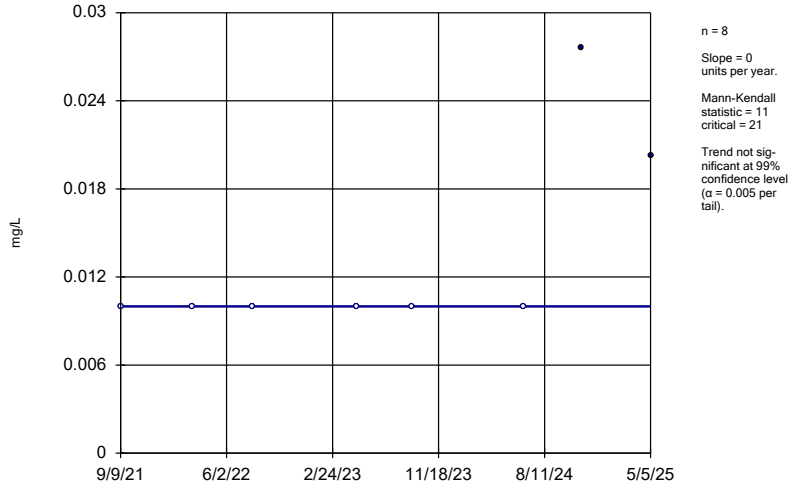


Constituent: Vinyl chloride Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

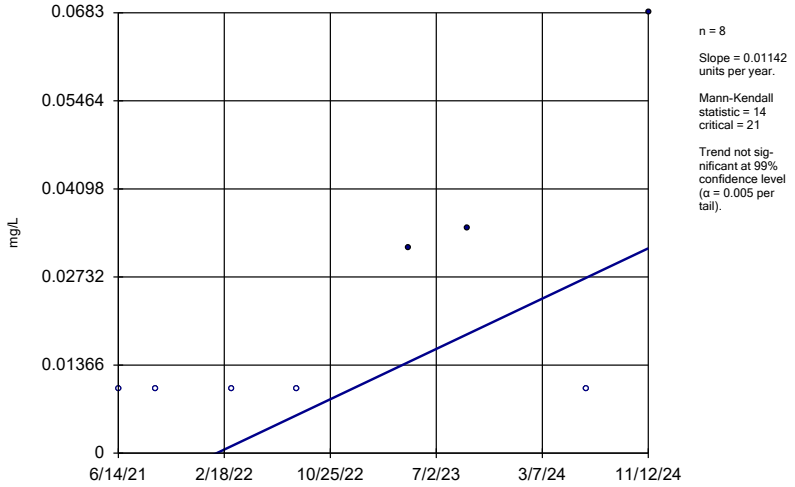


Constituent: Zinc Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Sanitas™ v.10.1.01 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



Constituent: Zinc Analysis Run 10/15/2025 8:45 AM View: 2025_SSN-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Confidence Interval Table and Graphs

Confidence Interval

Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio Printed 10/7/2025, 1:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-10R	2.155	1.31	140	No	8	0	No	0.01	Param.
1,2-Dichloropropane (ug/L)	MW-27R	1.21	0.5	5	No	8	87.5	No	0.004	NP (NDs)
1,4-Dichlorobenzene (ug/L)	MW-11R	1.512	0.8333	75	No	8	12.5	No	0.01	Param.
Acetone (ug/L)	MW-27R	21.5	5	6300	No	8	75	No	0.004	NP (NDs)
Antimony (mg/L)	MW-7	0.00227	0.001	0.006	No	8	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	MW-27R	0.00195	0.0005	0.006	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-11R	0.007965	0.0009795	0.01	No	8	12.5	No	0.01	Param.
Arsenic (mg/L)	MW-25	0.0022	0.0005	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	**MW-26R**	**0.572**	**0.0276**	**0.01**	**Yes**	**8**	**0**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	MW-27R	0.01414	0.001305	0.01	No	8	25	No	0.01	Param.
Barium (mg/L)	MW-7	0.6937	0.3235	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-8R	0.4837	0.3876	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10R	0.5814	0.5046	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-11R	0.7749	0.5716	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-25	0.5668	0.4342	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-26R	1.081	0.6311	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-27R	0.7545	0.0799	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-28	1.797	1.603	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-7	0.587	0.25	5	No	8	75	No	0.004	NP (NDs)
Benzene (ug/L)	MW-11R	1.803	0.5865	5	No	8	25	No	0.01	Param.
Benzene (ug/L)	MW-26R	0.7719	0.5049	5	No	8	37.5	No	0.01	Param.
Benzene (ug/L)	MW-28	0.883	0.4505	5	No	8	37.5	No	0.01	Param.
beta-BHC (ug/L)	MW-28	0.0644	0.0165	0.042	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-7	0.00061	0.00005	0.005	No	8	75	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-8R	0.000261	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-10R	0.000678	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-11R	0.000221	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-26R	0.000884	0.00005	0.005	No	8	62.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-27R	0.000291	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-28	0.00107	0.00005	0.005	No	8	25	No	0.004	NP (normality)
Carbon disulfide (ug/L)	MW-27R	1.18	0.5	700	No	8	62.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-27R	2.239	0.7184	100	No	8	37.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-7	8.657	5.005	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-8R	8.378	4.279	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-10R	11.94	8.723	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-11R	1.925	1.214	70	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.000786	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-8R	0.000829	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-11R	0.0149	0.000775	0.0021	No	8	0	No	0.004	NP (normality)
Cobalt (mg/L)	**MW-26R**	**0.007209**	**0.004854**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-27R**	**0.01554**	**0.005984**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-28**	**0.009771**	**0.003614**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Copper (mg/L)	MW-8R	0.00626	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-11R	0.00695	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-25	0.0025	0.001	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-26R	0.0088	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-7	0.0007	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-8R	0.00121	0.00025	0.015	No	8	62.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-10R	0.00078	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-11R	0.00332	0.00025	0.015	No	8	75	No	0.004	NP (NDs)

Confidence Interval

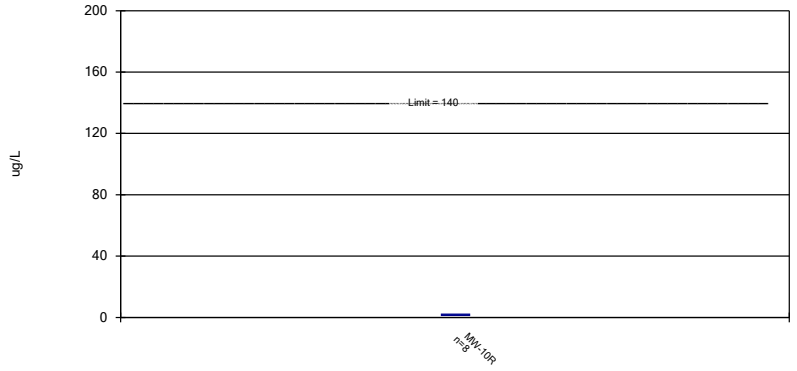
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio Printed 10/7/2025, 1:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	MW-25	0.0123	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-26R	0.00675	0.00025	0.015	No	8	62.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-27R	0.001578	0.000339	0.015	No	8	25	No	0.01	Param.
Mercury (mg/L)	MW-8R	0.0005888	0.00007388	0.002	No	6	33.33	No	0.01	Param.
Nickel (mg/L)	MW-8R	0.009703	0.004364	0.1	No	8	37.5	No	0.01	Param.
Nickel (mg/L)	MW-11R	0.02908	0.001113	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-26R	0.01906	0.007519	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-27R	0.02294	0.00956	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-28	0.06567	0.03095	0.1	No	8	0	No	0.01	Param.
Thallium (mg/L)	MW-7	0.00129	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
Thallium (mg/L)	MW-26R	0.00363	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-8R	0.00538	0.0025	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-11R	0.00925	0.0025	0.035	No	8	75	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-25	0.00533	0.0025	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-26R	0.00571	0.0025	0.035	No	8	62.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-27R	0.00528	0.000571	0.035	No	8	75	No	0.004	NP (NDs)
Vinyl chloride (ug/L)	MW-11R	1.455	0.7351	2	No	8	50	No	0.01	Param.
Zinc (mg/L)	MW-11R	0.0276	0.01	2	No	8	75	No	0.004	NP (NDs)
Zinc (mg/L)	MW-26R	0.0683	0.01	2	No	8	62.5	No	0.004	NP (NDs)

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

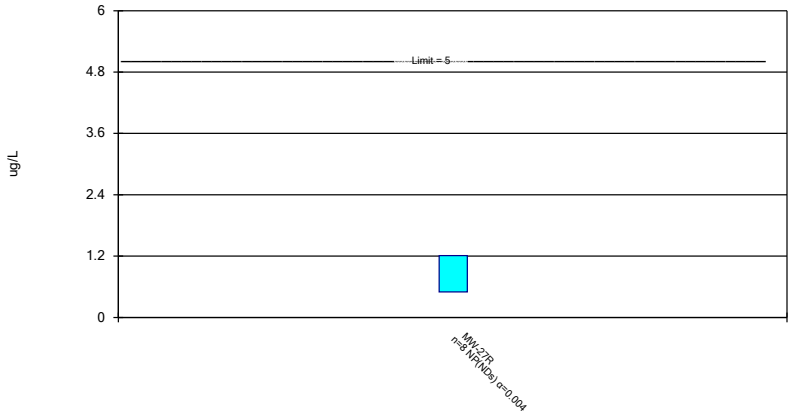


Constituent: 1,1-Dichloroethane Analysis Run 10/7/2025 12:54 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

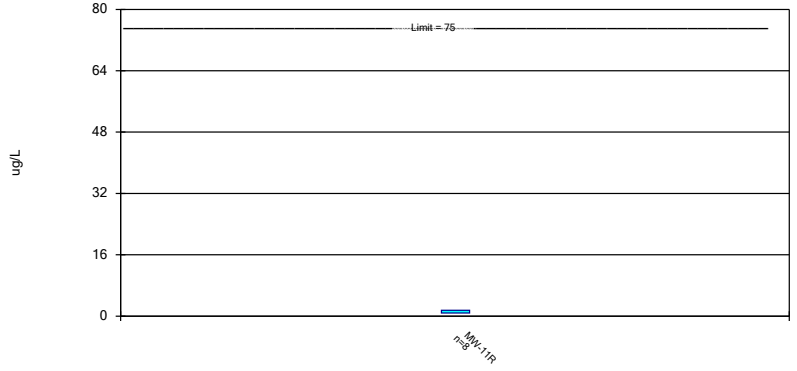


Constituent: 1,2-Dichloropropane Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interva
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

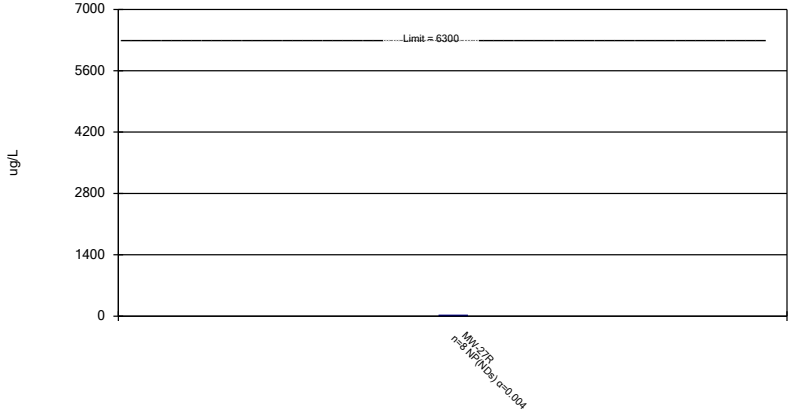


Constituent: 1,4-Dichlorobenzene Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interv
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

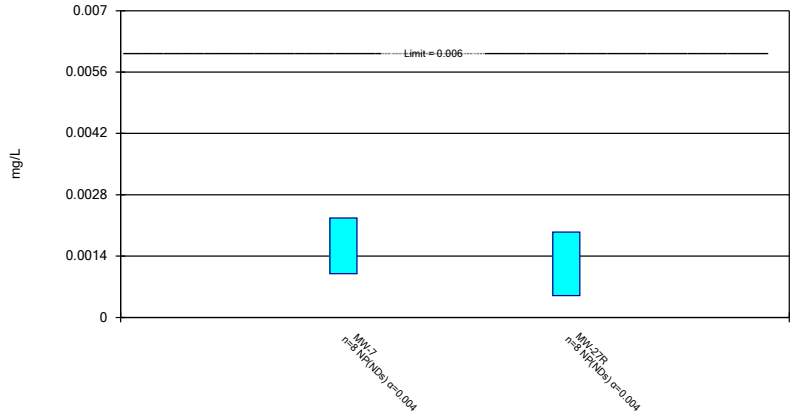


Constituent: Acetone Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

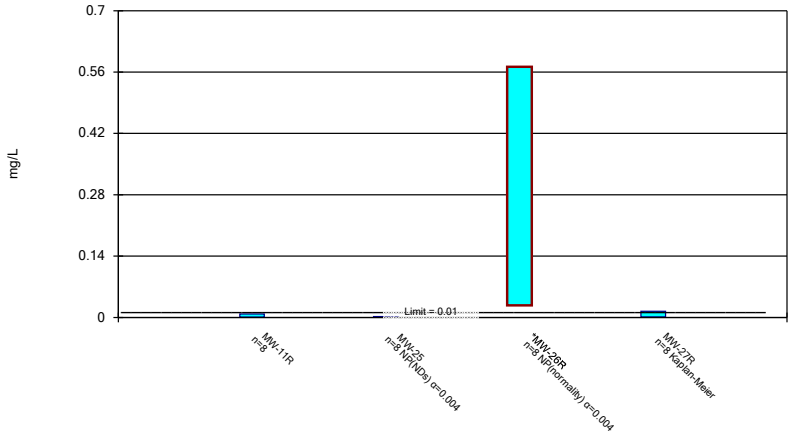


Constituent: Antimony Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

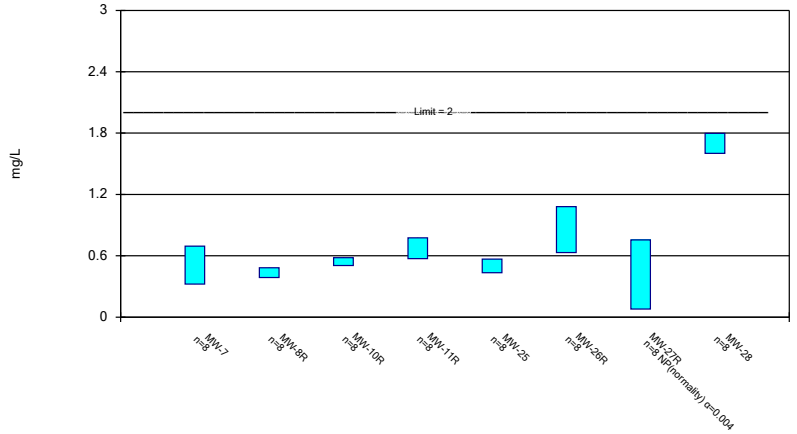


Constituent: Arsenic Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

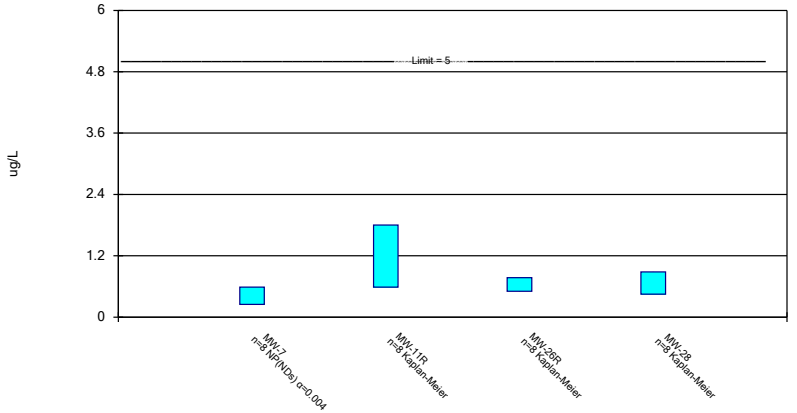


Constituent: Barium Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

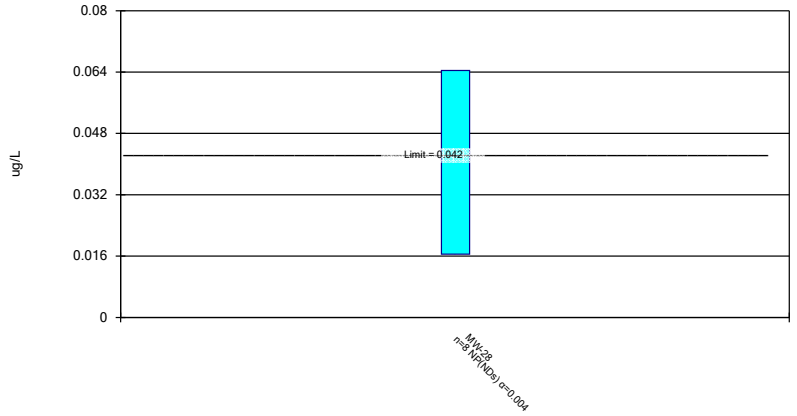


Constituent: Benzene Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

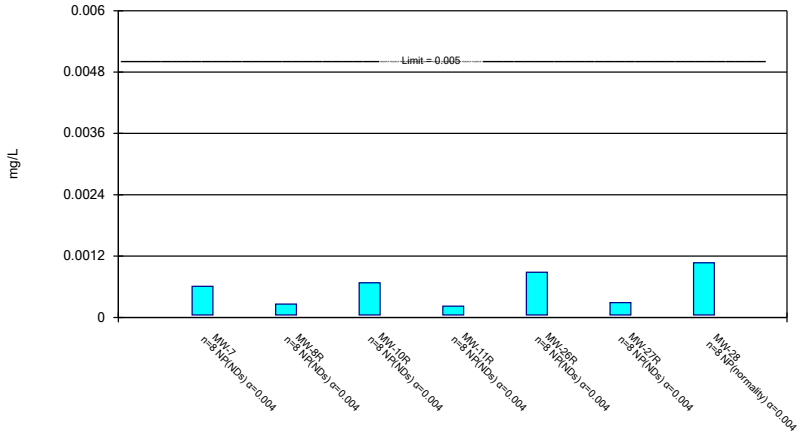


Constituent: beta-BHC Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

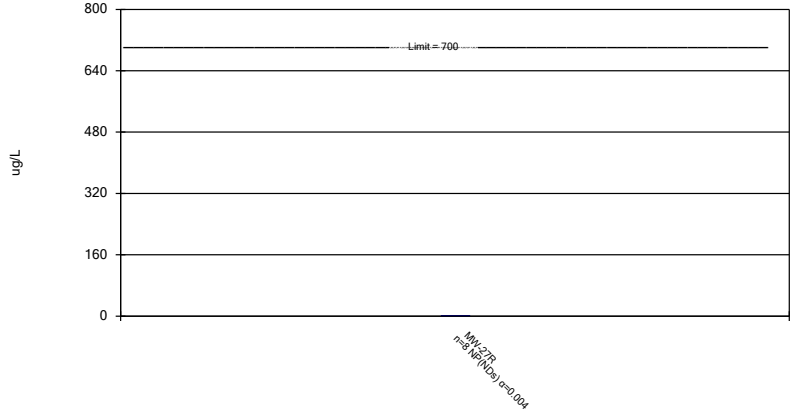


Constituent: Cadmium Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

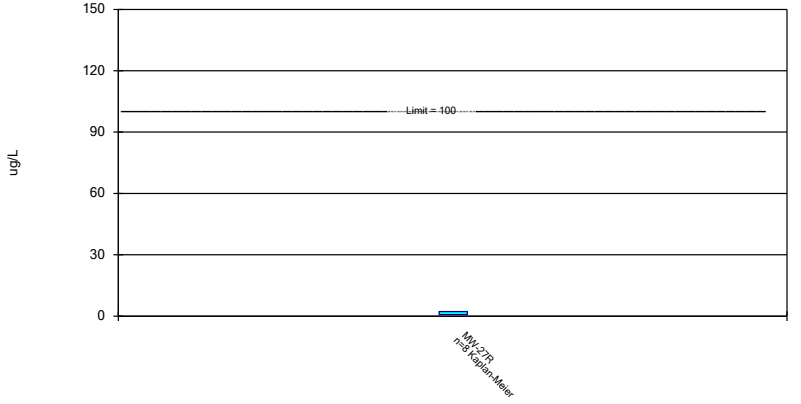


Constituent: Carbon disulfide Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

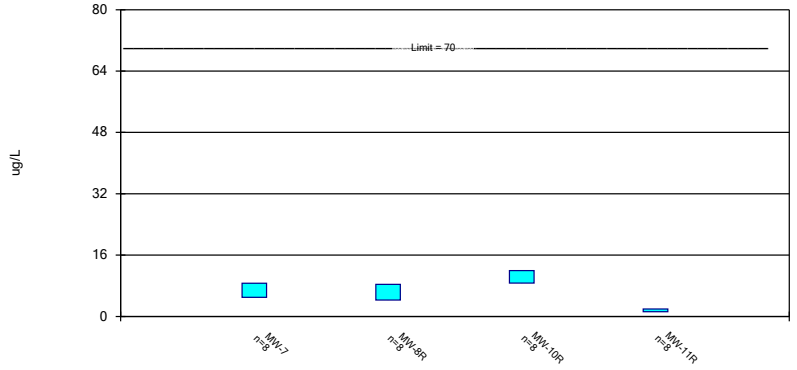


Constituent: Chlorobenzene Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

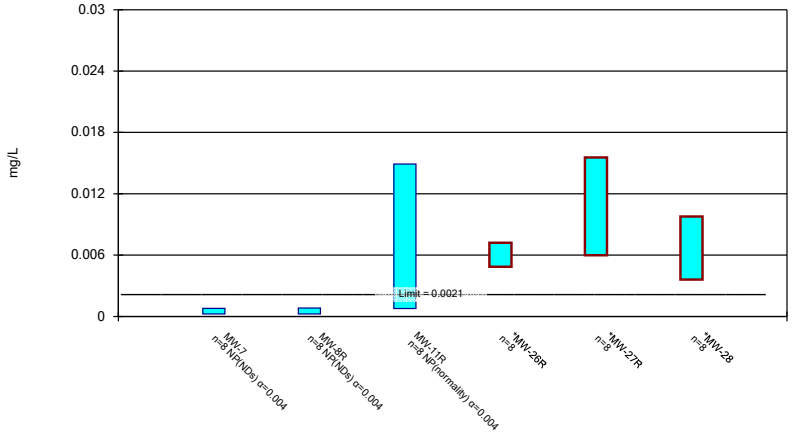


Constituent: cis-1,2-Dichloroethene Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Inter
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

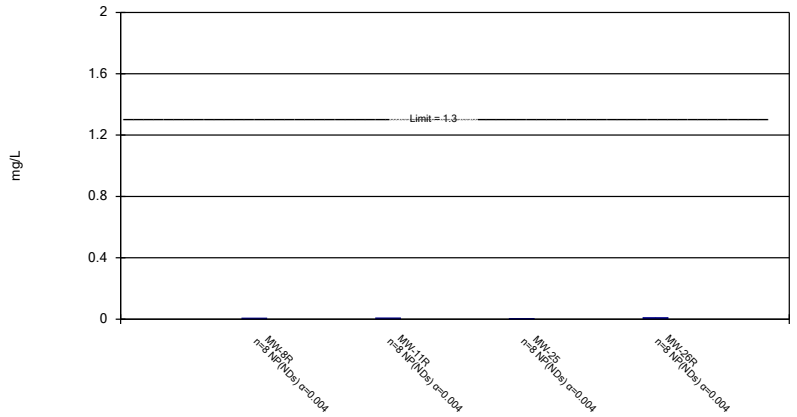


Constituent: Cobalt Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

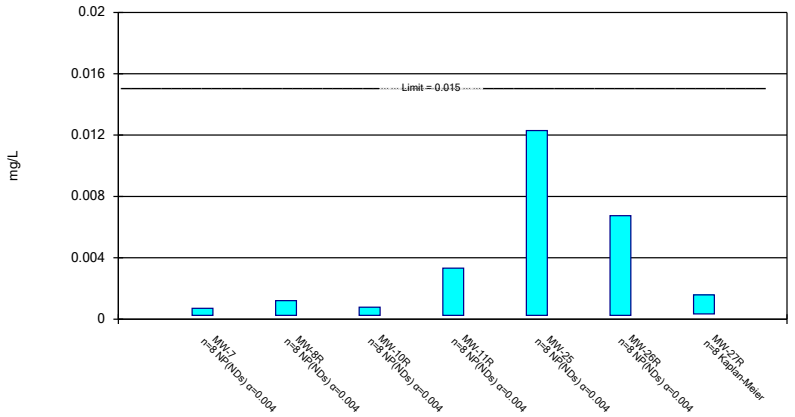


Constituent: Copper Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

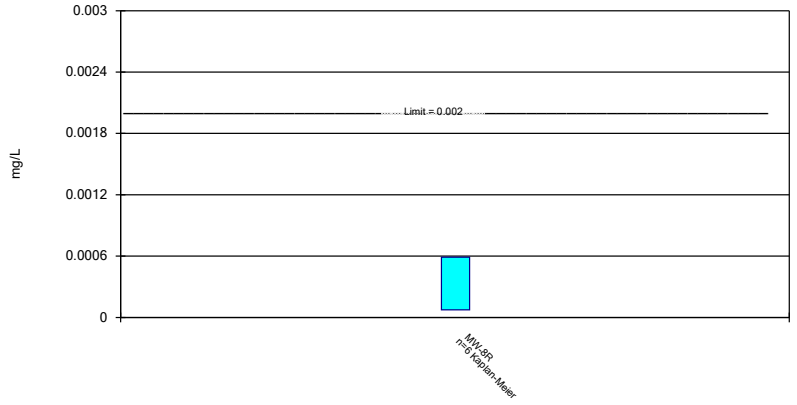


Constituent: Lead Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

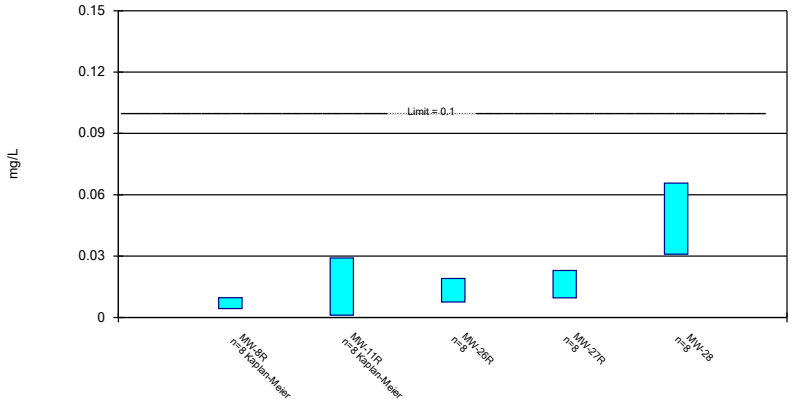


Constituent: Mercury Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

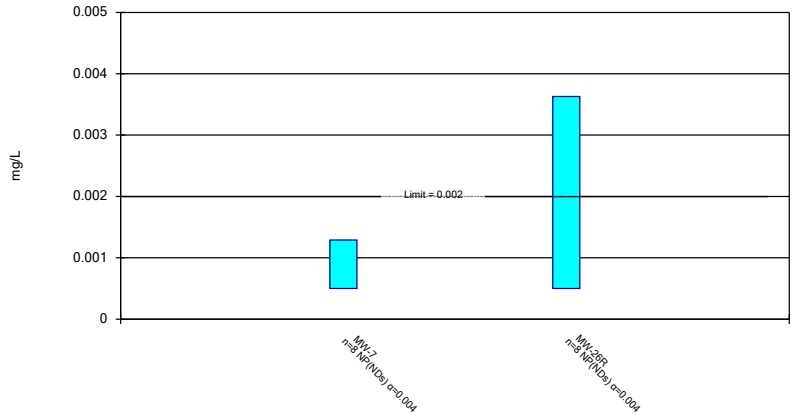


Constituent: Nickel Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

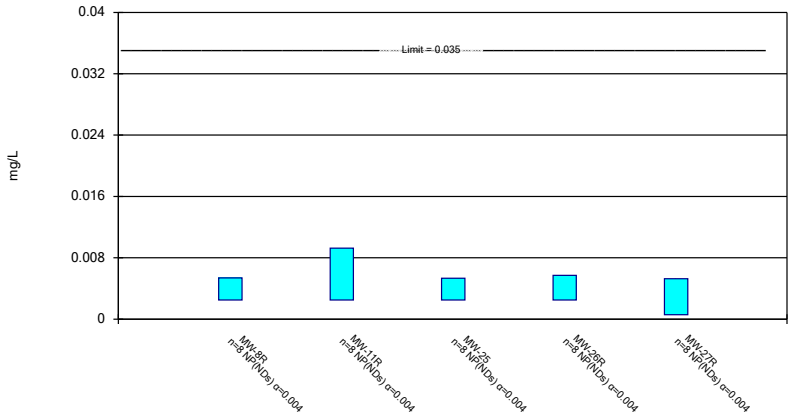


Constituent: Thallium Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

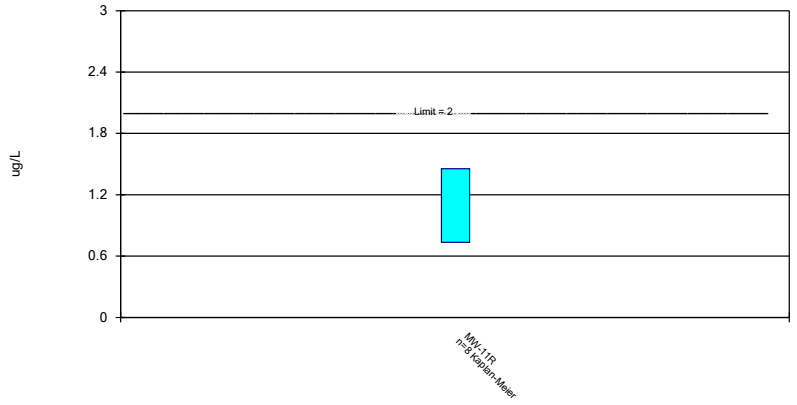


Constituent: Vanadium Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

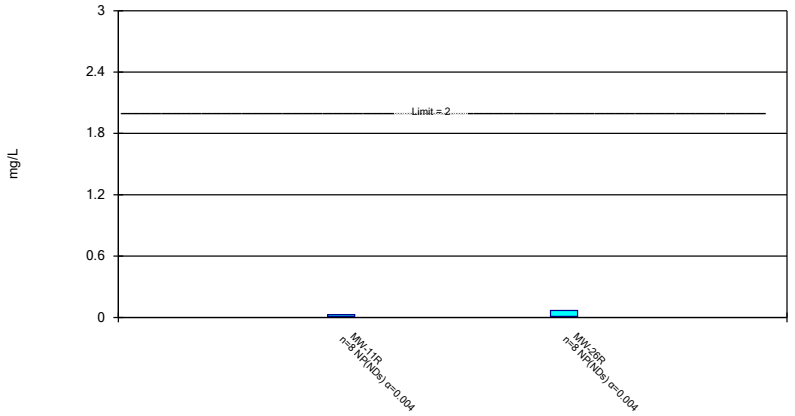


Constituent: Vinyl chloride Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Zinc Analysis Run 10/7/2025 12:55 PM View: 2025_SSN-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

Thiel Sen Trend Table and Graphs

Theil Sen/Trend Test

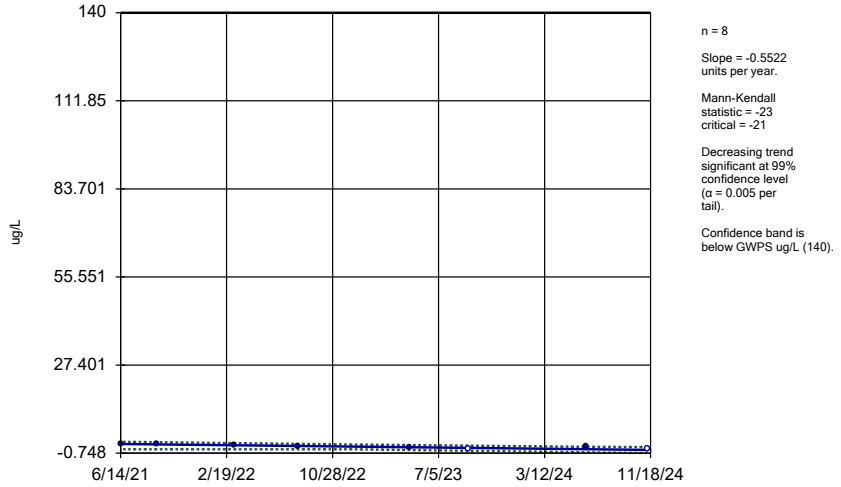
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio Printed 10/7/2025, 1:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	**MW-26R**	**-0.5522**	**-23**	**-21**	**Yes**	**8**	**25**	**0.01**	**NP**
1,1-Dichloroethane (ug/L)	**MW-27R**	**0.619**	**23**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**MW-26R**	**-11.99**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**MW-27R**	**7.549**	**25**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**
Trichloroethene (ug/L)	**MW-27R**	**0.7074**	**23**	**21**	**Yes**	**8**	**37.5**	**0.01**	**NP**

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Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-26R



n = 8

Slope = -0.5522 units per year.

Mann-Kendall statistic = -23
critical = -21

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

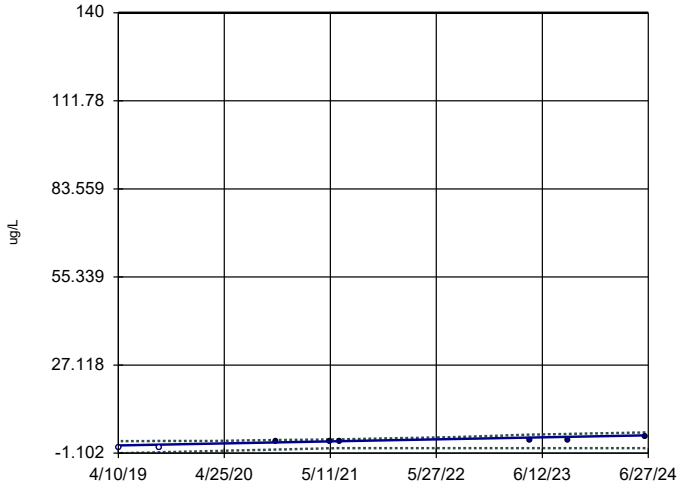
Confidence band is below GWPS ug/L (140).

Constituent: 1,1-Dichloroethane Analysis Run 10/7/2025 1:22 PM View: 2025_SSN-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-27R



n = 8

Slope = 0.619 units per year.

Mann-Kendall statistic = 23
critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

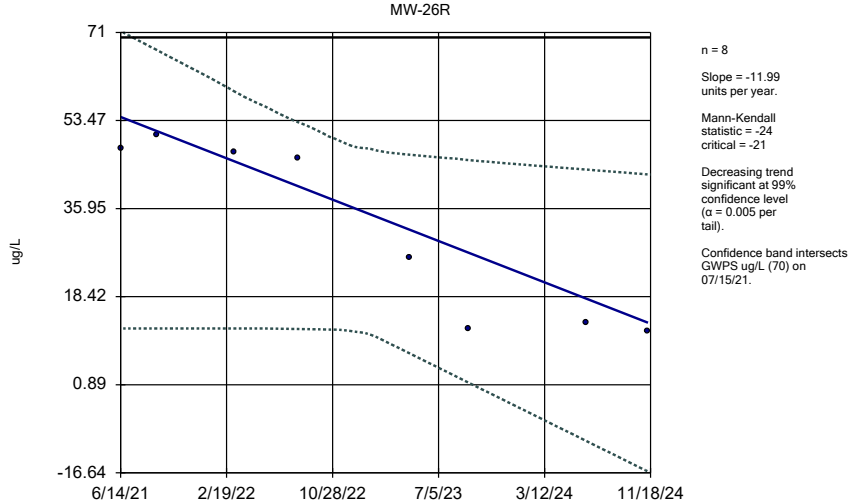
Confidence band is below GWPS ug/L (140).

Constituent: 1,1-Dichloroethane Analysis Run 10/7/2025 1:22 PM View: 2025_SSN-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Sen's Slope and 99% Confidence Band

MW-26R



n = 8

Slope = -11.99 units per year.

Mann-Kendall statistic = -24
critical = -21

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

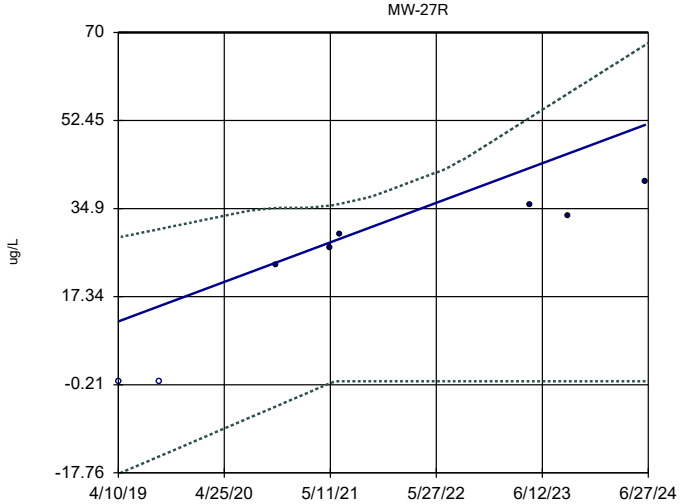
Confidence band intersects GWPS ug/L (70) on 07/15/21.

Constituent: cis-1,2-Dichloroethene Analysis Run 10/7/2025 1:22 PM View: 2025_SSN-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-27R



n = 8

Slope = 7.549 units per year.

Mann-Kendall statistic = 25
critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

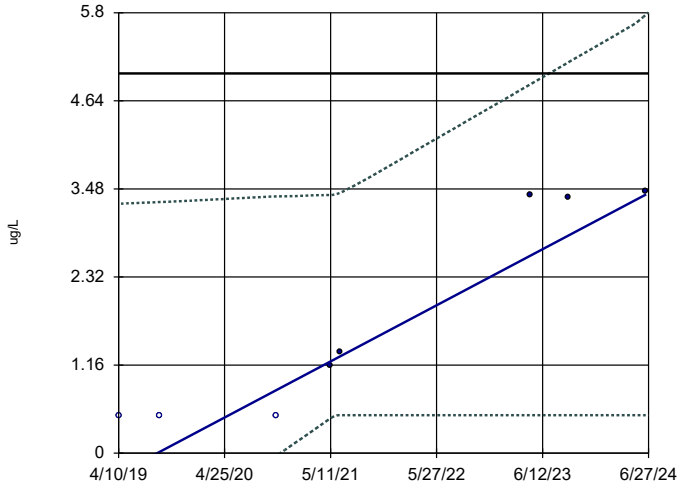
Confidence band is below GWPS ug/L (70).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/7/2025 1:22 PM View: 2025_SSN-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

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Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-27R



n = 8

Slope = 0.7074 units per year.

Mann-Kendall statistic = 23 critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Confidence band intersects GWPS ug/L (5) on 07/22/23.

Constituent: Trichloroethene Analysis Run 10/7/2025 1:22 PM View: 2025_SSN-Theil_Sen

Loess Hills SLF Client: SCS Engineers Data: IWLHS_AM_2025_SSN R Studio

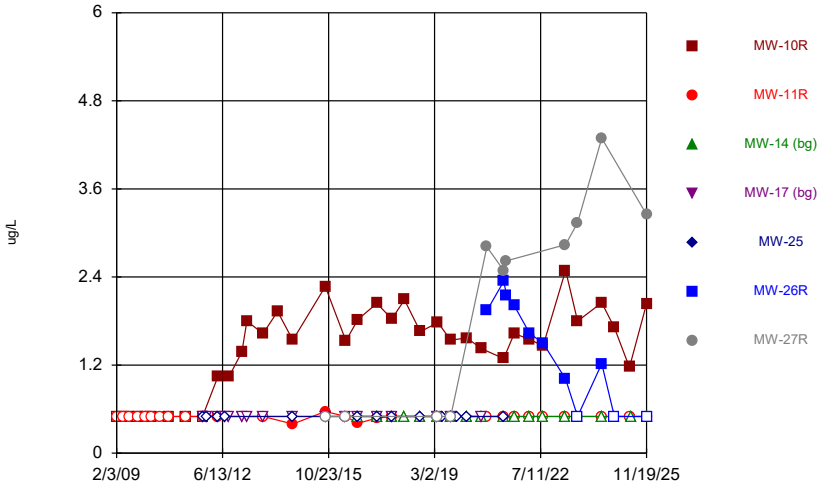
Attachment B

2nd 2025 Semi-Annual Statistical Output

Time Series Graphs

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

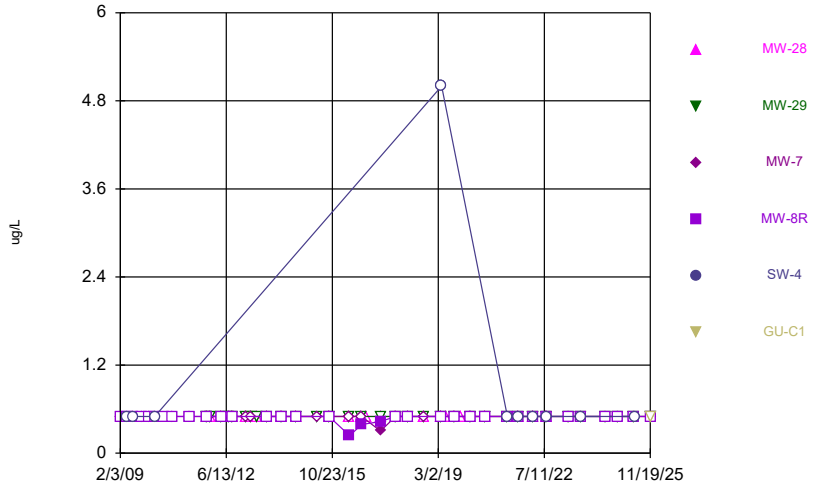
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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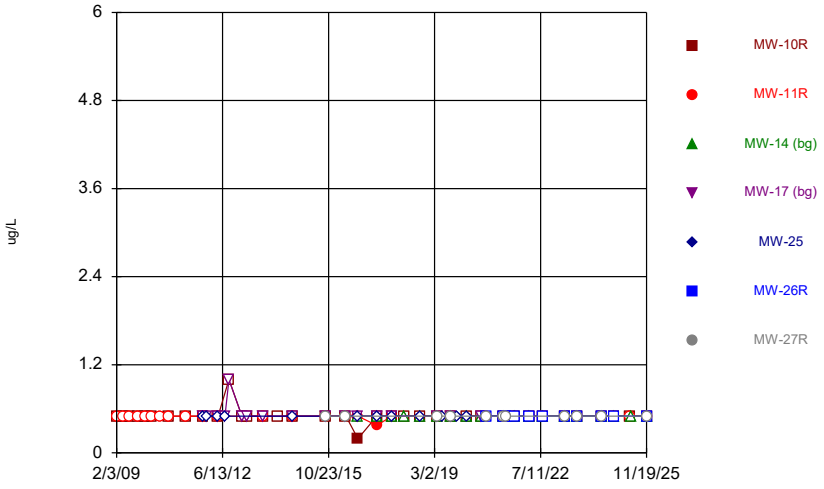
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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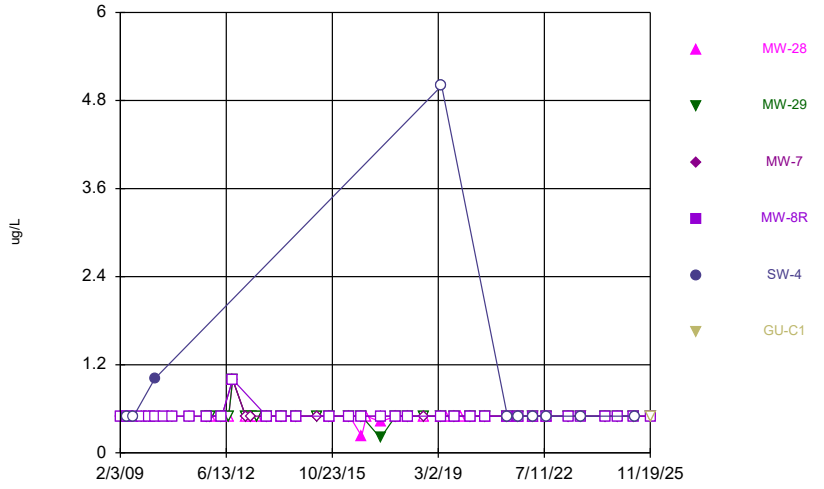
Time Series



Constituent: 1,2-Dichloroethane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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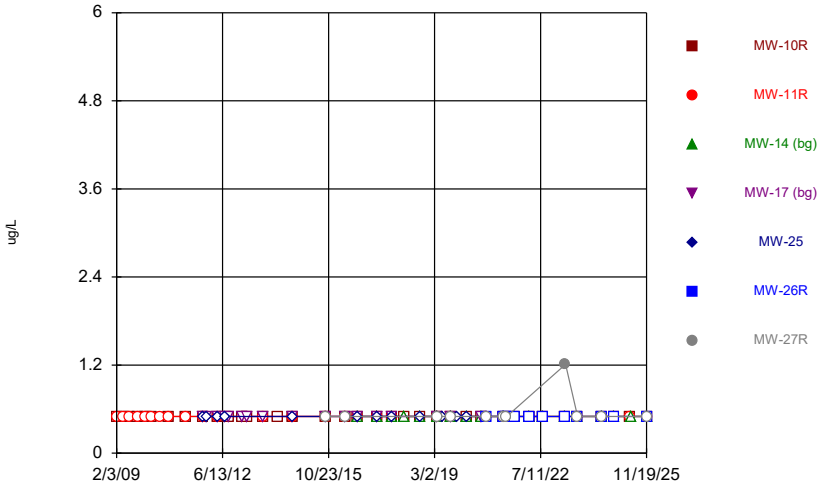
Time Series



Constituent: 1,2-Dichloroethane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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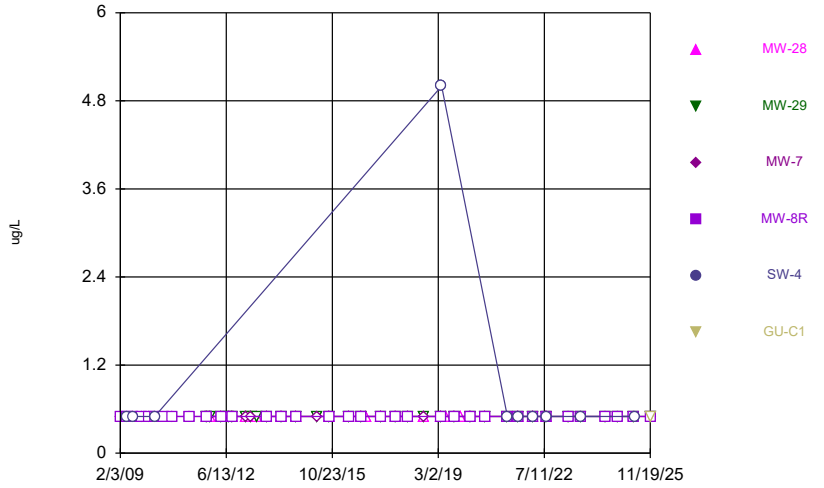
Time Series



Constituent: 1,2-Dichloropropane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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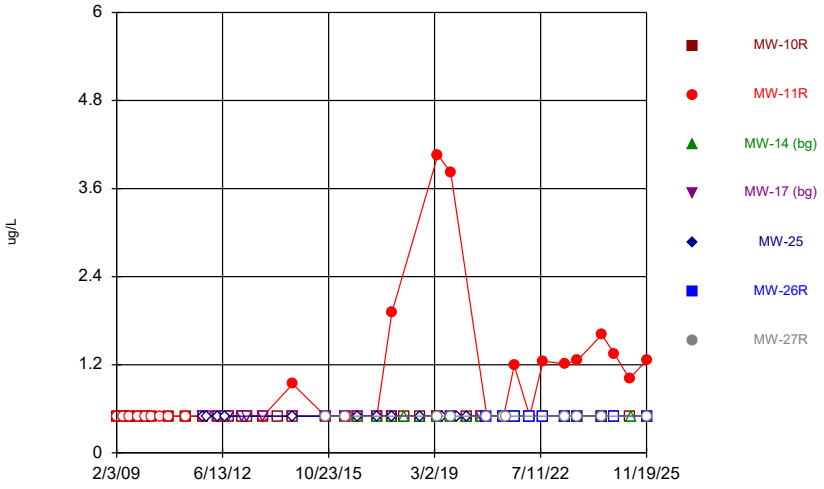
Time Series



Constituent: 1,2-Dichloropropane Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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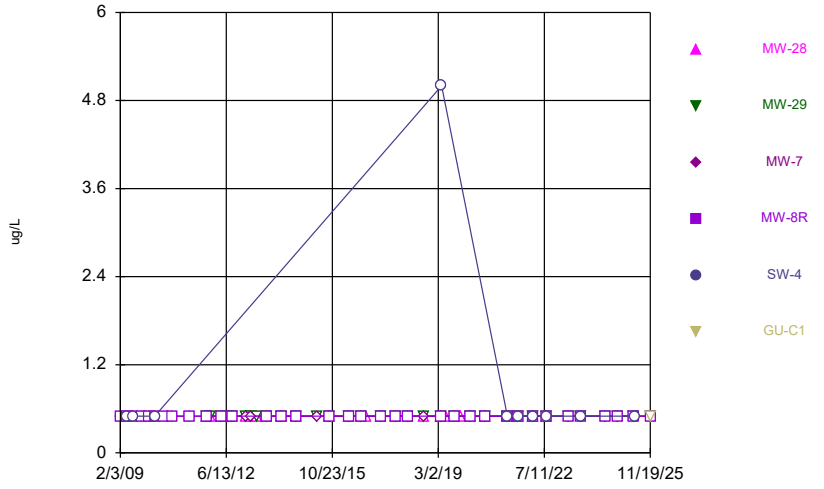
Time Series



Constituent: 1,4-Dichlorobenzene Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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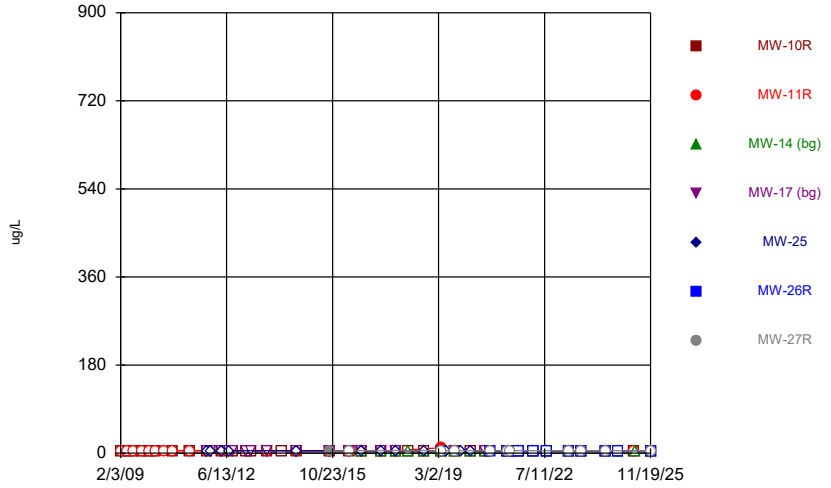
Time Series



Constituent: 1,4-Dichlorobenzene Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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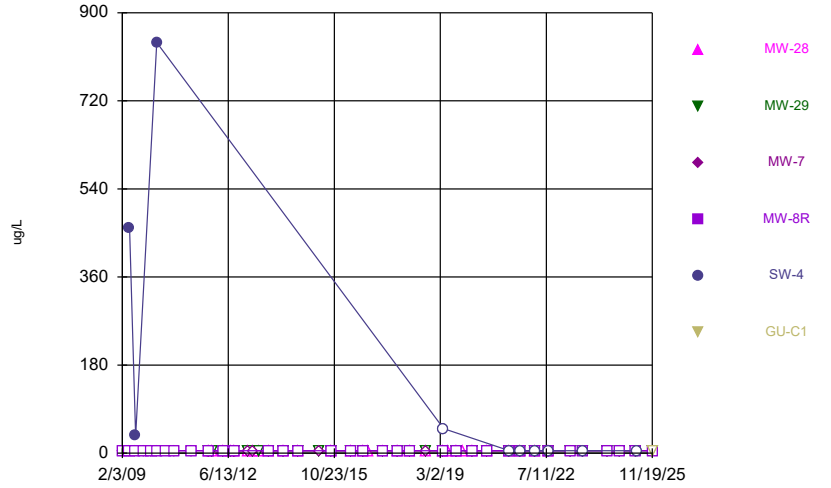
Time Series



Constituent: 2-Butanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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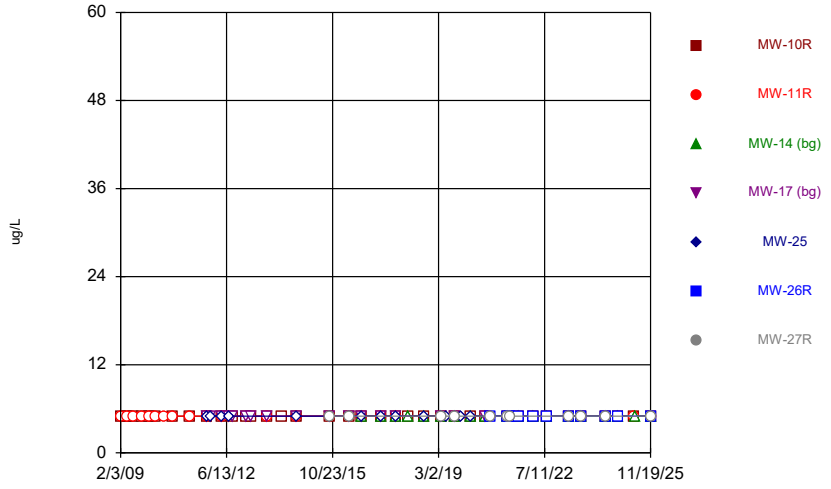
Time Series



Constituent: 2-Butanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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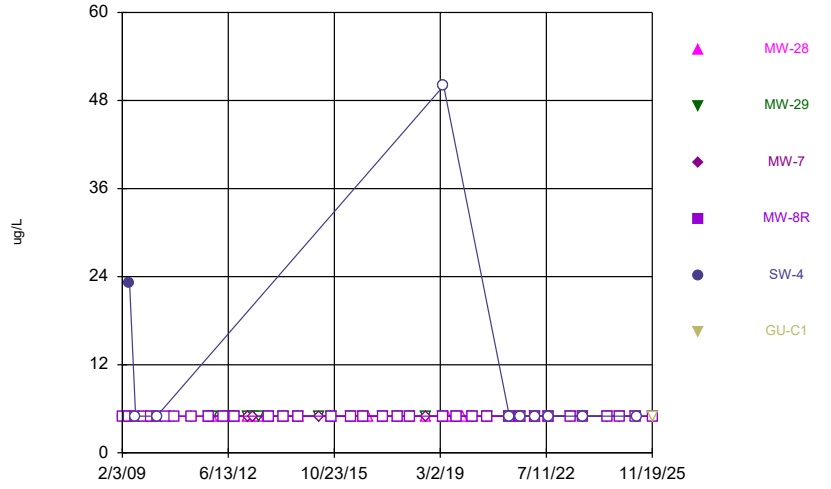
Time Series



Constituent: 2-Hexanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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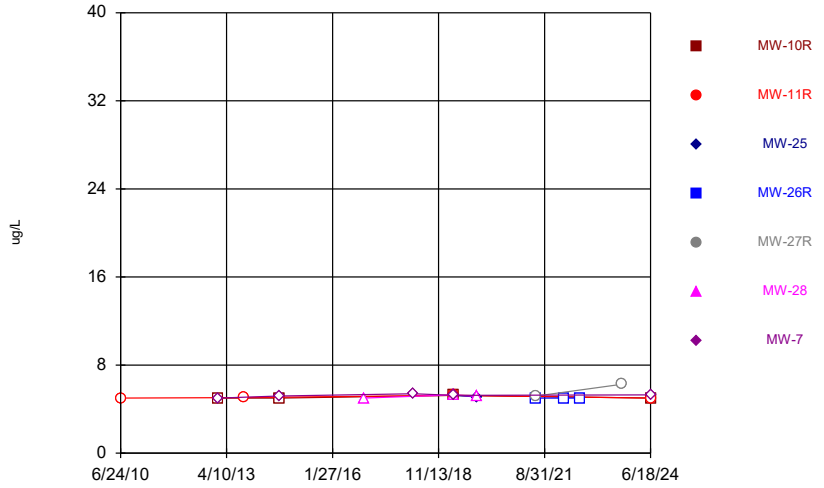
Time Series



Constituent: 2-Hexanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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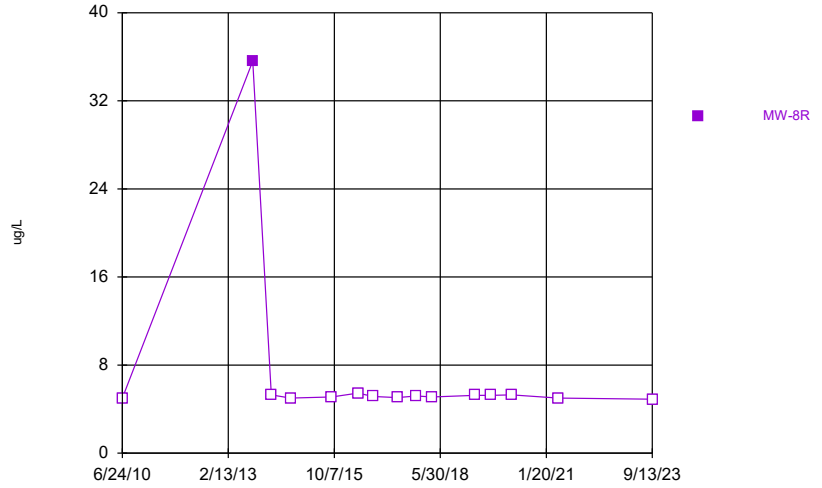
Time Series



Constituent: 3/4-Methylphenol Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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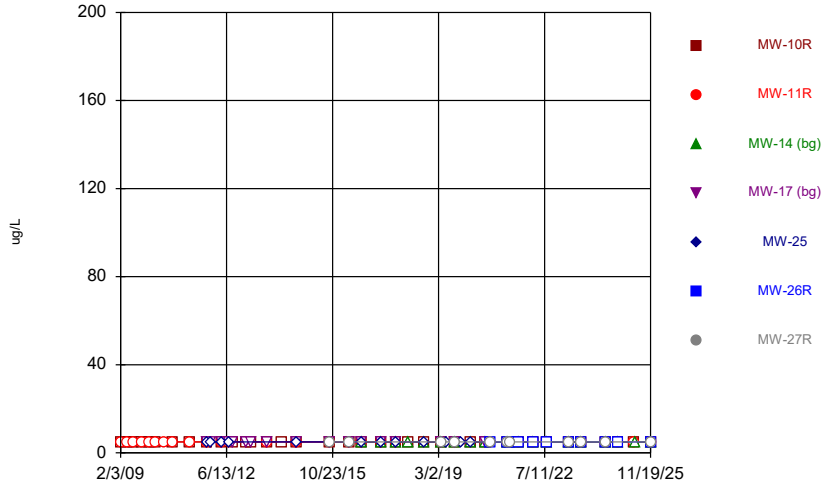
Time Series



Constituent: 3/4-Methylphenol Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

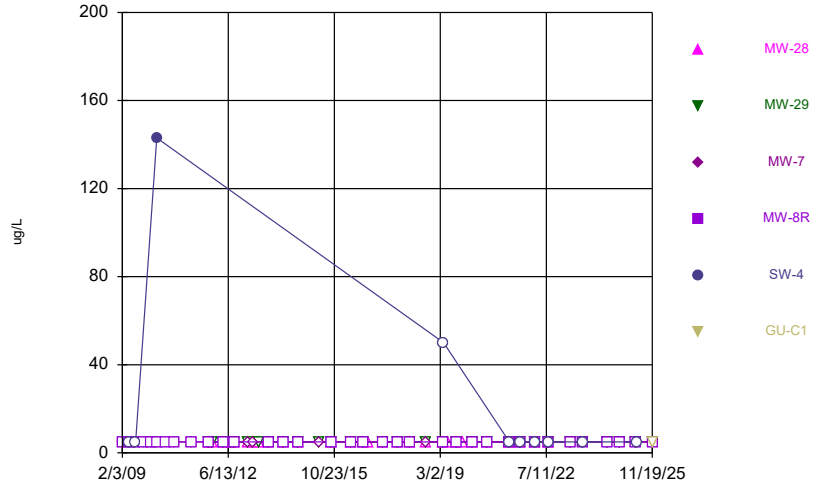
Time Series



Constituent: 4-Methyl-2-pentanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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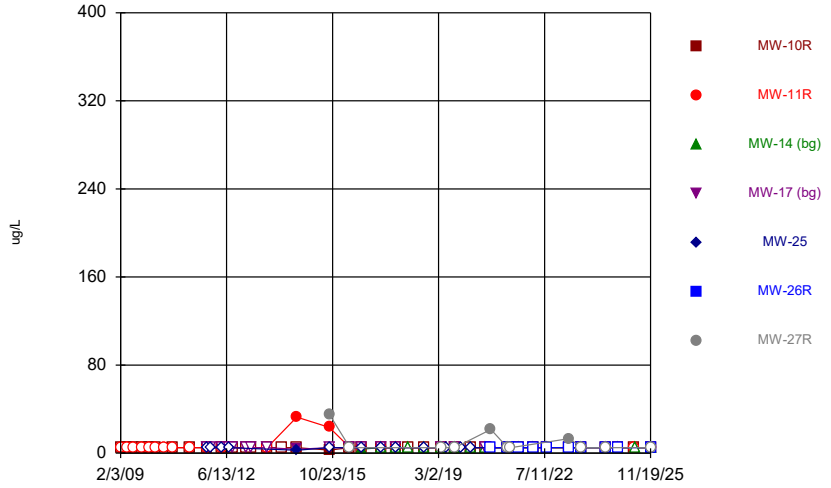
Time Series



Constituent: 4-Methyl-2-pentanone Analysis Run 1/9/2026 8:46 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

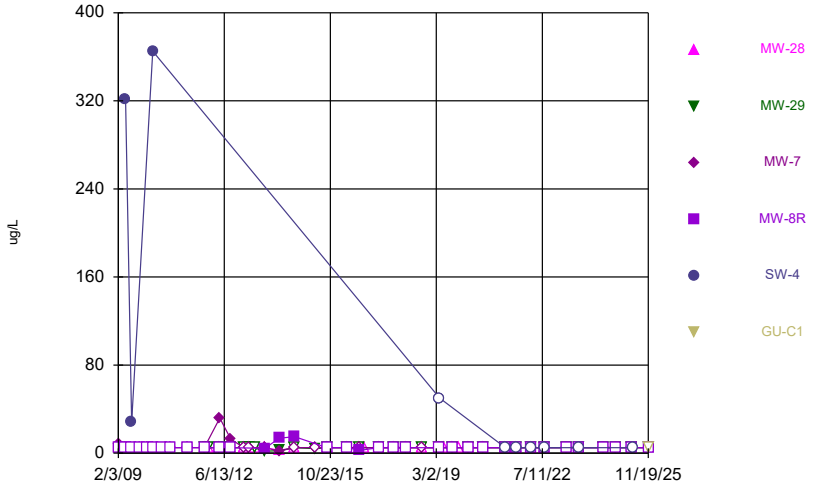
Time Series



Constituent: Acetone Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

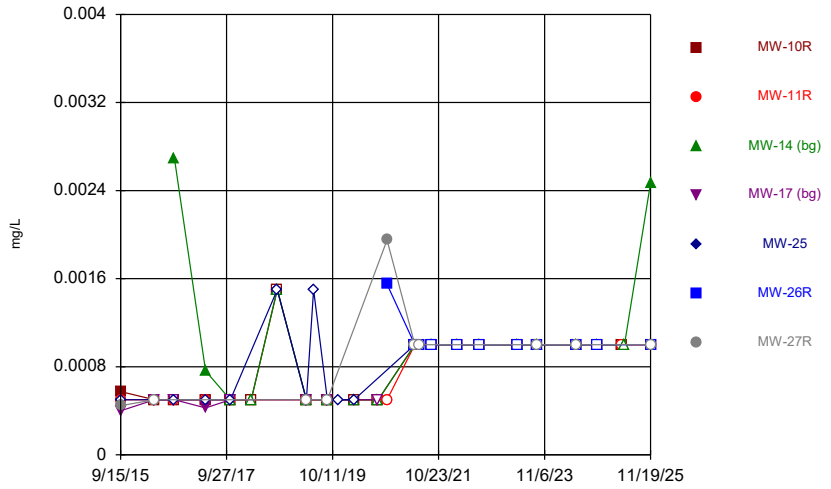
Time Series



Constituent: Acetone Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
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Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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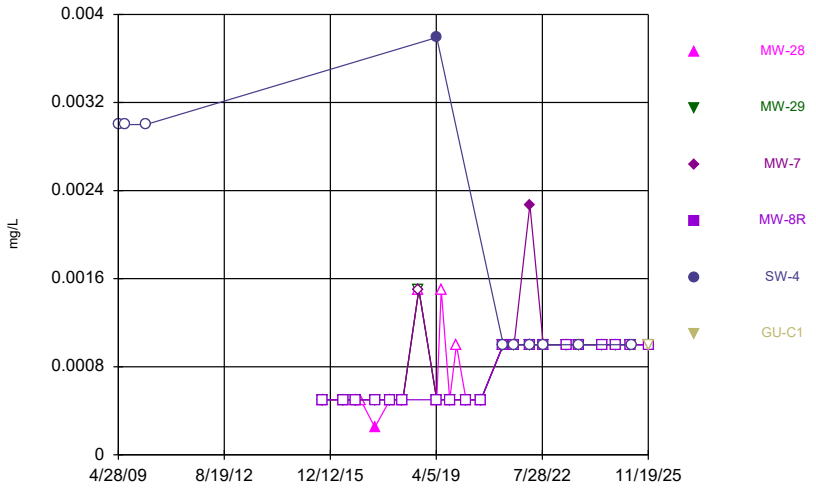
Time Series



Constituent: Antimony Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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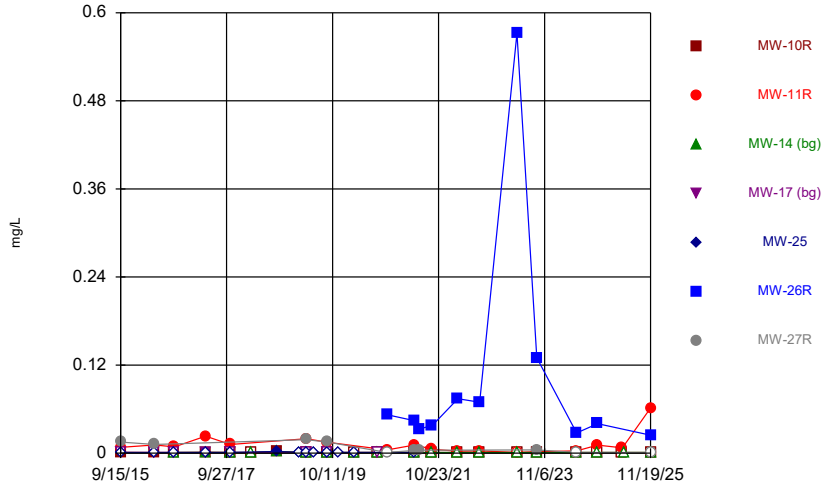
Time Series



Constituent: Antimony Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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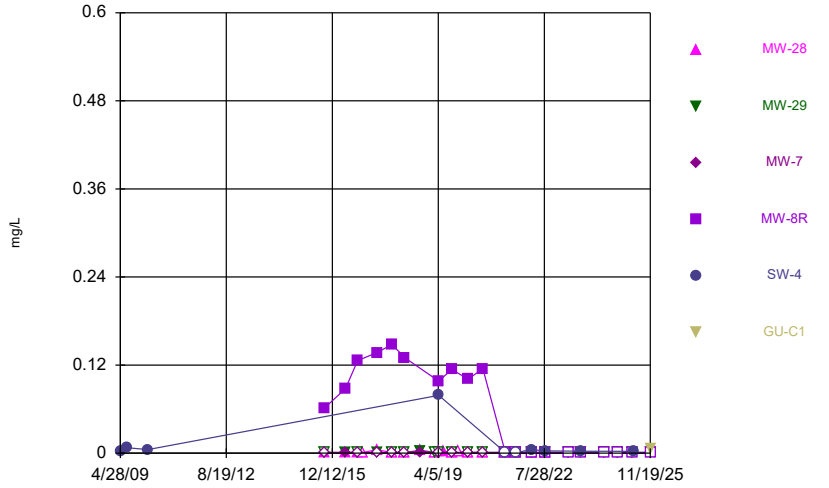
Time Series



Constituent: Arsenic Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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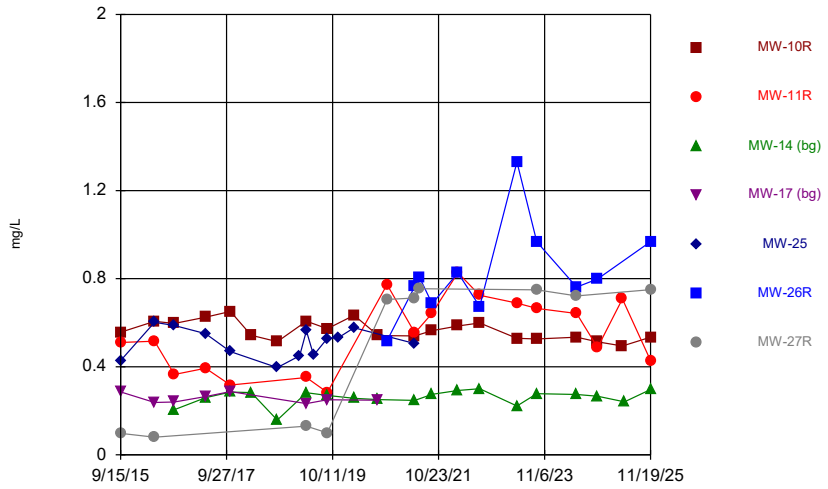
Time Series



Constituent: Arsenic Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG

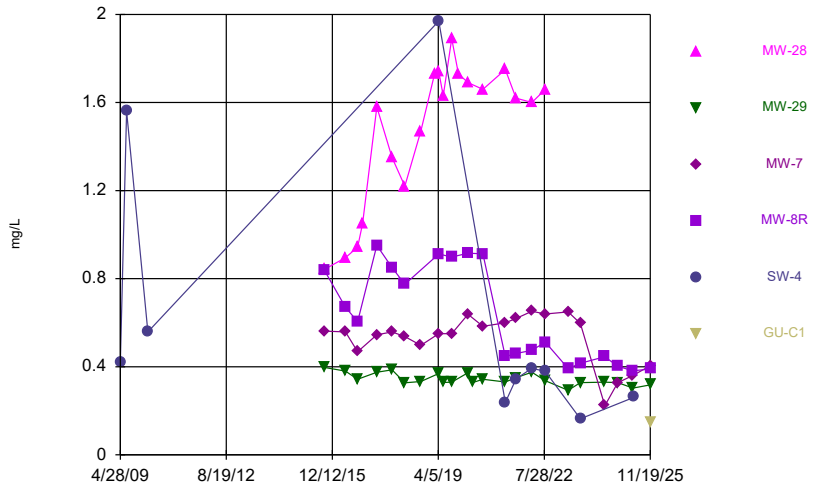
Time Series



Constituent: Barium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG

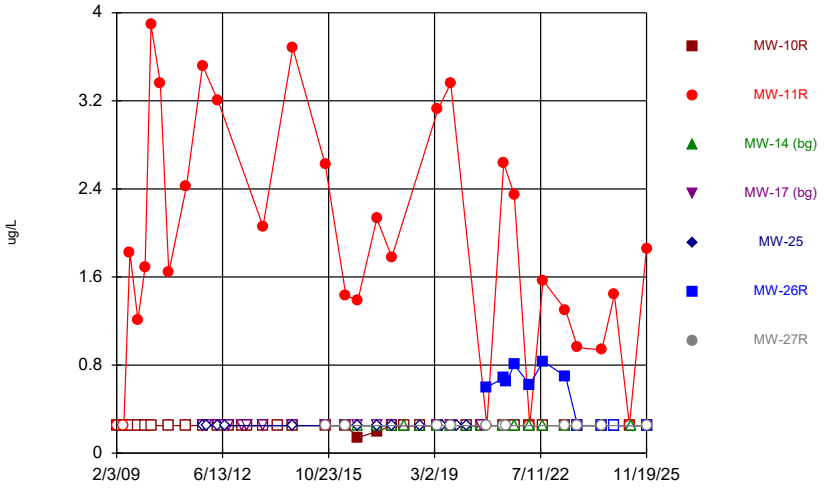
Time Series



Constituent: Barium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

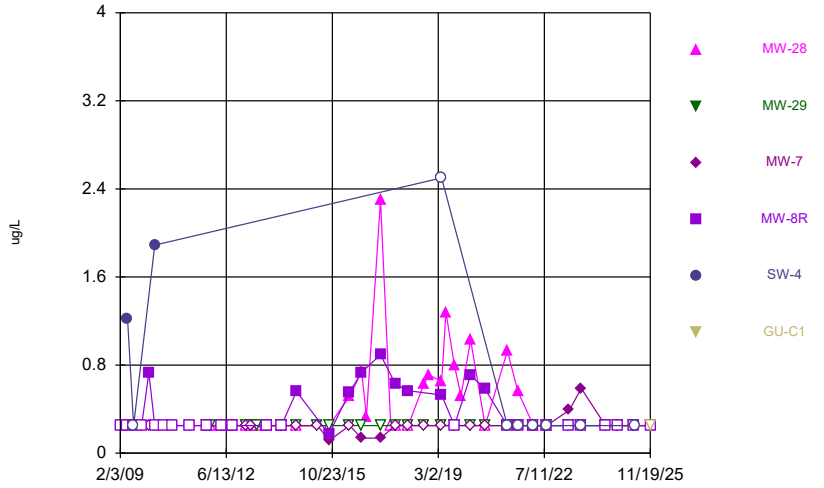
Time Series



Constituent: Benzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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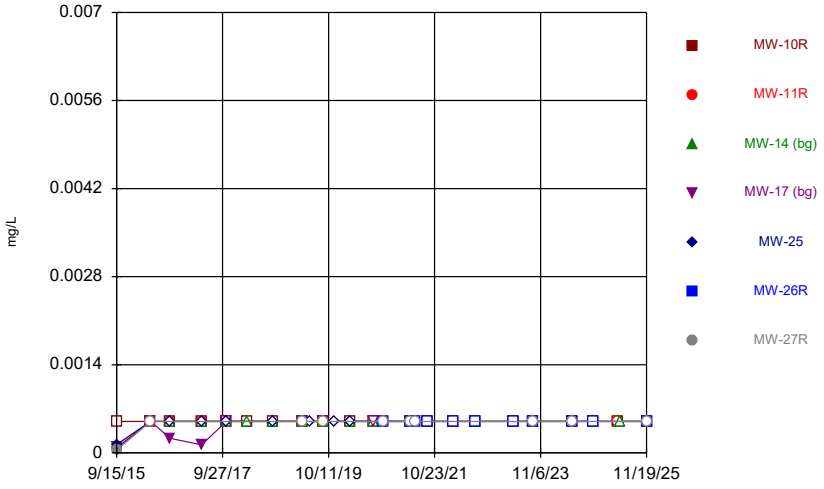
Time Series



Constituent: Benzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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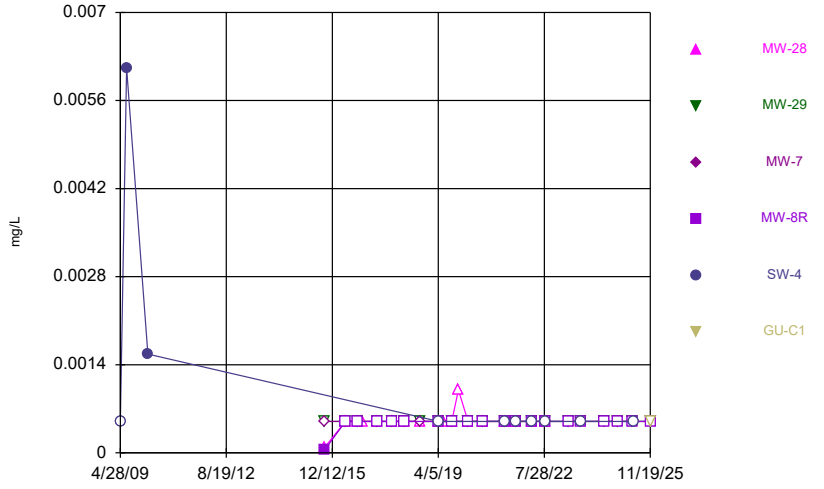
Time Series



Constituent: Beryllium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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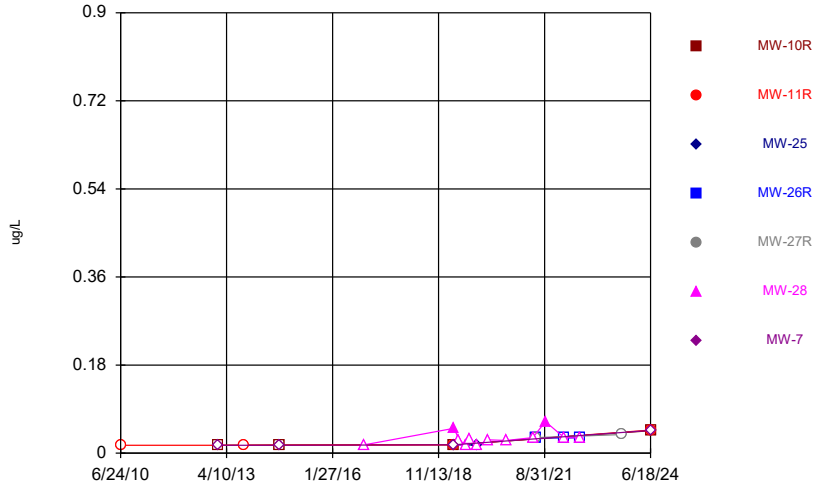
Time Series



Constituent: Beryllium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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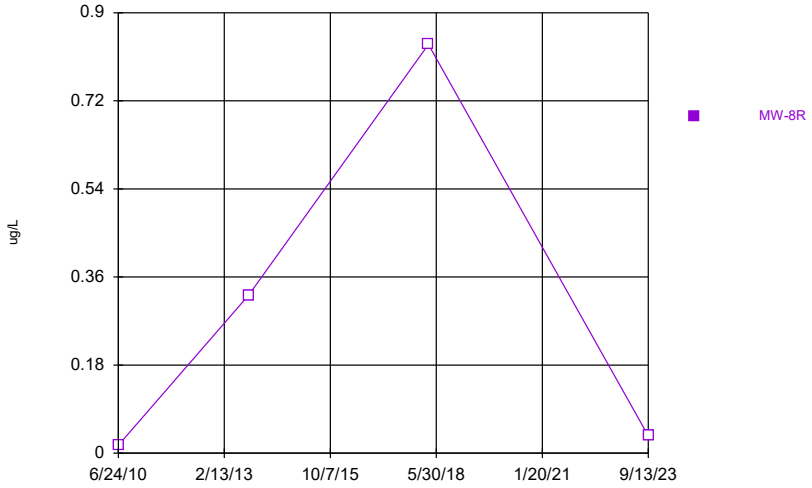
Time Series



Constituent: beta-BHC Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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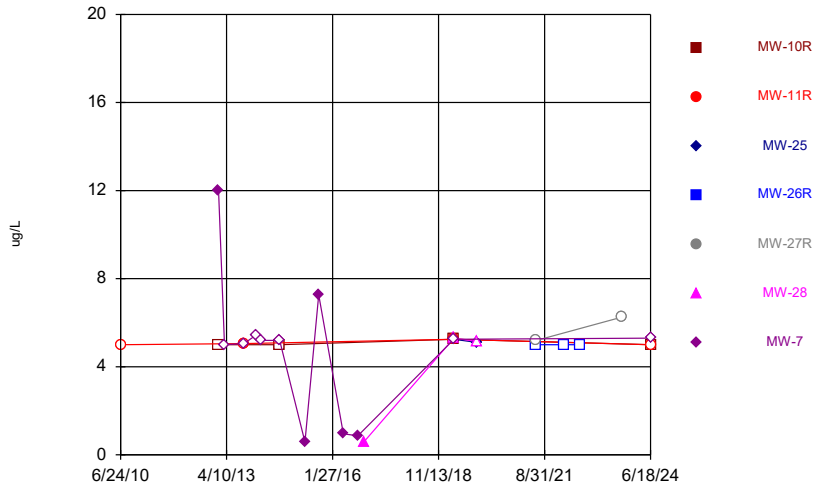
Time Series



Constituent: beta-BHC Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

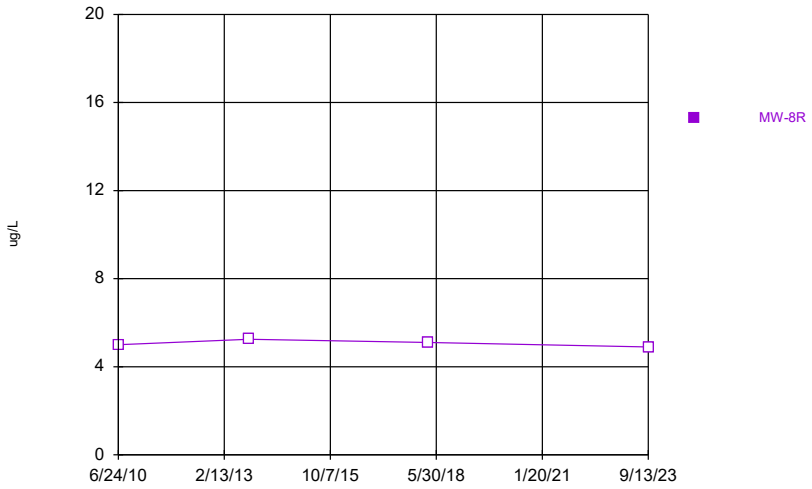
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

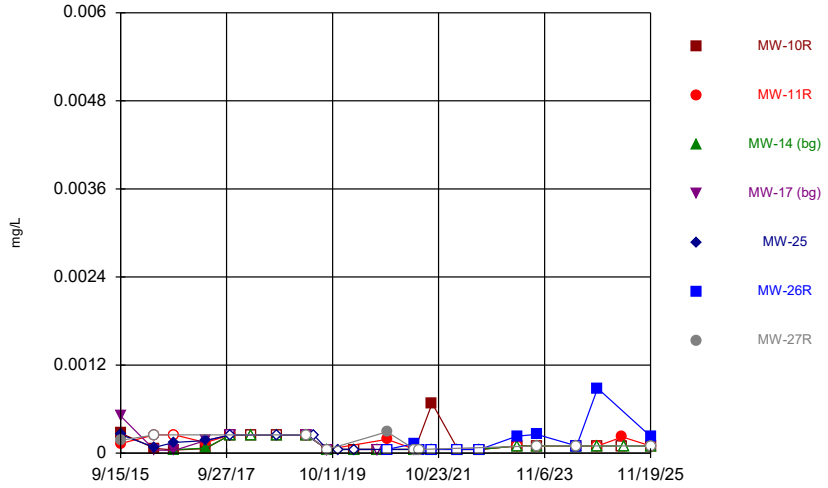
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

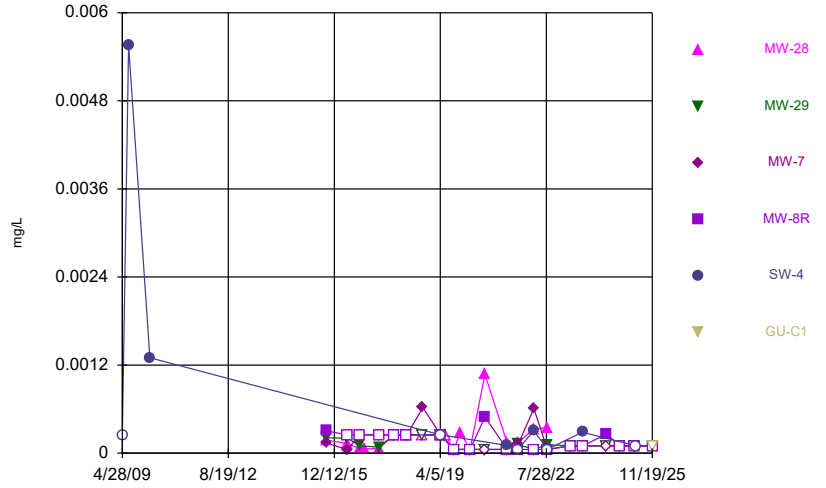
Time Series



Constituent: Cadmium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

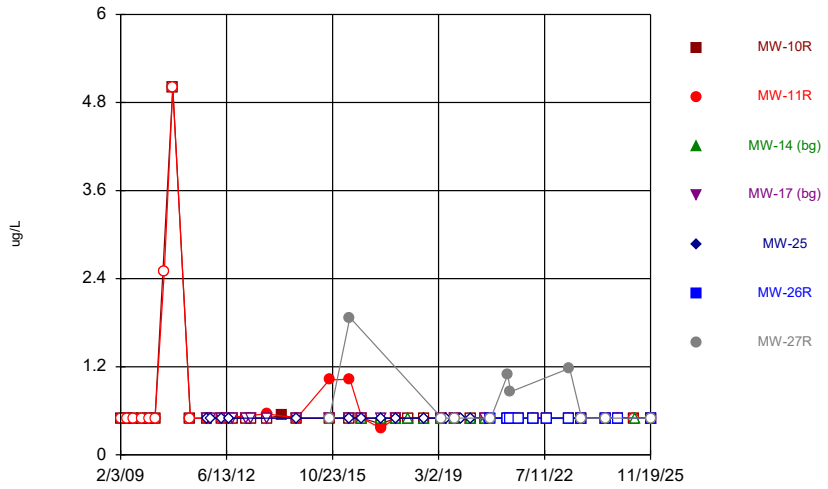
Time Series



Constituent: Cadmium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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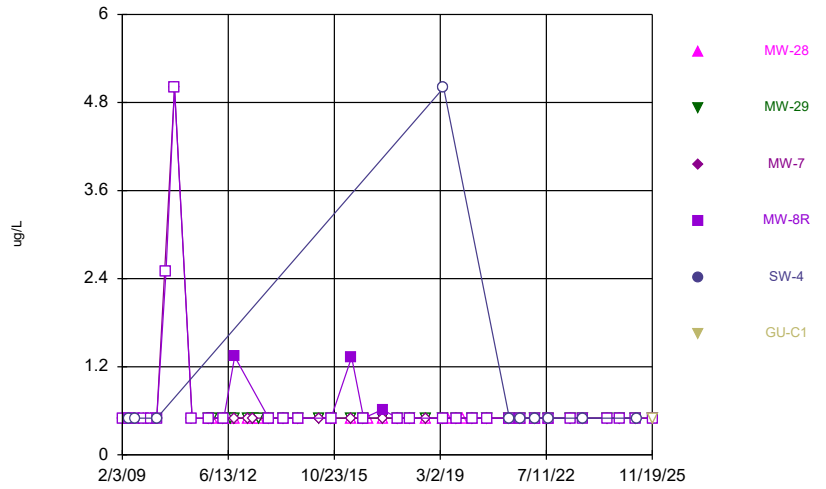
Time Series



Constituent: Carbon disulfide Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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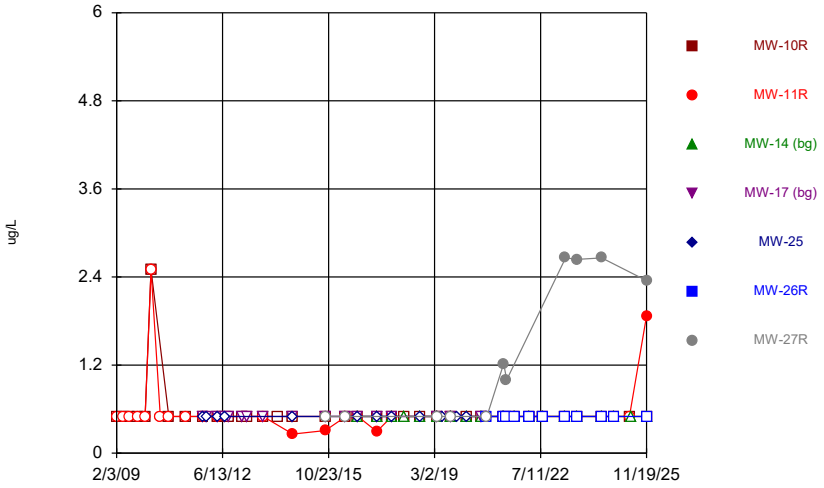
Time Series



Constituent: Carbon disulfide Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

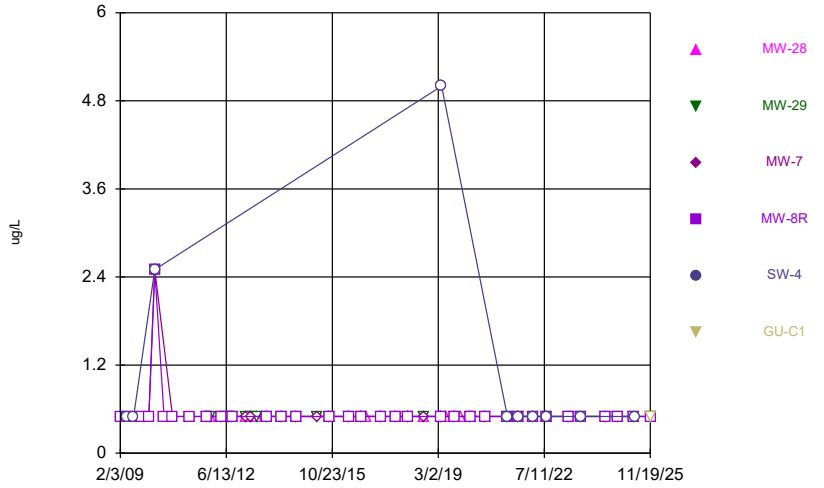
Time Series



Constituent: Chlorobenzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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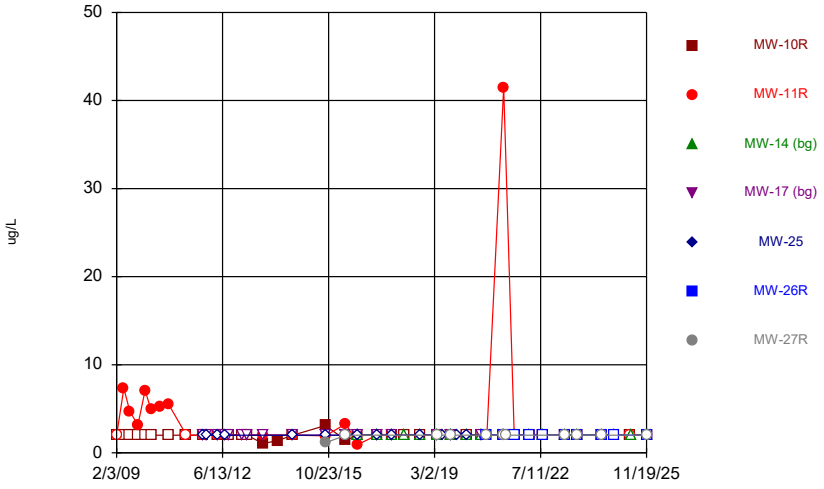
Time Series



Constituent: Chlorobenzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

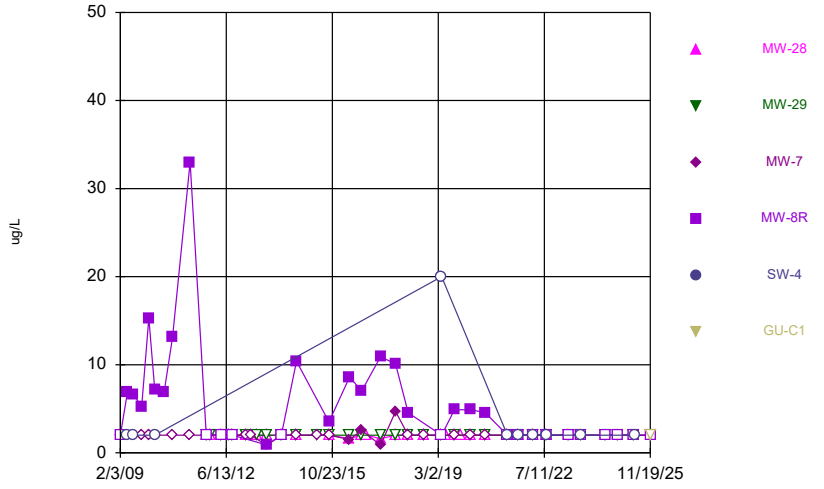
Time Series



Constituent: Chloroethane Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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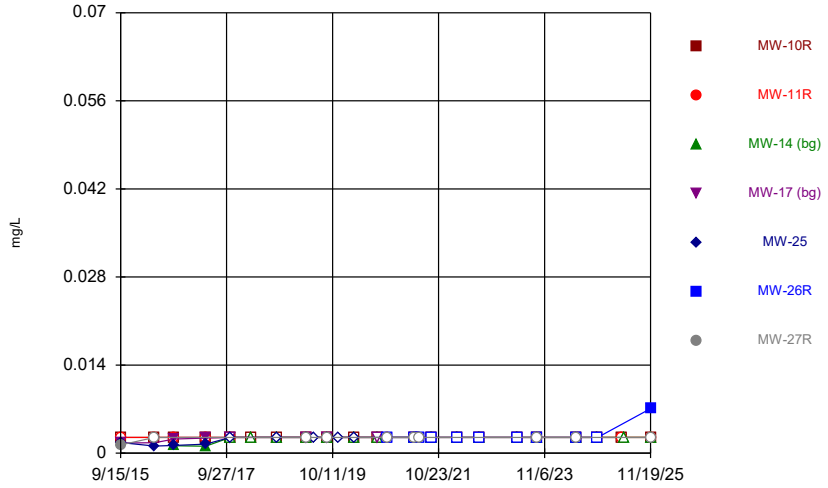
Time Series



Constituent: Chloroethane Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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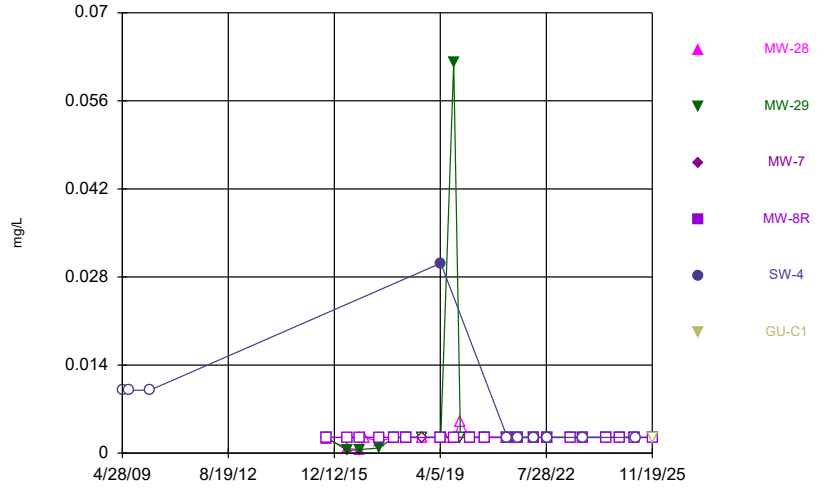
Time Series



Constituent: Chromium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

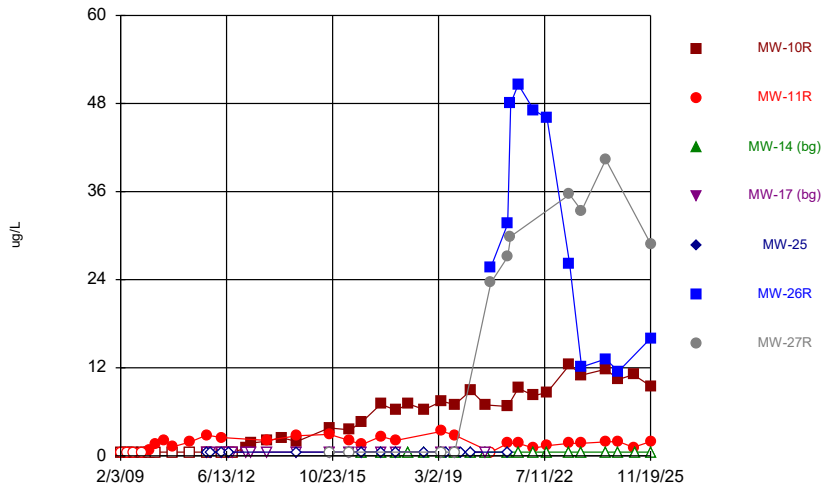
Time Series



Constituent: Chromium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

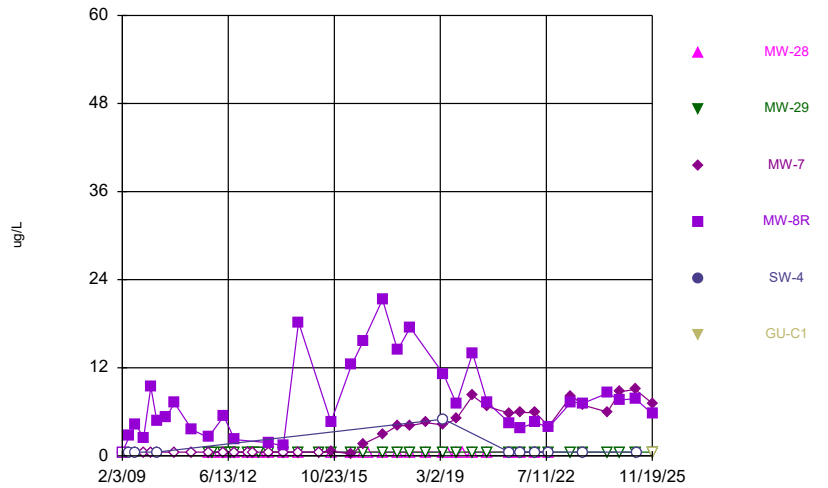
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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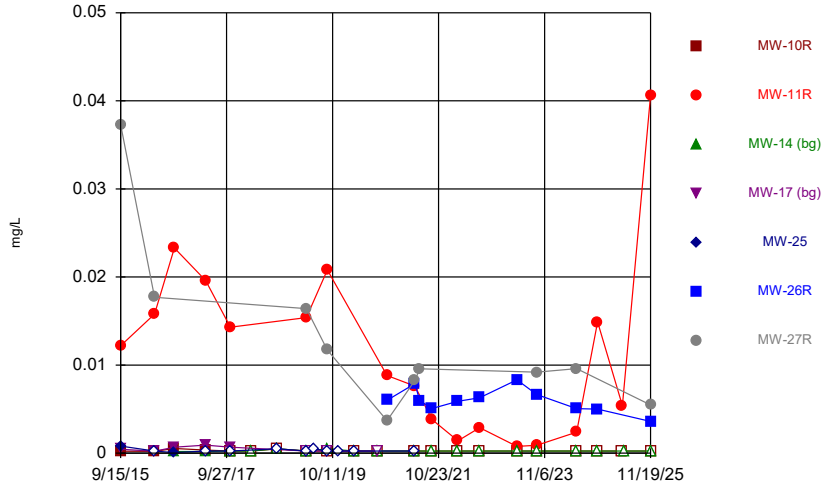
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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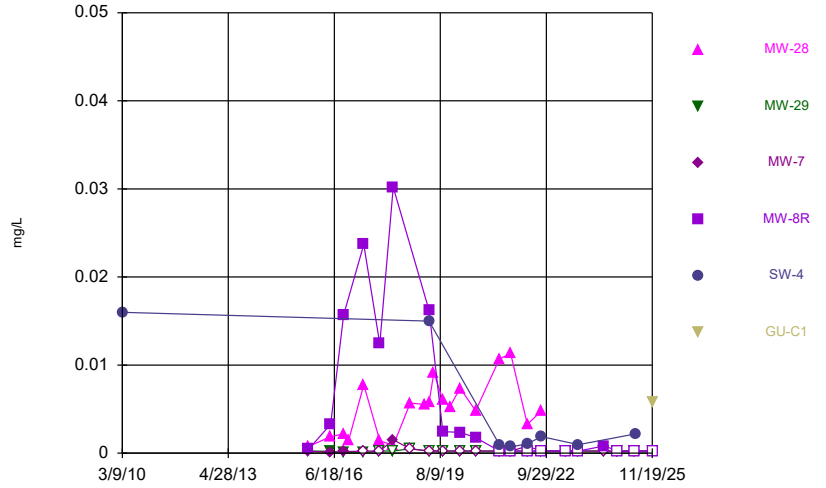
Time Series



Constituent: Cobalt Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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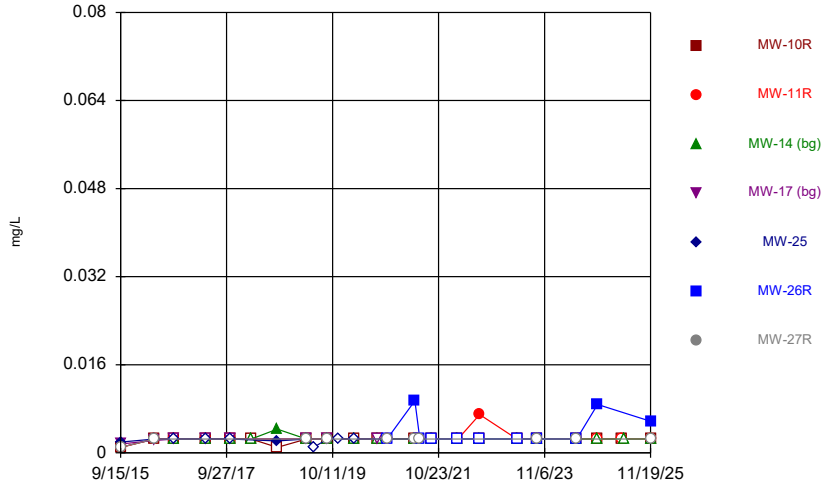
Time Series



Constituent: Cobalt Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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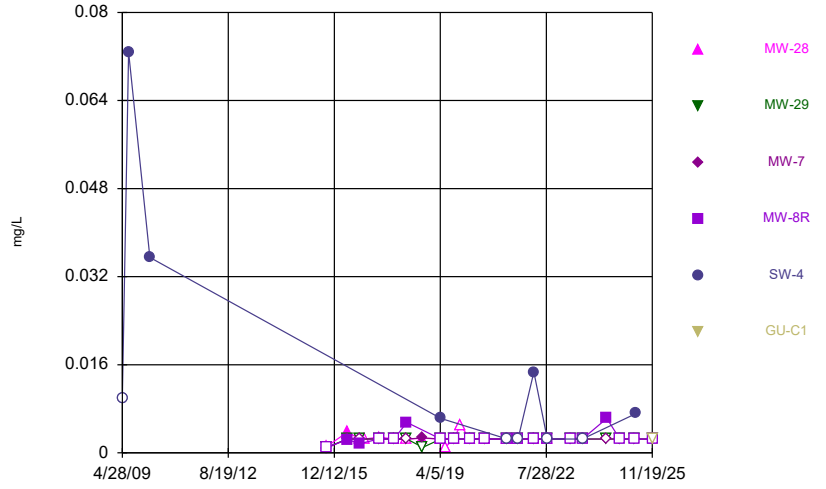
Time Series



Constituent: Copper Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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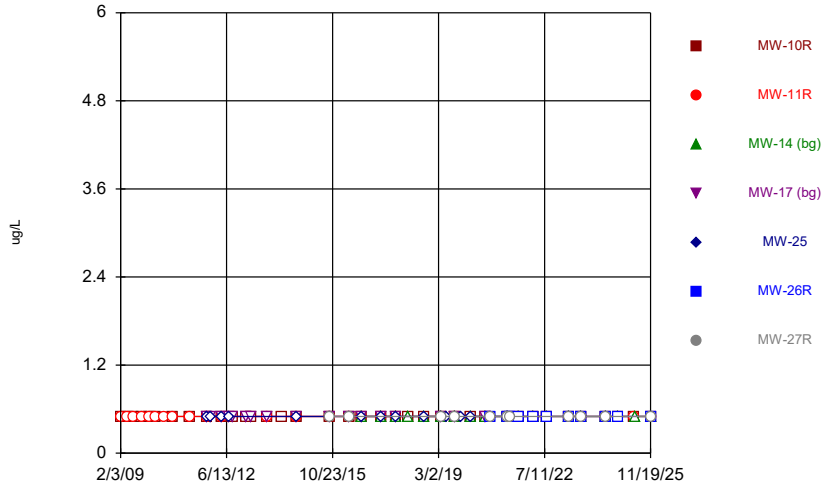
Time Series



Constituent: Copper Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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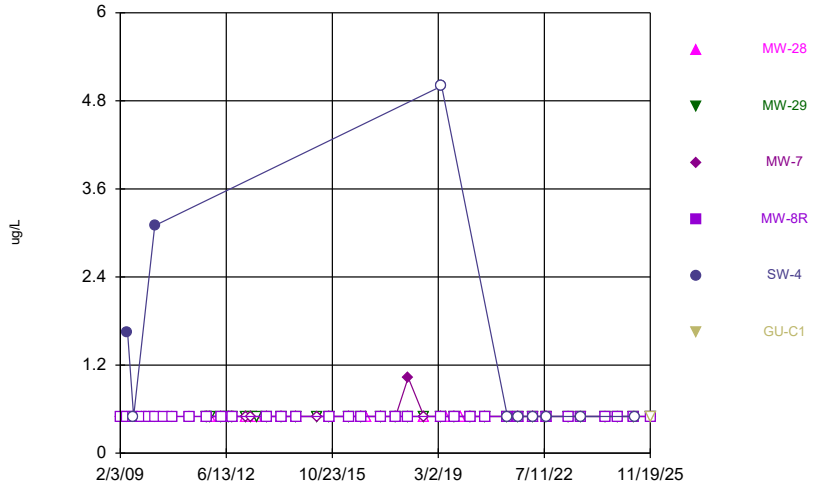
Time Series



Constituent: Ethylbenzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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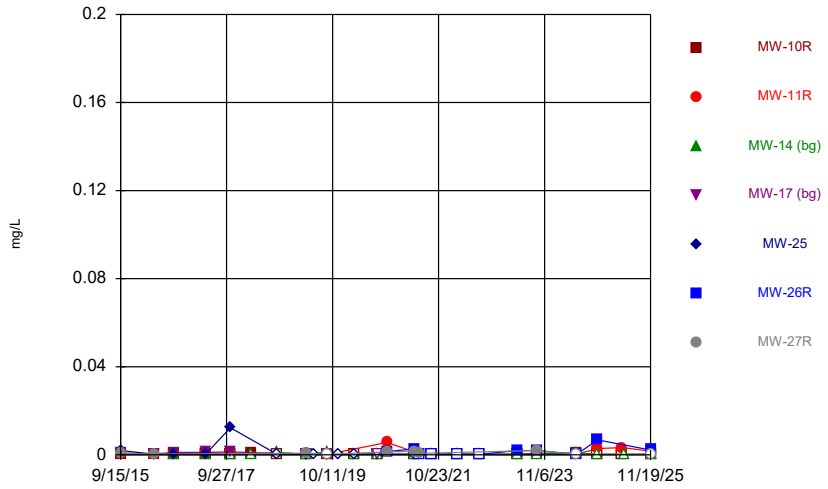
Time Series



Constituent: Ethylbenzene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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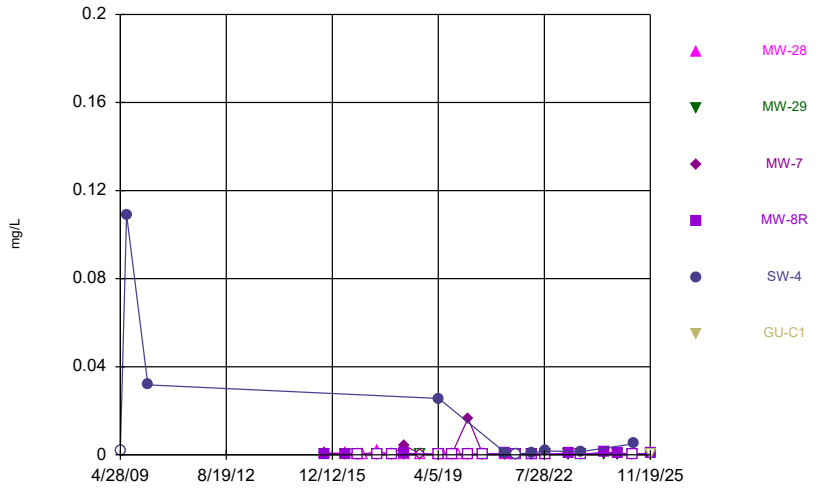
Time Series



Constituent: Lead Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

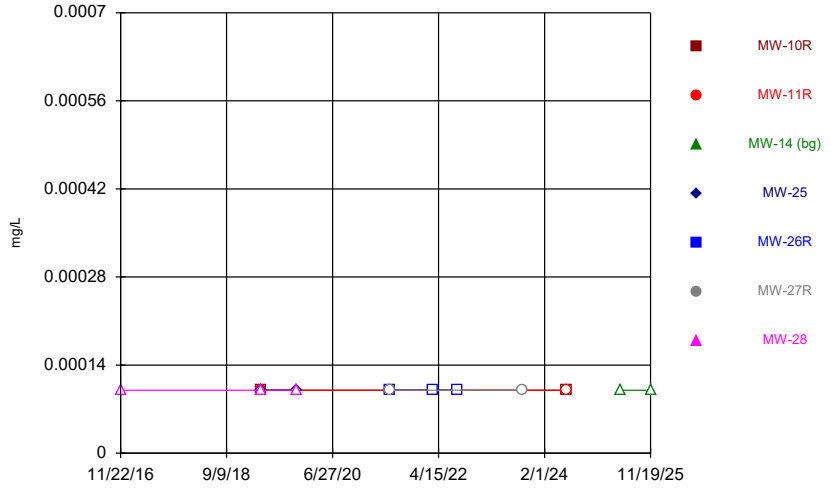
Time Series



Constituent: Lead Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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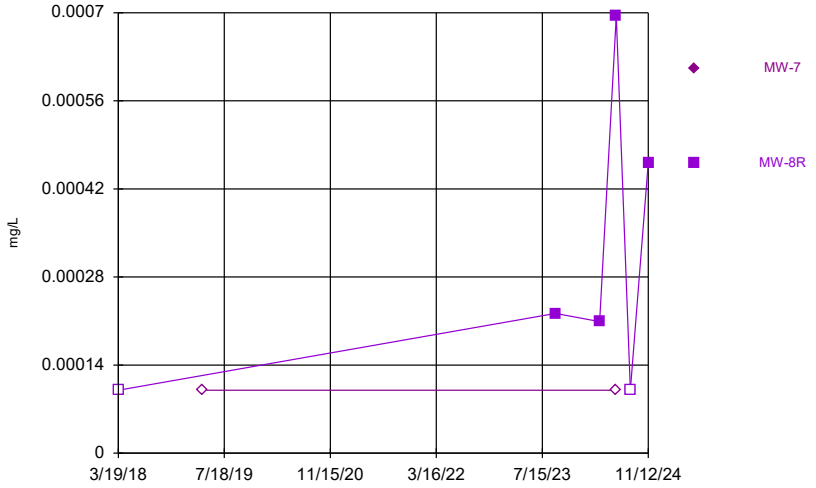
Time Series



Constituent: Mercury Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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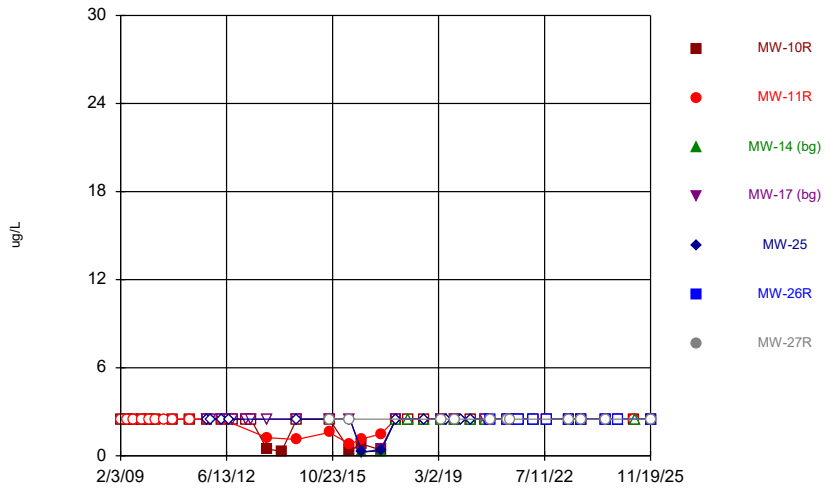
Time Series



Constituent: Mercury Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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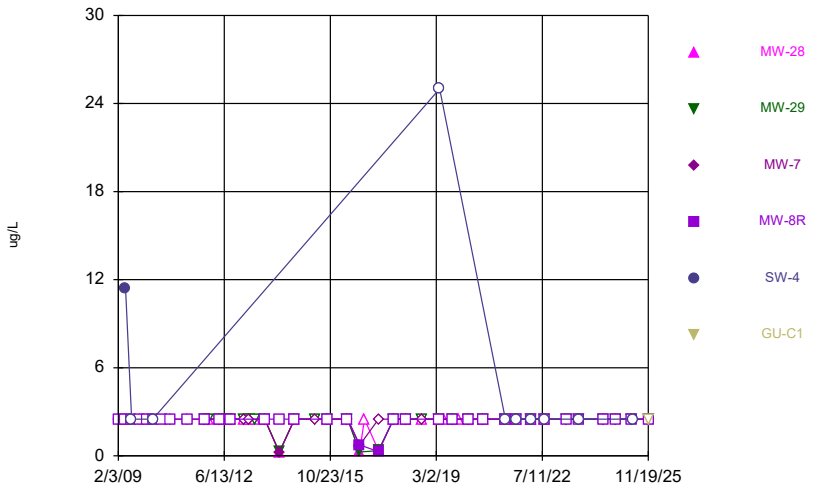
Time Series



Constituent: Methylene Chloride Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

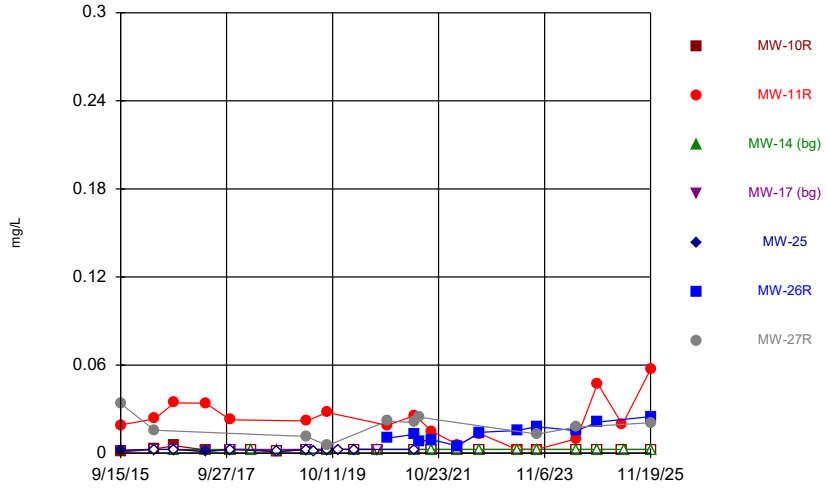
Time Series



Constituent: Methylene Chloride Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

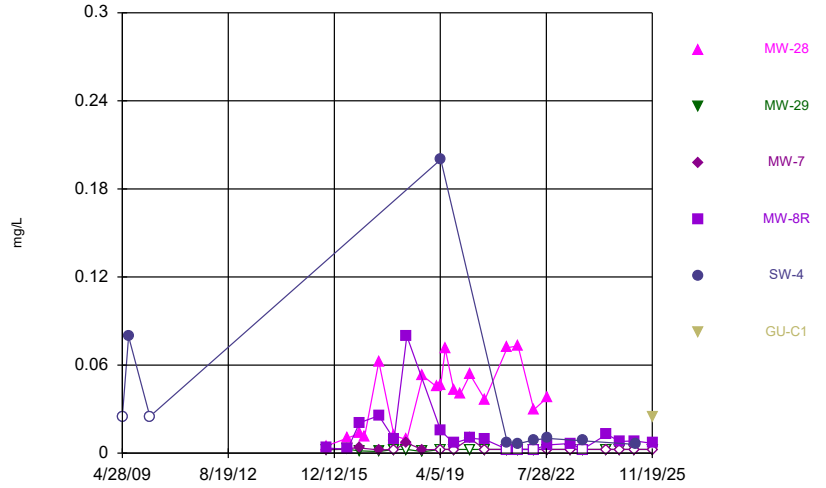
Time Series



Constituent: Nickel Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

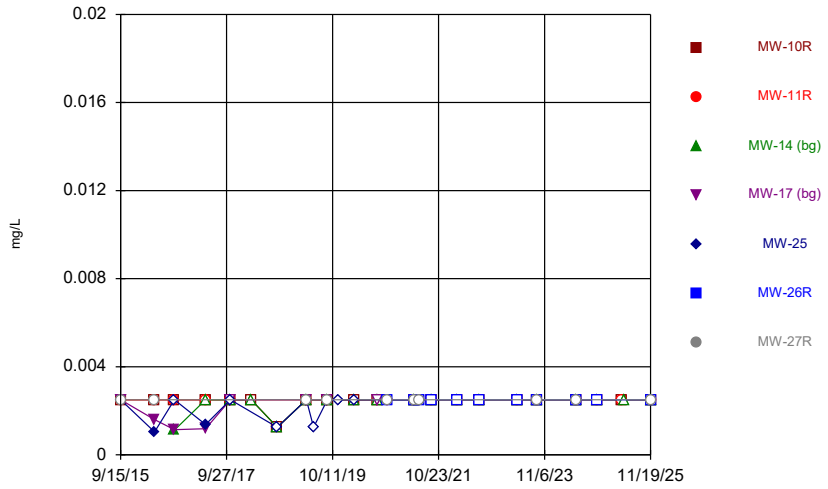
Time Series



Constituent: Nickel Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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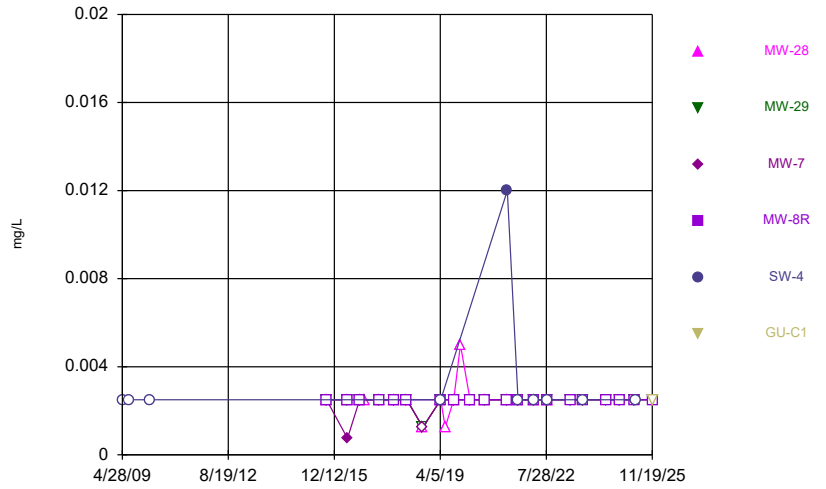
Time Series



Constituent: Selenium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

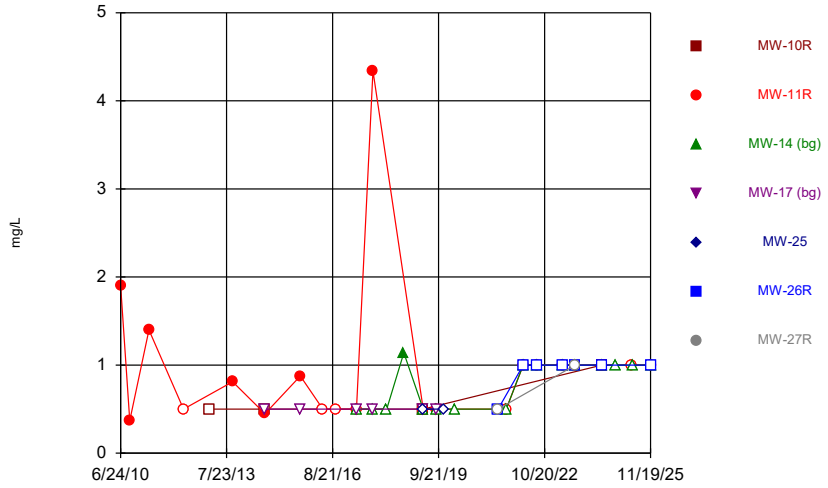
Time Series



Constituent: Selenium Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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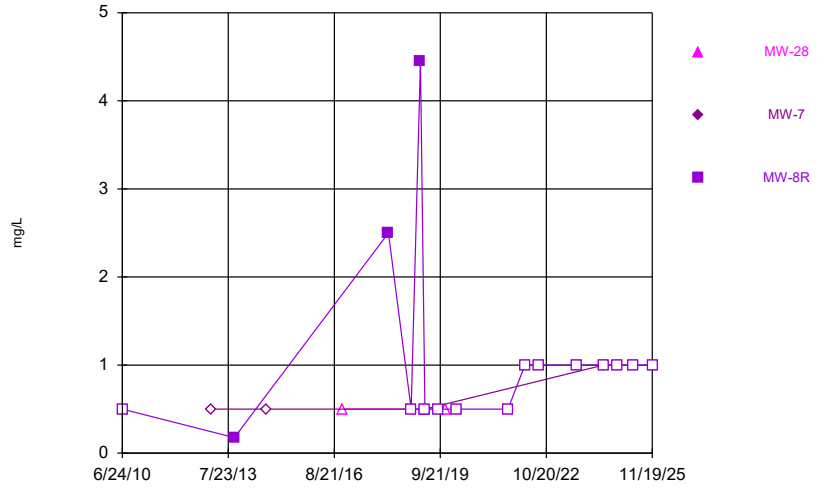
Time Series



Constituent: Sulfide Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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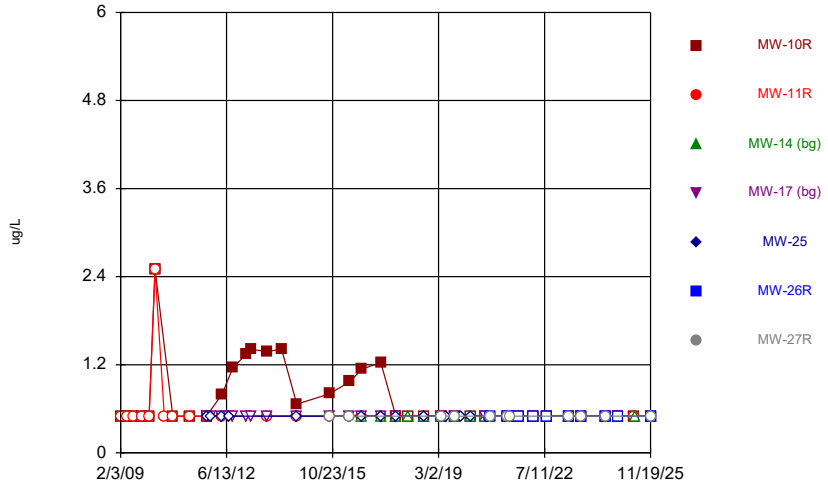
Time Series



Constituent: Sulfide Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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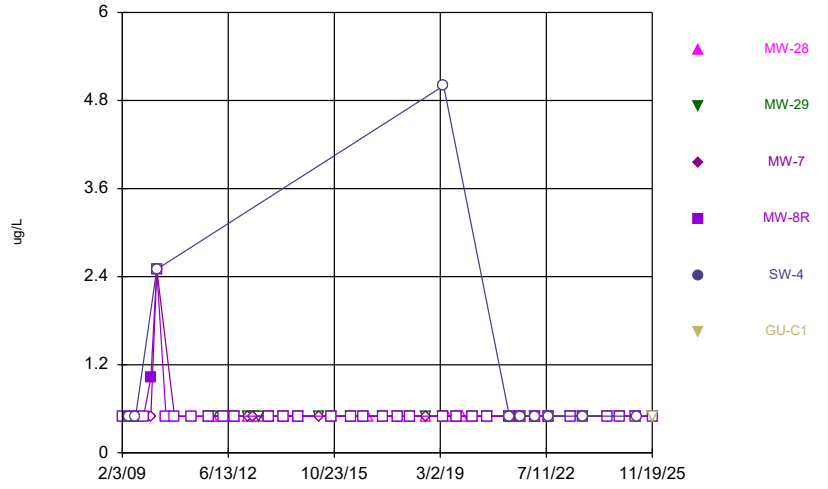
Time Series



Constituent: Tetrachloroethene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

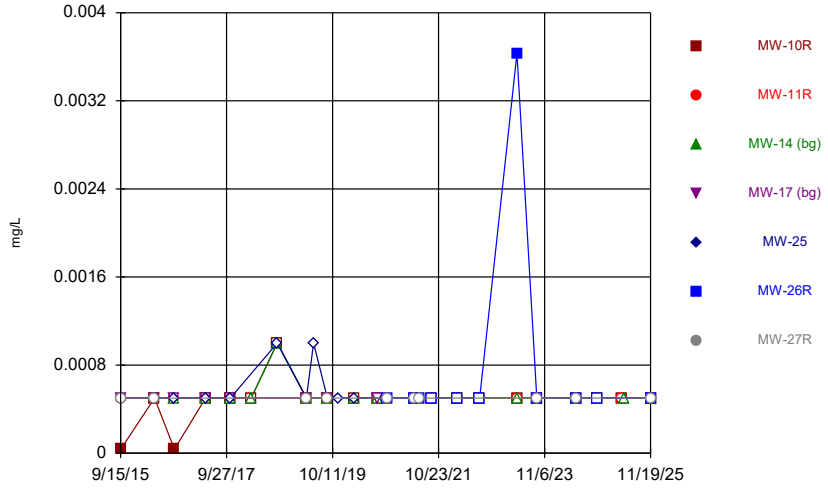
Time Series



Constituent: Tetrachloroethene Analysis Run 1/9/2026 8:47 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

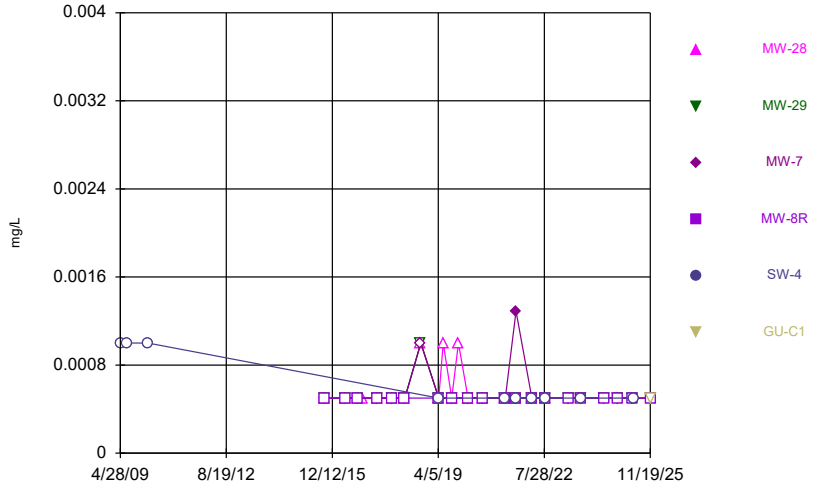
Time Series



Constituent: Thallium Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

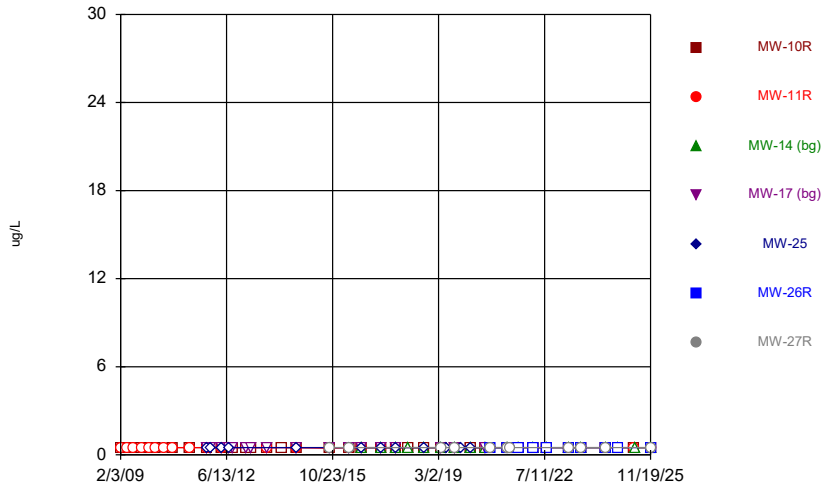
Time Series



Constituent: Thallium Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

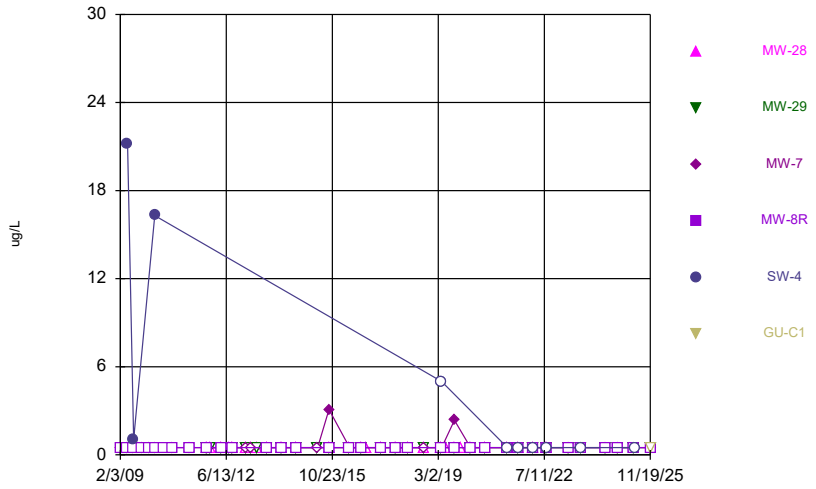
Time Series



Constituent: Toluene Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

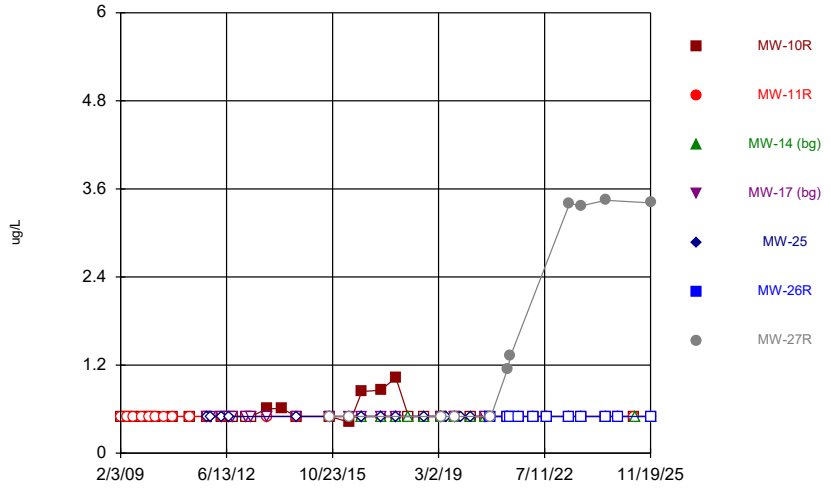
Time Series



Constituent: Toluene Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

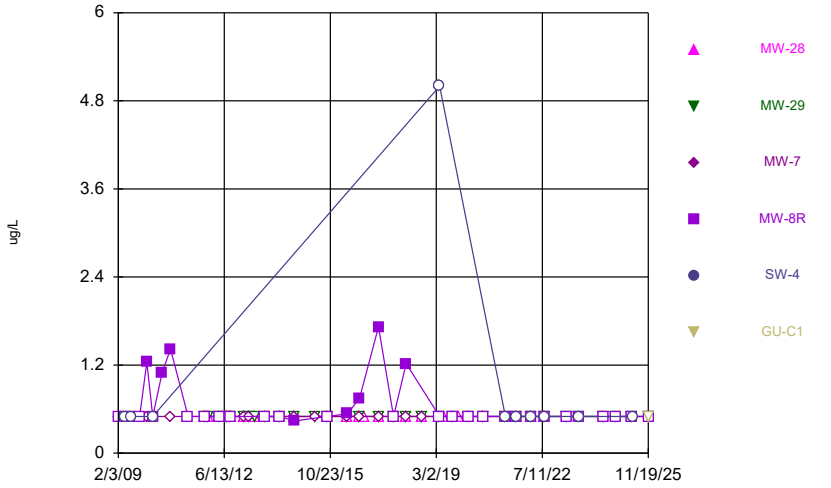
Time Series



Constituent: Trichloroethene Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
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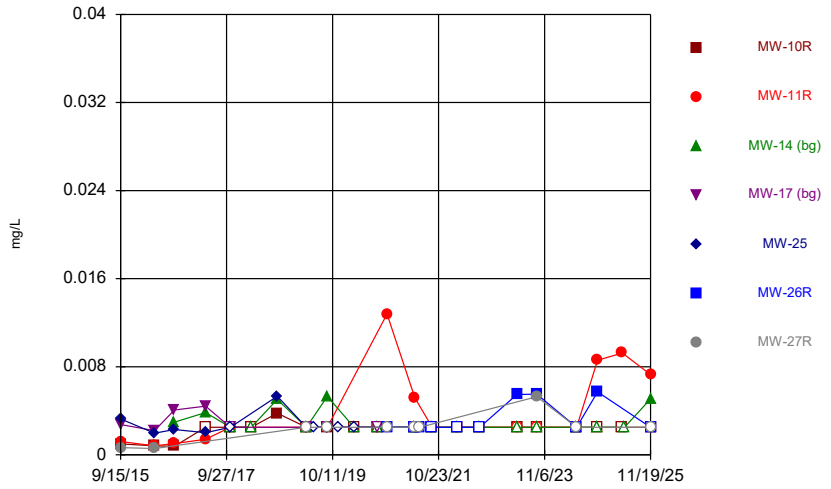
Time Series



Constituent: Trichloroethene Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

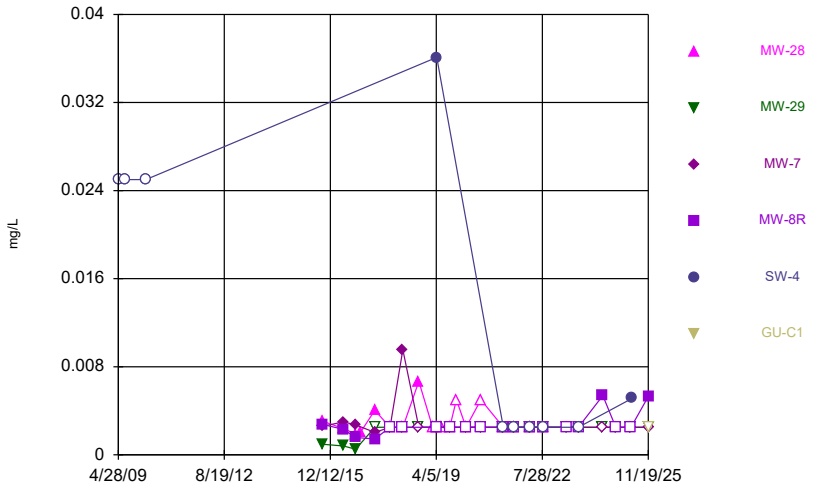
Time Series



Constituent: Vanadium Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

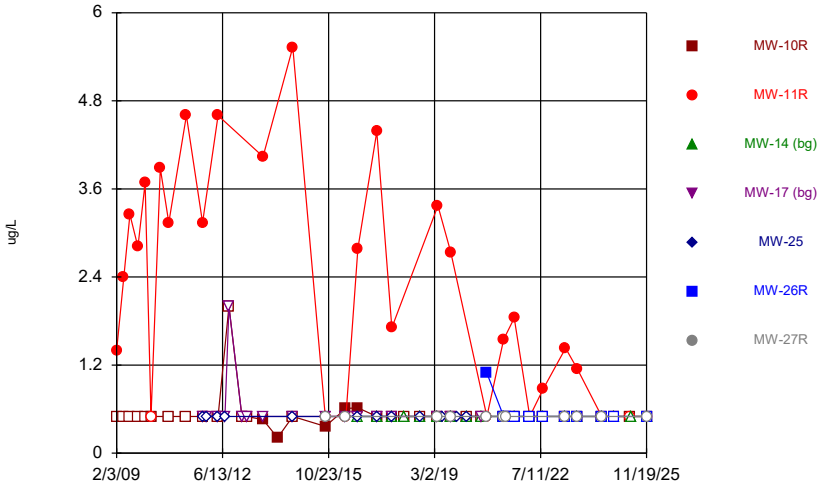
Time Series



Constituent: Vanadium Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

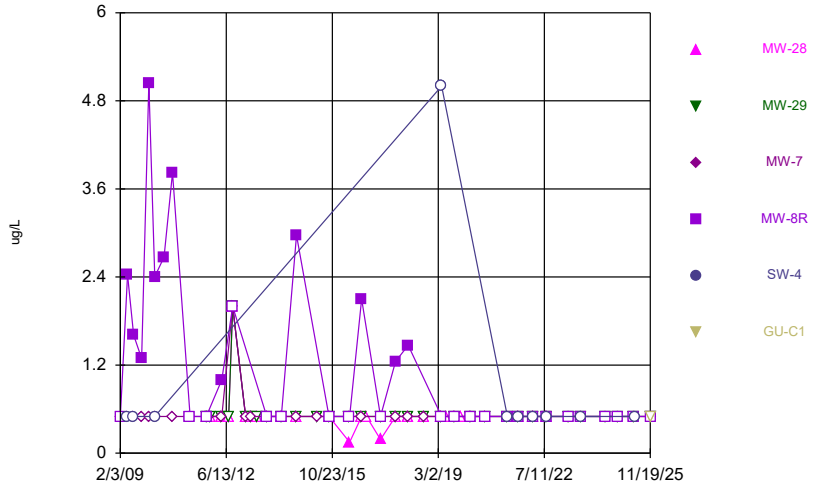
Time Series



Constituent: Vinyl chloride Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

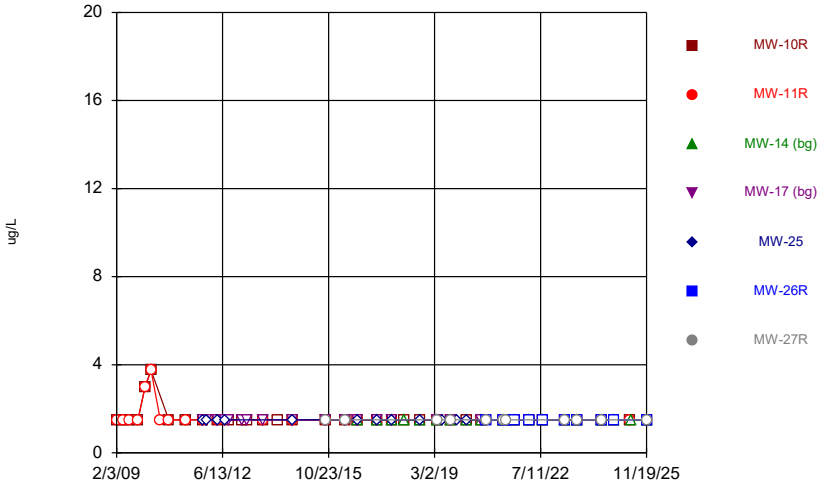
Time Series



Constituent: Vinyl chloride Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

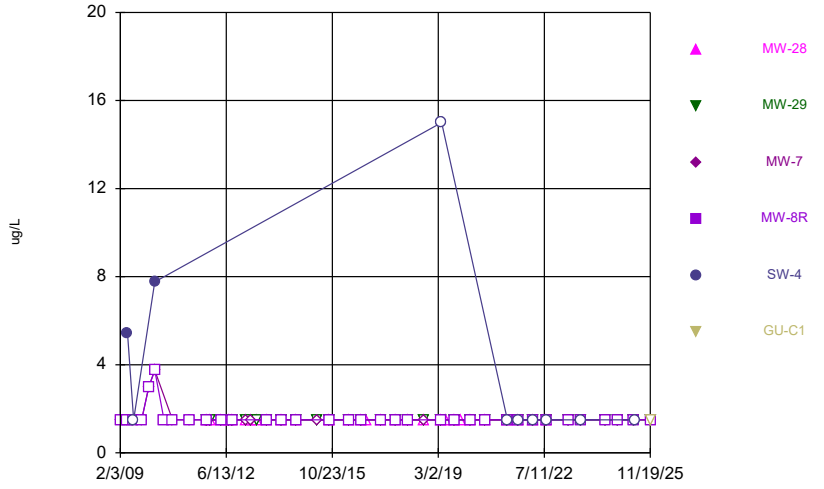
Time Series



Constituent: Xylenes, total Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

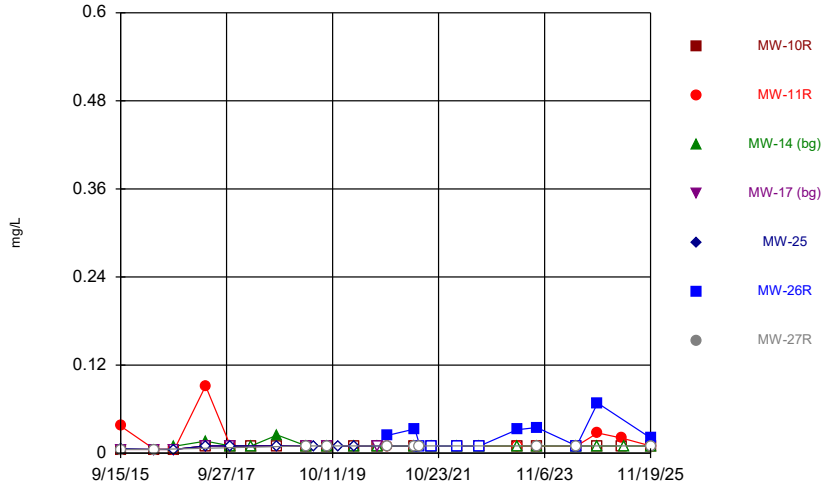
Time Series



Constituent: Xylenes, total Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

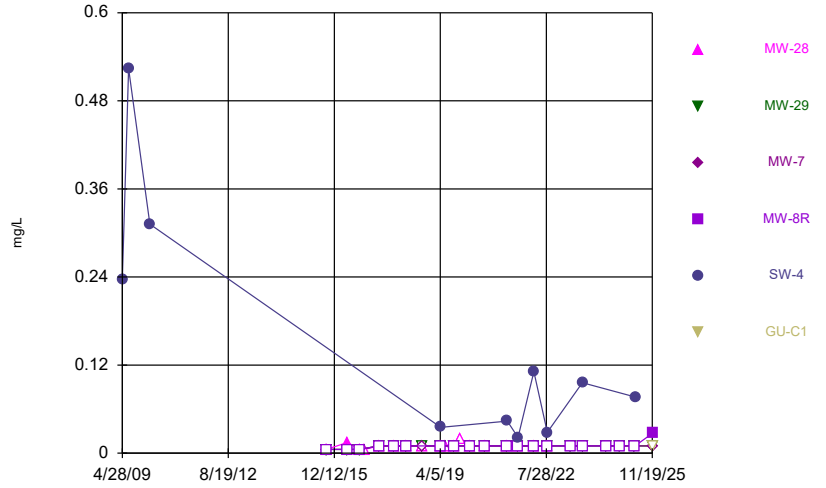
Time Series



Constituent: Zinc Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.03a Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 1/9/2026 8:48 AM View: 2025_AWQR-Time_Series
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Outliers Table and Graphs

BG Outlier Analysis

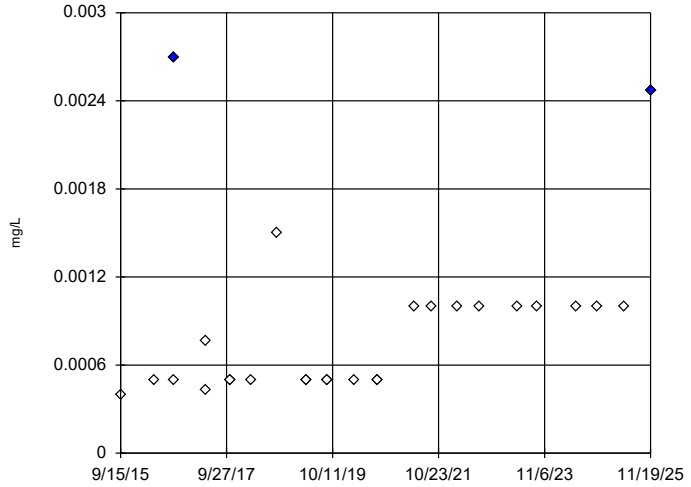
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 12/17/2025, 8:48 AM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	**MW-14,MW-17**	**Yes**	**0.002695,0.00247**	**n/a w/combined bg**	**OH**	**NaN**	**27**	**0.0008613**	**0.0005721**	**n/a**	**n/a**
Arsenic (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.001023	0.0001759	n/a	n/a
Barium (mg/L)	**MW-14,MW-17**	**Yes**	**0.158**	**n/a w/combined bg**	**Rosner/OH**	**0.01**	**27**	**0.2589**	**0.03114**	**normal**	**ShapiroWilk**
Beryllium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.0004607	0.0001151	n/a	n/a
Cadmium (mg/L)	**MW-14,MW-17**	**Yes**	**0.000506**	**n/a w/combined bg**	**OH**	**NaN**	**27**	**0.0001269**	**0.0001107**	**n/a**	**n/a**
Chromium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.002323	0.0004122	n/a	n/a
Cobalt (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	27	0.0003271	0.0001781	unknown	ShapiroWilk
Copper (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.002526	0.0003984	n/a	n/a
Lead (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	27	0.0005053	0.0004029	unknown	ShapiroWilk
Nickel (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.002392	0.0003728	n/a	n/a
Selenium (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.002271	0.0004964	n/a	n/a
Silver (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.0004781	0.00008002	n/a	n/a
Vanadium (mg/L)	**MW-14,MW-17**	**Yes**	**0.00503,0.00531,0.00508,0.00443**	**n/a w/combined bg**	**NP (nrm)/OH**	**NaN**	**27**	**0.002988**	**0.000938**	**unknown**	**ShapiroWilk**
Zinc (mg/L)	MW-14,MW-17	No	n/a	n/a w/combined bg	OH	NaN	27	0.01021	0.003568	n/a	n/a

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

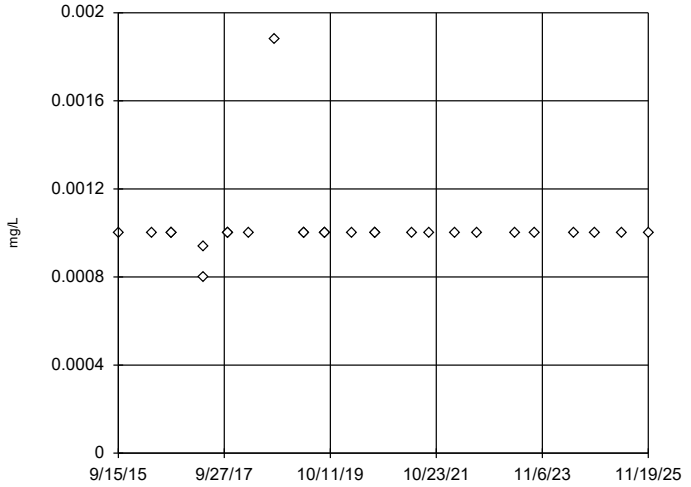
Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Antimony Analysis Run 12/17/2025 8:45 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

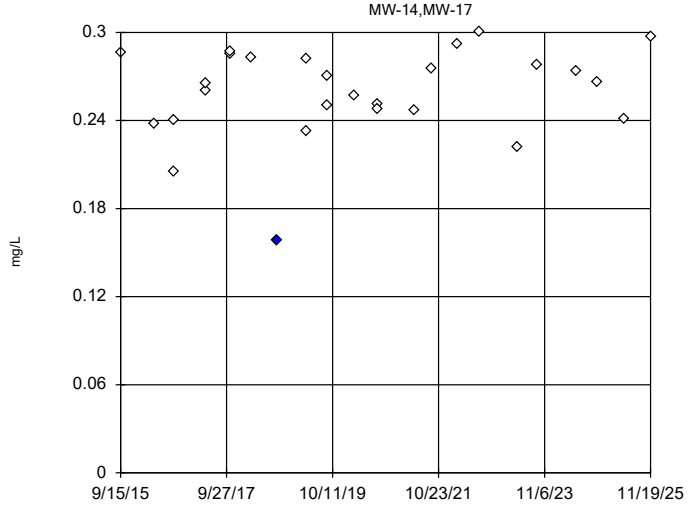
No statistical outliers.

Constituent: Arsenic Analysis Run 12/17/2025 8:45 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Rosner's Outlier Test / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

Statistical outlier is drawn as solid.

k = 1
r = 3.241
Tabulated value = 2.872
Alpha = 0.01

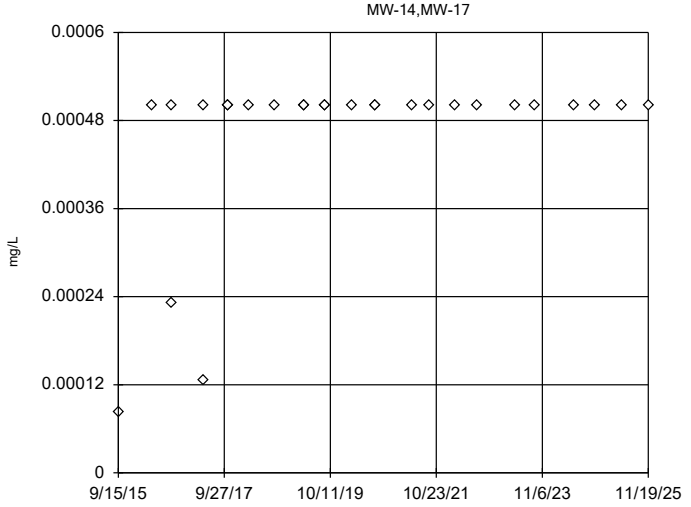
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.966
Critical = 0.891
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 12/17/2025 8:45 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

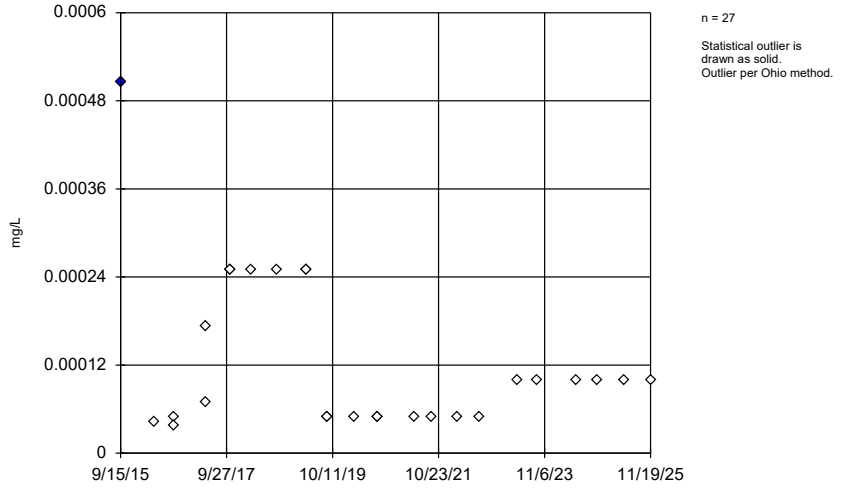
No statistical outliers.

Constituent: Beryllium Analysis Run 12/17/2025 8:45 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

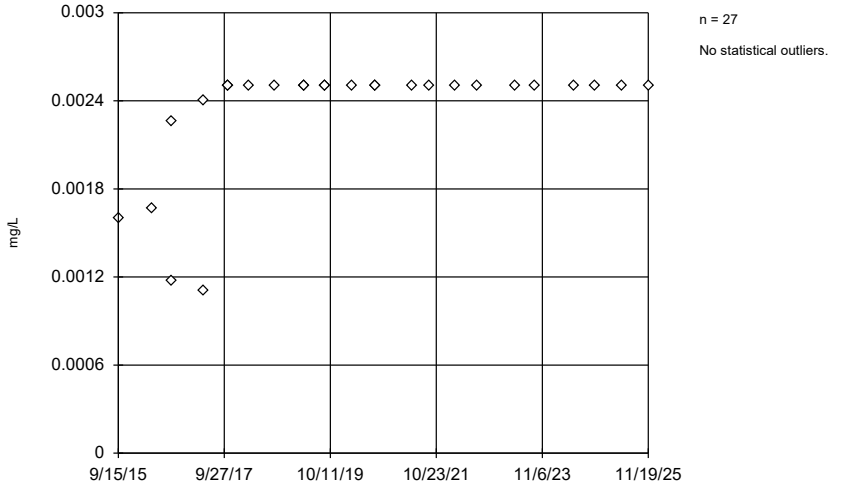
Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Cadmium Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

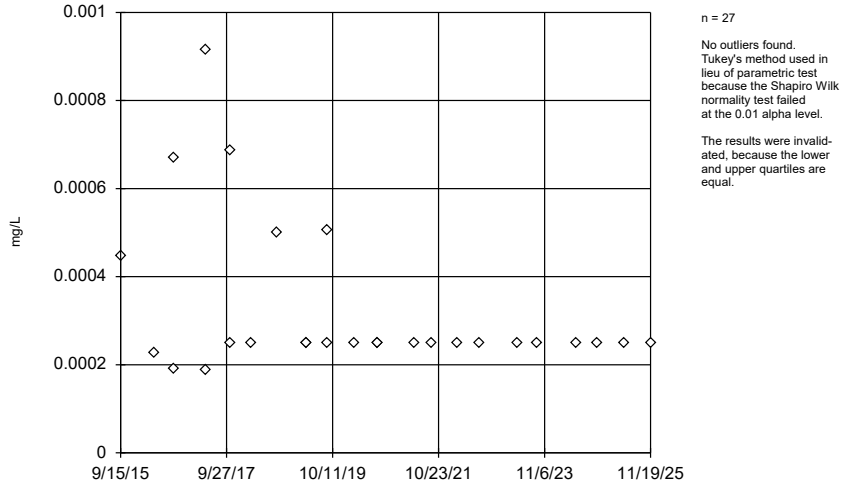
No statistical outliers.

Constituent: Chromium Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

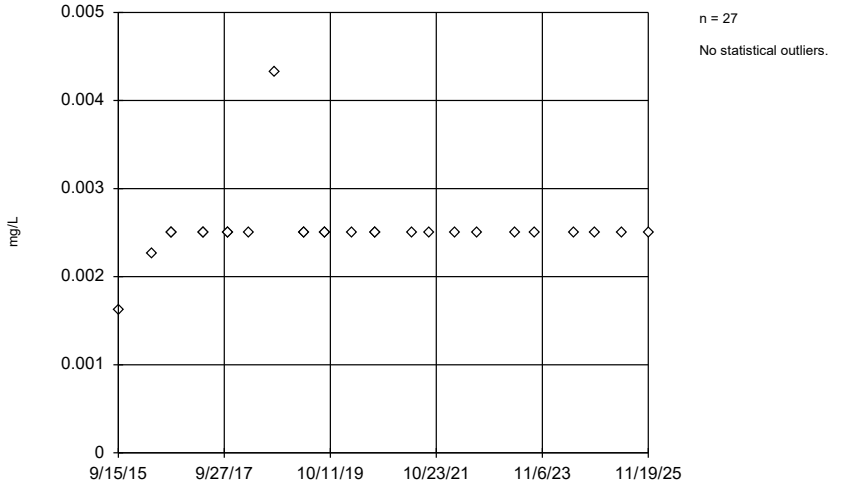
The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cobalt Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

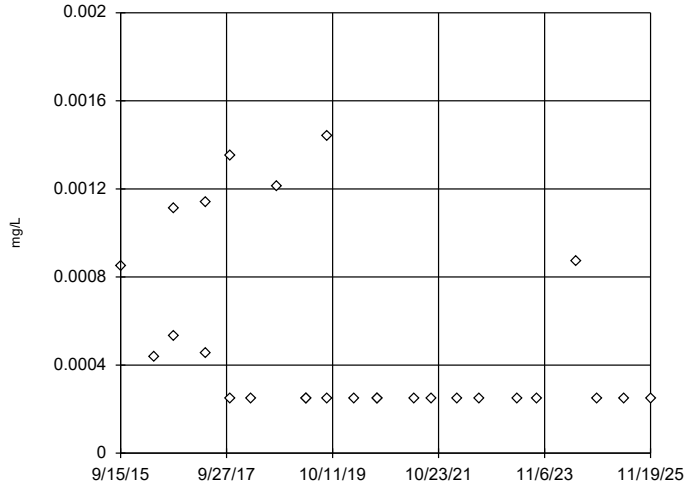
No statistical outliers.

Constituent: Copper Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

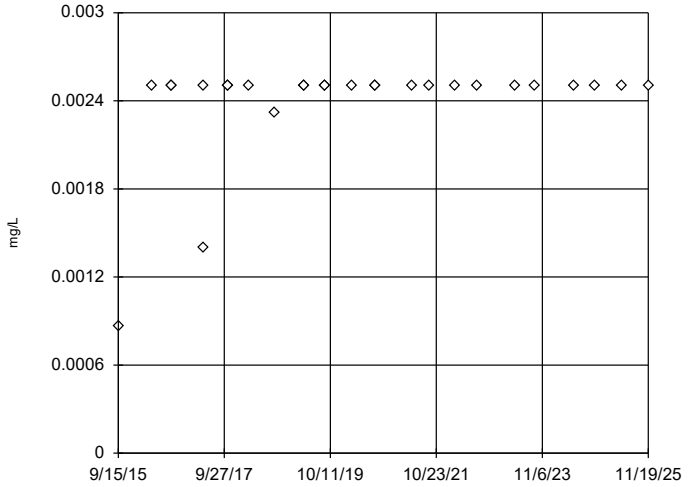
High cutoff = 0.00265, low cutoff = -0.00155, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

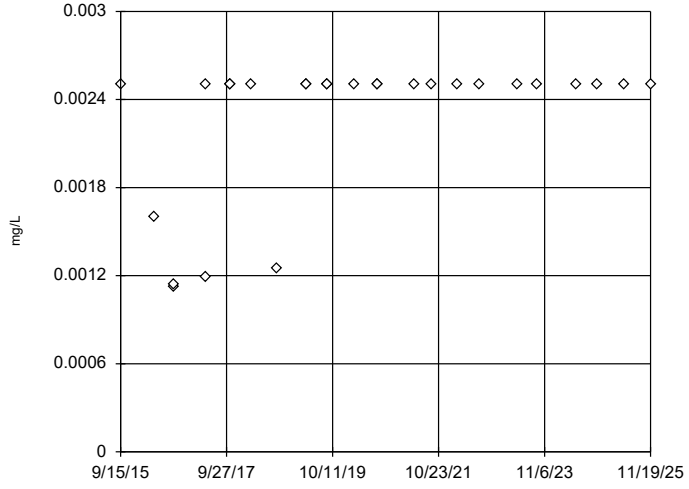
No statistical outliers.

Constituent: Nickel Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

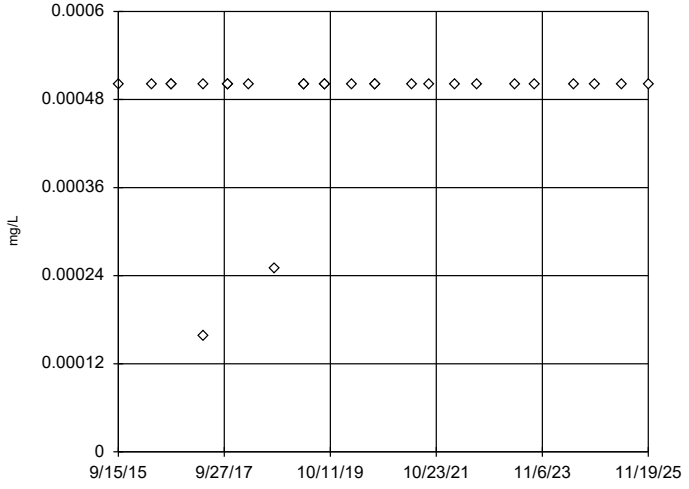
No statistical outliers.

Constituent: Selenium Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



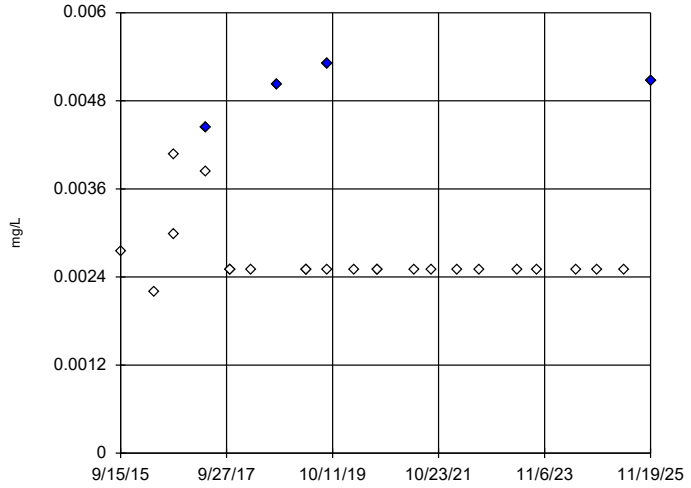
n = 27

No statistical outliers.

Constituent: Silver Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

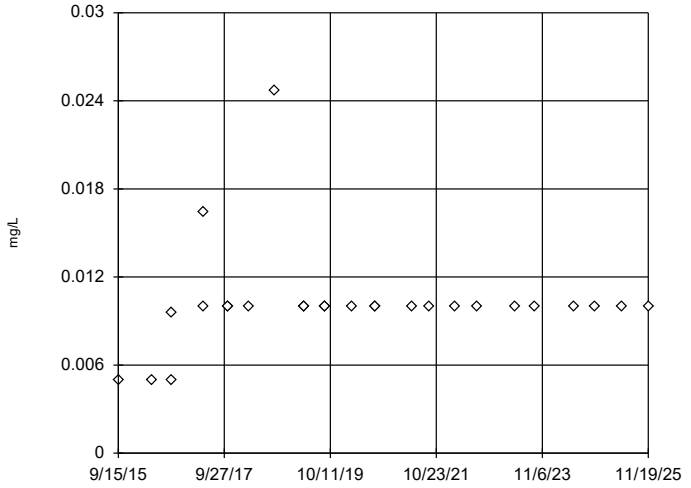
High cutoff = 0.0044, low cutoff = 0.001075, based on IQR multiplier of 3.

Constituent: Vanadium Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-14,MW-17



n = 27

No statistical outliers.

Constituent: Zinc Analysis Run 12/17/2025 8:46 AM View: 2025_AWQR-BG_Outliers
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Prediction Limit Table and Graphs

Prediction Limit

Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master Printed 12/17/2025, 9:23 AM

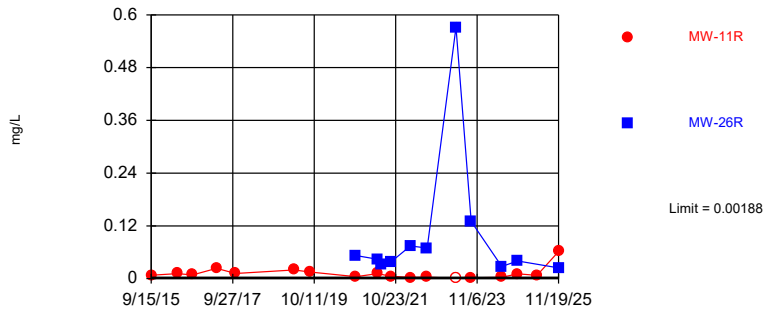
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**MW-11R**	**0.00188**	**n/a**	**11/19/2025**	**0.0615**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Arsenic (mg/L)	**MW-26R**	**0.00188**	**n/a**	**11/19/2025**	**0.0245**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Barium (mg/L)	**MW-10R**	**0.3324**	**n/a**	**11/19/2025**	**0.534**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-11R**	**0.3324**	**n/a**	**11/19/2025**	**0.428**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-26R**	**0.3324**	**n/a**	**11/19/2025**	**0.968**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-27R**	**0.3324**	**n/a**	**11/19/2025**	**0.75**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Barium (mg/L)	MW-29	0.3324	n/a	11/19/2025	0.318	No	27	MW-14,MW-17	0	No	0.0003762	Param Inter 1 of 2
Barium (mg/L)	**MW-7**	**0.3324**	**n/a**	**11/19/2025**	**0.405**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Barium (mg/L)	**MW-8R**	**0.3324**	**n/a**	**11/19/2025**	**0.39**	**Yes**	**27**	**MW-14,MW-17**	**0**	**No**	**0.0003762**	**Param Inter 1 of 2**
Cadmium (mg/L)	MW-26R	0.000506	n/a	11/19/2025	0.00023	No	27	MW-17,MW-14	77.78	n/a	0.002291	NP Inter (NDs) 1 of 2
Chromium (mg/L)	**MW-26R**	**0.0025**	**n/a**	**11/19/2025**	**0.00708**	**Yes**	**27**	**MW-14,MW-17**	**77.78**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	**MW-11R**	**0.000915**	**n/a**	**11/19/2025**	**0.0406**	**Yes**	**27**	**MW-14,MW-17**	**70.37**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	**MW-26R**	**0.000915**	**n/a**	**11/19/2025**	**0.00361**	**Yes**	**27**	**MW-14,MW-17**	**70.37**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	**MW-27R**	**0.000915**	**n/a**	**11/19/2025**	**0.00547**	**Yes**	**27**	**MW-14,MW-17**	**70.37**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Copper (mg/L)	**MW-26R**	**0.00432**	**n/a**	**11/19/2025**	**0.00573**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	**MW-11R**	**0.00144**	**n/a**	**11/19/2025**	**0.00167**	**Yes**	**27**	**MW-14,MW-17**	**62.96**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	**MW-26R**	**0.00144**	**n/a**	**11/19/2025**	**0.00223**	**Yes**	**27**	**MW-14,MW-17**	**62.96**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	MW-8R	0.00144	n/a	11/19/2025	0.000683	No	27	MW-14,MW-17	62.96	n/a	0.002291	NP Inter (NDs) 1 of 2
Nickel (mg/L)	**MW-11R**	**0.0025**	**n/a**	**11/19/2025**	**0.057**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Nickel (mg/L)	**MW-26R**	**0.0025**	**n/a**	**11/19/2025**	**0.0249**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Nickel (mg/L)	**MW-27R**	**0.0025**	**n/a**	**11/19/2025**	**0.0207**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Nickel (mg/L)	**MW-8R**	**0.0025**	**n/a**	**11/19/2025**	**0.00674**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Vanadium (mg/L)	**MW-11R**	**0.00531**	**n/a**	**11/19/2025**	**0.00729**	**Yes**	**27**	**MW-17,MW-14**	**66.67**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**
Vanadium (mg/L)	MW-8R	0.00531	n/a	11/19/2025	0.00529	No	27	MW-17,MW-14	66.67	n/a	0.002291	NP Inter (NDs) 1 of 2
Zinc (mg/L)	MW-26R	0.0247	n/a	11/19/2025	0.0208	No	27	MW-17,MW-14	88.89	n/a	0.002291	NP Inter (NDs) 1 of 2
Zinc (mg/L)	**MW-8R**	**0.0247**	**n/a**	**11/19/2025**	**0.027**	**Yes**	**27**	**MW-17,MW-14**	**88.89**	**n/a**	**0.002291**	**NP Inter (NDs) 1 of 2**

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R, MW-26R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 88.89% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

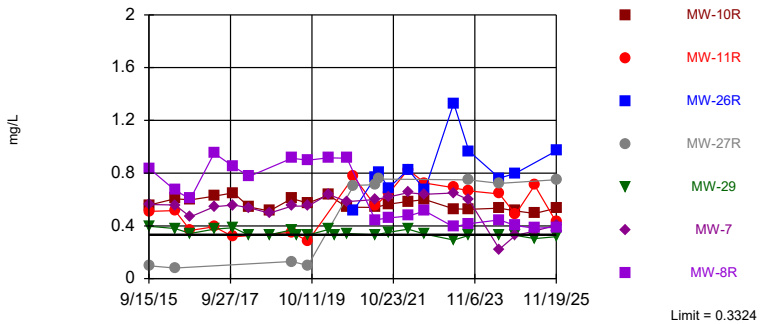
Constituent: Arsenic Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Exceeds Limit: MW-10R, MW-11R, MW-26R, MW-27R, MW-7, MW-8R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.2589, Std. Dev.=0.03114, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9033, critical = 0.894. Kappa = 2.359 (c=14, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.003756. Individual comparison alpha = 0.0003762. Comparing 7 points to limit. Assumes 3 future values.

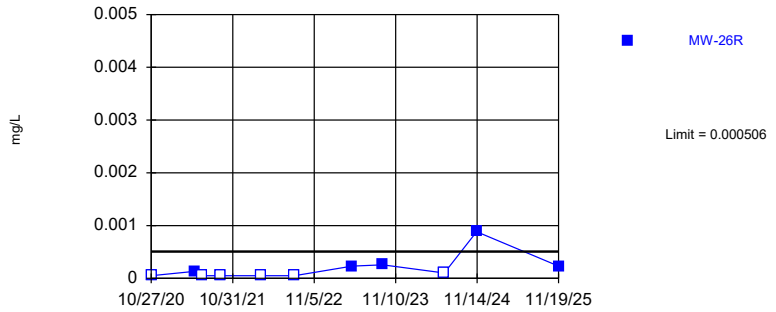
Constituent: Barium Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 77.78% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Assumes 9 future values.

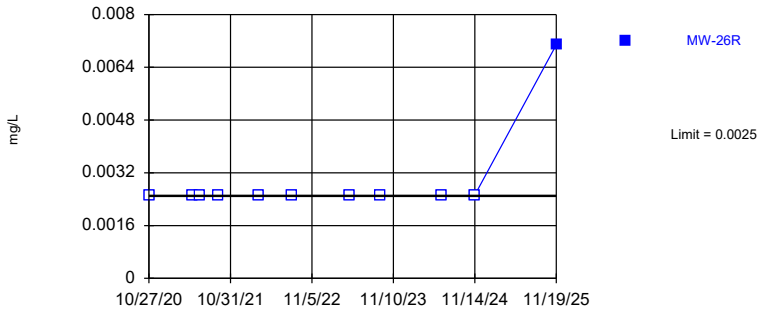
Constituent: Cadmium Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-26R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 77.78% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Assumes 9 future values.

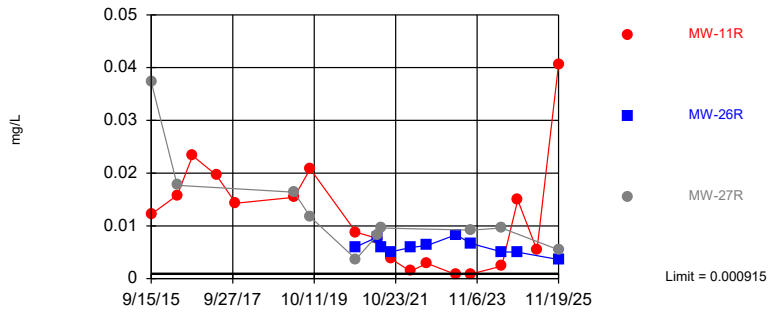
Constituent: Chromium Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Exceeds Limit: MW-11R, MW-26R, MW-27R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 70.37% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 3 points to limit. Assumes 7 future values.

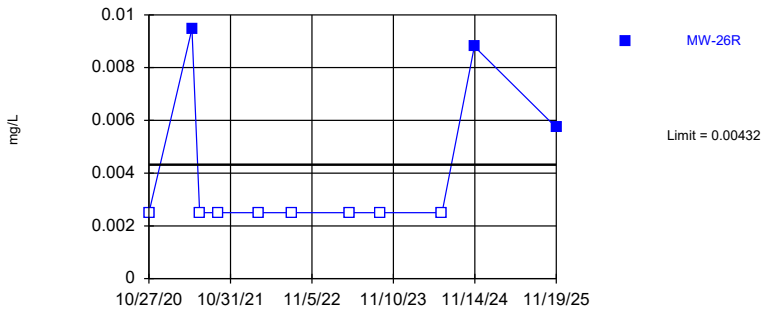
Constituent: Cobalt Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-26R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 88.89% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Assumes 9 future values.

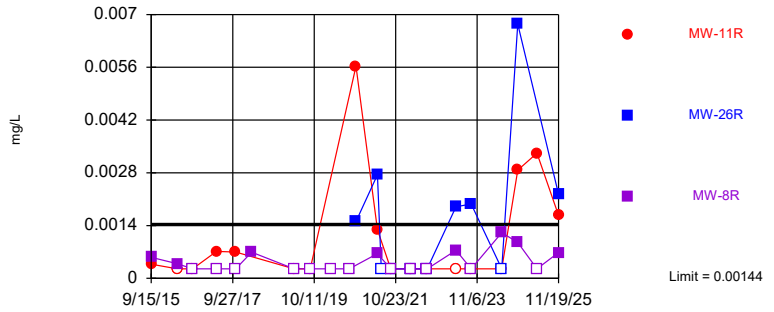
Constituent: Copper Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R, MW-26R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 62.96% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 3 points to limit. Assumes 7 future values.

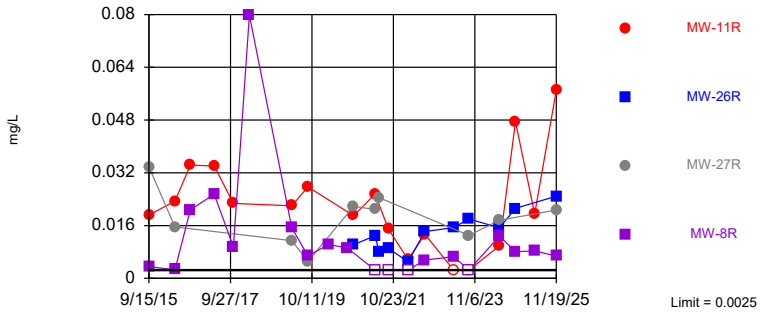
Constituent: Lead Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R, MW-26R, MW-27R, MW-8R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 88.89% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 4 points to limit. Assumes 6 future values.

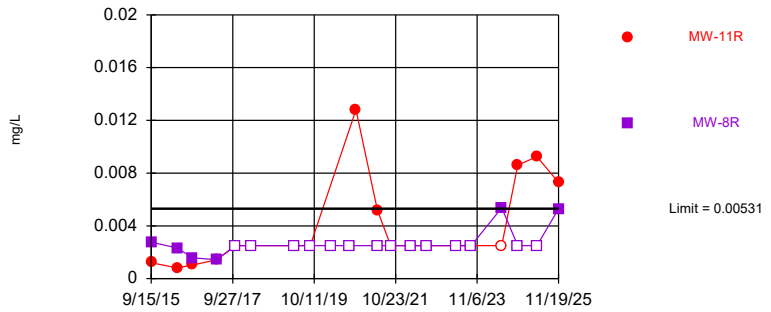
Constituent: Nickel Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-11R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 66.67% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

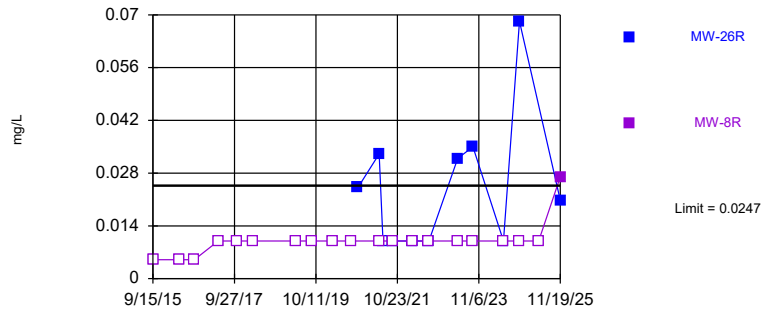
Constituent: Vanadium Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

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Hollow symbols indicate censored values.

Exceeds Limit: MW-8R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 88.89% NDs. Annual per-constituent alpha = 0.04484. Individual comparison alpha = 0.002291 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

Constituent: Zinc Analysis Run 12/17/2025 9:21 AM View: 2025_AWQR-AM_Interwell_PL
Loess Hills SLF Client: SCS Engineers Data: IWLHS Sanitas Master

Mann-Kendall Trend Table and Graphs

Trend Test

Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR Printed 12/23/2025, 8:52 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-10R	0.02452	0	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-26R	-0.3903	-21	-21	No	8	37.5	0.01	NP
1,1-Dichloroethane (ug/L)	**MW-27R**	**0.3417**	**22**	**21**	**Yes**	**8**	**12.5**	**0.01**	**NP**
1,2-Dichloropropane (ug/L)	MW-27R	0	1	21	No	8	87.5	0.01	NP
1,4-Dichlorobenzene (ug/L)	MW-11R	0.06062	9	21	No	8	12.5	0.01	NP
Acetone (ug/L)	MW-27R	0	-5	-21	No	8	75	0.01	NP
Antimony (mg/L)	MW-7	0	-7	-21	No	8	87.5	0.01	NP
Antimony (mg/L)	MW-27R	0	7	21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-11R	0.003117	16	21	No	8	12.5	0.01	NP
Arsenic (mg/L)	MW-25	0	-5	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-26R	-0.01192	-8	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-27R	-0.001933	-13	-21	No	8	37.5	0.01	NP
Barium (mg/L)	MW-7	-0.08993	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-8R	-0.02507	-16	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-10R	-0.01963	-13	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-11R	-0.08574	-20	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-25	0.08692	14	21	No	8	0	0.01	NP
Barium (mg/L)	MW-26R	0.04279	8	21	No	8	0	0.01	NP
Barium (mg/L)	MW-27R	0.04833	18	21	No	8	0	0.01	NP
Barium (mg/L)	MW-28	-0.05882	-17	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-7	0	-3	-21	No	8	75	0.01	NP
Benzene (ug/L)	MW-11R	0.08936	3	21	No	8	25	0.01	NP
Benzene (ug/L)	MW-26R	-0.1681	-16	-21	No	8	50	0.01	NP
Benzene (ug/L)	MW-28	-0.1525	-11	-21	No	8	37.5	0.01	NP
beta-BHC (ug/L)	MW-28	0.002654	11	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-7	0	-1	-21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-8R	0.000006749	11	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-11R	0.00001692	15	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-26R	0.00006022	15	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-27R	0	0	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-28	0.00005769	13	21	No	8	25	0.01	NP
Carbon disulfide (ug/L)	MW-27R	0	-2	-21	No	8	62.5	0.01	NP
Chlorobenzene (ug/L)	MW-11R	0	7	21	No	8	87.5	0.01	NP
Chlorobenzene (ug/L)	MW-27R	0.4399	16	21	No	8	25	0.01	NP
Chromium (mg/L)	MW-26R	0	7	21	No	8	87.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-7	0.7509	14	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-8R	0.3909	10	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-10R	0.3109	4	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-11R	0.1733	16	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-26R	-10.42	-20	-21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-27R	4.294	18	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-7	0	-7	-21	No	8	87.5	0.01	NP
Cobalt (mg/L)	MW-8R	0	1	21	No	8	87.5	0.01	NP
Cobalt (mg/L)	MW-11R	0.003098	16	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-26R	-0.0003591	-10	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-27R	-0.0007751	-8	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-28	-0.0002915	-4	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-8R	0	1	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-11R	0	-5	-21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-25	0	5	21	No	8	87.5	0.01	NP

Trend Test

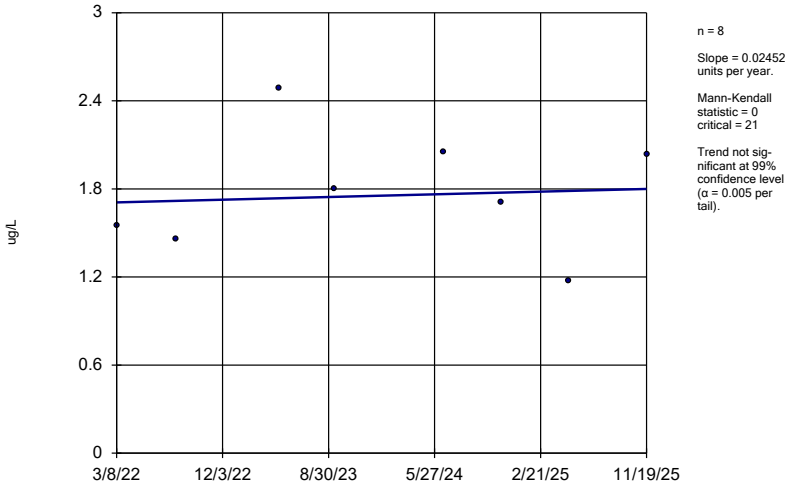
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR Printed 12/23/2025, 8:53 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Copper (mg/L)	MW-26R	0	11	21	No	8	75	0.01	NP
Lead (mg/L)	MW-7	0	-5	-21	No	8	75	0.01	NP
Lead (mg/L)	MW-8R	0.00005845	6	21	No	8	50	0.01	NP
Lead (mg/L)	MW-10R	0	-1	-21	No	8	75	0.01	NP
Lead (mg/L)	MW-11R	0.0004927	14	21	No	8	62.5	0.01	NP
Lead (mg/L)	MW-25	0	-7	-21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-26R	0.0005686	16	21	No	8	50	0.01	NP
Lead (mg/L)	MW-27R	-0.00001307	-3	-21	No	8	37.5	0.01	NP
Mercury (mg/L)	MW-8R	0.00002222	4	14	No	6	33.33	0.01	NP
Nickel (mg/L)	MW-8R	0.001055	13	21	No	8	25	0.01	NP
Nickel (mg/L)	MW-11R	0.009985	15	21	No	8	25	0.01	NP
Nickel (mg/L)	**MW-26R**	**0.003754**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Nickel (mg/L)	MW-27R	0.001674	6	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-28	-0.001365	-2	-21	No	8	0	0.01	NP
Thallium (mg/L)	MW-26R	0	-1	-21	No	8	87.5	0.01	NP
Trichloroethene (ug/L)	**MW-27R**	**0.6584**	**23**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**
Vanadium (mg/L)	MW-8R	0	7	21	No	8	75	0.01	NP
Vanadium (mg/L)	MW-11R	0.001411	14	21	No	8	62.5	0.01	NP
Vanadium (mg/L)	MW-25	0	-5	-21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-26R	0	8	21	No	8	62.5	0.01	NP
Vanadium (mg/L)	MW-27R	0	3	21	No	8	87.5	0.01	NP
Vinyl chloride (ug/L)	MW-11R	0	-8	-21	No	8	62.5	0.01	NP
Zinc (mg/L)	MW-8R	0	7	21	No	8	87.5	0.01	NP
Zinc (mg/L)	MW-11R	0	7	21	No	8	75	0.01	NP
Zinc (mg/L)	MW-26R	0.005442	12	21	No	8	50	0.01	NP

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Sen's Slope Estimator

MW-10R



n = 8

Slope = 0.02452 units per year.

Mann-Kendall statistic = 0
critical = 21

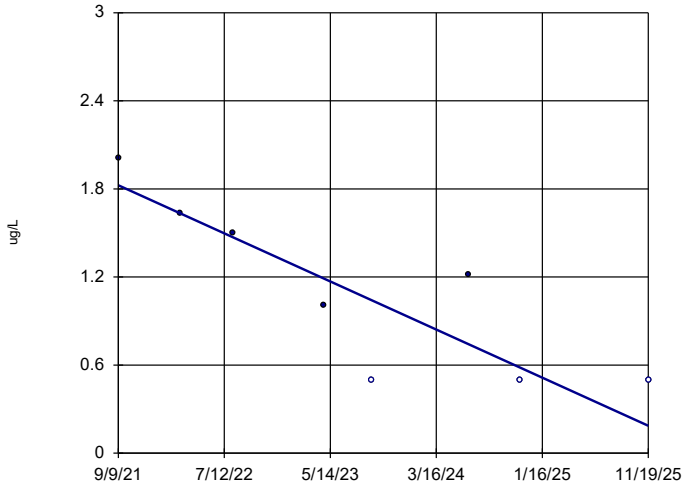
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.3903 units per year.

Mann-Kendall statistic = -21
critical = -21

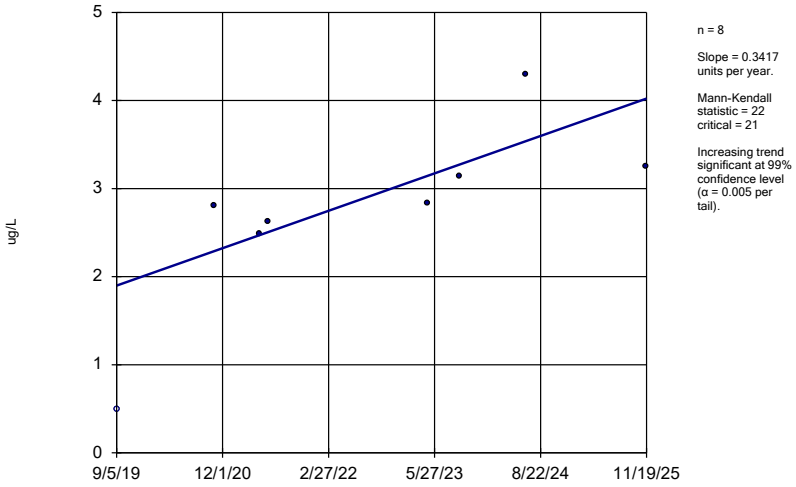
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.3417 units per year.

Mann-Kendall statistic = 22
critical = 21

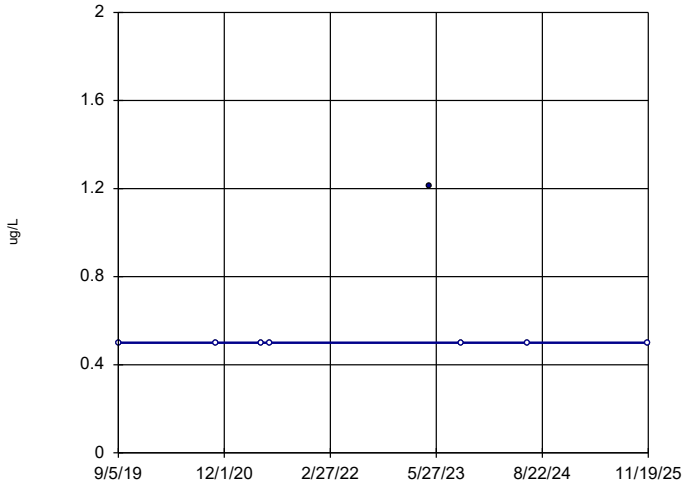
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,1-Dichloroethane Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 21

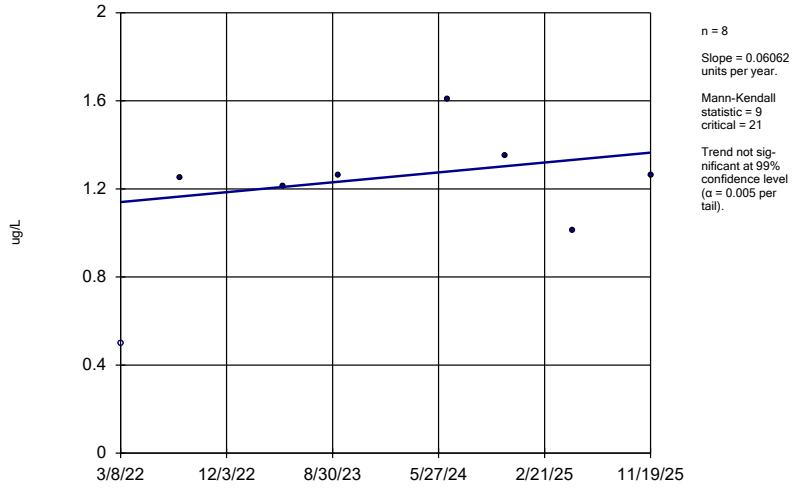
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,2-Dichloropropane Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

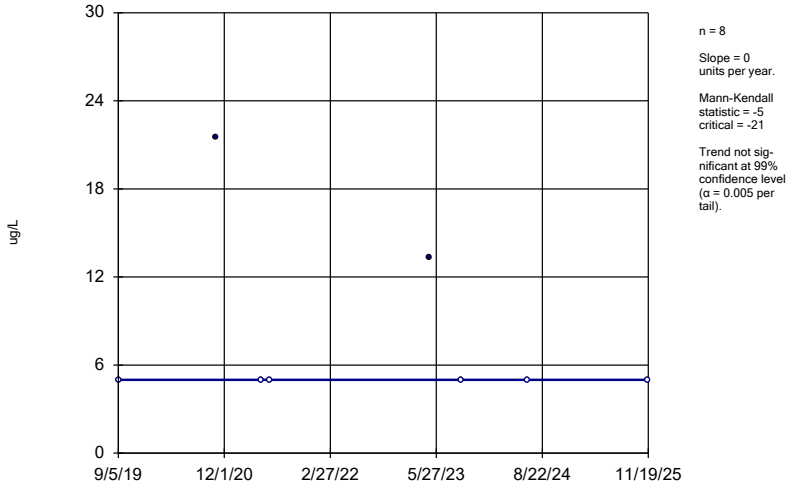


Constituent: 1,4-Dichlorobenzene Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

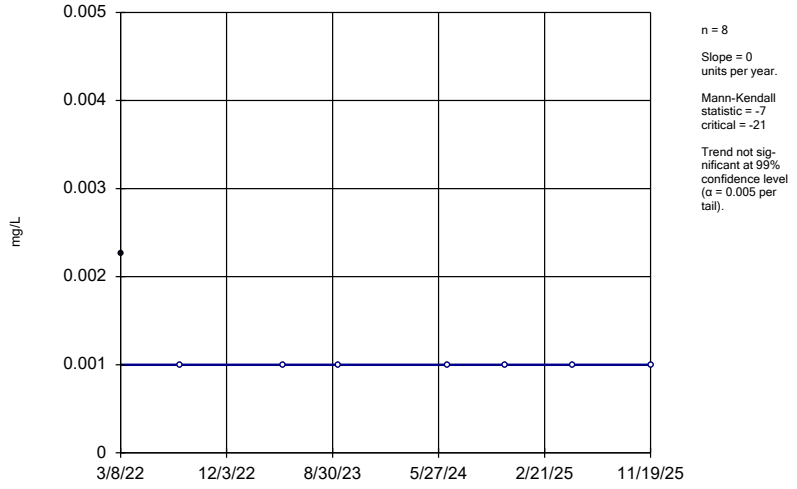


Constituent: Acetone Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

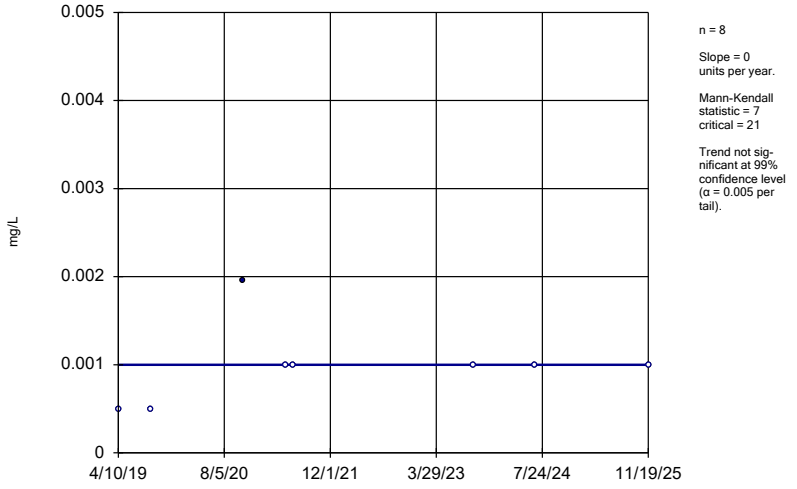


Constituent: Antimony Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

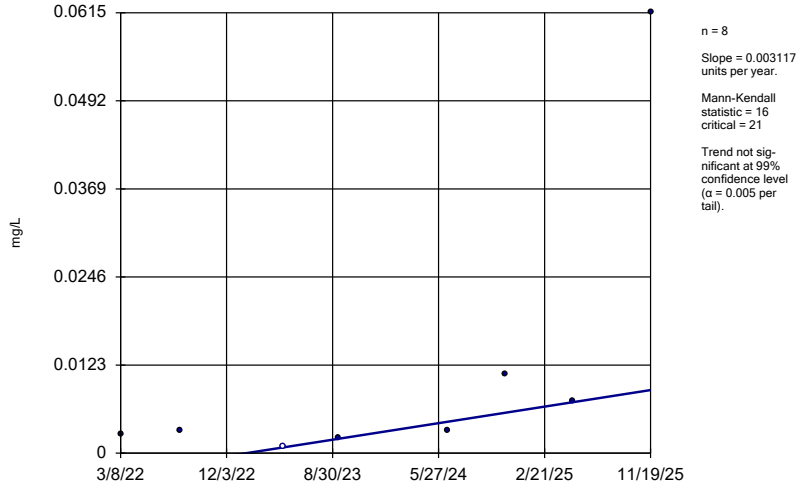


Constituent: Antimony Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.003117 units per year.

Mann-Kendall statistic = 16
critical = 21

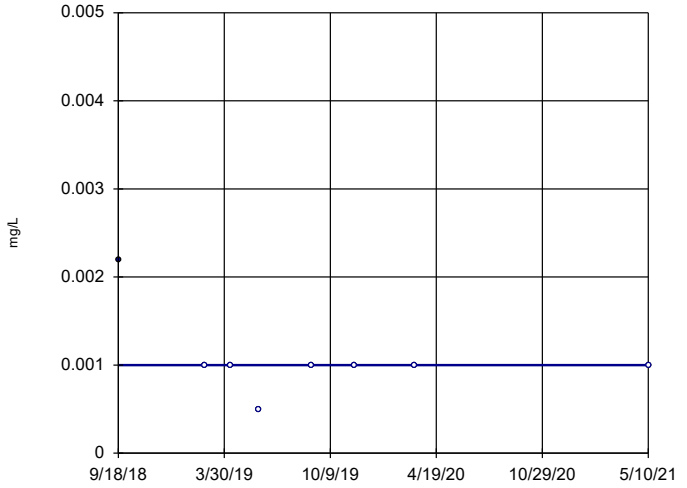
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -21

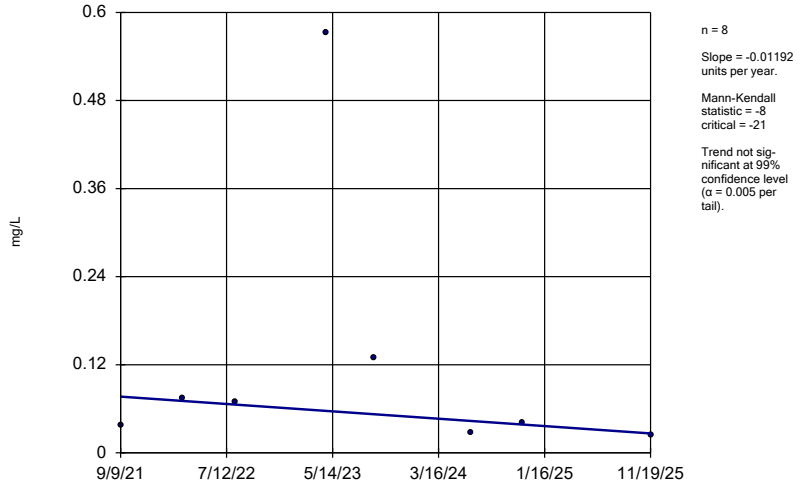
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.01192 units per year.

Mann-Kendall statistic = -8
critical = -21

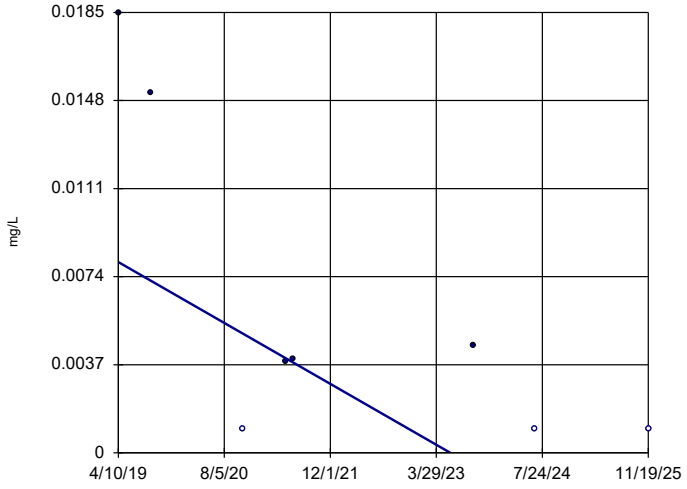
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = -0.001933 units per year.

Mann-Kendall statistic = -13
critical = -21

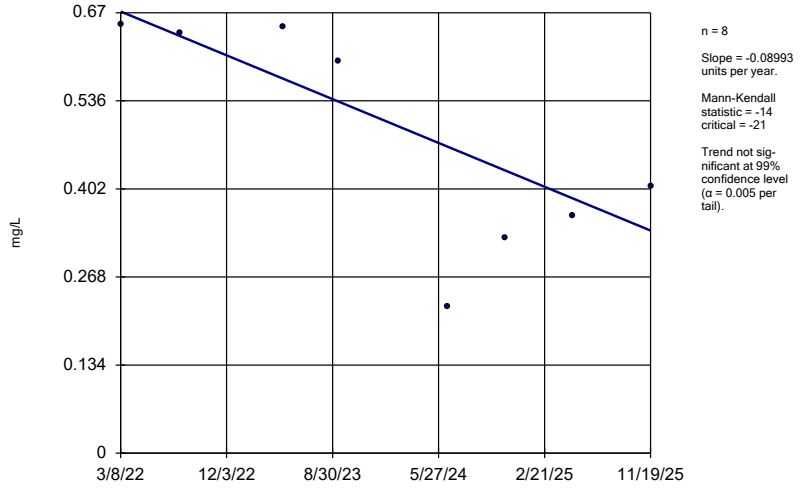
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-7



n = 8

Slope = -0.08993 units per year.

Mann-Kendall statistic = -14 critical = -21

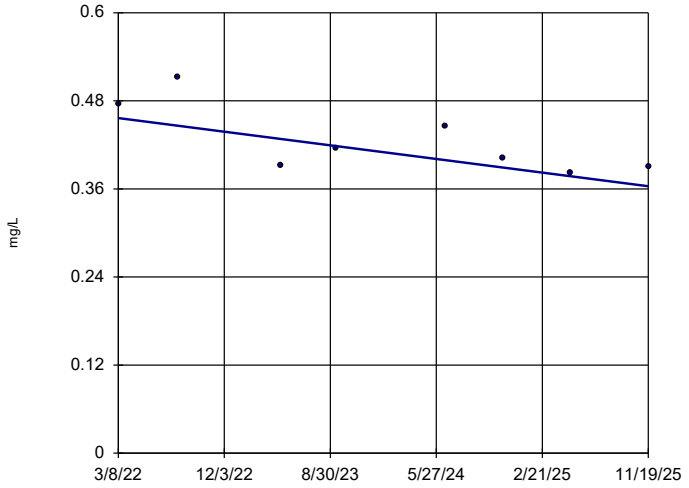
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8R



n = 8

Slope = -0.02507 units per year.

Mann-Kendall statistic = -16 critical = -21

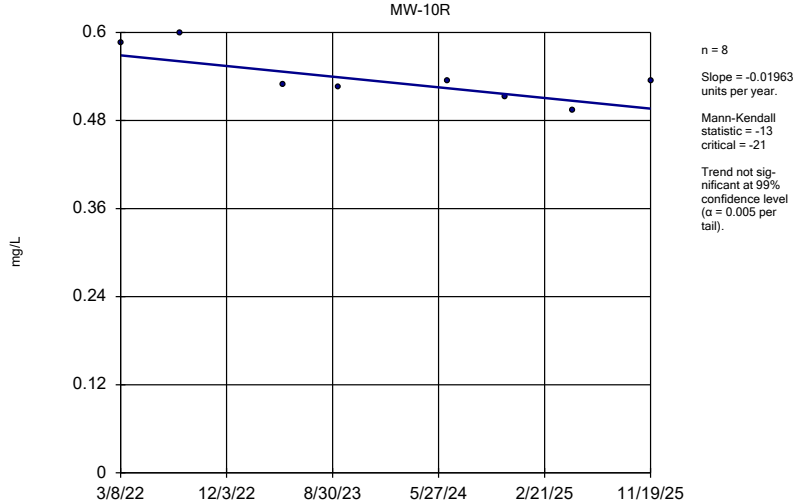
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-10R



n = 8

Slope = -0.01963 units per year.

Mann-Kendall statistic = -13 critical = -21

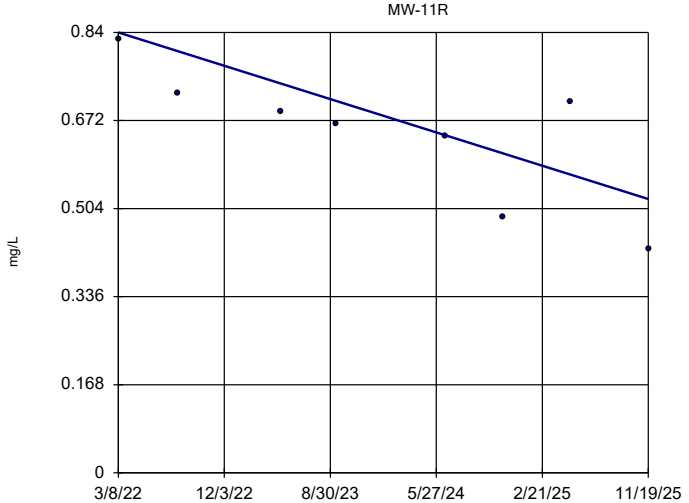
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11R



n = 8

Slope = -0.08574 units per year.

Mann-Kendall statistic = -20 critical = -21

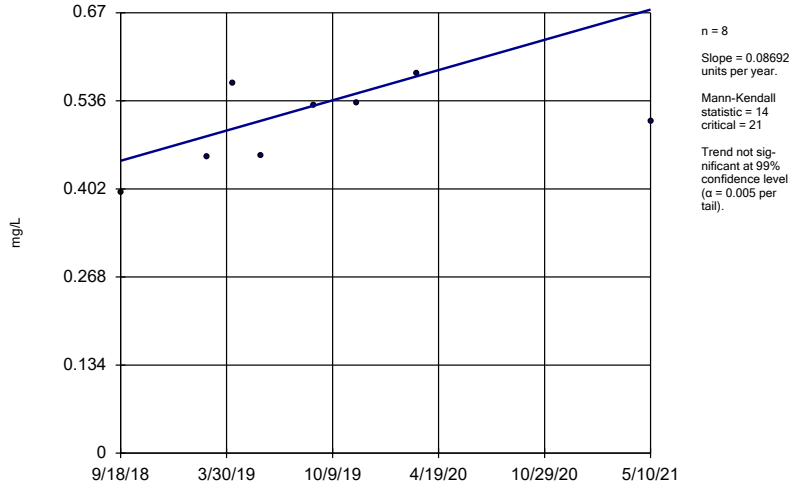
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-25



n = 8

Slope = 0.08692 units per year.

Mann-Kendall statistic = 14 critical = 21

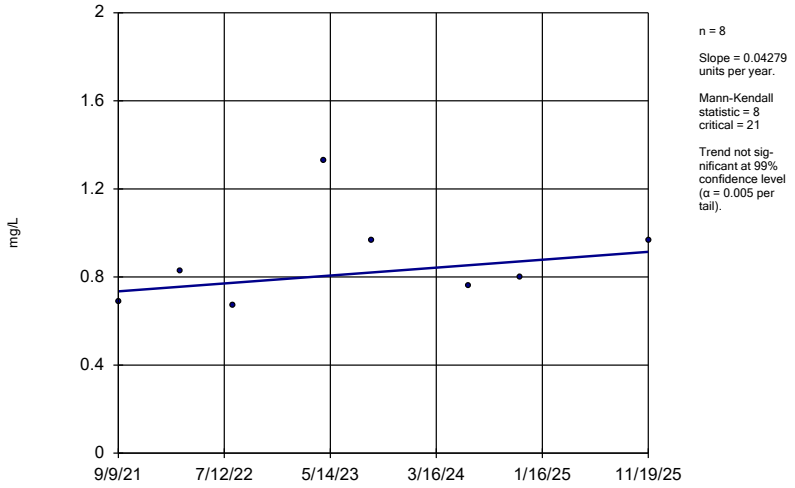
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.04279 units per year.

Mann-Kendall statistic = 8 critical = 21

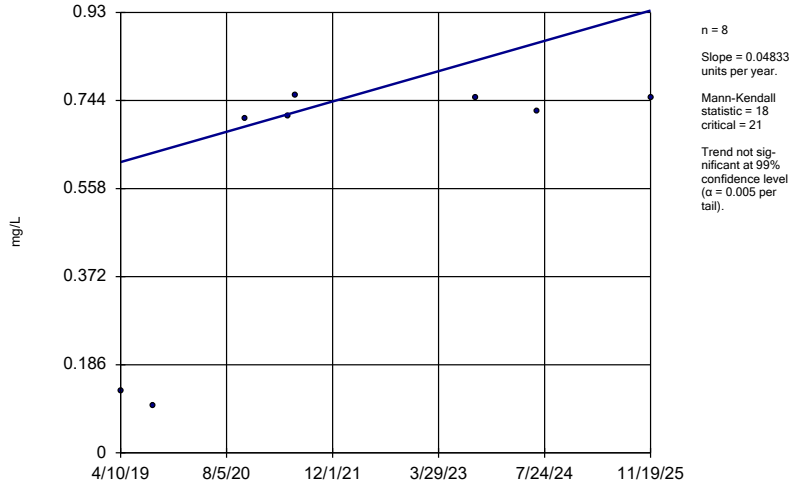
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.04833 units per year.

Mann-Kendall statistic = 18 critical = 21

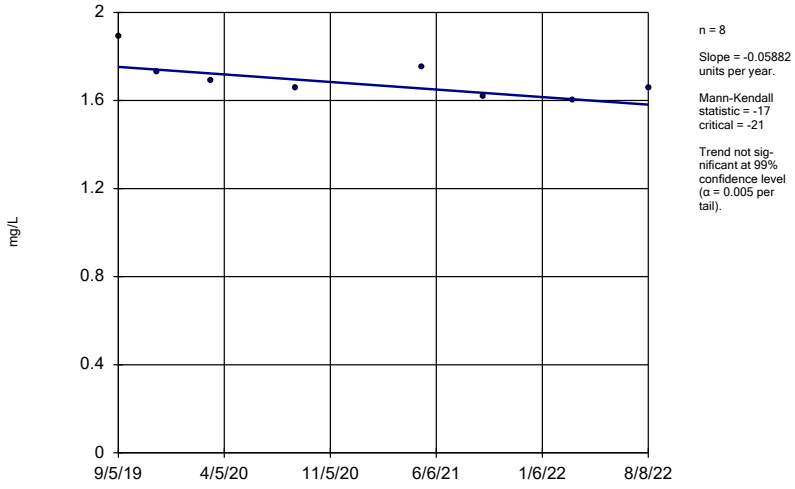
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-28



n = 8

Slope = -0.05882 units per year.

Mann-Kendall statistic = -17 critical = -21

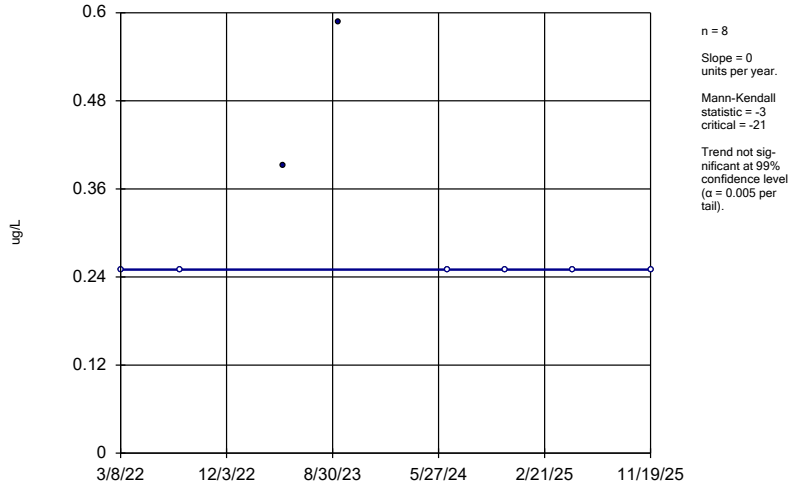
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 12/23/2025 8:49 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -3
critical = -21

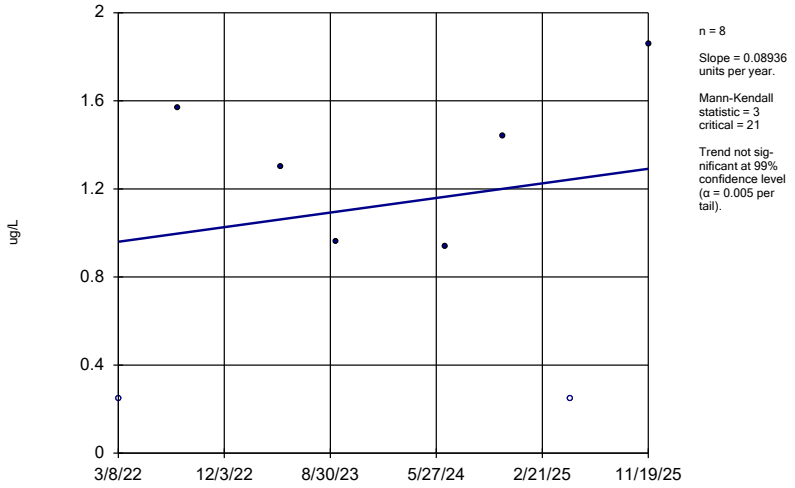
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Benzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.08936
units per year.

Mann-Kendall
statistic = 3
critical = 21

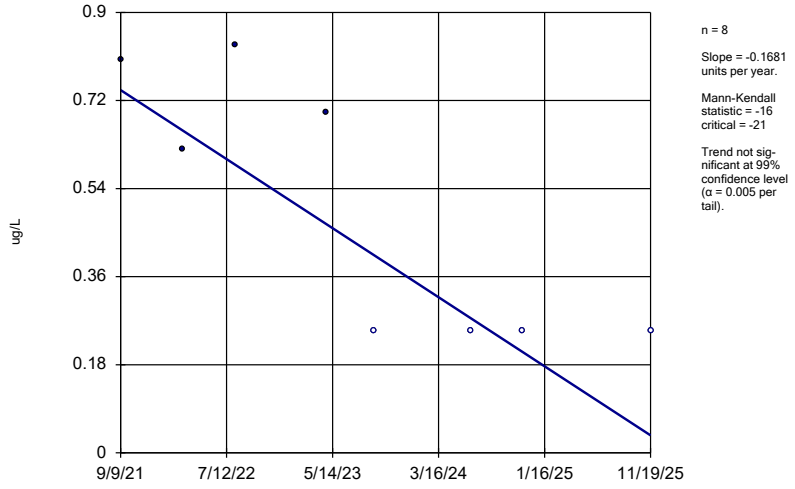
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Benzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.1681
units per year.

Mann-Kendall
statistic = -16
critical = -21

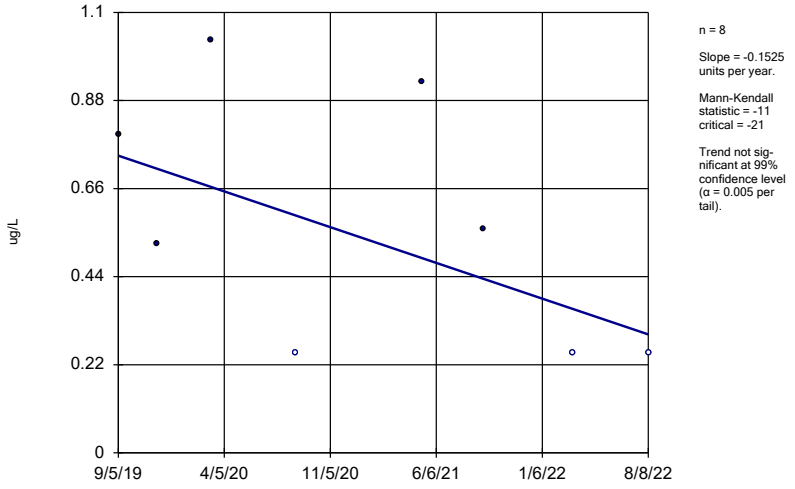
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Benzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = -0.1525
units per year.

Mann-Kendall
statistic = -11
critical = -21

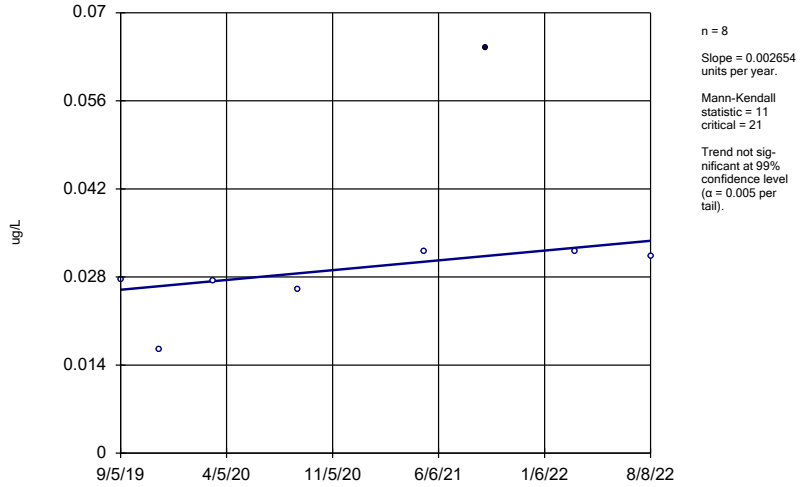
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Benzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28

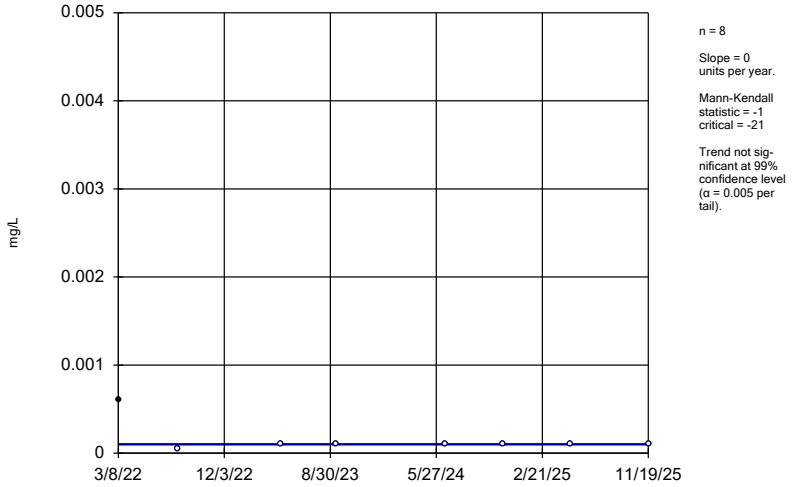


Constituent: beta-BHC Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

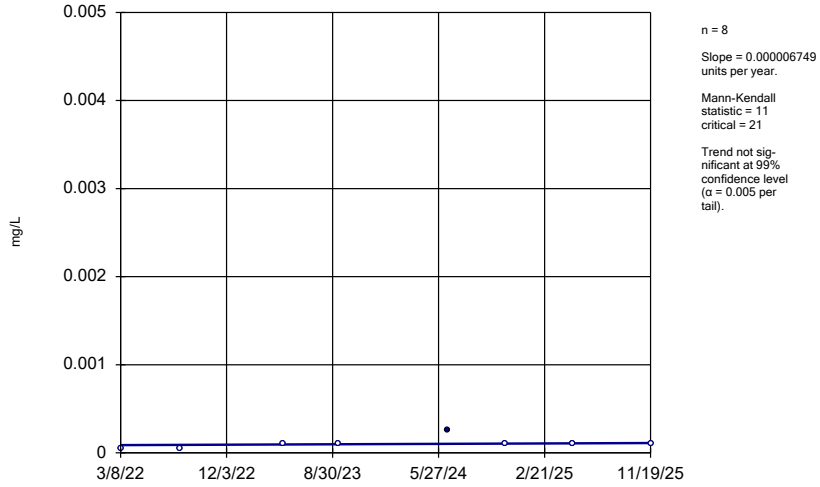


Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

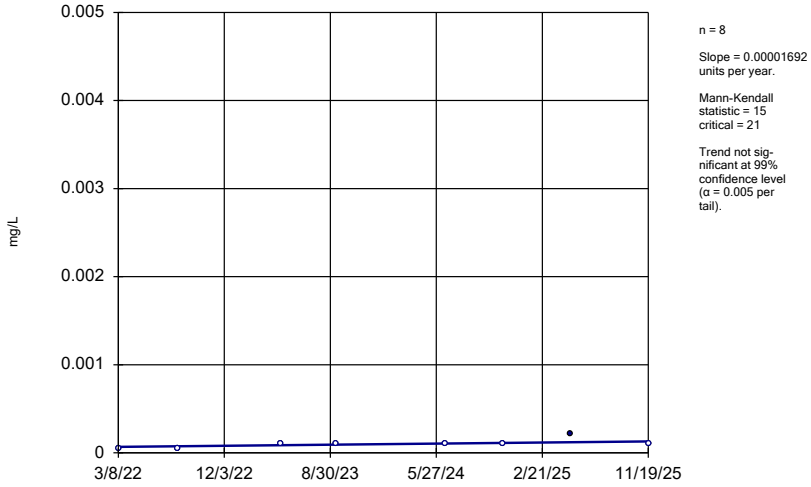


Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

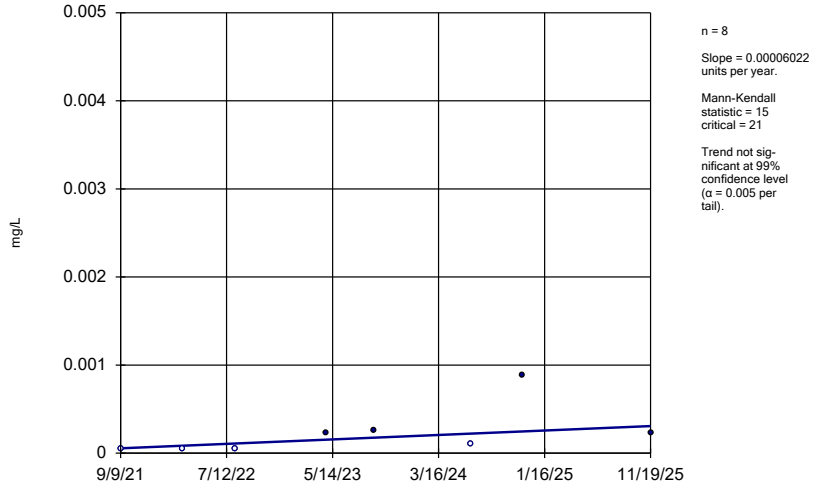


Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.00006022 units per year.

Mann-Kendall statistic = 15
critical = 21

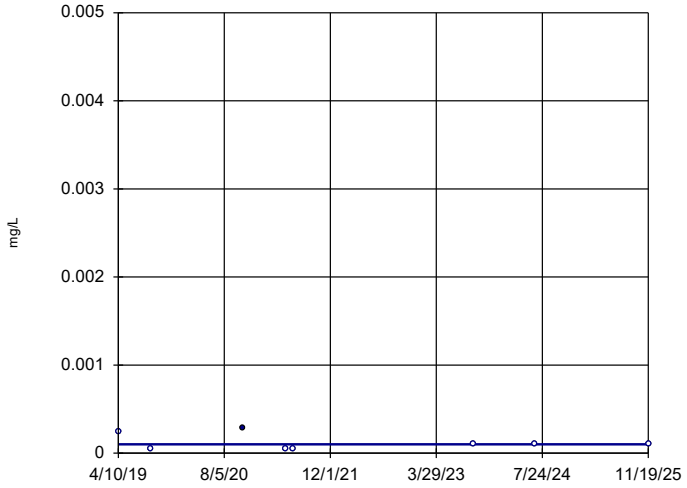
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 21

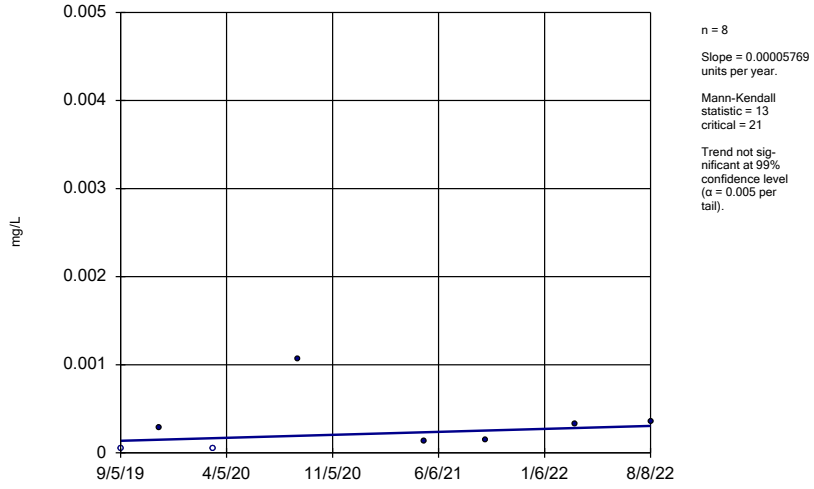
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = 0.00005769 units per year.

Mann-Kendall statistic = 13
critical = 21

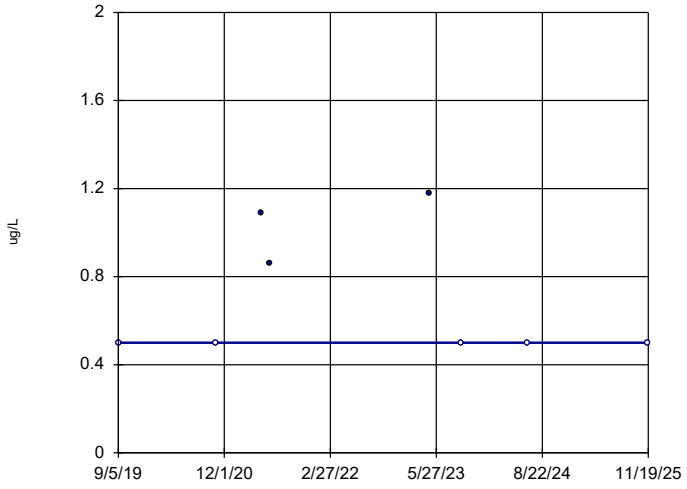
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -2
critical = -21

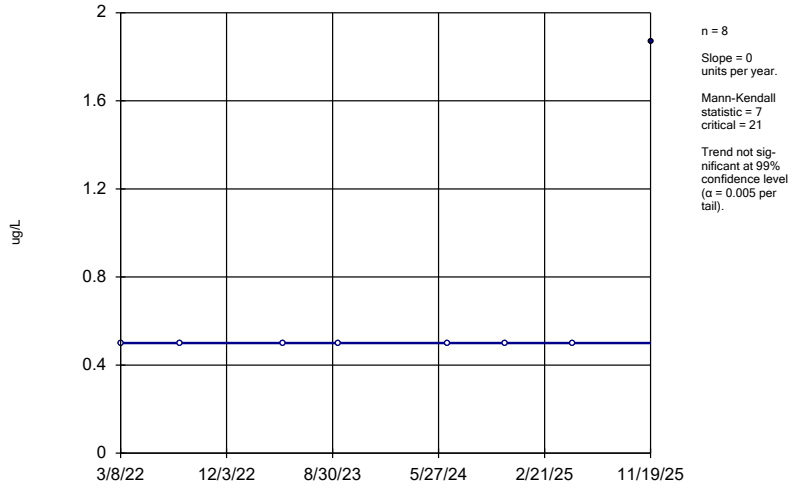
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Carbon disulfide Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

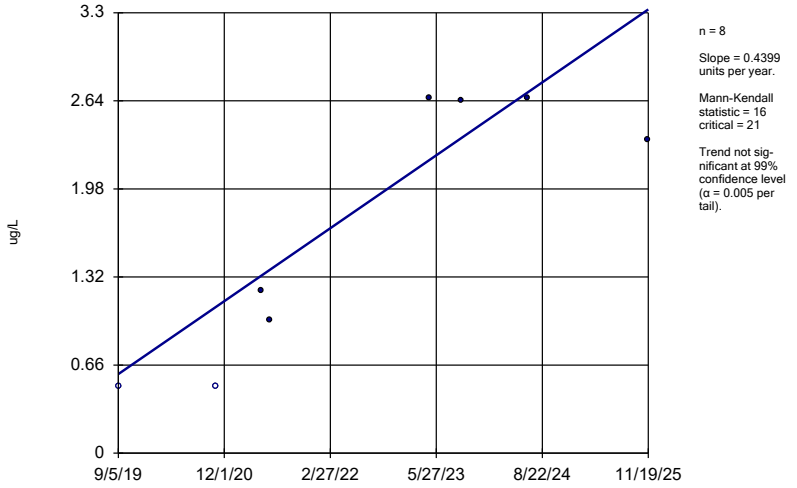


Constituent: Chlorobenzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

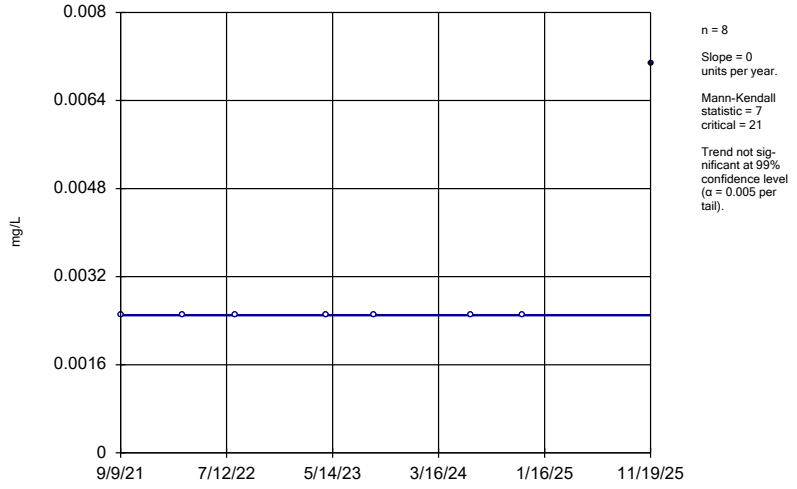


Constituent: Chlorobenzene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

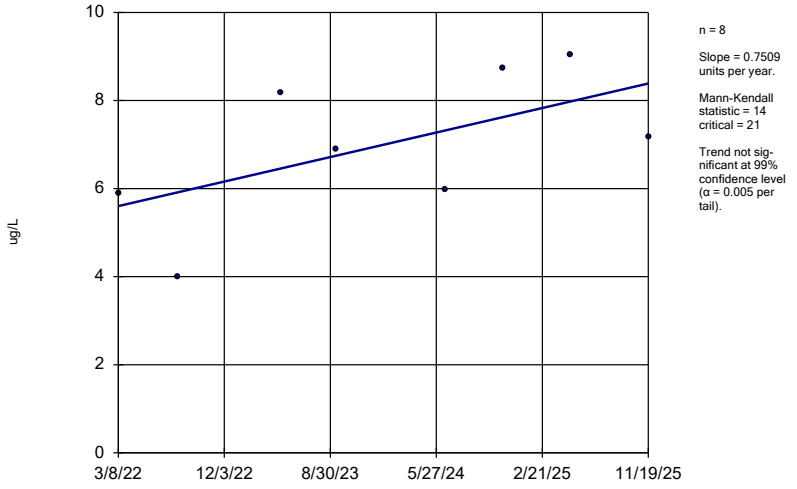


Constituent: Chromium Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-7

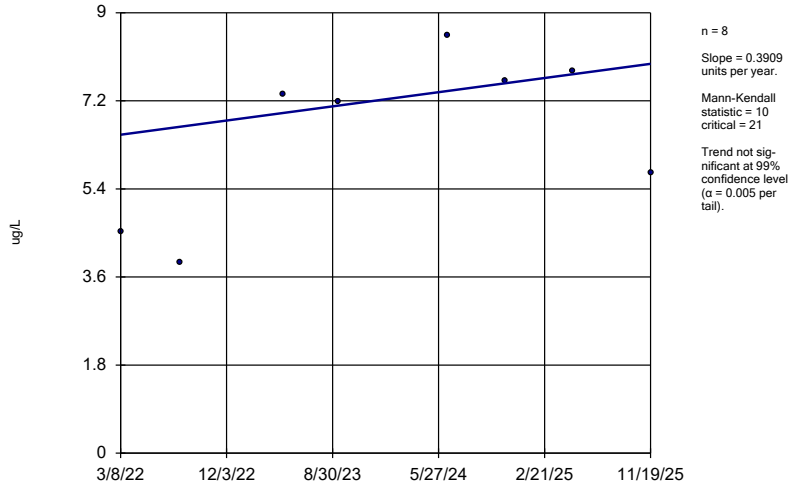


Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-8R



n = 8

Slope = 0.3909 units per year.

Mann-Kendall statistic = 10 critical = 21

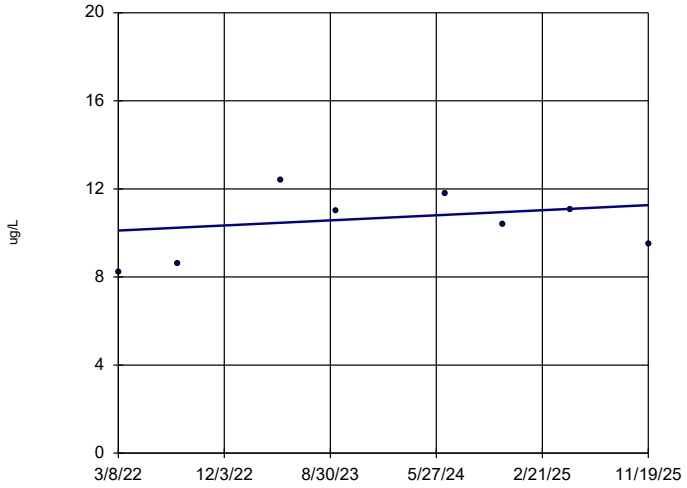
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-10R



n = 8

Slope = 0.3109 units per year.

Mann-Kendall statistic = 4 critical = 21

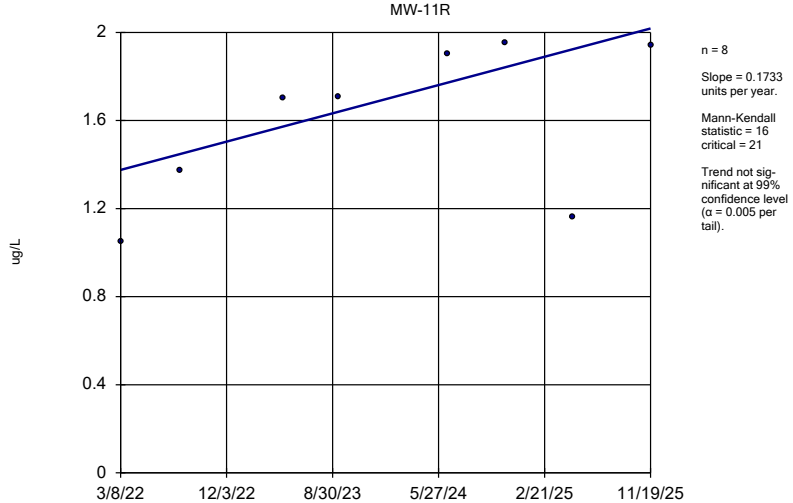
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.1733 units per year.

Mann-Kendall statistic = 16 critical = 21

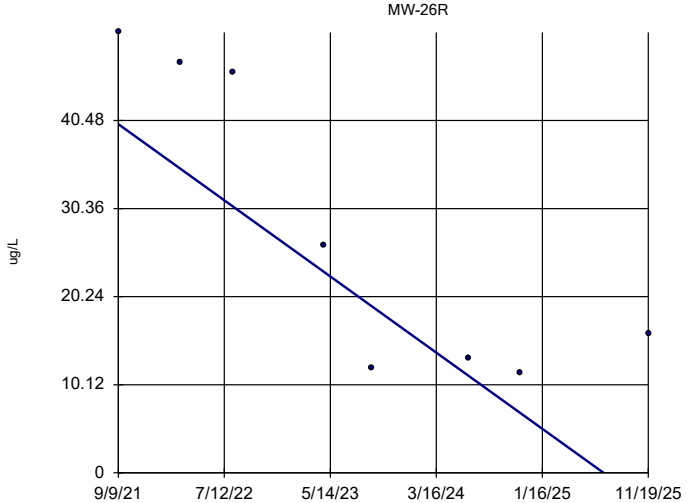
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-26R



n = 8

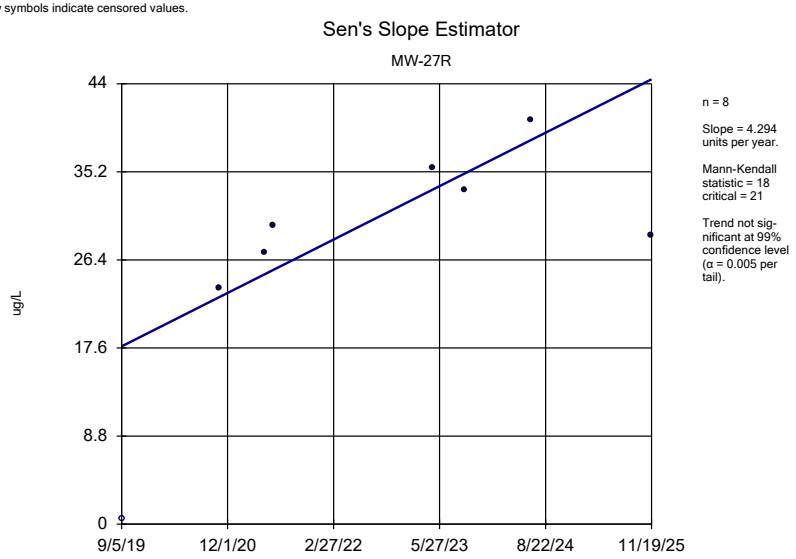
Slope = -10.42 units per year.

Mann-Kendall statistic = -20 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

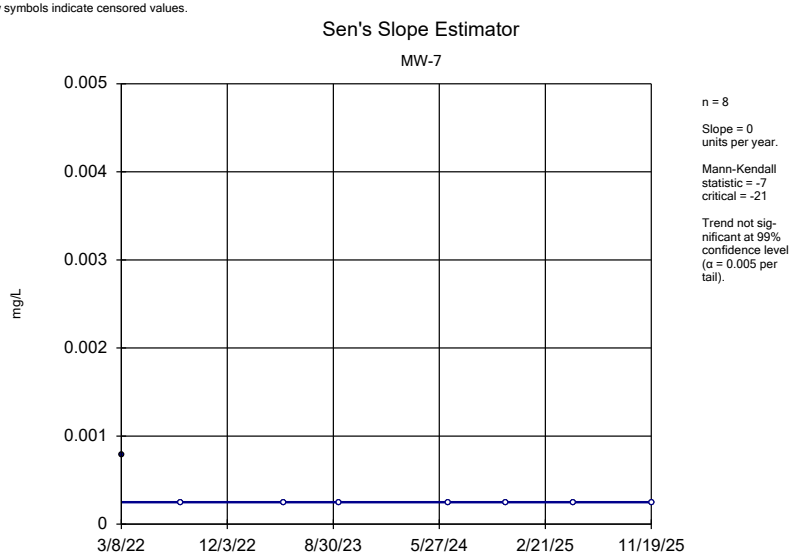
Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.



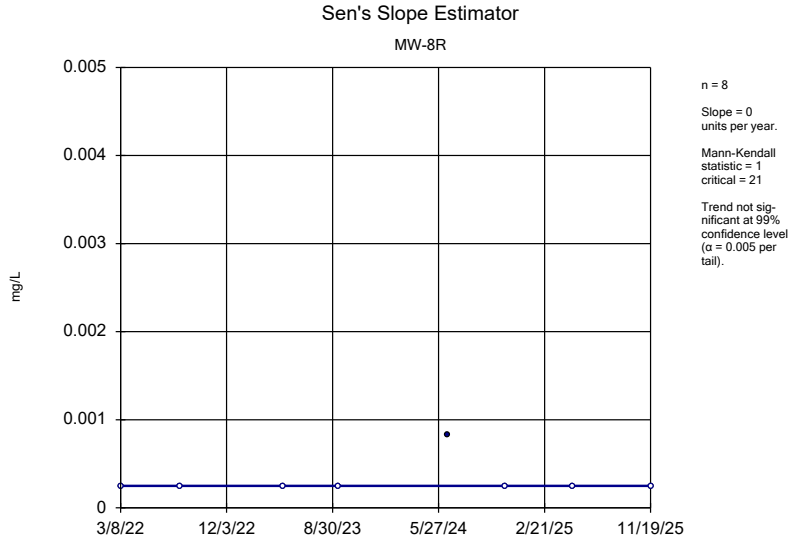
Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



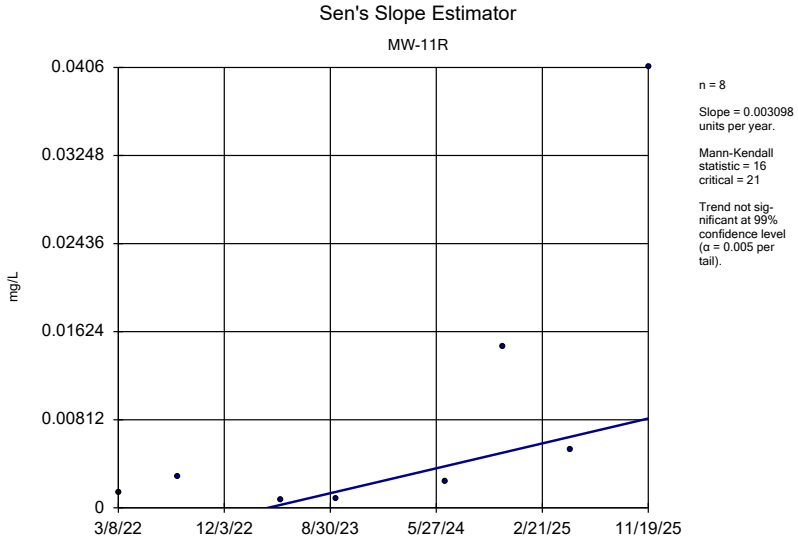
Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

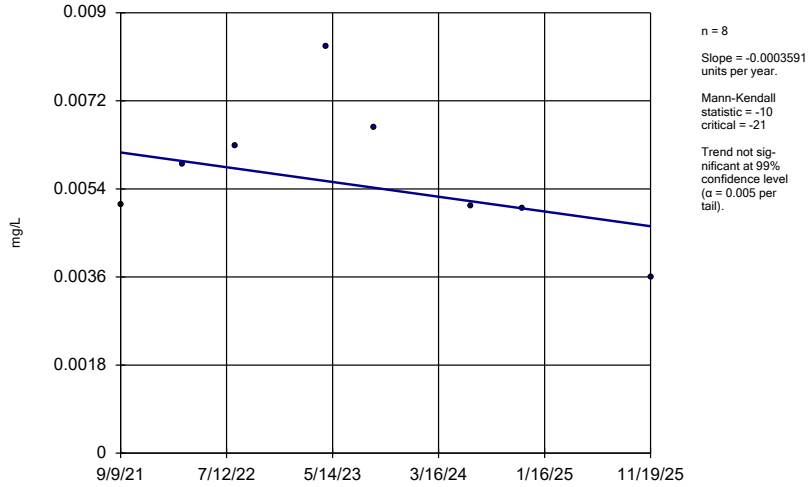


Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-26R



n = 8

Slope = -0.0003591 units per year.

Mann-Kendall statistic = -10 critical = -21

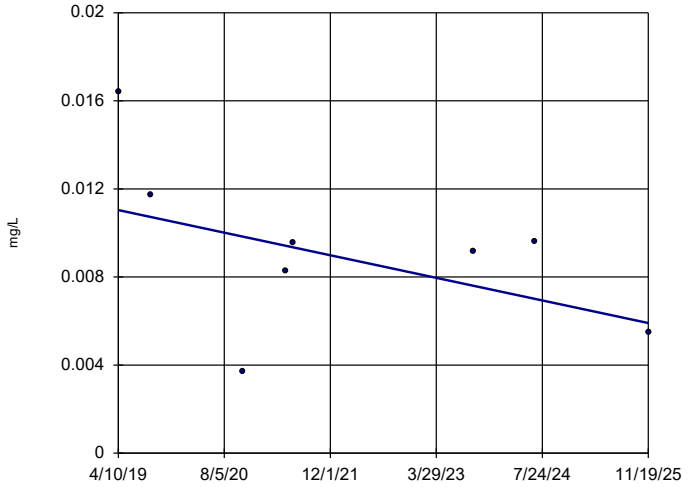
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-27R



n = 8

Slope = -0.0007751 units per year.

Mann-Kendall statistic = -8 critical = -21

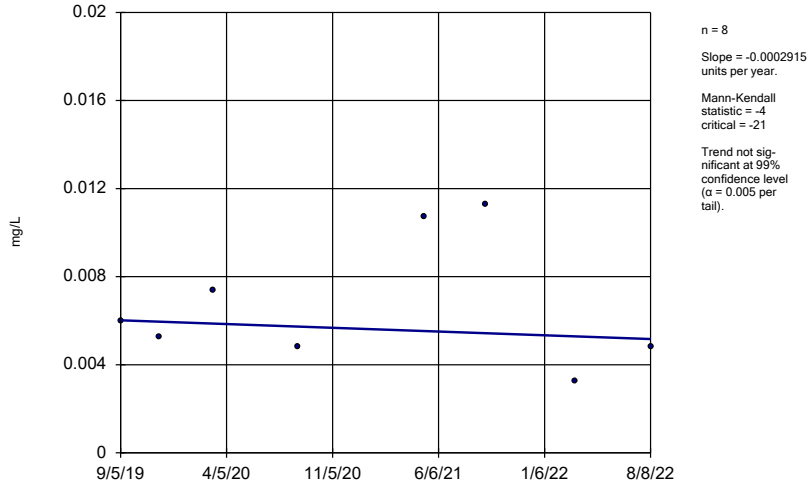
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-28



n = 8

Slope = -0.0002915 units per year.

Mann-Kendall statistic = -4 critical = -21

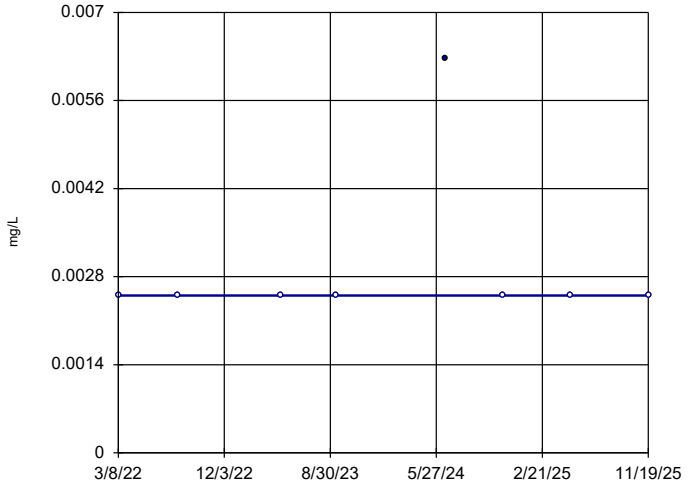
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 1 critical = 21

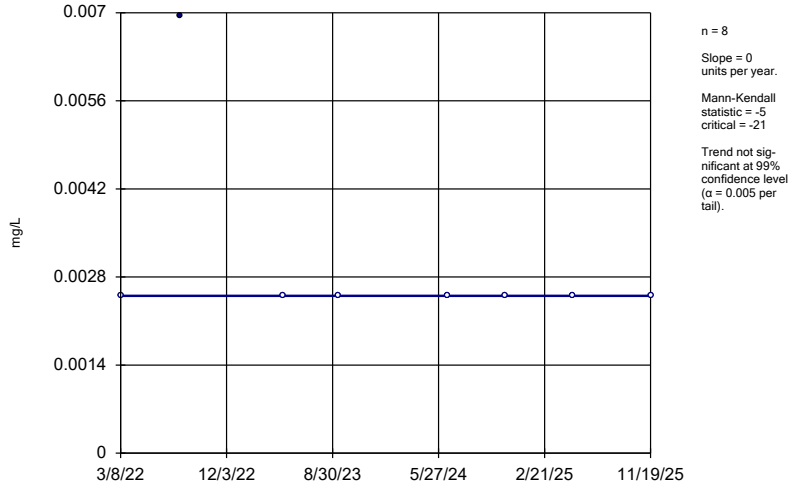
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Copper Analysis Run 12/23/2025 8:50 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

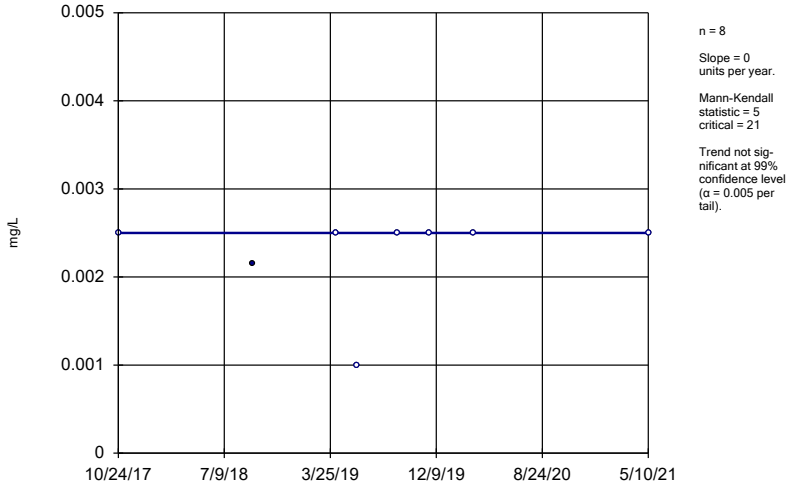


Constituent: Copper Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

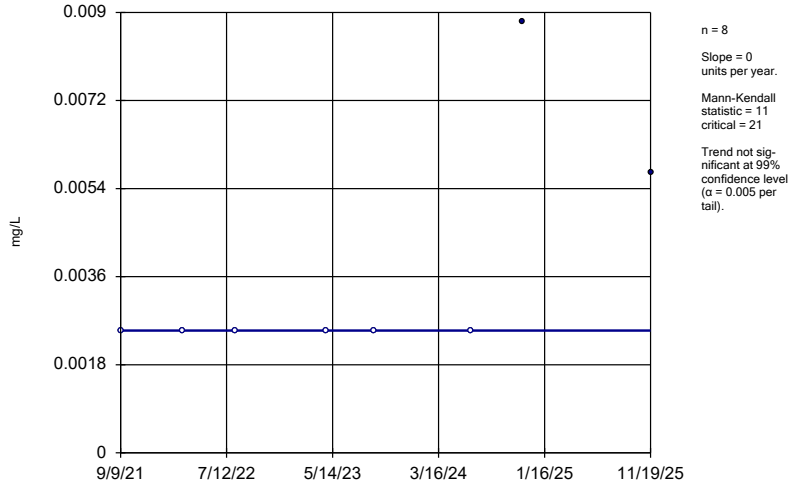


Constituent: Copper Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

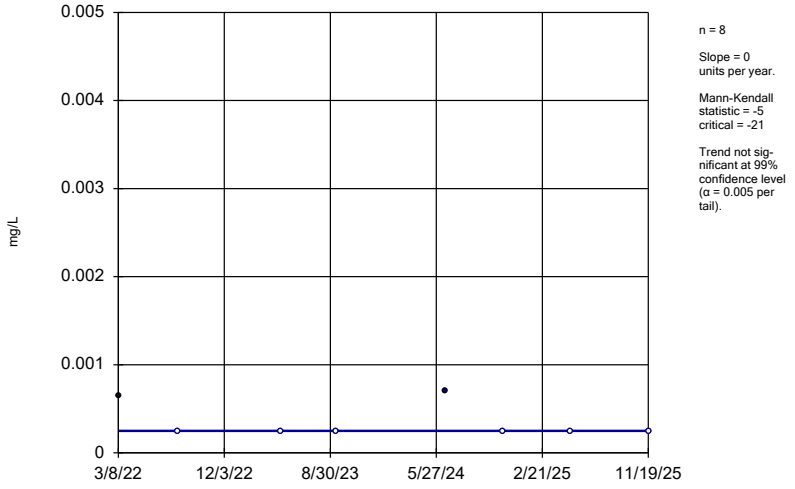


Constituent: Copper Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7

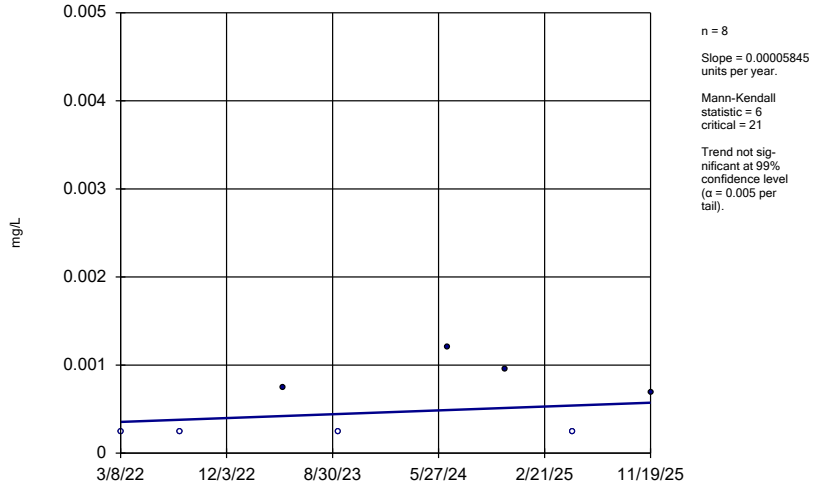


Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

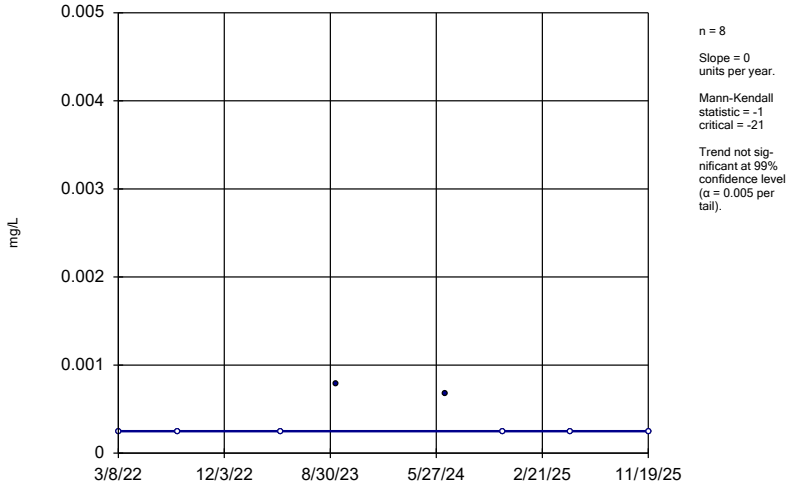


Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-10R

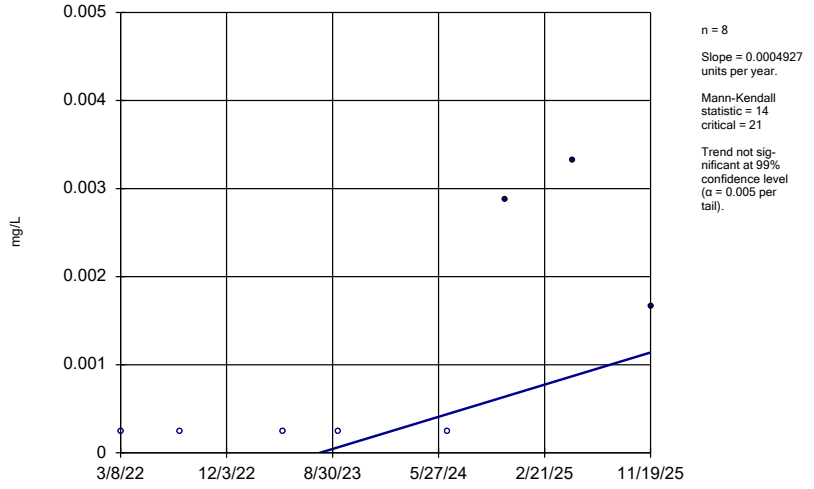


Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

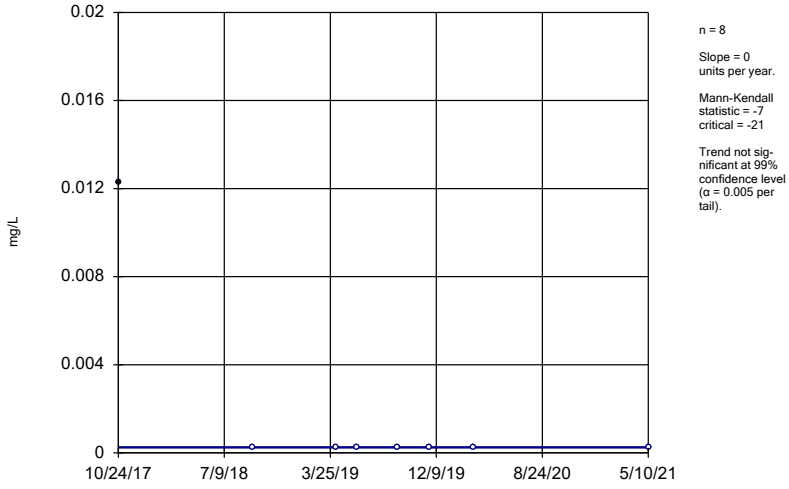


Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

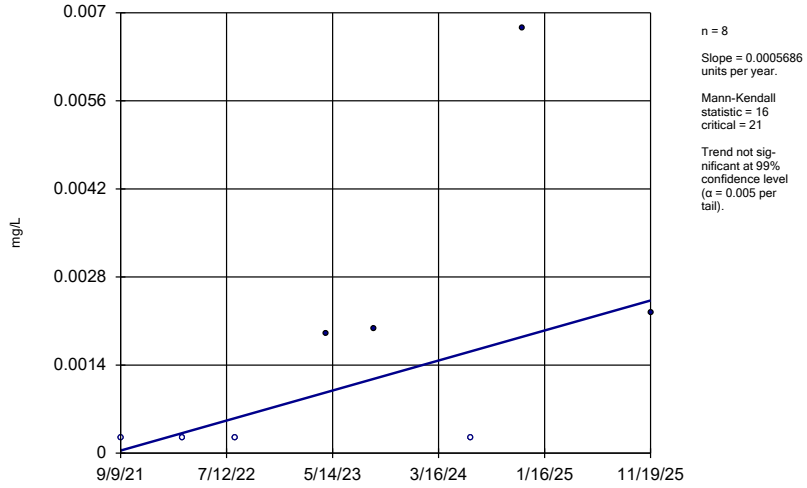


Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.0005686 units per year.

Mann-Kendall statistic = 16
critical = 21

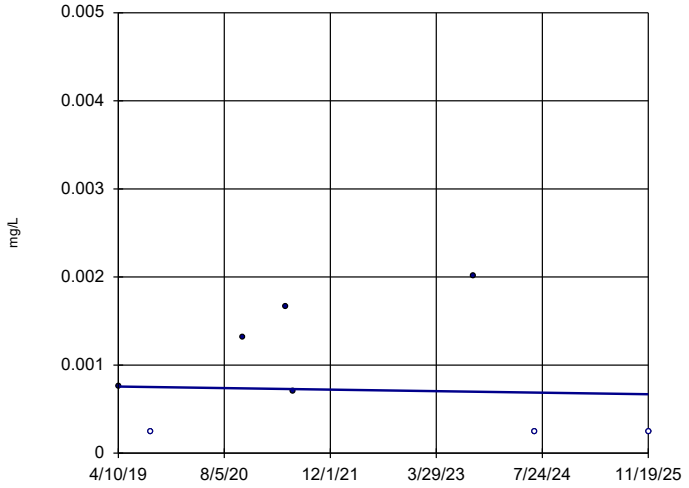
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R



n = 8

Slope = -0.00001307 units per year.

Mann-Kendall statistic = -3
critical = -21

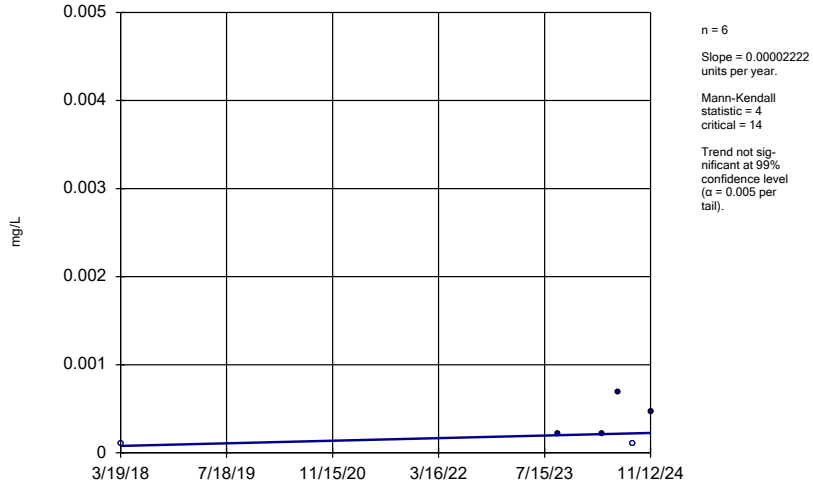
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 6

Slope = 0.00002222 units per year.

Mann-Kendall statistic = 4
critical = 14

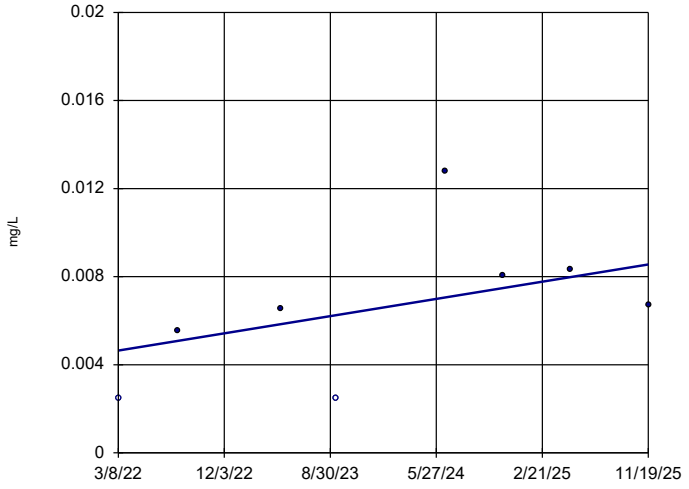
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Mercury Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0.001055 units per year.

Mann-Kendall statistic = 13
critical = 21

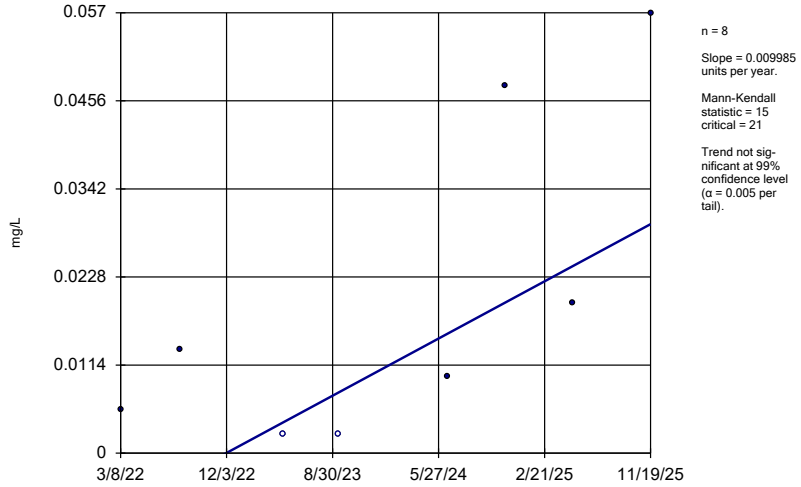
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0.009985 units per year.

Mann-Kendall statistic = 15
critical = 21

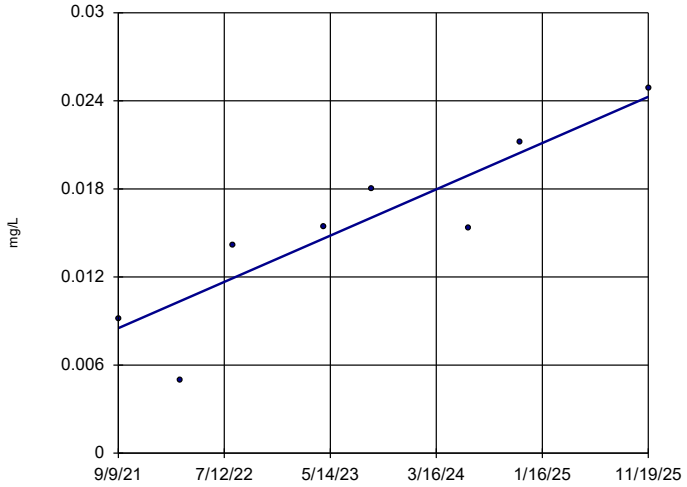
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.003754 units per year.

Mann-Kendall statistic = 22
critical = 21

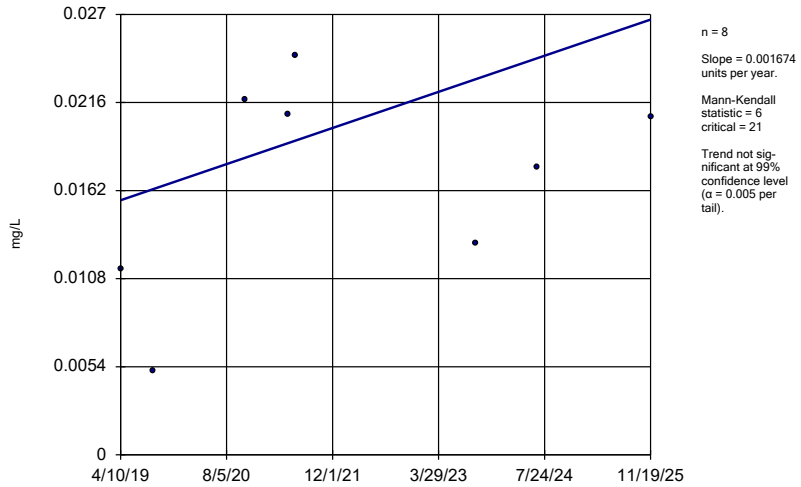
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Sen's Slope Estimator

MW-27R



n = 8

Slope = 0.001674 units per year.

Mann-Kendall statistic = 6
critical = 21

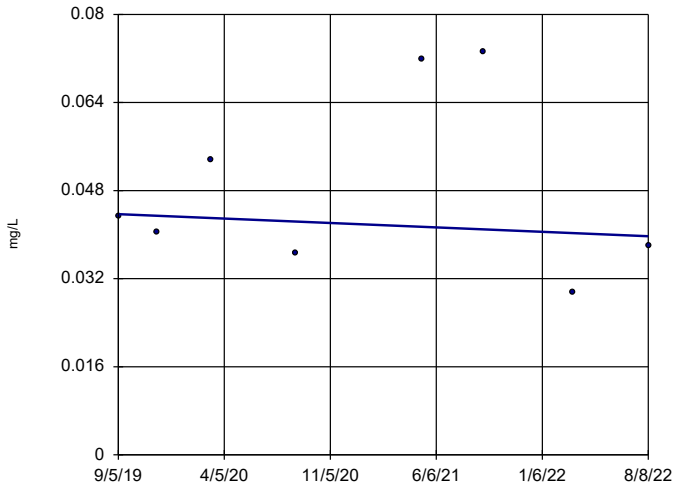
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-28



n = 8

Slope = -0.001365 units per year.

Mann-Kendall statistic = -2
critical = -21

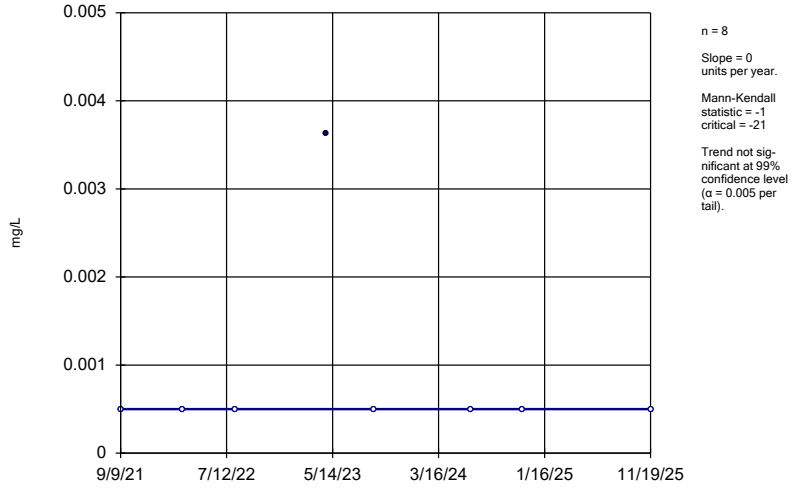
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

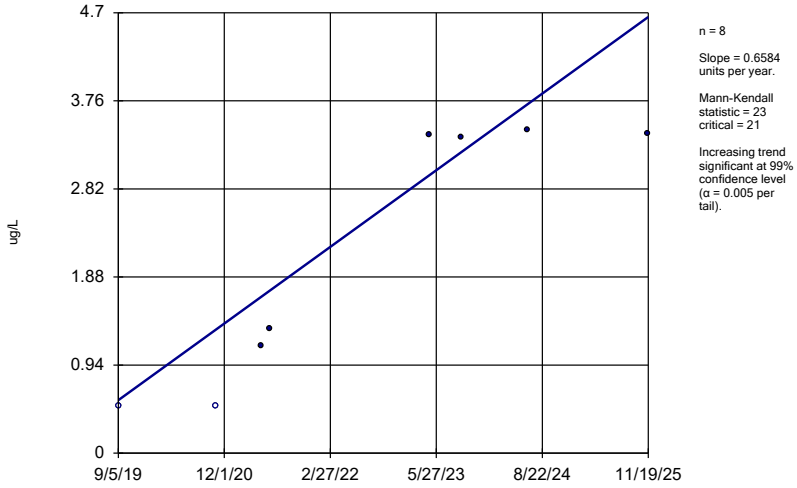


Constituent: Thallium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

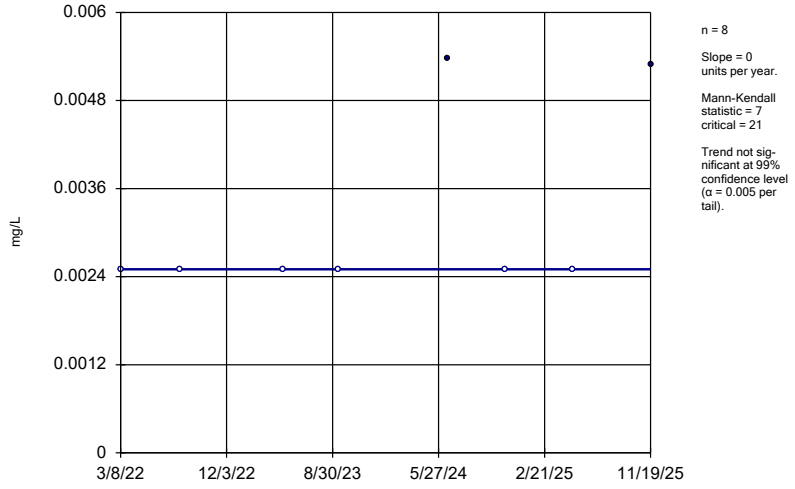


Constituent: Trichloroethene Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R

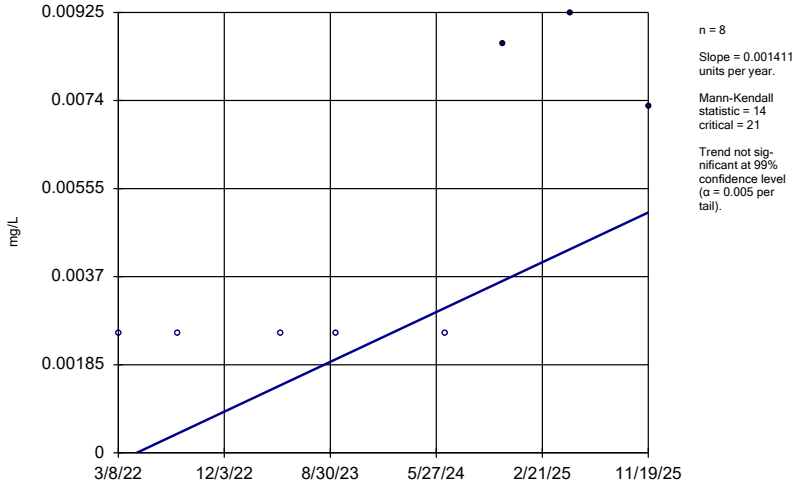


Constituent: Vanadium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

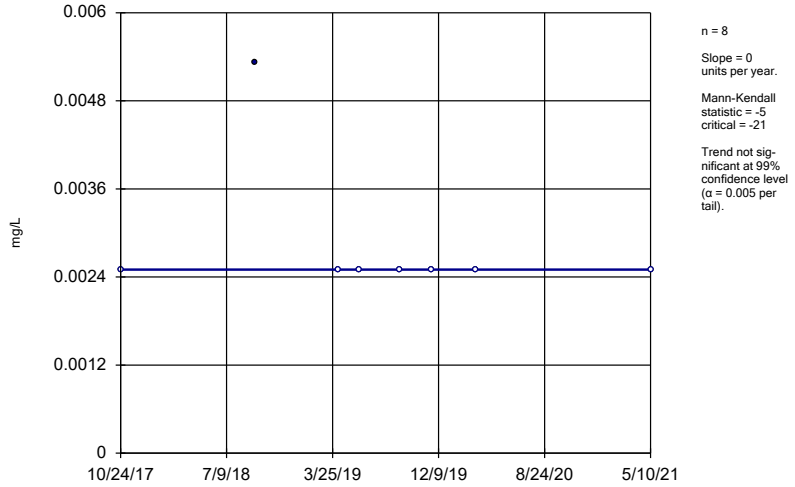


Constituent: Vanadium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25

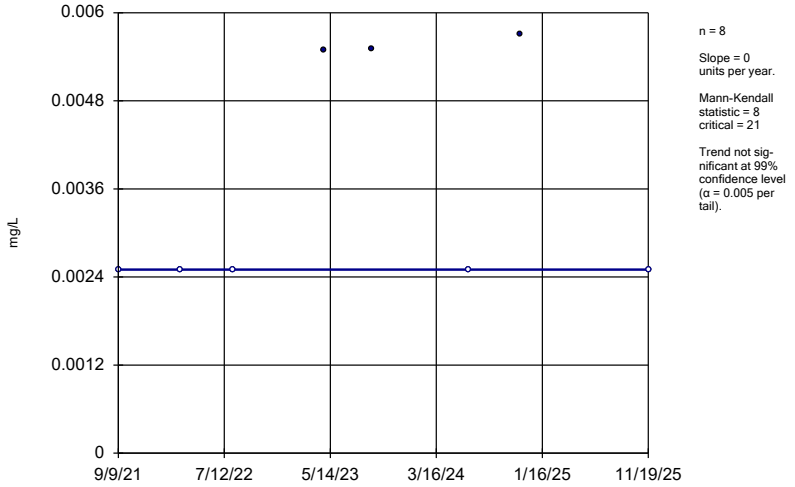


Constituent: Vanadium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R

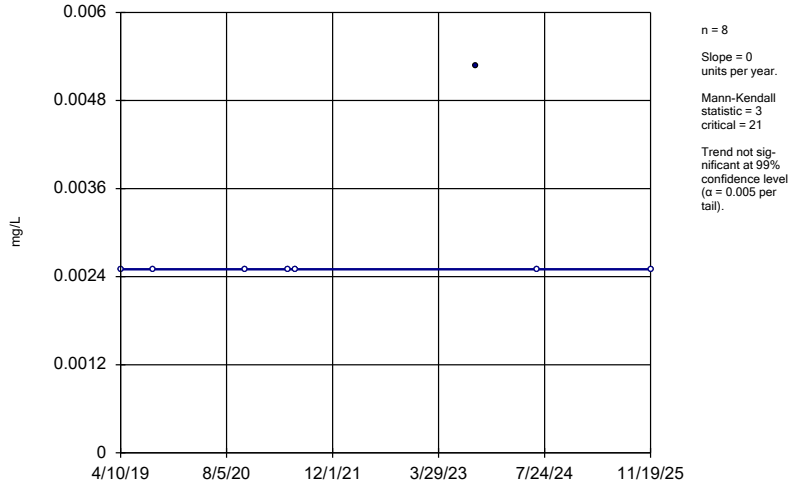


Constituent: Vanadium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-27R

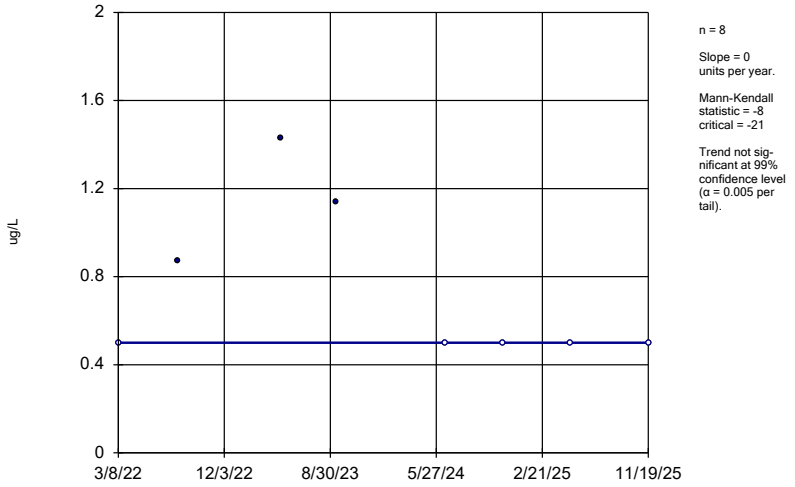


Constituent: Vanadium Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R

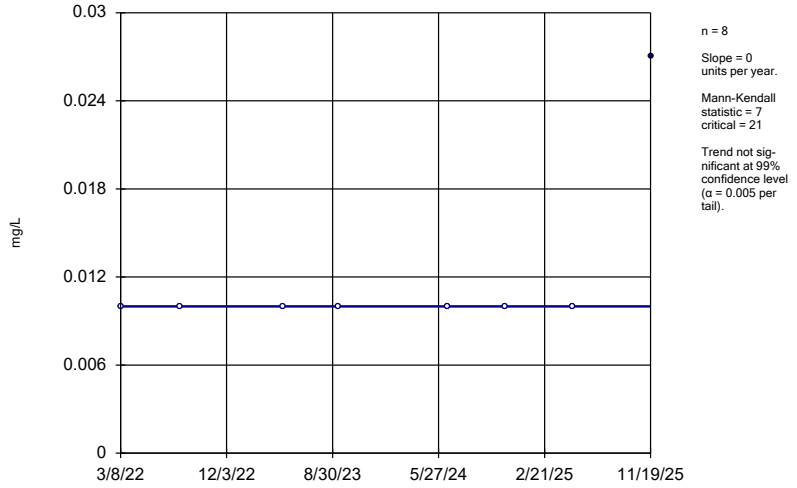


Constituent: Vinyl chloride Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 7 critical = 21

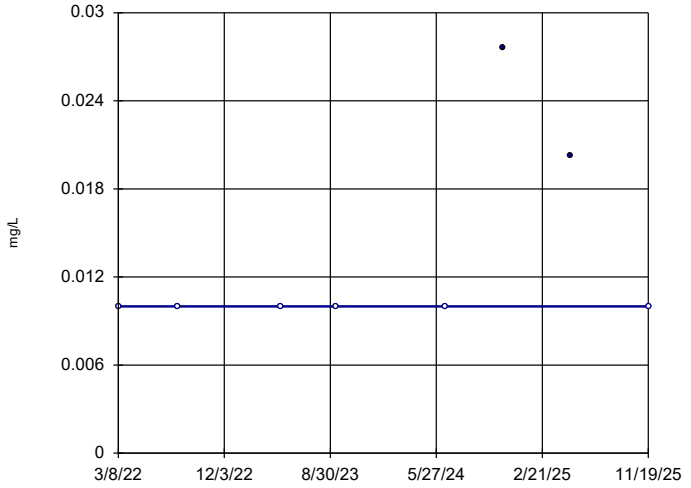
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Zinc Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11R



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 7 critical = 21

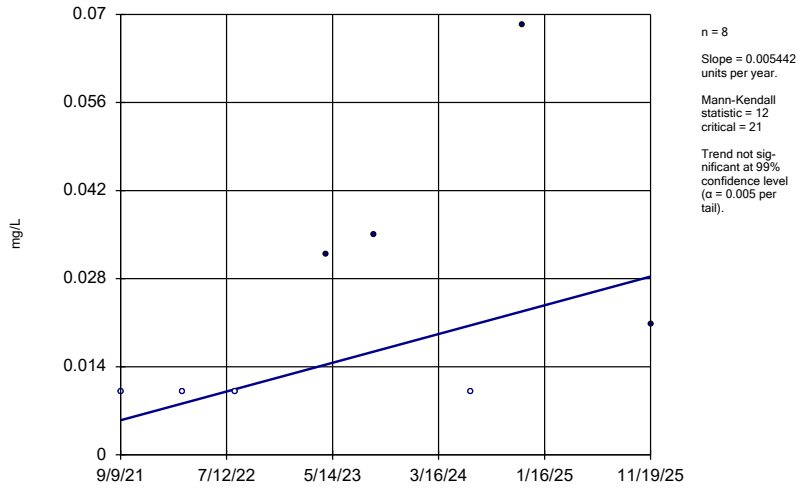
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Zinc Analysis Run 12/23/2025 8:51 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-26R



n = 8

Slope = 0.005442 units per year.

Mann-Kendall statistic = 12 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Zinc Analysis Run 12/23/2025 8:52 AM View: 2025_AWQR-Mann_Kendall
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Confidence Interval Table and Graphs

Confidence Interval

Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR Printed 12/23/2025, 9:01 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-10R	2.217	1.349	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MW-26R	1.673	0.919	140	No	8	37.5	No	0.01	Param.
1,2-Dichloropropane (ug/L)	MW-27R	1.21	0.5	5	No	8	87.5	No	0.004	NP (NDs)
1,4-Dichlorobenzene (ug/L)	MW-11R	1.522	0.8404	75	No	8	12.5	No	0.01	Param.
Acetone (ug/L)	MW-27R	21.5	5	6300	No	8	75	No	0.004	NP (NDs)
Antimony (mg/L)	MW-7	0.00227	0.001	0.006	No	8	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	MW-27R	0.00195	0.0005	0.006	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-11R	0.0615	0.001	0.01	No	8	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-25	0.0022	0.0005	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	**MW-26R**	**0.572**	**0.0245**	**0.01**	**Yes**	**8**	**0**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	MW-27R	0.01294	0.00003409	0.01	No	8	37.5	No	0.01	Param.
Barium (mg/L)	MW-7	0.6639	0.2999	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-8R	0.4764	0.3774	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10R	0.5767	0.5018	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-11R	0.7839	0.5088	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-25	0.5668	0.4342	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-26R	1.104	0.6495	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-27R	0.7545	0.1	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-28	1.797	1.603	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-7	0.587	0.25	5	No	8	75	No	0.004	NP (NDs)
Benzene (ug/L)	MW-11R	1.624	0.6431	5	No	8	25	No	0.01	Param.
Benzene (ug/L)	MW-26R	0.7611	0.4777	5	No	8	50	No	0.01	Param.
Benzene (ug/L)	MW-28	0.883	0.4505	5	No	8	37.5	No	0.01	Param.
beta-BHC (ug/L)	MW-28	0.0644	0.0165	0.042	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-7	0.00061	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-8R	0.000261	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-11R	0.000221	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-26R	0.000884	0.00005	0.005	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-27R	0.000291	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-28	0.00107	0.00005	0.005	No	8	25	No	0.004	NP (normality)
Carbon disulfide (ug/L)	MW-27R	1.18	0.5	700	No	8	62.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-11R	1.87	0.5	100	No	8	87.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-27R	2.464	0.8874	100	No	8	25	No	0.01	Param.
Chromium (mg/L)	MW-26R	0.00708	0.0025	0.1	No	8	87.5	No	0.004	NP (NDs)
cis-1,2-Dichloroethene (ug/L)	MW-7	8.771	5.201	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-8R	8.343	4.807	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-10R	11.95	8.792	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-11R	1.978	1.219	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-26R	46.16	9.52	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-27R	40.2	14.64	70	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.000786	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-8R	0.000829	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-11R	0.0406	0.000775	0.0021	No	8	0	No	0.004	NP (normality)
Cobalt (mg/L)	**MW-26R**	**0.007229**	**0.004251**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-27R**	**0.01331**	**0.005159**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**MW-28**	**0.009771**	**0.003614**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Copper (mg/L)	MW-8R	0.00626	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-11R	0.00695	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-25	0.0025	0.001	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-26R	0.0088	0.0025	1.3	No	8	75	No	0.004	NP (NDs)

Confidence Interval

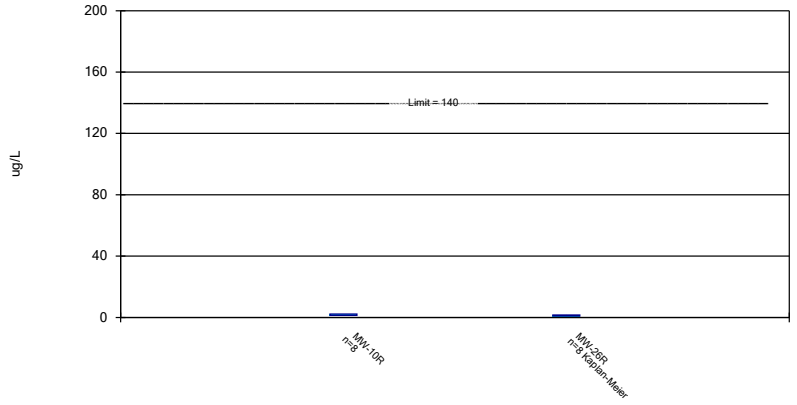
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR Printed 12/23/2025, 9:01 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	MW-7	0.0007	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-8R	0.0009601	0.0004374	0.015	No	8	50	No	0.01	Param.
Lead (mg/L)	MW-10R	0.00078	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-11R	0.00332	0.00025	0.015	No	8	62.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-25	0.0123	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-26R	0.00675	0.00025	0.015	No	8	50	No	0.004	NP (normality)
Lead (mg/L)	MW-27R	0.001579	0.0004055	0.015	No	8	37.5	No	0.01	Param.
Mercury (mg/L)	MW-8R	0.0005888	0.00007388	0.002	No	6	33.33	No	0.01	Param.
Nickel (mg/L)	MW-8R	0.009802	0.004701	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-11R	0.04063	0.00008613	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-27R	0.02376	0.01001	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-28	0.06567	0.03095	0.1	No	8	0	No	0.01	Param.
Thallium (mg/L)	MW-26R	0.00363	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-8R	0.00538	0.0025	0.035	No	8	75	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-11R	0.00925	0.0025	0.035	No	8	62.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-25	0.00533	0.0025	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-26R	0.00571	0.0025	0.035	No	8	62.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-27R	0.00528	0.0025	0.035	No	8	87.5	No	0.004	NP (NDs)
Vinyl chloride (ug/L)	MW-11R	1.43	0.5	2	No	8	62.5	No	0.004	NP (NDs)
Zinc (mg/L)	MW-8R	0.027	0.01	2	No	8	87.5	No	0.004	NP (NDs)
Zinc (mg/L)	MW-11R	0.0276	0.01	2	No	8	75	No	0.004	NP (NDs)
Zinc (mg/L)	MW-26R	0.04617	0.01283	2	No	8	50	No	0.01	Param.

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

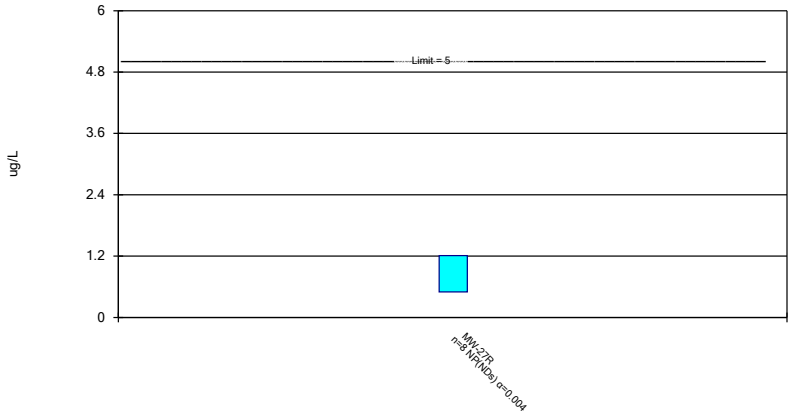


Constituent: 1,1-Dichloroethane Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Interv
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

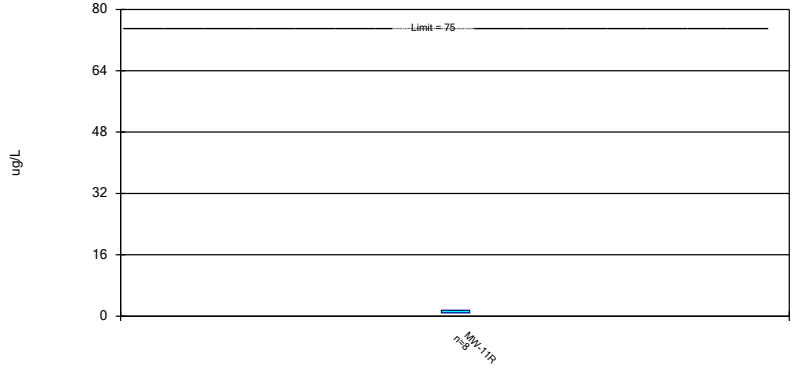


Constituent: 1,2-Dichloropropane Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Inter
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

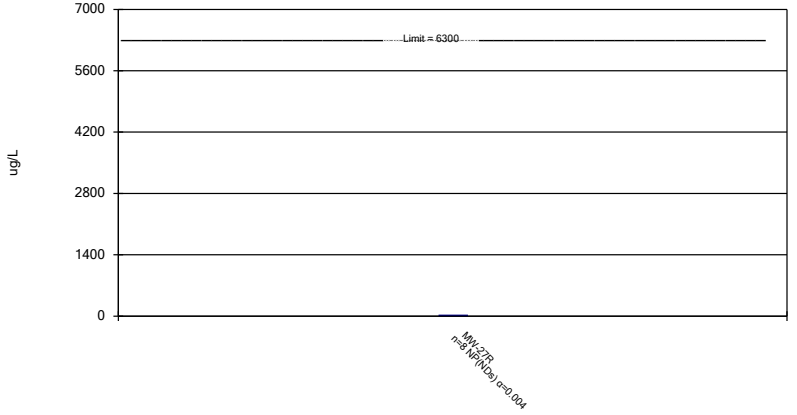


Constituent: 1,4-Dichlorobenzene Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Inte
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

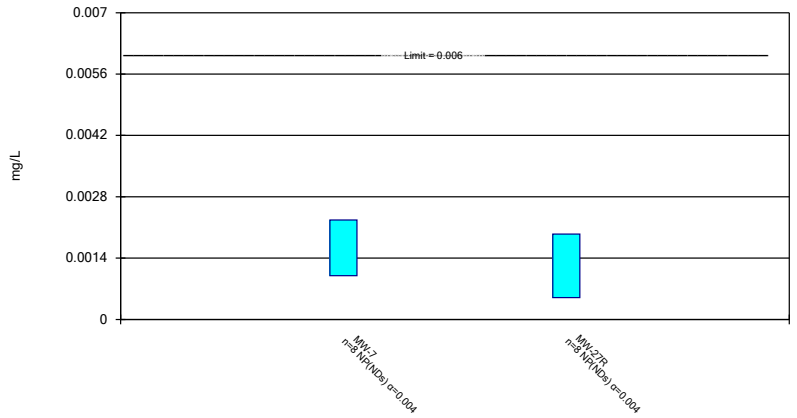


Constituent: Acetone Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

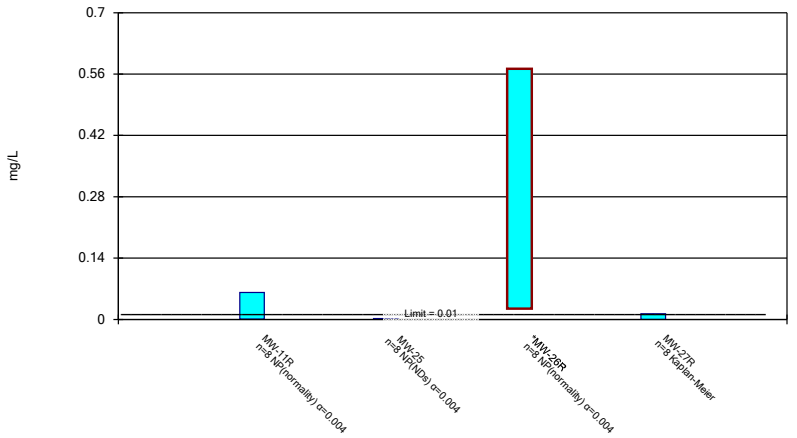


Constituent: Antimony Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

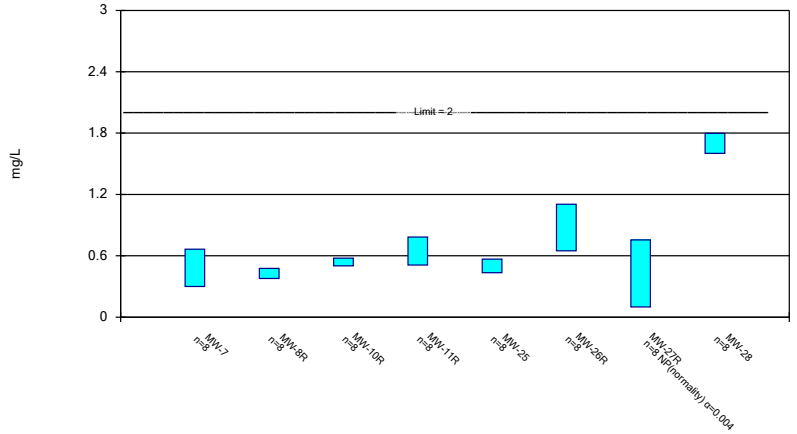


Constituent: Arsenic Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

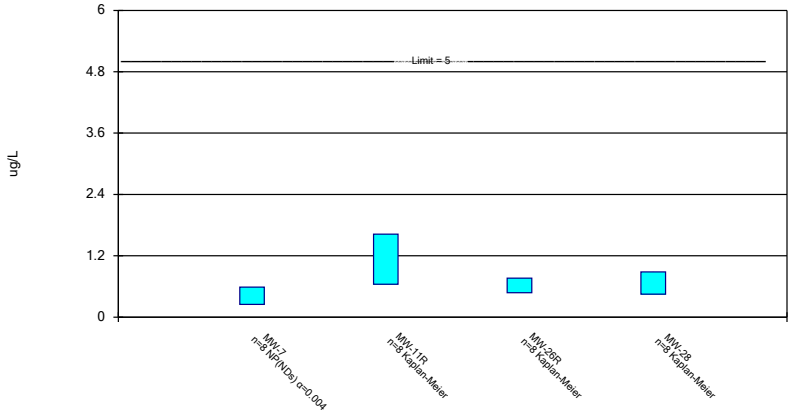


Constituent: Barium Analysis Run 12/23/2025 8:59 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

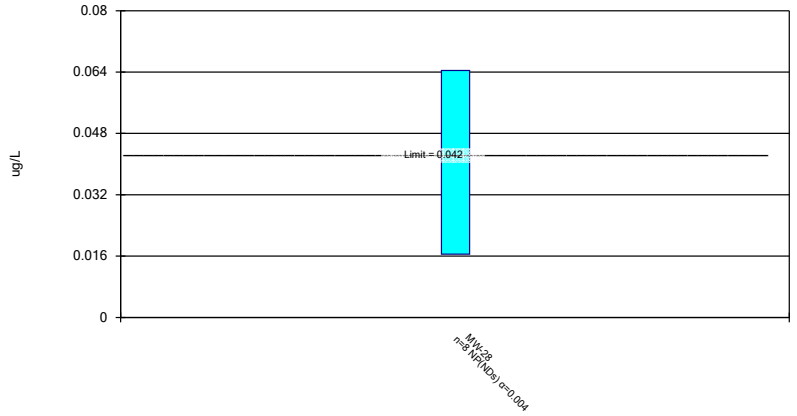


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Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

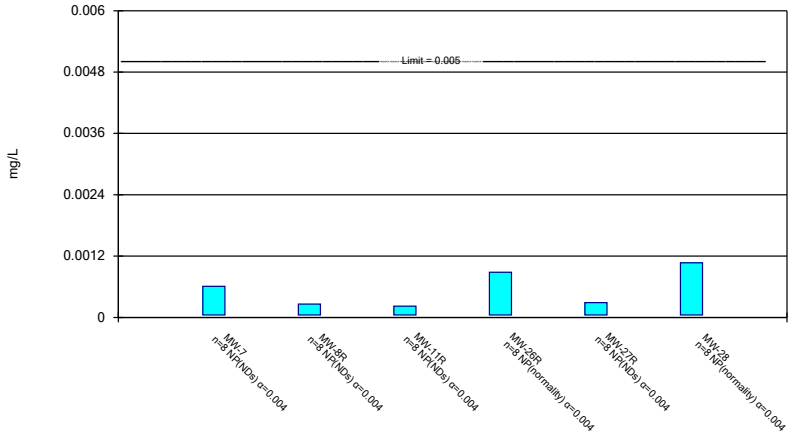


Constituent: beta-BHC Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

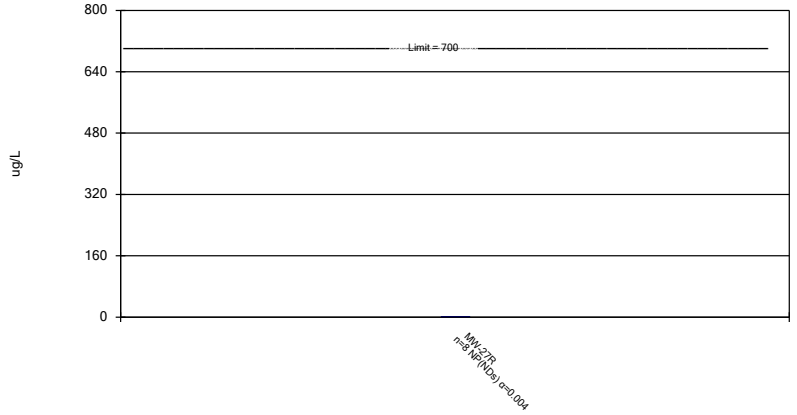


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Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Non-Parametric Confidence Interval

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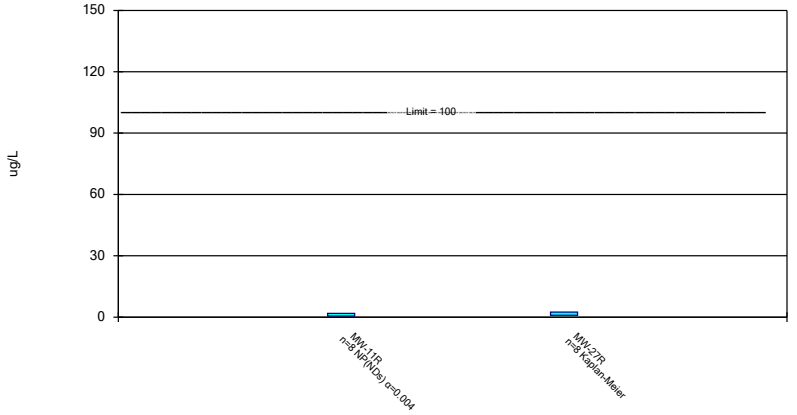


Constituent: Carbon disulfide Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

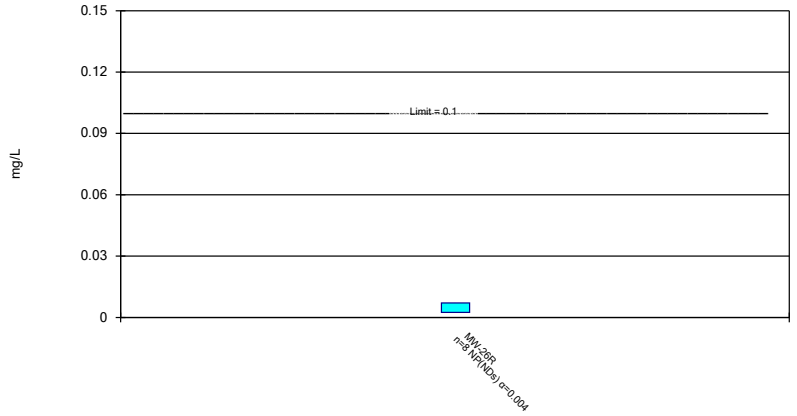


Constituent: Chlorobenzene Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

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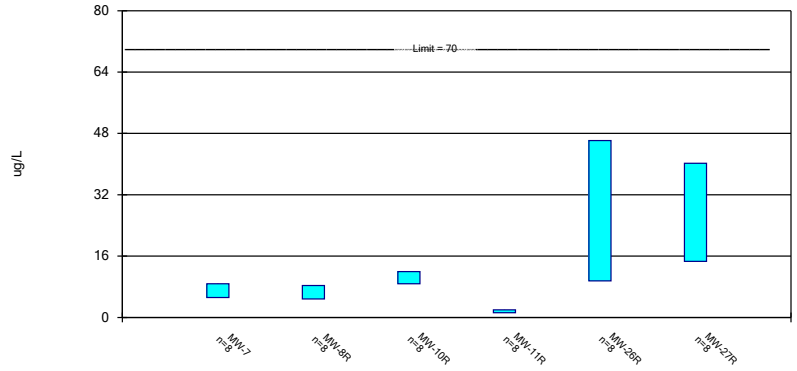


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Parametric Confidence Interval

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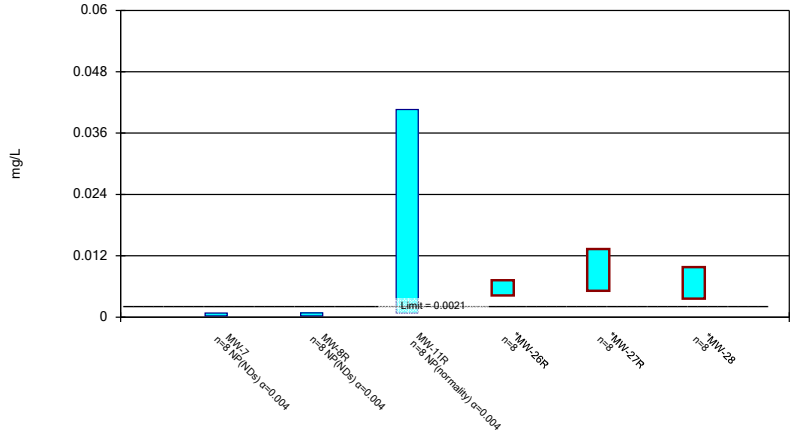


Constituent: cis-1,2-Dichloroethene Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Int
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

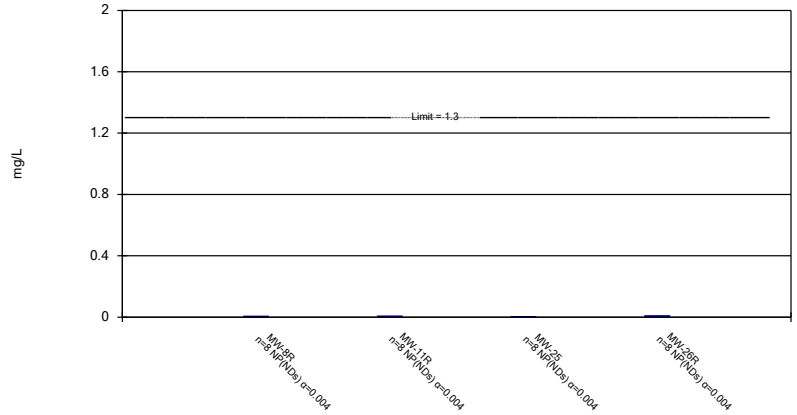


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Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

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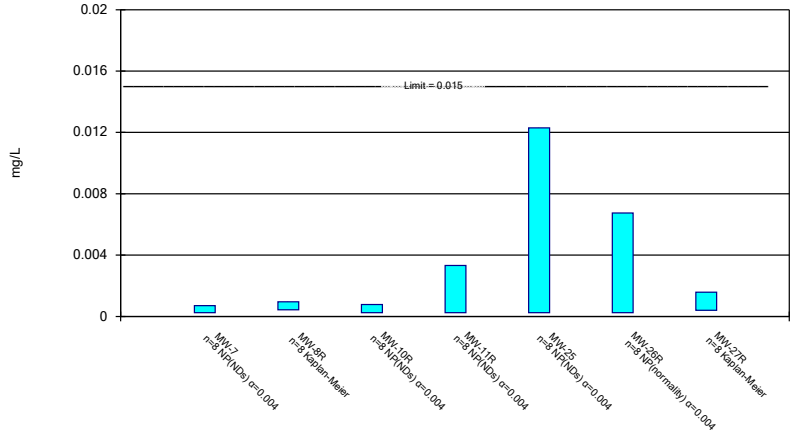


Constituent: Copper Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

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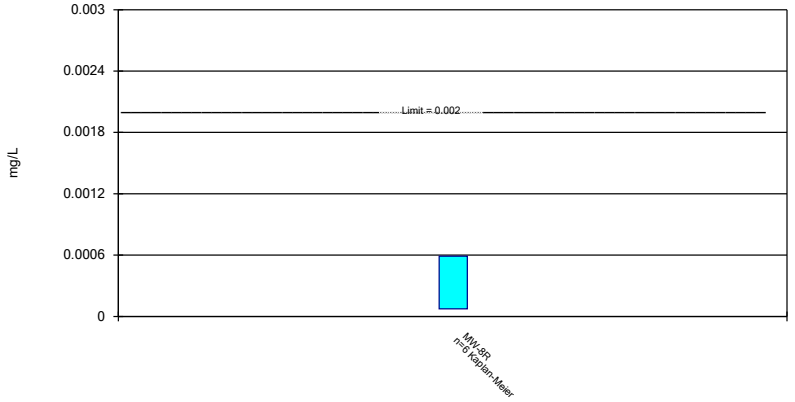


Constituent: Lead Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

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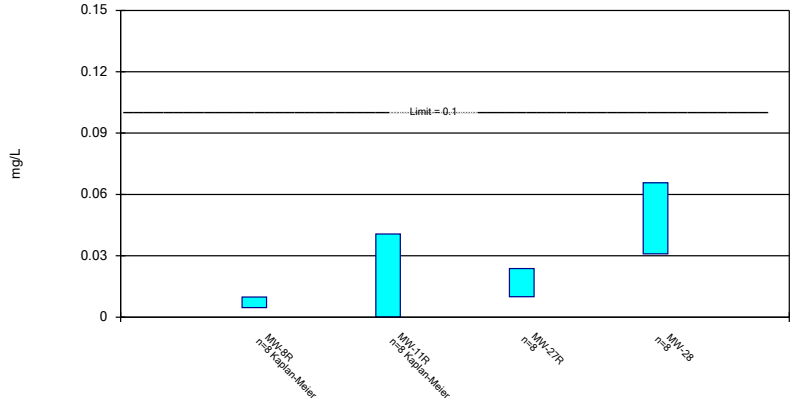


Constituent: Mercury Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

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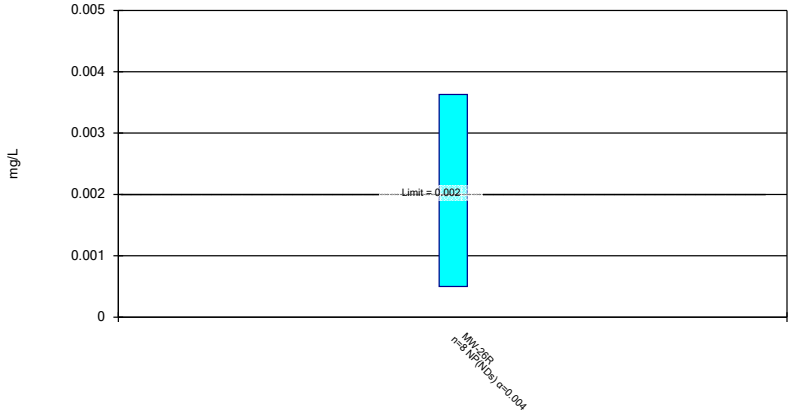


Constituent: Nickel Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

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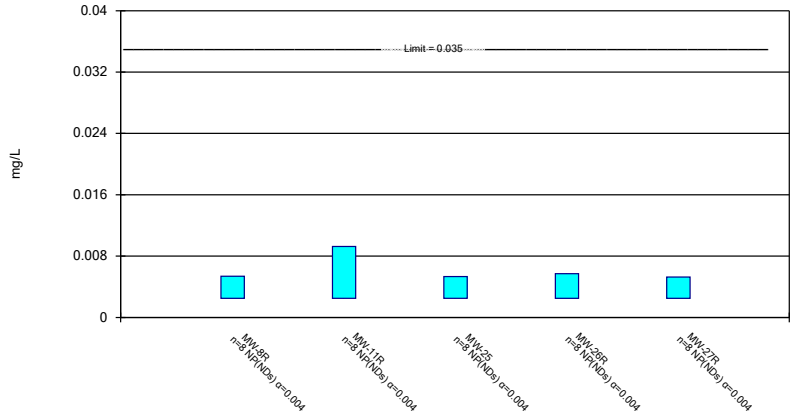


Constituent: Thallium Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

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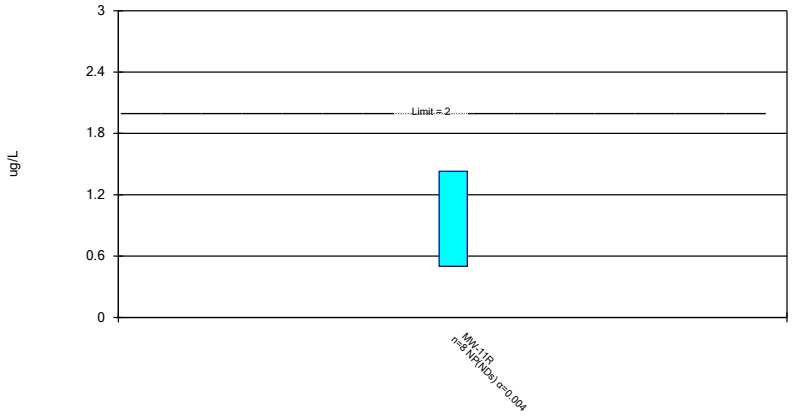


Constituent: Vanadium Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Non-Parametric Confidence Interval

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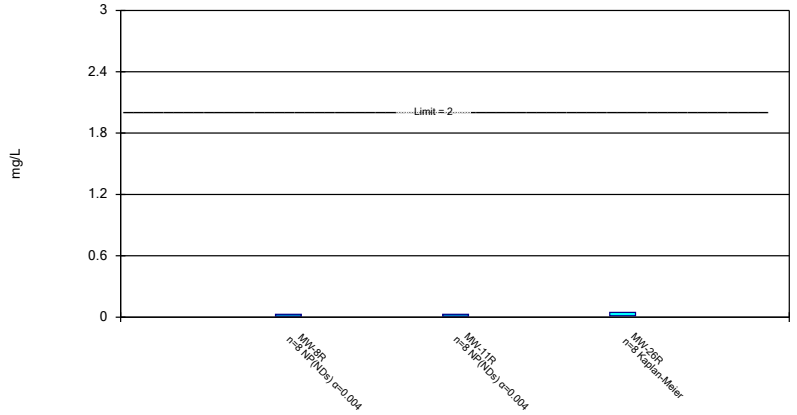


Constituent: Vinyl chloride Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Zinc Analysis Run 12/23/2025 9:00 AM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Thiel Sen Trend Table and Graphs

Trend Test

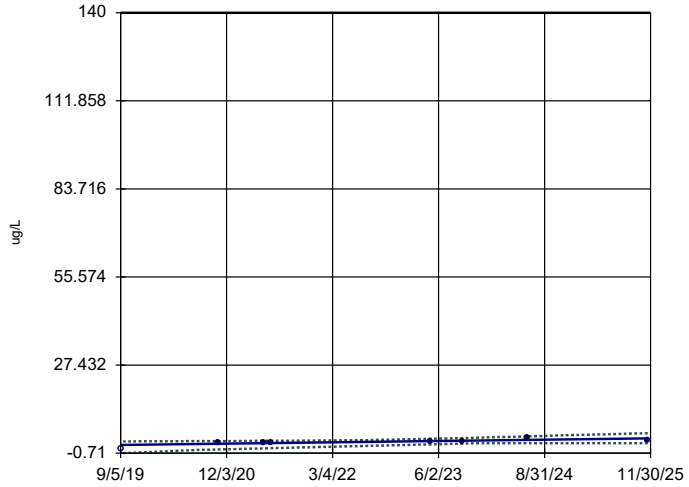
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR Printed 12/17/2025, 11:53 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	**MW-27R**	**0.3417**	**22**	**21**	**Yes**	**8**	**12.5**	**0.01**	**NP**
Nickel (mg/L)	**MW-26R**	**0.003754**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Trichloroethene (ug/L)	**MW-27R**	**0.6584**	**23**	**21**	**Yes**	**8**	**25**	**0.01**	**NP**

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Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-27R



n = 8

Slope = 0.3417 units per year.

Mann-Kendall statistic = 22 critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

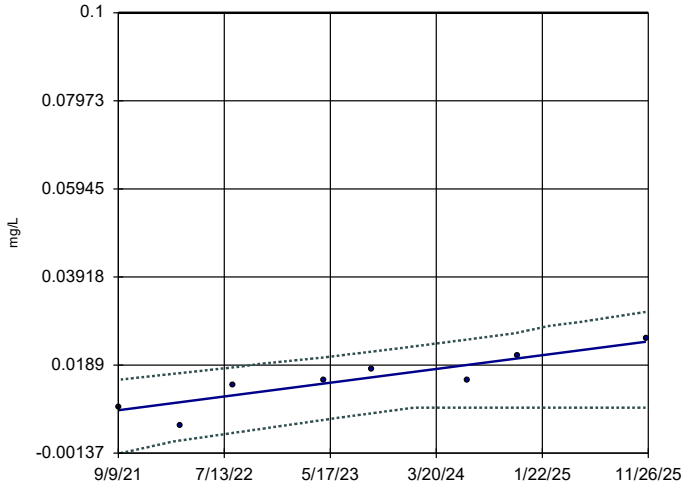
Confidence band is below GWPS ug/L (140).

Constituent: 1,1-Dichloroethane Analysis Run 12/17/2025 11:51 AM View: 2025_AWQR-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

MW-26R



n = 8

Slope = 0.003754 units per year.

Mann-Kendall statistic = 22 critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

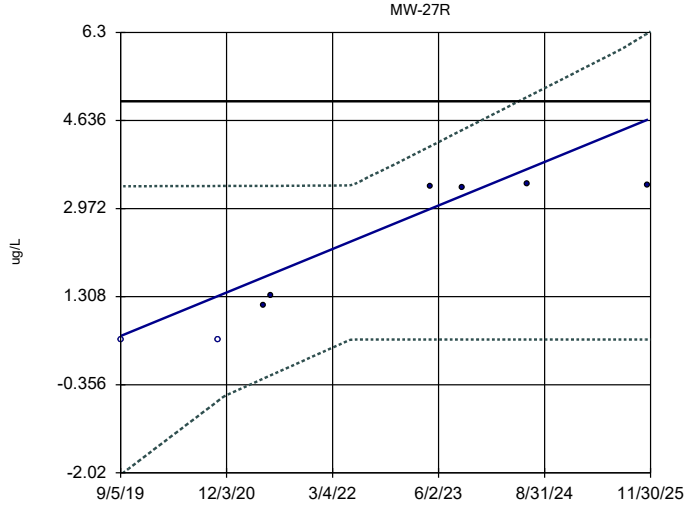
Confidence band is below GWPS mg/L (0.1).

Constituent: Nickel Analysis Run 12/17/2025 11:51 AM View: 2025_AWQR-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

MW-27R



n = 8

Slope = 0.6584 units per year.

Mann-Kendall statistic = 23 critical = 21

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Confidence band intersects GWPS ug/L (5) on 06/04/24.

Constituent: Trichloroethene Analysis Run 12/17/2025 11:52 AM View: 2025_AWQR-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: IWHLS_AM_2025_AWQR

Appendix E

Leachate Control System Performance Evaluation Report

Loess Hills Regional Sanitary Landfill 2025 Leachate Control System Performance Evaluation Report

Loess Hills Regional Sanitary Landfill
Iowa Waste Services, LLC
59722 290th St
Malvern, Iowa 51551

SCS ENGINEERS

Project No. 27225095.00 | January 2026

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

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Tables

Table 1 Leachate Management Summary

Attachments

Attachment A Historical Leachate Head Levels Table and Graphs
Attachment B Leachate Sample Analytical Report

1.0 DESCRIPTION OF LEACHATE CONTROL SYSTEM

Iowa Waste Services, LLC (IWS) owns and operates the Loess Hills Regional Sanitary Landfill (Landfill). This report was prepared by SCS Engineers (SCS) to meet the requirements of Iowa Administrative Code (IAC) 567-113.7(5)b.(14) for the Landfill in addition to site-specific requirements included in the site's operating permit (Permit No. 65-SDP-01-72P) dated December 10, 2020 and subsequent permit revisions. The reporting period covers January through December 2025.

1.1 LOCATION OF CONTROL SYSTEM

The Landfill property is shown in **Figure 1**, Site Map with Leachate Control System. The Landfill is located approximately three miles west-northwest of Malvern; more specifically described as the NW ¼ of the SE ¼, the NE ¼ of the SE ¼, the South ½ of the NE ¼, and the SE ¼ of the NW ¼ of Section 23, Township 72 North, Range 42 West, in Mills County, Iowa.

Leachate is collected from Cells A, C, D East, D West, E East, F East, E & F West (Phases 1 and 2), Cell G West, Cell G East, Cell G North, Cell H, Cell M, Cell N and the abutment area collection systems as well as two toe drains (located on the east and southeast sides of the unlined area). The leachate is gravity-fed or pumped to and stored in the leachate storage lagoon located east of Cell C.

During this reporting period, the monitoring network for the Loess Hills MSWLF unit consisted of five gas extraction wells (GEW-2, GEW-3, GEW-4, GEW-6, and GEW-11) over unlined cells and four leachate piezometers (LW-6, LPZ-7, Cell D East Lift Station, and LPZ-H) over lined cells.

The unlined areas are required to achieve the lowest possible leachate head over the base grades as they are not over a Subtitle D-compliant liner and do not have a leachate drainage layer. The lined areas require less than 12 inches of head over the liner.

1.2 APPROVED CHANGES TO THE SYSTEM

Leachate collection lines and a new leachate piezometer (LPZ-H) were installed in the newly constructed Cell H as documented in the Construction Observation Report - Cell H dated September 26, 2025 (Doc #114306) and approved on September 29, 2025 (Doc #114314).

Leachate circulation was approved in correspondence dated April 15, 2025 (Doc #112850).

There were no other approved changes to the system during this reporting period.

1.3 PROPOSED CHANGES TO THE SYSTEM

IWS is evaluating increasing the capacity of the leachate storage lagoon by constructing and lining a berm around the existing lagoon. If pursued, design plans will be submitted under separate cover. There are no other proposed changes to the system being considered at this time.

2.0 MAINTENANCE OF LEACHATE CONTROL SYSTEM

2.1 LAST DATE OF CLEANING AND INSPECTION

The leachate control system was cleaned and inspected on July 10 and 11, 2023, by Hydro-Kleen.

2.2 DATE FOR NEXT CLEANING AND INSPECTION

The next scheduled cleaning and inspection of the leachate collection system will occur in 2026.

2.3 MAINTENANCE PERFORMED ON PUMPS. VALVES, TANKS, LAGOONS, CONTROLS, ETC.

No maintenance or repair was performed on the leachate control system during this reporting period.

3.0 PERFORMANCE

3.1 HEAD LEVEL MEASUREMENTS AND LEACHATE ELEVATIONS

Monthly leachate column thicknesses at each monitoring point for this reporting period are provided in Table 1. Historical leachate column thicknesses are provided in Attachment A.

3.2 EFFECTIVENESS OF LEACHATE SYSTEM IN MANAGING LEACHATE THICKNESS

During this reporting period, the leachate level monitoring points over the unlined cell area had thicknesses ranging from 0.80 feet to 2.90 feet. The following summarizes the leachate levels in the piezometers in Subtitle D lined areas.

- LW-6: The leachate level monitoring point was measured as dry during each month of this reporting period.
- LPZ-7: The leachate thickness measured 2.0 feet each month during this reporting period. A total depth of 29 feet was verified by Landfill staff in 2022 using an inspection camera. The camera inspection also showed a column of fluid in the piezometer that appeared to be clear and unlike the typical stained color characteristics of leachate. SCS proposes to evacuate the fluid in the piezometer using a bailer or pump and resume measurements. If subsequent measurements show that fluid levels are not increasing in the piezometer, it may indicate that the piezometer is isolated from the drainage layer, and restoration of the functionality of the piezometer or replacement may be necessary.
- Cell D East: The average monthly leachate thicknesses measured by the SCADA system ranged from 0.09 feet to 1.32 feet. The breaker on the side slope extraction pump control panel tripped on December 17, 2025, and was reset on December 30, 2025. It should be noted that the daily measured leachate thicknesses were less than twelve inches except from December 18, 2025, to December 30, 2025. Leachate was not recirculated during that time. The leachate level thickness was less than 12 inches on December 31, 2025. The SCADA system began collecting data on October 17, 2024.
- LPZ-H: Thickness measurements from leachate piezometer LPZ-H began in November of this reporting period, following completion of the construction of Cell H. No leachate accumulation was present in LPZ-H.

The 2025 monthly leachate column thickness values for each monitoring point are provided in Table 1.

3.3 VOLUME OF LEACHATE RECIRCULATED

Approximately 2,075,750 gallons of leachate were recirculated during this reporting period in accordance with permit Special Provision X.11.

3.4 VOLUME OF LEACHATE TREATED ON-SITE

Leachate is not treated on-site.

3.5 VOLUME OF LEACHATE TREATED OFF-SITE

Approximately 333,750 gallons were hauled to the City of Council Bluffs POTW.

3.6 STORAGE CAPACITY

On-site leachate storage capacity is approximately 837,100 gallons.

3.7 LEACHATE QUALITY TESTING RESULTS

Leachate quality testing results for the samples collected on June 18, 2025, and September 11, 2025, are included in Attachment B.

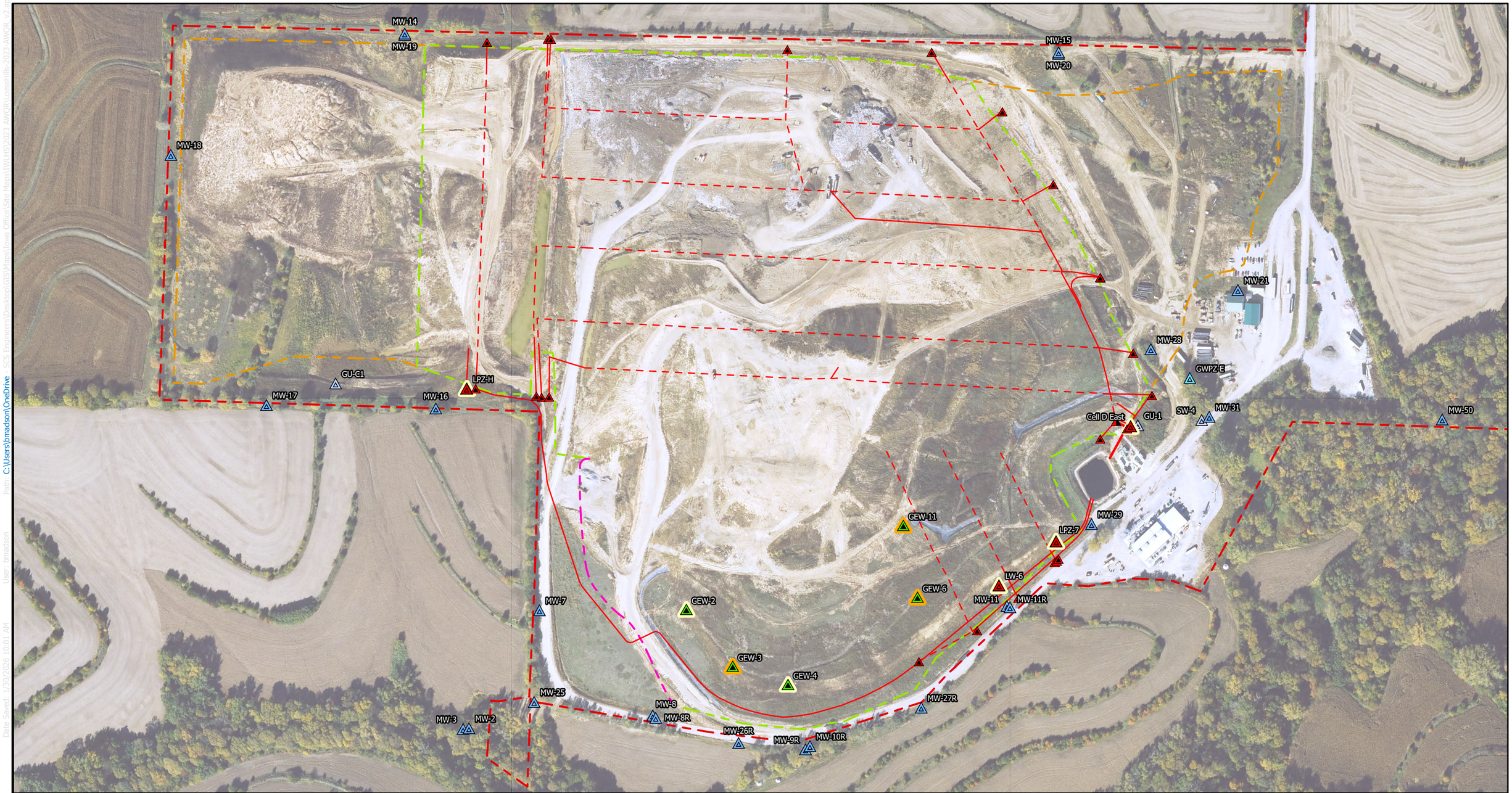
4.0 RECOMMENDATIONS

The following recommendations are provided for the upcoming reporting period:

- Continue monthly measurements of leachate head levels and total depth (as applicable) of each piezometer in the leachate monitoring system.
- Continue to record the volume of leachate recirculated or hauled and treated at the Council Bluffs Water Pollution Control Plant.
- Continue to clean the leachate collection system once every three years or more frequently if leachate head, the volume of leachate collected, or other information indicates cleanout is necessary.
- Confirm proper operation of all pumping and monitoring systems.

FIGURES

Path: C:\Users\bmadson\OneDrive - SCS Engineers\Desktop\GIS\Mans\Iowa Office\Site Mans\WLHS\2023 AWOR\LoessHills-2023-AWOR_v2.aprx
User: bmadson
Date Saved: 1/30/2025 10:01 AM



Leachate Control System

Legend

- Leachate Measurment Point
- Leachate Measurement Point
- Supplemental Leachate Measurment Point
- Leachate Cleanout
- Leachate Sump
- Solid Leachate Piping
- Perforated Leachate Piping
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Piezometer
- Gas Extraction Well
- Future Waste Boundary
- Located Waste Boundary
- Approximate Waste Boundary
- Approximate Property Boundary

Loess Hills Regional Sanitary Landfill
Malvern, Iowa
Project No: 27225095.01
Drawing Date: January 2026

Figure 1

N W E S

0 170 340 680 1,020 Feet

SCS ENGINEERS
environmental consultants and contractors

Source: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

TABLES

Table 1
Leachate Management Summary
2025 Leachate Control System Performance Evaluation Report
Loess Hills Regional Sanitary Landfill
Permit No. 65-SDP-01-72P

	Unlined Cells - Column Thickness (ft)					Lined Cells - Maximum Head on Liner (ft)				Leachate	Hauled to	Precipitation
Month	**GEW-2**	**GEW-3**	**GEW-4**	**GEW-6**	**GEW-11**	**LW-6**	**LPZ-7**	**LPZ-H**	**Cell D East**	**Recirculated (gal)**	**POTW (gal)**	**(in)**
January 2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.20	60,000	0	0.00
February 2025	2.40	0.80	1.30	0.90	2.80	0.00	2.00	NI	0.22	312,000	0	0.00
March 2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	NI	0.09	235,000	0	1.14
April 2025	2.40	0.80	1.30	0.90	2.80	0.00	2.00	NI	0.09	297,500	0	3.85
May 2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.10	45,000	0	1.78
June 2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	NI	0.38	90,000	0	5.30
July 2025	2.50	0.80	1.30	0.90	2.90	0.00	2.00	NI	0.09	140,000	0	6.55
August 2025	2.40	0.90	1.40	0.90	2.90	0.00	2.00	NI	0.72	410,000	0	2.88
September 2025	2.40	0.80	1.40	0.90	2.80	0.00	2.00	NI	0.62	370,000	0	1.19
October 2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.17	113,750	108,750	1.85
November 2025	2.50	0.80	1.30	0.90	2.90	0.00	2.00	0.00	0.09	0	100,000	0.70
December 2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	0.00	1.32	2,500	125,000	0.23
									January 2025 - December 2025 Totals	**2,075,750**	**333,750**	**25.47**

Table Notes

1) Leachate level measurements provided by Landfill staff.

2) Precipitation data obtained from the Iowa Environmental Mesonet for Atlantic, IA.

3) Cell D East monthly column thickness measurements are the average of daily maximum measurements collected with SCADA.

4) With the installation of the new Cell D East piezometer, damaged leachate piezometers LPZ-9, LPZ-10, LW-11, and LW-12 were abandoned.

NI - Not Installed.

Attachment A

Historical Leachate Head Levels Table and Graphs

Attachment A
Historical Leachate Column Thickness
2025 Leachate Collection System Performance Evaluation Report
Loess Hills Regional Sanitary Landfill

	Unlined Cells					Composite-Lined cells			
	GEW-2	GEW-3	GEW-4	GEW-6	GEW-11	LW-6	LPZ-7	LPZ-H	Cell D East
Date									
9/9/99	NM	NI	NI	NI	NI	NM	NI	NI	NI
4/13/00	NM	NI	NI	NI	NI	0.00	NI	NI	NI
10/3/00	NM	NI	NI	NI	NI	0.00	NI	NI	NI
4/5/01	NM	NI	NI	NI	NI	0.00	NI	NI	NI
10/8/01	NM	NI	NI	NI	NI	0.00	NI	NI	NI
4/17/02 [2]	NM	NI	NI	NI	NI	0.00	NI	NI	NI
10/9/02 [2]	NM	NI	NI	NI	NI	0.00	NI	NI	NI
4/29/03 [2]	NM	NI	NI	NI	NI	0.00	NI	NI	NI
10/14/03 [2]	NM	NI	NI	NI	NI	0.00	NI	NI	NI
4/13/04 [2]	NM	NI	NI	NI	NI	NM	NI	NI	NI
10/6/04 [2]	NM	NI	NI	NI	NI	0.00	NM	NI	NI
4/13/05 [2]	NM	NI	NI	NI	NI	NM	NM	NI	NI
10/5/05 [2]	NM	NI	NI	NI	NI	NM	NM	NI	NI
4/20/06 [2]	NM	NI	NI	NI	NI	NM	NM	NI	NI
10/17/06 [2]	NM	NI	NI	NI	NI	NM	NM	NI	NI
4/10/07 [2]	NM	NI	NI	NI	NI	0.00	0.99	NI	NI
7/1/07	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/5/07 [2]	NM	NI	NI	NI	NI	0.00	1.45	NI	NI
12/1/07	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/1/08	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
6/1/08	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/1/08	NM	NI	NI	NI	NI	0.00	1.00	NI	NI
10/1/08	NM	NI	NI	NI	NI	0.00	1.45	NI	NI
10/7/08 [2]	NM	NI	NI	NI	NI	0.00	2.50	NI	NI
2/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/28/09 [2]	NM	NI	NI	NI	NI	0.00	0.70	NI	NI
6/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/8/09 [2]	NM	NI	NI	NI	NI	0.20	0.00	NI	NI
11/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
12/1/09	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
1/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
2/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/9/2010 [2]	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/1/10	NM	NI	NI	NI	NI	0.00	0.40	NI	NI
5/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
6/1/10	NM	NI	NI	NI	NI	0.00	0.30	NI	NI
7/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
8/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/30/10 [2]	NM	NI	NI	NI	NI	0.00	1.85	NI	NI
9/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
11/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
12/1/10	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
1/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
2/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/21/11 [2]	NM	NI	NI	NI	NI	0.00	0.80	NI	NI
5/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
6/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
7/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
8/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/26/11 [2]	NM	NI	NI	NI	NI	0.00	0.80	NI	NI
11/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
12/1/11	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
1/30/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
2/29/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/30/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/11/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
5/18/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
6/27/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
7/13/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
8/3/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/6/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
10/30/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
11/14/12	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
1/29/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
2/26/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/12/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
4/29/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
5/14/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
6/24/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
7/17/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
8/20/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
9/13/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI

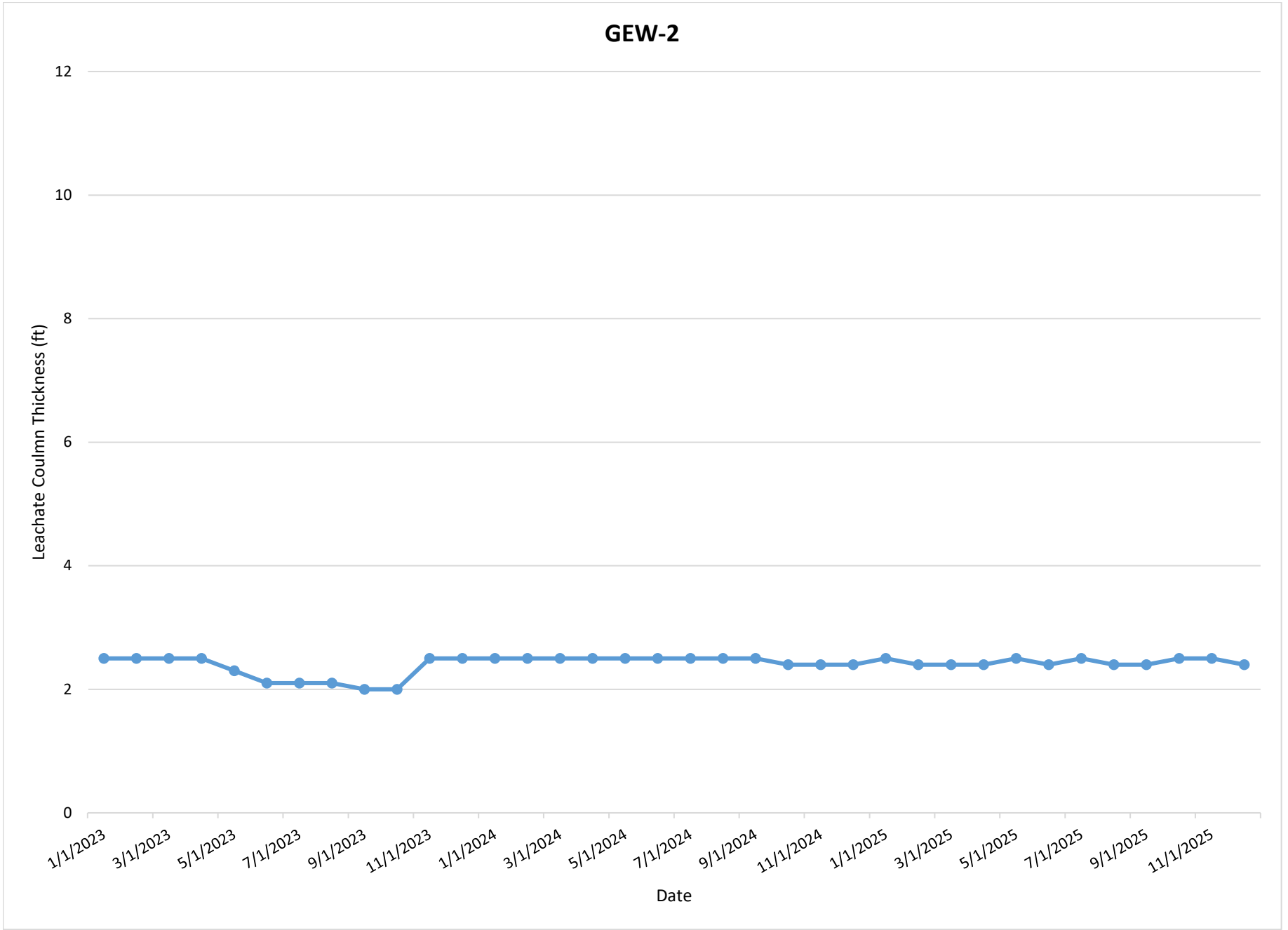
Historical Leachate Column Thickness
2025 Leachate Collection System Performance Evaluation Report
Loess Hills Regional Sanitary Landfill

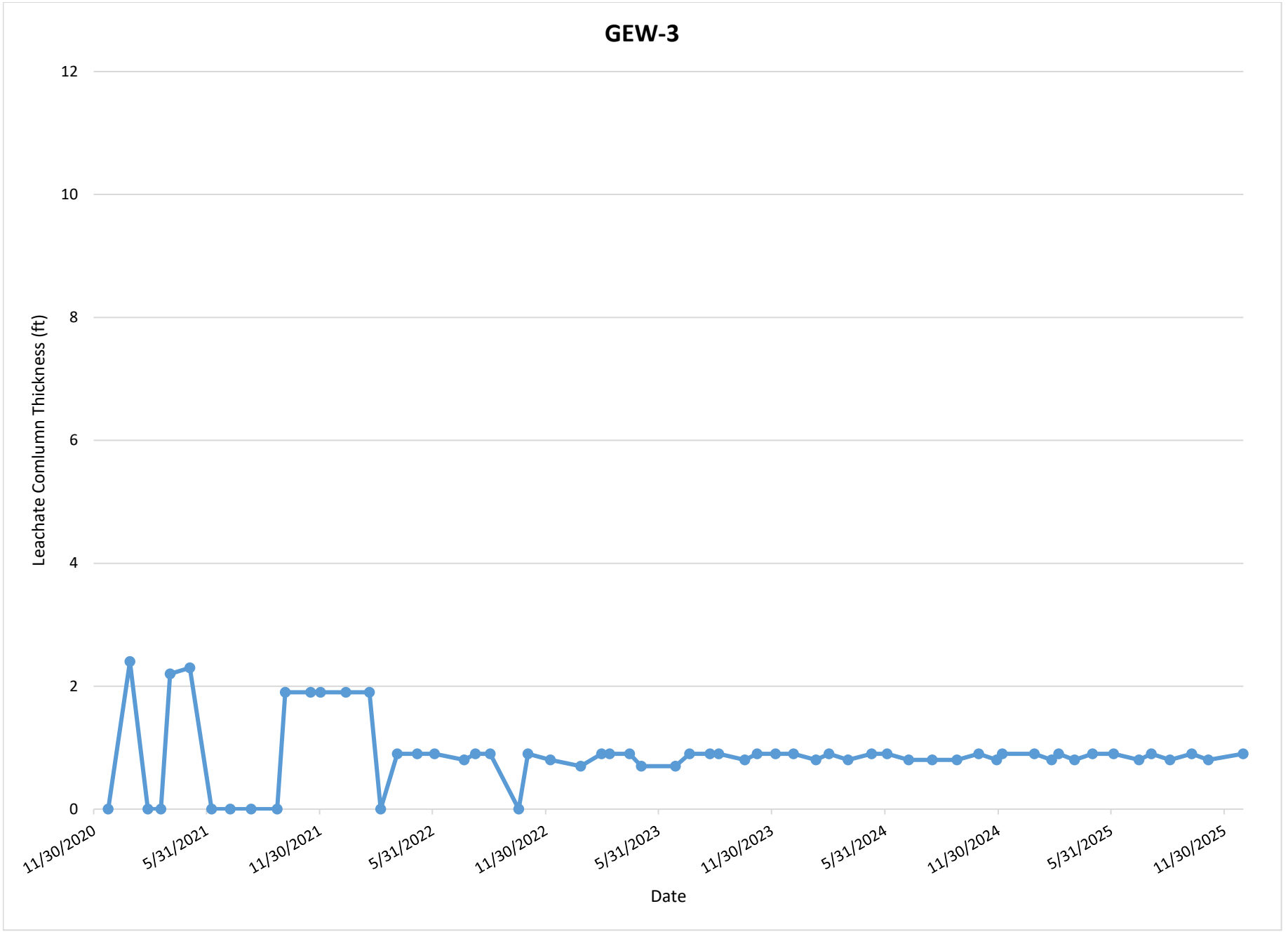
	Unlined Cells					Composite-Lined cells			
	GEW-2	GEW-3	GEW-4	GEW-6	GEW-11	LW-6	LPZ-7	LPZ-H	Cell D East
Date									
10/30/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
11/19/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
12/13/13	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
1/15/14	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
2/20/14	NM	NI	NI	NI	NI	0.00	0.00	NI	NI
3/26/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
4/29/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
5/22/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
6/24/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
7/29/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
8/20/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
9/19/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
10/27/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
11/18/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
12/15/14	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
1/14/15 [4]	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
2/20/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
3/19/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
4/9/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
5/17/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
6/15/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
7/16/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
8/10/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
9/15/15	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
10/17/15	NM	NM	NM	NM	NM	NA	NA	NI	NI
11/6/15	NM	NM	NM	NM	NM	NA	NA	NI	NI
12/12/15	NM	NM	NM	NM	NM	NA	NA	NI	NI
1/1/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
2/1/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
3/31/16 [4]	NM	NM	NM	NM	NM	NA	0.00	NI	NI
4/15/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
5/18/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
6/7/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
7/2/16	NM	NM	NM	NM	NM	NA	NA	NI	NI
8/15/2016	NM	NM	NM	NM	NM	0.00	0.00	NI	NI
9/26/16	NM	NM	NM	0.50	6.00	0.00	3.50	NI	NI
10/27/16	NM	NM	NM	0.60	7.80	0.00	0.00	NI	NI
11/9/16	NM	NM	NM	0.70	6.00	0.00	0.00	NI	NI
12/12/16	NM	NM	NM	0.50	6.00	0.00	0.00	NI	NI
1/18/17	NM	NM	NM	0.60	8.00	0.00	0.00	NI	NI
2/17/17	NM	NM	NM	0.50	6.00	0.00	0.00	NI	NI
3/2017	NM	NM	NM	NM	NA	NM	NM	NI	NI
4/2017	NM	NM	NM	NM	NA	NM	NM	NI	NI
5/10/17 [5]	NM	NM	NM	0.60	8.00	0.00	2.90	NI	NI
6/27/17	NM	NM	NM	0.70	9.20	0.00	3.20	NI	NI
7/10/17	NM	NM	NM	0.50	9.00	0.00	0.00	NI	NI
8/16/17	NM	NM	NM	0.40	7.50	0.00	0.00	NI	NI
9/12/17	NM	NM	NM	0.50	8.00	0.00	0.00	NI	NI
10/9/17	NM	NM	NM	0.50	8.10	0.00	0.00	NI	NI
11/10/17	NM	NM	NM	0.50	8.10	0.00	0.00	NI	NI
12/10/17	NM	NM	NM	0.40	7.00	0.00	0.00	NI	NI
1/8/18	NM	NM	NM	0.30	8.40	0.00	0.00	NI	NI
2/8/18	NM	NM	NM	0.40	8.00	0.00	0.00	NI	NI
3/12/18	NM	NM	NM	0.40	8.10	0.00	0.00	NI	NI
4/10/18	NM	NM	NM	0.50	8.00	0.00	0.00	NI	NI
5/15/18	NM	NM	NM	0.50	8.00	0.00	0.00	NI	NI
6/15/18	NM	NM	NM	0.50	8.00	0.00	0.00	NI	NI
7/11/18	NM	NM	NM	0.50	7.50	0.00	0.00	NI	NI
8/15/18	NM	NM	NM	0.40	7.95	0.00	0.00	NI	NI
9/13/18	NM	NM	NM	0.20	7.30	0.00	NM	NI	NI
10/15/18	NM	NM	NM	0.40	7.30	0.00	0.00	NI	NI
11/8/18	NM	NM	NM	0.50	7.00	0.00	0.00	NI	NI
12/5/18	NM	NM	NM	0.30	7.40	0.00	0.00	NI	NI
1/9/19	NM	NM	NM	0.50	7.00	0.00	0.00	NI	NI
2/5/19	NM	NM	NM	0.40	7.70	0.00	0.00	NI	NI
3/18/19	NM	NM	NM	1.00	8.00	0.00	3.50	NI	NI
4/3/19 [6]	NM	NM	NM	0.80	8.00	0.00	0.00	NI	NI
5/13/19	NM	NM	NM	0.30	8.20	0.00	0.00	NI	NI
6/17/19	NM	NM	NM	0.20	7.80	0.00	3.50	NI	NI
7/16/19	NM	NM	NM	0.70	8.50	0.00	0.00	NI	NI
8/13/19	NM	NM	NM	0.50	8.50	0.00	0.00	NI	NI
9/16/19 [7]	NM	NM	NM	1.00	8.70	0.00	0.00	NI	NI
10/9/19	NM	NM	NM	0.90	7.50	0.00	0.00	NI	NI
11/25/19	NM	NM	NM	0.30	9.00	0.00	0.00	NI	NI
12/19/19	NM	NM	NM	0.80	8.60	0.00	0.00	NI	NI
1/14/20	NM	NM	NM	1.50	9.00	0.00	0.00	NI	NI
2/24/20	NM	NM	NM	2.00	8.00	0.00	0.00	NI	NI
3/23/20	NM	NM	NM	1.00	11.00	0.00	0.00	NI	NI
4/15/20 [8]	NM	NM	NM	1.50	9.00	0.00	0.00	NI	NI
5/27/20	NM	NM	NM	2.00	9.50	0.00	0.00	NI	NI
6/15/20	NM	NM	NM	1.50	9.90	0.00	0.00	NI	NI
7/28/20	NM	NM	NM	1.00	7.00	0.00	0.00	NI	NI
8/28/20	NM	NM	NM	0.50	6.00	0.00	0.00	NI	NI

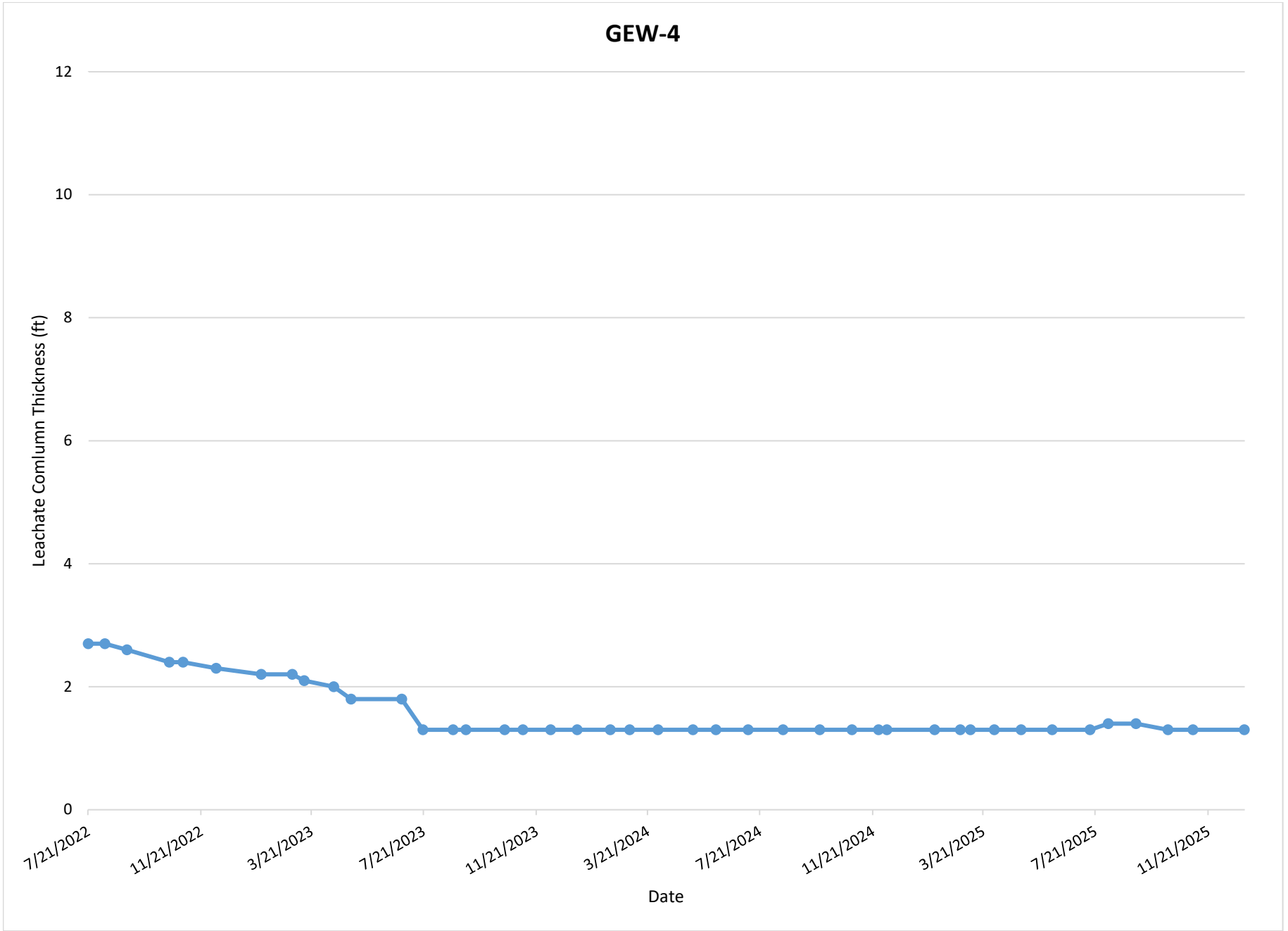
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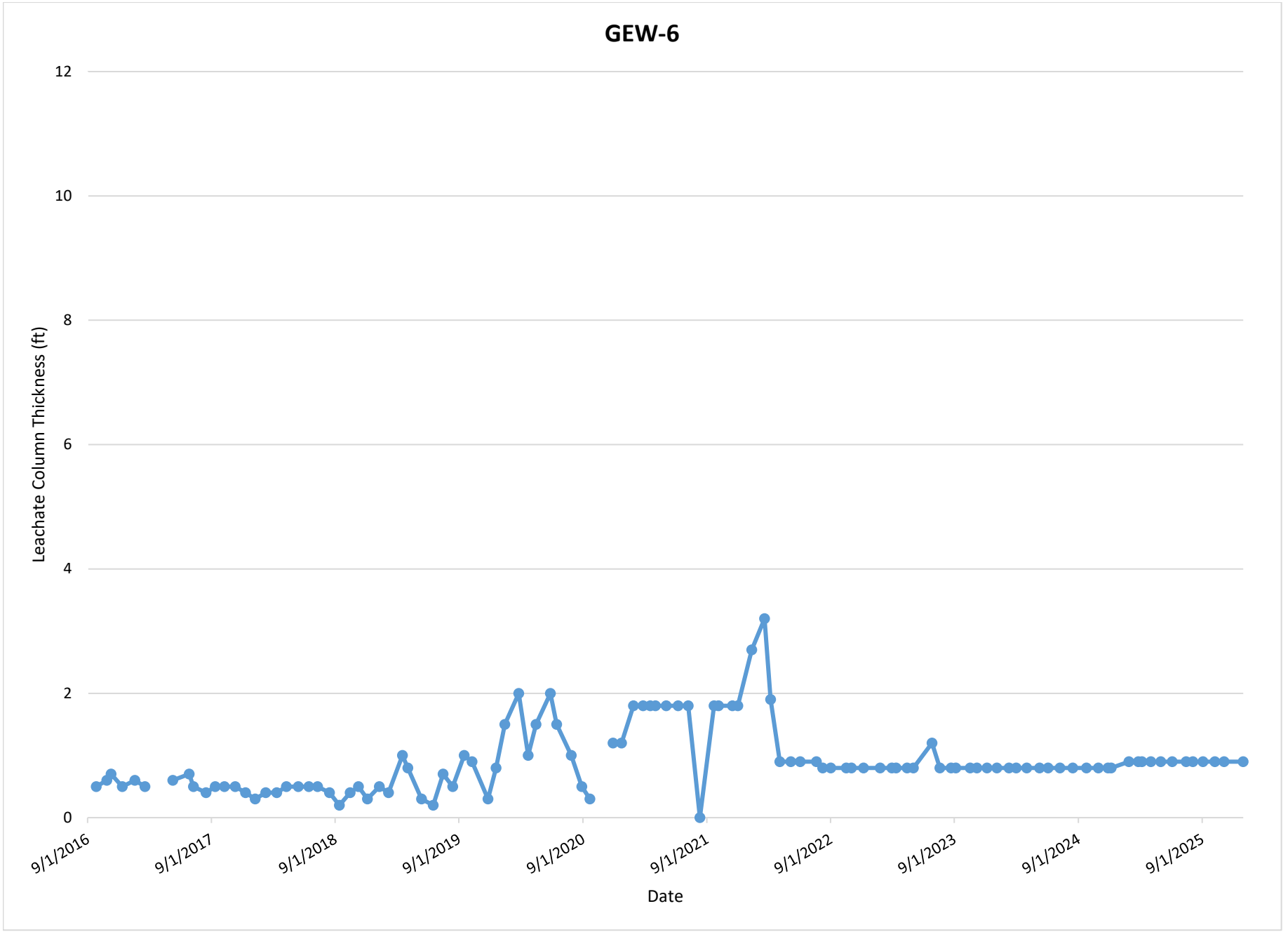
	Unlined Cells					Composite-Lined cells			
	GEW-2	GEW-3	GEW-4	GEW-6	GEW-11	LW-6	LPZ-7	LPZ-H	Cell D East
Date									
9/21/20	NM	NM	NM	0.30	5.00	0.00	0.00	NI	NI
10/22/20	NM	NA	NM	NA	NA	0.00	0.00	NI	NI
11/28/2020	NM	0.00	NM	1.20	8.00	0.00	0.00	NI	NI
12/23/2020	NM	0.00	NM	1.20	8.00	0.00	0.00	NI	NI
1/27/2021	NM	2.40	NM	1.80	8.90	0.00	0.00	NI	NI
2/25/2021	NM	0.00	NM	1.80	8.20	0.00	0.00	NI	NI
3/18/2021	NM	0.00	NM	1.80	8.80	0.00	0.40	NI	NI
4/2/21 [10]	NM	2.20	NM	1.80	8.90	0.00	0.70	NI	NI
5/4/2021	NM	2.30	NM	1.80	9.20	0.00	0.00	NI	NI
6/8/2021	NM	0.00	NM	1.80	9.10	0.00	0.00	NI	NI
7/8/2021	NM	0.00	NM	1.80	8.80	0.00	0.00	NI	NI
8/11/2021	NM	0.00	NM	0.00	0.00	0.00	0.00	NI	NI
9/22/2021	NM	0.00	NM	1.80	8.40	0.00	0.00	NI	NI
10/5/2021	NM	1.90	NM	1.80	8.60	0.00	0.00	NI	NI
11/15/2021	NM	1.90	NM	1.80	9.00	0.00	0.00	NI	NI
12/1/2021	NM	1.90	NM	1.80	8.90	0.00	ND	NI	NI
1/11/2022	NM	1.90	NM	2.70	8.40	0.00	ND	NI	NI
2/18/2022	NM	1.90	NM	3.20	8.80	0.00	ND	NI	NI
3/8/2022	NM	0.00	NM	1.90	8.60	0.00	ND	NI	NI
4/4/2022	NM	0.90	NM	0.90	2.90	0.00	ND	NI	NI
5/6/2022	NM	0.90	NM	0.90	3.20	0.00	3.00	NI	NI
6/3/2022	NM	0.90	NM	0.90	3.00	0.00	3.60	NI	NI
7/21/2022	NM	0.80	2.70	0.90	2.60	0.00	3.40	NI	NI
8/8/2022	NM	0.90	2.70	0.80	2.50	0.00	3.40	NI	NI
9/1/2022	NM	0.90	2.60	0.80	2.40	0.00	3.40	NI	NI
10/17/2022	NM	0.00	2.40	0.80	2.10	0.00	3.40	NI	NI
11/1/2022	NM	0.90	2.40	0.80	2.30	0.00	3.00	NI	NI
12/7/2022	NM	0.80	2.30	0.80	2.50	0.00	3.00	NI	NI
1/25/2023	2.50	0.70	2.20	0.80	2.20	0.00	3.00	NI	NI
2/28/2023	2.50	0.90	2.20	0.80	2.30	0.00	3.00	NI	NI
3/13/2023	2.50	0.90	2.10	0.80	2.70	0.00	3.00	NI	NI
4/14/2023	2.50	0.90	2.00	0.80	3.30	0.00	3.00	NI	NI
5/3/2023	2.30	0.70	1.80	0.80	3.00	0.00	3.00	NI	NI
6/27/2023	2.10	0.70	1.80	1.20	3.00	0.00	3.00	NI	NI
7/20/2023	2.10	0.90	1.30	0.80	2.70	0.00	3.00	NI	NI
8/22/2023	2.10	0.90	1.30	0.80	2.70	0.00	3.00	NI	NI
9/5/2023	2.00	0.90	1.30	0.80	2.90	0.00	3.00	NI	NI
10/17/2023	2.00	0.80	1.30	0.80	2.90	0.00	3.00	NI	NI
11/6/2023	2.50	0.90	1.30	0.80	3.00	0.00	3.00	NI	NI
12/6/2023	2.50	0.90	1.30	0.80	2.90	0.00	3.00	NI	NI
1/4/2024	2.50	0.90	1.30	0.80	3.00	0.00	3.00	NI	NI
2/9/2024	2.50	0.80	1.30	0.80	2.90	0.00	3.00	NI	NI
3/1/2024	2.50	0.90	1.30	0.80	3.00	0.00	3.00	NI	NI
4/1/2024	2.50	0.80	1.30	0.80	2.90	0.00	3.00	NI	NI
5/9/2024	2.50	0.90	1.30	0.80	2.90	0.00	1.20	NI	NI
6/3/2024	2.50	0.90	1.30	0.80	3.00	0.00	1.90	NI	NI
7/8/2024	2.50	0.80	1.30	0.80	2.90	0.00	1.90	NI	NI
8/15/2024	2.50	0.80	1.30	0.80	3.00	0.00	1.90	NI	NI
9/24/2024	2.50	0.80	1.30	0.80	2.90	0.00	1.90	NI	NI
10/29/2024	2.40	0.90	1.30	0.80	2.80	0.00	1.90	NI	0.15
11/27/2024	2.40	0.80	1.30	0.80	2.90	0.00	2.00	NI	0.07
12/6/2024	2.40	0.90	1.30	0.80	2.80	0.00	2.00	NI	0.07
1/27/2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.20
2/24/2025	2.40	0.80	1.30	0.90	2.80	0.00	2.00	NI	0.22
3/7/2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	NI	0.09
4/2/2025	2.40	0.80	1.30	0.90	2.80	0.00	2.00	NI	0.09
5/1/2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.10
6/4/2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	NI	0.38
7/15/2025	2.50	0.80	1.30	0.90	2.90	0.00	2.00	NI	0.09
8/4/2025	2.40	0.90	1.40	0.90	2.90	0.00	2.00	NI	0.72
9/3/2025	2.40	0.80	1.40	0.90	2.80	0.00	2.00	NI	0.62
10/8/2025	2.50	0.90	1.30	0.90	2.80	0.00	2.00	NI	0.17
11/4/2025	2.50	0.80	1.30	0.90	2.90	0.00	2.00	0.00	0.09
12/30/2025	2.40	0.90	1.30	0.90	2.90	0.00	2.00	0.00	1.32

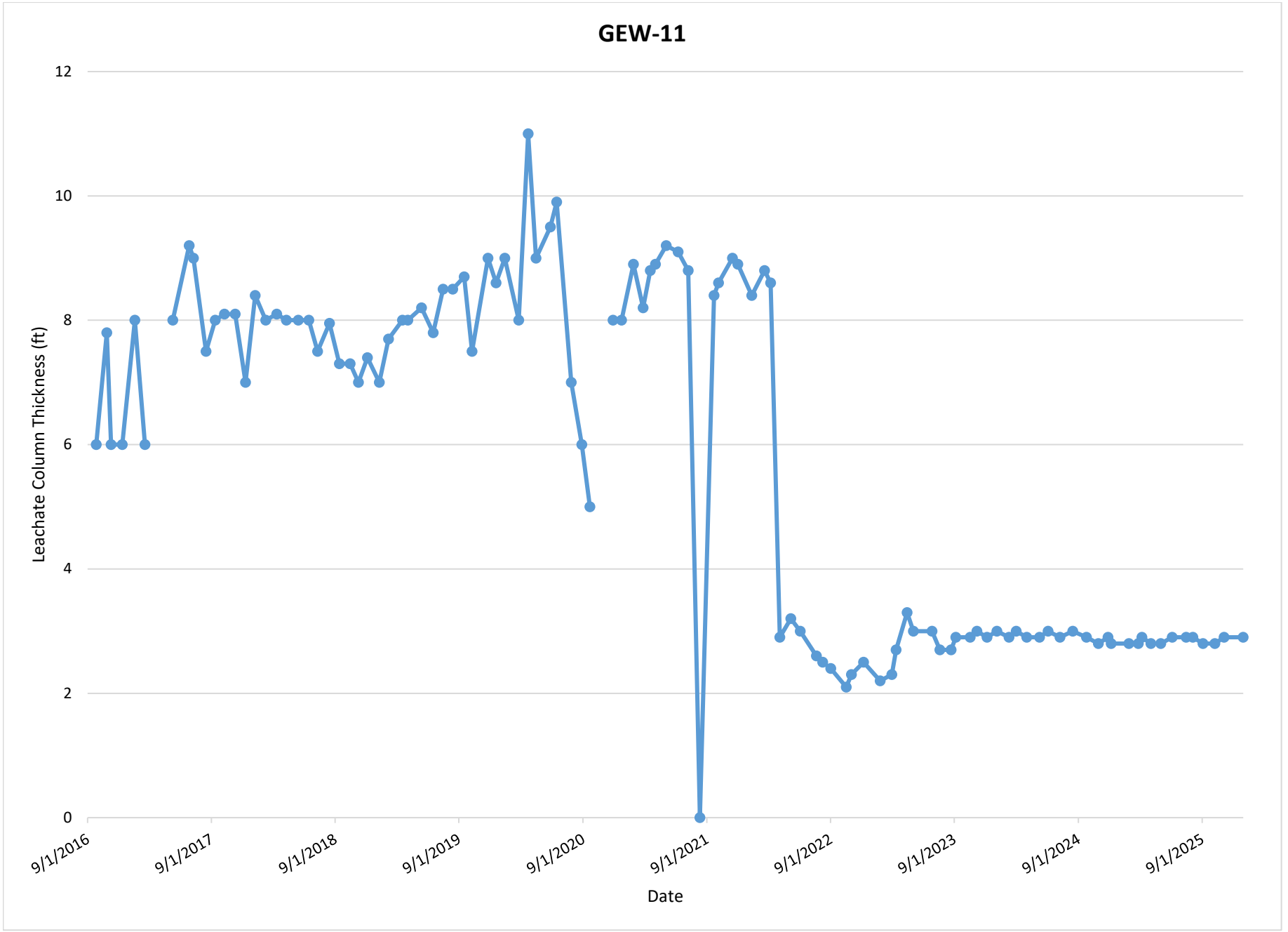
Notes:
1. NM indicates not measured, NI indicates not installed, NA indicates not available, ND indicated not determined, and D indicates damaged monitoring point.
2. Measured by Evora Group (formerly Barker Lemar).
3. Column thickness starting in 2009 based on total well depth measured by Evora Group (formerly Barker Lemar). Other column thicknesses measured by lar
4. GEW-11 was extended from 98' to 103' by Landfill staff between the August 2019 and September 2019 measurement events.
5. IWS staff measured well depths on March 27 and 28, 2022 and adjusted total depths based on measured depths.

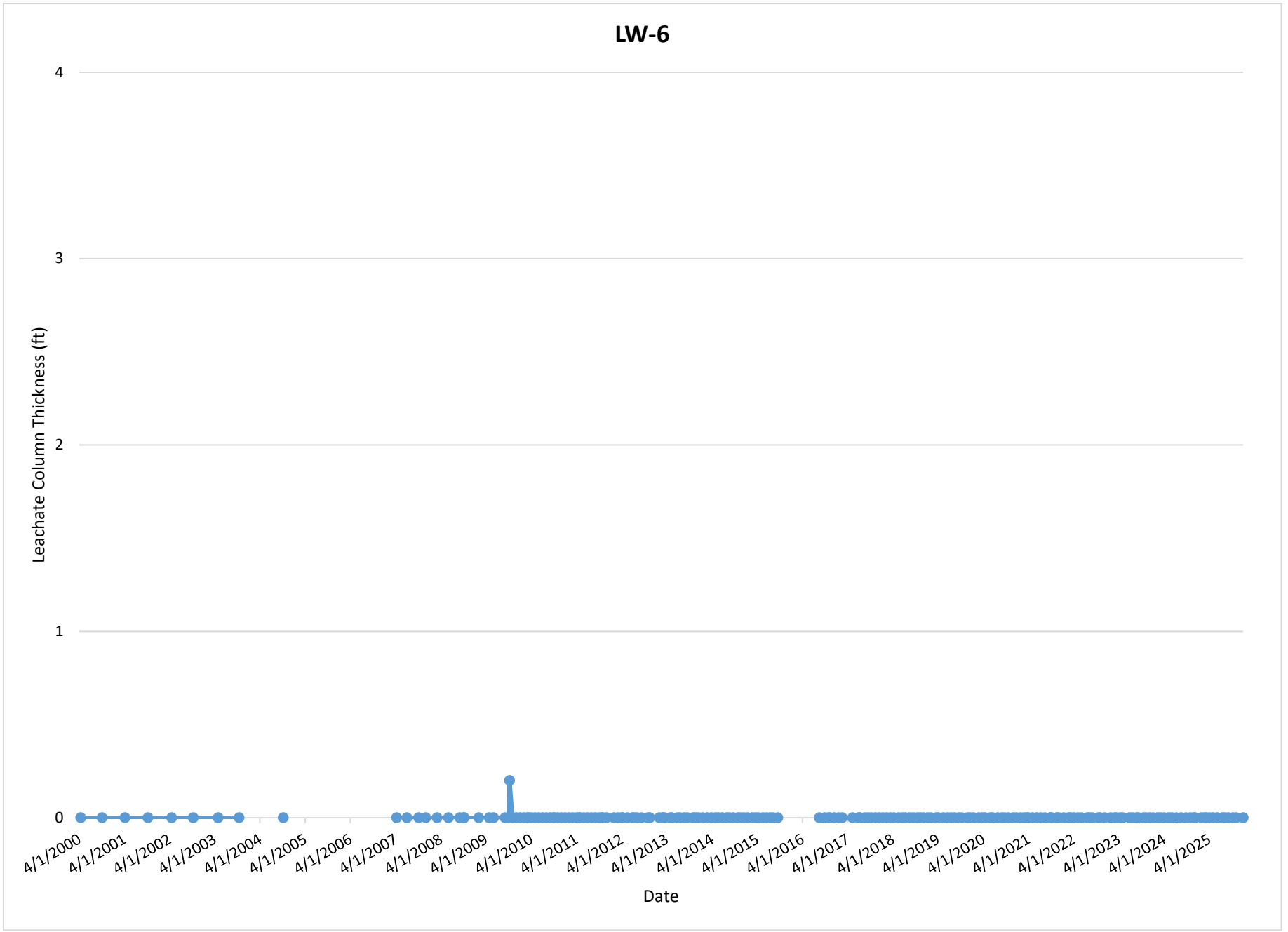

GEW-2
12
10
8
6
4
2
0
Leachate Coulmn Thickness (ft)
1/1/2023
3/1/2023
5/1/2023
7/1/2023
9/1/2023
11/1/2023
1/1/2024
3/1/2024
5/1/2024
7/1/2024
9/1/2024
11/1/2024
1/1/2025
3/1/2025
5/1/2025
7/1/2025
9/1/2025
11/1/2025
Date

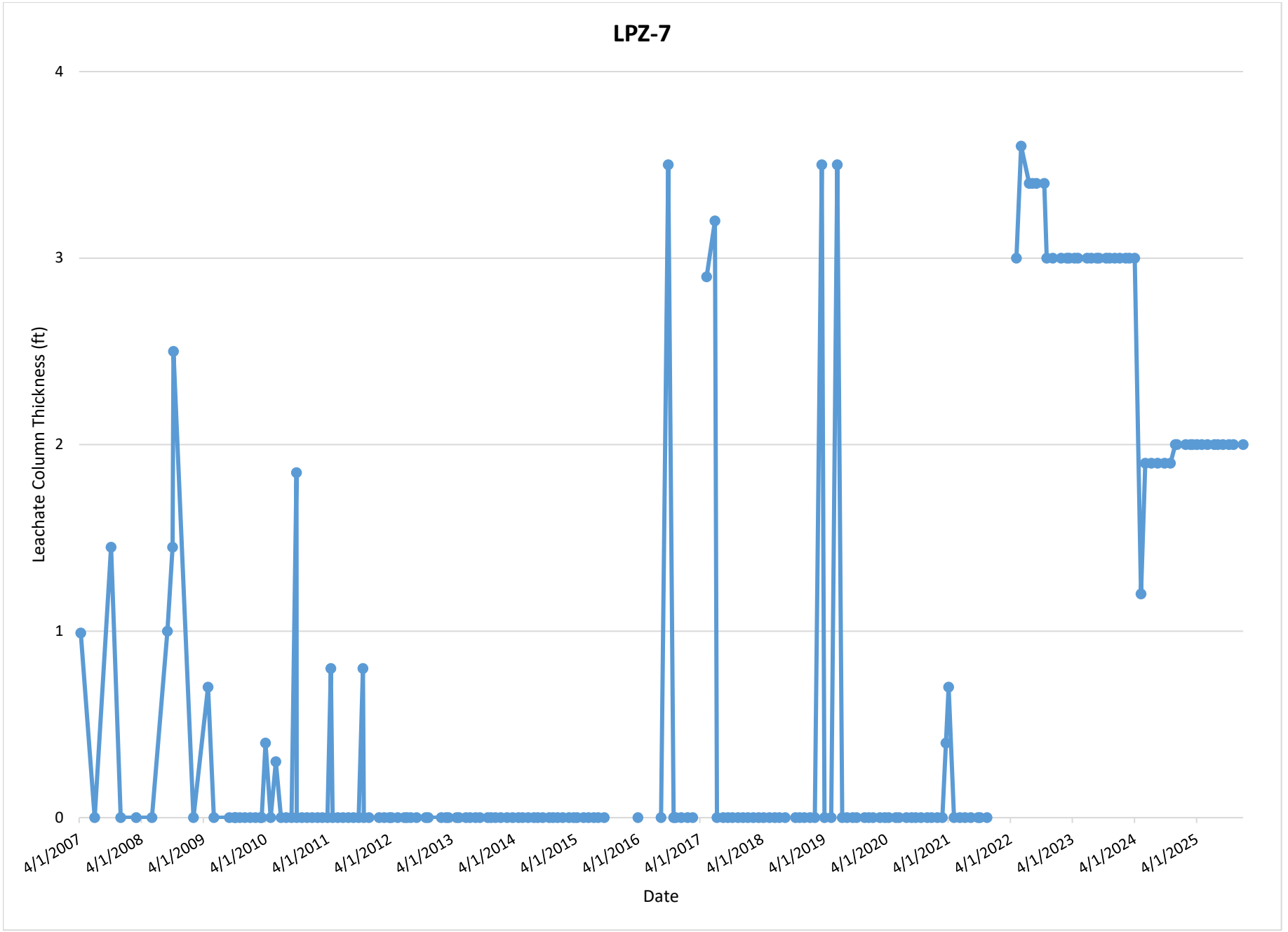

GEW-3
12
10
8
6
4
2
0
Leachate Comlumn Thickness (ft)
11/30/2020
5/31/2021
11/30/2021
5/31/2022
11/30/2022
5/31/2023
11/30/2023
5/31/2024
11/30/2024
5/31/2025
11/30/2025
Date

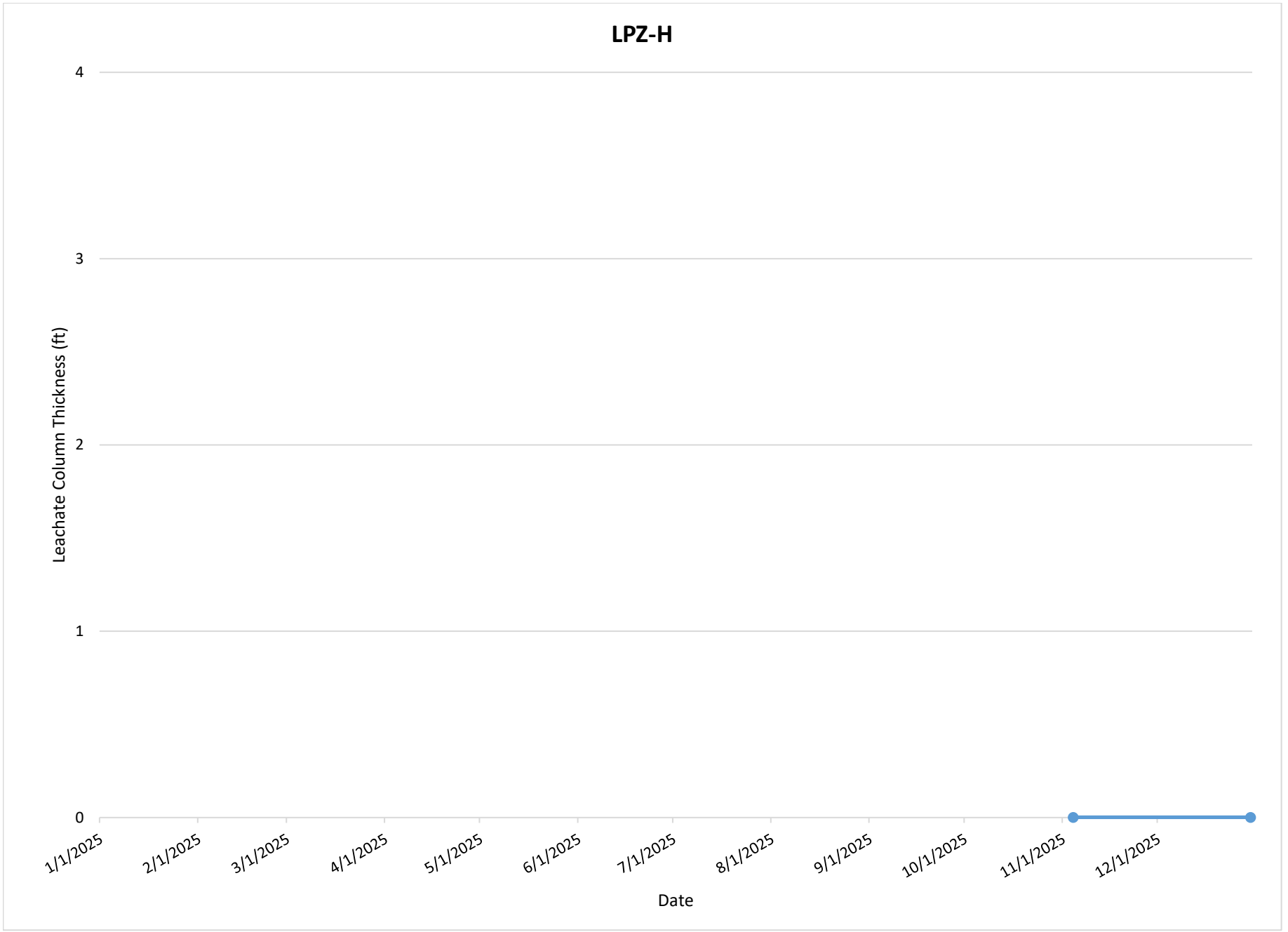

GEW-4
12
10
8
6
4
2
0
Leachate Comlumn Thickness (ft)
7/21/2022
11/21/2022
3/21/2023
7/21/2023
11/21/2023
3/21/2024
7/21/2024
11/21/2024
3/21/2025
7/21/2025
11/21/2025
Date

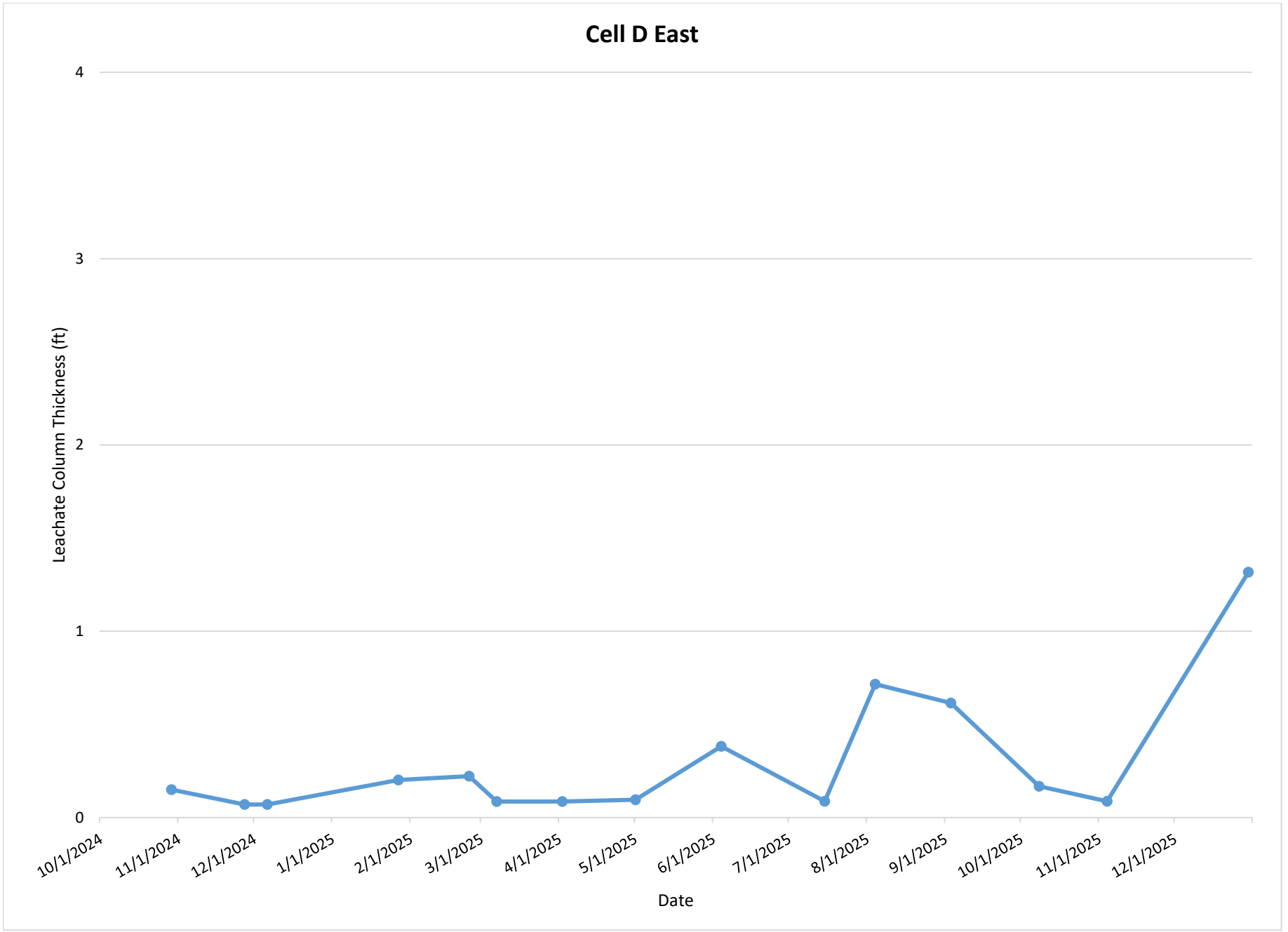

GEW-6
12
10
8
6
4
2
0
Leachate Column Thickness (ft)
9/1/2016
9/1/2017
9/1/2018
9/1/2019
9/1/2020
9/1/2021
9/1/2022
9/1/2023
9/1/2024
9/1/2025
Date


GEW-11
12
10
8
6
4
2
0
Leachate Column Thickness (ft)
9/1/2016
9/1/2017
9/1/2018
9/1/2019
9/1/2020
9/1/2021
9/1/2022
9/1/2023
9/1/2024
9/1/2025
Date


LW-6
Leachate Column Thickness (ft)
4
3
2
1
0
4/1/2000
4/1/2001
4/1/2002
4/1/2003
4/1/2004
4/1/2005
4/1/2006
4/1/2007
4/1/2008
4/1/2009
4/1/2010
4/1/2011
4/1/2012
4/1/2013
4/1/2014
4/1/2015
4/1/2016
4/1/2017
4/1/2018
4/1/2019
4/1/2020
4/1/2021
4/1/2022
4/1/2023
4/1/2024
4/1/2025
Date


LPZ-7
Leachate Column Thickness (ft)
4
3
2
1
0
4/1/2007
4/1/2008
4/1/2009
4/1/2010
4/1/2011
4/1/2012
4/1/2013
4/1/2014
4/1/2015
4/1/2016
4/1/2017
4/1/2018
4/1/2019
4/1/2020
4/1/2021
4/1/2022
4/1/2023
4/1/2024
4/1/2025
Date


LPZ-H
4
3
2
1
0
Leachate Column Thickness (ft)
1/1/2025
2/1/2025
3/1/2025
4/1/2025
5/1/2025
6/1/2025
7/1/2025
8/1/2025
9/1/2025
10/1/2025
11/1/2025
12/1/2025
Date


Cell D East
4
3
2
1
0
Leachate Column Thickness (ft)
10/1/2024
11/1/2024
12/1/2024
1/1/2025
2/1/2025
3/1/2025
4/1/2025
5/1/2025
6/1/2025
7/1/2025
8/1/2025
9/1/2025
10/1/2025
11/1/2025
12/1/2025
Date

Attachment B

Leachate Sample Analytical Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Bret Stephens
Loess Hills Landfill
59722 290th St
Malvern, Iowa 51551

Generated 6/18/2025 9:33:23 AM

JOB DESCRIPTION

Loess Hills Landfill

JOB NUMBER

310-307814-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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

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

Authorization



Generated
6/18/2025 9:33:23 AM

Authorized for release by
Zach Bindert, Senior Project Manager
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(319)595-2016

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Job Narrative
310-307814-1

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

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

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

Receipt
The sample was received on 6/4/2025 9:05 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

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

GC/MS Semi VOA
Method 8270E - TCLP: The laboratory control sample (LCS) for preparation batch 310-457491 and analytical batch 310-457657 recovered outside acceptance limits for Pyridine. There was insufficient sample and holding-time to perform a re-extraction or re-analysis; therefore, the data have been reported.

Method 8270E - TCLP: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-457491 and analytical batch 310-457657 recovered outside control limits for the following analytes: Pyridine.

Method 8270E - TCLP: The following sample was diluted due to the nature of the sample matrix: Loess Hills Leachate (310-307814-1). Elevated reporting limits (RLs) are provided.

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

Herbicides
Method 8151A - TCLP: Surrogate recovery for the following sample was outside the upper control limit: Loess Hills Leachate (310-307814-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

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

Metals
Method 200.8_CWA: The reference method requires samples to be preserved to a pH of <2. The following sample(s) was received with insufficient preservation at a pH of >2. The sample(s) was preserved to the appropriate pH in the laboratory.

Method 200.8_CWA: The laboratory control sample (LCS) for preparation batch 310-456701 and analytical batch 310-457936 recovered outside control limits for the following analytes: silver. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 245.1: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: Loess Hills Leachate (310-307814-1). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 245.1: The continuing calibration verification (CCV) associated with batch 310-457302 recovered above the upper control limit for mercury. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 310-307814-1 (Continued) Eurofins Cedar Falls

Method 6010D - TCLP: The initial calibration verification (ICV) result for batch 310-457468 was above the upper control limit. The affected analytes are: Silver. Sample results were non-detects, and have been reported as qualified data.

Method 6010D - TCLP: The laboratory control sample (LCS) for preparation batch 310-457125 and 310-457146 and analytical batch 310-457468 recovered outside control limits for the following analytes: Silver. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

Sample Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-307814-1	Loess Hills Leachate	Water	06/03/25 13:00	06/04/25 09:05

Detection Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Client Sample ID: Loess Hills Leachate

Lab Sample ID: 310-307814-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	6.68		2.00		mg/L	20		8260D	TCLP
Arsenic	0.599		0.00200		mg/L	1		200.8	Total/NA
Chromium	0.126		0.00500		mg/L	1		200.8	Total/NA
Lead	0.00221		0.000500		mg/L	1		200.8	Total/NA
Molybdenum	0.0192		0.00200		mg/L	1		200.8	Total/NA
Nickel	0.395		0.00500		mg/L	1		200.8	Total/NA
Zinc	0.0298		0.0200		mg/L	1		200.8	Total/NA
Arsenic	0.484		0.100		mg/L	1		6010D	TCLP
Barium	1.65		0.200		mg/L	1		6010D	TCLP
Chromium	0.138		0.0200		mg/L	1		6010D	TCLP
Total Suspended Solids	196		60.0		mg/L	1		I-3765-85	Total/NA
Biochemical Oxygen Demand	2540		3.00		mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Loess Hills Leachate

Lab Sample ID: 310-307814-1

Date Collected: 06/03/25 13:00

Matrix: Water

Date Received: 06/04/25 09:05

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.100		0.100		mg/L			06/13/25 02:32	20
2-Butanone (MEK)	**6.68**		2.00		mg/L			06/13/25 02:32	20
Carbon tetrachloride	<0.100		0.100		mg/L			06/13/25 02:32	20
Chlorobenzene	<0.100		0.100		mg/L			06/13/25 02:32	20
Chloroform	<0.100		0.100		mg/L			06/13/25 02:32	20
1,2-Dichloroethane	<0.100		0.100		mg/L			06/13/25 02:32	20
1,1-Dichloroethene	<0.100		0.100		mg/L			06/13/25 02:32	20
Tetrachloroethene	<0.200		0.200		mg/L			06/13/25 02:32	20
Trichloroethene	<0.200		0.200		mg/L			06/13/25 02:32	20
Vinyl chloride	<0.100		0.100		mg/L			06/13/25 02:32	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/13/25 02:32*	*20*
Dibromofluoromethane (Surr)	*110*		*80 - 126*		*06/13/25 02:32*	*20*
Toluene-d8 (Surr)	*92*		*80 - 120*		*06/13/25 02:32*	*20*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
2,4-Dinitrotoluene	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Hexachlorobenzene	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Hexachlorobutadiene	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Hexachloroethane	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
2-Methylphenol	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
4-Methylphenol (and/or 3-Methylphenol)	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Nitrobenzene	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Pentachlorophenol	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Pyridine	<0.250	*-	0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
Total Cresols	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
2,4,5-Trichlorophenol	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5
2,4,6-Trichlorophenol	<0.250		0.250		mg/L		06/13/25 07:28	06/16/25 17:33	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*51*		*33 - 126*	*06/13/25 07:28*	*06/16/25 17:33*	*5*
2-Fluorophenol (Surr)	*62*		*21 - 110*	*06/13/25 07:28*	*06/16/25 17:33*	*5*
Nitrobenzene-d5 (Surr)	*98*		*39 - 140*	*06/13/25 07:28*	*06/16/25 17:33*	*5*
Phenol-d5 (Surr)	*64*		*21 - 110*	*06/13/25 07:28*	*06/16/25 17:33*	*5*
Terphenyl-d14 (Surr)	*70*		*13 - 150*	*06/13/25 07:28*	*06/16/25 17:33*	*5*
2,4,6-Tribromophenol (Surr)	*84*		*20 - 144*	*06/13/25 07:28*	*06/16/25 17:33*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	<0.00188		0.00188		mg/L		06/12/25 13:53	06/13/25 13:53	1
Endrin	<0.0000938		0.0000938		mg/L		06/12/25 13:53	06/13/25 13:53	1
gamma-BHC (Lindane)	<0.0000938		0.0000938		mg/L		06/12/25 13:53	06/13/25 13:53	1
Heptachlor	<0.0000938		0.0000938		mg/L		06/12/25 13:53	06/13/25 13:53	1
Heptachlor epoxide	<0.0000938		0.0000938		mg/L		06/12/25 13:53	06/13/25 13:53	1
Methoxychlor	<0.0000938		0.0000938		mg/L		06/12/25 13:53	06/13/25 13:53	1
Toxaphene	<0.00188		0.00188		mg/L		06/12/25 13:53	06/13/25 13:53	1

Client Sample ID: Loess Hills Leachate

Date Collected: 06/03/25 13:00
Date Received: 06/04/25 09:05

Lab Sample ID: 310-307814-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*56*		*10 - 150*	*06/12/25 13:53*	*06/13/25 13:53*	*1*
Tetrachloro-m-xylene (Surr)	*64*		*17 - 150*	*06/12/25 13:53*	*06/13/25 13:53*	*1*

Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<0.00100		0.00100		mg/L		06/13/25 16:09	06/16/25 22:05	1
2,4-D	<0.0500		0.0500		mg/L		06/13/25 16:09	06/16/25 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr)	*92*	*p*	*26 - 136*	*06/13/25 16:09*	*06/16/25 22:05*	*1*
2,4-Dichlorophenylacetic acid (Surr)	*507*	*S1+*	*26 - 136*	*06/13/25 16:09*	*06/16/25 22:05*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.599**		0.00200		mg/L		06/06/25 09:00	06/17/25 15:28	1
Cadmium	<0.000200		0.000200		mg/L		06/06/25 09:00	06/17/25 15:28	1
Chromium	**0.126**		0.00500		mg/L		06/06/25 09:00	06/17/25 15:28	1
Copper	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 15:28	1
Lead	**0.00221**		0.000500		mg/L		06/06/25 09:00	06/17/25 15:28	1
Molybdenum	**0.0192**		0.00200		mg/L		06/06/25 09:00	06/17/25 15:28	1
Nickel	**0.395**		0.00500		mg/L		06/06/25 09:00	06/17/25 15:28	1
Selenium	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 15:28	1
Silver	<0.00100	*+	0.00100		mg/L		06/06/25 09:00	06/17/25 15:28	1
Zinc	**0.0298**		0.0200		mg/L		06/06/25 09:00	06/17/25 15:28	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200	^+	0.000200		mg/L		06/10/25 11:34	06/11/25 14:40	1

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.484**		0.100		mg/L		06/11/25 09:30	06/12/25 15:43	1
Barium	**1.65**		0.200		mg/L		06/11/25 09:30	06/11/25 15:37	1
Cadmium	<0.0200		0.0200		mg/L		06/11/25 09:30	06/11/25 15:37	1
Chromium	**0.138**		0.0200		mg/L		06/11/25 09:30	06/11/25 15:37	1
Lead	<0.100		0.100		mg/L		06/11/25 09:30	06/11/25 15:37	1
Selenium	<0.100		0.100		mg/L		06/11/25 09:30	06/12/25 15:43	1
Silver	<0.0500	*+	0.0500		mg/L		06/11/25 09:30	06/12/25 15:43	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		06/11/25 12:28	06/12/25 10:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.4)	<0.0100		0.0100		mg/L		06/05/25 14:46	06/06/25 21:13	1
Total Suspended Solids (USGS I-3765-85)	**196**		60.0		mg/L			06/04/25 15:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand (SM 5210B)	**2540**		3.00		mg/L			06/04/25 10:06	1

Definitions/Glossary

Client: Loess Hills Landfill
Job ID: 310-307814-1
Project/Site: Loess Hills Landfill

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Glossary

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

Surrogate Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-126)	(80-120)
310-307814-1	Loess Hills Leachate	103	110	92
LB 310-457126/1-A	Method Blank	101	109	93
LCS 310-457126/2-A	Lab Control Sample	99	91	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(33-126)	(21-110)	(39-140)	(21-110)	(13-150)	(20-144)
LCS 310-457491/2-A	Lab Control Sample	76	69	83	57	99	109
LCSD 310-457491/3-A	Lab Control Sample Dup	65	67	77	57	94	91

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(33-126)	(21-110)	(39-140)	(21-110)	(13-150)	(20-144)
310-307814-1	Loess Hills Leachate	51	62	98	64	70	84
LB 310-457125/1-E	Method Blank	76	70	87	60	102	91

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(10-150)	(17-150)
LCS 310-457438/2-A	Lab Control Sample	66	90
MB 310-457438/1-A	Method Blank	47	74

Surrogate Legend

Surrogate Summary

Client: Loess Hills Landfill
Job ID: 310-307814-1
Project/Site: Loess Hills Landfill

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(10-150)	(17-150)
310-307814-1	Loess Hills Leachate	56	64
310-307814-1 MS	Loess Hills Leachate	40	75
310-307814-1 MSD	Loess Hills Leachate	44	69
LB 310-457125/1-D	Method Blank	40	79

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(26-136)	(26-136)
LCS 410-657536/7-A	Lab Control Sample	100	77
LCS 410-657536/7-A - DL	Lab Control Sample	79	74
MB 410-657536/4-A	Method Blank	83	64

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(26-136)	(26-136)
310-307814-1	Loess Hills Leachate	92 p	507 S1+

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: LB 310-457126/1-A
Matrix: Water
Analysis Batch: 457382

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.100		0.100		mg/L			06/13/25 01:02	20
2-Butanone (MEK)	<2.00		2.00		mg/L			06/13/25 01:02	20
Carbon tetrachloride	<0.100		0.100		mg/L			06/13/25 01:02	20
Chlorobenzene	<0.100		0.100		mg/L			06/13/25 01:02	20
Chloroform	<0.100		0.100		mg/L			06/13/25 01:02	20
1,2-Dichloroethane	<0.100		0.100		mg/L			06/13/25 01:02	20
1,1-Dichloroethene	<0.100		0.100		mg/L			06/13/25 01:02	20
Tetrachloroethene	<0.200		0.200		mg/L			06/13/25 01:02	20
Trichloroethene	<0.200		0.200		mg/L			06/13/25 01:02	20
Vinyl chloride	<0.100		0.100		mg/L			06/13/25 01:02	20

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/13/25 01:02*	*20*
Dibromofluoromethane (Surr)	*109*		*80 - 126*		*06/13/25 01:02*	*20*
Toluene-d8 (Surr)	*93*		*80 - 120*		*06/13/25 01:02*	*20*

Lab Sample ID: LCS 310-457126/2-A
Matrix: Water
Analysis Batch: 457382

Client Sample ID: Lab Control Sample
Prep Type: TCLP

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	2.00	2.078		mg/L		104	70 - 120
2-Butanone (MEK)	4.00	4.549		mg/L		114	61 - 140
Carbon tetrachloride	2.00	1.981		mg/L		99	65 - 120
Chlorobenzene	2.00	1.957		mg/L		98	73 - 120
Chloroform	2.00	1.733		mg/L		87	69 - 120
1,2-Dichloroethane	2.00	1.808		mg/L		90	70 - 120
1,1-Dichloroethene	2.00	1.774		mg/L		89	59 - 120
Tetrachloroethene	2.00	2.099		mg/L		105	64 - 120
Trichloroethene	2.00	2.196		mg/L		110	70 - 120
Vinyl chloride	2.00	1.240		mg/L		62	37 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 126*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 310-457491/2-A
Matrix: Water
Analysis Batch: 457657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 457491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.125	0.06145		mg/L		49	29 - 110
2,4-Dinitrotoluene	0.125	0.1140		mg/L		91	48 - 136
Hexachlorobenzene	0.125	0.09414		mg/L		75	42 - 134
Hexachlorobutadiene	0.125	0.07677		mg/L		61	29 - 110

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-457491/2-A
Matrix: Water
Analysis Batch: 457657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 457491

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Hexachloroethane			0.125	0.05856		mg/L		47	25 - 110		
2-Methylphenol			0.125	0.08950		mg/L		72	47 - 114		
4-Methylphenol (and/or 3-Methylphenol)			0.125	0.08966		mg/L		72	45 - 114		
Nitrobenzene			0.125	0.09486		mg/L		76	42 - 123		
Pentachlorophenol			0.250	0.2212		mg/L		88	28 - 142		
Pyridine			0.250	0.02451	J	mg/L		10	10 - 110		
2,4,5-Trichlorophenol			0.125	0.1077		mg/L		86	39 - 136		
2,4,6-Trichlorophenol			0.125	0.1100		mg/L		88	35 - 141		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*33 - 126*
2-Fluorophenol (Surr)	*69*		*21 - 110*
Nitrobenzene-d5 (Surr)	*83*		*39 - 140*
Phenol-d5 (Surr)	*57*		*21 - 110*
Terphenyl-d14 (Surr)	*99*		*13 - 150*
2,4,6-Tribromophenol (Surr)	*109*		*20 - 144*

Lab Sample ID: LCSD 310-457491/3-A
Matrix: Water
Analysis Batch: 457657

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 457491

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.125	0.06272		mg/L		50	29 - 110	2	35
2,4-Dinitrotoluene			0.125	0.09942		mg/L		80	48 - 136	14	35
Hexachlorobenzene			0.125	0.1076		mg/L		86	42 - 134	13	35
Hexachlorobutadiene			0.125	0.08132		mg/L		65	29 - 110	6	35
Hexachloroethane			0.125	0.06035		mg/L		48	25 - 110	3	35
2-Methylphenol			0.125	0.09335		mg/L		75	47 - 114	4	35
4-Methylphenol (and/or 3-Methylphenol)			0.125	0.09181		mg/L		73	45 - 114	2	35
Nitrobenzene			0.125	0.09348		mg/L		75	42 - 123	1	35
Pentachlorophenol			0.250	0.2535		mg/L		101	28 - 142	14	35
Pyridine			0.250	0.02055	J *-	mg/L		8	10 - 110	18	35
2,4,5-Trichlorophenol			0.125	0.1020		mg/L		82	39 - 136	5	35
2,4,6-Trichlorophenol			0.125	0.1052		mg/L		84	35 - 141	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*65*		*33 - 126*
2-Fluorophenol (Surr)	*67*		*21 - 110*
Nitrobenzene-d5 (Surr)	*77*		*39 - 140*
Phenol-d5 (Surr)	*57*		*21 - 110*
Terphenyl-d14 (Surr)	*94*		*13 - 150*
2,4,6-Tribromophenol (Surr)	*91*		*20 - 144*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 310-457125/1-E
Matrix: Water
Analysis Batch: 457657

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 457491

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
2,4-Dinitrotoluene	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Hexachlorobenzene	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Hexachlorobutadiene	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Hexachloroethane	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
2-Methylphenol	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
4-Methylphenol (and/or 3-Methylphenol)	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Nitrobenzene	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Pentachlorophenol	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Pyridine	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
Total Cresols	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
2,4,5-Trichlorophenol	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1
2,4,6-Trichlorophenol	<0.0500		0.0500		mg/L		06/13/25 07:28	06/16/25 16:03	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*33 - 126*	*06/13/25 07:28*	*06/16/25 16:03*	*1*
2-Fluorophenol (Surr)	*70*		*21 - 110*	*06/13/25 07:28*	*06/16/25 16:03*	*1*
Nitrobenzene-d5 (Surr)	*87*		*39 - 140*	*06/13/25 07:28*	*06/16/25 16:03*	*1*
Phenol-d5 (Surr)	*60*		*21 - 110*	*06/13/25 07:28*	*06/16/25 16:03*	*1*
Terphenyl-d14 (Surr)	*102*		*13 - 150*	*06/13/25 07:28*	*06/16/25 16:03*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*20 - 144*	*06/13/25 07:28*	*06/16/25 16:03*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 310-457438/1-A
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 457438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	<0.00197		0.00197		mg/L		06/12/25 13:53	06/13/25 12:48	1
Endrin	<0.0000983		0.0000983		mg/L		06/12/25 13:53	06/13/25 12:48	1
gamma-BHC (Lindane)	<0.0000983		0.0000983		mg/L		06/12/25 13:53	06/13/25 12:48	1
Heptachlor	<0.0000983		0.0000983		mg/L		06/12/25 13:53	06/13/25 12:48	1
Heptachlor epoxide	<0.0000983		0.0000983		mg/L		06/12/25 13:53	06/13/25 12:48	1
Methoxychlor	<0.0000983		0.0000983		mg/L		06/12/25 13:53	06/13/25 12:48	1
Toxaphene	<0.00197		0.00197		mg/L		06/12/25 13:53	06/13/25 12:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*47*		*10 - 150*	*06/12/25 13:53*	*06/13/25 12:48*	*1*
Tetrachloro-m-xylene (Surr)	*74*		*17 - 150*	*06/12/25 13:53*	*06/13/25 12:48*	*1*

Lab Sample ID: LCS 310-457438/2-A
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 457438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00278	0.002404		mg/L		87	41 - 150

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 310-457438/2-A
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 457438

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
gamma-BHC (Lindane)			0.00278	0.002651		mg/L		95	57 - 150		
Heptachlor			0.00278	0.001752		mg/L		63	16 - 135		
Heptachlor epoxide			0.00278	0.002867		mg/L		103	49 - 150		
Methoxychlor			0.00278	0.001068		mg/L		38	16 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*66*		*10 - 150*
Tetrachloro-m-xylene (Surr)	*90*		*17 - 150*

Lab Sample ID: LB 310-457125/1-D
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 457438

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	<0.00185		0.00185		mg/L		06/12/25 13:53	06/13/25 13:14	1
Endrin	<0.0000923		0.0000923		mg/L		06/12/25 13:53	06/13/25 13:14	1
gamma-BHC (Lindane)	<0.0000923		0.0000923		mg/L		06/12/25 13:53	06/13/25 13:14	1
Heptachlor	<0.0000923		0.0000923		mg/L		06/12/25 13:53	06/13/25 13:14	1
Heptachlor epoxide	<0.0000923		0.0000923		mg/L		06/12/25 13:53	06/13/25 13:14	1
Methoxychlor	<0.0000923		0.0000923		mg/L		06/12/25 13:53	06/13/25 13:14	1
Toxaphene	<0.00185		0.00185		mg/L		06/12/25 13:53	06/13/25 13:14	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*40*		*10 - 150*	*06/12/25 13:53*	*06/13/25 13:14*	*1*
Tetrachloro-m-xylene (Surr)	*79*		*17 - 150*	*06/12/25 13:53*	*06/13/25 13:14*	*1*

Lab Sample ID: 310-307814-1 MS
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457438

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Endrin	<0.0000938		0.00266	0.001700		mg/L		62	18 - 150		
gamma-BHC (Lindane)	<0.0000938		0.00266	0.001796		mg/L		68	35 - 150		
Heptachlor	<0.0000938		0.00266	0.001301		mg/L		49	10 - 150		
Heptachlor epoxide	<0.0000938		0.00266	0.001734		mg/L		65	26 - 150		
Methoxychlor	<0.0000938		0.00266	0.0009877		mg/L		37	10 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*40*		*10 - 150*
Tetrachloro-m-xylene (Surr)	*75*		*17 - 150*

Lab Sample ID: 310-307814-1 MSD
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457438

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endrin	<0.0000938		0.00264	0.002064		mg/L		77	18 - 150	19	35
gamma-BHC (Lindane)	<0.0000938		0.00264	0.002289		mg/L		87	35 - 150	24	35

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 310-307814-1 MSD
Matrix: Water
Analysis Batch: 457503

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457438

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Heptachlor	<0.0000938		0.00264	0.001386		mg/L		53	10 - 150	6	35
Heptachlor epoxide	<0.0000938		0.00264	0.002124		mg/L		80	26 - 150	20	35
Methoxychlor	<0.0000938		0.00264	0.001235		mg/L		47	10 - 150	22	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*44*		*10 - 150*
Tetrachloro-m-xylene (Surr)	*69*		*17 - 150*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-657536/4-A
Matrix: Water
Analysis Batch: 658018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<0.00100		0.00100		mg/L		06/13/25 16:09	06/16/25 20:40	1
2,4-D	<0.0500		0.0500		mg/L		06/13/25 16:09	06/16/25 20:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr)	*83*		*26 - 136*	*06/13/25 16:09*	*06/16/25 20:40*	*1*
2,4-Dichlorophenylacetic acid (Surr)	*64*		*26 - 136*	*06/13/25 16:09*	*06/16/25 20:40*	*1*

Lab Sample ID: LCS 410-657536/7-A
Matrix: Water
Analysis Batch: 658018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657536

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-D			0.0400	0.03514	J	mg/L		88	42 - 147		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid (Surr)	*100*		*26 - 136*
2,4-Dichlorophenylacetic acid (Surr)	*77*		*26 - 136*

Method: 8151A - Herbicides (GC) - DL

Lab Sample ID: LCS 410-657536/7-A
Matrix: Water
Analysis Batch: 658510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657536

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP) - DL			0.0802	0.04685		mg/L		58	58 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid (Surr) - DL	*79*		*26 - 136*
2,4-Dichlorophenylacetic acid (Surr) - DL	*74*		*26 - 136*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 310-456701/1-A
Matrix: Water
Analysis Batch: 457936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 456701

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		06/06/25 09:00	06/17/25 14:40	1
Cadmium	<0.000200		0.000200		mg/L		06/06/25 09:00	06/17/25 14:40	1
Chromium	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 14:40	1
Copper	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 14:40	1
Lead	<0.000500		0.000500		mg/L		06/06/25 09:00	06/17/25 14:40	1
Molybdenum	<0.00200		0.00200		mg/L		06/06/25 09:00	06/17/25 14:40	1
Nickel	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 14:40	1
Selenium	<0.00500		0.00500		mg/L		06/06/25 09:00	06/17/25 14:40	1
Silver	<0.00100		0.00100		mg/L		06/06/25 09:00	06/17/25 14:40	1
Zinc	<0.0200		0.0200		mg/L		06/06/25 09:00	06/17/25 14:40	1

Lab Sample ID: LCS 310-456701/2-A
Matrix: Water
Analysis Batch: 457936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 456701

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2009		mg/L		100	85 - 115
Cadmium	0.100	0.09819		mg/L		98	85 - 115
Chromium	0.100	0.09816		mg/L		98	85 - 115
Copper	0.200	0.1996		mg/L		100	85 - 115
Lead	0.200	0.2005		mg/L		100	85 - 115
Molybdenum	0.200	0.2029		mg/L		101	85 - 115
Nickel	0.200	0.1988		mg/L		99	85 - 115
Selenium	0.400	0.3817		mg/L		95	85 - 115
Silver	0.100	0.1202	*+	mg/L		120	85 - 115
Zinc	0.200	0.1950		mg/L		98	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 310-456999/1-A
Matrix: Water
Analysis Batch: 457302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 456999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		06/10/25 11:34	06/11/25 14:19	1

Lab Sample ID: LCS 310-456999/2-A
Matrix: Water
Analysis Batch: 457302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 456999

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001761		mg/L		106	85 - 115

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-457125/1-B
Matrix: Water
Analysis Batch: 457304

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 457146

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.200		0.200		mg/L		06/11/25 09:30	06/11/25 15:31	1
Cadmium	<0.0200		0.0200		mg/L		06/11/25 09:30	06/11/25 15:31	1
Chromium	<0.0200		0.0200		mg/L		06/11/25 09:30	06/11/25 15:31	1
Lead	<0.100		0.100		mg/L		06/11/25 09:30	06/11/25 15:31	1

Lab Sample ID: LB 310-457125/1-B
Matrix: Water
Analysis Batch: 457468

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 457146

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.100		0.100		mg/L		06/11/25 09:30	06/12/25 15:40	1
Selenium	<0.100		0.100		mg/L		06/11/25 09:30	06/12/25 15:40	1
Silver	<0.0500		0.0500		mg/L		06/11/25 09:30	06/12/25 15:40	1

Lab Sample ID: LCS 310-457125/2-B
Matrix: Water
Analysis Batch: 457304

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 457146

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	2.00	2.281		mg/L		114	80 - 120
Cadmium	2.00	2.014		mg/L		101	80 - 120
Chromium	2.00	2.125		mg/L		106	80 - 120
Lead	4.00	3.902		mg/L		98	80 - 120

Lab Sample ID: LCS 310-457125/2-B
Matrix: Water
Analysis Batch: 457468

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 457146

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	4.00	4.184		mg/L		105	80 - 120
Selenium	8.00	8.228		mg/L		103	80 - 120
Silver	2.00	2.428	*+	mg/L		121	80 - 120

Lab Sample ID: 310-307814-1 MS
Matrix: Water
Analysis Batch: 457304

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	1.65		2.00	3.936		mg/L		114	75 - 125
Cadmium	<0.0200		2.00	1.954		mg/L		98	75 - 125
Chromium	0.138		2.00	2.204		mg/L		103	75 - 125
Lead	<0.100		4.00	3.971		mg/L		99	75 - 125

Lab Sample ID: 310-307814-1 MS
Matrix: Water
Analysis Batch: 457468

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.484		4.00	4.494		mg/L		100	75 - 125
Selenium	<0.100		8.00	7.873		mg/L		98	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 310-307814-1 MS
Matrix: Water
Analysis Batch: 457468

Client Sample ID: Loess Hills Leachate
Prep Type: TCLP
Prep Batch: 457146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	<0.0500	*+	2.00	2.321		mg/L		116	75 - 125

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LB 310-457125/1-C
Matrix: Water
Analysis Batch: 457429

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 457153

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		06/11/25 12:28	06/12/25 09:47	1

Lab Sample ID: LCS 310-457125/2-C
Matrix: Water
Analysis Batch: 457429

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 457153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0167	0.01709		mg/L		103	80 - 120

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 310-456692/1-A
Matrix: Water
Analysis Batch: 456889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 456692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0100		0.0100		mg/L		06/05/25 14:46	06/06/25 21:05	1

Lab Sample ID: LCS 310-456692/2-A
Matrix: Water
Analysis Batch: 456889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 456692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.200	0.1849		mg/L		92	90 - 110

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

Lab Sample ID: MB 310-456644/1
Matrix: Water
Analysis Batch: 456644

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0		mg/L			06/04/25 15:37	1

Lab Sample ID: LCS 310-456644/2
Matrix: Water
Analysis Batch: 456644

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	102.0		mg/L		102	82 - 117

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 310-456581/1
Matrix: Water
Analysis Batch: 456581

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<3.00		3.00		mg/L			06/04/25 09:44	1

Lab Sample ID: LCS 310-456581/2
Matrix: Water
Analysis Batch: 456581

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	202.1		mg/L		102	85 - 115		

GC/MS VOA

Leach Batch: 457126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	1311	
LB 310-457126/1-A	Method Blank	TCLP	Water	1311	
LCS 310-457126/2-A	Lab Control Sample	TCLP	Water	1311	

Analysis Batch: 457382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	8260D	457126
LB 310-457126/1-A	Method Blank	TCLP	Water	8260D	457126
LCS 310-457126/2-A	Lab Control Sample	TCLP	Water	8260D	457126

GC/MS Semi VOA

Leach Batch: 457125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	1311	
LB 310-457125/1-E	Method Blank	TCLP	Water	1311	

Prep Batch: 457491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	3510C	457125
LB 310-457125/1-E	Method Blank	TCLP	Water	3510C	457125
LCS 310-457491/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-457491/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 457657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	8270E	457491
LB 310-457125/1-E	Method Blank	TCLP	Water	8270E	457491
LCS 310-457491/2-A	Lab Control Sample	Total/NA	Water	8270E	457491
LCSD 310-457491/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	457491

GC Semi VOA

Leach Batch: 457125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	1311	
LB 310-457125/1-D	Method Blank	TCLP	Water	1311	
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	1311	
310-307814-1 MSD	Loess Hills Leachate	TCLP	Water	1311	

Prep Batch: 457438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	3511	457125
LB 310-457125/1-D	Method Blank	TCLP	Water	3511	457125
MB 310-457438/1-A	Method Blank	Total/NA	Water	3511	
LCS 310-457438/2-A	Lab Control Sample	Total/NA	Water	3511	
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	3511	457125
310-307814-1 MSD	Loess Hills Leachate	TCLP	Water	3511	457125

Analysis Batch: 457503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	8081B	457438

GC Semi VOA (Continued)

Analysis Batch: 457503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-457125/1-D	Method Blank	TCLP	Water	8081B	457438
MB 310-457438/1-A	Method Blank	Total/NA	Water	8081B	457438
LCS 310-457438/2-A	Lab Control Sample	Total/NA	Water	8081B	457438
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	8081B	457438
310-307814-1 MSD	Loess Hills Leachate	TCLP	Water	8081B	457438

Leach Batch: 653838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	1311	

Prep Batch: 657536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	8151A	653838
MB 410-657536/4-A	Method Blank	Total/NA	Water	8151A	
LCS 410-657536/7-A	Lab Control Sample	Total/NA	Water	8151A	
LCS 410-657536/7-A - DL	Lab Control Sample	Total/NA	Water	8151A	

Analysis Batch: 658018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	8151A	657536
MB 410-657536/4-A	Method Blank	Total/NA	Water	8151A	657536
LCS 410-657536/7-A	Lab Control Sample	Total/NA	Water	8151A	657536

Analysis Batch: 658510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-657536/7-A - DL	Lab Control Sample	Total/NA	Water	8151A	657536

Metals

Prep Batch: 456701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	200.8	
MB 310-456701/1-A	Method Blank	Total/NA	Water	200.8	
LCS 310-456701/2-A	Lab Control Sample	Total/NA	Water	200.8	

Prep Batch: 456999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	245.1	
MB 310-456999/1-A	Method Blank	Total/NA	Water	245.1	
LCS 310-456999/2-A	Lab Control Sample	Total/NA	Water	245.1	

Leach Batch: 457125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	1311	
LB 310-457125/1-B	Method Blank	TCLP	Water	1311	
LB 310-457125/1-C	Method Blank	TCLP	Water	1311	
LCS 310-457125/2-B	Lab Control Sample	TCLP	Water	1311	
LCS 310-457125/2-C	Lab Control Sample	TCLP	Water	1311	
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	1311	

Metals

Prep Batch: 457146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	3010A	457125
LB 310-457125/1-B	Method Blank	TCLP	Water	3010A	457125
LCS 310-457125/2-B	Lab Control Sample	TCLP	Water	3010A	457125
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	3010A	457125

Prep Batch: 457153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	7470A	457125
LB 310-457125/1-C	Method Blank	TCLP	Water	7470A	457125
LCS 310-457125/2-C	Lab Control Sample	TCLP	Water	7470A	457125

Analysis Batch: 457302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	245.1	456999
MB 310-456999/1-A	Method Blank	Total/NA	Water	245.1	456999
LCS 310-456999/2-A	Lab Control Sample	Total/NA	Water	245.1	456999

Analysis Batch: 457304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	6010D	457146
LB 310-457125/1-B	Method Blank	TCLP	Water	6010D	457146
LCS 310-457125/2-B	Lab Control Sample	TCLP	Water	6010D	457146
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	6010D	457146

Analysis Batch: 457429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	7470A	457153
LB 310-457125/1-C	Method Blank	TCLP	Water	7470A	457153
LCS 310-457125/2-C	Lab Control Sample	TCLP	Water	7470A	457153

Analysis Batch: 457468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	TCLP	Water	6010D	457146
LB 310-457125/1-B	Method Blank	TCLP	Water	6010D	457146
LCS 310-457125/2-B	Lab Control Sample	TCLP	Water	6010D	457146
310-307814-1 MS	Loess Hills Leachate	TCLP	Water	6010D	457146

Analysis Batch: 457936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	200.8	456701
MB 310-456701/1-A	Method Blank	Total/NA	Water	200.8	456701
LCS 310-456701/2-A	Lab Control Sample	Total/NA	Water	200.8	456701

General Chemistry

Analysis Batch: 456581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	SM 5210B	
USB 310-456581/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 310-456581/2	Lab Control Sample	Total/NA	Water	SM 5210B	

QC Association Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

General Chemistry

Analysis Batch: 456644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	I-3765-85	
MB 310-456644/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-456644/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 456692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	Distill/CN	
MB 310-456692/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 310-456692/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 456889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-307814-1	Loess Hills Leachate	Total/NA	Water	335.4	456692
MB 310-456692/1-A	Method Blank	Total/NA	Water	335.4	456692
LCS 310-456692/2-A	Lab Control Sample	Total/NA	Water	335.4	456692

Lab Chronicle

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Client Sample ID: Loess Hills Leachate

Date Collected: 06/03/25 13:00
Date Received: 06/04/25 09:05

Lab Sample ID: 310-307814-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			457126	U8FK	EET CF	06/10/25 12:15 - 06/10/25 13:00 [1]
TCLP	Analysis	8260D		20	457382	WSE8	EET CF	06/13/25 02:32
TCLP	Leach	1311			457125	U8FK	EET CF	06/10/25 12:12 - 06/10/25 13:00 [1]
TCLP	Prep	3510C			457491	J5BR	EET CF	06/13/25 07:28
TCLP	Analysis	8270E		5	457657	V7YZ	EET CF	06/16/25 17:33
TCLP	Leach	1311			457125	U8FK	EET CF	06/10/25 12:12 - 06/10/25 13:00 [1]
TCLP	Prep	3511			457438	BW2O	EET CF	06/12/25 13:53
TCLP	Analysis	8081B		1	457503	BW2O	EET CF	06/13/25 13:53
TCLP	Leach	1311			653838	UNWS	ELLE	06/06/25 09:00 - 06/06/25 09:13 [1]
TCLP	Prep	8151A			657536	QJZ6	ELLE	06/13/25 16:09
TCLP	Analysis	8151A		1	658018	UAMZ	ELLE	06/16/25 22:05
Total/NA	Prep	200.8			456701	HE7K	EET CF	06/06/25 09:00
Total/NA	Analysis	200.8		1	457936	NFT2	EET CF	06/17/25 15:28
Total/NA	Prep	245.1			456999	F5MW	EET CF	06/10/25 11:34
Total/NA	Analysis	245.1		1	457302	F5MW	EET CF	06/11/25 14:40
TCLP	Leach	1311			457125	U8FK	EET CF	06/10/25 12:12 - 06/10/25 13:00 [1]
TCLP	Prep	3010A			457146	WK2X	EET CF	06/11/25 09:30
TCLP	Analysis	6010D		1	457304	ZRI4	EET CF	06/11/25 15:37
TCLP	Leach	1311			457125	U8FK	EET CF	06/10/25 12:12 - 06/10/25 13:00 [1]
TCLP	Prep	3010A			457146	WK2X	EET CF	06/11/25 09:30
TCLP	Analysis	6010D		1	457468	ZRI4	EET CF	06/12/25 15:43
TCLP	Leach	1311			457125	U8FK	EET CF	06/10/25 12:12 - 06/10/25 13:00 [1]
TCLP	Prep	7470A			457153	F5MW	EET CF	06/11/25 12:28
TCLP	Analysis	7470A		1	457429	F5MW	EET CF	06/12/25 10:02
Total/NA	Prep	Distill/CN			456692	ENB7	EET CF	06/05/25 14:46
Total/NA	Analysis	335.4		1	456889	ZJX4	EET CF	06/06/25 21:13
Total/NA	Analysis	I-3765-85		1	456644	E6KR	EET CF	06/04/25 15:37
Total/NA	Analysis	SM 5210B		1	456581	W9YR	EET CF	06/04/25 10:06

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8270E	3510C	Water	Pyridine
8270E	3510C	Water	Total Cresols

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-25
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-25
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	06-30-25
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-25
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-25
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25

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

Client: Loess Hills Landfill
Job ID: 310-307814-1
Project/Site: Loess Hills Landfill

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Method Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill

Job ID: 310-307814-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CF
8081B	Organochlorine Pesticides (GC)	SW846	EET CF
8151A	Herbicides (GC)	SW846	ELLE
200.8	Metals (ICP/MS)	EPA	EET CF
245.1	Mercury (CVAA)	EPA	EET CF
6010D	Metals (ICP)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
335.4	Cyanide, Total	EPA	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5210B	BOD, 5-Day	SM	EET CF
1311	TCLP Extraction	SW846	EET CF
1311	TCLP Zero Headspace Extraction	SW846	EET CF
1311	TCLP Extraction	SW846	ELLE
200.8	Preparation, Total Metals	EPA	EET CF
245.1	Preparation, Mercury	EPA	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
3511	Microextraction of Organic Compounds	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	ELLE
Distill/CN	Distillation, Cyanide	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

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

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

Laboratory References:

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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310-307814 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Waste Connections

City/State: CITY Malvern | STATE IA | Project.

Receipt Information

Date/Time Received: DATE 6/4/25 | TIME 0905 | Received By. BP

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID. R | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 1.1 | Corrected Temp (°C): 1.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

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

Chain of Custody Record

TestAmerica Omaha SC
268

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Client Information	Sampler: Bret Stephens	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-93445-20450 1
Client Contact: ~~Brady Stewart~~ Bret Stephens	Phone: (402) 659-8419	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Waste Connections, Inc.	PWSID:			Job #:

Analysis Requested

Address: ~~1704 L Ave~~ 59722 290th Street	Due Date Requested:	Preservation Codes: N - None; D - HNO3; B - NaOH
City: ~~Red Oak~~ Malvern,	TAT Requested (days): Standard	
State, Zip: ~~IA, 51566~~ IA 51551	Compliance Project: Δ Yes Δ No	
Phone: (402) 659-8419	PO #: Purchase Order Requested	
Email: bret.stephens@wasteconnections.com ~~brady.stewart@wasteconnections.com~~	WO #:	Other:
Project Name: Loes Hills Landfill	Project #: 31014819	
Site:	SSOW#:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TCLP - 6010D, 7470A, 8081B, 8260D, 8270E	Total Metals -- 200.8_CWA, 245.1	TSS - I_3765_85, BOD - SM5210B_Calc	335.4 - Cyanide, Total	8151A - TCLP Herbicides	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	B	N		
Loess Hills Leachate	6.3.25	13:00	G	Water			X	X	X	X	X	7	BOD 48 HOUR HOLD TIME

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

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

Deliverable Requested I II III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Bret Stephens	6.3.25 / 14:00	WCNX		6.4.25 905	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 01/16/2019

6/18/2025

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Bindert, Zach T	Carrier Tracking No(s): N/A	COC No: 310-83667.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State Program - Iowa		Job #: 310-307814-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/17/2025			Preservation Codes: -
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Loess Hills Landfill	Project #: 31014819			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/1311_T TCLP Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Loess Hills Leachate (310-307814-1)	6/3/25	13:00 Central	G	Water			X	1	

Analysis Requested

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		6/5/25 1545				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/6/25 09:35	Company ECLNT

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 4.2 C: 4.0

SF

Ver: 10/10/2022

Login Sample Receipt Checklist

Client: Loess Hills Landfill

Job Number: 310-307814-1

Login Number: 307814

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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

Login Sample Receipt Checklist

Client: Loess Hills Landfill

Job Number: 310-307814-1

Login Number: 307814
List Number: 2
Creator: Fuehrer, Stephanie

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/05/25 10:09 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Bret Stephens
Loess Hills Landfill
59722 290th St
Malvern, Iowa 51551

Generated 9/11/2025 9:57:57 PM

JOB DESCRIPTION

Loess Hills Landfill - PFAS

JOB NUMBER

310-314961-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

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

Authorization



Generated
9/11/2025 9:57:57 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

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Job Narrative
310-314961-1

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

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

Receipt
The sample was received on 9/5/2025 9:05 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

PFAS
Method 1633_Final: The following sample Leachate - PFAS (310-314961-1) were extracted at reduced sample volume due to elevated TSS in the sample matrix. Elevated reporting limits (RLs) are provided. Because the sample was extracted at a reduced volume, the original sample container could not be rinsed.

Method 1633_Final: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: Leachate - PFAS (310-314961-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 1633_Final: Internal Standard (IS) recovery was outside the method recommended limit for the following sample: Leachate - PFAS (310-314961-1). Since this was likely due to matrix effects, sample was analyzed at a dilution and may have elevated RLs.

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

Sample Summary

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-314961-1	Leachate - PFAS	Water	09/04/25 16:10	09/05/25 09:05	Iowa

Detection Summary

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

Client Sample ID: Leachate - PFAS
Lab Sample ID: 310-314961-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	14.6		12.5		ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	267		12.5		ng/L	1		1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	14.5		6.25		ng/L	1		1633	Total/NA
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	111		31.3		ng/L	1		1633	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	56.9		6.25		ng/L	1		1633	Total/NA
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	153		31.3		ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1690		6.25		ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	24.0		6.25		ng/L	1		1633	Total/NA
Perfluorododecanoic acid (PFDoA)	6.59		6.25		ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	282		6.25		ng/L	1		1633	Total/NA
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	293		31.3		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	148		6.25		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2920		6.25		ng/L	1		1633	Total/NA
Perfluoro-3-methoxypropanoic acid (PFMPA)	8.84		6.25		ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	33.9		6.25		ng/L	1		1633	Total/NA
Perfluorooctanesulfonamide (PFOSA)	6.85		6.25		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	55.4		6.25		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	662		6.25		ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	17.7		6.25		ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	972		6.25		ng/L	1		1633	Total/NA
3-Perfluoropropylpropanoic acid (3:3 FTCA)	166		12.5		ng/L	1		1633	Total/NA
Perfluorobutanoic acid (PFBA) - DL	993		125		ng/L	10		1633	Total/NA
3-Perfluoropentylpropanoic acid (5:3 FTCA) - DL	8650		313		ng/L	10		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill - PFAS

Job ID: 310-314961-1

Client Sample ID: Leachate - PFAS
Date Collected: 09/04/25 16:10
Date Received: 09/05/25 09:05

Lab Sample ID: 310-314961-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<4.69		4.69		ng/L		09/09/25 09:04	09/10/25 00:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**14.6**		12.5		ng/L		09/09/25 09:04	09/10/25 00:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<12.5		12.5		ng/L		09/09/25 09:04	09/10/25 00:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**267**		12.5		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**14.5**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**111**		31.3		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**56.9**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**153**		31.3		ng/L		09/09/25 09:04	09/10/25 00:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorobutanesulfonic acid (PFBS)	**1690**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorodecanesulfonic acid (PFDS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorodecanoic acid (PFDA)	**24.0**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorododecanesulfonic acid (PFDoS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorododecanoic acid (PFDoA)	**6.59**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoroheptanesulfonic acid (PFHpS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoroheptanoic acid (PFHpA)	**282**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	**293**		31.3		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorohexanesulfonic acid (PFHxS)	**148**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorohexanoic acid (PFHxA)	**2920**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	**8.84**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorononanesulfonic acid (PFNS)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorononanoic acid (PFNA)	**33.9**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorooctanesulfonamide (PFOSA)	**6.85**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorooctanesulfonic acid (PFOS)	**55.4**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill - PFAS

Job ID: 310-314961-1

Client Sample ID: Leachate - PFAS
Date Collected: 09/04/25 16:10
Date Received: 09/05/25 09:05

Lab Sample ID: 310-314961-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**662**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoropentanesulfonic acid (PFPeS)	**17.7**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoropentanoic acid (PFPeA)	**972**		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	**166**		12.5		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorotetradecanoic acid (PFTeDA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluorotridecanoic acid (PFTrDA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1
Perfluoroundecanoic acid (PFUnA)	<6.25		6.25		ng/L		09/09/25 09:04	09/10/25 00:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 10:2 FTS	*47.1*		*40 - 200*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C3 HFPO-DA	*68.8*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C3 PFBS	*97.4*		*40 - 135*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C6 PFDA	*100*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C2-PFDoDA	*66.4*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C4 PFHpA	*89.2*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C5 PFHxA	*72.6*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C3 PFHxS	*105*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C9 PFNA	*98.6*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C8 PFOA	*96.5*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C8 PFOS	*94.6*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C8 PFOSA	*81.4*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C5 PFPeA	*51.5*		*40 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C3-PFPrS	*290*	**5+ *3*	*20 - 150*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C2 PFTeDA	*38.6*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
13C7 PFUnA	*88.4*		*30 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
d5-NEtFOSAA	*103*		*25 - 135*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
d9-N-EtFOSE-M	*37.7*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
d5-NEtPFOSA	*56.8*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
D3-NMeFOSA	*57.2*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
d3-NMeFOSAA	*104*		*40 - 170*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
d7-N-MeFOSE-M	*57.5*		*10 - 130*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
M2-4:2 FTS	*302*	**5+*	*40 - 200*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
M2-6:2 FTS	*210*	**5+*	*40 - 200*	*09/09/25 09:04*	*09/10/25 00:51*	*1*
M2-8:2 FTS	*161*		*40 - 300*	*09/09/25 09:04*	*09/10/25 00:51*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**993**		125		ng/L		09/09/25 09:04	09/10/25 21:39	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	**8650**		313		ng/L		09/09/25 09:04	09/10/25 21:39	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 10:2 FTS	*33.2*	**5-*	*40 - 200*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C3 HFPO-DA	*97.6*		*40 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C4 PFBA	*81.7*		*5 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C3 PFBS	*103*		*40 - 135*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C6 PFDA	*90.6*		*40 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C2-PFDoDA	*65.4*		*10 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C4 PFHpA	*98.9*		*40 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*
13C5 PFHxA	*97.9*		*40 - 130*	*09/09/25 09:04*	*09/10/25 21:39*	*10*

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill - PFAS

Job ID: 310-314961-1

Client Sample ID: Leachate - PFAS
Date Collected: 09/04/25 16:10
Date Received: 09/05/25 09:05

Lab Sample ID: 310-314961-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	102		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C9 PFNA	100		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C8 PFOA	107		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C8 PFOS	98.1		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C8 PFOSA	85.3		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C5 PFPeA	110		40 - 130	09/09/25 09:04	09/10/25 21:39	10
13C3-PFPrS	109		20 - 150	09/09/25 09:04	09/10/25 21:39	10
13C2 PFTeDA	38.6		10 - 130	09/09/25 09:04	09/10/25 21:39	10
13C7 PFUnA	88.6		30 - 130	09/09/25 09:04	09/10/25 21:39	10
d5-NEtFOSAA	89.1		25 - 135	09/09/25 09:04	09/10/25 21:39	10
d9-N-EtFOSE-M	45.7		10 - 130	09/09/25 09:04	09/10/25 21:39	10
d5-NEtPFOSA	63.2		10 - 130	09/09/25 09:04	09/10/25 21:39	10
D3-NMeFOSA	72.3		10 - 130	09/09/25 09:04	09/10/25 21:39	10
d3-NMeFOSAA	94.9		40 - 170	09/09/25 09:04	09/10/25 21:39	10
d7-N-MeFOSE-M	61.6		10 - 130	09/09/25 09:04	09/10/25 21:39	10
M2-4:2 FTS	217	*5+	40 - 200	09/09/25 09:04	09/10/25 21:39	10
M2-6:2 FTS	117		40 - 200	09/09/25 09:04	09/10/25 21:39	10
M2-8:2 FTS	98.4		40 - 300	09/09/25 09:04	09/10/25 21:39	10

Qualifiers

LCMS

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.

Glossary

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

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-670952/1-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.50		1.50		ng/L		09/09/25 09:04	09/09/25 20:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.00		4.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.00		4.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.00		4.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10.0		10.0		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10.0		10.0		ng/L		09/09/25 09:04	09/09/25 20:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorobutanoic acid (PFBA)	<4.00		4.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorodecanesulfonic acid (PFDS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorodecanoic acid (PFDA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorododecanesulfonic acid (PFDoS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorododecanoic acid (PFDoA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoroheptanoic acid (PFHpA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10.0		10.0		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorohexanoic acid (PFHxA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorononanesulfonic acid (PFNS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorononanoic acid (PFNA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorooctanesulfonamide (PFOSA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorooctanoic acid (PFOA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-670952/1-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoropentanoic acid (PFPeA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10.0		10.0		ng/L		09/09/25 09:04	09/09/25 20:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.00		4.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorotetradecanoic acid (PFTeDA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluorotridecanoic acid (PFTrDA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1
Perfluoroundecanoic acid (PFUnA)	<2.00		2.00		ng/L		09/09/25 09:04	09/09/25 20:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 10:2 FTS	*33.4*	**5-*	*40 - 200*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C3 HFPO-DA	*84.2*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C4 PFBA	*86.0*		*5 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C3 PFBS	*79.8*		*40 - 135*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C6 PFDA	*77.9*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C2-PFDoDA	*71.0*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C4 PFHpA	*87.0*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C5 PFHxA	*84.1*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C3 PFHxS	*82.3*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C9 PFNA	*83.5*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C8 PFOA	*84.0*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C8 PFOS	*86.1*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C8 PFOSA	*76.4*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C5 PFPeA	*94.5*		*40 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C3-PFPrS	*75.1*		*20 - 150*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C2 PFTeDA	*71.3*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
13C7 PFUnA	*78.6*		*30 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
d5-NEtFOSAA	*71.9*		*25 - 135*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
d9-N-EtFOSE-M	*58.9*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
d5-NEtPFOSA	*56.3*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
D3-NMeFOSA	*62.3*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
d3-NMeFOSAA	*77.0*		*40 - 170*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
d7-N-MeFOSE-M	*58.4*		*10 - 130*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
M2-4:2 FTS	*85.8*		*40 - 200*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
M2-6:2 FTS	*80.1*		*40 - 200*	*09/09/25 09:04*	*09/09/25 20:08*	*1*
M2-8:2 FTS	*74.8*		*40 - 300*	*09/09/25 09:04*	*09/09/25 20:08*	*1*

Lab Sample ID: LCS 240-670952/3-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	39.38		ng/L		104	55 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	44.71		ng/L		120	70 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-670952/3-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	45.03		ng/L		119	65 - 145
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	35.22		ng/L		117	70 - 140
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	94.76		ng/L		123	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	88.41		ng/L		118	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	87.27		ng/L		115	65 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	45.86		ng/L		115	65 - 145
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	47.73		ng/L		119	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	234.0		ng/L		117	70 - 135
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	46.68		ng/L		117	60 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	49.24		ng/L		123	50 - 140
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	227.0		ng/L		114	70 - 145
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	49.69		ng/L		124	50 - 150
Perfluorobutanesulfonic acid (PFBS)	35.5	37.64		ng/L		106	60 - 145
Perfluorobutanoic acid (PFBA)	80.0	95.22		ng/L		119	70 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	45.04		ng/L		117	60 - 145
Perfluorodecanoic acid (PFDA)	40.0	48.68		ng/L		122	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	38.8	40.43		ng/L		104	50 - 145
Perfluorododecanoic acid (PFDoA)	40.0	49.68		ng/L		124	70 - 140
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	43.04		ng/L		121	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.2	41.14		ng/L		108	70 - 150
Perfluoroheptanoic acid (PFHpA)	40.0	43.24		ng/L		108	70 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	196.0		ng/L		98	50 - 145
Perfluorohexanesulfonic acid (PFHxS)	36.5	34.34		ng/L		94	65 - 145
Perfluorohexanoic acid (PFHxA)	40.0	45.58		ng/L		114	70 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	41.49		ng/L		104	60 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	46.39		ng/L		116	55 - 140
Perfluorononanesulfonic acid (PFNS)	38.5	47.12		ng/L		122	65 - 145
Perfluorononanoic acid (PFNA)	40.0	42.11		ng/L		105	70 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	46.69		ng/L		117	70 - 145
Perfluorooctanesulfonic acid (PFOS)	37.2	43.90		ng/L		118	55 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-670952/3-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	40.0	46.04		ng/L		115	70 - 150
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.51		ng/L		105	65 - 140
Perfluoropentanoic acid (PFPeA)	40.0	43.98		ng/L		110	65 - 135
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	229.2		ng/L		115	70 - 135
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	88.13		ng/L		110	65 - 130
Perfluorotetradecanoic acid (PFTeDA)	40.0	49.51		ng/L		124	60 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	47.67		ng/L		119	65 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	48.37		ng/L		121	70 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 10:2 FTS	*39.3*		*10 - 200*
13C3 HFPO-DA	*102*		*40 - 130*
13C4 PFBA	*102*		*5 - 130*
13C3 PFBS	*96.6*		*40 - 135*
13C6 PFDA	*99.4*		*40 - 130*
13C2-PFDoDA	*96.0*		*10 - 130*
13C4 PFHpA	*105*		*40 - 130*
13C5 PFHxA	*100*		*40 - 130*
13C3 PFHxS	*101*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C8 PFOA	*98.7*		*40 - 130*
13C8 PFOS	*97.8*		*40 - 130*
13C8 PFOSA	*95.8*		*40 - 130*
13C5 PFPeA	*113*		*40 - 130*
13C3-PFPrS	*92.0*		*20 - 150*
13C2 PFTeDA	*93.5*		*10 - 130*
13C7 PFUnA	*96.5*		*30 - 130*
d5-NEtFOSAA	*80.2*		*25 - 135*
d9-N-EtFOSE-M	*88.5*		*10 - 130*
d5-NEtPFOSA	*78.4*		*10 - 130*
D3-NMeFOSA	*76.5*		*10 - 130*
d3-NMeFOSAA	*86.2*		*40 - 170*
d7-N-MeFOSE-M	*95.9*		*10 - 130*
M2-4:2 FTS	*95.5*		*40 - 200*
M2-6:2 FTS	*91.6*		*40 - 200*
M2-8:2 FTS	*84.5*		*40 - 300*

Lab Sample ID: LLCS 240-670952/2-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	4.237		ng/L		112	55 - 160

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-670952/2-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	4.280		ng/L		115	70 - 155
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.613		ng/L		122	65 - 145
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.787		ng/L		126	70 - 140
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	10.01		ng/L		130	60 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	8.820		ng/L		118	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	9.204		ng/L		121	65 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.925		ng/L		123	65 - 145
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	5.293		ng/L		132	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	24.79		ng/L		124	70 - 135
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.765		ng/L		119	60 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	5.069		ng/L		127	50 - 140
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	26.79		ng/L		134	70 - 145
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	5.250		ng/L		131	50 - 150
Perfluorobutanesulfonic acid (PFBS)	3.55	3.919		ng/L		110	60 - 145
Perfluorobutanoic acid (PFBA)	8.00	9.694		ng/L		121	70 - 140
Perfluorodecanesulfonic acid (PFDS)	3.86	4.408		ng/L		114	60 - 145
Perfluorodecanoic acid (PFDA)	4.00	5.136		ng/L		128	70 - 140
Perfluorododecanesulfonic acid (PFDoS)	3.88	4.296		ng/L		111	50 - 145
Perfluorododecanoic acid (PFDoA)	4.00	5.019		ng/L		125	70 - 140
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	4.118		ng/L		115	70 - 140
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.963		ng/L		104	70 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.367		ng/L		109	70 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	18.64		ng/L		93	50 - 145
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.720		ng/L		102	65 - 145
Perfluorohexanoic acid (PFHxA)	4.00	4.718		ng/L		118	70 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.254		ng/L		106	60 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.718		ng/L		118	55 - 140
Perfluorononanesulfonic acid (PFNS)	3.85	4.639		ng/L		121	65 - 145
Perfluorononanoic acid (PFNA)	4.00	4.433		ng/L		111	70 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-670952/2-A
Matrix: Water
Analysis Batch: 671048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670952

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorooctanesulfonamide (PFOSA)			4.00	4.815		ng/L		120	70 - 145		
Perfluorooctanesulfonic acid (PFOS)			3.72	4.705		ng/L		126	55 - 150		
Perfluorooctanoic acid (PFOA)			4.00	4.691		ng/L		117	70 - 150		
Perfluoropentanesulfonic acid (PFPeS)			3.76	4.137		ng/L		110	65 - 140		
Perfluoropentanoic acid (PFPeA)			4.00	4.548		ng/L		114	65 - 135		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	23.06		ng/L		115	70 - 135		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	8.904		ng/L		111	65 - 130		
Perfluorotetradecanoic acid (PFTeDA)			4.00	4.967		ng/L		124	60 - 140		
Perfluorotridecanoic acid (PFTrDA)			4.00	4.798		ng/L		120	65 - 140		
Perfluoroundecanoic acid (PFUnA)			4.00	5.006		ng/L		125	70 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 10:2 FTS	*35.0*		*10 - 200*
13C3 HFPO-DA	*102*		*40 - 130*
13C4 PFBA	*103*		*5 - 130*
13C3 PFBS	*97.1*		*40 - 135*
13C6 PFDA	*94.8*		*40 - 130*
13C2-PFDoDA	*87.7*		*10 - 130*
13C4 PFHpA	*105*		*40 - 130*
13C5 PFHxA	*102*		*40 - 130*
13C3 PFHxS	*97.9*		*40 - 130*
13C9 PFNA	*96.9*		*40 - 130*
13C8 PFOA	*99.3*		*40 - 130*
13C8 PFOS	*95.7*		*40 - 130*
13C8 PFOSA	*94.9*		*40 - 130*
13C5 PFPeA	*116*		*40 - 130*
13C3-PFPrS	*89.2*		*20 - 150*
13C2 PFTeDA	*90.0*		*10 - 130*
13C7 PFUnA	*94.2*		*30 - 130*
d5-NEtFOSAA	*80.3*		*25 - 135*
d9-N-EtFOSE-M	*52.7*		*10 - 130*
d5-NEtPFOSA	*72.6*		*10 - 130*
D3-NMeFOSA	*80.1*		*10 - 130*
d3-NMeFOSAA	*87.4*		*40 - 170*
d7-N-MeFOSE-M	*52.9*		*10 - 130*
M2-4:2 FTS	*93.8*		*40 - 200*
M2-6:2 FTS	*85.8*		*40 - 200*
M2-8:2 FTS	*78.7*		*40 - 300*

QC Association Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill - PFAS

Job ID: 310-314961-1

LCMS

Prep Batch: 670952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-314961-1	Leachate - PFAS	Total/NA	Water	1633	
310-314961-1 - DL	Leachate - PFAS	Total/NA	Water	1633	
MB 240-670952/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-670952/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-670952/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 671048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-314961-1	Leachate - PFAS	Total/NA	Water	1633	670952
MB 240-670952/1-A	Method Blank	Total/NA	Water	1633	670952
LCS 240-670952/3-A	Lab Control Sample	Total/NA	Water	1633	670952
LLCS 240-670952/2-A	Lab Control Sample	Total/NA	Water	1633	670952

Analysis Batch: 671211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-314961-1 - DL	Leachate - PFAS	Total/NA	Water	1633	670952

Lab Chronicle

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

Client Sample ID: Leachate - PFAS
Lab Sample ID: 310-314961-1

Date Collected: 09/04/25 16:10
Matrix: Water
Date Received: 09/05/25 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			670952	JVB4	EET CLE	09/09/25 09:04
Total/NA	Analysis	1633		1	671048	DSH	EET CLE	09/10/25 00:51
Total/NA	Prep	1633	DL		670952	JVB4	EET CLE	09/09/25 09:04
Total/NA	Analysis	1633	DL	10	671211	MRL	EET CLE	09/10/25 21:39

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-26
Illinois	NELAP	200004	08-31-26
Iowa	State	421	06-01-27
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-28-26
Kentucky (WW)	State	KY98016	12-31-25
Minnesota	NELAP	039-999-348	12-31-25
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	06-30-26
New York	NELAP	10975	04-01-26
North Dakota	State	R-244	02-27-26
Ohio	State	8303	11-04-25
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-26
Texas	NELAP	T104704517	08-31-26
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-26

Method Summary

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE

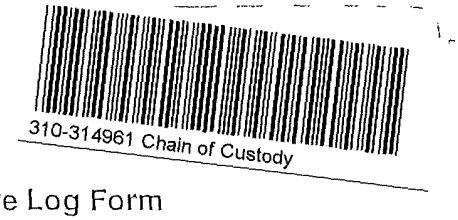
Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

eurofins | Environment Testing America



Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Loess Hills Landfill

City/State: CITY | STATE | Project

Receipt Information

Date/Time Received: DATE 9.5.25 | TIME 0905 | Received By CGC

Delivery Type: ☐ UPS ☑ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other.

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID.

Multiple Coolers? ☐ Yes ☑ No *If yes:* Cooler # ____ of ____

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other.____ ☐ NONE

Thermometer ID: AA | Correction Factor (°C): 0

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

Uncorrected Temp (°C): 1.1 | Corrected Temp (°C): 1.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes.* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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

Chain of Custody Record

eurofins

Client Information	Sampler: Bret Stephens	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-110090-29283 1
Client Contact: Bret Stephens	Phone: (402) 659-8419	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Loess Hills Landfill	PWSID:	Analysis Requested		Job #:
Address: 59722 290th St	Due Date Requested:			Preservation Codes: N - None
City: Malvern	TAT Requested (days): Standard			
State, Zip: IA, 51551	Compliance Project: Δ Yes Δ No			
Phone: (402) 659-8419	PO #: Purchase Order Requested			
Email: bret.stephens@wasteconnections.com	WO #:			
Project Name: Loess Hills Landfill - PFAS	Project #: 31014819			
Site:	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - 1633 Standard List 40	Total Number of containers	Special Instructions/Note
			Preservation Code:				N		
Leachate - PFAS	9.4.25	16:10	G	Water			X	2	

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

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Bret Stephens	9.4.25 / 16:30	WCX	CGC	9.5.25 0905	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

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

2.7/2.9

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Bindert, Zach T	Carrier Tracking No(s): N/A	COC No: 310-86588.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Program - Iowa		Job #: 310-314961-1
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 9/18/2025			
City: Barberton	TAT Requested (days): N/A			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Loess Hills Landfill - PFAS	Project #: 31014819			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

PFAS R090-083

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final/1633_SPE1633 Standard List 40	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate - PFAS (310-314961-1)	9/4/25	16:10 Central	G	Water			X	2	

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9/5/25 1605		JORDAN N PYLES	9/6/25 1020	EURO
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # _____
Barberton Facility

Client EUROFINS CEDARFALLS Site Name _____ Cooler unpacked by: JPYLES

Cooler Received on 9/16/25 Opened on 9/16/25

FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used Bubble Wrap Foam Plastic Bag None Other _____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +2 °C) Observed Cooler Temp. 2.7 °C Corrected Cooler Temp 2.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC461227
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Labeled by:

Labels Verified by

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen _____

TRK# 0201 4671 5425 2382

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Loess Hills Landfill

Job Number: 310-314961-1

Login Number: 314961

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Schaufenbuel, Erin

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

Isotope Dilution Summary

Client: Loess Hills Landfill
Project/Site: Loess Hills Landfill - PFAS

Job ID: 310-314961-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M102FTS	HFPODA	PFBA	C3PFBS	C6PFDA	PFDoDA	C4PFHA	13C5PHA
Lab Sample ID	Client Sample ID	(40-200)	(40-130)	(5-130)	(40-135)	(40-130)	(10-130)	(40-130)	(40-130)
310-314961-1	Leachate - PFAS	47.1	68.8		97.4	100	66.4	89.2	72.6
310-314961-1 - DL	Leachate - PFAS	33.2 *5-	97.6	81.7	103	90.6	65.4	98.9	97.9
MB 240-670952/1-A	Method Blank	33.4 *5-	84.2	86.0	79.8	77.9	71.0	87.0	84.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFHS	C9PFNA	C8PFOA	C8PFOS	PFOSA	PFPeA	I3C3-PFPrS	PFTDA
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(20-150)	(10-130)
310-314961-1	Leachate - PFAS	105	98.6	96.5	94.6	81.4	51.5	290 *5+ *3	38.6
310-314961-1 - DL	Leachate - PFAS	102	100	107	98.1	85.3	110	109	38.6
MB 240-670952/1-A	Method Blank	82.3	83.5	84.0	86.1	76.4	94.5	75.1	71.3

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA	d5NEFOS	NEFM	d5NPFSA	d3NMFSA	d3NMFOS	NMFM	M242FTS
Lab Sample ID	Client Sample ID	(30-130)	(25-135)	(10-130)	(10-130)	(10-130)	(40-170)	(10-130)	(40-200)
310-314961-1	Leachate - PFAS	88.4	103	37.7	56.8	57.2	104	57.5	302 *5+
310-314961-1 - DL	Leachate - PFAS	88.6	89.1	45.7	63.2	72.3	94.9	61.6	217 *5+
MB 240-670952/1-A	Method Blank	78.6	71.9	58.9	56.3	62.3	77.0	58.4	85.8

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(40-200)	(40-300)
310-314961-1	Leachate - PFAS	210 *5+	161
310-314961-1 - DL	Leachate - PFAS	117	98.4
MB 240-670952/1-A	Method Blank	80.1	74.8

Surrogate Legend

M102FTS = 13C2 10:2 FTS
HFPODA = 13C3 HFPO-DA
PFBA = 13C4 PFBA
C3PFBS = 13C3 PFBS
C6PFDA = 13C6 PFDA
PFDoDA = 13C2-PFDoDA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
C3PFHS = 13C3 PFHxS
C9PFNA = 13C9 PFNA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
PFOSA = 13C8 PFOSA
PFPeA = 13C5 PFPeA
13C3-PFPrS = 13C3-PFPrS
PFTDA = 13C2 PFTeDA
13C7PUA = 13C7 PFUnA
d5NEFOS = d5-NEtFOSAA
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = D3-NMeFOSA
d3NMFOS = d3-NMeFOSAA
NMFM = d7-N-MeFOSE-M
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS

Isotope Dilution Summary

Client: Loess Hills Landfill
Job ID: 310-314961-1
Project/Site: Loess Hills Landfill - PFAS

M282FTS = M2-8:2 FTS

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M102FTS	HFPODA	PFBA	C3PFBS	C6PFDA	PFDoDA	C4PFHA	13C5PHA
Lab Sample ID	Client Sample ID	(10-200)	(40-130)	(5-130)	(40-135)	(40-130)	(10-130)	(40-130)	(40-130)
LCS 240-670952/3-A	Lab Control Sample	39.3	102	102	96.6	99.4	96.0	105	100
LLCS 240-670952/2-A	Lab Control Sample	35.0	102	103	97.1	94.8	87.7	105	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFHS	C9PFNA	C8PFOA	C8PFOS	PFOSA	PFPeA	13C3-PFPrS	PFTDA
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(20-150)	(10-130)
LCS 240-670952/3-A	Lab Control Sample	101	100	98.7	97.8	95.8	113	92.0	93.5
LLCS 240-670952/2-A	Lab Control Sample	97.9	96.9	99.3	95.7	94.9	116	89.2	90.0

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA	d5NEFOS	NEFM	d5NPFSA	d3NMFSA	d3NMFOS	NMFM	M242FTS
Lab Sample ID	Client Sample ID	(30-130)	(25-135)	(10-130)	(10-130)	(10-130)	(40-170)	(10-130)	(40-200)
LCS 240-670952/3-A	Lab Control Sample	96.5	80.2	88.5	78.4	76.5	86.2	95.9	95.5
LLCS 240-670952/2-A	Lab Control Sample	94.2	80.3	52.7	72.6	80.1	87.4	52.9	93.8

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(40-200)	(40-300)
LCS 240-670952/3-A	Lab Control Sample	91.6	84.5
LLCS 240-670952/2-A	Lab Control Sample	85.8	78.7

Surrogate Legend

M102FTS = 13C2 10:2 FTS
HFPODA = 13C3 HFPO-DA
PFBA = 13C4 PFBA
C3PFBS = 13C3 PFBS
C6PFDA = 13C6 PFDA
PFDoDA = 13C2-PFDoDA
C4PFHA = 13C4 PFHpA
13C5PHA = 13C5 PFHxA
C3PFHS = 13C3 PFHxS
C9PFNA = 13C9 PFNA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
PFOSA = 13C8 PFOSA
PFPeA = 13C5 PFPeA
13C3-PFPrS = 13C3-PFPrS
PFTDA = 13C2 PFTeDA
13C7PUA = 13C7 PFUnA
d5NEFOS = d5-NEtFOSAA
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = D3-NMeFOSA
d3NMFOS = d3-NMeFOSAA
NMFM = d7-N-MeFOSE-M
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Appendix F

Landfill Gas Annual Report – Prepared by Iowa Waste Services, LLC

LOESS HILLS REGIONAL SOLID WASTE LANDFILL

59722 290TH Street Malvern, IA 51551

November 20, 2025

Mr. Mike Smith, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, IA 50321

Re: **2025 Landfill Gas Annual Report, Loess Hills Regional Sanitary Landfill**
Permit No. 65-SDP-01-72P

Dear Mike,

In general accordance with Iowa Administrative Code (IAC) 657-113.9(2), Iowa Waste Services, LLC, has completed the required quarterly landfill gas monitoring and landfill gas annual report for the Loess Hills Regional Sanitary Landfill for the year 2025.

MONITORING ACTIVITIES

Monitoring activities for the 2025 landfill gas monitoring events were performed on March 21, June 23, September 16, & November 6, 2025. Facility personnel performed the monitoring activities which included monitoring for methane (CH4), carbon dioxide (CO2), and oxygen (O2) at the applicable monitoring locations. A Landtec GEM 5000 gas analyzer was used to monitor all of the applicable monitoring locations at the facility during each quarterly monitoring event.

SUMMARY OF FINDINGS

Methane was not detected at any of the applicable site monitoring locations at or above regulatory limits during any of the 2025 quarterly monitoring events. The results of the events are included in the enclosed Landfill Gas Monitoring Summary Table along with a Methane Monitoring Network Figure.

Thanks,

Bret Stephens
Iowa Waste Services, LLC

cc: Kelly Danielson, Iowa Waste Services, LLC
Ryan Mitchell, Iowa Waste Services, LLC
Chaz Roberts, Iowa Waste Services, LLC
Rachel Hanigan, Iowa Waste Services, LLC

Encl. Landfill Gas Monitoring Summary Table
Methane Monitoring Network Figure

Landfill Gas Monitoring Summary Table
Loess Hills Regional Landfill
Permit No. 65-SDP-01-72P

Monitoring Points				Methane Results (% LEL)							
Point #	Name	Type	Description	3/21/2025	S (Y/N)	6/23/2025	S (Y/N)	9/16/2025	S (Y/N)	11/6/2025	S (Y/N)
2	Scalehouse	Indoor	Inside Office	0.0		0.0		0.0		0.0	
3	Maintenance Building	Indoor	Inside Shop	0.0		0.0		0.0		0.0	
11	Breakroom/Office	Indoor	Inside Breakroom	0.0		0.0		0.0		0.0	
12	MW-7	Subsurface	Groundwater monitoring well with vadose zone screen, west side of unlined area	0.0	N	0.0	N	0.0	Y	0.0	N
13	MW-8	Subsurface	Groundwater monitoring well with vadose zone screen, south side of unlined area	86.0	N	0.0	N	0.0	N	0.0	N
15	MW-11	Subsurface	Groundwater monitoring well with vadose zone screen, south side of unlined area	58.0	N	0.0	N	0.0	N	0.0	N
42	GW-1	Subsurface	Groundwater sump pump station for Cells D, E, F, G, and N	0.0		0.0		0.0		0.0	
60	GP-2	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
62	GP-4	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
76	GP-17	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
77	GP-18	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
79	GP-19	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
80	GP-20	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
81	GP-21	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
82	GP-22	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
83	GP-23	Subsurface	Property boundary LFG monitoring point	0.0	N	0.0	N	0.0	N	0.0	N
84	GP-24	Subsurface	Property boundary LFG monitoring point	98.0	N	8.0	N	0.0	N	66.0	N

Notes:
S(Y/N) - Was screen submerged, yes or no or blank is non-applicable
NM - Indicates not measured; monitoring points unable to be located and/or under construction

Path: C:\Users\bmadson\OneDrive - SCS Engineers\Desktop\GIS\Maps\Iowa Office\Site Maps\WLHS\2023 AWOR\LoessHills-2023-AWOR_v2.aprx
User: bmadson
Date Saved: 1/30/2026 10:01 AM

Point	Sample Point	Type
#2	Scalehouse	Indoor
#3	Maintenance Building	Indoor
#11	Breakroom/Office	Indoor
#12	MW-7	Subsurface
#13	MW-8	Subsurface
#15	MW-11	Subsurface
#42	GW-1	Subsurface
#60	GP-2	Subsurface
#62	GP-4	Subsurface
#76	GP-17	Subsurface
#77	GP-17	Subsurface
#79	GP-19	Subsurface
#80	GP-20	Subsurface
#81	GP-21	Subsurface
#82	GP-22	Subsurface
#83	GP-23	Subsurface
#84	GP-24	Subsurface

SCS ENGINEERS
environmental consultants and contractors

Site Map

Legend

- LFG Monitoring Points
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Piezometer
- Future Waste Boundary
- Located Waste Boundary
- Approximate Waste Boundary
- Approximate Property Boundary

Loess Hills Regional Sanitary Landfill
Malvern, Iowa
Project No: 27225095.01
Drawing Date: January 2026

Figure 1

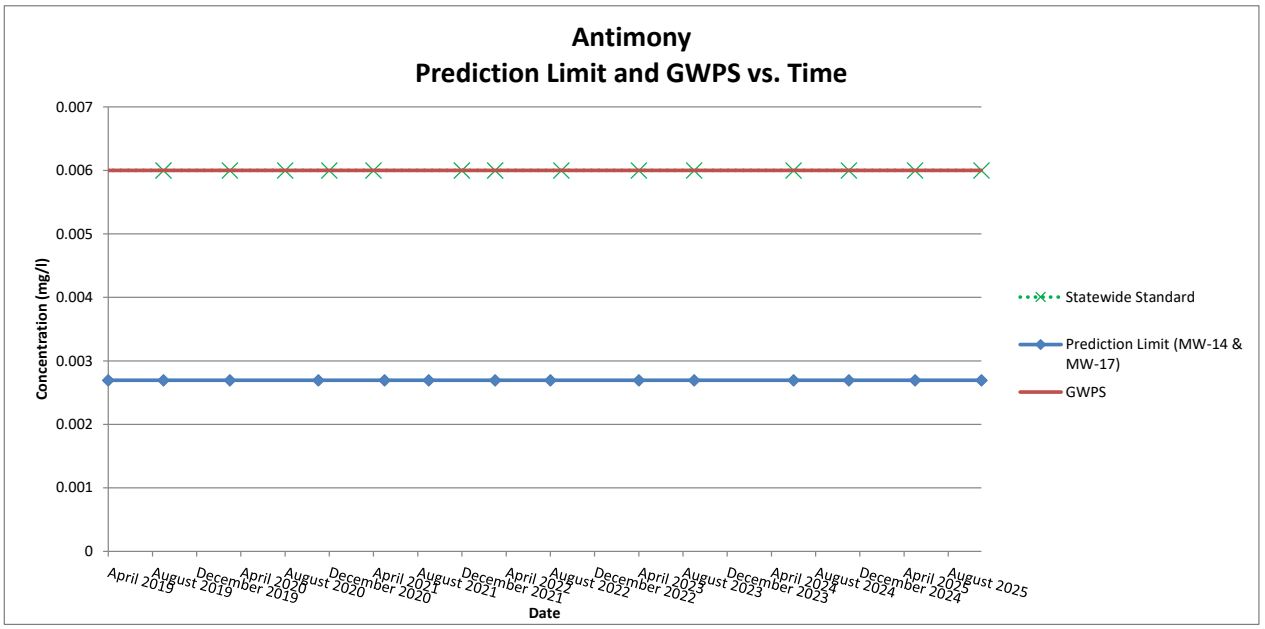
N W E S

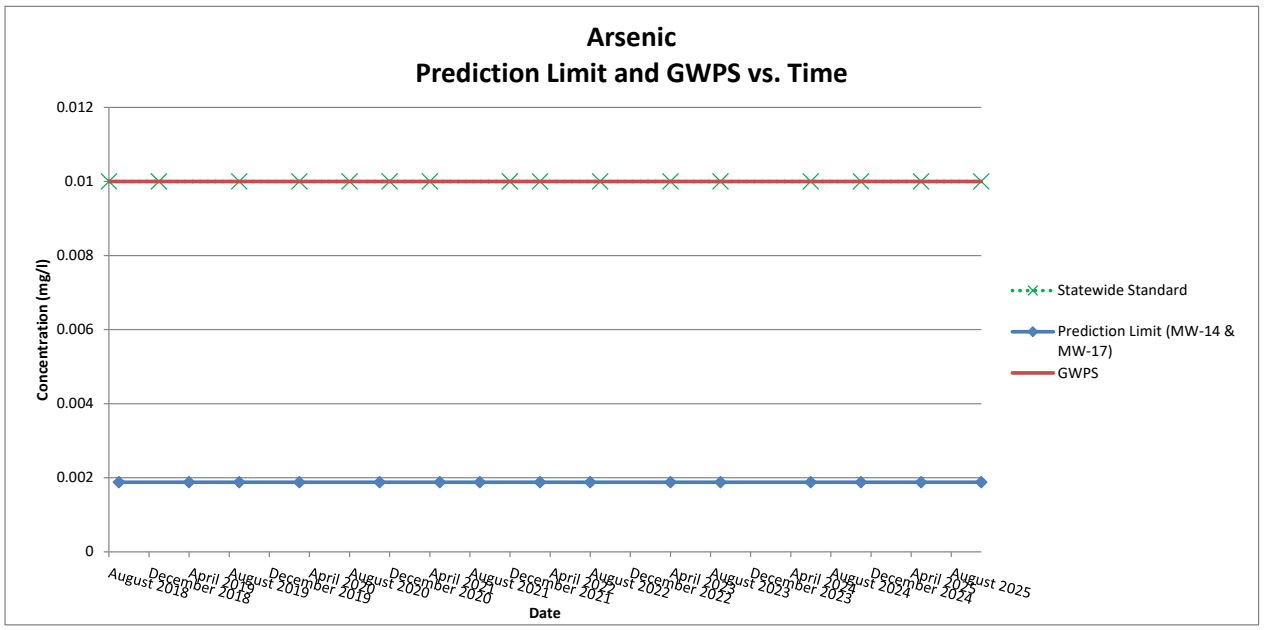
0 170 340 680 1,020 Feet

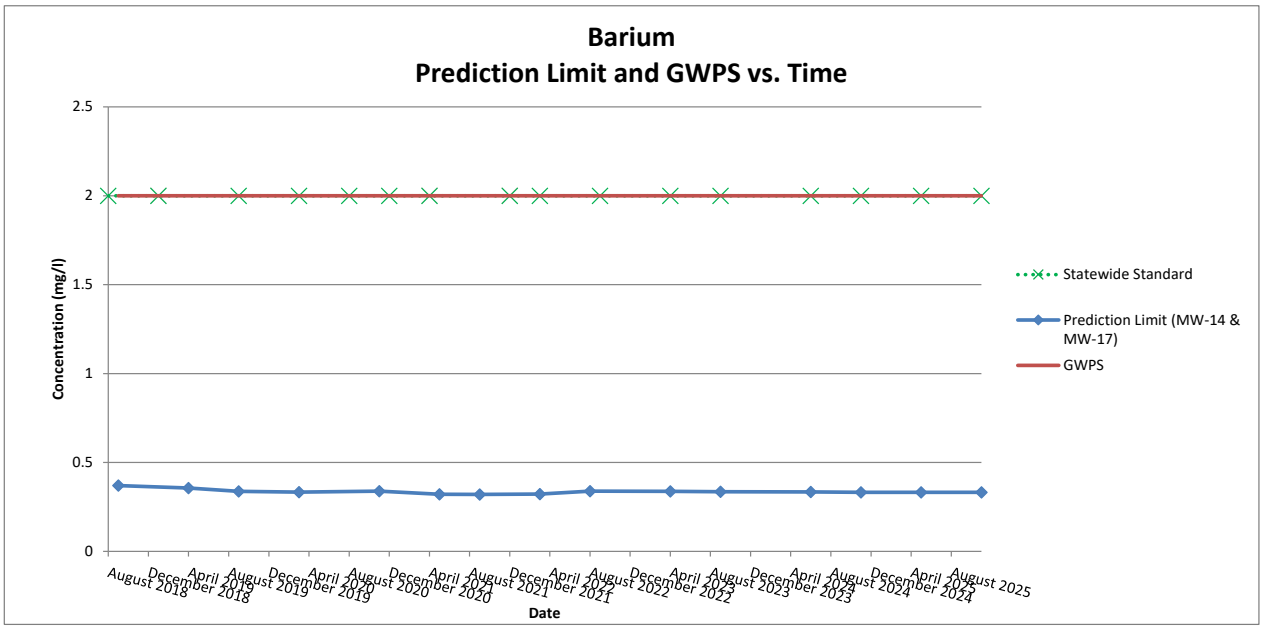
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

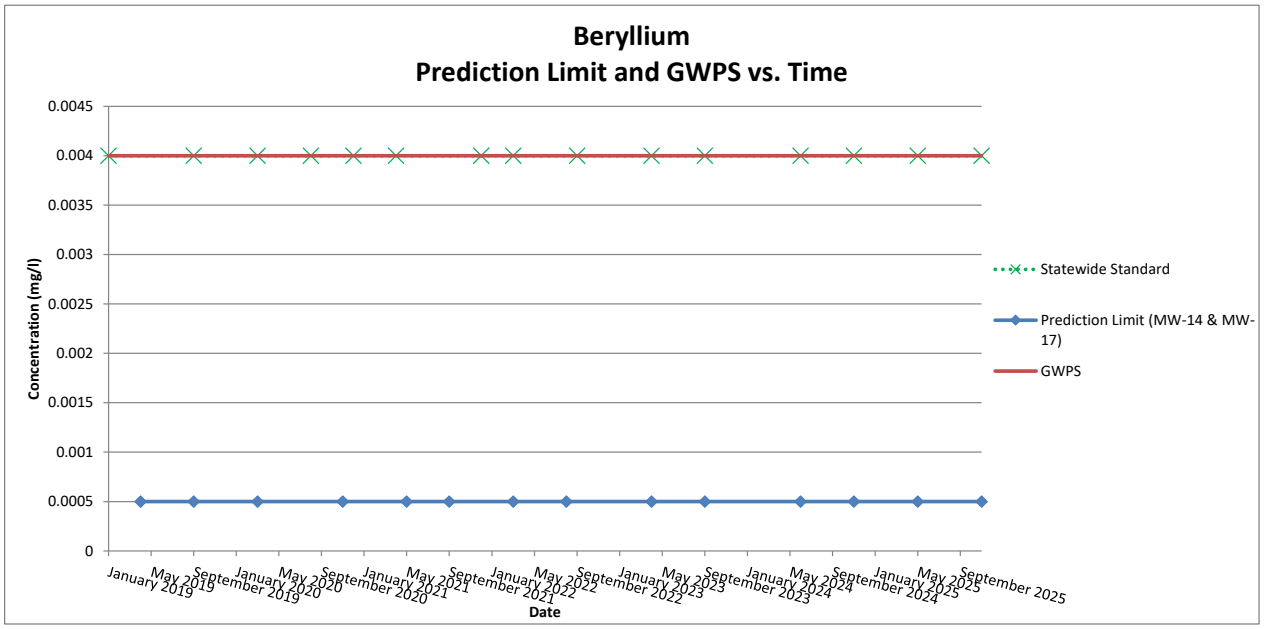
Appendix G

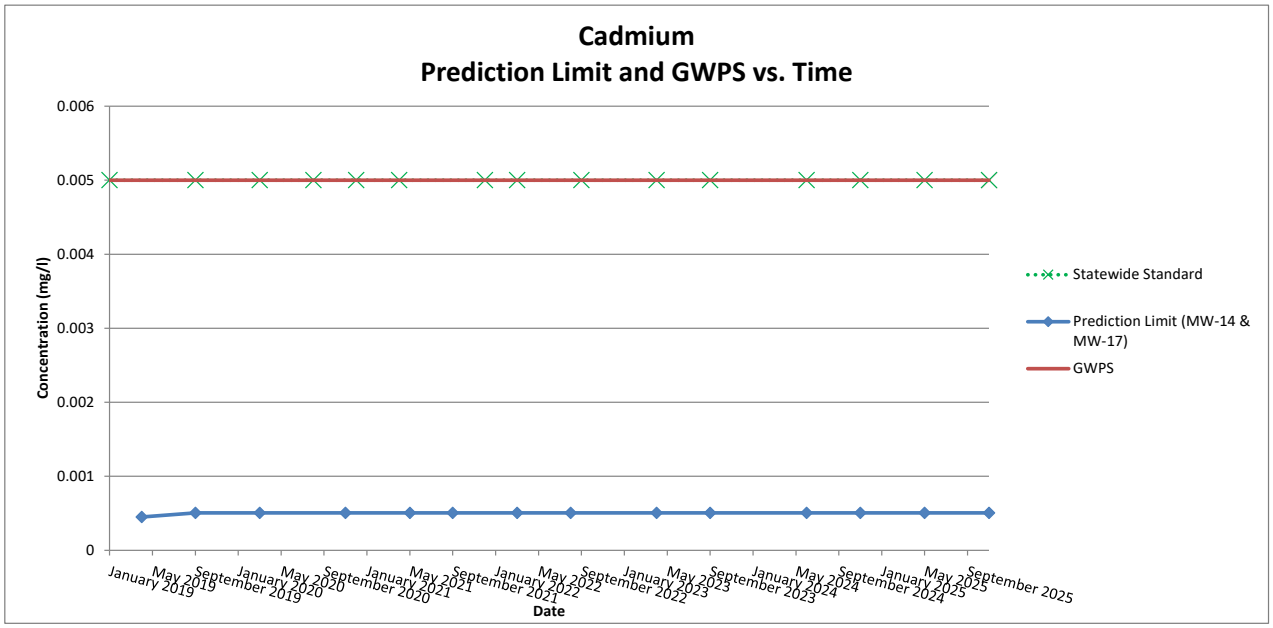
Standards History Graphs

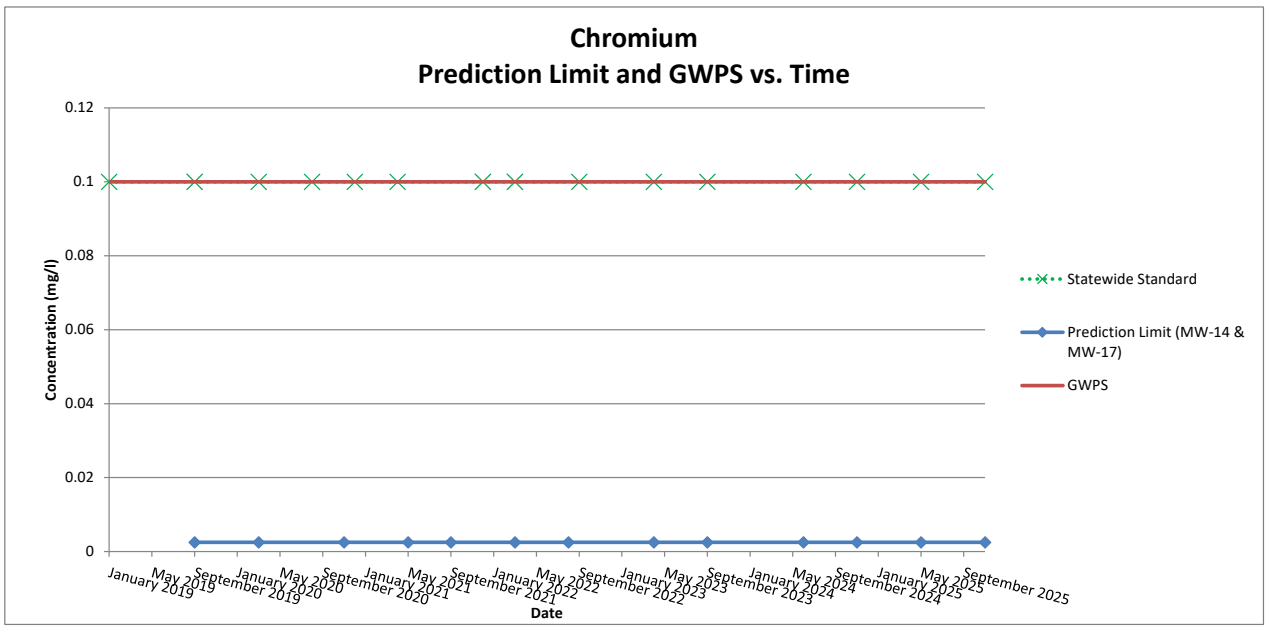

Antimony
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
April 2025
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

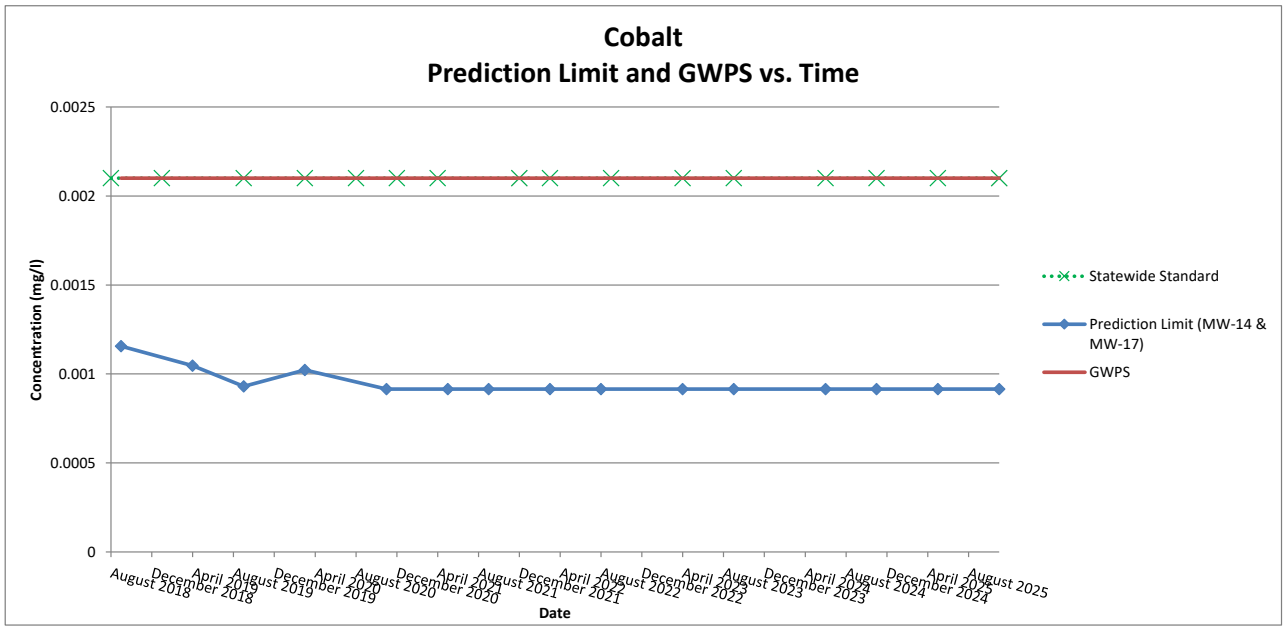

Arsenic
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.012
0.01
0.008
0.006
0.004
0.002
0
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
April 2025
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

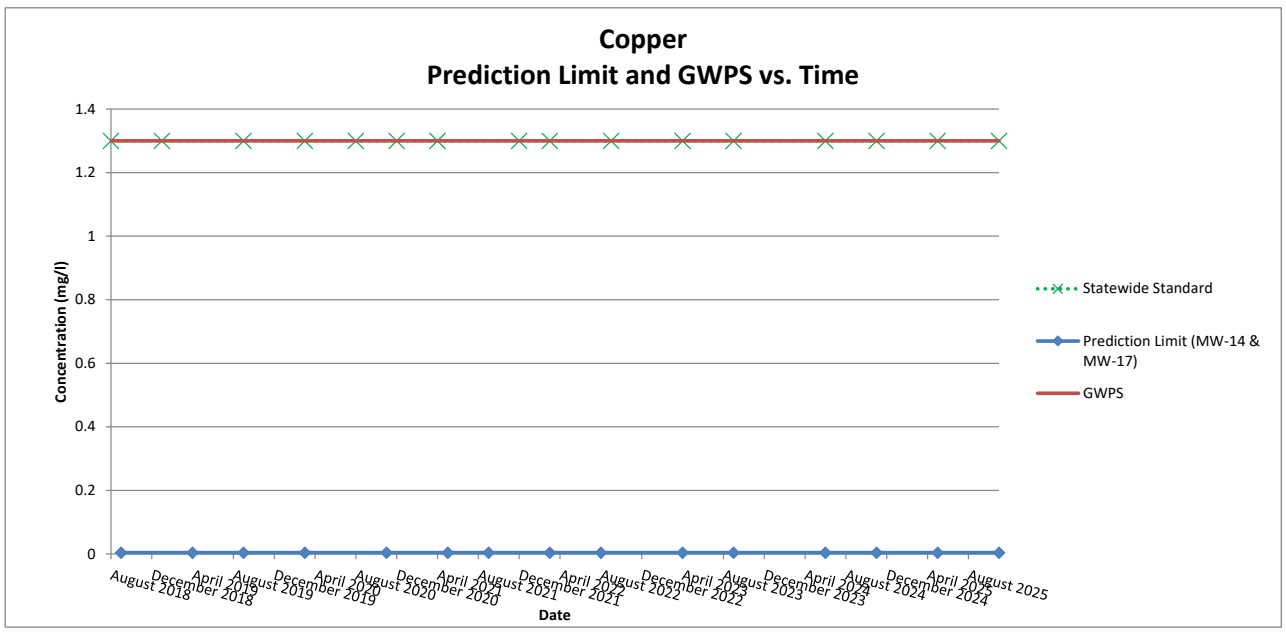

Barium
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
2.5
2
1.5
1
0.5
0
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
April 2025
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

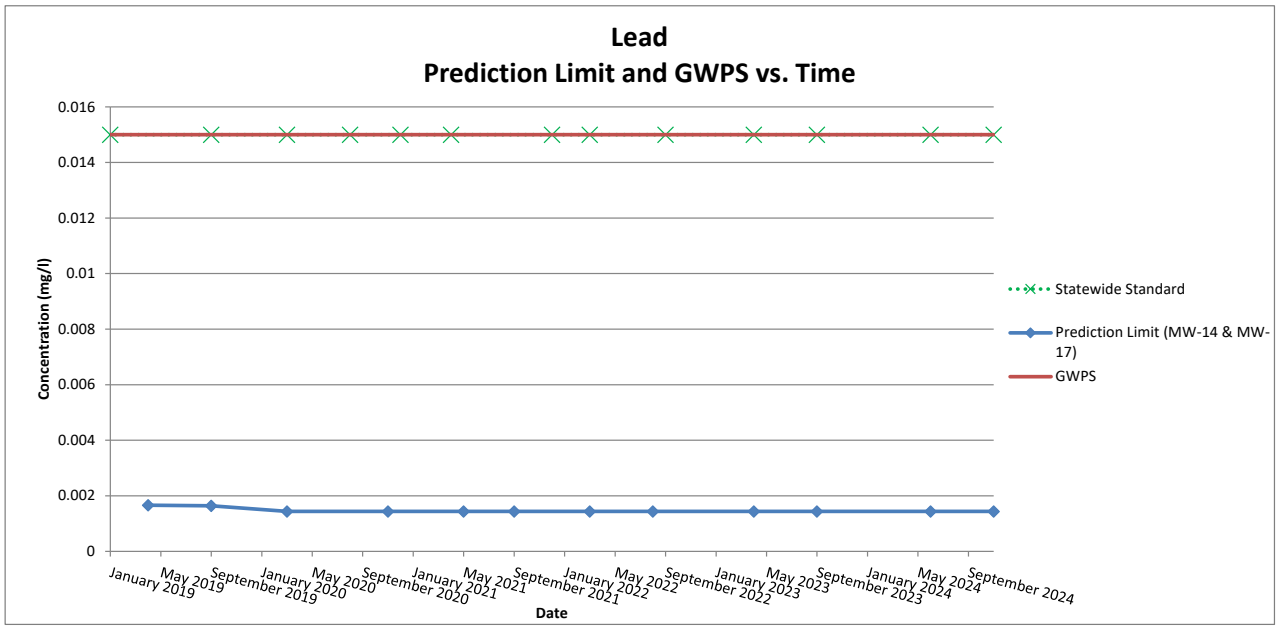

Beryllium
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
January 2025
May 2025
September 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

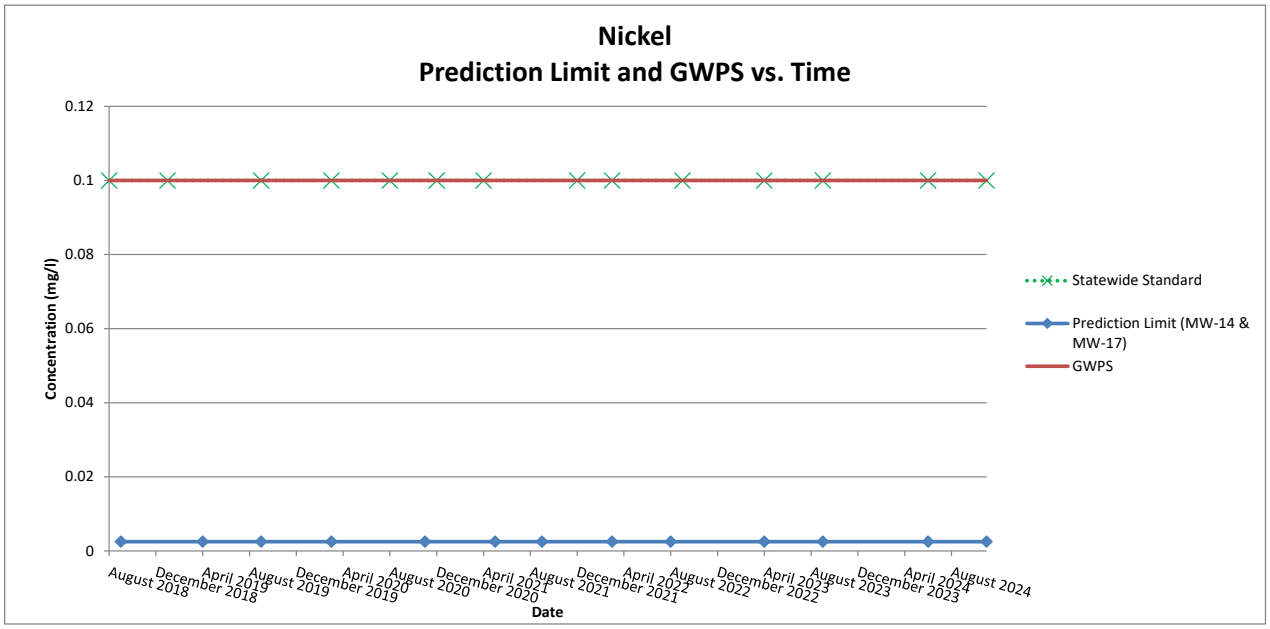

Cadmium
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.006
0.005
0.004
0.003
0.002
0.001
0
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
January 2025
May 2025
September 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

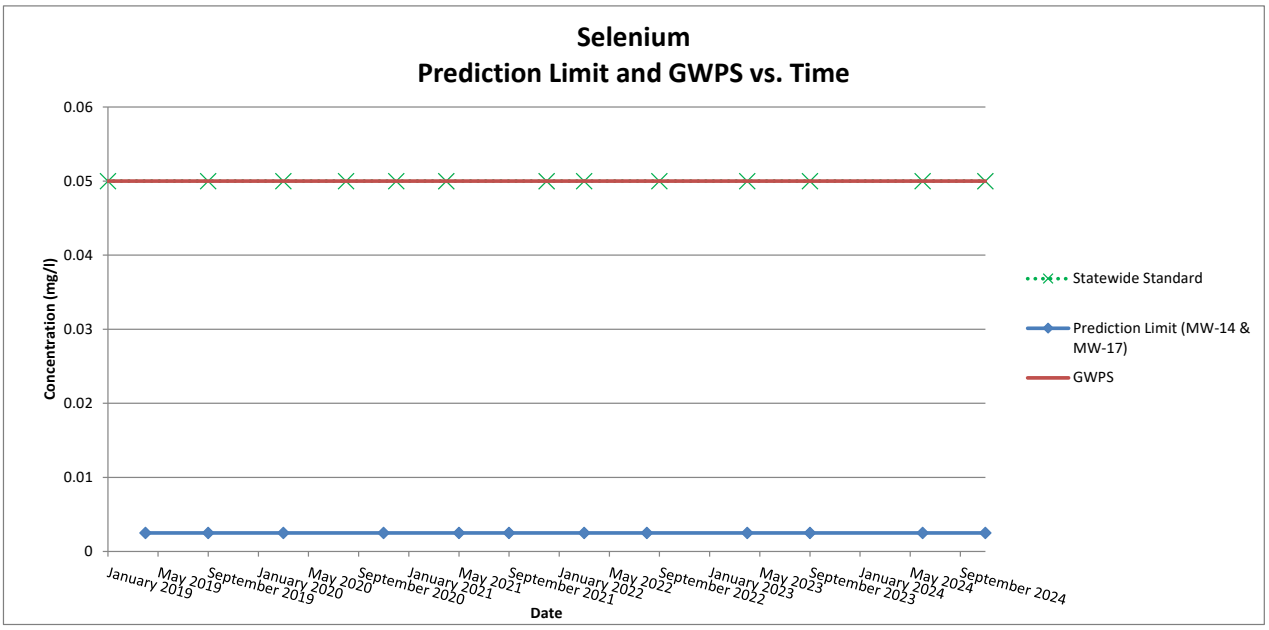

Chromium
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.12
0.1
0.08
0.06
0.04
0.02
0
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
January 2025
May 2025
September 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

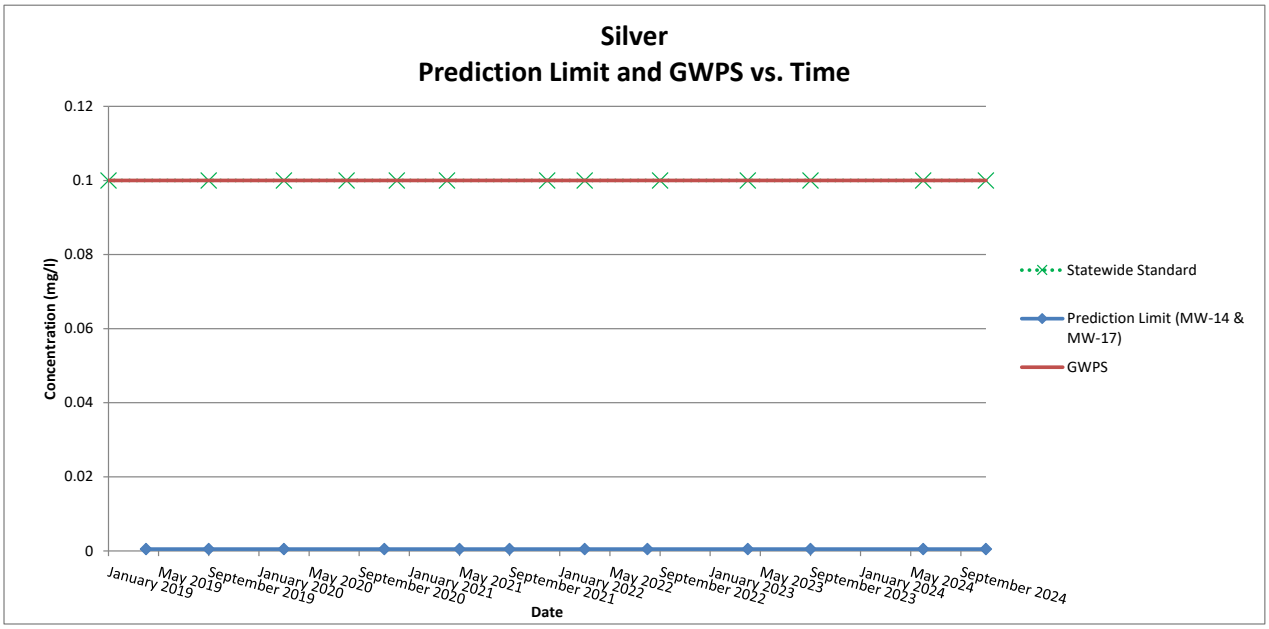

Cobalt
Prediction Limit and GWPS vs. Time
0.0025
0.002
0.0015
0.001
0.0005
0
Concentration (mg/l)
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

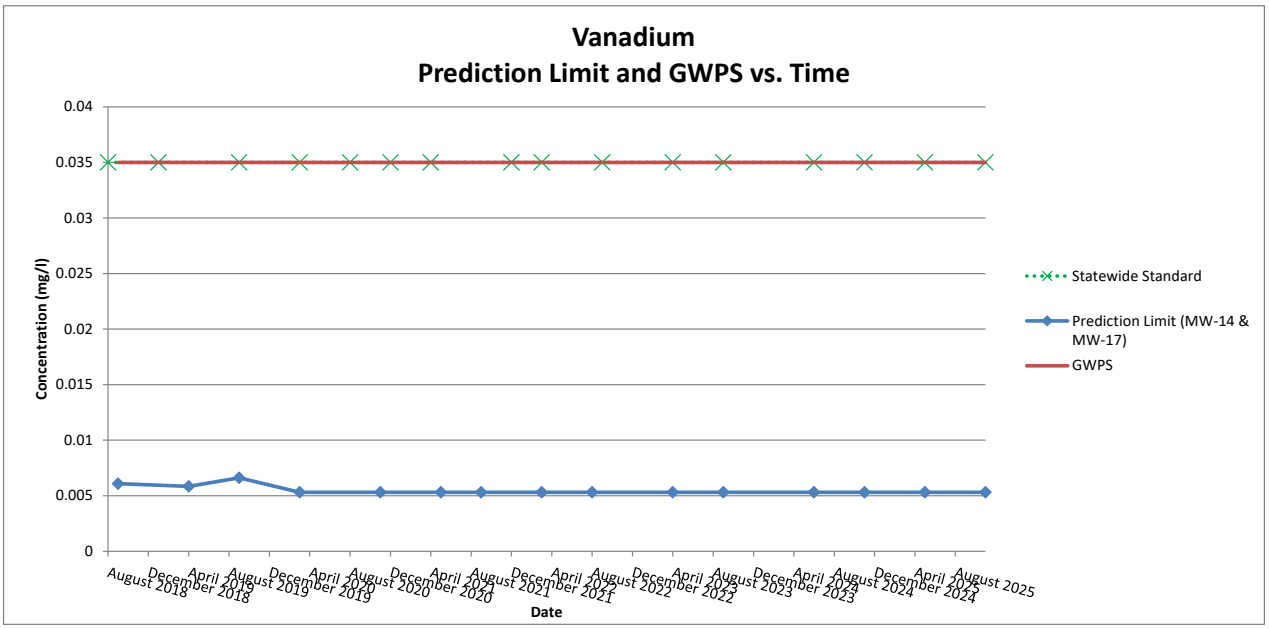

Copper
Prediction Limit and GWPS vs. Time
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Concentration (mg/l)
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS

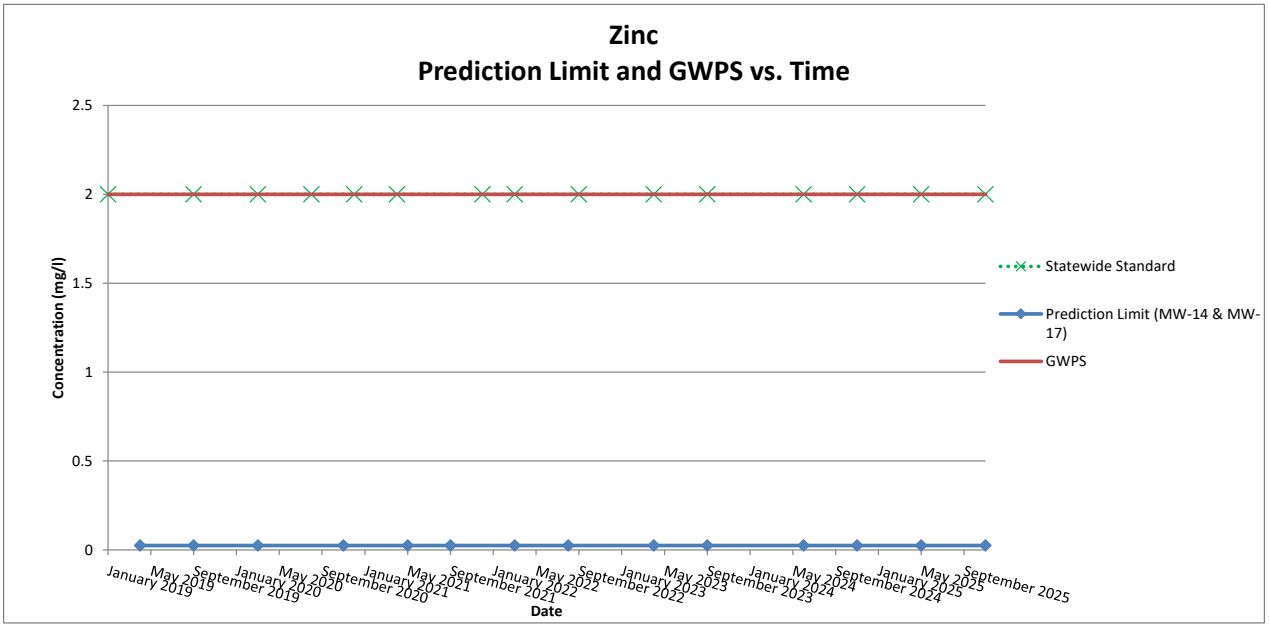

Lead
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS


Nickel
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.12
0.1
0.08
0.06
0.04
0.02
0
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS


Selenium
Prediction Limit and GWPS vs. Time
0.06
0.05
0.04
0.03
0.02
0.01
0
Concentration (mg/l)
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS


Silver
Prediction Limit and GWPS vs. Time
0.12
0.1
0.08
0.06
0.04
0.02
0
Concentration (mg/l)
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS


Vanadium
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
August 2018
December 2018
April 2019
August 2019
December 2019
April 2020
August 2020
December 2020
April 2021
August 2021
December 2021
April 2022
August 2022
December 2022
April 2023
August 2023
December 2023
April 2024
August 2024
December 2024
April 2025
August 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS


Zinc
Prediction Limit and GWPS vs. Time
Concentration (mg/l)
2.5
2
1.5
1
0.5
0
January 2019
May 2019
September 2019
January 2020
May 2020
September 2020
January 2021
May 2021
September 2021
January 2022
May 2022
September 2022
January 2023
May 2023
September 2023
January 2024
May 2024
September 2024
January 2025
May 2025
September 2025
Date
Statewide Standard
Prediction Limit (MW-14 & MW-17)
GWPS